

**A. INTRODUCTION**

This document summarizes and responds to comments on the Draft Environmental Impact Statement (DEIS), issued on June 17, 2007, for the Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development Project. Oral and written comments were received during a public hearing held by the New York City Planning Commission (CPC) on October 3, 2007. The hearing also considered comments on the Uniform Land Use Review Procedure (ULURP) application for the Proposed Actions and on the proposed Community Board 9 (CB9) 197-a Plan. Written comments were accepted from issuance of the DEIS through the public comment period, which ended October 15, 2007.

Section B alphabetically lists the elected officials, community boards, public agencies, organizations, and individuals that provided relevant comments on the DEIS. Section C summarizes these relevant comments and responds to each of them. Appendix Q.2 presents comments on CB9's 197-a Plan; because these are not specific comments on the DEIS responses are not provided. Other comments that compare the two proposals, but also directly address the contents of the DEIS, are included in Section C, as appropriate. These summaries convey the substance of the comments but do not necessarily quote the comments verbatim. Comments are organized by subject matter and generally follow the chapter structure of the DEIS. Where more than one commenter expressed a similar view, the comments have been grouped and addressed together.

A number of commenters did not make specific arguments related to the proposed approach or methodology for the impact assessments. Others suggested editorial changes. Where relevant and appropriate these edits, as well as other substantive changes to the DEIS, have been incorporated into the Final EIS (FEIS).

**B. LIST OF ORGANIZATIONS AND INDIVIDUALS WHO COMMENTED ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT****ELECTED OFFICIALS, PUBLIC AGENCIES, AND COMMUNITY BOARDS**

1. Jane Arrendell, Community Board 9, written comment (Arrendell-CB9)
2. Cecil Corbin-Mark, Community Board 9/WEACT, comments made at public hearing (also written) (Corbin-Mark-CB9/WEACT)
3. Tamara Gayer, Community Board 9, comments made at public hearing (Gayer-CB9)

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<sup>1</sup> This chapter is new to the FEIS.

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4. Dr. Vicky Gholson, CB9/Design Environment for Experiential Learning, comments made at public hearing (Gholson-CB9)
5. Carolyn Kent, Community Board 9, comments made at public hearing (also written) (Kent-CB9)
6. Theodore Kovaleff, comments made at public hearing (Kovaleff-CB9)
7. Mark Levine, Coalition to Preserve the Community (Levine, M.-CB12/Coalition to Preserve the Community)
8. Patricia Lewis, Community Board 9, comments made at public hearing (Lewis-CB9)
9. Manhattan Community Board 9, written comment (CB9)
10. Manhattan Community Board 9 ULURP Report and Recommendations, August 27, 2007 (written statement submitted under separate cover) (CB9-1)
11. Honorable Bill Perkins, New York City Council, comments made at public hearing (Perkins)
12. Jordi Reyes-Montblanc, Community Board 9, comments made at public hearing (also written) (Reyes-Montblanc-CB9)
13. Walter South, comments made at public hearing (also written) (South-CB9)
14. Ernestine Welch, comments made at public hearing (also written) (Welch)
15. Diane M. Wilson, comments made at public hearing (also written) (Wilson-CB9)

### **ORGANIZATIONS AND INTERESTED PUBLIC**

16. Luis Aguas, comments made at public hearing (Aguas)
17. Anonymous, written comment (Anonymous)
18. Michael Henry Adams, comments made at public hearing (also written) (Adams)
19. David R. Alexander, Air Resources Group, written comment (Alexander)
20. Richard T. Anderson, President, New York Building Congress, comments made at public hearing (also written) (Anderson)
21. Marah Arbaje, comments made at public hearing (Arbaje)
22. Nellie Bailey, Harlem Tenants Council, comments made at public hearing (also written) (Bailey)
23. Samantha Barron, comments made at public hearing (Barron)
24. Victoria Benitez, comments made at public hearing (Benitez)
25. Fredric Bell, Executive Director, American Institute of Architects (AIA) New York Chapter, comments made at public hearing (also written) (Blumenfeld)
26. Janice C. Berthoud, Executive Director, Ecumenical Community Development Organization, comments made at public hearing (also written) (Berthoud)
27. Alberto Betancourt, comments made at public hearing (Betancourt)
28. Delois Blakely, comments made at public hearing (also written) (Blakely)

29. Joan Blumenfeld, 2007 President, AIA New York Chapter, comments made at public hearing (also written) (Blumenfeld)
30. Victor Body-Lawson, Body-Lawson Associates, comments made at public hearing (Body-Lawson)
31. Max Bond, Davis, Brody, Bond, comments made at public hearing (Bond)
32. Sander I. Bonvell, Air Resources Group, written comment (Bonvell)
33. Corwin Breeden, comments made at public hearing (Breeden)
34. Jeffrey Brooker, Webb and Brooker, comments made at public hearing (Brooker)
35. Dr. Robb Burlage, West Harlem Health Forum, written comment (Burlage)
36. Yolanda Cadore, WEACTION, comments made at public hearing (also written) (Cadore)
37. Charles Calloway, WEACTION, comments made at public hearing (also written) (Calloway)
38. Jocelyne Chait, Community Planning Consultant, comments made at public hearing (also written) (Chait)
39. Coalition to Preserve Community (written comment) (CTPC)
40. Kieran Conlon, comments made at public hearing (Conlon)
41. Fred R. Daniel, comments made at public hearing (also written) (Daniel)
42. Tom DeMott, Coalition to Preserve Community, comments made at public hearing (also written) (DeMott)
43. Natalie DeNault, written comment (DeNault)
44. David N. Dinkins, comments made at public hearing (also written) (Dinkins)
45. Cynthia Doty, comments made at public hearing (Doty)
46. Lloyd Douglas, Lloyd Douglas Consultant Company, comments made at public hearing (also written) (Douglas)
47. Hazel D. Dukes, Coalition for the Future of Manhattanville, NY State Conference of NAACP Branches, comments made at public hearing (also written) (Dukes)
48. Maritta Dunn, comments made at public hearing (Dunn)
49. Emily Earle, WEACTION, comments made at public hearing (also written) (Earle)
50. Fausto Echavarria, Mirabal Sisters Cultural and Community Center, comments made at public hearing (Echavarria)
51. Ruth Eisenberg, Coalition to Preserve Community, comments made at public hearing (also written) (Eisenberg)
52. Robert Evans, comments made at public hearing (Evans)
53. Peter Favant, comments made at public hearing (also written) (Favant)
54. Paul Fernandes, Building and Construction Trades Council, comments made at public hearing (Fernandes)
55. Laura Gabby, comments made at public hearing (Gabby)

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56. Luis Gil, Mirabal Sisters Cultural and Community Center, comments made at public hearing (Gil)
57. Dr. Lee Goldman, comments made at public hearing (Goldman)
58. Joel Griffiths, comments made at public hearing (Griffiths)
59. George Gruenthal, comments made at public hearing (Gruenthal)
60. Christabel Gough, Society for the Architecture of the City, comments made at public hearing (Gough)
61. Mary Habstritt, comments made at public hearing (also written) (Habstritt)
62. Robert F. Herrmann, written comment (Herrmann)
63. Dolores E. Hernandez, comments made at public hearing (D. Hernandez)
64. Fior Hernandez, comments made at public hearing (F. Hernandez)
65. Anhthu Hoang, WEACTION, comments made at public hearing (also written) (Hoang)
66. Calvin Hunt, comments made at public hearing (Hunt)
67. Paul Hunter, comments made at public hearing (Hunter)
68. Dr. Ellen Isaacs, Call to Action at St. Mary's Church, comments made at public hearing (Isaacs)
69. Pamela Jarrett, comments made at public hearing (also written) (Jarrett)
70. Sophie Johnson, comments made at public hearing (Johnson)
71. Patricia Jones, comments made at public hearing (Jones)
72. Tom Kappner, Coalition to Preserve the Community, comments made at public hearing (also written) (Kappner)
73. Lisa Kersavage, Municipal Art Society of New York, comments made at public hearing (also written) (MAS-Kersavage)
74. Henry C. Kita, Senior Vice President, Building Trade Employers' Association, comments made at public hearing (also written) (Kita)
75. Rev. Earl Kooperkamp, PhD, Rector, St. Mary's Manhattanville Episcopal Church, comments made at public hearing (also written) (Kooperkamp)
76. Ronald Kopnicki, President, The Society for the Architecture of the City, comments made at public hearing (also written) (Kopnicki)
77. Jeff Kraus, written comment (J. Kraus)
78. Lynn Kraus, written comment (L. Kraus)
79. David Kraus, comments made at public hearing (D. Kraus)
80. Steven Kraus, Skyline Windows, comments made at public hearing (S. Kraus)
81. Joan S. Levine, Morningside Heights/West Harlem Sanitation Coalition, comments made at public hearing (also written) (J. Levine)
82. Norman Levinis, comments made at public hearing (Levinis)

83. Batya Lewton, Vice-President, Coalition for a Livable West Side, comments made at public hearing (also written) (Lewton)
84. Mary Lundstrom, WEACT, written comment (Lundstrom)
85. Edward J. Malloy, President, Building & Construction Trades Council of Greater NY, comments made at public hearing (also written) (Malloy)
86. Andres Mares, comments made at public hearing (Mares)
87. Sarah Martin, Joan Grant Residents Association at Ulysses S. Grant Houses, comments made at public hearing (Martin)
88. Yvonne Matthews, Manhattanville Tenants Association, written comment (Matthews)
89. Rev. Bernard Mayhew, West Harlem Health Forum, written comment (Mayhew)
90. Mario Mazzoni, comments made at public hearing (Mazzoni)
91. Lawrence T. McClean, comments made at public hearing (McClean)
92. Eleanora McKay, written comment (McKay)
93. Anna McKenzie, comments made at public hearing (McKenzie)
94. Shony Melgor, comments made at public hearing (Melgor)
95. Rev. Henry Mercado, Meeting with God Church, comments made at public hearing (Mercado)
96. Nilda Mesa, comments made at public hearing (Mesa)
97. Boubacar Migra, comments made at public hearing (Migra)
98. Mercedes Narciso, Pratt Center for Community Development, comments made at public hearing (also written) (Narciso)
99. Veronica Nicholson, written comment (Nicholson)
100. Sharyn O'Halloran, comments made at public hearing (O'Halloran)
101. Dennis Palmer, Madame Alexander Doll Company, comments made at public hearing (Palmer)
102. Vincent L. Petraro, Hudson Moving and Storage, comments made at public hearing (also written) (Petraro)
103. Avra Petrides, The Bridge, written comment (Petrides)
104. Jacob Press, WEACT, comments made at public hearing (also written) (Press)
105. Norma Ramos, Coalition Against Trafficking in Women, written comment (Ramos)
106. Edna Ratner, comments made at public hearing (also written) (Ratner)
107. Marci Reaven, City Lore, written comment (Reaven)
108. Nicolas Ronderos, Regional Plan Association, comments made at public hearing (also written) (Ronderos)
109. Stephanie Rugoff, comments made at public hearing (also written) (Rugoff)

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110. Victoria Ruiz, written comment (Ruiz)
111. Arhemio Selessie, Mirabal Sisters Cultural and Community Center, comments made at public hearing (Selessie)
112. Marcia Sells, comments made at public hearing (Sells)
113. Ethel Sheffer, NY Metro American Planning Association, written comment (Sheffer)
114. Peggy M. Shepard, WEACT, comments made at public hearing (also written) (Shepard)
115. Sidaya Sherwood, written comment (Sherwood)
116. Ronald Shiffman, Director Emeritus, Pratt Center for Community Development, comments made at public hearing (also written) (Shiffman)
117. Jay W. Shuffield, written comment (Shuffield)
118. Jody Siegel, Fairway Market, comments made at public hearing (Siegel)
119. Norman Siegel, attorney for West Harlem Business Group, comments made at public hearing (also written) (Siegel)
120. George Singley, comments made at public hearing (Singley)
121. Mathis Stanislaus, comments made at public hearing (Stanislaus)
122. Rev. William Star, Coalition to Preserve the Community, comments made at public hearing (Star)
123. Susan M. Stern, WEACT, comments made at public hearing (also written) (Stern)
124. Steve Stollman, written comment (Stollman)
125. James Subudhi, WEACT, comments made at public hearing (also written) (Subudhi)
126. Lindsay Suhubiner, comments made at public hearing (Suhubiner)
127. Julius Tajiddin, comments made at public hearing (also written) (Tajiddin)
128. Luis Tejada, Mirabal Sisters Cultural and Community Center, comments made at public hearing (also written) (Tejada)
129. Julien A. Terrell, WEACT, comments made at public hearing (also written) (Terrell)
130. Usmerdys Valenzuela, Mirabal Sisters Cultural and Community Center, comments made at public hearing (Valenzuela)
131. Philip van Buren, attorney for West Harlem Business Group, comments made at public hearing (also written) (VanBuren)
132. Rafael Ventura, comments made at public hearing (Ventura)
133. Visnia Vusica, comments made at public hearing (Vusica)
134. Erik K. Washington, comments made at public hearing (also written) (Washington)
135. WEACT, written comment (WEACT)
136. James G. White, comments made at public hearing (J. White)
137. Michael D.D. White, written comment (M. White)

- 138. Ann Whitman, Hudson Moving Company (also written) (Whitman)
- 139. Thomas Wirth, comments made at public hearing (Wirth)
- 140. Kathryn Wylde, Partnership for New York City, written comment (Wylde)
- 141. Ricardo C. Yarwood, comments made at public hearing (Yarwood)
- 142. Judy Zuhusky, Esq., President, Despatch Alliance Corp., comments made at public hearing (also written) (Zuhusky)

**FORM LETTERS AND PETITIONS**

- 143. Form 1: Various Upper Manhattan residents, multiple form letters to CPC, various dates (Form 1)
- 144. Form 2: Multiple form letters to CPC, multiple signatures, various dates (Form 2)
- 145. Petition from the Columbia University Student Coalition on Expansion and Gentrification (Petition)

**C. COMMENTS AND RESPONSES**

**PROJECT REVIEW PROCESS AND PUBLIC PARTICIPATION**

**Comment 1:** The CPC public hearing was closed off to the people of Harlem. There would have been a full audience if it was held on 125th Street at the State Building. (Hunt) These hearings are accessible for Columbia employees but not the community members. The processes for Columbia’s plan have excluded the West Harlem community at every step of the way. (Barron)

**Response 1:** CPC’s combined New York City Uniform Land Use Review Procedure (ULURP)/City Environmental Quality Review (CEQR) hearing on the DEIS for Columbia’s Manhattanville rezoning proposal and Community Board 9 (CB9)’s proposed 197-a Plan was held at the Commission’s regular Wednesday meeting time, but at a venue in Harlem. Specifically, the hearing took place from 9:00 AM to 6:00 PM at Aaron Davis Hall, on the City College campus on Convent Avenue at West 135th Street in West Harlem, not far from the area of interest for both proposals.

**Comment 2:** The public review of the DEIS violated the procedure set under CEQR because WEACT and the community were not properly notified of the start of the ULURP time period, specifically, the issuance of the Notice of Completion (NOC) and the release of the DEIS. In January 2006, pursuant to CEQR procedure, WEACT submitted comments during the Scoping process, thus registering itself as an interested party [CEQR Rules of Procedure (CRP) Section 5-07]. Over the next 17 months,

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pursuant to these same rules, WEACT repeatedly inquired with the New York City Department of City Planning (DCP) regarding the release of the DEIS, requesting to be notified once that document was complete [CRP Section 6-10]. On June 15, the DCP issued the NOC with only a note to that effect on its Web page.

DCP violated the City's own procedure, never notifying WEACT of the release of the NOC. Because the information was primarily posted on the Internet and its release was poorly advertised, WEACT did not learn of the official release of the NOC until days later and could not confirm the beginning of the public comment period until several weeks after that. Being asked to review a document several thousand pages long, a delay of even a few days is substantial. Many West Harlem community members and environmental protection advocates were unable to review the DEIS for the CB9 hearing because they did not have access to a computer and did not know where the hard copies of the document were kept. Consequently, the West Harlem community was poorly equipped to fully participate in the public comment process. (WEACT)

### **Response 2:**

The comment is incorrect with regard to the designation of an "interested party." The CEQR Rules of Procedure (CRP) Section 5-07 cited by the commenter does not establish a procedure for "registration" by "interested parties." The noted section refers to interested agencies; Section 5-02 defines "agency" as any agency, administration, department, board, commission, council, governing body, or other governmental entity of the City of New York, including but not limited to community boards, borough boards, and the offices of the borough presidents.

CRP Section 6-10(a) requires all Notices of Completion to be circulated to the following: all other agencies, including federal and state agencies, involved in the proposed action; all persons who have requested it; the editor of the State Bulletin, the State clearinghouse; the appropriate regional clearinghouse designated under the Federal Office of Management and Budget Circular A-95. The circulation of the NOC for the Proposed Actions was conducted in accordance with CRP Section 6-10(a). DCP has no record of a request by WEACT for a copy of the NOC. The DEIS was posted on the DCP website promptly, following the issuance of the NOC.

### **Comment 3:**

CB9 failed to conduct a clear and fair public comment proceeding as required by CEQR and did not adhere to its own rules of procedure. CB9 executive members excluded upwards of 400 community members at the Community Board public hearing, citing fire safety codes. Many speakers were denied the opportunity to speak because they were never

called, could not hear their names, or were called very late in the evening. Additionally, while many speakers were allowed to speak for longer than their allotted time, others were cut short. The Borough President failed to conduct a fair hearing pursuant to CEQR requirements. Many attendees who had registered electronically to speak were not given a turn to do so or were called too late in the evening.

The public participation requirement of CEQR was not fulfilled because City entities failed to follow the City's public comment procedure to the CEQR Rules of Procedure [CRP 6-10(c)]. Therefore, the hearings should be reconvened so that the West Harlem community members are given the opportunity to fully express their concerns around Columbia's proposal to rezoning Manhattanville. (WEACT)

**Response 3:**

Under ULURP, CB9 is required to hold a public hearing on the ULURP application and to issue a recommendation to CPC. The Borough President must also adopt and issue a recommendation to CPC. The Borough President may hold a public hearing, but it is not mandatory. These are not official CEQR reviews or CEQR hearings and they are unrelated to the public participation requirement of CEQR. There is only one CEQR hearing, held as part of public CEQR review, by CPC, which is the lead agency under CEQR for this application. The hearing on October 3, 2007 was a joint CEQR and ULURP hearing before CPC.

**Comment 4:**

The public should have been given a fair opportunity to review and comment on the EIS before it was in its completed form. There should have been a window of opportunity during which the Pratt consultants, CB9 members, and others in the community, including members of CTPC, could have had the opportunity to determine whether our comments were understood and accurately reflected in the final EIS. Confronting a 3,000-page document without adequate resources or time to respond to is a grave injustice to the community. (CTPC)

**Response 4:**

The public review of the ULURP application and DEIS has been conducted as prescribed by the New York City Charter and the City's CEQR procedures, which do not require public review and comment on the DEIS before it is published. The completed DEIS was published on June 15, 2007 at the start of the ULURP public review period, and has been available for public review since then. SEQR also contains no such requirement. The DEIS review period extended for 4 months, from June 15, 2007 to October 15, 2007. This is well beyond the 30 days required by the State regulations (SEQRA) and New York City's procedures.

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**Comment 5:** The opportunity to submit testimony on the DEIS was mismanaged. Although there was a special meeting held on October 3, 2007, at the City College of New York, as of October 10, 2007, the DCP Web site continued to state: “A public hearing [on the DEIS] will be held at a later date to be announced, in conjunction with CPC’s Citywide public hearing pursuant to ULURP. Advance notice will be given of the time and place of the hearing.” (Shuffield)

**Response 5:** Public notice for the public hearing on the DEIS was properly provided in accordance with the CEQR Rules of Procedure. As noted above, the hearing on October 3, 2007 was not a “special meeting” of CPC, although it was held in West Harlem, near the site of the Proposed Actions and the area covered by CB9’s 197-a Plan, instead of at the Commission’s headquarters in lower Manhattan. The comment is correct in that the DCP website inadvertently continued to contain the above language following the October 3 public hearing.

**Comment 6:** There were rumors that the deadline to submit written testimony supplementing the October 3, 2007 hearing was to be on October 12, 2007, and statements addressing Columbia’s EIS were to be turned in no later than October 15, 2007. I don’t see how either of the two can be separated nor should the distinction even matter, because support and criticism will rely on both. I understood that all final submissions were to be turned in by the 15th. This is what was stated at the hearing. Such statement coincides with CPC’s policy of granting 10 days to submit written testimony after a hearing. The 10th day happened to fall on a Saturday, which is the Sabbath for some and a Muslim holiday this year. In all such deadlines, whenever such day falls on a weekend or holiday, the due date becomes the first available business day. This is customary in due process practice and in our State laws. (Tajiddin)

**Response 6:** The public comment period on the DEIS ended on Monday, October 15, 2007.

**Comment 7:** The omission of comments received during scoping is troublesome. Without incorporating suggestions that have been submitted, the resulting DEIS fails to properly analyze the potential impacts of the Proposed Project and provides decisionmakers with flawed findings. This is a significant violation of the public trust. (Shuffield) Many of the comments on the Scoping Document were not adequately addressed in the EIS and we are still waiting for answers. (CTPC)

**Response 7:** The Final DEIS Scope, released by DCP on April 25, 2007, contains approximately 148 pages of comments received during scoping and responses to them. Many of the comments resulted in changes to the

scope of the DEIS. When a comment could not be accommodated in the DEIS, the response gave the reason(s) why the suggestion was not included.

**Comment 8:** In its DEIS, Columbia fails to acknowledge the serious impact its new campus will have on low-income residents and their ability to remain in West Harlem. Although modification of the proposal would further the City's policy goals and hold the University accountable for the displacement it will cause in the community, Columbia should also be required to adjust its DEIS to accurately reflect the likely impacts of its proposed campus and specify appropriate mitigation. It is essential that the modified EIS be subject to public comments and review prior to becoming finalized. (Press)

**Response 8:** As noted in Response to Comments, section 4 ("Socioeconomic Conditions"), below, the DEIS, following the guidance of the *CEQR Technical Manual*, thoroughly examines the potential socioeconomic impacts of the Proposed Actions. Mitigation and other adjustments to the Proposed Actions to address the identified socioeconomic impacts have been examined in this FEIS, which will be reviewed and considered by CPC before it makes any determination with regard to the Proposed Actions.

**Comment 9:** The DEIS fails to discuss where bus depot operations will be relocated during the demolition of the current Metropolitan Transportation Authority (MTA) Manhattanville Bus Depot and the reconstruction of the new one. Deferring review of the environmental impacts of the MTA Manhattanville Bus Depot relocation during construction to a federal agency (MTA, a grantee of the Federal Transit Authority) undermines the purpose of CEQR and the New York State Environmental Quality Review Act (SEQRA). (WEACT)

**Response 9:** In Appendix O.1, the DEIS describes the impacts of temporary relocation of buses, should the MTA agree to relocate the bus depot either below grade or elsewhere. This analysis is necessarily generic, as no site for relocation is now known and would not be known for some time, but it does identify the potential for a range of significant adverse environmental impacts. The specifics of any proposal or its alternatives would be addressed in an environmental review for the relocation itself.

**Comment 10:** The DEIS acknowledges the potential significant impacts of the MTA Manhattanville Bus Depot relocation, but neither provides a sufficient technical analysis of the cumulative impacts on the total Manhattanville

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project, nor discusses any significant changes planned for the depot that may pose risk beyond current conditions. (Alexander, Bonvell)

**Response 10:** As stated in the DEIS and FEIS, at this point, planning for the relocation of the MTA Manhattanville Bus Depot has not begun, as there is not yet an agreement between MTA and Columbia University over the relocation. Once planning is under way, it will have to respond to a range of environmental review processes and requirements that will address the issues in Comment 10. Also see the Response to Comment 9.

**Comment 11:** The EIS does not make clear why no federal actions or approvals are required regarding the seven acres of the rezoning request under the Hudson River. In addition, the role of the federal government regarding the effects of the project on the Metro North train line should have been clarified in the EIS. (CTPC)

**Response 11:** No federal actions or approvals are required with regard to land under water, because no actions that would alter conditions of that land under water are proposed. Since the Proposed Actions would have no effect on the Metro North train line, there would be no involvement with MTA over this matter. The federal government would only become involved in an MTA operation if MTA were applying for permission or funds for a change in that operation, which is not the case here.

**Comment 12:** Columbia has chosen to seek ESDC power to override the City map to build an extensive below-grade component (the “bathtub”). To ensure real community involvement and ensure that the public streets remain truly public, we recommend that the City demap the volumes for Columbia’s cellar, pursuant to ULURP, rather than ESDC overriding the City map. (MAS-Kersavage)

**Response 12:** The proposal to build a large below-grade central service area for the Academic Mixed-Use Development has been subject to extensive public review in the course of the ULURP process, and will continue to be publicly reviewed as the ULURP application goes forward. The proposal will also be subject to additional public review as part of ESDC’s review of a General Project Plan (GPP) for the area. The proposal to establish the below-grade volumes beneath City streets via override of the City map allows for flexibility in the precise delineation of the volumes as the project design moves forward in a manner that cannot be accommodated under the City map amendment process. A demapping action would not add to the number of public hearings or public reviews that has already been undertaken and will continue to be undertaken, in the course of the ULURP process, for the Proposed

Actions. In addition, when it closes each street temporarily for construction, the New York City Department of Transportation (NYCDOT) must hold public meetings, which offers another opportunity for public involvement. It should be noted that the City would own and control the streets above a level approximately 8 to 10 feet below grade; Columbia would own the space below. Thus, all the streets would remain open and accessible to the public.

**Comment 13:** The 197-a Plan is inclusive, democratic, thorough, and visionary. However, the 197-c Plan to date has been topped down by powerful interests and Citywide and local political leadership. Major community concerns and recommendations, such as the use of eminent domain and the construction of the “bathtub,” are being dismissed. Their vision for this community seems to be more important than the community’s vision itself. This is wrong and against the spirit of our New York City Charter. (Narciso) The Columbia plan is inconsistent with the spirit and clearly articulated values of the 197-a plan. They could choose to work with our community in a respectful collaboration but have consistently failed to do so. (Ramos) In its 197-a Plan, CB9 has clearly expressed what criteria needs to be followed for the gentrification process to be constructive for their community, yet Columbia has made little effort to comply with these parameters. What is the New York City Charter’s purpose of creating community boards if their expressed needs are not heeded? (DeNault)

**Response 13:** The CB 9 197-a Plan and the Columbia plan reflect different visions for the future of Manhattanville, particularly with respect to how Columbia University can and should expand in the area. CPC has recognized that neither deserves precedence over the other, and has established a process for the parallel review of both plans that affords each equal treatment in the public review process.

**Comment 14:** Columbia University makes many commitments throughout the DEIS. Some of these pledge to enact “Restrictive Declarations,” while for others, no enforceable commitment appears evident. There is clarity that mitigations evaluated in the DEIS will be incorporated into the project. Columbia should fund a third-party ombudsman office to monitor the University’s performance over the duration of the project. (Alexander, Bonvell)

**Response 14:** A Restrictive Declaration would apply to Columbia properties and would include all commitments that are not covered by the use and design provisions of the proposed zoning. The Restrictive Declaration would be executed by Columbia University at the time of the adoption

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of the proposed rezoning, and would include all mitigation commitments as well as project components related the environment. The latter would include such features as fuel usage for the energy centers, stack heights, controls during construction, etc.

### **CHAPTER 1: PROJECT DESCRIPTION**

#### *GENERAL COMMENTS IN SUPPORT OF PROJECT*

**Comment 1-1:** Columbia University’s proposal can and will be a good thing for both the University and its Harlem neighbors. Columbia is essential to the City’s future as an engine of educational and economic opportunities. (Dinkins) Rezoning Manhattanville will be a crucial step forward for the neighborhood, as well as for Columbia University, and will contribute to the economic health of New York City as a whole. (Blumenfeld, Bell) Columbia’s proposal will serve to benefit the resurgence of much-needed economic growth and stability in the community. (Berthoud) Columbia is committed to a development plan that will create an economic boom for the local economy and its businesses, and a long-term asset for Harlem and the City at large. (Brooker, Dukes)

Columbia is offering opportunities and potential for new jobs, educational programs for the children of this community, and affordable housing opportunities. (Jarrett, Benitez) Columbia will make Manhattanville a safer place, supporting the surrounding communities with a better quality of life. (Daniel) Columbia will provide the greatest benefit of land uses within the project area, while attempting to minimize negative impacts to residents living in this neighborhood. (Kita) Columbia’ project as proposed will be an asset to the City. (D. Kraus) The Manhattanville project is something we all look forward to for the next generation. (Migra)

**Response 1-1:** Comment noted.

**Comment 1-2:** Two-thirds of the people who work at Columbia work are the payroll administrators and lab technicians, the trained electricians and master carpenters, the clerical staff and dining managers. Working New Yorkers continue to find opportunity at places like Columbia at a time when many such jobs in the private sector are moving elsewhere. These opportunities will only grow with the 6,000 new University jobs in Manhattanville. No commercial developer can guarantee that. (Dinkins) Columbia’s project preserves good jobs that provide opportunity for people of diverse income levels. (Malloy) Columbia’s project will provide good employment opportunities. (Fernandes) Columbia’s plan

is an opportunity to bring jobs to an area where people have not had the opportunity to have jobs that allow them to be able to stay in the area and afford the rents. (Sells, Body-Lawson) People who have been provided the opportunity to work at Columbia University have also been provided with educational opportunities. (Arbaje) The Columbia plan offers an opportunity for a meaningful partnership with Harlem and the minority business community of New York City. (Douglas) Columbia's expansion will improve Manhattanville and contribute in important ways to the entire City. (Wylde)

**Response 1-2:** Comment noted.

**Comment 1-3:** The partnership of Columbia University in the City of New York and in the village of Harlem has been successful with hundreds of public health and human services programs, educational and cultural exchanges, workplace experiences and entrepreneurial opportunities because the University and the community have worked together. (Dinkins) As currently planned, Columbia will continue its long-standing policy of interaction with the surrounding community. (Kita, Hermann) Columbia's proposal is a comprehensive plan to meet its goals in a way that integrates and benefits the community. (Anderson) Columbia University is committed to being part of the neighborhood and part of the fabric of the community. (Mesa) Thousands of Columbia doctors, dentists, nurses, and health science professionals volunteer their time and effort in this neighborhood to provide healthcare for the community. (Goldman)

**Response 1-3:** Comment noted.

*PURPOSE AND NEED*

**Comment 1-4:** Columbia's project provides the opportunity for great ideas that come from a thriving intellectual community. (Malloy) The project will address Columbia's needs to expand and strengthen its educational and research mission. (Bond) The need for Columbia University to expand is indisputable. With competing urban universities implementing even more aggressive expansion plans than Columbia's, the rezoning is a necessary long-term strategy. (Ronderos)

**Response 1-4:** Comment noted.

**Comment 1-5:** Columbia has not identified a specific plan for the entire site. None of the Phase 1 development is for the benefit of undergraduates, even though Columbia says it needs to expand because its undergraduates are short on space. (Mazzoni)

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- Response 1-5:** It is Columbia’s long-term plan to use the proposed Manhattanville campus for graduate academic, professional, and research programs. By moving existing graduate schools and programs to this new location, the University will free up space in its Morningside Heights campus for expansion of undergraduate programs.
- Comment 1-6:** The applicant claims it is space challenged. To strengthen its claims, the applicant has for several years been circulating a document that shows how its crowded campus puts the institution at a competitive disadvantage. The document says the applicant has 326 square feet per student at its present facilities, while Princeton, Yale, and Stanford offer 800 or more square feet per student. But what does per square feet per student have to do with this proposal? It has admitted in public testimony there will be no undergraduate students at this site. The plans call for nine biotech research buildings, three sites for staff housing and maybe one academic building. Does this solve the problem of square feet per student? (South-CB9, CTPC)
- Response 1-6:** See Response to Comment 1-5. The Illustrative Plan for the proposed Academic Mixed-Use Development calls for seven academic research buildings, six buildings for graduate academic and professional programs, such as the Business School, and one site for University housing, and one mixed-use building containing academic space and University housing. The Phase 1 development, for which a specific program has been formulated, would provide one academic research building, the Jerome L. Greene Center for Columbia’s Mind, Brain and Behavior Initiative, and academic buildings to house the Business School, the School of the Arts, and the School of International and Public Affairs (SIPA). University housing would share space in one building on Site 7 with SIPA.
- Comment 1-7:** From a CEQR perspective, in the DEIS, Columbia has not made its case that its preferred floor plate is absolutely necessary, nor set forth that a subgrade construction is absolutely necessary to meets its project goals. The DEIS fails on both those counts. (Stanislas)
- Response 1-7:** The DEIS contains a detailed analysis of the need for regular, large floor plates in academic research buildings, “Characteristics of Modern Facilities,” on DEIS pages 1-8 through 1-12. The FEIS includes additional detail on the functioning of and need for substantial below-grade space to: (1) create shared science support space for the academic research buildings proposed on the west side of Broadway, which would reduce by several hundred thousand square feet the amount of above-grade support space and allow for more program space above grade; (2)

promote efficiency in Columbia's operations as well as avoid having truck loading from the street at 12 separate buildings by providing centralized loading connected to the 12 University buildings above the central below-grade service area; (3) provide space for program elements that do not need windows, such as the swimming and diving center and additional classroom and auditorium space for the Business School and other instructional programs; (4) provide centralized heating and cooling systems; and (5) provide generally centralized below-grade parking, which, like the centralized loading, would reduce curb cuts on the street, while providing critically needed parking spaces.

**Comment 1-8:**

The below-grade space would allow the University Columbia's design of a rectangular floor plate is stated as "desirable," but not mandatory. Numerous state-of-the-art medical and scientific research facilities have been designed and constructed recently in varied configurations, including "L," "T," "C", and "W" shapes and split into connected adjoining buildings. See, for example, the configurations for medical and/or scientific research facilities at Arizona State, Case Western, Northwestern, Florida State, Duke, etc. (see Attachment #2 to CB9 comment letter). The Arthur & Gladys Pancoe Healthcare and Life Sciences Pavilion at Northwestern University, for example, demonstrates the flexibility in design that is possible for a modern facility. This building was designed to provide laboratories and support facilities for 32 research groups in molecular biology, genomics, cell biology, neurobiology, developmental biology, and reproductive biology. This building has a total floor area of 174,290 sf. Development of two wings on four levels provides flexibility, as research needs change, and permit regular informal interactions among different disciplines. The building also has a café and an auditorium. Moreover, a number of science facilities at the other Universities have floor plates smaller than 25,000 sf.

It has been demonstrated throughout the country that flexibility and adaptability, and shared academic core facilities and equipment, can be achieved without the need for rectangular floor plates. The significance of rectangular floor plates is that this preference drives Columbia's stated need for additional acquisition of properties, rather than allowing it to meet performance and design criteria through the assemblages of properties that it currently owns. (CB9)

**Response 1-8:**

A review of the 14 examples in CB9's report has found that the examples confirm the Proposed Actions' approach to the design of its academic research buildings (see Jacobs Consultancy report in Appendix Q.1). Of the 14 examples, only two academic research buildings are at locations comparable with the Project Area. These are the

Northwestern University's Lurie Medical Research Center in Chicago, and Johns Hopkins' Bloomberg Wolfe Street building in Baltimore. Both buildings sit on a street grid system of regular blocks, and both are rectangles, with lab floor areas greater than 25,000 sf. The Bloomberg building is, in fact, a square, similar to the footprint on Sites 2, 6, 8, 11, 15, and 17. Once the second phase of the Lurie Medical Research Center is completed, that building, too, will be approximately square.

Of the remaining 12 examples, three are not comparable at all with the Proposed Actions, because they contain no research laboratories or distinct research laboratory building. Two others are research buildings contained within multi-use complexes. Although the configurations of these complexes appear to be irregular, the research buildings themselves are rectilinear. The remaining seven examples are all buildings on more typical university campuses, which are either large, sprawling suburban campuses, or superblock arrangements in a more urban setting, similar to the Morningside Heights campus. Nonetheless, each building footprint consists of one or more rectangular laboratory floor plates.

Three of the buildings on suburban campuses do feature two or more research laboratory floor plates configured together in "wing" shapes. This design approach is used frequently to segregate specialty types of research space from more general-purpose research laboratories. For example, BSL-3 biological containment, hazardous material, high-throughput robotics and industrial technology-transfer labs are often set apart. Separating academic department offices and labs is another strategy found in the suburban buildings. However, these examples do not apply to buildings in Subdistrict A, which would have approximately 8 to 10 floors of academic research and could achieve any necessary separation among floors. Moreover, the strategy for Columbia's academic research buildings is to avoid departmental and scientist segregation, instead encouraging high levels of interaction among multidisciplinary science teams avoiding separation between them.

A review of the floor plates for the laboratories in the 11 examples that have research laboratories reveals they range from 20,000 sf to 90,000 sf (there is only one example each of these low and high floor areas), with all but one at 25,000 sf or above. The median floor plate size of the examples is 34,000 sf.

**Comment 1-9:**

As demonstrated by the attached map (see Attachment #3 to CB9 comment letter), Columbia can achieve its performance and design criteria, along with its goal of a minimum of 25,000-square-foot floor plates, at a minimum of six (and possibly more) different locations

north of 125th Street by assembling property it currently owns or controls. Therefore, both the floor plate and total area needs of Columbia can be met through the assemblage of properties it currently owns. All six of these locations total 247,750 square feet of lot area. These properties are immediately adjacent to each other and therefore would also achieve Columbia's goal of enabling its proposed new buildings to be in close proximity to each other, and allow them to be linked below grade by tunnels rather than an environmentally intrusive and questionable structure. In essence, Columbia could emulate the below ground infrastructure of Rockefeller Center rather than the "bathtub" of the World Trade Center. (CB9)

**Response 1-9:**

The map referenced in the comment is a land use map outlining the full lots that CB9 believes could potentially be used for academic research. As a preliminary matter, it should be noted that Columbia University does not own or control one of the locations shown on the map as available for this purpose—Lot 44 on Block 1997 (between West 130th and West 131st Streets).

In addition to a minimum floor plate size of 25,000 sf, Columbia has identified a simple and regular floor plate configuration as critical to its ability to accommodate new state-of-the-art academic research facilities; although the lot area of the sites shown on the map appear to be greater than 25,000 sf, several of the locations would have irregular footprints. Moreover, the assemblages shown in the map would occupy the entirety of the Columbia-owned or controlled sites in the Academic Mixed-Use Area to the exclusion of other elements of the Columbia plan, including academic, University housing, and other uses. In particular, a development pattern consistent with the map could not accommodate Columbia's Phase 1 plan, which would contain the Jerome L. Greene Science Center for Columbia's Mind, Brain, and Behavior Initiative, the Business School, the School for International and Public Affairs, the School of the Arts, University housing, and publicly accessible open space.

The Rockefeller Center below-grade space is not comparable with the proposed central below-grade service area. Although the Rockefeller Center below-grade space includes centralized loading and mechanical systems, it differs from the central below-grade service area in several important ways, as follows:

- Both the Rockefeller Center below grade space and the Manhattanville central below grade space accommodate centralized loading, mechanical services, and parking. However, aside from these functions, the primary function of the Rockefeller Center below-grade space is for pedestrian movement—to bring people to

and from the subway. A secondary purpose is commercial—the restaurants, shops, and ice rink are all revenue generators for the buildings’ owners. By contrast, the primary function of the Manhattanville central below-grade service area, aside from centralized loading, mechanical services, and parking functions, is to support the University uses above—with centralized and efficient science support, classrooms, libraries, and other academic space, and to provide a swimming and diving facility in the proposed recreation center. The physical characteristics of below-grade space to accommodate the Rockefeller Center functions are different from those necessary to accommodate the functions of the proposed Manhattanville central below-grade service area. Interconnected passageways or tunnels and standard floor heights are suitable for the pedestrian movement and commercial functions of Rockefeller Center. By contrast, as described in Chapter 1, the science support and energy center require a large volume and footprint of space and heights greater than a standard floor height.

- The Rockefeller Center below-grade space is built largely in bedrock to a depth of 30 to 40 feet. The bedrock condition made it possible to create a central space below one big city block and connect it to the basements of buildings to the north and south via pedestrian and freight tunnels under the public streets. By contrast, slurry wall construction is required for significant portions of the Academic Mixed-Use Area. Under this condition, it would not be practicable to create one central area with satellite areas connected by tunnels under the streets, since each of the tunnels and most of the satellite basement areas would themselves require slurry wall construction. Slurry wall construction under a below-grade plan with an irregular below-grade floor plan with multiple corners and notches would be costly and inefficient.
- The area served by Rockefeller Center’s central facilities comprises three 1,000-foot-long city blocks, separated by two streets. The below-grade concourse and service area lie beneath the middle block, with attachments—via passageways beneath the two city streets—to the north and south blocks. By contrast, the proposed Manhattanville central below-grade service area would lie beneath a relatively square area comprising four 800-foot-long city blocks, separated by three streets. The Rockefeller Center layout of one central spine with short tunnels to the other blocks was thus designed for a site that differs substantially from the Academic Mixed-Use Area.

**Comment 1-10:**

Columbia’s stated rationale for the central below-grade facility is a design “preference,” not an essential requirement necessary to meet its needs. While all of Columbia’s design preferences may be true and accurate, none have been cited as necessary for Columbia to meet the goals and objectives of the project. Nor are they necessary to meet the

performance and design criteria for Columbia’s research space. CEQR requires that environmental impact analyses determine whether these factors outweigh the significant and adverse impacts that arise from this design choice, and whether there are adequate alternatives that would avoid the significant and adverse impacts. The DEIS failed to address these questions. (CB9)

**Response 1-10:** See Response to Comment 1-7. As presented in Chapter 11, “Natural Resources,” and Chapter 21, “Construction,” the central below-grade facility would not create significant adverse environmental impacts.

**Comment 1-11:** The performance and design criteria cited by Columbia do not require the central “Square” design. The Square design criteria is a preference of Columbia University to create an academic, exclusive enclave, rather than a mixed-use area. (CB9)

**Response 1-11:** The central Square is designed to fulfill one of Columbia’s key project purposes: to create a University campus in Manhattanville. The proposed zoning would require the Square to be accessible to the public, and not an academic exclusive enclave.

**Comment 1-12:** If Columbia is unable to obtain the requisite approvals for the relocations of the MTA Manhattanville Bus Depot and the Con Edison cooling station, how would the inability to develop these sites affect their ability to develop the amount of space they say they need? Would they develop less or try to develop their full “requirement” on a smaller site? What would the impacts of such a development be? If the depot stays in place, might that produce the worst-case scenario? What will Columbia do in those circumstances? (Stern)

**Response 1-12:** The EIS analyzes a scenario in which the MTA Manhattanville Bus Depot remains in the Project Area at a below-grade location generally beneath its existing site, with Columbia buildings developed above. In this case, Columbia would attain the maximum development, as permitted by the proposed zoning. If the MTA Manhattanville Bus Depot could not be reconstructed below-grade in this location, the Academic Mixed-Use Development would decrease in size by approximately 1.2 million gsf, as identified by the total of Sites 11-14. This is approximately 20 percent of the above-grade space for the Academic Mixed-Use Development.

Appendix Q.3 presents an analysis of the existing MTA Manhattanville Bus Depot assuming Columbia does not enter into an agreement with MTA, and the building remains in its current location and configuration.

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If the Con Edison cooling facility is not relocated, Columbia would not develop the maximum development on that block. Columbia's above-grade program would be reduced by the floor area, as permitted by the proposed zoning that could be achieved from the Con Edison lot. In addition, the central below-grade service area could not be achieved in this location. Without approval to relocate the bus depot and/or relocate the Con Edison facility, the overall program space would be reduced, which would result in similar or fewer impacts than those identified in the EIS.

### *GOALS AND OBJECTIVES*

**Comment 1-13:** While Columbia has a grand plan vision for an urban campus, it is important that the new development be knitted into the existing urban fabric. This is no small task, but it seems possible that if Columbia adopts some of the goals of the 197-a Plan, including maintaining more of a mix of old and new buildings and some mixture of uses, the plan would be improved. (MAS-Kersavage) There is no reason that Columbia cannot achieve most of its program objectives by developing sites that it owns in a manner that respects existing businesses and jobs, minimizes residential and business displacement, preserves buildings of historic and cultural significance, integrates with the surrounding community, and assures public health and safety. (Chait)

**Response 1-13:** The FEIS examines in some detail the need for the proposed program space (see Chapter 1), and it considers several additional alternatives to those considered in the DEIS that would retain a greater mix of uses and structures. None of these alternatives would allow Columbia to build to its full program need and create the below grade space necessary to support that program. The proposed zoning contains requirements for open space, street widening, and active ground-floor uses are all intended to integrate the campus into the urban fabric, to make it attractive within its neighborhood, and to bring people to and through it to the waterfront.

### *EMINENT DOMAIN*

**Comment 1-14:** Columbia's plan involves condemnation, and partly because of this, it is of critical importance to scrutinize the verity of the need asserted. The City is filled with universities and other institutions, all of which compete to succeed. Any approach that confers too much of an advantage upon one institution must be sought after by all. Replicated elsewhere, is this a healthy way for our City to develop? (M. White)

- Response 1-14:** The City contains many universities and other institutions that provide public benefits, both public and private. As institutions seek to expand, they may request zoning or other government action to achieve their goals. Each such request is evaluated by decisionmakers on its own merits.
- Comment 1-15:** As stated in CB9’s resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must build only on property owned by the University and obtained through negotiations with the owners without coercion and without the threat of eminent domain. (CB9-1, Lewton)
- Response 1-15:** To the extent that eminent domain is utilized in connection with the Proposed Actions, all relevant legal standards and requirements will be followed.
- Comment 1-16:** Condoning New York State’s seizure of land by utilizing eminent domain for private development sends the message to private developers that development will be accommodated at any cost to a given target community, even displacing families and small family-owned businesses from their homes and work places. (Favant, Kopnicki) Columbia has not shown in its 197-c Plan that its needs outweigh the displacement of commercial or residential tenants. Therefore, it can’t realistically show this in an eminent domain argument. (Tajiddin)
- Response 1-16:** Eminent domain may be utilized for projects which fulfill a public purpose, including projects under the sponsorship of private entities, such as Columbia. The University is of significant importance to the City and State as a center of educational excellence and as a source of economic growth, and the Academic Mixed-Use Development Plan is intended to fulfill these public purposes.
- Comment 1-17:** While Columbia has agreed not to pursue eminent domain for the remaining residential properties in its proposed campus, the non-residential properties are still an issue. Every effort should be made by Columbia to negotiate directly with these property owners. (MAS-Kersavage)
- Response 1-17:** Columbia has stated that it is willing to negotiate directly with the remaining owners of commercial property in Subdistrict A.
- Comment 1-18:** This plan threatens individuals’ rights through the abuse and misuse of eminent domain. (Zuhusky, J. Levine, Whitman) General opposition to

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eminent domain. (Mares, J. Levine) Property should never be taken away for any private institution's needs or wants. (Dunn) The practice of eminent domain is immoral, unethical, unfair, and contrary to the principles in the Constitution and the Bill of Rights of this country. (South-CB9) Eminent domain historically abuses communities of color and low and moderate income people. (Forms 1, 2)

**Response 1-18:** To the extent that eminent domain is utilized in connection with the Proposed Actions, all relevant legal standards and requirements will be followed. Any use of eminent domain will be based upon a determination that it is needed to fulfill a public purpose.

**Comment 1-19:** Columbia's insistence on eminent domain to bring about their expansion doesn't respect the existing neighborhood or its neighbors. In *Kelo vs. City of New London*, the U.S. Supreme Court expanded eminent domain by ruling that economic development can qualify as a public use for eminent domain purposes. This much criticized case, which many disagree with, is unfortunately the law of the land. But it does not mean that the City or State must expand the definition of eminent domain in New York at all, or in every case. *Kelo* clearly stated: "...that the sovereign may not take the property of A for the sole purpose of transferring it to another private party, B, even though A is paid just compensation. Nor would the City be allowed to take property under the mere pretext of a public purpose, when its actual purpose was to bestow a private benefit." There is no doubt that Columbia's application and any potential eminent domain utilized to facilitate Columbia's plan is solely for the private benefit of Columbia. (Petraro)

**Response 1-19:** Columbia University is of significant importance to the City and State as a center of educational excellence and as a source of economic growth, and the Academic Mixed-Use Development Plan is intended to fulfill these public purposes. If ESDC determines to exercise its discretion and use eminent domain, such an action would be in the public interest, and not "solely for the private benefit of Columbia."

**Comment 1-20:** What is not included explicitly in the Columbia plan is the apparently expected profits from land utilized from major high-rise condominium development with the invaluable Harlem River-view waterfront properties. This project raises even stronger questions about the use of eminent domain by a profit-making private institution. (Burlage, Mayhew)

**Response 1-20:** Columbia University's proposal for the 17-acre Academic Mixed-Use Development Area does not include high-rise or any other type of condominium development.

**Comment 1-21:** The DEIS fails to properly state the impact of the project because it does not examine the extent to which direct and indirect displacements have already occurred as a result of Columbia's threat to have ESDC use eminent domain power on its behalf. By invoking this threat, Columbia has persuaded reluctant property owners to sell, precipitating direct commercial displacement of both property-owning and tenant businesses, with a resulting decline in employment and increase in vacancy in the Project Area. Rumor of the impending use of eminent domain has similarly created an aura of inevitability to Columbia's plan, accelerating speculative pressure driving up real estate values in the surrounding areas. (Siegel, Van Buren) With respect to the businesses, the mere threat of eminent domain does not allow for a level playing field to exist, which is a prerequisite for negotiation without intimidation to take place. (Shiffman)

**Response 1-21:** The direct business displacement analysis in Chapter 4, "Socioeconomic Conditions," following the guidance of the *CEQR Technical Manual*, thoroughly examines the potential socioeconomic impacts of the Proposed Actions. The analysis, conducted in accordance with CEQR methodology, does not evaluate the mechanisms by which displacement could ultimately occur; rather, consistent with the purposes of environmental review, the analysis evaluates the potential for significant adverse impacts resulting from the loss of businesses in the Project Area. Appendix C, "Recent Trends Analysis," examines historic trends in rent in the study areas, with specific attention provided to the period immediately before announcement of Columbia's expansion plans up to current conditions. That analysis concludes that the public announcement of Columbia's proposed University area has not had a sizable influence on either the local residential or Project Area commercial real estate market; the area did not demonstrate substantial real estate growth before public awareness of the proposed University area, nor did Columbia's purchase of numerous properties in the Project Area lead to substantial differences in use, tenancy, or overall economic conditions.

**Comment 1-22:** Much has been said and will be said about Columbia University's pledge not to use eminent domain to evict residents and that they will seek to avoid its use in their quest to consolidate ownership over all of the property on the 17-acre site. With respect to the residents, this statement is disingenuous in that Columbia is negotiating not with the residents of the buildings on the site but with the City of New York, attempting to get the current administration to abrogate the City's long-standing commitment to the residents to transfer the ownership of these building to them. With respect to the businesses, the mere threat of

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eminent domain does not allow for a level playing field to exist, which is a prerequisite for negotiation without intimidation to take place. (Shiffman)

**Response 1-22:**

Existing residents in the Academic Mixed-Use Area are housed in nine buildings. There are tenants in six buildings owned or regulated by the City. Two buildings are owned by the New York City Department of Housing Preservation and Development (HPD) in connection with its Tenant Interim Lease (TIL) Program; two other buildings are owned and operated by the not-for profit Charles Inniss Housing Development Fund Corporation, a subsidiary of the Harlem Congregations for Community Improvement, Inc. (HCCI); and two buildings are owned and operated by the not-for profit WHGA Renaissance Apartments, Limited Partnership, a subsidiary of West Harlem Group Assistance (WHGA). The FEIS has been revised to include information regarding these sites in Chapters 1, 4, and Appendix B.2. The HCCI and WHGA buildings are owned and controlled by private non-profit organizations that negotiate directly with Columbia University for the relocation plan for those units. With regard to the TIL buildings, HPD has stated that at a minimum, the existing residents would receive equal or better housing than if they had gone forward with the existing TIL building. HPD has also stated that an initial discussion has taken place with the tenant association to present this relocation plan and that further discussions with the tenant association are anticipated. Most significantly, HPD has made clear that any relocation for the TIL tenants would be pursuant to an agreement with the tenants' association. As noted in Response to Comment 1-17, Columbia has stated that it is willing to negotiate directly with the remaining owners of commercial property in Subdistrict A.

**Comment 1-23:**

We need to put some restraints in that Columbia is forced to commit to economic development for the businesspeople in Harlem, and make sure it's committed that these businesses that are faithfully working in Harlem are not forced to be taken out through eminent domain. (Breedon)

**Response 1-23:**

Columbia has stated that as a matter of policy, it seeks to negotiate business leases to enable the businesses to plan their future and provide relocation assistance to tenants that find alternative sites. Columbia reports that to date, it has renewed more than 30 leases for businesses within the Project Area. Columbia has also stated that the form of lease agreement contemplates situations where the University may be unable to offer lease renewals because the sites are needed for redevelopment in the near future. Columbia has stated that they also offer referrals to brokers, who may be able to assist with relocation, for those tenants

who are interested. Any business owner who could be relocated due to the ESDC's exercise of eminent domain will be provided relocation assistance as required by ESDC and spelled out in the GPP.

Columbia has also stated that in some situations, such as with respect to Skyline Windows and Pearlgreen, the University is actively engaged in helping to renovate or construct new and larger facilities for the businesses within New York City. In addition, Columbia advises that some businesses, such as the Madame Alexander Doll Company (including its museum and party facilities), Dinosaur Barb-B-Que, and Mi Floridita, would be relocated to University-owned or controlled-space inside or adjacent to the Project Area.

**Comment 1-24:** Faculty housing, student housing, retail spaces, performance spaces, art galleries, and other add-ons are not legitimate academic uses for justification for taking homes and businesses by the use of eminent domain. (Mazzoni)

**Response 1-24:** University housing, performance spaces, and art studios for the Graduate School of the Arts are community facility uses directly related to Columbia's educational purposes. The requirement in the proposed zoning to include ground-floor retail uses along West 125th Street, on Twelfth Avenue, and on Broadway is intended to assure that the University area will not only be for students and faculty, but will be welcoming to all of the community and will help to attract people through the area and to the West Harlem Waterfront park.

**Comment 1-25:** The EIS does not explain a justifiable public purpose for eminent domain. It does not explain the function of the space each specific property occupies or the reason it needs each property. It does not suggest how and if it has explored alternative options which could eliminate the need for the eviction plan. It gives no data stating how it would work with ESDC if eminent domain were to be used and avoids dealing with the obvious repercussions: i.e., when it will happen, to whom it will happen, and what the effects will be. (CTPC) Columbia University should prove that it cannot work with "out parcels" and explain why development for purposes other than academic would not serve to integrate the academic uses better into the community. (Sheffer)

**Response 1-25:** The DEIS and FEIS both contain analyses of a range of alternatives that would avoid use of eminent domain to acquire property in the Project Area. See the Infill Alternative, both FAR 6.0 Scenario and Full Build Scenario, Expanded Infill Alternative, 197-a Plan Alternative 1, and 197-a Plan Alternative 2 in Chapter 24, "Alternatives," of the FEIS. The

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Expanded Infill Alternative in the FEIS analyzes a development scenario involving use of publicly owned and Columbia-owned or controlled property only. While this alternative would result in a development scenario that would include all of the uses of the Academic Mixed-Use Development, with preference to academic research to the extent possible, and a limited deep basement, it would still fall short of meeting project goals and objectives. The EIS does not specifically state how eminent domain would work, because its purpose is to examine the worst-case development scenario, not the method of property acquisition. Chapter 21, "Construction," provides specific information regarding the proposed construction sequencing schedule for the Academic Mixed-Used Development, including descriptions of specific sites for construction staging. .

**Comment 1-26:** The removal of 17 acres from the tax rolls cannot possibly be considered to be "in the public good." The threatened use of eminent domain in the service of this seizure flies in the face of honest civic policy. (J. Kraus)

**Response 1-26:** The economic and fiscal benefits presented in Chapter 4 of the EIS and costs analysis shows that there would be a net increase in taxes with the Proposed Actions.

**Comment 1-27:** Columbia's underlying plan also includes gaining ownership of 18 additional acres of land and doing with it that which is contrary to what's already there. Columbia is suggesting that it needs all of the 35 acres rezoned in case it has to resort to using eminent domain to gain the other 18 acres. Otherwise, why is Columbia pushing to have 18 additional acres rezoned that it currently doesn't control or own? CPC should disapprove Columbia's plan and let Columbia build according to the present zoning design or within the 197-a Plan. (Tajiddin)

**Response 1-27:** As described in Chapter 1, "Project Description," of the EIS, page 1-1, the Project Area contains 17 acres that would be the site of a new University campus, plus 11 additional acres of land and 7 acres of land under water. The land under water would not generate any development rights. Of the 11 other acres, 2 are under construction for the West Harlem Waterfront park, and 9 are located in Subdistricts B, C, and the Other Area east of Broadway. No Columbia development is contemplated for areas other than the 17-acre Subdistrict A, Academic Mixed-Use Development Area.

**Comment 1-28:** Subdistricts B and C of Columbia's plan will not be developed by Columbia and are not included in the University's GPP. Why is it

important for Columbia to seek the rezoning of these areas? Subdistrict B should not be overdeveloped. It seems that Columbia doesn't have any real need for this area; therefore Columbia's suggestions for its development are limited. However, Columbia omits possible impacts of the area's rezoning. There has to be some—deprivation of a scenic view at the least. (Tajiddin)

**Response 1-28:**

As described in Chapter 1 of the EIS, the proposed Manhattanville Special Mixed-Use District is intended to permit development in Subdistricts B and C in a manner generally consistent with the recommendations of the EDC's West Harlem Master Plan, such as the new West Harlem Waterfront park and other public uses. The rezoning is intended to expand the range of permitted land uses and increase density to encourage commercial development in the westerly subdistricts.

Specifically, as described in Chapter 1, the rezoning of Subdistrict B is intended to promote appropriate land uses and strengthen the visual east-west corridors to the waterfront. Subdistrict C is currently part of the existing manufacturing district, is located adjacent to the Riverside Park Community apartments. The purpose of rezoning Subdistrict C is to ensure that any new development that might occur in the future be compatible with its residential neighbors.

The reasonable worst-case development scenarios for Subdistrict B and the Other Area east of Broadway were developed using DCP's method for identifying sites that might be built on under the new zoning and projecting—based on the proposed zoning—a development scenario for each. Chapter 9, "Urban Design and Visual Resources," did not find that the development in Subdistrict B and the Other Area east of Broadway (no new development was projected for Subdistrict C) would block a scenic view from a vantage point accessible to the public.

**Comment 1-29:**

The decision by Columbia to consider evictions as a necessity is contrary to requirements of the *CEQR Technical Manual*. Community members have repeatedly urged that the analysis of the reasonable worst-case development scenario focus on ways to avoid the violent effects of eminent domain, not the mitigation that Columbia proposes. (CTPC) The omission of addressing eminent domain in the EIS is a critical defect, because the EIS is a statement that is supposed to address the impacts of its plans. (Tajiddin)

**Response 1-29:**

The *CEQR Technical Manual* requires analysis of a reasonable worst-case development scenario for purposes of environmental review. In this case, the reasonable worst-case development scenario considered in the EIS assumes Columbia development throughout the Academic Mixed-Use Area, Subdistrict A, without regard to the means of land

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acquisition. Mitigation proposed in the DEIS and FEIS has been included in response to significant adverse environmental impacts that have been identified as part of the environmental analysis.

**Comment 1-30:** The State should ensure that all alternatives have been thoroughly explored to justify the use of eminent domain. (Sheffer)

**Response 1-30:** The FEIS assesses a range of alternatives, including alternatives that would avoid the need for condemnation. ESDC has participated in the preparation of the FEIS as an involved agency and will make findings based on this document before it renders a decision on the GPP or the possible use of eminent domain in connection with Columbia's proposal.

**Comment 1-31:** Property which Columbia requires for real estate investment purposes should not be made available to it through condemnation or threat of condemnation. (M. White)

**Response 1-31:** Acquisition of property in the Project Area through eminent domain would not be for real estate purposes. The GPP would require Columbia to utilize any property acquired through eminent domain for the purpose of developing a state-of-the-art graduate campus for academic research, academic, recreation and University housing and ancillary uses.

*BELOW-GRADE SPACE*

**Comment 1-32:** As stated in CB9's resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must withdraw the proposal to build the 7-story below grade structure and the request to build under City streets and convey the area below grade to the University. (CB9-1, Lewton)

**Response 1-32:** Comment noted. See Response to Comment 1-7.

**Comment 1-33:** Given the number of 100-year-old buildings within 150 feet or less of the "bathtub" structure running from Broadway to Twelfth Avenue along 125th/129th Street, and the limited number of New York City inspectors, Columbia needs to state in greater detail when and how nearby property owners and their insurers will be contacted, and their properties surveyed and monitored throughout the project timeline. There is virtually no mention in the DEIS of a comprehensive set of plans to safeguard any structures except for references to several historic structures (Prentis Hall, the Studebaker Building, the former Warren Nash Service Station building) owned by Columbia. (Favant)

**Response 1-33:** As noted in a memorandum from Mueser Rutledge Consulting Engineers (MRCE), Columbia University’s foundation structural engineers for the Academic Mixed-Use Development, the design of the excavation support and foundations is under way (see Appendix K.5). The excavation support system at the southern portion of the development would include slurry walls with internal and external support to resist pressure from the earth and groundwater surrounding them. The external supports (e.g., tiebacks) would be designed not to interfere with any foundations of adjacent transit structures and existing buildings. The excavation support system is also being designed to minimize the effects of excavation and construction dewatering on adjacent structures. All construction activities will be subject to the regulations of the Department of Buildings, which contain procedures and requirements for protection of adjacent and nearby buildings and structures. Successful examples of similar construction, also designed by MRCE, include the World Trade Center site “bathtub” and the deep basements beneath the World Financial Center.

As described in Chapter 8, “Historic Resources,” of the EIS, a construction protection plan (CPP) has been prepared to avoid adverse construction-related impacts on architectural resources located within 90 feet of the proposed Academic Mixed-Use Development. The protection measures contained in the CPP have been approved by OPRHP and LPC, and the approved CPP would be implemented prior to any demolition or construction activities commencing in Subdistrict A as part of the Proposed Actions.

**Comment 1-34:** While the proposed “bathtub” may have positive attributes, the community has not been provided any of the details necessary to understand the myriad of environmental impacts of such a substantial underground structure. We recommend that Columbia release the details, when known, and provide a forum in which the public can comment on the construction of the “bathtub.” We suspect that it will be necessary for Columbia to conduct a Supplemental Environmental Impact Statement, which would further disclose the impacts of the “bathtub” on the environment. (MAS-Kersavage)

We are expected to believe that the “continuous below grade space” for the University will “stimulate intellectual achievement.” This does not deserve the support of government. (Kopnicki)

**Response 1-34:** Additional information on the below-grade structure has been added to FEIS Chapters 1, 11-13, and 21. A memorandum from Columbia University’s foundation structural engineers, MRCE, is included in Appendix K.5. This appendix also contains a memorandum from Golder

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Associates, a geotechnical/foundation engineering firm retained by ESDC that provided professional peer review of the MRCE memorandum. These memoranda demonstrate that although conditions in the Project Area pose challenges for construction, such challenges are not unique in New York City, and have been met successfully on several major development projects. As presented in Chapter 11, “Natural Resources,” and Chapter 21, “Construction,” the central below-grade facility would not create significant adverse environmental impacts.

**Comment 1-35:** The City and Columbia should more fully explain why the “bathtub” could not be built in phases that permit some of the existing structures to remain. (Sheffer)

**Response 1-35:** As described in Chapters 1 and 21 of the FEIS, large sections of the below-grade space are proposed to be built in phases. However, it is not proposed to be built in small segments corresponding to individual building footprints. As explained in these chapters, the slurry wall construction would not be undertaken if: (1) small areas or corners and notches are added, so as to make the slurry wall construction program a piecemeal and thus impracticable approach; and (2) if the resulting below-grade space configuration cannot provide substantial benefits in terms of efficient operations. Phasing of slurry wall construction is based on the availability of large, rectangular areas, and does not readily accommodate “carve outs” for the purpose of maximizing the continuation of existing uses above grade.

**Comment 1-36:** The sub-grade “bathtub” design raises serious risks both during construction and during operations. These below-grade structures—including two energy plants and the relocated bus terminal—would extend below groundwater levels, and would be immediately adjacent to the Hudson River. The site in question is in a seismically active area and is subject to severe surge and flooding from hurricane category 2, 3, or 4 and other major storm events. These issues were not fully discussed in the DEIS, nor was the DEIS referred to the New York City or New York State Office of Emergency Management. The risks of flooding can be expected to increase with climate change. These risks were not adequately addressed in the DEIS. (CB9, Shiffman)

**Response 1-36:** As noted in the MCRE memorandum (Appendix K.5), several other sites of similar size with similar soil conditions, located adjacent to the Hudson River, have very deep basements extending below the groundwater table with slurry wall construction. These sites are located in the 100-year floodplain, whereas the Project Area is not. In these

conditions, the deep basements are designed using standard engineering techniques in order to address potential flood conditions. Nonetheless, as described in the MCRE memorandum, the central below-grade service area in the Proposed Actions would also be built with protections against flooding, including entrances above predicted flood levels and/or water barriers to be activated in anticipation of flooding.

The MRCE memorandum states that, in addition to the evaluation already conducted, probabilistic analyses will be undertaken by a flood risk management specialist to establish the project's design flood levels, which information would be used in design details. These analyses will take into consideration rising sea levels and the potential future change to the 100-year and 500-year flood levels. The Golder Associates memorandum advises that these analyses would ensure that the appropriate design water levels are incorporated into the project's foundation designs to prevent flooding. As noted in the MRCE memorandum, the design of the central below-grade service areas would also accommodate flooding risk from hurricane events. The Golder Associates memorandum confirms that the MRCE approach is consistent with sound engineering practices.

As noted in Appendix K.5, MRCE is in the process of undertaking additional seismic design investigations, which would establish site-specific seismic design parameters to be incorporated into the project's design. The Academic Mixed-Use Development will also be designed in accordance with the New York City Building Code (NYCBC) and its seismic design requirements, which account for seismic events much greater than any recorded earthquakes in New York City. As noted in the Golder Associates memorandum, the seismic design requirements of the NYCBC and the additional design seismic investigations would adequately address seismic risks.

**Comment 1-37:**

Unstated in the DEIS is the fact that the proposed central below-grade structure takes advantage of technical loopholes to substantially increase the floor area ratio (FAR) beyond that allowed by the zoning and beyond what is appropriate given the carrying capacity of the area's social and physical infrastructure, estimated to be greater than an equivalent of 7 FAR. (CB9)

**Response 1-37:**

The central below-grade space is intended to provide significant benefits with regard to reduction of parking, loading, and other support activities that would otherwise take place above grade (see Response to Comment 1-7), and does not reflect an attempt to take advantage of "technical loopholes to substantially increase the floor area ratio." The

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EIS impact analyses take into account the activity from both above- and below-grade space.

**Comment 1-38:** The EIS is unclear on how the City will be compensated for the disposition of underground rights presently in the public domain. Nor does it provide what the negative impacts or worst-case scenario would be in building or sustaining such an underground operation. (Tajiddin)

**Response 1-38:** The business terms related to acquisition of the below-grade space are not a subject considered under CEQR. The EIS contains a complete analysis of the worst-case impacts of project construction, including construction of the below-grade space, in Chapter 21, "Construction." This chapter addresses traffic, air quality, noise, public health, and a range of other impacts during construction of Phase 1 and Phase 2 programs. The analysis selects and is based on the worst-case set of construction activities for each impact area (traffic, air, noise, etc.). With regard to ongoing operation of the central below-grade space, as described in the MRCE and Golder Associates memoranda (Appendix K.5), the underground space is being designed for worst-case flooding, storm, and seismic events far beyond what has ever been recorded in New York City. The design also accounts for anticipated sea-level rise. The EIS impact analyses take into account the activity from both above- and below-ground space.

**Comment 1-39:** Columbia's proposed "bathtub" should not be constructed in a densely populated neighborhood in a seismically active floodplain. The proposed cogeneration plants, underground MTA bus terminal, and huge "bathtub" will be subject to flooding and storm surges, and require massive earth removal, the shutting off of sewers and electricity, and the closing of streets for many years. It will add to the environmental injustice already in the community. If it cannot be built because of cost or geology, it will have been used as an excuse to throw residents, workers, and businesses out of their locations so that Columbia can control all the property. (Kappner-CTPC, Forms 1, 2)

**Response 1-39:** With regard to the comments on flooding, storm surges and seismic activity, see Responses to Comments 1-36 and 1-38. As stated in Chapter 21, three side streets would be closed, but only one at a time, during construction. The traffic and other effects of these closures are considered in the DEIS and FEIS. Chapter 21 also examines the potential relocation, installation, and hook-ups of utilities and concludes that this would not create significant disruption to existing systems. It should be noted that the Academic Mixed-Use Development would not

include cogeneration plants. Rather, Columbia proposes centralized HVAC systems, using Con Edison electricity.

**Comment 1-40:** The site of Columbia’s proposed “bathtub” is in a floodplain at the level of the Hudson River, and will be prone to flooding. West 125th Street is also an earthquake fault. Minimally, in any development of this site, there needs to be a plan for evacuation, and containment of waste as to not pollute the Hudson. New York City needs to be assured that all the liabilities in any of these scenarios and the substantial costs involved will be borne by Columbia. (L. Kraus)

**Response 1-40:** As discussed in Chapter 11, “Natural Resources,” the proposed “bathtub” is not in the 100-year floodplain. As discussed in the MRCE and Golder Associates memoranda (Appendix K.5), the proposed below-grade space would not be more prone to flooding than any other basement in the study area. The project would be built to the Department of Buildings’ strict code for earthquake protection. Once it is built, the below-grade space would dispose of wastes, and medical wastes as required and consistent with all applicable requirements. Columbia liability would be governed by State and federal statutes.

**Comment 1-41:** The construction of a 7-story underground “bathtub” in a floodplain and seismic fault zone ignores very real threats to the integrity of the site and the safety of its inhabitants. For Columbia to establish a 70-foot tunnel system in this location seems rash at best. West 125th Street lies on an earthquake fault line, as identified by Columbia’s Lamont-Doherty Geological Laboratories. There is a historic ban on buildings over six stories in this area due to the fault line. For Columbia to flaunt this precaution suggests willful ignorance and folly. (J. Kraus)

**Response 1-41:** See Response to Comment 1-36. With regard to the specific comment of seven stories below grade, the central below-grade service area would have a total of seven levels, but because of changes in grade across the site, the depth of the lowest level would be 50 feet below grade at the southern end of the site and near or along Twelfth Avenue, and approximately 80 feet below grade on the eastern portion of the site near Broadway and West 131st Street. Chapter 1 of the FEIS has been revised to further describe the central below-grade service area. The statement that there is a “historic ban on building over six stories in this area due to the fault line” is incorrect.

**Comment 1-42:** The “bathtub” is a disaster waiting to happen. Construction will change the levels and movement of the land beneath the elevated trestle of the

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subway at West 125th Street. What will be the impacts on this trestle? (Rugoff)

**Response 1-42:** As noted in the MRCE memorandum (Appendix K.5), the underground space is being designed so that during installation of the slurry wall, excavation of the below-grade area, and the operational life of the facility, the elevated trestle and other adjacent and nearby structures will remain undisturbed. As noted in the Golder Associates memorandum (also in Appendix K.5), the subsurface explorations undertaken by MRCE provides appropriate information to adequately design the below-grade service area to address the site-specific subsurface conditions.

To avoid any adverse impacts on the 125th Street IRT Station and the Manhattan Valley IRT viaduct during construction, these structures have been included in a CPP. Columbia University would implement the protection measures contained in the CPP in consultation with MTA/NYCT, OPRHP, and LPC.

**Comment 1-43:** Whether it is good or necessary, the “bathtub” is bad urban planning, (M. White)

**Response 1-43:** See Response to Comment 1-7 regarding the planning objectives of the central below-grade space.

**Comment 1-44:** Are there any precedents for building privately owned facilities under the road bed? Such construction raises questions about developing and privatizing space that has been publicly owned. If this development is precedent setting, and other developers then want to do similar things elsewhere in the City, what are the implications for such development elsewhere in the City? Is the City in agreement with this form of development for this project? What happens if the City needs space under other roadbeds in the future? What is the ownership structure? Who is responsible for what infrastructure? Road repairs? Utility/infrastructure repairs? Who has responsibility for the separating structure? What are lines of demarcation of responsibility? If a problem develops, is Columbia free to close a public street at will to perform repairs when the problem occurs in the middle of the road? How will everything coordinated with all the parties (City and utility owners?) Have agreements with all utilities/service providers regarding who will be bearing what costs and responsibilities been reached? What happens if Columbia is unable to build the continuous below grade space that it is contemplating? How will above-grade development be impacted? Is the depth allocated sufficient for a gravity fed system (sewers) to operate properly? Columbia should show, at a schematic design level,

that everything can be accommodated within the depth they are proposing (indicating depths and sizes of sewers throughout). What is the status of New York City of Environmental Protection (DEP) review? (Stern)

**Response 1-44:**

The most relevant example of an occupied privately owned facility beneath a City street is the New York University (NYU) Law Library, which extends beneath Sullivan Street, between West 3rd and West 4th Streets, connecting Vanderbilt and Furman Halls. The City originally granted a revocable consent, but later demapped and sold the below-street area approximately 15 years ago. Approvals for such uses of land beneath a City street would always be made on a case-by-case basis and would depend on such factors as the need served, and feasibility.

In the case of the Proposed Actions, the City would own the streets above a level approximately 8-10 feet below grade; Columbia would own the space below, to accommodate its central below-grade service area. The responsibilities of the parties would be set forth principally in an agreement between the City and Columbia governing project streets. Columbia would be responsible for utility removal and reconstruction, and for the reconstruction and continued structural integrity of the streets, to be built at grade over its central below-grade service area. NYCDOT, as a condition of allowing Columbia to work in the street area, would have a right of approval over all aspects of the street reconstruction. With respect to water and sewer, DEP would be responsible for ensuring proper design of the replacement infrastructure. The above agencies would review all relevant design documents and approve final designs. Once a street has been reconstructed, it would operate as any other City street. Individual utilities would be responsible for the maintenance and repair of their own equipment and facilities. NYCDOT would be responsible for surface maintenance of the streets. Repairs to the central below-grade service area would take place within the Columbia space itself. If, under extraordinary circumstances, Columbia needed to make repairs from the street, it would have to obtain the same or similar approvals as any utility or other entity requiring temporary use of a City street.

The Mueser Rutledge Consulting Engineers memorandum in Appendix K.5, details the engineering and construction techniques necessary to design, construct, and operate the central below-grade service area. This memorandum also notes that similar subsurface conditions to the Project Area are not uncommon in New York City. The Golder Associates memorandum (also in Appendix K.5) confirms that the MRCE approach is consistent with sound engineering practices. See also Responses to Comments 1-31 and 1-36.

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**Comment 1-45:** Relocating the MTA Manhattanville Bus Depot during construction will require the recommissioning of the Amsterdam bus depot at 127th Street. We are concerned that once the buses are moved out of the Manhattanville depot, they will not return—that in fact, the bus depot will not be relocated underground at or around its current location, but be moved to another location altogether away from the new University population. (WEACT, Calloway)

**Response 1-45:** As described in Chapter 1 and Appendix O.1 of the DEIS, development on the western portion of the block between Broadway and Twelfth Avenue, West 132nd and West 133rd Streets, which is occupied by MTA/New York City Transit (NYCT) Manhattanville Bus Depot, is included in the Academic Mixed-Use Development plan. Such development would be contingent upon Columbia entering into an agreement with MTA for modifying or reconstructing the bus depot. Such an agreement would involve a variety of MTA processes addressing a modification or reconstruction plan, including but not limited to SEQRA and/or the National Environmental Policy Act (NEPA) and Title VI of the U.S. Civil Rights Act of 1964. These processes would include review and analysis of the feasibility and environmental and other impacts of any proposed modification or reconstruction plan, as of the time such a plan was to be formulated and prior to any implementation. The MTA/New York City Transit (NYCT) would respect existing commitments not to recommission the Amsterdam bus depot or to place more buses in the neighborhood. There is no intention of reopening the Amsterdam depot in relation to this project.

### *PROJECT DESIGN*

**Comment 1-46:** MAS supports ensuring public access and a public feel to all east–west streets. To increase access to the waterfront, we urge the City to extend West 131st Street west from Twelfth Avenue to Marginal Street and the park. (MAS-Kersavage)

**Response 1-46:** As described in the EIS, the Proposed Actions would include sidewalk widening along most east-west streets and Twelfth Avenue, and required landscaping elements that would enhance public access to the waterfront. By maintaining substantial contiguous active ground floor shops and other publicly accessible uses along West 125th Street, Twelfth Avenue, and other side streets, the Proposed Actions seek to ensure a “public feel” in the Project Area. The extension of West 131st Street west from Twelfth Avenue to Marginal Street is not within the scope of the Proposed Actions, but that does not preclude its being considered at a later time.

**Comment 1-47:** We support Columbia’s plan to add a north–south pedestrian way at midblock between Broadway and Twelfth Avenue. We urge Columbia to allow for ground floor retail uses along that pedestrian way. (MAS-Kersavage)

**Response 1-47:** Comment noted.

**Comment 1-48:** The siting of Columbia’s park in the center of the campus (between West 131st and West 132nd Streets) is problematic, as it will be surrounded by relatively tall buildings, and thus at certain times of the year covered in shadows. It is also the least accessible to the most public and trafficked streets. MAS recommends an alternative location for that park by moving it to the site of buildings 9 and 10 (between West 131st and West 132nd Streets, Twelfth Avenue, and the pedestrian way), which would make it feel far more public, because it opens onto the more heavily trafficked avenue and would be completely surrounded by streets. This would also allow great views of the Riverside Drive viaduct and the riverfront park just beyond. It would also be more open to light and air. The West Market Diner is currently located on that site, and once un-clad, it would remain in the park and be used as originally intended. (MAS-Kersavage) Moving the park would deal more effectively with the “cloistering effect” of the University’s design. (M. White)

**Response 1-48:** The proposed open space system and open space requirements of the proposed zoning have been laid out to be visually and freely accessible from all directions. The Square, which is the “central” open space, would front on two side streets and on the midblock open area, which would be a 50-foot-wide, unobstructed north-south passage from West 125th Street to West 133rd Street. Views to the Square would be available from West 125th Street and all other side streets west of Broadway. The location of the open space would also open up views of the Studebaker Building, a key historic resource in the Project Area. The building on Site 7 would be a gateway between the Square and Twelfth Avenue; it would incorporate a ground-floor pedestrian way between the two, and the ground floor would be transparent to permit visibility from Twelfth Avenue to the Square. The east side of Twelfth Avenue would have widened sidewalks and would accommodate a three-block-long open air market. A major open space on Twelfth Avenue would not be visible from West 125th Street except at Twelfth Avenue, and, while a public open space, would not also serve as a focal point for the campus.

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**Comment 1-49:** Additional actions are needed to fully integrate the project with the neighborhood to attract community members to the site. Active ground floor uses that will generate community foot traffic should be aggregated on selected streets within the campus rather than only on the fringes of the project site. Retail uses such as cafés and sidewalk vending and community facility uses such as job training programs should be encouraged. Other such uses could include recreation centers, senior centers, and day care centers. (Sheffer)

**Response 1-49:** As discussed in Chapter 1 and elsewhere in the DEIS, the proposed rezoning would require active ground floor uses on Broadway, Twelfth Avenue, and West 125th Street, but that is considered a “worst case” minimum for the project. It is Columbia’s intention to provide such uses throughout Subdistrict A. Columbia University also set forth a proposed retail strategy for making ground floor spaces at the Manhattanville Campus a vibrant mixture of service retail, food, fine and performing arts venues, or public outreach spaces in a memorandum to CPC (see Appendix Q.1).

**Comment 1-50:** Columbia must incorporate campus design changes that would promote easy public access to the West Harlem Waterfront park and other community amenities, such as the Fairway market. (Shepard)

**Response 1-50:** As described in Chapter 1, the proposed rezoning would require a number of features intended to promote easy public access to the park and the waterfront in general. These include: widening of the side streets and landscaping features to make the waterfront destination more visible and the streets themselves more attractive; a mandate to include street-front retail and other publicly accessible uses on Broadway, West 125th Street, and Twelfth Avenue; and a 30-foot sidewalk widening on the east side of Twelfth Avenue to create a sidewalk market, with the goal of creating a destination for pedestrians across the street from Fairway and the entrances to the new park.

**Comment 1-51:** The existing housing in the project area is concentrated in a row of buildings along the west side of Broadway between West 132nd and West 133rd Streets, and we urge the retention of those buildings for housing. This would preserve  $\frac{3}{4}$  of the existing housing in the project area and reduce shadows on the playground of I.S. 195. The retention of the row would not reduce the lot area of Columbia’s new buildings but need not constrain the size or shape of their floors. (MAS-Kersavage)

**Response 1-51:** Comment noted.

**Comment 1-52:** With the heavy build-out and Columbia University's security measures (including the heavy gates and guarded doors used at all its campus sites), the new development will likely deprive West Harlem residents the use of the new park. (WEACT, CTPC, Forms 1, 2) Columbia claims that it will not construct a gate of the sort it has at its campus on West 116th Street and will not actively exclude public access to its grounds, but the history of community interactions with the University tells a different story. The reality is that there is no public access to the grounds of any of Columbia's facilities: West 116th Street, although still listed on City maps as a public street, is guarded by armed security personnel; Barnard College at West 117th Street is completely gated and guarded by armed security personnel, as are all of the University's grounds at its Washington Heights campus. West Harlem community members and the City have been given no reason to believe that Columbia will treat its Manhattanville campus any differently than any of its other facilities. (WEACT)

**Response 1-52:** The proposed rezoning specifically prohibits gates and guarded doors at the public open spaces and requires that they be open to the public on the same time schedule as a public park.

**Comment 1-53:** If Columbia is going to build a 17-acre campus, it has an obligation to Manhattanville, West Harlem, and the City to build a new civic icon and architectural landmarks. (Sherwood)

**Response 1-53:** Comment noted. Columbia has stated that they have engaged Renzo Piano Building Workshop architects to design the buildings on Sites 1-4 Phase 1. The University has stated an intention to maintain architectural excellence throughout development of its new campus.

**Comment 1-54:** Currently, the community has no reliable knowledge of what Columbia's buildings will actually look like. Columbia must be accountable and responsive to an established unaffiliated committee for design planning and aesthetics. (Sherwood)

**Response 1-54:** The proposed Academic Mixed-Use Development is part of a proposed action to map a special purpose district over the Project Area. The Special Manhattanville Mixed-Use District would contain regulations as to land uses and design, including building envelopes, heights, setbacks, and requirements for open spaces, street widenings, and landscaping. Within this regulatory framework, the New York City Zoning Resolution allows for a variety of building designs, but does not regulate design planning and aesthetics. The FEIS contains massing diagrams used in the impact analyses and renderings of Columbia's proposed Illustrative Plan.

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The University has developed the plan following presentations to and meetings with a number of civic and community groups. The University advises it will continue to share information as the project proceeds, and will use presentations, published materials, and the University's Web site for a comprehensive communications strategy for design and construction. See the website at: <http://www.columbia.edu/cu/neighbors/pages/manplanning/index.html>

**Comment 1-55:** Columbia's proposed buildings must not block the view of existing buildings in Manhattanville Houses. (Matthews)

**Response 1-55:** CEQR addresses the impacts of a proposed action on views from publicly accessible locations only. Blocking views from a private vantage point is not considered to be an impact under CEQR. However, the underlying concept in the proposed design regulations is to widen the view corridors on public streets, both at grade and through required setbacks in the building above. This would increase views from nearby buildings down the side streets to the Hudson River.

**Comment 1-56:** Columbia's expansion design is poor in its monopolistic monotony of ownership and design, and monoculture of purpose and uses for the neighborhood; its destruction of existing landmarks and old buildings; its repetitive floor templates for replicated buildings to be built within the same approximate time frame; and its failure to integrate with and make use of the vitality of the existing neighborhood fabric. (M. White)

**Response 1-56:** The proposed rezoning would establish envelope regulations and related urban design controls, as well as open space and other regulations that would allow for diversity in building forms and design. The actual buildings would be built separately, over more than 20 years (not in the same approximate time frame), and it is anticipated that more than one design architect would be involved. The zoning envelopes are intended to allow for flexibility within the possible range of University uses, and not to require that all the buildings would be the same size, shape, or use.

**Comment 1-57:** Columbia is proposing to preserve only three buildings in the entire area. One has to ask whether all it would take to save more of the buildings constituting the historic fabric of the neighborhood would be a more vigorous exercise of imagination and design skills. For example, preserving the landmark Sheffield Farms Stable would require just a notch out of the "bathtub." (M. White)

**Response 1-57:** Retention of the former Sheffield Farms Stable would not only impact the construction of the slurry wall, but would affect the program of the

Jerome L. Greene Science Center and the proposed below-grade support space to be constructed below the academic research facilities on Broadway. Retaining all or a 50 percent portion of the former Sheffield Farms Stable would result in an approximately 25 percent reduction—the equivalent of the removal of one quadrant—of above-ground research lab, research support, and academic office and meeting space from each proposed research floor plate of the Jerome L. Greene Science Center. In turn, this would result in the reduction of between three and four principal investigator research units per floor. This reduction would fundamentally change the program of the building from an interdisciplinary Neuroscience building to a much more narrowly focused research building. This would not meet the scientific objectives of the Jerome L. Greene Science Center.

Retaining all or a 50 percent portion of the former Sheffield Farms Stable building would reduce the below-grade support space by approximately 22 percent on each below-grade science support floor. As a result, this displaced underground shared support space would have to move up to the above-grade research floors, further reducing program area (or increasing building height) and isolating these vital functions from the future scientific community in Manhattanville.

Retaining all or a portion of the building would also impact slurry wall construction. The cost of slurry walls increases significantly if the below-grade space is irregularly shaped and/or discontinuous or contains small areas or corners—requiring more square footage of slurry wall compared with a simple, large rectangular shape. Further, the incremental costs of the slurry walls as a proportion of overall construction costs increases substantially as the size of the site decreases.

#### *PROPOSED ZONING*

**Comment 1-58:** The 197-a Plan proposes rezoning the area west of Twelfth Avenue to a low density, light manufacturing district that permits a wide range of small high performance manufacturing and related retail uses, such as specialty food manufacturers, brew pubs, art studios, set designers, printers, and photographers, interspersed with restaurants and cafes. The 197-c plan would allow a range of retail and service uses that would be likely to replace industrial production and sales uses. We support the 197-a plan recommendations for Subdistrict B (the area west of Twelfth Avenue) because the zoning would better protect those manufacturing uses that remain, increase the likelihood of adding new, high-performing manufacturing uses, and effectively support the existing character and economy of the neighborhood. We further suggest that an

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incentive for manufacturing uses be included in the zoning for the area east of Twelfth Avenue. (MAS-Kersavage)

**Response 1-58:** As noted in Chapter 29, “Modifications to the Proposed Actions,” CPC is considering adopting a zoning plan for Subdistrict B that more closely reflects the recommendations in the proposed 197-a Plan.

**Comment 1-59:** Columbia’s 197-c plan should, at a minimum, contain zoning provisions that create housing opportunities for low-income residents within Community District 9. CPC should scale down the bulk of Columbia’s project and make the University earn it back as a density bonus in return for low-income housing funded off-site in Community District 9. CPC should consider an inclusionary housing component for the proposed zoning proposal. Columbia would not necessarily have to construct affordable housing on its own, but could instead partner with the local non-profit housing development organizations and an intermediary which can help leverage the University’s funding. Alternatively, Columbia could donate land and resources to a non-profit housing development corporation or other community-controlled non-profit entity for affordable housing. (Press)

**Response 1-59:** The purpose of the inclusionary housing provisions of the New York City Zoning Resolution is to permit an increase in the floor area of residential development in exchange for the provision of below-market-rate housing for low-, moderate, and middle-income households. Inclusionary housing provisions only apply to residential developments, not other uses. Columbia University’s proposal includes University housing buildings, a community facility use, and the City’s inclusionary housing program would not apply to the Proposed Actions.

The socioeconomic conditions analysis in Chapter 4 of the EIS concluded that the Proposed Actions would result in a significant adverse indirect residential displacement impact by the 2030 analysis year. Columbia University has committed to measures to partially mitigate this impact. These mitigation measures are presented in Chapter 23, “Mitigation,” of the FEIS.

**Comment 1-60:** Columbia should also be required to build on-campus housing for its faculty and students to avoid community displacement. We ask CPC to modify the rezoning resolution to mandate that Columbia devote Sites 7 and 12 within the Project Area to on-campus University housing to offset demand in the local housing market brought by the influx of new students and faculty. (Press)

**Response 1-60:** With regard to on-campus housing, the EIS considers a worst case, in which Columbia would build a minimum amount of faculty and graduate student housing in the Project Area. The Illustrative Plan, which represents Columbia's current intentions, contains more housing than the amount considered for the assessment of socioeconomic impacts. As presented in Chapter 23, "Mitigation," Columbia is committing to develop the amount of University housing contained in the Illustrative Plan. Columbia is also committing to build new housing for graduate students in Manhattan outside of the Project Area and the study area, to allocate University-owned apartments for faculty of the Manhattanville campus existing units as they become available, and to institute a mortgage subsidy program for faculty wishing to live outside the study area.

*GENERAL COMMENTS*

**Comment 1-61:** CB9 opposes Columbia's proposed rezoning action and Academic Mixed-Use Development Plan unless Columbia agrees to 10 conditions requiring adherence to the 197-a land use plan, as outlined in Manhattan Community Board 9's ULURP Report and Recommendations, August 27, 2007.

*(For additional comments on the 197-a Plan, see Section Appendix Q.2: "Comments on the 197-a Plan.")*

**Response 1-61:** Comment noted.

**Comment 1-62:** Columbia University's Proposed Actions would result in the wholesale clearance of Manhattanville, in contrast to the preservation of uses in CB9's 197-a Plan. It will have significant and adverse impacts on land uses, zoning, urban design, visual resources, and neighborhood character. The DEIS failed to disclose these impacts. (CB9, Shiffman)

**Response 1-62:** As noted above, the Proposed Actions would redevelop Subdistrict A of the proposed rezoning area almost entirely with new structures. This does not amount to "the wholesale clearance of Manhattanville," which is a larger area, extending generally between West 122nd Street to West 135th Street, the Hudson River and St. Nicholas Avenue. The DEIS discloses that, within Subdistrict A, while the change in land use, zoning, urban design, visual resources, and neighborhood character would be significant, that effect would not be adverse. The revised 197-a Plan Alternative in the FEIS, in either of its scenarios, but particularly the one with relaxed restrictions, would also result in the development of virtually all this area. Thus, preservation under the 197-a Plan would be relatively limited.

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**Comment 1-63:** Columbia University's expansion plan is equivalent to Robert Moses' proposed redevelopment of the West Village in 1961. Still, how eerily CPC's dismissal of Greenwich Village resounds from the recent past. It was, they said, "a predominantly non-residential area characterized by blight and suitable for clearance..." Now, Columbia maintains the same sort of reasoning about Manhattanville. Their assessment of this historic industrial district uptown is about as accurate as CPC's was for the Village's bohemian enclave. (Adams)

**Response 1-63:** The goal of the Proposed Actions is not clearance. Rather, the primary goal for Subdistrict A is to provide an opportunity for Columbia University to plan for its future and to expand over the long term to create a graduate campus with state-of-the-art academic research facilities, without its having to make ad hoc acquisitions of property throughout the neighborhoods of northern Manhattan. Several chapters of the EIS have documented that the Project Area is predominantly non-residential in character. Major elements of its historic fabric would be respected under the Proposed Actions, including the viaducts and the Nash and Studebaker buildings. The loss of the Sheffield Farms Stable building is identified as a significant adverse impact on historic resources (see Chapter 8, "Historic Resources.") As described in Chapter 10, "Neighborhood Character," the Proposed Actions would almost entirely replace existing development and would have a significant, but not adverse, impact on neighborhood character.

**Comment 1-64:** Dinosaur Bar-B-Que and Madame Alexander Doll didn't move here without anticipating how rezoning could enhance West Harlem. Nor has such potential been lost on the owners of long-established local concerns like Tuck-It-Away or Hudson Fine Art. Confrontation with a project like Columbia's expansion raises concerns about the very viability of New York's future as a bastion of democracy and diversity's epicenter. (Adams)

**Response 1-64:** Comment noted.

**Comment 1-65:** In the case of expansion, Columbia's track record gives great cause for concern, for example, the Audubon Biotech Center at 168th Street and Broadway. When it was proposed in the early 1990s, it was no less controversial than Manhattanville is today. Columbia promised jobs and internships and union memberships and scholarships. A decade and a half later, they've fallen short in delivering on almost all of those promises. That's because there was no contractual obligation. Columbia cannot be trusted if there are not contractual enforcement mechanisms in place. (M. Levine)

**Response 1-65:** As noted in the DEIS and FEIS, Columbia’s commitments to a range of improvements and mitigation measures will be included in a Restrictive Declaration on its properties as part of the rezoning. In addition, Columbia and the West Harlem Local Development Corporation are currently negotiating a community benefits agreement, independent of this EIS. Columbia advises that it has agreed that the community benefits agreement should be structured to be binding and enforceable.

**Comment 1-66:** The EIS’s illustrations and graphs do not present an adequate physical model of how the buildings will look and feel if built to their maximum permissible heights and bulk. The EIS has not shown how the proposed buildings will affect those living close to the development in the Manhattanville Houses, 3333 Broadway, and the residential buildings on Tiemann Place, and how they will look and feel to anyone else who passes by them while walking on the street or looking up at them from the subway platforms and other vantage points. The best way for the public and governmental agencies to understand the differences between what is there now and what could be, would be in a physical model which compares them side by side. The EIS should have presented such physical models. (CTPC)

**Response 1-66:** The bulk diagrams presented in Chapter 1 show the maximum heights and bulks for buildings to be constructed under the Proposed Actions. The renderings shown in Chapter 1 are more specific and depict the Illustrative Plan, which represents Columbia’s current approach to the campus design. In addition, the illustrations in Chapter 9 include renderings of how proposed buildings would appear from public view points, such as sidewalks and streets.

The analyses in Chapter 9 of the DEIS and FEIS consider the potential impacts on public views as required under CEQR; CEQR impact analysis does not consider effects on views that are not publicly accessible.

**Comment 1-67:** It doesn’t matter whether the Borough President of Manhattan or CPC thinks that Columbia University’s 197-c Plan is good for the community. To the extent that any approval by CPC of such plan is necessary to have such plan enacted, and such approval or enactment impairs the obligation of any agreement the City has with TIL tenants in West Harlem or any agreement, such approval or enactment is repugnant to the Constitution. (Tajiddin)

**Response 1-67:** As discussed above, any relocation of TIL tenants would be pursuant to an agreement with the tenants’ association. See Response to Comment 1-22

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**Comment 1-68:** Columbia must engage in good faith negotiations with CB9 to achieve a mutually beneficial land use compromise that would permit the construction of academic facilities needed by Columbia on properties owned by the University, through technical amendments to the 197-a Plan, in a manner that is consistent with the underlying principles and goals of the 197-a Plan. (CB9-1, Lewton)

**Response 1-68:** Comment noted.

**Comment 1-69:** The retail spaces that can come about in West Harlem are something that we can get in equal time as Columbia's vague plan offers. CB9's plan limits the height and scale of new development to fit in with the existing neighborhood, including limiting retail space to no more than 10,000 square feet, to discourage big box stores like Wal-Mart. CB9's 197-a Plan would entice any moderate developer that would seize such an opportunity. Columbia's plan calls for super-sizing everything. (Tajiddin)

**Response 1-69:** The proposed zoning for Subdistricts A, C, and the Other Area east of Broadway, which are coterminous with the 197-a Plan Subdistrict 2, contains specific requirements for retail space. Big-box retail space is not allowed in Subdistrict A or the Other Area; department stores could occupy as much as 20,000 sf in Subdistrict A, but that would be the maximum for any retail use—the maximum for other retail uses would be 10,000 sf or less. The 197-a Plan Alternative 2 would allow community facility use on the ground floor in Subdistrict 2 and does not appear to require that any retail use occupy the ground floor of buildings on properties owned or controlled by Columbia University.

Subdistrict 1 of the 197-a Plan, which overlaps with Subdistrict B of the Proposed Actions, would limit the size of some types of retail establishments to less than 10,000 sf. Subdistrict B of the Special Manhattanville Mixed-Use Zoning District as originally proposed and analyzed in the DEIS would have permitted a number of retail uses greater than 10,000 sf. However, CPC is contemplating certain modifications to Subdistrict B to rezone the area to an underlying M1-2 district. These modifications would include a 10,000 sf limitation on some types of retail establishments, except for food stores. Chapter 29, "Modifications to the Proposed Actions," describes these proposed changes to Subdistrict B.

## **CHAPTER 2: PROCEDURAL AND ANALYTICAL FRAMEWORK**

**Comment 2-1:** The suggested time period of time for examining the impact of Columbia's plan should have been well beyond 2030, to 2055, because

the effects of the plan on the community will continue to have ramifications long after the full build completion date is met (CTPC).

**Response 2-1:** The DEIS emphasizes that the year 2030 analysis assumes full occupancy and “maturation” of the Proposed Project, and in this way addresses the longer term impacts of the project, without engaging in speculation over conditions in the distant future.

**Comment 2-2:** Columbia has picked two “Build” years, 2015 and 2030, as benchmarks for its proposed development, but the details of what will be built and when are not provided in the EIS. There are many projects going on in the City inside and outside the study area which could have a significant impact on many areas of the study. (CTPC)

**Response 2-2:** In considering the impacts of a proposed action with a long time frame, the *CEQR Technical Manual* suggests selecting an interim year along with full build out. In addition, the DEIS and FEIS consider worst-case timing of construction, to assess peak construction impacts. All of this analysis has been undertaken considering the impacts of the Proposed Actions added to future conditions in the future without the Proposed Actions. These conditions include any relevant projects or proposals that would be complete at the time of full build-out, interim build year, and the construction peak analysis times.

**Comment 2-3:** The NOC for the DEIS was premature, given the large number of outstanding issues that may significantly affect the overall form of the Columbia University campus to be developed in Subdistrict A. There are a multitude of approval processes required in addition to City environmental review on which this development is dependent. If Columbia is unable to secure these required approvals, the overall campus project could be significantly affected, to the point that many of the assumptions contained in this DEIS document are not valid. (Stern)

**Response 2-3:** As discussed in the FEIS, additional controls on development, beyond those under the proposed zoning, will be included in ESDC’s GPP for Subdistrict A. These controls include limits on land use for each site and overall maximum and minimum floor areas that could be built for each component land use. ESDC action is also necessary to acquire land beneath West 129th, West 130th and West 131st Streets, and possibly certain private properties above grade. The FEIS serves as the environmental review of the GPP, and it would not be consistent with environmental law or regulation for the GPP to be approved in advance of FEIS completion. Over a longer term, the relocation of the MTA Manhattanville Bus Depot and the Con Edison facility, needed for Phase 2 of the Proposed Actions, would be subject to individual State

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review processes. As discussed in the FEIS, if the bus depot remains on its site, the block between Broadway and Twelfth Avenue, West 132nd and West 133rd Streets would not be developed. Columbia would not meet its long term expansion goals at the Manhattanville campus, but the impacts of the smaller campus would be equal to or less than those of the Proposed Actions.

**Comment 2-4:** Deferring analysis of the engineering costs and the environmental impacts to a later date violates the intent and spirit of the environmental impact analysis, which should be a planning and decision-making tool, and points to inadequacies in the *CEQR Technical Manual*. (Shiffman)

**Response 2-4:** There has been no deferral of the analysis of environmental impacts, as this FEIS demonstrates. Economic impacts and costs not included in the impact assessments per CEQR and the *CEQR Technical Manual*.

**Comment 2-5:** In the age of global warming, and within the context of a post 9/11 political environment, the fact that the New York City and New York State Offices of Emergency Management are not included as agencies that review environmental impact analyses is an omission that must be corrected immediately. (Shiffman) The lack of planning for terrorist challenges in locating a safety level 3 biohazard laboratory in Manhattan should doom this frightening concept. (J. Kraus) We are facing a biotech business park and labs which could be considered prime terror subjects. We submitted at scoping a 45-page document asking Columbia to take a look at really significant impacts. Those were not dealt with in the DEIS. (DeMott) According to tests the Department of Defense conducted on what would happen if a biochemical facility were subjected to sabotage or terrorist attack, the biological and chemical poisons would be spread all over the neighborhood by the wind. The neighborhood means not just upper but all of Manhattan, depending on weather conditions. Is the Community Board aware of this? It should ask Columbia what it has to say about them. (Griffiths)

**Response 2-5:** In accordance with SEQRA, the FEIS focuses on the impacts of the potential reasonable worst case from construction and operation of the Proposed Project. Emergency scenarios such as large-scale terrorist attacks are not considered a reasonable worst-case scenario and are therefore outside the scope of the FEIS. Columbia has met and consulted with the New York City Police and Fire Departments (NYPD, FDNY) and other relevant agencies regarding overall project public safety and security measures. Such agencies—including the New York City and New York State Offices of Emergency Management—are, however, not involved agencies for purposes of SEQRA review.

With regard to global warming effects, as noted in Response to Comment 1-36, probabilistic analyses will be undertaken by a flood risk management specialist to establish the project's design flood levels. These analyses will take into consideration rising sea levels and the potential future change to the 100-year and 500-year flood levels. The Golder Associates memorandum (see Appendix K.5) advises that these analyses would ensure that the appropriate design water levels are incorporated into the project's foundation designs to prevent flooding.

**Comment 2-6:** Through a lot of tortuous effort, the local community board came to a fairly unanimous agreement in support of their plan and in opposition to Columbia's plan. If we don't recognize those community processes that are often very torturous and very divisive, but in this case have been uniting, then we are doing a disservice to our local community boards to a landmark about community participation in our democracy. This includes the concerns that are being raised by the local development corporation that is in the process of developing a community benefits agreement. We should not undermine that agreement by jumping the gun in terms of negotiations and decisions that are not necessarily a part of that community benefits agreement process. So rather than undermine those processes, I would urge the Commission in its deliberations to make sure that all those issues that the community has put on the table, that are legitimate concerns, be part of your ultimate decision-making process and that they be included in that process. (Perkins)

**Response 2-6:** CPC will base its decision on a review of the ULURP application, the recommendations of CB9 and the Borough President, the FEIS and public comments received at the October 3, 2007 public hearing, and during the comment period ending October 15, 2007.

**Comment 2-7:** The applicant is asking the City to give it all of the land in the area under all of the streets and sidewalks for free. It is not clear if the City has the legal right to do this, and in the second place, why should it be free? This is not truly a non-profit effort. This is an effort to increase the income of the applicant. (South-CB9)

**Response 2-7:** While the business terms related to acquisition of the below-grade space are not a subject considered under CEQR, the City will require Columbia to pay fair market value in consideration of its proposed use of below-grade volumes under City streets.

**Comment 2-8:** Extreme care should be taken in how a community benefits agreement is used. While it is a valuable tool for mitigating the negative impacts of

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development once a land use and zoning plan have been agreed to, and while it is a useful tool to implement the non-land use recommendations desired, it should not become a prerequisite for approval of rezoning, land use, or development plans. Use of a community benefits agreement to negotiate land use actions compromises the integrity of the land use review and approval process, undermines CPC's role, and constitutes zoning and planning for sale. (Shiffman)

**Response 2-8:** The community benefits agreement currently under discussion between Columbia and the West Harlem LDC is not a prerequisite for approval of the Columbia ULURP application. The elements relevant to CPC's consideration of the land use impacts and implications are set forth in Response to Comment 2-6.

**Comment 2-9:** An earlier start date for the existing conditions baseline should have been in effect. It should have started in 1990 and continue to the present. The EIS should also consider the repercussions of the development in the year 2050. (CTPC)

**Response 2-9:** In accordance with the *CEQR Technical Manual*, existing conditions were examined in the EIS for the year 2005. However, the EIS does contain a review of conditions and trends preceding the existing condition year, with particular focus on the years between 2000 and 2005 (see Appendix C).

**Comment 2-10:** A question about condemnation is whether it is appropriate to use ESDC to effect condemnation or if the City is the appropriate entity for this responsibility. It is also a question of appropriate process, because use of the City's condemnation process will invoke a more careful and public consideration prescribed under ULURP. Condemnation by ESDC sidesteps ULURP. If ULURP is inappropriately sidestepped, the negative impact is likely to create an eventual backlash in which ESDC would be stripped of its condemnation powers. If involved, ESDC can also simply override any of the City's zoning as well. (M. White)

**Response 2-10:** Because the Proposed Actions include a major rezoning, the application is in the ULURP process and subject to the public participation requirements of that process and of CEQR. In addition, ESDC has a public process for review of its draft GPP with regards to the project and also a separate public process for eminent domain. The FEIS considers several alternatives which would not involve use of eminent domain or would limit its use to publicly owned property.

**Comment 2-11:** A generic statement used throughout the DEIS is "reasonable worst-case development scenario." Worst-case scenarios are not reasonable;

they are simply worst-case, which is not acceptable or reasonable. Thus, it appears that cases selected for analysis may in fact have been cherry-picked rather than addressing real worst-case scenarios noted in my previous comments. (Alexander, Bonvell)

**Response 2-11:** Although worst-case scenarios are hypothetical, they help to frame the boundaries of the impact analyses. The development scenario for Subdistrict A of the proposed rezoning (the Academic Mixed-Use Development Area) contains minimums and maximums for each proposed use. The scenario examined in each technical study selected whichever approach (minimum or maximum) would create a greater adverse impact.

### CHAPTER 3: LAND USE, ZONING, AND PUBLIC POLICY

**Comment 3-1:** Any rezoning permitted in Manhattanville should be entirely consistent with the City Council’s recent rezoning plan for the Upper West Side. (Sherwood)

**Response 3-1:** The recently approved Upper West Side rezoning covers an area from West 96th to West 110th Streets, from Riverside Drive to Central Park. This rezoning addresses the need for contextual development along Broadway and in the midblocks throughout the area. Zoning designations such as R9X and R8B are included. The area for this rezoning is well south of the project study area, and is addressed to different goals and purposes.

**Comment 3-2:** Under special use provisions of the proposed Special District, the Special Permit for commercial research would be eliminated. This provision should not be eliminated for this project only—if the requirement is still relevant Citywide, an exemption should not be granted here. If this requirement is out-of-date, then it should be addressed universally. (Stern) The C6-1 district requires that a Special Permit be obtained from City Planning to operate commercial research. Under the proposed Special District, the requirement to secure the Special Permit would be eliminated. This process should not be circumvented. (CTPC)

**Response 3-2:** The Proposed Actions include a Special Purpose District, to address issues in this particular Project Area. Subdistrict A of the Special Purpose District is intended primarily for community facility use, including academic scientific research, and not for commercial scientific research. The elimination of the Special Permit allowing for commercial research in the Special Manhattanville Mixed-Use District reflects this purpose. However, the City’s overall policy is to encourage

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scientific research—both academic and commercial—in appropriate locations. There is no proposal to eliminate the Special Permit Citywide.

**Comment 3-3:** The language in the DEIS grants a large level of discretion to CPC regarding approval of future applications related to transfers. The subjectivity of the criteria contained in the language could be used to justify almost anything, potentially circumventing further public review to change the rules being proposed now. (Stern)

**Response 3-3:** As described in the EIS, provisions of the Special District would allow for three types of floor area transfers within Subdistrict A; all would be subject to the maximum floor area permitted overall. Those transfers to be made from three open spaces delineated in the proposed Special District would be “as-of-right” by notice and would require certification by the Chair of the CPC that the open space will be built to the specifications in the zoning. All other transfers of floor area that would stay within the design “envelopes” set forth in the zoning’s height, setback, and streetwall regulations for each site would be subject to both CPC Authorization and CEQR review. If the transfer would create a building that did not conform to the design regulations in the zoning, a CPC Special Permit subject to both ULURP and CEQR review would be required.

Appendix A.2 of the EIS provides a conceptual analysis that considers generically how use of the transfer by authorization or special permit could affect development options, and whether their use could result in significant adverse impacts. As stated in the EIS, this conceptual analysis is not intended to serve as the CEQR review for future Authorizations or Special Permit applications

**Comment 3-4:** Columbia is providing misinformation when it alleges compatibility with the West Harlem Master Plan (WHMP) and the 125th Street piers. The building blocks for development, like supporting current manufacturing businesses and retaining current jobs in the area and keeping the scale of the buildings low, are not consistent with Columbia’s plan. The WHMP calls for mid-rise medium density infill development, whereas Columbia’s plan calls for high-density, taller buildings and demolition of existing buildings. (CTPC)

**Response 3-4:** The DEIS and FEIS are clear that while the Proposed Actions would be compatible with some aspects of the WHMP, it would not be compatible with others, particularly with regard to full diversity of land uses and scale of development (see Chapter 3, “Land Use, Zoning, and Public Policy”).

**Comment 3-5:** The Upper Manhattan Empowerment Zone (UMEZ) has jurisdiction on most of the Project Area. It is supposed to provide businesses with financial help if they “directly benefit the local community... and can ensure accountability.” The EIS does not specify how “benefit” and “accountability,” will be defined. The current businesses of great importance to the community will most likely contradict those which the University is likely to propose. How will UMEZ and Columbia be involved in providing help to businesses, and who will get it? These are not properly outlined in the EIS. (CTPC, Ruiz)

**Response 3-5:** In accordance with the *CEQR Technical Manual*, the purpose of the public policy analysis is to examine whether a proposed action would create a land use that would conflict with public policies and plans for the site or the surrounding area. As discussed in Chapter 3, “Land Use, Zoning and Public Policy,” the UMEZ uses public funds and tax incentives to encourage private investments in Upper Manhattan. UMEZ provides a range of loans to small businesses. The Proposed Actions would not negatively impact the ability of the UMEZ to provide these loans or other programs. In addition, the smaller commercial uses projected in Subdistrict B could benefit for UMEZ loans, to the extent they qualify.

## CHAPTER 4: SOCIOECONOMIC CONDITIONS

### GENERAL COMMENTS

**Comment 4-1:** The DEIS’s study area is defined far too narrowly. The secondary study area only encompasses an area half a mile from the expansion site, yet one need only look to Columbia’s Morningside campus to see just how far students and faculty radiate into the surrounding parts of the City. The University’s affiliates have settled as far south as 96th Street and as far east as Frederick Douglass Boulevard across Morningside Park. Considering that a new Manhattanville campus would create a continuous University district between West 110th Street and West 168th Street, the limited study area examined in the DEIS hardly paints a complete picture of the expansion’s impact on West Harlem. (Press, Stanislas, CTPC)

**Response 4-1:** A study area is defined as the area most likely to be affected by the Proposed Actions. Following the guidelines of the *CEQR Technical Manual*, the socioeconomic study areas mirror the roughly ¼- and ½-mile land use primary and secondary study areas, although the secondary study area has been extended southward to include the Morningside Heights campus. Beyond approximately a ½-mile radius from the Project Area, other influences would be greater than those of

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the Proposed Actions in creating residential and commercial pressures for indirect displacement.

**Comment 4-2:** The EIS ignores the community's socioeconomic characteristics and focuses only on the physical aspects of the project area which would be demolished during the proposed expansion. Strong social bonds develop within neighborhoods as a result of people living and working together over many years. Displacement breaks these bonds irreparably by forcing residents to relocate. The EIS did not examine this socioeconomic component of the displacement process in depth. (CTPC) People are angry in terms of the mixed messages that are being sent; their housing and their livelihoods are in jeopardy. (Gholson) Columbia's plan will destroy families and people like us. It is not going to reflect the reality of the people who live here. (Anonymous, D. Hernandez, F. Hernandez, Martin, Selessie, Tejada, Ventura, Wirth)

**Response 4-2:** The analyses in Chapter 4 consider the indirect (secondary) effects of direct displacement; e.g., the indirect residential displacement analysis considers whether the Proposed Actions would directly displace enough of one or more components of the population to alter the socioeconomic composition of the area. The DEIS concludes that the direct residential displacement would not be enough to alter socioeconomic conditions in the study area, but that pressures from the project itself would be enough to cause significant adverse indirect residential displacement. The direct business displacement analysis considers whether any of the displaced businesses define or contribute substantially to a defining element of neighborhood character; the analysis finds that economic sectors with the highest employment in the study areas (those which define the character of the area in an economic sense) are not, in large part, based in the Project Area, and, therefore, the loss of displaced businesses and institutions due to the Proposed Actions would not substantially alter neighborhood character in the study areas. While the Proposed Actions would likely displace many local jobs, the availability of local jobs is expected to be maintained by project-generated employment opportunities, many of which would require comparable education levels as the jobs that would be displaced. Finally, the indirect business displacement analysis considers whether the Proposed Actions would directly displace uses, residents, workers, or visitors that support businesses in the study areas or bring people to the area that form a customer base for local businesses. That analysis finds that many of the businesses subject to displacement are construction, wholesale, automotive repair, and moving and storage firms, which do not typically draw large volumes of customers to their locations. Although retail, office, and neighborhood services businesses would also be displaced,

their customer base(s) are not such that their displacement would negatively affect other local businesses, and the uses contemplated for the Project Area with the Proposed Actions would create an even larger customer base of students, employees, and visitors for existing area businesses.

**Comment 4-3:** The EIS does not include data on how many households will be displaced, directly and indirectly, in the next 50 years and instead specifies 2030 as the furthest projection date. A 50-year period should be used because estimates of displacement must project approximately one generation (i.e., 25 years) past the completion of the development (2030). (CTPC)

**Response 4-3:** Although 2030 is the analysis year, the study examines indirect displacement impacts once the Proposed Project is completed and is not actually limited to an exact moment in time. Therefore, any significant adverse impacts identified would be those associated with a completed development.

**Comment 4-4:** I'm fearful that Columbia's 197-c Plan would cause primary and secondary displacement of long-standing residents. Until a year ago I lived in a building on 125th Street with 22 family-occupied apartments. These apartments are now being occupied by students for one or two years, so by the time you learn their names, they're moving out. I'm not against change, but change should respect the composition of this community. (Arrendell)

**Response 4-4:** Comment noted. As detailed in Chapter 4, Columbia is working to fund the development of new, permanent, affordable replacement housing for tenants directly displaced from the Project Area, and it is anticipated that all residents in the Project Area would be relocated to new housing within the study areas. With respect to secondary (indirect) displacement, the secondary (indirect) residential displacement analysis found that by 2030 the Proposed Actions have the potential to result in significant adverse impacts due to socioeconomic changes within the primary study area. Chapter 23 details the measures Columbia is advancing to mitigate this significant adverse impact.

**Comment 4-5:** As stated in CB9's resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must immediately develop and carry out an effective housing anti-displacement program; commit not by itself or through any affiliate to purchase or lease or net lease any residential units in CB9 above 125th Street; and provide sufficient additional housing in area outside CB9 to

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house all of the students and employees expected to use the proposed campus. (CB9-1, Lewton)

**Response 4-5:**

As detailed in Chapter 23, Columbia would seek to mitigate the Proposed Actions' significant adverse indirect residential displacement impact through two primary means: develop or preserve affordable housing within CB9 via the administration of a \$20 million affordable housing fund; and reduce University-generated housing demand within the study areas through the provision of additional existing or new housing options outside of the study areas for the University-generated population. As described in Chapter 23, Columbia University has committed to developing a new University housing building for graduate students to accommodate demand of the Academic Mixed-Use Development Plan by the schools and programs. Also as described in Chapter 23, Columbia has committed to provide funding for anti-eviction/anti-harassment legal assistance for Manhattanville residents.

**Comment 4-6:**

On page 4, Item 6 of the EAS, it states existing No. of residents: 417 (based on 140 units with 2.33 average household size). No. of workers, 1,600. In the DEIS, those numbers were reduced from 417 to 291 and the workforce numbers from 1,600 to 800. This dramatic reduction should be more specifically explained in the EIS. It should be Columbia's responsibility to indicate how many residents they will be evicting and how many people they will be making unemployed, give an explanation of what has already happened as highlighted by the differences in the numbers in the EAS to the DEIS. (CTPC)

**Response 4-6:**

The numbers cited by the commenter reference different populations. The comment is incorrect in stating that the populations were reduced from the EAS to the DEIS. The EAS contained an estimate of the total number of residents (417 noted in the comment) employees (1,600 noted in the comment) in the entire Project Area, including Subdistricts A, B, C, and the Other Areas. As noted in the EAS, this employment number was based on employment survey for Subdistrict A and the following employment factors for Subdistricts B, C, and the Other Areas: 1/250 sf office, 1/400 sf retail, 1/450 sf community facility, and 1/1,000 sf industrial.

The 800 workforce number cited by the commenter relates only to those employees directly displaced by the Proposed Actions—which would only occur in Subdistrict B and the Other Area east of Broadway. The Proposed Actions would not result in direct business displacement in the remainder of the Project Area. Therefore, the 1,600 total employees cited in the EAS and the 800 employees directly displaced cited in the DEIS do not reference the same population. Similarly, the residential

population cited in the EAS is an estimate of all residents in the Project Area. The residential population cited by the commenter refers to the estimated population that would be directly displaced by the Proposed Actions. There are existing residential units in the Other Area east of Broadway that would not be displaced by the Proposed Actions. In addition, further research was conducted since the EAS to accurately estimate both the existing residential population and employment in the Project Area based on site visits, written and phone surveys, and various other data sources, as noted in Chapter 4.

*DIRECT RESIDENTIAL DISPLACEMENT*

**Comment 4-7:** Columbia must not interfere with the transfer of 132 units from HPD to the residents of those units as previously agreed to by the City. (CB9-1, Lewton)

**Response 4-7:** To clarify the number of HPD units cited in the comment, Subdistrict A of contains a total of 135 residential units, of which 38 are owned by HPD as part of the TIL program. As stated in Chapter 4, Columbia plans to provide new, permanent, affordable replacement housing for tenants currently residing in Project Area housing, including residents of HPD-owned units. The new housing units would be within or close to the study areas and would provide equal or better rental and home-ownership terms compared with the terms under tenants' current contracts.

**Comment 4-8:** The University will directly wipe out hundreds of residential units, introduce a high-income population that puts thousands of additional units at risk, and begin a gentrification wave the will threaten countless others. Columbia even admits this in its DEIS. As early as 2015, roughly 300 people will be directly turned out of homes in which they should have had an equity share through the TIL program. The University states that under CEQR, this level of displacement does not constitute a technically significant impact because it is too small to affect the socioeconomic profile of the study areas, and that change in the racial makeup of the population demographics does not in itself affect neighborhood character. Unfortunately, it will. The real number of people who will be displaced is likely much higher. Nearly 4,000 people will lose their homes; where will these people go after they have been turned out of their homes? (Cadore)

**Response 4-8:** The FEIS states that the Proposed Actions would directly displace 135 housing units and approximately 298 residents from the Project Area, including 27 households that are participating in HPD's TIL program.

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Columbia plans to provide new, permanent, affordable housing for directly displaced tenants, and it is anticipated that by 2030 all residents in the Project Area would be relocated to new housing within the study areas. With respect to secondary (indirect) displacement, the EIS identifies the population vulnerable to rent increases within the study areas, and finds that by 2030 the indirect displacement effects within the primary study area would be significant and adverse. Chapter 23 details the measures Columbia is advancing to mitigate this significant adverse impact.

**Comment 4-9:** Columbia’s plan goes too far; it will disperse a lot of the community residents. They do not want to incorporate the community that they are going to disperse into this large expansion. The rents now are phenomenal. Rents are affordable for Columbia and the surrounding neighborhood, and not affordable for the hard-working people who do not make that salary. (McKenzie)

**Response 4-9:** Comment noted.

**Comment 4-10:** Neither Columbia nor the City has acknowledged that [the 3289 Broadway Tenants Association] were promised specific benefits and ownership rights to that building under the TIL program. What is in fact happening is a coordinated effort by Columbia through the New York City Department of Housing Preservation and Development (HPD) to threaten the status of [those residents] within the TIL program. (Conlon) Instead of talking to tenants in the TIL buildings, Columbia talked to HPD and tried to get them to make a deal to get the people out. (Star)

**Response 4-10:** As stated in Chapter 4, Columbia has acquired control of a site (at West 148th Street and Broadway) to fund the development of new, permanent, affordable replacement housing for tenants directly displaced from 3289 Broadway. The 3289 Broadway tenants currently participating in the TIL program would have the same ownership opportunity for their newly constructed units. In addition, the replacement site would have 42 units, resulting in a net gain in affordable housing units compared with the number of TIL units that would be displaced from the Project Area.

**Comment 4-11:** In the EIS, Columbia should provide a relocation strategy for any residents and businesses facing eminent domain, including the details of its buy-out strategy, how it profiles the tenants (both in housing and in business) to determine that they must be removed, and how it decides what incentives will be used to remove them. Each residential building, like each commercial business, has a different market value. The EIS

should have assessed that value and indicated it in relative terms, comparing the residential buildings to each other and evaluating their value, and doing the same with businesses. (CTPC)

**Response 4-11:** Residents of the Project Area would not be displaced through eminent domain; the direct residential displacement analysis identifies Columbia's relocation strategy for residents currently living in the Project Area. The direct business displacement analysis describes the commercial relocation assistance that would be provided if a commercial property were to be acquired by ESDC through eminent domain. Identifying the market value of residential and commercial buildings is outside the scope of work and does not conform to *CEQR Technical Manual* methodology.

**Comment 4-12:** The EIS should include an analysis of precisely who will be displaced, evaluating such characteristics as race and ethnicity, age, number in household, number of dependents, years of education, primary language spoken in household, employment status and history, household income, etc. (CTPC)

**Response 4-12:** The analysis of direct residential displacement follows the methodology outlined in the *CEQR Technical Manual* in considering demographic factors appropriate for analysis. Under CEQR, direct displacement is not in and of itself a significant adverse impact. Rather, residential displacement may result in significant adverse impacts if the numbers and types of people being displaced would be enough to alter neighborhood character in the study areas and perhaps lead to indirect displacement of remaining residents. Population parameters that were considered included household size and income, and age. In response to public comments, the analysis also considered race and ethnicity. However, it is not the purpose of CEQR to address the identifying characteristics of persons in this population at the level of detail requested by the commenter. Further, development of the Proposed Project would take up to 25 years, and it is therefore not possible to predict these characteristics with precision far into the future.

**Comment 4-13:** The EIS should consider all households receiving Section 8 subsidies in imminent risk of displacement, given that landlords can opt out of the Section 8 program at any time and usually do so when the market rents in a neighborhood exceed the caps paid by the government. (CTPC)

**Response 4-13:** The analysis of indirect residential displacement in Chapter 4 conservatively assumed that all tenants in unregulated rental units—including those tenants receiving regular Section 8 vouchers—are vulnerable to indirect displacement. Residents of 3333 Broadway

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currently receiving Enhanced Section 8 vouchers are not considered vulnerable because those vouchers afford them full protection from rent increases for as long as they remain in their dwelling units and continue to be eligible for the program.

**Comment 4-14:** Columbia's plans for West Harlem are wrong because they include displacing families and others without them having anything to say about it. People's homes are an extension of themselves, and they do not appreciate having a part of themselves just ripped away. (Nicholson)

**Response 4-14:** Comment noted.

### *DIRECT BUSINESS AND INSTITUTIONAL DISPLACEMENT*

**Comment 4-15:** Columbia's 197-c proposal would directly displace 85 businesses and 880 workers, but the DEIS concludes that the impact from this displacement would not be significant. The DEIS that these displaced businesses and institutions were determined not to be of substantial economic value to the City or region as defined under CEQR, and would be able to relocate elsewhere in the City or the study area. This claim is unsupported. (CB9)

**Response 4-15:** The analysis of direct business and institutional displacement in Chapter 4 conforms to the Final Scope of Work and *CEQR Technical Manual* methodology in finding that the Proposed Actions would not result in significant adverse impacts due to direct business displacement. Support for the findings with respect to businesses' economic value and relocation opportunities are documented within the analysis.

**Comment 4-16:** Even though Columbia's 197-c proposal would displace the retail strip on Broadway and the manufacturing district on Amsterdam Avenue, and even though ownership throughout the rezoning area would in all probability shift from small individual owners to large, more affluent owners, the DEIS concludes that this is not a significant adverse impact. The 197-a Plan would leave these existing uses in place. (CB9)

**Response 4-16:** The analysis of indirect business displacement in Chapter 4 concludes that while some businesses within the areas referenced by the commenter could be indirectly displaced, their displacement would not constitute a significant adverse impact under CEQR. While the analysis of the 197-a Plan Alternative 1 finds that this alternative is more likely than the Proposed Actions to leave the retail strip on Broadway and the manufacturing district on Amsterdam Avenue relatively unchanged, there is still the potential for indirect business displacement pressures under this alternative.

**Comment 4-17:** Columbia was sincere and delivered in their commitment to find a proper new home for our business, which employs over 250 people, with the greatest of concern that not a job be lost and that jobs be created. (S. Kraus) Columbia has worked with our company to ensure that we stay rooted in the area and that our employees will continue to be able to work, live, and thrive in a beautiful atmosphere where they have union jobs and health insurance, and are a walk away from their children. (Palmer) Columbia has offered us a new place where can relocate our church and benefit with a larger sanctuary, a bigger place of worship, and a place where we can continue to work with the community hand-by-hand. (Mercado)

**Response 4-17:** Comment noted.

**Comment 4-18:** My building was bought by Columbia two years ago. Many provisions of the offered lease were unfavorable to me, and I was told to take it or leave it. By offering no more than a one-year lease, the school makes it clear that once it has received all of its required permits, it has no intention of providing current commercial tenants with any measure of security or peace of mind. The community benefits agreement they are putting together is the only bulwark against this inevitable eventuality. But unless they are compelled to be more reasonable through public pressure over their assertions that they deserve to exercise eminent domain, commercial tenants have no protection whatsoever. We have been carefully left out of public statements regarding future actions. What will prevent them from exercising their eviction rights to virtually all local businesses? (Stollman)

**Response 4-18:** The right to terminate leases through exercising eminent domain is not the subject of the EIS analysis. The EIS analyzes the potential for significant adverse impacts resulting from the loss of businesses in the Project Area, irrespective of the means by which that displacement ultimately would occur. With regard to Columbia's stated policy regarding lease negotiations, see Response to Comment 1-23.

**Comment 4-19:** Whether displaced businesses represent an "important economic value to the City" needs to be broadly interpreted. Instead of relying on wage level alone, the EIS must consider the importance of their functional role for the City's economy, including the general Citywide supply. (Shuffield)

**Response 4-19:** The EIS analysis of businesses' economic value does not rely on wage levels. Following *CEQR Technical Manual* guidelines, the consideration of businesses and institutions' economic value is based on: (1) its products and services; (2) its location needs, particularly whether those

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needs can be satisfied at other locations; and (3) the potential effects, on businesses or consumers, of losing the displaced business as a product or service. In adhering to these guidelines, the analysis in the EIS includes consideration of the businesses' functional role for the City's economy and the general Citywide supply.

**Comment 4-20:** The potential locations where displaced businesses could relocate need to be identified both to identify the cost of moving and to identify any impacts in other parts of the City. Any action that anticipates increasing such uses as auto repair, paint shops, and gas stations must be identified for its potential environmental justice effects. (Shuffield)

**Response 4-20:** As described in Chapter 4, existing businesses in Subdistrict A subject to direct displacement vary in type and size, and are not concentrated in any specific industry sector. Therefore, it is anticipated that these businesses would not be relocated in a concentrated area and would relocate separately to appropriately zoned locations.

**Comment 4-21:** The business displacement analysis should consider customer access to specific industries. Even if an affected industry may remain viable at a Citywide level, any changes in accessibility to customers in the study area, or at the borough level, needs to be studied. (Shuffield)

**Response 4-21:** The detailed analysis of direct business and institutional displacement in Chapter 4 assesses the displaced businesses' location needs, whether those needs can be satisfied at other locations, and the potential effects on remaining businesses or consumers of losing the displaced business as a product or service. The analysis finds that the products and services being displaced are not unique to the local area, Manhattan, or the City, and that customers would be able to find comparable products and services within a short distance from the Project Area, although in some cases customers' transportation costs may increase.

**Comment 4-22:** Artists with studio space in Columbia's expansion area have a lease which is about to expire. Arts are very important to New York City, not only culturally and as a quality of life, but as an economic issue. Artists can no longer be simply pushed out further and further. It is with great sadness that we are being pushed out of a neighborhood which has been really great to us. (Gayer-CB9, Hunter) We must not relegate artistic and cultural concerns to a back burner. (Wilson-CB9)

**Response 4-22:** Comment noted. With regard to Columbia's stated policy regarding lease negotiations, see Response to Comment 1-23.

*INDIRECT RESIDENTIAL DISPLACEMENT*

**Comment 4-23:** The severity of indirect displacement by Columbia’s proposal is underestimated in the DEIS because it does not consider residents displaced through “purchases of owner-occupied housing in the study area, and by turnover within the rent-regulated housing stock in the study area,” subsequent to Columbia’s announcement and its pressure on the housing market. (CB9)

**Response 4-23:** Residents who decide to sell their owner-occupied housing units, or who leave rent-regulated housing, do so voluntarily, and therefore, they are not the subject of CEQR displacement analyses, which is defined as indirect, *involuntary* displacement. The analysis of indirect residential displacement focuses on those tenants who are involuntarily displaced from their unregulated rental units because they cannot afford rent increases (Tenants of owner-occupied housing and rent-regulated housing are afforded protection from changes in market forces that can lead to increases in rent.)

**Comment 4-24:** The severity of indirect displacement by Columbia’s proposal is underestimated in the DEIS because the secondary study area used in the DEIS for socioeconomic impacts excluded the areas east of St. Nicholas Park and Morningside Park even though they were within the ½ mile secondary study area. The DEIS does not provide support for its presumption that the physical barriers separating these parks from the Manhattanville neighborhood will prevent indirect impacts due to the Columbia proposal. Without such demonstration, the CEQR requirement of the worst-case analysis mandates that these areas be included in the displacement analysis. Consequently, the DEIS arbitrarily reduced the total number of residents potentially displaced by the 197-c Plan, thus minimizing its true severity. (CB9)

**Response 4-24:** See Response to Comment 4-1. The land uses in the area referenced by the commenter are effectively separated from the Manhattanville neighborhood by a number of physical barriers, including the City College campus and St. Nicholas Park. The neighborhood east of the park is further isolated from the Project Area by a substantial change in grade. These conditions pose natural and man-made obstacles that would protect the neighborhoods east of St. Nicholas Park from significant adverse socioeconomic impacts, specifically indirect displacement pressures. In addition, tracts 221.02 and 217.02 are part of Community District 10 (Central Harlem), further demonstrating that their orientation is to a different neighborhood than Manhattanville, which is part of Community District 9.

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**Comment 4-25:** The severity of indirect displacement by Columbia’s proposal is underestimated in the DEIS because Columbia University rejected CB9’s proposal for a larger study area, including all neighborhoods encompassed and impacted by Columbia’s Morningside Heights, Washington Heights, and the proposed Manhattanville campuses, as well as City College. Rather, the DEIS study area for socioeconomic impacts was narrowly tailored to ¼ mile primary and ½ mile secondary study areas. Contrary to *CEQR Technical Manual* requirement that a DEIS analyze worst-case impacts, Columbia University’s approach artificially reduces the total number of residents potentially displaced due to the 197-c proposal. (CB9)

**Response 4-25:** See Response to Comment 4-1.

**Comment 4-26:** The amount of secondary displacement is understated in the DEIS. This community has many families barely making a living wage. That Columbia proposes creation of 6,000 new jobs at the expense of primary and secondary displacement of approximately as many people is just an attempt to ignore or spin into some rosy scenario to sell it. (Favant, Stanislas)

**Response 4-26:** The EIS analysis identifies the total population potentially vulnerable to indirect displacement within the primary study area (3,293 “at-risk” residents) and secondary study area (5,035 “at-risk” residents, including the 3,293 within the primary study area). It is impossible to quantify with specificity the number of at-risk residents who would be indirectly displaced as a result of the Proposed Actions. While it is expected that demand generated by the University-affiliated population would be less than 1,318 units within the primary study area, the analysis finds that there is the potential for the indirect residential displacement impact within the primary study area to be significant and adverse. Job creation under the Proposed Actions is not a factor that is considered in the indirect residential displacement analysis.

**Comment 4-27:** Projected rents must be defined as those affordable according to the income levels of current CB9 residents (the CB9 housing resolution outlining what are considered the standards for affordability—based on rent amounts determined by income levels and proportionate to the percentages—as attached to the 197-a Plan. (CTPC)

**Response 4-27:** The analysis of indirect residential displacement in Chapter 4 does not rely on projected rents; it conservatively assumes that *all* unregulated rental units in the study areas contain households vulnerable to displacement.

- Comment 4-28:** Households should be considered at risk of displacement if a rise in the cost of living due to neighborhood changes threatens their ability to pay their housing cost. The EIS set criteria only for people living below the poverty level; the analysis must apply those criteria to all residents. This analysis must also include an adjustment for the cost of living. When criteria for displacement are used, they must match historical patterns based on displacement following large-scale development and/or property acquisition in neighborhoods with similar racial and ethnic distributions, education, language skills, and employment history—such as the patterns of displacement following the expansion of Columbia and its property holdings in Morningside Heights and Washington Heights during the 1960s. (CTPC).
- Response 4-28:** The methodology used to project the population “at risk” of indirect displacement adheres to the Final Scope of Work and *CEQR Technical Manual*. The analysis conservatively assumes that *all* unregulated rental units in the study areas contain households at risk of displacement.
- Comment 4-29:** The DEIS ignores the reality that, in addition to faculty and students, nonaffiliated residents will move into Manhattanville when the expansion is complete and thereby compound the pressures on the local housing market. Columbia suggests that the arrival of over 3,000 students and faculty will only displace an equivalent number of residents. This number could potentially double or triple when one takes into account the flood of affluent arrivals who will want to live near the new campus. (Press)
- Response 4-29:** The indirect residential displacement analysis considers both the demand generated by the University populations and the demand created within the general population due to the increased overall residential appeal of the area.
- Comment 4-30:** Columbia’s plan would displace over 5,000 people. This will have a profound effect on the community’s sense of place and a negative impact on mental health. (Gabby, Ratner) The proposed displacement of 5,000 people is an abomination. No sound democracy can condone Columbia’s plan. (McKay)
- Response 4-30:** See Response to Comment 4-26. The EIS does not state that the Proposed Actions would displace over 5,000 people. It cites as an upper bound the number of study area residents who could potentially be displaced if their rents were to increase (there are 5,035 “at-risk” residents in both the primary and secondary study areas). While the analysis can not quantify with any specificity the number of residents that would be indirectly displaced, the analysis does find that within the

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primary study area, which houses an estimated 3,293 “at-risk” residents, the displacement could be significant and adverse. Chapter 23 details measures that Columbia is advancing to mitigate this identified significant adverse impact.

**Comment 4-31:** Columbia’s plan will not add any significant affordable housing to our community, while putting almost 5,000 units at risk in the surrounding neighborhood, according to the DEIS. Other independent housing experts believe the number of units at risk may actually be twice Columbia’s estimate. (Kooperkamp, DeMott, Mazzone, CTPC)

**Response 4-31:** As described in Chapter 4, the development of new, affordable replacement housing for directly displaced residents would be of an amount that would result in a net gain in affordable housing compared with the amount of housing directly displaced by the Proposed Actions. As detailed in Chapter 23, Columbia would establish a \$20 million affordable housing fund to facilitate the preservation and development of affordable housing within the study areas. See also Responses to Comments 4-26 and 4-30.

**Comment 4-32:** Columbia may claim it has overcome its task of displacing thousands of people from their homes, but its current plans are not only displacing residents in West Harlem, but profoundly altering the economics of all of Harlem, the largest African-American, poor, low-income and moderate income housing area in Manhattan. (Isaacs)

**Response 4-32:** The EIS analysis of socioeconomic conditions focused on ¼-mile and ½-mile study areas surrounding the Project Area, as those are the areas most likely to be affected by the Proposed Actions. The analysis did not identify the potential for significant adverse socioeconomic impacts beyond the ¼-mile study area. Beyond the ¼-mile study area, other market forces are likely to play a larger role in shaping development trends in the future with and without the Proposed Actions.

**Comment 4-33:** The DEIS claims that it has not prompted real estate speculation in Harlem because neither real estate purchasing nor rental prices have increased as a result of property owners and speculators learning of its plan to expand into West Harlem. The reality is that many owners of former affordable housing facilities, like the Riverside Park Community building at 3333 Broadway, have chosen to opt out of programs that have kept affordable housing available in West Harlem. Still others are holding on to property in the hopes that the value will increase while warehousing empty units, claiming to be “renovating” them. It is disingenuous for the University to claim that just because sales and

rental prices have not risen since it announced expansion plans that prices will not rise in the future, and that mass displacement will not take place. (Terrell)

**Response 4-33:**

Appendix C considers whether the former affordable housing development at 3333 Broadway “opted out” of the Mitchell-Lama program due to added real estate pressure generated by Columbia’s announcement. This analysis concludes that the substantial trend toward buying out of Mitchell-Lama programs in Manhattan, combined with the fact that Jerome Belson and Associates (the former property owner) took four other properties out of the program in 2005, demonstrates that there may have been a business justification to “buy out” 3333 Broadway, regardless of Columbia’s plans. The EIS does not conclude that sales and rental prices will not rise in the future, even though it finds that sales and rental prices have not risen since Columbia announced its expansion plans. The indirect displacement analyses in the EIS find that the Proposed Actions would have an impact on residential and commercial market conditions in the study areas, and that by 2030 there could be a significant adverse indirect residential displacement impact within the primary study area.

**Comment 4-34:**

Columbia has grossly overestimated the number of permanently affordable units in West Harlem. It presumes that in addition to housing, all enhanced section 8 and rent stabilized units will remain protected once the University completes its campus. This ignores the fact that even rent stabilized and rent subsidized tenants are not immune to the housing pressures brought about by gentrification. Often landlords will use intimidation or harassment to remove tenants in order to replace them with those able to pay market rate. Rent stabilization law allows landlords to jack up rents by passing renovation costs on to tenants, thereby crossing over the \$2000 threshold which removes rent protections. Similarly, landlords accepting enhanced section 8 vouchers in former Mitchell-Lama buildings have taken measures to drive out subsidized tenants, including, for example, enforcing unreasonably strict income reporting requirements to facilitate evictions, or disqualifying themselves from federal subsidy programs by allowing their buildings to deteriorate to the point where they fail to meet the U.S. Department of Housing and Development (HUD)’s housing quality standards. Over 1,200 units of enhanced section 8 housing are in danger of being lost this way in 3333 Broadway, located directly north of the proposed campus. Any proper analysis cannot fail to acknowledge the connection between Columbia’s imminent arrival and the underhanded means by which the landlord in 3333 is attempting to shed section 8 recipients. (Press)

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**Response 4-34:** The effects of possible illegal actions are not considered under CEQR. The indirect residential displacement analysis in Chapter 4 recognized that if fewer Riverside Park Community residents were protected from rent increases through federal Section 8 Enhanced Vouchers, that factor would lead to an increase in the at-risk population, and therefore, this influence was quantified in the analysis. In calculating the future at-risk population, the analysis assumed an “attrition rate” for federal Section 8 Enhanced Vouchers within the Riverside Park Community equal to the monthly attrition rate calculated from the time that the complex opted out of the Mitchell-Lama program (when 1,062 enhanced vouchers were used) to September 2006 (when 996 enhanced vouchers were used). By 2030, it was assumed that only 367 households in 3333 Broadway would be protected by federal Section 8 Enhanced Vouchers (compared with the 1,062 households that were utilizing federal Section 8 Enhanced Vouchers at the time the complex opted out of the Mitchell-Lama program).

**Comment 4-35:** In projecting the scale of secondary displacement that Columbia’s development would bring, the EIS should account for the fact that students place greater displacement pressures on local housing markets than most other populations. Every year a new group of students are brought in, and in the case of Columbia, these students are mostly from outside the area and mostly from upper income families, meaning that pressures on the housing market multiply annually. Additionally, students are used by landlords to undermine rent protections, as the rapid turnover of tenants in rent-stabilized apartment causes rent increase which help owners reach the cap to invoke the control clause, allowing them to deregulate apartments. (CTPC)

**Response 4-35:** Over the years that the Academic Mixed-Use area is being developed, the student population will rise gradually, increasing pressures on housing in the study area. The EIS estimates the impact at full development, with all of the graduate programs fully occupied. This would be the maximum time of impact. While it is true that new students would appear every year, it is also true that other students would receive their degrees and move away. In addition, the comment assumes that most of the students would be from upper income families, which is not necessarily the case. These would be graduate students, many of which would be able to attend their programs only with stipends, grants, scholarships or loans—that is to say, they would have limited budget for housing and other expenses.

**Comment 4-36:** The EIS should include a profile of how many regulated apartments Columbia currently has in its real estate portfolio, how many it has

deregulated during its ownership of all residential properties, and how many it expects to deregulate in the future. The EIS should also contain a survey of buildings surrounding the proposed expansion area to determine where buy-out offers are being made to tenants in regulated apartments. These are important statistics to help define displacement. (CTPC)

**Response 4-36:** Appendix C identifies acquisitions by Columbia University in the Project Area and the study areas since 2000 and discusses the potential for these acquisitions to have resulted in displacement. Appendix C also describes Columbia's management of the property it has purchased in the Academic Mixed-Use Area. Columbia's management of property in the vicinity of its other campuses was not considered as part of the EIS, which is intended to provide an analysis of the potential impacts of the Proposed Actions in the Project Area and study areas.

**Comment 4-37:** The DEIS grossly undercounts the number of students and faculty who will live near the proposed campus by assuming that more than three-quarters of the University population will live far from campus. The number of incoming University affiliates will almost certainly comprise more than five percent of the study area population once the campus is complete, the threshold at which CEQR requires mitigation. (Press)

**Response 4-37:** As described in Chapter 4 and further detailed in Appendix B.1, University-generated housing demand projections were based on residential patterns for current faculty, administrators, post-doctoral, and other graduate students who live in non-University properties within ¼ mile and ½ mile of the Morningside Heights and Columbia University Medical Center (CUMC) campuses. Because the EIS does not assume that the University would provide housing to graduate students, faculty, and other employees within the study areas (apart from the units provided in the Project Area by 2030), it was also necessary to account for the possibility that University populations currently provided University housing may have a higher propensity to locate within ¼ mile or ½ mile of their respective campuses compared with those who are not provided University housing. Applying a highly conservative assumption, further analysis was performed to model demand assuming that half of all current employees in University housing would choose to remain within ¼ or ½ mile of their respective campuses, even if University housing were not provided to them. The results of this more conservative analysis were then applied to the population of employees and students expected to be generated by the Proposed Actions under the socioeconomic reasonable worst-case development scenario (which, when compared with the Illustrative

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Program, maximized demand within the study areas by minimizing the amount of University housing within the Project Area).

**Comment 4-38:** The DEIS underestimates displacement by undercounting the number of “at risk” residents in the study area. CEQR allows Columbia in its DEIS to define “at risk” units as those that could not potentially be rent-protected. This means that only apartments in buildings with fewer than six units, or built after 1974 (i.e., not eligible for rent protection), are deemed potentially “at risk.” All other units are considered immune to market pressures that can lead to displacement. This immunity is not a reality for many residents in these units. The arrival of a new campus would exacerbate the trend away from regulation and place thousands more residents in jeopardy of being priced out. (Press)

**Response 4-38:** As described in Chapter 4, study area tenants occupying apartments that become deregulated would not be considered a population at risk of displacement, because one of the requirements for deregulation is that the tenants’ household annual incomes exceed \$175,000, and such tenants could presumably afford increases in rent. Tenants occupying vacated apartments that become deregulated because they rent for more than \$2,000 per month also would not be considered at risk, because the household income necessary to afford such a rent would be above the average household income for all renters in Manhattan (\$65,848). This means that existing tenants would not be priced out. However, greater demand and more affluent potential tenants means that over time, the stock of available affordable housing would decrease.

**Comment 4-39:** The DEIS should take into consideration the effect of the proposed campus, including displacement which has already resulted from advanced market speculation, beyond the Citywide increase in housing prices. The DEIS fails to recognize that Columbia’s expansion will displace residents and instead attributes rising rents to general market forces. Gentrification is taking place all over Northern Manhattan, but the steady increase in affluent residents over several years does not compare with the sudden introduction of 10,000 affluent University faculty and students. (Press)

**Response 4-39:** Appendix C considered—and found no evidence to suggest—that Columbia’s announcement has already resulted in increases in residential sales and median rents in the surrounding neighborhoods, leading to indirect residential displacement. The EIS recognizes that Columbia’s expansion would displace residents due to higher residential demand generated by the Proposed Actions; this effect was identified as a significant adverse impact within the primary study area by 2030.

**Comment 4-40:** Gentrification will be an issue at the University site whether the University's own plan or the community board's plan is pursued. The real story is not the way in which prices will rise during gentrification, but the way in which Columbia wishes to insulate itself from those rising prices through condemnation. Without condemnation, Columbia's growth and acquisition would create a rising tide of real estate values in which many in the neighborhood could participate. Conversely, the tools of condemnation and the threat of it serve to suppress and keep neighborhood prices low. Columbia ultimately acquires at a lower price at the expense of community residents. (M. White)

**Response 4-40:** The process of eminent domain governed by the Eminent Domain Procedure Law (EDPL) requires that displaced owners be given market prices for their properties.

*ECONOMIC BENEFITS*

**Comment 4-41:** Columbia is not subject to property or income taxes because it is a non-profit organization. At the same time, Columbia will be receiving an enormous windfall with the bonuses in floor area ratio and building height exemption in space that it can then lease out for commercial and retail ventures in biotechnological research and food service, among other uses. Columbia has established precedence for such uses at its biomedical research facility at Audubon Center. After many promises about community and universal benefits to academic research and curing diseases, the biotechnology center is mostly leased to biotechnology start-up companies at substantial profits. While Columbia's expansion may bring riches to itself, New York City and New York State, as the DEIS projects, this wealth will not be shared. (WEACT) Columbia does not use all of the biotech space it now has. It rents 100,000 square feet of the Audubon Business and Technology Center uptown to 16 life science companies for a cool \$55 per square foot. They will do the same thing in Manhattanville. (Eisenberg, M. Levine, CTPC)

**Response 4-41:** The GPP will prohibit Columbia from leasing space to entities that conduct commercial research. The Academic Mixed-Use Development would be for University use only, except for the active ground floor uses required by the proposed rezoning.

**Comment 4-42:** The EIS did not take a good look at the finances, the taxes lost, the loss of present living wage employment for City residents, the loss of manufacturing businesses and affordable housing, the cost of eminent

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domain implementation, and the increased cost of City services and infrastructure. (CTPC)

**Response 4-42:** Section E, “Economic and Fiscal Benefits and Costs Analysis,” of Chapter 4 estimates the non-property tax revenues that would be generated by the Proposed Actions, and estimates the net increase in property tax revenues that would be generated by the Proposed Actions compared with the amounts generated by the existing properties in 2004/2005. The indirect residential displacement analysis in Chapter 4 identifies the amount and type of affordable housing that would be displaced from the Project Area, and describes how Columbia intends to fund the development of new replacement housing that would result in a net increase in affordable housing compared with the amount that would be directly displaced. The direct business displacement analysis in Chapter 4 identifies the amounts and types of manufacturing businesses and jobs that would be directly displaced from the Project Area. The cost of implementing eminent domain would be borne by Columbia University. Columbia would pay for infrastructure development and replacement costs that would be attributable to the development of the Academic Mixed-Use Plan.

**Comment 4-43:** The assessment of employment benefits for the community as a result of the proposed development must be limited to direct employment by the University (i.e., not subcontractors) in permanent positions with benefits (living wage jobs) that are available to current neighborhood residents (based on education, language skills, and employment history). (CTPC)

**Response 4-43:** The EIS does not provide an assessment of employment benefits for the community. Chapter 4 provides estimates of the numbers and types of jobs that would be generated by the Proposed Actions, and provides details on the numbers and percentages of existing University employees who reside in Northern Manhattan and Community District 9. However, it is outside the scope of the EIS and CEQR analyses to make definitive statements related to the place of residence of prospective employees. Columbia University training programs and jobs for Manhattanville residents beyond what can be expected based upon the University’s current experience is being addressed as part of a negotiated agreement. This agreement, when executed, would not be a governmental agreement, and its provisions are not part of CEQR.

*EMPLOYMENT*

**Comment 4-44:** Columbia University claims that there will be approximately 6,000 new jobs generated by the expansion. Given that many of these jobs will be

in biotech research or other academic fields, a reasonable estimate of 1,500 support staff positions might be available to the community. Since there are already 1,500 jobs employing mostly community residents currently in the expansion area, the 197-c Plan appears to leave no real gains for community employment. (Kooperkamp)

**Response 4-44:**

As discussed in Chapter 4, by 2030 the Proposed Actions would displace an estimated 802 jobs in Subdistrict A. Although the Proposed Actions many of these jobs are likely held by residents of the study areas—it is estimated that between 37 and 55 percent of the jobs displaced (297 to 441) would be jobs held by residents of the study areas—the Proposed Actions are expected to generate a greater number of equivalent jobs for residents of the study areas. Approximately 3,812 non-faculty, non-research jobs would be available in Subdistrict A by 2030 (including 3,162 University-affiliated jobs and 650 non-University jobs in active ground-floor uses), providing a broad range of employment opportunities—including entry level positions, skilled trades (primarily construction trades), administrative support, and professional service positions in finance and general administration. Many of these new positions would require comparable education levels as the jobs that would be displaced. Given that Columbia currently employs approximately 30 and 8 percent of its workforce for these types of jobs on its existing campuses from Northern Manhattan and CB9, respectively, it is reasonable to assume that, with the Proposed Actions, a comparable percentage of this type of University-affiliated employment would be recruited from within the primary and secondary study areas, yielding an estimated local employment potential of 253 University-affiliated jobs for study area residents and 949 University-affiliated jobs for Northern Manhattan residents as a whole. Combined with local jobs likely to be generated by active ground-floor uses, the total non-faculty, non-research employment for study area residents generated by the Proposed Actions within Subdistrict A is projected to be between 293 and 610 jobs.

**Comment 4-45:**

Columbia must provide skills training and job and economic opportunities, particularly in the areas of computer technology and biotechnology, for residents and workers who will be displaced by the expansion. (Shepard)

**Response 4-45:**

It is outside the scope of the EIS and CEQR analyses to make definitive statements related to the place of residence of prospective employees. Columbia University training programs and jobs for Manhattanville residents beyond what can be expected based upon the University's current experience is being addressed as part of a negotiated agreement.

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This agreement, when executed, would not be a governmental agreement, and its provisions are not part of CEQR.

**Comment 4-46:** The applicant claims the City will benefit with sometimes claims of 9,000 jobs and at other times 6,000 jobs. Is there a guarantee that these jobs will be created? (South-CB9)

**Response 4-46:** The EIS projections are not guarantees; they are estimates of the amount of employment that could be expected based on employment at comparable facilities. As detailed in Chapter 4, the Proposed Actions are projected to generate approximately 7,000 direct (on-site) jobs, including approximately 5,750 University-affiliated jobs in the Academic Mixed-Use Area. The University-affiliated job projections within the Academic Mixed-Use Area are based on employment ratios developed through analysis of comparable types of activities at existing University campuses (a detailed methodology is provided in Appendix B.1). The remaining (non-University-affiliated) employment is projected based on standard industry ratios.

**Comment 4-47:** Columbia claims that the expansion will create some 7,086 new jobs on the campus once it is built, but the DEIS provides no discussion of the types of jobs that would be offered, nor the breakdown of skills required to perform them. However, in previous disclosures, the University disclosed that up to 40 percent of these jobs would be faculty positions that require post-graduate-level training, which the vast majority of West Harlem residents do not possess. Another 22 percent of these jobs are high-level technical research positions that would require graduate-to postgraduate level training, which again, few West Harlem residents possess. Of the remaining newly created jobs, 22 percent will be high-level university administration and would probably require training in business or management, unavailable to West Harlem residents. That leaves only 14 percent in support and eminence, requiring low skills for which West Harlem residents could even hope to submit application. Because most of these positions are unionized, West Harlem residents who do not belong in the appropriate unions cannot even apply for these positions. Even if residents did apply for these positions, Columbia has no plan in place and no enforceable commitment to any governmental or independent entity to preferentially hire local residents. Moreover, with no plan in place for training or education of the workforce, there is no opportunity for local residents to advance above perhaps becoming the supervisor of their custodial unit. (WEACT)

A total of 1,394 jobs will be created for those with only a high school degree by Columbia, and the EIS projects that 112 of them would be taken up by CB9 residents. (CTPC)

The majority of high-tech jobs will probably be filled by Columbia graduate students as part of their study, and not add to the number of jobs produced. (L. Kraus)

**Response 4-47:**

Chapter 4 states that the Proposed Actions are projected to generate 4,499 non-faculty, non-research employees by 2030 (of which 3,162 would be Columbia-affiliated jobs), and that an estimated 31 percent of non-faculty, non-research University positions would require a high school degree or equivalent, with the remainder requiring a bachelor's degree or equivalent.

The University and representatives of the West Harlem Local Development Corporation—the vehicle established by the community to represent it in negotiations about a community benefits agreement—are engaged in discussions concerning a variety of issues, including access to University jobs, contracting and apprenticeship opportunities, and education, affordable housing, and environmental health issues. These discussions are outside the scope of the land use actions reviewed in the FEIS.

**Comment 4-48:**

Columbia never offers a list of the jobs that it will have available pre- and post-development, other than some of the obvious ones, i.e., construction, or says that these jobs will be for the people living in the community. Since Columbia has not offered a thorough list of its job offerings, its job offer is meaningless. There is an unemployment problem in Greater Harlem, a 50 percent unemployment rate with black men between the ages of 18-55. Columbia's 197-c Plan doesn't address this problem, let alone address how it could help solve it, i.e., providing training programs and the likes to attempt to put so-called "minority" men back to work. (Tajiddin)

**Response 4-48:**

See Response to Comment 4-47.

**CHAPTER 5: COMMUNITY FACILITIES**

**Comment 5-1:**

I hope this project can help the schools, the communities, and the families in Harlem to get more culture and art in the schools. The schools have very little offerings, especially in music. (Evans)

**Response 5-1:**

Comment noted.

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**Comment 5-2:** There is often a discussion of the benefits Columbia will offer, but in the EIS, there is little indication of willingness to truly collaborate through sharing of facilities, sharing of art and music space, of potential teaching and tutoring programs and scholarships for community residents, of shared space for athletic activities, for access to its libraries and computer centers. Although the University gives lip service to the concepts of additional community facilities in the EIS, its failure to set out in detail the ways in which Columbia will address the lack of much needed community facilities in the EIS is disingenuous and undermines any expectation that this private institution will act in any other way than as a private institution advancing its own interests.(CTPC)

**Response 5-2:** The DEIS analysis of community facilities adequately addressed the potential impact of the Proposed Actions on public community facilities. The analysis was conducted in accordance with the *CEQR Technical Manual*. The analysis concluded that the Proposed Actions would not result in any significant adverse impacts on community facilities. See Response to Comment 4-47 with regard to other community benefits.

**Comment 5-3:** There is no data provided or commitments made that show that the proposed public high school for science and engineering will benefit the community in any substantive way. There is little information about the population that the school will service, nor is there attention paid to the poor condition of other schools in the district that should be a priority in terms of funding and development if Columbia were serious about a commitment to improve education in the community. Looking at ways to help the schools that already exist and the need of an infusion of resources for them is ignored in the EIS.

City College also has a high school nearby, and a district-wide approach to school development should have been considered in the EIS and be an important element in decision-making. (CTCP)

**Response 5-3:** The high school for science and engineering will give a priority to students in Northern Manhattan. The EIS analysis concluded that the Proposed Actions would not result in any significant adverse impacts on public schools. The EIS does not address conditions in the schools in the study area, because the Proposed Actions would not generate a demand on public schools to result in a significant adverse impact.

**Comment 5-4:** A comprehensive analysis of hospitals or day care centers needed to be done. Columbia's projections of needs as a result of their proposed project are inadequate. (CTCP)

**Response 5-4:** DEIS adequately addressed the potential impact of the proposed project on hospitals and day care. As noted in the preliminary assessment of potential impacts on hospitals and public day care facilities in the DEIS and FEIS, the Proposed Actions would not generate the minimum number of low- to moderate-income residential units that could result in an increased demand on local public health care facilities and public day care facilities. Therefore the Proposed Actions would not have significant adverse impacts on hospitals, health care facilities, or day care facilities, and a detailed assessment was not required.

## CHAPTER 6: OPEN SPACE

### GENERAL COMMENTS

**Comment 6-1:** Columbia’s open space has not been designed to invite and accommodate the public use. It is designed for Columbia University activities. Creation of a separate institutional “enclave” covering 17 blocks—even though there will be no gates—creates the perception of private property with private security. The *CEQR Technical Manual* states that the value of open space to the public must be based on whether the public would actually use that open space. Based on the limited public access and use of the open space on its other campus, and in the absence of any public surveys (as recommended in the *CEQR Technical Manual*) in the study area, the 197-c proposal for open space cannot be considered to have any value to the public as open space. (CB9)

**Response 6-1:** See Response to Comment 1-52. The *CEQR Technical Manual* states that for open space to be defined as “public” and analyzed for impacts under CEQR, open space must be accessible to the public on a constant and regular basis or for designated daily periods. The analysis in Chapter 6, “Open Space,” did include a survey of existing open spaces in the study area. As described in the chapter, the description of each open space’s amenities, condition, and level of use, as presented in Table 6-6, was gained from field visits. The large square would be an acre or more and would border north and south on two public streets and on the east by a publicly accessible midblock open area/pedestrian way. It is analyzed as passive open space and under the proposed zoning regulations would be required to be open and accessible to the public. These accessibility requirements of the Special District Zoning Text are set forth in Appendix A.1 of the EIS. Based on these requirements, the proposed open spaces were properly analyzed as public open space in accordance with the *CEQR Technical Manual*. The smaller square of approximately a half acre would front on West 129th Street, but would

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be visible from West 125th Street across a small open space at the tip of the triangular block at West 125th Street and Broadway (Site 1).

**Comment 6-2:** Columbia’s open green space would be restrictive, for it is within its cluster of new buildings. CB9’s plan wants to see publicly owned open space form part of the public streetscape. The Community Board also wants created a park on the triangle at West 125th Street and Broadway, preserving light and views from the subway station and the street to the Hudson River. Columbia plans to build a 12-story building on this site. (Tajiddin)

**Response 6-2:** See Response to Comment 6-1. In addition to the spaces cited in this response, Columbia has committed to creating a public open space on the triangular block at West 125th Street and Twelfth Avenue, which is currently occupied by the Cotton Club, as a mitigation.

**Comment 6-3:** Columbia’s proposed central “Square” would not be public open space. It would be Columbia property, enclosed exclusively by University buildings and primarily serving the needs of students and employees. It is not being designed to invite and accommodate the public—it will be hidden from view and surrounded by institutional buildings and protected by private security services. Contrast this with CB9’s proposal to convert the two bow-tie properties on 125th Street to public parks linking them with a “Ramblas type” median strip to create a true entry at Broadway and 125th Street for all of the communities in the district to the new West Harlem Waterfront park. (Shiffman)

**Response 6-3:** See Responses to Comments 6-1 and 6-2. The central Square would not be enclosed exclusively by Columbia buildings—its northern and southern boundaries would be public streets and its eastern boundary would be the public midblock open area, used as a public pedestrian pathway running north-south through the Project Area. It would be an acre or more of passive open space and under the proposed zoning regulations would be required to be open and accessible to the public. A smaller square of approximately a half acre would front on West 129th Street, but would be visible from West 125th Street across a small open space at the tip of the triangular block at West 125th Street and Broadway (Site 1).

**Comment 6-4:** Why would Columbia tear down the buildings that are on Convent Avenue to make a greenery? Is that a campus for Columbia or is that for residents? (Johnson)

- Response 6-4:** Columbia advises that a building on Convent Avenue and West 150th Street was vacant and dilapidated when it was acquired, and the structure was subsequently demolished.
- Comment 6-5:** The EIS does not provide complete information regarding times of access, use restrictions, and potential closures of the privately owned, publicly accessible open space, nor details or commitments as to how that space will be managed. (CTPC)
- Response 6-5:** The Special District Zoning Text (Appendix A.1) in the DEIS describes the hours of operation and accessibility of the open spaces. Chapter 6, “Open Space,” in the FEIS has been revised to note that this information is included in Appendix A.1.
- Comment 6-6:** The open space plan should comply with the Zoning Resolution’s standards for privately owned public spaces, including Restrictive Declarations mandating that the land be used for public space in perpetuity and a pre-condition that public space be completed before a Certification of Occupancy is issued for adjacent buildings. The Privately Owned Public Space (POPS) program mandates 24-hour use unless a waiver is obtained after public notification and includes provisions for enforcement and maintenance. (Sheffer)
- Response 6-6:** The proposed open spaces are not typical privately owned public spaces, which are usually small, hard-surface bonus plazas adjacent to residential or office buildings. The Small Square, the Grove, and the midblock open areas would be open to the public at all times. The Large Square and the midblock open areas would be open with hours that exceed those of spaces in the POPS program, which are permitted nighttime closings.
- The provisions of the proposed Special Manhattanville Mixed-Use Zoning District require that midblock open areas be completed and open to the public prior to applying for a temporary certificate of occupancy (TCO) for any development adjacent to such area. The Small Square, the Grove, and Large Square would be required to be substantially complete in accordance with the Special District requirements, prior to the issuance of a TCO for any development that would receive floor area transferred from those spaces. See Response to Comment 6-5 regarding hours of operation and accessibility.
- Comment 6-7:** Community-based programming should be mandated to maximize the public nature of the open space and ensure that it is well utilized by the community. In addition to the requirements of the POPS program, the

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uses should also be planned with the Community Board or included in the CBA. (Sheffer)

**Response 6-7:** The main design objective of the proposed open space is to integrate the new development into the fabric of the neighborhood, emphasizing public streets; pedestrian-friendly, tree-lined sidewalks; and public open spaces that offer welcoming settings for a wide range of uses, e.g., sitting, resting, studying, playing, eating, and walking. Design of the spaces would afford opportunities for Columbia to sponsor or permit a variety of University- and neighborhood-oriented programs and activities, such as outdoor art exhibits, holiday markets, and a venue for speakers.

**Comment 6-8:** The typical ratio methodology for studying the adequacy of open space is inadequate. The open space analysis needs a more sophisticated approach for determining the various types of uses (playgrounds, dog runs) for the populations it will serve. (Shuffield)

**Response 6-8:** Chapter 6, “Open Space,” does present the ratio methodology, but also contains a qualitative analysis about open spaces in the area, their facilities, their users, and their conditions. The open space mitigation planning presented in the FEIS has also taken these characteristics into consideration.

**Comment 6-9:** While the open space development is referred to as “mandatory,” it is not required if the area being developed, which is currently cut up into many small lots, is not merged into single block lots. It appears there is nothing in this action that would automatically merge lots upon the rezoning, nor require Columbia to undertake that process. Text should be amended to require the open space development. Other concerns about the open areas: What is “limited active recreation”? What is Columbia’s ability to apply new constraints in the future? (Stern)

**Response 6-9:** Columbia will be required under the terms of a Restrictive Declaration to merge all adjacent lots under its ownership, in order to facilitate provision of the open space. The term “limited active recreation” refers to informal use for active recreation, as distinguished from organized team sports.

## **CHAPTER 7: SHADOWS**

**Comment 7-1:** The analysis of the effect of the tall buildings shadowing the Manhattanville houses on Broadway, the landmarked area on the Riverside Drive viaduct, the Tiemann Place buildings, and all areas where there is dramatic open air space is inadequate. The impact of

shadows must be carefully examined and illustrated in second shadows study for the community so that it can understand what could result from the proposed construction. (CTCP)

**Response 7-1:** The analysis in the DEIS adequately addresses the potential shadow impacts from the Proposed Project. The analysis addresses the Proposed Project’s potential to impact sun-sensitive resources, which are defined in the *CEQR Technical Manual* as public open spaces (including the publicly accessible open spaces in Manhattanville Houses), historic resources with significant sunlight-dependent features, and natural features. The landmarked area of the Riverside Drive viaduct and the Tiemman Place buildings are not sun-sensitive historic resources. Shadows on buildings that are not historic resources, such as the buildings of the Manhattanville Houses, were not analyzed, because CEQR does not address impacts on private property, unless such property has a public purpose (e.g., a publicly accessible, privately owned open space).

**Comment 7-2:** The claim that shadows are not adverse because open spaces are created by the Proposed Actions is not substantiated. Shadows will be in open spaces of Manhattanville September through March, all the time. Significant impact definition is substantial reduction where substandard sunlight already exists. (CTCP)

**Response 7-2:** The shadow analysis found that the Proposed Actions would have a significant adverse impact on the I.S. 295 Playground on Broadway between West 133rd and West 134th Street (see Chapter 7, “Shadows”), and would require mitigation. The shadows from the buildings at their maximum height on the West Harlem Waterfront park or the public open spaces in the Manhattanville Houses would be of short duration and were not found to be significant. The buildings’ shadows on the open spaces proposed for the campus were disclosed in Chapter 7, but these were not considered significant, because the open spaces do not now exist, and they can be planned with shade-tolerant plants and other facilities not requiring continuous sunlight.

## CHAPTER 8: HISTORIC RESOURCES

### *GENERAL COMMENTS*

**Comment 8-1:** As stated in CB9’s resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must pursue S/NR listing of any of its properties within the proposed Academic Mixed-Use Development Area found “eligible” by the New

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York State Historic Preservation Office (SHPO) and not oppose LPC landmark designation of any site herein. (CB9-1, Lewton)

If Columbia is interested in historic preservation, why have they not applied to landmark the Nash Building, the Studebaker Building, and Prentis Hall—buildings they cite that would like to save, preserve, and renovate? (South-CB9)

**Response 8-1:** Columbia has stated that they consulted extensively with the SHPO prior to undertaking renovation work at Studebaker and will do the same with any future work at the former Warren Nash Service Station Building and Prentis Hall. The suggested designation of properties by LPC is a City action.

**Comment 8-2:** Columbia plans to move the West Market Diner, but we encourage keeping it in the Project Area. (MAS-Kersavage)

**Response 8-2:** The West Market Diner is located on the northwest corner of Twelfth Avenue and West 131st Street, in the area of a proposed academic building. Columbia University is exploring relocation sites in the Project Area and surrounding area. Columbia is committed to restoring the 1948 dining car of the West Market Diner, including revealing its original metal cladding.

**Comment 8-3:** We recommend that in a separate action the New York City Landmarks Preservation Commission (LPC) designate those buildings they found eligible: the Studebaker Building and just outside the Columbia Project Area, the former Lee Brothers Storage Building (571 Riverside Drive). (MAS-Kersavage)

**Response 8-3:** Comment noted. LPC’s designation of properties is not included in the environmental review of this project.

**Comment 8-4:** We urge the retention of the former Sheffield Farms Stable (3229 Broadway), which is listed on the National Register of Historic Places. The stable is a companion building to the Sheffield Farms Dairy, currently in use by Columbia. Both were designed by the same architect, Frank Rooke. (MAS-Kersavage) General statement in support of preserving and landmarking the former Sheffield Farms stable. (Reyes-Montblanc-CB9) The Sheffield Farms Dairy Buildings—the pasteurization plant and the stable from which the milk wagons departed—are historically significant, and should be preserved. (Kopnicki, Reaven) Columbia claims it favors historic preservation, but they want to use eminent domain to take Hudson Storage which is on the State and National Registers of Historic Places (S/NR). (South-CB9)

**Response 8-4:**

See Response to Comment 1-57. Columbia is reusing two historic buildings in the Project Area, the Studebaker Building and the former Warren Nash Service Station Building, and will rehabilitate and relocate the 1948 dining car of the West Market Diner, which is by definition a movable structure. Since the former Sheffield Farms Stable is also a historic structure, Columbia has evaluated the potential of reusing the Sheffield Farms Stable for academic research (scientific laboratory) use, which is the use of the Jerome L. Greene Science Center proposed on the site. This analysis was contained in a study submitted to OPRHP (see Appendix D.4). The feasibility study considered factors associated with retaining and adaptively reusing the building for academic research use. These factors include specific floor layouts, including the need for large rectangular floor plates with minimal obstructions and requirements for laboratory and support space, structural characteristics, and infrastructure and utility service requirements for academic research buildings, including the need for high floor-to-floor heights to accommodate necessary laboratory infrastructure beneath the ceiling and the need for below-grade support, which would serve the proposed academic research buildings on Broadway and requires construction of a slurry wall. The study concluded that it is not feasible to adaptively reuse the former Sheffield Farms Stable for academic research use, or incorporate all or a portion of the building into the proposed Jerome L. Greene Science Center, or move the building to another location in the Phase 1 area, since such alternatives would not allow the project to meet its goals and objectives with respect to the Jerome L. Greene Science Center, and would significantly reduce the amount of usable space above grade and below grade associated with the Jerome L. Greene Science Center. In a letter dated November 14, 2007, OPRHP requested that further study be undertaken to determine if it is feasible to retain the former Sheffield Farms Stable in the Academic Mixed-Use Development Area, and specifically if the Jerome L. Greene Science Center could be built on the north side of West 129th Street south of the former Sheffield Farms Stable. In response to OPRHP's request, a further analysis was conducted and it was determined that such alternative is not feasible since it would result in a building with an insufficient floor plate and that would not allow for the efficient use of support space on each floor, retaining the Sheffield Farms Stable would pose considerable engineering problems with respect to building the below grade research support space, and placing the Jerome L. Greene Science Center on West 129th Street would adversely affect the ability of the proposed project to achieve key goals and purposes.

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**Comment 8-5:** Hudson Moving and Storage (3229 Broadway) is the former Sheffield Farms Stable building and is listed on the S/NR. It has been an owner-occupied family business for over 35 years, and it is a vital part of the neighborhood, employing 100 percent women and minorities. Columbia's proposal would destroy this building. This building deserves landmark status, and at a minimum, it deserves a hearing before the LPC. (Whitman, Petraro)

**Response 8-5:** A decision whether the Sheffield Farms Stable should be designated a New York City Landmark would be made by the New York City Landmarks Preservation Commission (LPC). It is our understanding that LPC received a formal Request For Evaluation (RFE) of the building as a New York City Landmark, and determined that it did not meet such criteria.

**Comment 8-6:** Columbia claims it favors historic preservation but has made no effort to save the paving stones in all of these streets, which are over 200 years old. (South-CB9)

**Response 8-6:** There are no visible paving stones in any of the cross streets located in the area that Columbia would develop (Subdistrict A/Academic Mixed-Use Development Area). These have either been removed or have been paved over. The only visible paving stones (Belgian blocks) are located on: 1) the east sidewalk of Twelfth Avenue between West 131st and West 132nd Streets; and 2) in Subdistrict B, in the area to be rezoned as part of the Proposed Actions, but outside the Columbia development area. The Belgian blocks in Subdistrict B are located on Twelfth Avenue south of West 125th Street, and also include remnants of the turnaround tracks for the Third Avenue Railway's crosstown trolley on West 125th Street and associated stamped covers. No project actions are proposed in Subdistrict B that would remove these features. The Belgian blocks located on the east Twelfth Avenue sidewalk between West 131st and West 132nd Streets are in the area of the proposed widened sidewalk along the east side of Twelfth Avenue. Columbia will salvage and store, to the extent feasible, some of the Belgian blocks from the east Twelfth Avenue sidewalk, for reuse, such as in the proposed new open spaces proposed in the Project Area.

**Comment 8-7:** It is important that the new buildings not block views of the Riverside Drive viaduct, or overwhelm the room underneath it. Requiring height limitations close to the viaduct (as the 197-a Plan calls for) and setting back taller buildings from the viaduct (as the 197-c Plan requires) would help achieve those goals. Moving taller structures even further back (as in the 197-a Plan) would go further in assuring the views of and from

under the landmarked viaduct are protected, as would the reuse of an existing buildings. The viaduct's spatial qualities would be celebrated if Columbia were to light up the filigreed steel arches, perhaps drawing inspiration from lighting design employed at the Coney Island parachute jump. (MAS-Kersavage)

**Response 8-7:** Comment noted. The 197-c plan also calls for height limits on buildings on the east side of Twelfth Avenue.

**Comment 8-8:** MAS supports Columbia for their plans to retain and reuse some of the most important historic buildings in the project area, including the Studebaker Building, the former Warren Nash Service Station Building, the West Market Diner, and the Claremont Theater; and urges Columbia to retain as many historic buildings as possible. Doing so would better knit the new campus into existing neighborhoods and create a more lively development. (MAS-Kersavage)

**Response 8-8:** Comment noted.

**Comment 8-9:** The DEIS fails to recognize the major differences between the 197-a Plan, which identifies historical, architectural, and culturally significant properties for retention and possible landmarking, and the 197-c proposal, which would not landmark or otherwise protect these properties. Consequently, the impacts on all of the historically significant properties in Manhattanville were ignored in the DEIS. (Shiffman) The EIS disregards the list of structures and sites that CB9 has so carefully researched and outlined in the 197-a Plan. (CTPC)

**Response 8-9:** Properties identified in the 197-a Plan as having historic significance have already been reviewed by LPC and SHPO for their determinations of significance. As part of the DEIS process, both the LPC and SHPO toured the Project Area and reviewed its resources. Those listed in the DEIS as eligible for landmark status or for listing on the State and National Registers of Historic Places are those that the agencies determined to be of appropriate significance.

**Comment 8-10:** As stated in CB9's resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must preserve buildings of historic and cultural character throughout the proposed Special Manhattanville Mixed-Use Zoning District and in CB9 as a whole, as listed in the 197-a Plan. (CB9-1, Lewton)

**Response 8-10:** Columbia is preserving two historic buildings (the Studebaker Building and the former Warren Nash Service Station), and will restore and relocate the 1948 dining car of the West Market Diner. The only other

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building determined to be significant in the Academic Mixed-Use Development Area by OPRHP is the former Sheffield Farms Stable. As described in response to Comment 8-4 above, Columbia has evaluated the feasibility of reusing this building and has determined that it does not meet the requirements for a scientific laboratory facility and that furthermore, retaining the building would impact Columbia's proposed above-grade and below-grade programs.

**Comment 8-11:** In addition to protecting views of the Twelfth Avenue viaduct, which is essential to its historic preservation, CB9 has identified a number of buildings as landmarks of historical and cultural value. Columbia intends to demolish most of them. (Tajiddin, Washington, J. Levine, CTPC)

**Response 8-11:** As identified by LPC and OPRHP, Columbia University proposes to demolish only one historic building, the former Sheffield Farms Stable. As described above, Columbia has evaluated the feasibility of reusing this building for academic research use. With respect to the Riverside Drive viaduct, the proposed zoning will require that development sites along the Twelfth Avenue frontage be set back 30 feet from the property line, creating widened sidewalks. As described in Chapter 1 of the DEIS, widening the sidewalk on Twelfth Avenue sufficiently to open up views of the Riverside Drive viaduct and providing height limits to the proposed buildings on Twelfth Avenue to protect views to and from the Riverside Drive viaduct are two objectives of the Proposed Project. To fulfill these objectives, the parcels along the Twelfth Avenue frontage would not be as deep as those on Broadway (generally 30 to 40 feet less), and heights would also be lower (generally 20 to 50 feet less) to reduce building bulk along Twelfth Avenue.

**Comment 8-12:** The study of historic resources should also specifically include roadway surfaces, such as Belgian blocks and visible streetcar rails. (Shuffield)

**Response 8-12:** The remnants of the historic Manhattanville street pattern and remnants of the Third Avenue Railway Co. turnaround tracks embedded in Belgian blocks on Twelfth Avenue were considered in the EIS. Both the remnants of the historic Manhattanville street pattern, consisting of portions of Manhattan Street (now West 125th Street), Old Broadway, Lawrence Street (now West 126th Street), and the remnants of the Third Avenue Railway turnaround tracks and stamped covers bearing the company's name, were submitted to OPRHP and LPC for a review of S/NR eligibility and NYCL eligibility. Both OPRHP and LPC determined that neither the remnants of the historic street grid nor the Third Avenue Railway qualified for S/NR listing or NYCL designation,

respectively. With the exception of the portion of Twelfth Avenue south of West 125th Street, which retains some of the Belgian blocks with the Third Avenue Railway tracks and stamped covers, and a section of the east sidewalk on Twelfth Avenue between West 131st and West 132nd Streets, the streets in the Project Area are paved in asphalt. The Proposed Project would not affect the area on Twelfth Avenue containing the Belgian blocks, Third Avenue Railway tracks, and stamped covers, since these features are located outside the proposed Columbia development area (but within the proposed rezoning area). The Proposed Project would not affect the remnants of the historic street grid; such streets would continue to remain open and in their present trajectory. To the extent feasible, Columbia would salvage and store for future reuse, such as in the proposed new open spaces in the Project Area, some of the Belgian blocks from the east Twelfth Avenue sidewalk.

*HISTORICAL BACKGROUND*

**Comment 8-13:** The New York Central and Hudson River Railroad is mistakenly called “the Hudson River and New York Central Railroad.” The text also does not make clear that the railroad station referenced was a passenger station, demolished in the 1920s, after passenger service was consolidated on the East Side of Manhattan in 1871 with freight service only on the West Side. (Habstritt)

**Response 8-13:** The FEIS has been revised to clarify these items.

**Comment 8-14:** Although it is noted that, “Dairies and meatpacking business...moved into the area at the turn of the 20th century,” not mentioned is that the dairies included facilities for two of the largest dairy companies in the nation, Borden and Sheffield Farms (later a subsidiary of Kraft). Nor is it mentioned that the New York Central Railroad had daily milk trains arriving on the west side tracks. Both the dairy and meatpacking industries of Manhattanville were served via the New York Central’s 130th Street rail yard. (Habstritt)

**Response 8-14:** The FEIS has been revised to indicate that the dairy and meatpacking business had facilities along the west side of Twelfth Avenue and made use of the west side rail line.

**Comment 8-15:** In the discussion of the 1920s and 1930s and the auto-related service companies facilitated by transportation access, there is no mention of the West Side Improvement and how it impacted the neighborhood, Riverside Park, and local industries. The 130th Street rail yard was

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improved specifically for local industries with facilities to handle milk, automobiles, and heavy freight. In addition, the tracks were raised on a viaduct that included a siding on the newly elevated tracks to serve the meatpacking houses directly at the second story level. (Habstritt)

**Response 8-15:** The FEIS has been revised to include a description with respect to the West Side Improvement.

**Comment 8-16:** The text indicates that the stock market crash “curtailed residential and commercial growth in Manhattanville,” and no doubt it did. Yet Borden was continuously expanding during this period, including purchase of the Studebaker Building, which it converted to a dairy processing plant in 1937, and expansion of the nearby garage at Twelfth Avenue. (Habstritt)

**Response 8-16:** The FEIS has been revised to include a description with respect to Borden’s acquisition of the Studebaker Building.

### *ARCHITECTURAL RESOURCES, PROJECT AREA*

#### **Omitted/Determined Not Eligible**

**Comment 8-17:** Block 1996, Lot 16, 633 W. 129th St. (not 125th St.)/628-630 W. 130th St. and Block 1996, Lot 18, 623 W. 129th St. (not 125th St.). Although listed as appearing not to meet S/NR or NYCL eligibility criteria, this was based on incomplete information. Building permits indicate these buildings were built for Borden Condensed Milk Co. as stables at a time when the company provided home delivery of canned milk. The building at Lot 18 is an attractive combination of tan brick and brownstone and the one at Lot 16, although painted, has some nice brick detail work. These should be re-assessed. (Habstritt)

**Response 8-17:** The additional information was provided to OPRHP on October 24, 2007. A copy of these comments was also provided directly to OPRHP by Mary Habstritt. In an email response to Mary Habstritt dated October 29, 2007, OPRHP stated that these two buildings do not meet criteria for listing on the S/NR (see Appendix Q.1).

**Comment 8-18:** Block 1996, Lot 21, 618-620 W. 129th St./618-620 W. 130th St. Built in 1934 as a 1-story brick storehouse for Borden, it replaced a frame building used by the Manhattan Construction & Trucking Co. and later Clover Farms dairy. It may have been acquired as part of Borden’s growth period in the 10 years after 1917 when it purchased over 200 other dairy companies. It appears to be insignificant and much altered,

but should be reassessed due to the Borden connection and incorrect build date. (Habstritt)

**Response 8-18:** The additional information was provided to OPRHP on October 24, 2007. A copy of these comments was also provided directly to OPRHP by Mary Habstritt. In an email response to Mary Habstritt dated October 29, 2007, OPRHP stated that this building does not meet criteria for listing on the S/NR (see Appendix Q.1).

**Comment 8-19:** Block 1997, Lot 44, 614-618 West 131st St. The name of the architect, Henri Fouchaux, is misspelled as Henry Fouchauz. Since Fouchaux designed many fine residential buildings in upper Manhattan, including in the Hamilton Heights/Sugar Hill Historic District, please make sure that the misspelling did not cause this connection to be missed. (Habstritt)

**Response 8-19:** This typographical error was discussed with OPRHP at the time of the submission, and did not affect OPRHP's determination with respect to the building's eligibility.

**Comment 8-20:** Block 1998, Lot 61, 2311 Twelfth Avenue and Block 1998, Lot 57, 640 W. 132nd St. A very early example of auto service in the area, the building on Lot 61 was built in 1912. Borden purchased it and altered it for a distribution plant in 1928. Borden then built a large one-story garage adjacent to it in 1937, by architect Hy B. Lindberg, probably for a fleet of delivery trucks. This coincided with the company's purchase of the Studebaker Building just up the street and with the phasing out of horses for milk delivery. (Habstritt)

**Response 8-20:** This information was provided to OPRHP on October 24, 2007. A copy of these comments was also provided directly to OPRHP by Mary Habstritt. In a responsive email to Mary Habstritt dated October 29, 2007, OPRHP maintained that this building does not meet criteria for listing on the S/NR (see Appendix Q.1)

**Comment 8-21:** The Studebaker Building was converted by Borden into a dairy processing plant in 1937, near the end of a period of explosive growth for the company, which by then was the nation's largest distributor of fluid milk. It was a dairy plant for far longer than it was an auto service center. It is just the largest example of buildings being reused and passed back and forth between the area's two key industries of dairy processing and auto service and sales. (Habstritt)

**Response 8-21:** The Studebaker Building was acquired by Borden Farm Products, a division of the Borden Company, in 1936 for use as a milk processing

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plant. It was acquired by the Broil-Quik Company in 1954. The FEIS has been revised to include this information.

**Comment 8-22:** The New York Central Railroad Substation No. 11 did not provide electrification for “tracks out of Grand Central Terminal.” It provided electrification for the tracks along the Hudson River used by New York Central freight trains. All passenger service into Grand Central was diverted to the tracks over the Harlem River in 1871, long before this substation was built. How does it compare to others that survive? How many others are there? Although it is true that “substations were generally constructed to receive high-voltage current from a large generating station and distribute it with a lower voltage,” the New York Central substations also, more importantly, converted the current from AC to DC. It was one of the only main line railroads (vs. subway and elevated lines) to use third-rail electrification rather than overhead wires. The Long Island Railroad is the only other known to have done so. (Habstritt)

**Response 8-22:** The DEIS language has been revised to indicate that the electrification was for the tracks along the Hudson River used by the New York Central freight trains. It is beyond the scope of the EIS to determine how many other substations are extant.

**Comment 8-23:** The Sheffield Farms Stable is not Italianate in style; Beaux-Arts would more accurately represent it. Prentis Hall was not erected in 1907 but 1909, the same time that this stable was enlarged. Sheffield Farms was one of the two largest distributors of fluid milk in New York City and by 1926 was the largest dairy products company in the country. The primary source of income for dairy companies until WWII was home delivery of milk. (Habstritt)

**Response 8-23:** As stated in the National Register of Historic Places Registration Form for the Sheffield Farms Stable, the building is designed in the Renaissance Revival style. This change has been made in the FEIS.

**Comment 8-24:** Although the Manhattan Valley IRT viaduct and 125th Street IRT Subway viaduct are discussed, the possible significance of the New York Central freight line and viaduct, now used by Amtrak, are not examined. It was built as part of the vast West Side Improvement, 1925-1934, that included the well known High Line. (Habstritt)

**Response 8-24:** On October 2, 2007, OPRHP has requested that a Historic Resource Inventory Form be prepared for this structure. This form was prepared and submitted to OPRHP for their review on October 18, 2007. In a letter dated October 25, 2007, OPRHP determined that the New York

Central Viaduct is not eligible for listing on the National Register of Historic Places. Text has been added in the FEIS to indicate that the covered rail cut in Riverside Park is a contributing element of the Riverside Park and Drive National Register nomination.

**Comment 8-25:** Block 1995, Lot 31, 3207 Broadway. Floridita's restaurant is in what remains of a 1922 brick store designed by the architectural firm of Gronenberg & Leuchtag on the site of the Fort Lee Public Market, which closed in 1919. As of 1928, the building, which filled the irregular block, housed a gas station, repair shop for "magnetos," and a restaurant, essentially the same uses on the block today. The restaurant was a key site among speakeasies raided during Prohibition early in a campaign to shut them down led by Andrew McCampbell. It should be reassessed in light of this information. (Habstritt)

**Response 8-25:** This information has been provided to OPRHP on October 24, 2007. A copy of these comments was also provided directly to OPRHP by Mary Habstritt. In a responsive email to Mary Habstritt dated October 29, 2007, OPRHP maintained that the building does not meet criteria for listing on the S/NR.

**Comment 8-26:** Prentis Hall, as noted previously, was built in 1909, not 1907. It was to supplement the 1907 pasteurization and bottling plant at West 57th St., which the company had quickly outgrown. Sheffield Farms' important role in providing pure pasteurized milk to the City, before the pioneering New York City Department of Health set standards requiring it, is omitted. There is no mention of the building's very important role as Columbia University's Heat Transfer Facility. At this electrical laboratory, safety testing for nuclear fuel assemblies was conducted. It was the only such testing facility in the country, opened in 1950 and closed in 2003. In addition, former engineers of the Heat Transfer Facility indicated in interviews that upper floors were used for research related to the Manhattan Project. (Habstritt)

**Response 8-26:** The FEIS has been revised to indicate that Frank A. Rooke was commissioned by Sheffield Farms to design a new dairy building on Manhattan Street (now West 125th Street), in 1907 but that the building (Prentis Hall) was not built until 1909. The FEIS has been revised to include information regarding the building's use as Columbia's Heat Transfer Facility. At this time, it is not clear what, if any, connection there is with Prentis Hall and the Manhattan Project. Columbia University acquired the building in 1949 to accommodate portions of the School of Engineering, and the Manhattan Project took place in the mid 1940s. It is beyond the scope of the EIS to establish this

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connection. The building has been determined to be eligible for S/NR listing and NYCL designation and potential impacts on this building from the Proposed Project have been assessed in the EIS.

**Comment 8-27:** McDermott-Bunger Dairy appears to have been designed by the architectural firm of Sass & Smallheiser, a prolific designer of tenements that also designed a number of stables and utility buildings in Manhattan. That makes more sense than the attribution to Joseph H. McGuire, who designed a number of nearby ecclesiastical buildings. The error is probably due to searching the 125th Street address when this was originally 91-97 Manhattan Avenue. (Habstritt)

**Response 8-27:** This was not an error due to searching the wrong building address. Joseph H. McGuire is identified as the architect for the McDermott-Bunger Dairy in Columbia University's Historic Preservation Program Studio's "A Preservation Plan for Hamilton Heights/Manhattanville" (1996-1997). This is supported by *The New York Times* on August 22, 1903, which indicates that building plans were filed at the Buildings Department as follows: "91 to 97 Manhattan Street, for a three-story brick stable, with offices, 101.7 by 90.8: McDermott, Bunger, David Co.,..... J.H. McGuire of 45 East Forty-second Street, architect; cost \$60,000." In reviewing the Building Permits Database 1900-1986 (www.metrohistory.com), which in 1903 lists Sass & Smallheiser as the architect, it was noted that the description and size of the building are the same, as is the projected cost. In both sources, Sass & Smallheiser and McGuire have the same address: 45 East 42nd Street, which indicates there may have been a brief partnership between the architects, or McGuire worked for Sass & Smallheiser. It is not possible to know which architect(s) designed the building without additional research, which is beyond the scope of the EIS. Therefore, since neither one architect nor the other can be verified, the FEIS has been revised to allow for both possibilities, state that Joseph H. McGuire/Sass & Smallheiser designed the McDermott-Bunger Dairy.

### *ARCHAEOLOGICAL RESOURCES, PROJECT AREA*

#### **Omitted/Determined Not Eligible**

**Comment 8-28:** The Third Avenue Railway had a large presence in Manhattanville and had a crosstown line running along 125th Street. There is a strong possibility that archaeological artifacts of this electric street railway lie under the streets, since tracks and cover plates are clearly visible at the surface. In-ground remnants of the streetcars could be unearthed during construction of the below-ground "bathtub," and surface elements could

be damaged by construction traffic. They should be protected or documented and removed. (Habstritt)

**Response 8-28:** The Third Avenue Railway's tracks and stamped covers on Twelfth Avenue at 125th Street were reviewed by OPRHP and LPC and determined not eligible for S/NR listing and NYCL designation. OPRHP and LPC further determined that the Project Area is not archaeologically sensitive. However, to account for the possibility of finding subsurface features related to the Third Avenue Railway on West 125th Street, Columbia will have an on-call archaeologist who, should any such discoveries be made, would document the features, and depending on their size and feasibility of removal, would also consider potential salvage of selected elements.

## **CHAPTER 9: URBAN DESIGN AND VISUAL RESOURCES**

**Comment 9-1:** The massing of buildings coupled with the University's private security force will create both visual and perceptual barriers once construction is completed. (Shiffman)

**Response 9-1:** Although the buildings developed under the Proposed Actions would be larger than those existing now in the Project Area they would not form a visual or perceptual barrier for several reasons: (1) the urban design regulations of the proposed rezoning would require setbacks and some landscaping at street level that would widen sidewalks on all the side streets and Twelfth Avenue and create an attractive pedestrian environment; (2) at a minimum, the street frontages on Broadway, West 125th Street and Twelfth Avenue would be required to have active and publicly accessible ground floor uses to create destinations within the Project Area for neighborhood residents and workers; (3) the Proposed Actions would eliminate nearly all the curb cuts, trucking and loading that now discourages pedestrians from walking through Subdistrict A of the Project Area; (4) the Proposed Actions would improve pedestrian conditions by creating midblock open areas, with landscaping, that would serve as a north south walkway; and (5) the open spaces offered under the Proposed Actions, including the recent addition of the mitigation open space on West 125th Street, would soften the streetscapes. There is no indication that Columbia's private security force, which would be stationed primarily within the university academic, academic research, and housing buildings, would create any barrier to the movement the general public through the Mixed-Use Academic Development area.

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**Comment 9-2:** The scale of the proposed buildings is too large and not contextual with the rest of the Manhattanville neighborhood. (J. Levine) To preserve the physical character of Manhattanville, Columbia should not be allowed to build any buildings higher than 14 stories. (Sherwood)

**Response 9-2:** Although they would be larger than the existing buildings in the Project Area, the proposed buildings, with maximum heights ranging from 120 to 260 feet, would not be out of scale with several surrounding structures in the primary study area, including 3333 Broadway (maximum height of 325 feet), Manhattanville Houses (180 feet), and 560 Riverside Drive (maximum height of 268 feet).

**Comment 9-3:** The DEIS analysis needs to specifically include the views below the Riverside Drive viaduct, given their distinctive qualities and prevalence in photographs and filming. (Shuffield)

**Response 9-3:** Chapter 9 contains several views of the viaduct, including views of the structure, from beneath, and views of Riverside Drive, above.

### **CHAPTER 10: NEIGHBORHOOD CHARACTER**

**Comment 10-1:** Columbia owns hundreds of buildings and thousands of apartments. Since the 1950s and in the '60s and '80s, they have been carrying out [this practice whereby] they are actually altering the population, the demographics of the neighborhoods in the City of New York, which are predominantly occupied by minorities, mainly poor. There has to be a law that will restrict the size of Columbia's development, otherwise we are going to lose the residential character. (Betancourt)

**Response 10-1:** Neighborhoods in Manhattan and elsewhere in New York City have undergone major changes since the 1950s and even the 1980s as a result of a variety of factors. It is not possible for the City to limit the size of institutions, such as Columbia, in an attempt to preserve the ethnic or economic character of a given neighborhood. Rather, the City must consider the purposes, benefits, and impacts of any given proposal for institutional expansion, as it is doing in this case pursuant to the ULURP and CEQR review processes.

**Comment 10-2:** The EIS does not provide a comprehensive analysis of the project's effect on neighborhood character. A neighborhood's character should be defined by the diversity of uses that it has and the continuity of these uses over time. Specifically:

- The EIS fails to situate its analysis of the existing communities inside and outside of the project zone in an appropriate context.

Arbitrary demographic information does not capture the essence of a community. Any useful analysis must address how the neighborhood is being used what features attracted its current residents and users to the area, what make the area unique, for whom the uniqueness of a neighborhood is cherished or vital, for whom it is home, how it resonates psychologically in the minds of its users, and what the significance is of its current use in broader social context.

- The EIS needs to delve deeper into the character of the industrial zone the development would eradicate and identify more than a simple category of use, such as manufacturing. In identifying this area, it is crucial to indicate the significant presence of entrepreneurs, of minority-owned businesses, of family businesses, and of skilled laborers. These are some of the unique characteristics of this manufacturing zone that distinguishes it from other industrial sites that are mostly corporate operations, or where there is a greater degree of unskilled labor.
- The EIS does not address the possibility that Columbia's proposed development could facilitate the eradication of Harlem's essential identity as an African-American community.
- The EIS does not assess the interplay between changes in neighborhood character and changes in socioeconomic conditions, i.e., gentrification. (CTPC)

**Response 10-2:** The neighborhood character analysis in the EIS followed the assessment methodologies established in the *CEQR Technical Manual*. The effect of the Proposed Actions on socioeconomic conditions, both with respect to indirect and direct displacement impacts, was assessed in the neighborhood character assessment. As noted in Chapter 10, while changes in population characteristics relating to race or ethnicity can affect neighborhood character, they are not in and of themselves beneficial or adverse under the State Environmental Quality Review Act (SEQRA)/CEQR.

**Comment 10-3:** The description of the character of the neighborhood needs to be even-handed. Too many studies document existing characteristics in an unfavorable manner to justify their project, rather than recognizing the way the project can validate the positive existing area character. (Shuffield)

**Response 10-3:** The EIS acknowledges that the Proposed Actions would change neighborhood character significantly in the Project Area. However, it is

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not possible to say whether substituting one character for another is necessarily adverse or beneficial. Thus, the EIS finds that this is a neutral impact. The EIS also concludes that the impacts of the Proposed Action within the Project Area plus the significant adverse indirect residential impact in the primary study area would not be enough to significantly alter the neighborhood character in the primary and secondary study areas.

**Comment 10-4:** Many of the properties Columbia is seeking to oust through condemnation may have better value if they remain and may enliven the shared neighborhood as a result. (M. White)

**Response 10-4:** The concept of preserving more than just the Studebaker and Nash buildings has been examined in Chapter 24. See also Response to Comment 10-5.

**Comment 10-5:** Right now buildings, restaurants, and houses in West Harlem represent a historical and cultural flavor of its people. Floridita and Dinosaur Bar-B-Que are thriving businesses. Why would Columbia want to displace them out of the neighborhood? Columbia thinks its plan is more important than the majority and doesn't care about small successful businesses. (Tajiddin)

**Response 10-5:** Columbia is the landlord for Floridita and Dinosaur Bar-B-Que, and has helped both enterprises to thrive and expand in the Project Area. As cited in its October 26, 2007 memorandum to the CPC, Columbia's approach to retail in the Academic Mixed-Use Development will be similar to its approach on Broadway and Amsterdam Avenue near the Morningside campus and on Broadway near the medical center. There, Columbia has succeeded in tenanting the space with shops and restaurants that support the local population (food stores, hardware stores, book store, clothing, shoes, diners, restaurants) and are not national chains. The focus has been (and would be in Manhattanville) on small retail spaces, occupied by local retailers. Columbia intends to find temporary and then permanent space in the Academic Mixed-Use Development for both Floridita and Dinosaur Bar-B-Que, if they want it. In addition, the siting of the School of the Arts in the Project Area offers opportunities for galleries, exhibitions and performances, particularly along West 125th Street.

**Comment 10-6:** The planned expansion for Columbia's exclusive use will fundamentally alter the vibrant and diverse low-income neighborhood that is part of the culture and economic background of working-class New York. (Bailey)

**Response 10-6:** As described in Chapter 10, the significant change in the character of the Project Area itself, from a predominantly low-rise non-residential area primarily characterized by industrial and transportation uses to a graduate campus for Columbia University plus new commercial development in Subdistrict B and residential development in Other Area east of Broadway, would not be adverse, nor would it significantly adversely alter the character of the “diverse low-income neighborhood” in the primary and secondary study areas. Chapter 4 did identify a significant adverse indirect residential displacement impact, but the proportionate amount of the change was not enough to affect the socioeconomic characteristics of the full study area.

## **CHAPTER 11: NATURAL RESOURCES**

**Comment 11-1:** The potential for the discharge of groundwater and runoff to the Hudson River raises serious environmental concerns. (Shiffman)

**Response 11-1:** As discussed in Chapter 21, dewatering would be required during excavation of the underground space to remove the groundwater from within the volume of the underground space, to control seepage beneath and through the slurry walls and as a result of rain events. This water would be treated to remove sediment and tested to ensure that it does not contain contaminants prior to discharge either into the sewer system or into the Hudson River. DEP controls discharges into the sewer system, and DEC controls discharges into the water bodies of New York State, including the Hudson River. These agencies have enforceable regulations in place to protect water quality and to ensure that the sewer system is not adversely affected by dewatering. Chapter 11, “Natural Resources,” of the EIS also includes an analysis of stormwater runoff to the Hudson River and concludes that there would be no adverse impact from this runoff.

## **CHAPTER 12: HAZARDOUS MATERIALS**

**Comment 12-1:** Columbia does not provide any disclosure of the impacts of construction and demolition air emissions (including lead, asbestos, formaldehyde, and other pollutants) and site remediation of the many hazardous chemicals that may be present in the project area. (WEACT)

**Response 12-1:** Chapter 12, “Hazardous Materials,” lists all of the materials identified through sampling or likely to be found in the Project Area that could adversely affect construction workers, residents, passersby and others in the area during construction. New York City local laws require asbestos to be removed and disposed of properly before demolition, so that during construction, there would be no impact from these materials in

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existing buildings. Lead and other contaminants in the Project Area buildings and soils would be addressed through a Construction Health and Safety Plan (CHASP) and Remedial Action Plan (RAP), as discussed in Response 12-2, below.

### **Comment 12-2:**

Although the DEIS states that Columbia would develop a CHASP and implement a RAP to ensure no significantly adverse impacts on public health, workers' safety, or the environment would result from potential exposure to hazardous materials encountered in the course of construction or development activities, the University defers discussion of the provisions of the CHASP and RAP until it undergoes permitting procedures with the relevant agencies. Columbia's justification for this deferment is that it owns and/or controls only about 70 percent of the properties in the Project Area and that it would be speculative to discuss the contamination levels existing on non-Columbia property. This is an attempt to avoid full disclosure of the fact that Columbia's construction activity will expose the Manhattanville community to unacceptable levels of highly toxic material. (WEACT, CTPC)

Columbia has stated that it will place an E-designation on all contaminated properties that it cannot inspect. By its own admission, the University already owns or controls 70 percent of the parcels needed to build the expansion campus in its entirety, yet it defers review of the remediation plan to develop a CHASP and RAP that will undergo later review by DEP. This is improper deferral of the environmental review and not permissible under the law. (Alexander, Bonvell)

### **Response 12-2:**

At this time, Columbia owns or controls 75 percent of the lots in this area—which represents approximately 65 percent of the land area. As described in Chapter 12, an E-designation would be placed on lots comprising development sites in the Academic Mixed-Use Area not owned by Columbia University at the time the proposed zoning is approved and for the remainder of the Project Area, pursuant to Section 11-15 of the New York City Zoning Resolution. An E-designation is a mechanism to ensure that properties that are subject to an area-wide rezoning, but cannot be investigated as part of the CEQR process in connection with a rezoning because they are not owned or controlled by the applicant, are properly investigated and remediated, if necessary, before any future redevelopment. The owner and developer of a lot with an E-designation must prepare a Phase I Environmental Site Assessment (Phase I ESA) and, if necessary, implement a testing and sampling protocol and Health and Safety Plan (HASP) to the satisfaction of DEP before the New York City Department of Buildings (DOB) issues a building permit. Based on the results of the sampling protocol, if remediation is necessary, a RAP and CHASP must be submitted and

approved by DEP. If Columbia were to acquire and develop all properties in Subdistrict A, Columbia would be responsible for addressing hazardous materials conditions according to the E-designations.

A RAP and CHASP that addresses the entire Academic Mixed-Use Area (for the entire development area, regardless of ownership at this time) has been submitted to and approved by DEP. The RAP and CHASP has been structured to outline basic procedures for the monitoring, identification, testing, removal, and disposal of contaminated soils. It is also structured to require site- (or area-) specific addenda, which would list details of each step in the process for each site (or area) under construction. These addenda would require the approval of DEP, and DEC for sites involving petroleum. Chapter 12 in the EIS discloses the full range of potential contaminants that may be present on the project site. The type of contamination found in the study is not unusual, and can be addressed using standard remediation practices.

**Comment 12-3:** The DEIS states that the Project Area is subject to general manufacturing uses that can be ascertained through either routine property searches or, in the case of a public entity like the MTA, through public information requests under New York State's Freedom of Information Law (FOIL). Through these and other mechanisms, the University can easily develop an assessment of the level of hazardous material contamination on the vast majority of the parcels in the Project Area and thus present a reasonable CHASP and RAP on which decisionmakers can base an assessment of the safety and remediation measures that will have to be implemented to ensure protection of community members and the environment. (WEACT)

**Response 12-3:** A Subsurface (Phase II) Investigation was conducted and included soil and groundwater sampling on Columbia-owned or controlled properties in the Project Area. These data were submitted to the DEP and were summarized in the EIS. On those sites that Columbia does not own or control, a preliminary investigation was undertaken considering present and past uses and data on spills available in the DEC records, and an evaluation of the potential for the presence of hazardous materials was made. A RAP and CHASP that addresses the entire Academic Mixed-Use Area (for the entire development area, regardless of ownership at this time) has been submitted to and approved by DEP.

**Comment 12-4:** The DEIS states that Columbia will develop a CHASP and RAP, and to implement these measures, Restrictive Declarations will be developed.

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The mere mention of Restrictive Declarations does not satisfy the legal requirements under state and federal cleanup regulations for responsible party commitments. (Alexander, Bonvell)

**Response 12-4:** The Project Area is not a Superfund Site, nor is it a Brownfield Cleanup Program. It will be remediated by Columbia University, at its own expense, with oversight of the DEP and DEC for sites involving petroleum, subject to the CEQR process and the requirements of the State GPP and CEQR findings. DEC would review and oversee remediation for sites involving a release of petroleum.

**Comment 12-5:** The DEIS analysis has uncovered widespread presence of volatile organic compounds (VOCs) in the soil and groundwater throughout the Project Area, yet indicates that capping contaminated soil with a building or paving is sufficient to contain the contamination. Paint storage and manufacturing, and automotive repair and body work (which are the primary land uses in the Project Area at present) are notorious for producing VOC contaminants. Even if a particular cap were sufficient to prevent them from entering one building, VOCs can travel through the soil and find an alternative exit point. Both DEC and the New York State Department of Health have issued technical guidance and regulatory policies regarding the control of vapor intrusion. Columbia insists that capping contamination with a building or paving is sufficient to contain the contamination. DEP, DEC, and U.S. Environmental Protection Agency (EPA) guidance and regulations all disagree with this assessment. Columbia must develop a new strategy for controlling VOC vapor intrusion to protect public health and the environment. (WEACT, Alexander, Bonvell)

**Response 12-5:** The FEIS has been revised to clarify that where the investigations reveal VOCs in groundwater or soil that could remain below enclosed structures, appropriate vapor mitigation systems and/or vapor barriers or other measures would be designed to mitigate the potential for vapor intrusion or migration of VOCs to protect the public health and the environment. The DEP-approved RAP and CHASP for the Academic Mixed-Use Area addresses this concern. It also states that barrier types will be determined on a site-by-site basis, and will be detailed in site-specific addenda submitted to DEP prior to commencement of each development phase. All barrier designs and specifications will be submitted to DEP for approval before implementation.

**Comment 12-6:** Among the potential exposures Manhattanville community members will face are contaminated soil, hazardous historic fill, and demolition debris that will be created during construction, some of which will have

to be transported through neighborhood streets for off-site disposal. Yet the DEIS makes no mention of how Columbia will ensure public health and safety during this work. (WEACT)

**Response 12-6:**

As discussed in Chapter 12, all soil will be tested before it is removed from the site, and will be disposed of in landfills rated to accept the contaminants that the soil may contain. The DEP-approved RAP and CHASP for the Academic Mixed-Use Area provides that transportation of material leaving the site for off-site disposal will be in accordance with federal, state and local requirements (including 6 NYCRR Part 364 and USDOT regulations) covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. All vehicles leaving the project site will be inspected to ensure that contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site. Any situations involving material spilled in transit or mud and dust tracked off-site will be remediated. The access routes will be inspected for road conditions, overhead clearance, and weight restrictions. In addition to the general RAP and CHASP, site-specific addenda would contain site-specific procedures for testing, monitoring, controlling, handling, and transporting (including routes) contaminated materials to protect public health during construction. Also, as part of Columbia University's emissions reduction program during construction (see Chapter 21), fugitive dust control plans will be required as part of contract specifications. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the large construction sites. All trucks hauling loose material will be equipped with tight fitting tailgates and covered prior to leaving the sites.

**Comment 12-7:**

The DEIS does not indicate how groundwater from the Project Area (which is contaminated with VOCs, semivolatile organic compounds [SVOCs] and other contaminants) will be handled to ensure the health and safety of the West Harlem community. Columbia must have a comprehensive technical plan to address exactly how it plans to perform these remediations. (WEACT, Alexander, Bonvell)

**Response 12-7:**

As described in Chapter 21, contaminated groundwater pumped from any construction excavation will pass through a treatment system prior to discharge to either the public sewer system or the Hudson River. The treatment system will be permitted through DEP, and the discharged water will be tested to assure that it meets DEP sewer discharge criteria. Discharge into the Hudson River is governed by DEC regulations. For small areas, it may be possible to pump groundwater into on-site holding tanks, which would then be pumped into trucks for off-site disposal.

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**Comment 12-8:** The presence of hazardous materials in, on, or under any properties slated for demolition or to be left standing in the development area, and reports submitted to regulatory agencies, should be included in the EIS. (CTPC)

**Response 12-8:** The Subsurface (Phase II) Investigation included soil and groundwater sampling on Columbia-owned or controlled properties in the Project Area. These data were submitted to the DEP and were summarized in the EIS. On those sites that Columbia does not own or control, a preliminary investigation was undertaken, considering present and past uses and data on spills available in the NYCDEC records and an evaluation of potential for the presence of hazardous materials was made. This analysis is the subject of E-designations for these properties, requiring that, before any disturbance of soil or construction can begin, a Phase II Investigation be undertaken with full review by DEP, and that remediation be required, as necessary.

**Comment 12-9:** The DEIS mentions a swimming and diving center that would probably contain chlorine in large volumes. There is neither mention nor modeling of such large volume chemical risk from accidental release. Large quantities of chlorine or any of its oxygen analogs would have to be reported under the State and federal Toxics Release Inventory. (Alexander, Bonvell)

**Response 12-9:** The safety protocols that are in place at Columbia University's existing swimming pools would be in place for the Proposed Actions. These protocols are compliant with New York City Department of Health regulations. As with Columbia's existing pools, the Department of Health would conduct regular inspections, and issue annual permits. Where chlorine is used for swimming pools, the University would utilize briquettes or liquids. All required practices would be followed for the safe storage and handling of the material, including keeping the product tightly sealed in its original containers on pallets with spill containment and stored in a cool, dry, well-ventilated area away from flammable or combustible material.

**Comment 12-10:** Because the DEIS relies entirely on the CHASP and RAP that Columbia will develop with DEP, it completely ignores any mention of any analysis of odor impacts from remediation work. (WEACT)

**Response 12-10:** RAP and CHASP addenda for each individual site will contain site specific measures to mitigate odors, such as the use of foaming agents or other methods. As mentioned above, the site-specific RAP and CHASP addenda, which would include these measures, would be

approved by DEP. With these measures in place, no odor impacts are expected to occur.

**Comment 12-11:** The applicant wants to build a 17-acre “bathtub” up to seven stories deep. This is a brownfield with over 100 years of polluted soil. Where does the applicant plan to dump this dirty dirt? How is the considerable amount of groundwater during construction to be disposed of? The EIS proposes either holding tanks on the site or discharge directly into the Hudson River. Does direct discharge into the river make sense? (South-CB9)

**Response 12-11:** As discussed in Chapters 12 and 22, all excavated soil that will be disposed of off-site will be tested in accordance with the receiving facility. Soil may be segregated based on content (e.g., construction and demolition debris) or contamination (e.g., petroleum contamination, elevated metals, etc.). Each waste stream will be transported off-site in accordance with state and federal regulations and will be disposed of at appropriately licensed/permitted facilities. As discussed in Chapter 21, dewatering would be required during excavation of the underground space because of some seepage through the slurry walls and rain events. Any contaminated groundwater would be treated to remove sediment and tested to ensure that it does not contain contaminants prior to discharge either into the sewer system or into the Hudson River. No untreated groundwater will be pumped to the Hudson River.

#### **CHAPTER 14: INFRASTRUCTURE**

**Comment 14-1:** The DEIS fails to address sewer capacity and stormwater runoff impacts. (WEACT)

**Response 14-1:** Chapter 14, “Infrastructure,” provides a detailed analysis of potential sanitary sewage and stormwater impacts from the Proposed Actions, and concludes that no significant impacts would be expected.

**Comment 14-2:** The proposed zoning changes will result in tremendous demands on the City’s sewage and water processing infrastructure. As it is, during periods of rain, the City’s combined sewer system is often overwhelmed, and raw sewage, along with pollution from roadways, is poured directly into local waterways, such as the Hudson River. Once Columbia uses come online, overflow events will be much more frequent. Because it plans to excavate well below the water table, the University will need to discharge countless volumes of water directly into the river or through the combined sewer system. We can start to

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feel the impacts as early as next year, when construction is slated to begin. (Corbin-Mark-CB9/WEACT)

### **Response 14-2:**

The DEIS examines the demands that the Proposed Actions would have on sewage and water processing infrastructure and concludes that there would be no significant adverse impacts on these systems from the Proposed Actions. The analyses included studies of overflow events (which would be slightly reduced because the stormwater flows from the project site would be separated from the sanitary flows that currently enter the combined sewers), the effects on the North River WPCP, and the effects on the Hudson and Harlem Rivers, as well. The analyses conclude that the proposed rezoning would not result in any significant adverse impacts.

As discussed in Chapter 21, dewatering would be required during excavation of the underground space because of some seepage through the slurry walls and rain events. This water would be treated as necessary to remove sediment and tested to ensure that it does not contain contaminants prior to discharge either into the sewer system or into the Hudson River. DEP controls discharges into the sewer system, and DEC controls discharges into the water bodies of New York State, including the Hudson River. These agencies have enforceable regulations in place to protect water quality and to ensure that the sewer system is not adversely affected by dewatering.

After the soil is excavated, the slurry wall would be waterproofed to prevent seepage from entering the underground space. The waterproofing would minimize the volume of water entering the underground space. The small volume of seepage would be discharged either into the new separate stormwater system or into the New York City sewerage. The volume of seepage is expected to be minimal and not have an adverse effect on either system.

### **Comment 14-3:**

What is the status of the amendment to drainage plan currently being reviewed by DEP? Given the Consent Order, potentially DEP would want separate sewers to improve the current condition. Has Columbia received any indication that adding new combined sewers to the system, rather than separate storm and sanitary, will be accepted? The project should incorporate measures to mitigate the problems of storm runoff such as retention tanks at the buildings to slow/reduce flows and systems to harvest gray water for use in plumbing and landscaping. (Stern)

### **Response 14-3:**

The amended drainage plan is under review by DEP. Columbia University intends to install separate stormwater lines to service the Academic Mixed-Use Area, which would help DEP achieve the goals of

the Consent Order. DEP has reviewed Columbia University's plans for handling sewage flows to the combined system, and has indicated that with the proposed improvements, the combined system would be able to handle the flows without significant adverse impacts. The proposed separate stormwater system would reduce flows into the combined sewer system.

**Comment 14-4:** The DEIS references Columbia's sewer discharge policy to assure reviewers that safety standards for such practices are in place, but nowhere is this policy appended for review. (WEACT, CTPC, Alexander, Bonvell)

**Response 14-4:** Columbia has a "no drain" disposal policy for laboratory operations. This can be found on page 28 of 90 in the following link from Columbia's health & Safety manual- Laboratory Safety. <http://www.ehrs.columbia.edu/LabSafety.pdf>

**Comment 14-5:** The EIS does not properly address obtaining accurate present capacity and use of the North River sewage treatment plant, does not state what methodology will be used to analyze that data, and does not project the impact of the capacity of sewage treatment over the build periods. (CTPC)

**Response 14-5:** The EIS presents the design and permitted capacity of the North River Water Pollution Control Plant (WPCP) and the latest flows into the WPCP. These numbers have been verified by DEP. The analysis methodology is presented in the EIS and the projected future flows in 2015 and 2030, both with and without the proposed project are presented in the EIS.

**Comment 14-6:** No analysis is provided of the impacts of the Proposed Project on sewer system flow capacities, nor on wastewater treatment capability to handle both strength and flow resulting from dewatering for the completed project. The DEIS states that construction excavation water would be sent to the sewer or would be discharged to the Hudson River, but does not state on what criteria the distribution to the river or to the waste water treatment plant would be made. (Alexander, Bonvell)

**Response 14-6:** The volumes of the expected flows from construction dewatering are not known at this time. DEP has regulations in place that govern the allowable concentrations of contaminants in the dewatering fluids, and the systems (sewers and WPCP) are designed to handle those concentrations. Whether the dewatering fluid is discharged into the combined sewers or into the Hudson River would be decided in consultation with DEP and DEC and would be in compliance with the

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regulations of those agencies. The decision would be based on locations of the dewatering pumps, expected volumes, and frequency of discharges.

**Comment 14-7:** The DEIS states that Columbia University would upgrade the water and wastewater lines because the increase in flows would exceed existing line capacity. Does this mean that Columbia University assumes all legal responsibility for these lines? Has Columbia University filed for a General Permit for Stormwater Construction Discharges? (Alexander, Bonvell)

**Response 14-7:** Columbia University would be responsible for the engineering, design, and construction of the water and sewer lines to the standards of DEP. After the lines are installed, inspected, tested, and shown to perform to DEP standards, DEP would accept ownership of the lines, and Columbia University would have no further legal responsibility for the lines. Columbia University would file for a General Permit for Stormwater Construction Discharges at the commencement of construction, when the designs are complete and the expected Best Management Practices for stormwater discharges are known.

**Comment 14-8:** The DEIS notes the enormous quantity of solid wastes that will be generated during the entire project and continuously thereafter. Construction and demolition debris are not quantified, nor are hazardous and special wastes. Will Columbia University require a different status under Resource Conservation and Recovery Act (RCRA) as a result of this project? Does it contemplate the on-site treatment of any RCRA or state-listed hazardous or special wastes? How many storage and transfer locations will be used for hazardous, medical, and special wastes? (Alexander, Bonvell)

**Response 14-8:** Columbia University would not require a different status under the Resource Conservation and Recovery Act than it currently has at its other campuses. The handling of medical, hazardous, and radiation wastes as well as any on-site treatment are discussed in Chapter 22, "Public Health." Columbia University has a comprehensive system in place for acquiring, transporting, using, storing, and disposing of all types of wastes, including medical, hazardous, and radiation wastes. Columbia's practices at the other campuses would be implemented at the proposed Manhattanville campus. The exact location and number of storage and transfer points is a function of the final building design. These locations would be subject to approval by a number of regulatory agencies, including the New York City Fire and Health Departments.

**Comment 14-9:** The increase in demand for water, sewage, power, sanitation, traffic control, and public transportation will overwhelm existing facilities. The DEIS treats these issues with vague, non-specific assurances. (J. Kraus)

**Response 14-9:** Each of the categories listed in the comment has been addressed quantitatively in the DEIS. Significant adverse impacts on traffic and public transportation have been identified in Chapters 17 and 18. The demands for water, sewage, power, and sanitation are fully addressed in Chapter 14, and the analysis concludes that these demands would not significantly adversely affect the systems providing these services.

**Comment 14-10:** Snow removal needs to be specifically addressed in the infrastructure analysis. Currently, the Department of Sanitation stages its snow melting operation within the study area, and any changes to this operation need to be fully studied and mitigated. (Shuffield)

**Response 14-10:** New York City Department of Sanitation (DSNY) is responsible for snow clearing and removal on City Streets. The Proposed Actions would not add to or change the current amount of snow clearance that is required. No DSNY facility is located within the Academic Mixed-Use Area.

**Comment 14-11:** The infrastructure analysis should include any recurring maintenance impacts that may occur, or be precluded, with installation of new telecommunication infrastructure. (Shuffield)

**Response 14-11:** As described in Chapter 14, as part of the construction activities, the area between West 125th Street and West 133rd Street between Twelfth Avenue and Broadway would be excavated sequentially to allow for the construction of the underground space. As part of the excavation, all of the utilities currently in the street would be capped and the utility lines removed. After construction of the underground facilities, the utilities, including telecommunication infrastructure, would be placed in the street bed, where it would be readily accessible for maintenance and repair. Maintenance of utility services would be coordinated with the appropriate City agencies and private utilities.

## **CHAPTER 15: SOLID WASTE AND SANITATION SERVICES**

**Comment 15-1:** Columbia must ensure the infrastructure needs, including solid waste and sewage disposal of project-associated increases in population density, will be met so that additional pollution sources will not be brought to bear on the West Harlem community. Columbia must also implement a zero waste policy to ensure that the marine garbage

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transfer station will not open and to decrease traffic of diesel garbage trucks through Harlem streets. (Shepard)

**Response 15-1:** The project-associated increases in solid waste and sewage have been analyzed quantitatively in the EIS. The analysis concluded that the Proposed Actions would not have a significant adverse impact on solid waste and sanitation services. No addition facilities would be needed in the West Harlem community to handle the increases from the Proposed Actions. In addition, Columbia University has programs in place, as described in Chapter 15, "Solid Waste," of the EIS, to minimize to the extent practicable the generation of solid waste.

### **CHAPTER 16: ENERGY**

**Comment 16-1:** As stated in CB9's resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must engage in sustainable design and construction practices that result in LEED platinum designation by U.S. Green Building Rating System prior to the commencement of construction. (CB9-1, Lewton, Tajiddin)

Columbia should exceed the LEED platinum standard in all the buildings they rehabilitate and/or construct. (CTPC)

**Response 16-1:** The DEIS presents Columbia University's commitment to sustainable development in Chapter 16, "Energy." The LEED designations are evolving and are expected to change in the future. These designations are generally related to office-type buildings, and many rating criteria are not applicable to classrooms and laboratories. EPA, in conjunction with the Department of Energy, has developed a program specifically aimed at laboratories (Labs21). Columbia University has participated in this program and expects to in the future. Sustainable development would be factor in the design, construction, and operation of each of the new buildings.

**Comment 16-2:** Columbia has stated that it is developing new policies regarding environmental stewardship and sustainability, yet the DEIS provides no description of the measures, their goals, or plan for implementation. (WEACT, Alexander, Bonvell)

**Response 16-2:** The EIS presents Columbia University's Energy and Environmental design policy in Chapter 16. Consistent with LEED and Labs21, and with policies developed and adopted by cities and peer universities, Columbia has stated that it will commit to:

- Design, build, and operate residential and academic buildings within the Project Area to achieve a minimum of LEED NC v. 2.2 Silver certification;
- Design, build, and operate new academic research buildings using the Labs21 guidelines as a planning tool, and demonstrate leadership in sustainability by endeavoring to achieve a minimum of LEED NC v. 2.2 Silver certification for these buildings as well;
- Commission all newly constructed buildings to ensure optimal system performance;
- Establish a revolving central Green Fund in the amount of \$10 million for energy-efficient measures relating to building components and operations that may be more expensive than for conventional buildings;
- Reduce energy consumption in all new construction and major renovations as compared with the requirements in the New York State Energy Conservation Construction Code;
- Promote building designs that improve indoor environmental quality by incorporating natural light and ventilation where practicable to create an improved working and learning environment for University faculty, other employees, students, and guests; and
- Draw on the expertise of design, energy, and environmental nongovernmental organizations, government agencies, community organizations, employees and faculty members, and others with expertise to keep abreast of the latest developments in the field and continue to incorporate new knowledge of the best practices into its policies and guidelines.

These commitments will be included in the Restrictive Declaration for the Academic Mixed-Use Area.

**Comment 16-3:** The DEIS discusses Columbia University’s commitments with respect to energy and design. How will these commitments be made enforceable? (Alexander, Bonvell)

**Response 16-3:** Columbia University’s commitments with respect to energy and design will be included in the Restrictive Declaration for the Academic Mixed-Use Area.

**Comment 16-4:** No analysis of alternative energy sources is provided. (Alexander, Bonvell)

The DEIS notes that Columbia does not require the cogeneration plants, but that they would be advantageous for the University. Bearing this in mind, there is absolutely no mention in the DEIS of any green

technologies such as solar, wind, biomass, or fuel cells for these two energy plants. Given that Columbia is promoting the proposed campus as a campus for “the next century,” one would have to wonder why its schools of engineering, architecture, and urban planning would not jump at the chance to create a wonderful learning experience for its own students and also for research on energy independence by creating power cogeneration with alternative energy sources. (Favant)

**Response 16-4:**

Cogeneration is generally considered a strong “green” strategy. In appropriate circumstances it leads to dramatic gains in energy efficiency and significant improvements in overall greenhouse gas emissions, as it takes advantage of steam otherwise emitted and lost to create more energy that can then be fed into the system. Faculty and students have looked at a number of alternative energy options as part of their programs, but reliability remains a challenge. For example, solar energy continues to develop as a technology, as do others. They are currently not sufficiently reliable and cost-effective to be part of a primary energy strategy. Columbia has agreed to design buildings to obtain a LEED NC v. 2.2 Silver certification as a minimum for academic and housing buildings in the Project Area and to design academic research buildings using Labs21 guidelines as an integrated design tool.

**Comment 16-5:**

Columbia’s expansion as planned poses a tremendous threat to the local air quality because of its energy needs. Columbia plans to construct two “energy plants” and a cogeneration. Cogeneration plants can be efficient electricity generators, but they’re only as “clean” or polluting as the fuel source, which the DEIS fails to provide; nor does it give any analysis of the environmental impact of a cogeneration. Moreover, the University is ambiguous as to the energy plants’ fuel source, stating only that the facility will use either natural gas or fuel oil, the dirtiest energy source of all. Despite the increasing popularity of new alternative energy sources such as geothermal energy, solar power, fuel cells, and other technologies that are used to run power plants, Columbia makes no mention of having considered any of them. The DEIS only describes minimal design measures that will provide unclear energy benefits. Missing from this discussion is a conservation strategy—a plan for using less energy, period. (Corbin-Mark-CB9/WEACT)

**Response 16-5:**

Columbia’s consideration of cogeneration is as an alternative to the Proposed Actions. A detailed impact analysis, including all relevant assumptions of operating parameters (such as fuel source) is provided in Chapter 24. The analysis concludes that compared with the Proposed Actions, the Cogeneration Energy Supply Alternative would result in similar levels of pollutant emissions, and like the Proposed Actions, no significant adverse air quality impacts are expected from the

Cogeneration Energy Supply Alternative. Also see Responses to Comments 16-2 and 16-4.

**Comment 16-6:** The University's vehicle fleet is a prime candidate for piloting many of the newly developed biodiesel fuels; space heating equipment and the central energy plant can be powered by geothermal energy; and some of the workspace lighting requirements can be powered by solar energy. (WEACT)

**Response 16-6:** The University is currently examining how to make best use of developing renewable energy technologies in its vehicle fleets as well as for other venues. The University has taken advantage of opportunities such as replacing public safety cars with hybrid vehicles as those cars are retired. The University's small vehicle fleet does not use diesel for the most part, so biodiesel is not necessarily practical at this time, but the University remains committed to finding opportunities to having renewable energy sources. Currently the University's waste vegetable oil is taken to a biofuel refiner for processing. The availability of biodiesel and biofuels in the New York metro area, while improving, is not yet developed as in other parts of the country. In addition, some biofuels have negative implications for food supplies, and have varying impacts on greenhouse gas emissions. Renewable energy sources such as geothermal and solar are options that may make sense in the future, particularly as energy economics and technology continue to develop at a rapid pace, reduce costs and improve reliability. The University will continue to evaluate market, greenhouse gas emission and food supply implications and seek to incorporate the most feasible options into its planning.

**Comment 16-7:** Columbia must ensure that the MTA Manhattanville Bus Depot reconstruction will be built to LEEDS gold standard and will not result in the reopening of the Amsterdam depot, nor negatively affect other environmental justice communities in Northern Manhattan or the Bronx. (Shepard)

**Response 16-7:** The replacement of the MTA Manhattanville Bus Depot will be constructed to the standards required by MTA, the owner/operator of the depot. There is no intention of reopening the Amsterdam depot in relation to this project.

## **CHAPTER 17: TRAFFIC AND PARKING**

**Comment 17-1:** The DEIS's analyses use assumptions from other EIS documents that were themselves developed by adjusting the assumptions of yet earlier

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studies. This results in unreliable study findings. For example, the Columbia DEIS uses assumptions developed for the Hudson Yards FEIS for residential parking accumulation. There is no basis to presume the temporal distributions would be the same in areas with different demographics and different relationships to employment centers. Primary source data should be used whenever possible. Secondary data must be verifiable and strictly footnoted. Quoting from previous EIS document without proper sourcing should not be accepted. The repeated adaptation of trip generations from previous EIS reports should be discouraged in the transportation analyses. If the original methodology of trip generation rates cannot be properly documented, actual counts at appropriate locations should be performed. (Shuffield)

**Response 17-1:** Sourcing approved studies, particularly for conventional uses, such as residential, is standard and acceptable practice under CEQR. As detailed in the DEIS, trip characteristics of the primary development components contemplated for the Proposed Actions, including academic and academic research uses, were derived from detailed survey results and facility data provided by Columbia University. However, for some study components, such as the residential parking accumulation, work performed for other studies such as the Hudson Yard FEIS was used.

**Comment 17-2:** Regarding the loss of local private off-street parking garages, there will be an increase in traffic in this neighborhood long before any garage that Columbia might propose it would use to mitigate loss of such garages. As well, street parking will become scarcer and the entire parking situation will be worse than it is now. (Favant)

**Response 17-2:** The analysis presented in Chapter 17, "Traffic and Parking," acknowledges that due to the loss of available parking, the Proposed Actions would result in a significant adverse parking impact. Since the issuance of the DEIS, Columbia University has developed a plan with DEP under which it would license portions of the property north of West 135th Street under the Henry Hudson Parkway viaduct from DEP under which it would replenish the area's public parking supply. Conceptual layouts of the available space indicate that approximately 400 spaces could be provided at this location. These spaces would be available as parking mitigation. Chapter 23 of the FEIS has been updated to account for this mitigation and the potential addition of up to 72 spaces at Columbia University's 560 Riverside Drive garage. In addition, the revised construction program, in which Phase 1 construction activities would extend an additional block to the north, would allow for the construction of a larger portion of the proposed below-grade space in Phase 1, and permit below-grade on-site to come

online earlier than previously proposed in the DEIS, thereby improving both the on- and off-street parking situation.

**Comment 17-3:** Parking is not really a problem in West Harlem. However, by exclusively controlling 17 acres of land, Columbia would therefore be controlling the parking at a profit. People in the neighborhood will not be able to afford to park there like they do now. (Tajiddin)

**Response 17-3:** Columbia University would be providing parking at the proposed Manhattanville campus only for people associated with the University. Columbia does not provide parking for financial gain. Non-University parking in the Manhattanville area is market driven, and is expected to continue to be market driven and independent of the University.

**Comment 17-4:** An accurate count of street parking spaces is missing in the EIS. The issue of parking for drivers who want to have easy access to current businesses and residential buildings is ignored, and the future of on-street parking in the proposed expansion area needs to be clarified. (CTPC)

**Response 17-4:** The results of a detailed on-street parking analysis was presented in the Chapter 17 of the DEIS. This analysis was based on a detailed field inventory of on-street parking in the study area. NYCDOT is and will continue to be responsible for determining parking regulations when project construction is completed.

**Comment 17-5:** Columbia plans to prohibit parking on the street in certain areas and must preserve or increase the free street parking available to community residents. (Sherwood)

**Response 17-5:** The comment is incorrect. NYCDOT is and will continue to be responsible for determining on-street parking regulations. Columbia has no plans to seek to prohibit on-street parking.

**Comment 17-6:** The best way to prioritize pedestrians at-grade is to minimize the amount of parking provided. University-related parking, whether new or existing, should only be provided at the expense of the driver. The capital, maintenance, operating, and debt service costs of all campus parking should be paid 100 percent by the drivers, not subsidized by the University. This would minimize the vehicular impact on the community. The result of unbundling the cost of parking will be the need to construct fewer spaces; the funding for this resulting “surplus” should instead be allocated to improving transit, pedestrian, and bicycle access to the study area. (Sheffer)

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- Response 17-6:** Comment noted. The results of detailed pedestrian studies are present in Chapter 18, “Transit and Pedestrians,” of the DEIS. These studies show that the Proposed Actions would not result in any significant adverse pedestrian impacts. In addition, the Proposed Project would result in sidewalk and other pedestrian improvements, including new traffic signals and mid-block crosswalks along the proposed pedestrian spine, which would be expected to result in aesthetically enhanced pedestrian experiences.
- Comment 17-7:** The EIS should include a level of service analysis for bicycle lanes and a projection of bicycle parking needs. Mitigation measures should be developed to improve the level of service and attract more trips from motorized modes to bicycle mode. (Shuffield)
- Response 17-7:** The DEIS analysis was conducted in accordance with guidelines from the *CEQR Technical Manual*, which do not require an operational analysis of bicycle travel. Columbia University would provide dedicated space for bicycle parking when sufficient demand for such space arises.
- Comment 17-8:** Turning and ATR counts should be conducted at 125th Street and St. Nicholas Avenue for a full analysis of the intersection, including pedestrian/vehicle conflicts outside the subway station. (Shuffield)
- Response 17-8:** The selection of study area intersections was presented and reviewed during the public scoping process and deemed appropriate by CPC (the lead agency for CEQR), DCP and NYCDOT. This process concluded that the West 125th Street and St. Nicholas Avenue intersection was not considered one of the necessary traffic analysis locations for assessing project impacts. However, to address pedestrian activities entering/exiting the 125th Street subway station at this location, a detailed analysis of the intersection crosswalks was undertaken. As discussed in the analysis methodology section in Chapter 18 of the DEIS, pedestrian-vehicle conflicts were also accounted for in the analysis. In addition the pedestrian safety assessment presented in Chapter 17, the DEIS concluded that this intersection is not considered a high vehicular-pedestrian accident location.
- Comment 17-9:** The transportation analyses should specifically include and provide methodology in the appendix for trips between the various Columbia campuses, especially for the midday and PM peak periods. (Shuffield)
- Response 17-9:** The traffic analysis accounts for trips by Columbia personnel among its campuses as presented in Chapter 17, Table 17-4a. In addition, Columbia University is committed to providing shuttle service between

its various campuses. Shuttle trips were also accounted for during all analysis peak hours.

#### **CHAPTER 18: TRANSIT AND PEDESTRIANS**

**Comment 18-1:** Getting down the sidewalk or across an intersection or into a subway car has become a challenge in Morningside Heights during the academic year. Moving this increased density north into West Harlem, with no increased level of service by the City, will just create new problems. (Singley)

**Response 18-1:** The EIS provides a detailed analysis of potential transit and pedestrian impacts from the Proposed Actions, and concludes that no significant subway line-haul or pedestrian impacts are anticipated. Significant bus line-haul impacts and impacts at the 125th Street No. 1 train subway station escalators are predicted to occur, and measures to mitigate these impacts are in Chapter 23.

#### **CHAPTER 19: AIR QUALITY**

*See also "Chapter 22: Public Health," below, for related comments.*

**Comment 19-1:** While Columbia has chosen study data from monitors as far away from West Harlem as Queens and the Bronx Botanical Gardens, WEAFT, in collaboration with the U.S. Environmental Protection Agency [EPA] and Columbia's own public health faculty, has shown that monitors placed closer to the pollution source give a much more complete picture of the pollution output from that source. Air monitors that measure the criteria pollutants required by EPA and CEQR exist much closer to the project site (in East Harlem and the South Bronx); the new analysis must take data from these. (Earle)

**Response 19-1:** The comment reference to the monitoring sites used in the DEIS is incorrect; no monitoring sites referenced in the DEIS are located in Queens or at the New York Botanical Gardens. The monitoring sites selected are operated by DEC, as recommended in the *CEQR Technical Manual*. They are designed to measure ambient air quality that is representative of areas of New York City, and must meet federal requirements regarding site location, measurement methodology, quality assurance/quality control, and data availability. As presented in the DEIS, the background concentrations used represent the highest and second-highest concentrations over the most recent three-year period, and were chosen based on their proximity to the project area. The FEIS contains updated monitoring information and utilizes Manhattan-based monitoring sites for all pollutants except for lead, which is currently

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monitored at only one location in New York City, in Staten Island. The comment suggests that “source-oriented” sites are more suitable to characterize air quality in the study area. However, these sites by design provide data on air quality over a very localized and specific area, and are not indicative of air quality within the study area. Pursuant to CEQR, the air quality analysis requires the use of monitoring data that meets specific criteria for representative ambient air quality levels.

**Comment 19-2:** The University needs to address the community’s needs first before it may be allowed to go forward with the expansion. The CB9 197-a Plan provides feasible tools for controlling West Harlem’s air pollution problems. It mandates that all future developments consider cumulative impacts of pollution sources, especially the North River sewage treatment plant, studying their own pollution profile and mitigating accordingly. The plan also calls for the development of pollution control strategies and intensive “greening” efforts to improve the environmental quality of West Harlem. (Subudhi)

**Response 19-2:** Comment noted. Chapter 19, “Air Quality,” of the EIS provides a comprehensive analysis of potential air quality effects of the Proposed Actions. To analyze Columbia University’s proposed future development, the EIS analysis considers the cumulative impacts of pollution sources, including the North River sewage treatment plant. No significant impacts were predicted. The EIS presents Columbia University’s commitments with respect to a state-of-the art emissions reduction program and noise reduction measures during construction activities. The EIS also presents Columbia University’s Energy and Environmental design policy in Chapter 16. All of these commitments will be included in the Restrictive Declaration for the Academic Mixed-Use Area.

**Comment 19-3:** The DEIS states that Consolidated Edison will continue to provide electricity to the newly developed areas, yet there is no discussion of evaluation of the additional air pollution that will result from this. (Alexander, Bonvell)

**Response 19-3:** Much of the electricity distributed and transmitted by Con Edison is generated outside of New York City. As described in Chapter 16, the analysis found that the energy generation system and the transmission system would be capable of supplying the needed energy without expansion of the systems. Therefore, there would be no significant adverse air quality impacts on local or regional air quality due to the additional energy demand from the Proposed Actions.

**Comment 19-4:** The DEIS states that emissions from air toxics from industries are regulated by EPA, and that federal ambient air quality standards do not exist for non-criteria compounds. This is only partially correct. Both EPA and DEP have begun addressing air toxics and non-criteria pollutants on a larger scale, including for large projects such as this. New York's Air Guide 1 and 6 NYCRR Part 212 provide some specific guidance for the determination of significance for toxics and hazardous air pollutants. In addition, the applicant is required to address and mitigate all significant impacts identified in the DEIS, thus assuming a burden beyond that imposed by specific regulatory restrictions. (Alexander, Bonvell)

**Response 19-4:** An analysis of toxic air contaminants is typically required of major utility power plant projects or projects that process and emit chemicals subject to federal and state air toxics regulations. The Proposed Actions would not involve the operation of these types of emission sources and would not result in any significant quantity of toxic air emissions. It would not be subject to the existing federal regulations for hazardous air pollutants (HAPs). Therefore, an analysis of emissions of air toxics from the Proposed Actions is not appropriate for this project.

**Comment 19-5:** The DEIS fails to disclose the full range of toxic air pollution that will result from the construction and operation of the expansion campus. Columbia discounts its measured CO concentrations by a factor of 0.70, the unjustified accounting for "persistence of meteorological conditions and fluctuations in traffic volumes." Scientists agree that global temperatures are rising. In NYC, this is a particularly important issue to consider because heavily built neighborhoods are vulnerable to the urban heat island effect. That is, great open spaces that can help reflect radiation and carbon dioxide are in short supply while heavy use of asphalt and other paving material store heat for sustained warming throughout the day. Their persistent elevated temperature means that CO will have a much longer opportunity to affect its destructive power on the health of Harlem residents. By mid-century, New York City may experience as many as 49 days per year over 90 degrees and much shorter winter seasons. Columbia analyzes its emission profile using a model ambient temperature of 50 degrees F. Therefore, Columbia must reassess the project's impact on CO pollution and the consequent impacts on the health of Harlem residents. (CTCP, WEACTION)

**Response 19-5:** CO is estimated using an EPA model (CAL3QHC) that calculates CO concentrations over a 1-hour period. The *CEQR Technical Manual* recommends the use of a 0.70 persistence factor to estimate 8-hour average CO concentrations from the worst-case modeled 1-hour average CO concentration, taking into account the natural variability of

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meteorological conditions over longer periods of time, as well as the changes in traffic conditions (which are also based on a single hour of data). The persistence factor is designed to be a conservative estimate of CO concentrations over the 8-hour average, and is based on historical air quality monitoring data in New York City. The temperature of 50°F is referenced in the *CEQR Technical Manual*, and is based on guidance from the DEP for assessing impacts of mobile sources. Emissions of CO from automobiles is greater at lower temperatures, so the use of a summertime peak temperature to estimate CO impacts from the Proposed Actions would not be conservative.

**Comment 19-6:** Although Columbia claims that DEP policy allows it to conduct only a cumulative impact analysis on PM<sub>10</sub>, NO<sub>x</sub>, and SO<sub>2</sub>, the law requires cumulative analysis to be performed on both PM<sub>10</sub> and PM<sub>2.5</sub>. Columbia must conduct the appropriate cumulative impact analysis of PM<sub>2.5</sub> air pollution generated by the project (during both construction and operation) and other nearby pollution sources. (CTCP, WEACT)

**Response 19-6:** Under CEQR, a cumulative analysis of existing and proposed sources of air emissions is performed, in certain cases, to ensure that a Proposed Action would not cause or contribute to a violation of an air quality standard, where the standard is currently being met. Since New York City does not meet the ambient air quality standard for PM<sub>2.5</sub>, the current policy for evaluating impacts involves determining whether a proposed action would result in an incremental increase in ambient PM<sub>2.5</sub> concentrations above certain threshold levels. A description of the current PM<sub>2.5</sub> policies is provided in Chapter 19. The current guidance for evaluating impacts of PM<sub>2.5</sub> does not require a cumulative analysis, since the current analysis is based on an incremental analysis of PM<sub>2.5</sub> concentrations.

**Comment 19-7:** Columbia's proposed expansion has the potential to increase West Harlem's loading of ozone in a number of ways. First, during both construction and operation of the expansion campus, more vehicles (automobiles and diesel-operated vehicles such as buses and delivery trucks) will be on the road. The number of vehicles will increase regardless of whether they use ultra-low sulfur diesel fuel or regular dirty diesel fuel, will generate ground-level ozone. Third, the operation of the 19 boilers and other power generation equipment including the 23 emergency generators will generate ozone. Finally, the use of VOCs in building material, building adhesive, furnishings, and other laboratory operations will increase West Harlem's ground-level ozone. (CTCP, WEACT)

**Response 19-7:** As discussed in Chapter 19, ozone is a regional pollutant, which is formed from chemical reactions that occur in the atmosphere, well downwind of the sources of ozone precursor emissions. Therefore, emissions from the Proposed Actions would not affect ambient levels of ozone in the West Harlem community. Nevertheless, the Proposed Actions would be required to meet regulations that are designed to minimize emissions of ozone precursors, primarily NO<sub>x</sub> and VOCs. The major source of ozone precursors due to the Proposed Actions is from stationary sources of emissions, such as boilers, rather than from motor vehicles. Larger boilers, such as the units proposed for the Central Energy Plants, would be designed to meet more stringent emission limits for NO<sub>x</sub> (emissions of VOCs from boilers are minor), thereby lessening the Proposed Action's ozone potential.

**Comment 19-8:** Columbia does not discuss the project's impact on the overall NO<sub>x</sub> profile of Harlem nor does it discuss the cumulative impact of the project's NO<sub>x</sub> output and that of other pollution sources in the area. The DEIS gives some tables of the NO<sub>x</sub> output of the cooling towers, boilers, and HVAC systems, but lacks a discussion of what these numbers mean to the public health profile of the community or the air quality of the area. Columbia provides no analysis of the environmental public health impacts of its contribution to the increased SO<sub>x</sub> loading on the West Harlem community. There is no discussion of the environmental increase of this pollutant, or a discussion of the cumulative impact of the SO<sub>x</sub> output of the expansion campus' facilities and the existing pollution sources. Columbia's SO<sub>x</sub> data are derived from monitoring arrays that are some distance from Manhattanville. Consequently, the listing of the total concentration of SO<sub>x</sub> from the University's stack emissions is inadequate to analyze the environmental and health impacts of the increased pollutant loading. (CTCP, WEACT)

**Response 19-8:** From a public health standpoint, emissions of NO<sub>x</sub> and SO<sub>x</sub> from the Proposed Actions are insignificant. There is no ambient air quality standard for either pollutant. NO<sub>x</sub> is important as an ozone precursor. Ozone is a regional pollutant and the emissions of NO<sub>x</sub> from the Proposed Actions would not affect ozone levels in the West Harlem community. Most of the emissions of NO<sub>x</sub> and SO<sub>x</sub> from the Proposed Actions would be converted to NO<sub>2</sub> and SO<sub>2</sub>, respectively, in the atmosphere. Therefore, as presented in Chapter 19, a cumulative impact analysis was performed in the EIS for these pollutants, to determine the maximum air pollutant concentrations from HVAC systems proposed for the Proposed Actions and existing HVAC sources near the Project Area. The results of the analysis determined that maximum future pollutant levels of NO<sub>2</sub> and SO<sub>2</sub> with the Proposed Actions would be below

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NAAQS at all off-site receptor locations. The NAAQS are formulated to protect the public, including sensitive populations; therefore, there would be no significant adverse impact to public health from the Proposed Actions

**Comment 19-9:** Hazardous Air Pollutants (HAPS). Although the DEIS acknowledges that EPA regulates air toxics emissions, it states that the agency has not set federal standards for these non-criteria compounds. This statement is untrue. Both EPA and the New York State Department of Environmental Conservation (DEC) have begun to address these air toxics and require all permit applicants to identify and address the potential for emission of these toxics in their DEISs. (CTCP, WEACT)

**Response 19-9:** See Response to Comment 19-4.

**Comment 19-10:** The DEIS states that its proposed central energy plants and package boilers would require State facility permits from DEC. This could be misleading, since the name of that permit level is “Air State Facility” permits, and there is no discussion of its relationship to the next higher level of permitting, Title V. (Alexander, Bonvell)

**Response 19-10:** The FEIS deletes the reference to state facility permits since it refers to a specific type of permit. The type of permit is determined after more precise calculations of emissions, which will be conducted at a later time. The emissions reported in the DEIS are the reasonable worst case estimates based on the expected demands of the Proposed Actions.

**Comment 19-11:** Without federally enforceable permit limits, an applicant is required to analyze the impacts of the maximum emissions cases and to permit the facility to the maximum level of potential emissions. Potential to emit (PTE) is determined by calculating emissions for all sources at their maximum hourly rate for 8760 hours per year. If the applicant does not require this capacity, then federally enforceable capping conditions are in order to reduce the PTE. The PTE calculation for a facility must include all air emissions sources, and exempt activities of 6 NYCRR Part 201. Given this basic criteria for air permitting, the DEIS is deficient in not presenting the maximum level of emissions and acknowledging whether the project is subject to Title V permitting. (Alexander, Bonvell)

**Response 19-11:** The DEIS examined the potential impacts from the Proposed Actions, and determined that, where required, restrictions would be placed on the specific types and quantities of fuels used by the Proposed Action’s boilers on specific sites, to avoid potential significant impacts. These restrictions will be contained in the Restrictive Declaration for the

Proposed Actions, and they would also be incorporated into any future air permits for the proposed equipment. The comment also states that the DEIS is deficient by not determining what type of permit would be required. The DEIS does identify that a permit to construct from DEC will be required; however, the exact type of permit required (i.e., state facility or Title V) will be determined in consultation with DEC at the appropriate time. This determination has no bearing on the analysis presented in the DEIS, the scope of which is determined based on CEQR criteria. However, the FEIS includes a more detailed discussion of the future DEC permits that would generally be required.

**Comment 19-12:** From a permitting perspective, all co-located sources under common ownership and/or common control fall under the same permitting level, even if the sources are permitted separately. Thus, all emission sources at the Columbia University complex and potentially at the complex as a result of the Proposed Project are most likely subject to the same level of permitting, which will likely be Title V. (Alexander, Bonvell)

**Response 19-12:** See Response to Comment 19-7.

**Comment 19-13:** In order to satisfy both Title V and Prevention of Significant Deterioration (PSD) requirements, the relevant regulatory agencies (whether EPA or DEC) must be able to determine the environmental controls that will be necessary to protect Manhattanville's air quality from the expansion campus's stationary sources. The exact pollution output of each source depends on the energy production of the equipment, PTE, the maximum capacity of the equipment, whether and how often the equipment would be run at maximum capacity, anticipated hours in operation, and the fuel type to be used. The parameters above must be given facility-wide. The DEIS refuses to disclose most of these parameters. (WEACT)

**Response 19-13:** The DEIS analysis of the central energy plants and package boiler systems assumes that the equipment proposed would be designed with state-of-the-art combustion and air pollution control systems which would meet applicable federal, state and local regulations. The DEIS examined potential impacts from these systems, utilizing design information and, where appropriate, making conservative assumptions regarding their operation. The DEIS provides general information on the performance and operation of these systems, and discloses where restrictions would be necessary to preclude or avoid a potential significant adverse impact. The DEIS provides details on some of the parameters mentioned in the comment (see Chapter 19). In addition, all

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applicable design details would be provided at the appropriate time in any air permit application(s) for the proposed actions.

**Comment 19-14:** DEC’s complex regulatory scheme requires that all sources—even from multiple facilities—that are under common ownership and exist on contiguous properties are to be ruled under the same permit. This is true even if the individual sources are permitted separately. Therefore, whether all the buildings Columbia plans to construct as part of the expansion will fall under common ownership becomes an important question in determining the overall air pollution output of the development. The DEIS does not discuss this issue. (WEACT)

**Response 19-14:** The comment is not correct. The air quality analysis presented in the DEIS examines all sources of emissions from the Proposed Actions that would be under Columbia University’s control collectively. For example, total annual emissions from the Academic Mixed-Use Area are presented in Table 19-10 of the DEIS. Whether one or more air permits are eventually required does not affect the conclusions of the air quality analysis.

**Comment 19-15:** The DEIS presents the central energy plants in two major phases and in terms of demand loads at which they are expected to run, i.e., about 45 percent of demand capacity. The applicant’s air quality modeling is deficient in that it addresses only emission scenarios at the lower end of the operating range and does not address air quality impacts at the maximum potential to emit. If the University’s need for operating space and research facilities is as great as it claims, and if it is only growing according to the present needs, the possibility is real that it will, perhaps in the very near future, expand many of its functions and therefore need to operate its facilities at maximum or close to the maximum range. (WEACT, Alexander, Bonvell)

**Response 19-15:** The equipment proposed for the central energy plants and other sites is designed for future peak demand conditions. The short-term analysis of air quality impacts from the Proposed Actions (i.e., impacts over averaging periods up to 24-hours in length) assume that equipment would operate at up to full load. On an annual basis, equipment would operate at varying loads, based on the energy demands of the proposed campus. The 45 percent utilization factor is a conservative estimate of annual equipment usage, based on the reasonable worst-case design scenario, and is based on other similar projects. As discussed in the FEIS, the annual equipment usage limitations would be enforced in the Restrictive Declaration for the Academic Mixed-Use Area, and any future permits, as required.

**Comment 19-16:** In addition to the emergency generators that will be installed at the two energy plants, the expansion campus will host an emergency generator for each academic mixed-use building. Although the University claims they will only be tested 15-20 minutes each week, state regulations allow it to run the emergency generators up to 500 hours a year. If all 23 emergency generators are tested at once, their combined impact will degrade the air quality for local residents. Moreover, if the emergency generators are allowed to run on diesel, they will have a significantly negative cumulative impact on Harlem's air quality. (WEACT)

**Response 19-16:** The allowance of operation up to 500 hours per year is for testing and emergency operation only. Typical actual annual hours of operation will be far lower, and only in the event of an actual loss of utility electric power, which is not subject to CEQR review, would the generators operate for an extended period of time. The emergency generators would be tested according to a schedule where the units would be tested at various different times, rather than simultaneously. The air quality analysis in the EIS does not address this because Columbia University will limit simultaneous testing of emergency generators in the Project Area.

**Comment 19-17:** Although Columbia plans to rebuild the MTA Manhattanville Bus Depot underground, the DEIS does not include the pollution emission profile of the depot in the environmental impact analysis. Columbia gives no indication that it will work to ensure that pollution emissions from the underground depot will not be concentrated through above-ground breathing-level exhaust systems, that the danger of explosions from fuel storage can be controlled, or that the University will do anything to ensure that burying petroleum and other toxic solvent tanks even deeper underground than they are now will not pose an additional danger to the West Harlem community. (WEACT)

**Response 19-17:** The FEIS includes an analysis of the Manhattanville Bus Depot's air emissions. As discussed in the FEIS, combustion sources from the reconstructed bus depot would be designed to utilize clean-burning natural gas, and the exhaust stacks would be placed above the roof of Site 14. The analysis demonstrates that the proposed reconstructed bus depot would not result in any significant adverse air quality impacts. With respect to other impact categories, the reconstruction of the bus depot would require its own separate environmental review.

**Comment 19-18:** While the DEIS discusses the construction of exhaust stacks at a variety of heights for new buildings, it makes no reference to how the height of the new buildings' exhaust stacks would be determined. It ignores the

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DEC required Good Engineering Practices (GEP) guidelines for evaluation of appropriate stack heights. DEC regulation requires that air quality modeling of stack heights be completed before air quality impacts can be performed. (WEACT, Alexander, Bonvell)

**Response 19-18:** The stack heights were designed to meet applicable air quality requirements and guidance as per CEQR while minimizing their visual impact. DEC's requirements for GEP stack design would be addressed in the future air permit applications; it is not a requirement of CEQR. In any event, the stack heights utilized in the air quality analysis presented in the DEIS are minimum stack heights, which would be enforced through a Restrictive Declaration for the Academic Mixed-Use Area. The analysis demonstrates that the proposed stack heights would ensure no significant adverse impacts from the Proposed Actions' combustion sources of emissions.

**Comment 19-19:** The DEIS does not mention how the University will ensure that the plume fogging from seventeen 20-story buildings will not impact the visibility and visual aesthetics for local residents, particularly those living at the Riverside Park Community, and Manhattanville and Grant Houses. (WEACT)

**Response 19-19:** The FEIS provides a more refined analysis of the potential for visible plumes from the Proposed Actions' cooling tower systems. The analysis concludes that the potential for a visible vapor plume extending to an existing residential building is almost nonexistent. The analysis predicted that a visible vapor plume may extend to upper levels of nearby taller buildings at a maximum frequency of only once per year.

**Comment 19-20:** The DEIS neglects to mention how Columbia will clean its stacks of the rime icing, salts, and other chemicals. If industrial solvents (or any kind of solvents, for that matter) are used, how will they impact the local environment, specifically West Harlem's air, water, and soil? How will this impact the health and well-being of local residents and workers? Furthermore, the DEIS ignores the fact that exhaust stacks are frequently deposited with a biological film that can contain bacteria, mold, fungi, and other microorganisms. How does the University plan to clean the stacks of these colonizers, and/or how does it plan to prevent their deposition? Will toxic solvents be used? How will this affect local community members? (WEACT)

**Response 19-20:** The issues raised in the comment are applicable to wet cooling towers, not exhaust stacks. The cooling towers will be maintained in accordance with industry standards and equipment manufacturers' specifications. As with any cooling tower, small quantities of chemicals are used to

minimize formation of microorganisms. Any waste chemicals generated by the use of these chemicals will be managed and disposed of in accordance with applicable regulations.

**Comment 19-21:** While Columbia ignores thermal pollution in its air quality analysis, its boiler stacks emit heat at 380 degrees Fahrenheit. Considering the proximity of the expansion to residential buildings at the Manhattanville Housing, the heat alone could cause health dangers to these residents. Columbia must analyze the heat dispersion at each of its building stacks and determine whether nearby residents will be impacted by the temperature increases, especially during the summer months when daytime temperatures are anticipated to be greater than 100 degrees Fahrenheit. (WEACT)

**Response 19-21:** The boiler stacks would be designed to meet applicable industry and New York City codes and standards regarding their placement with respect to surrounding buildings. There would be no measurable effect on ambient temperature at off-site receptors in the community from the Proposed Actions' boiler exhaust stacks.

**Comment 19-22:** Although the DEIS makes a point of describing in detail how the research fume hood arrays would prevent backflow of toxic chemical fumes into the laboratory space, there is no discussion of how the concentrated fumes and potential infectious agents from the research laboratory fume hoods would be managed to ensure the health and safety of the communities, nor does it say how many of these laboratories (and thus fume hoods and exhaust stack heights) will exist on the expansion campus. The single research building for which this information is available is the Brain and Behavior Center Neurobiology research building to be located at Site 2. Columbia does not disclose the purpose of the other research facility, the total laboratories that will be operated on its premises, or the type of research that will be conducted there. (WEACT, Alexander, Bonvell)

**Response 19-22:** The exact uses of the proposed Academic Research Buildings are not known at this time. Nevertheless, Chapter 19 includes a detailed analysis of the potential effects to the community due to an accidental chemical spill within a laboratory fume hood, following the procedures outlined in the *CEQR Technical Manual*. The analysis concludes that, with appropriate design requirements (which will be incorporated into a Restrictive Declaration for the Academic Mixed-Use Area), the worst-case scenario for a potential spill in a fume hood (which considers the worst-case combination of source-to-receptor distance and building heights) would result in concentrations of the chemicals that could

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cause the greatest toxic effect below the recognized health and safety threshold levels.

**Comment 19-23:** With regard to spills and releases of chemical from academic research buildings, it appears that the DEIS analyzed only the option of the rooftop stack air intake receiving rooftop exhaust from the fume hoods, to eliminate having to look at exhausts from the third floor and upper floor (penthouse) exhausts of Site 2, which are closer to the street level, and are more prone to entrainment between buildings. (Alexander, Bonvell)

**Response 19-23:** As described in the DEIS, a Restrictive Declaration would be placed on each of the sites that could be developed as academic research to ensure that minimum laboratory ventilation stack height criteria are utilized. These restrictions would prohibit the placement of fume hood exhausts below the roof of the academic research buildings.

**Comment 19-24:** The University fails to address adequately the potential that microorganisms and other agents that could cause infectious diseases may escape through these exhaust stacks. And although the University ignores the impact of pollution with “common buffers, enzymes, nucleotides, peptides, and other biochemical” because they are not considered air pollutants under the EPA’s and the DEC’s air regulatory scheme, these substances can cause odors that may be irritating to nearby residents—especially sensitive receptors such as children and the elderly or infirm, even if they have low toxicities, which may or may not be the case. (WEACT, Alexander, Bonvell)

**Response 19-24:** It is incorrect to assume that because a chemical was not analyzed, there is a potential for a significant risk to the community from that chemical. Regarding emissions of the types of substances identified in the comment, they were not analyzed because these chemicals have very low toxicity in the quantities that would be used, and are not considered to be especially toxic from an inhalation standpoint. As discussed in the DEIS, the chemicals with the potential for causing the greatest toxic effects were analyzed, and were found to result in no significant air quality impacts to the community. See also response to Comment 19-19.

**Comment 19-25:** Columbia’s analysis is done within the context of OSHA rules, which only applies to indoor spills and only as they affect Columbia’s own work force. Therefore, the vaporization and dispersion rates are calculated for spills that take place at standard (air conditioned room temperature (20 degrees Celsius). By contrast, the actual temperature

that residents will have to contend with if a stack failure occurs is much higher and will only increase with New York's warming climate trends. What will happen to these chemicals and odors when summer temperatures reach 100 degrees Fahrenheit and more? What happens to these chemicals as they combine with nearby air pollutants such as diesel exhaust or PERC, a perennial emission from dry cleaners and the North River Sewage Treatment Plant? What about explosion risks when these chemicals are mixed with other pollutants? (WEACT, Alexander, Bonvell)

**Response 19-25:** The laboratory spill analysis was conducted following the procedures recommended in the *CEQR Technical Manual*. The laboratory systems would be designed to provide a high degree of dilution of the fume hood ventilation air before it is exhausted to the atmosphere. Laboratories need to operate under very specific, controlled conditions, regardless of ambient temperature, so the emission rate would not be affected by weather. Any interaction with chemicals in the atmosphere would occur over time; the trace levels of emissions that would occur under an accidental spill would be further dispersed and diluted to negligible levels, therefore any interaction would have no significant adverse impacts.

#### CHAPTER 20: NOISE

See also "Chapter 21: Construction," below, for related comments.

**Comment 20-1:** An accurate determination of noise receptors and their sensitive uses cannot be done without knowing the age and sensitivity of residents and the uses to which local facilities are put. Therefore, data on the existence and location of sensitive receptors and uses cannot be collected without personal interviews of community members. Columbia must conduct the necessary in-field surveys and interviews with residents to determine the true noise impacts of its expansion project. (WEACT)

**Response 20-1:** This is a comment on the Draft Scope. It was responded to in the Final Scope of Analysis, issued on April 25, 2007, as follows:

Response: As stated in the Scope, the noise analysis for the project will use analysis procedures and impact criteria in the *CEQR Technical Manual*. Receptor locations will be selected adjacent to residences, schools, and other sensitive uses as described in the *CEQR Technical Manual*. The approach suggested in the comment is not consistent with the *CEQR Technical Manual* and will not be used in the EIS.

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**Comment 20-2:** Columbia fails to describe an appropriate method for determining the ambient noise level. This is an important part of the analysis because it establishes the amount of noise that a project can incrementally increase as part of its operation. DEC guidance recommends that for non-industrial (residential) settings, new noise sources should not exceed ambient noise levels by more than 6 dBA at any receptor. Thus, if a project increases the  $L_{eq(1)}$  noise levels by 6dBA or more, it should be considered a significantly adverse impact that must be mitigated, or the project proponent must identify an alternative that would avoid the impact. (WEACT)

**Response 20-2:** This is a comment on the Draft Scope. It was responded to in the Final Scope of Analysis, issued on April 25, 2007, as follows:

Response: The noise analysis will use analysis procedures and impact criteria contained in the *CEQR Technical Manual*. As described in the Draft Scope, field measurements will be performed to determine existing noise levels. This is an appropriate method for determining baseline ambient noise levels, and it is consistent with procedures contained in the *CEQR Technical Manual*. In terms of impact criteria, again as described in the Draft Scope, the impact criterion in the CEQR Technical Manual will be used to evaluate potential project impacts. This 3 dBA criterion is considerably more stringent than the 6 dBA criterion contained in the DEC guidance report cited in the comment.

**Comment 20-3:** The Draft Scope identifies four time periods for noise analysis but gives no specific information as to what the exact time any of these categories fall within. Moreover, the document gives no justification for why the ambient noise will only be measured at these four specific time points. Consequently, the analysis may miss key peak noise generation times that may result from different uses that may occur at different hours during a time period. (WEACT)

**Response 20-3:** This is a comment on the Draft Scope. It was responded to in the Final Scope of Analysis, issued on April 25, 2007, as follows:

Response: The exact time period used will be determined based on traffic studies. Typically, for weekdays, the AM peak period is approximately between 8:00 AM and 9:30 AM; the midday is approximately between 10:00 AM and 2:00 PM; the PM peak period is approximately between 4:30 PM and 7:00 PM; and the nighttime is approximately between 9:00 PM and midnight.

**Comment 20-4:** The noise screening analysis proposes to use a doubling of passenger car equivalents (PCEs). Given the highly residential nature of the

neighborhood and the presence of schools at the perimeter of the Project Area, a 25 percent PCE increase threshold is a more defensible criterion. (WEACT)

**Response 20-4:** The CEQR Technical Manual recommends using a doubling of PCEs as a noise screening technique. A doubling of PCEs would result in approximately a 3 dBA increase in noise level, which in most cases would result in a significant increase in noise levels. A 25 percent increase in PCEs would result in approximately a 1 dBA increase in noise levels which would be an imperceptible increase in noise.

**Comment 20-5:** The EIS fails to analyze in depth the sound reflection from the new buildings Columbia wants to construct along Broadway, which will exacerbate noise levels for the Manhattanville and Grant Houses, 3333 Broadway, and on Tiemann Place—and suggest that the noise will only impact Columbia buildings, which will have thick walls, windows, and air conditioning to block out the noise. (CTPC)

**Response 20-5:** The effects of building reflections were discussed in Section 20.E. An analysis of the effects of project buildings along Broadway due to building reflections showed that noise levels would increase by less than 1 dBA. Increases of this magnitude would be imperceptible.

## CHAPTER 21: CONSTRUCTION

### *GENERAL COMMENTS*

### *CONSTRUCTION IMPACTS*

**Comment 21-1:** The DEIS states that 22 or more years of construction will have no impact on neighborhood character. This is a residential neighborhood up to 125th Street, and while people living around the perimeter of this project can't expect peace and quiet continually in the current development environment in New York City, condemning a neighborhood to a quarter century of construction noise, pollution, and vibration is exactly that: condemning a neighborhood; 22 or more years in simply over the top. (Favant)

**Response 21-1:** Chapter 21 of the DEIS discusses impacts due to construction activities of the Proposed Project in terms of various study concerns, including land use, open space, historic resources, socioeconomic conditions, hazardous materials, infrastructure, traffic and transportation, parking, transit, pedestrians, air quality, and noise. The EIS concludes that while 22-years of construction activities will produce impacts, those impacts will, with one exception be localized and non-continuous. A localized

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noise impact that is predicted to occur during most of the construction period would be partially mitigated, as presented in Chapter 23 of the FEIS.

**Comment 21-2:** The long-term construction period, in addition to the engineering costs that may prove to be insurmountable, would have significant and adverse impacts in a number of areas, including traffic, noise, vibrations, and pedestrian movement. It would inhibit access to open space such as the newly constructed West Harlem Waterfront park due to street and sidewalk closures. (Shiffman, CTPC, DeNault)

**Response 21-2:** As stated in Chapter 21, the Proposed Actions' construction activities would not result in any unmitigated significant traffic impacts. Significant noise impacts would be partially mitigated as described in Chapter 23. No significant vibration or pedestrian impacts would result from construction activities. Throughout the construction period, access to surrounding residences, businesses, institutions, and waterfront uses in the Project Area and primary study area would be maintained.

**Comment 21-3:** Columbia must use best available technology and best practices on all aspects of construction (including noise and vibration reduction, limiting construction activity during the day, using construction curtains) to minimize health impacts of construction on the West Harlem community. (Shepard)

**Response 21-3:** As described in Chapter 21, Columbia University has committed to both a state-of-the-art emissions reduction program and a wide variety of measures to reduce potential noise impacts from construction activities. Columbia University is committed to implementing these programs to reduce impacts on the surrounding community. These commitments will be included in the Restrictive Declaration for the Academic Mixed-Use Area.

**Comment 21-4:** The environmental negative impact of just the construction will be devastating to the thousands of people who live in Manhattanville Houses for years. (Doty)

**Response 21-4:** The DEIS provided a comprehensive analysis of the specific construction-related effects of the Proposed Actions' construction activities on the surrounding community. The analysis was performed in the areas of land use and neighborhood character, historic resources, socioeconomic conditions, hazardous materials, infrastructure, traffic and parking, transit and pedestrians, air quality, noise, and public health. No significant impacts were found in any study area except for traffic and noise. The traffic impacts would be fully mitigated as described in

Chapter 23. Significant noise impacts, including portions of two buildings at Manhattanville Houses, would be partially mitigated, also described in Chapter 23.

**Comment 21-5:** Under the pending proposal, the entire area in the proposed expansion site will be torn up underground. The EIS fails to specify how long electrical service, water, and other utilities there will be disrupted or unavailable. (CTPC)

**Response 21-5:** As described in Chapters 14 and 21, after construction of the underground facilities, the utilities, including water and sanitary sewer lines, would be placed in the street bed. Water, power, telecommunications, and sanitary sewer service would be provided to active buildings during the period that the street is being excavated. Maintenance of these services would be coordinated with the appropriate City agencies and private utilities. Very short term interruptions (duration in hours) may occur when new equipment (e.g., a transformer, or a sewer or water line) is put into operation.

**Comment 21-6:** The DEIS calls for chemical rock splitting methods. How does this work? What are the effects? What are the risks of contamination? If there is a spill, what is done? (Stern)

**Response 21-6:** Chemical rock splitting is used for pre-splitting of large rock formations to create smaller pieces that can be more easily excavated and removed. The method involves mixing a powder with water, then pouring the mix into pre-drilled holes in the rock. The mixture then expands to crack the rock. The chemicals used are environmentally safe. The products used for this purpose are non-toxic and generally consist of oxides of calcium, silicon, and aluminum. This process does not cause any explosions, noise, sound vibration, gas, dust, or any other environmental pollution.

*CONSTRUCTION AIR QUALITY*

**Comment 21-7:** Columbia doesn't present a clear time line or staggered phase plan for various development within its Phase 1 period that could consider the possibility of poor air quality, which with a high degree of certainty will take place during heavy periods of development and ways to reduce that. Even though Columbia has said that it won't do all of its development all at the same time, there will still be a lot of construction and demolition going on within those individual phases. There will also be a lot of development going on as a result of the 125th River to River rezoning that is separate from Columbia's development but nonetheless

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nearby. Columbia did not consider any of these factors or show that it was aware of the poor air quality that would result from excessive construction and demolition by it and other developers in that area. The CB9 197-a Plan factors in health and safety. Any plan that Columbia has should be within the framework of the 197-a Plan. (Tajiddin)

### **Response 21-7:**

The FEIS includes a reasonable worst-case construction schedule for the Columbia University construction, as did the DEIS, which were the basis for the air quality analyses. The air quality analyses took into account all potentially overlapping construction activities for both Columbia University and other construction that may take place due to rezoning. Columbia University investigated all means available for reducing construction related air pollutant emissions and has committed to implementing a program which would reduce particulate matter emissions to the extent practicable. Since the effect of construction on concentrations is highly localized, there would be no additional cumulative impact of other construction projects in the region which are located further away. This is especially true for the Columbia University construction, which would affect a small contribution to air pollutant concentrations relative to the scale of the construction due to the intense emissions reduction program. The analysis of the worst-case construction scenarios for both Phases resulted in no predicted significant adverse impacts on air quality.

### **Comment 21-8:**

Columbia must reanalyze the construction air pollution impacts to include a true emission reduction plan that incorporates construction air pollution control best practices—one that includes, among other things: 1) use of Tier 3 construction equipment until 2011, then Tier 4 and emission control technologies where necessary to achieve the lowest achievable emission; 2) early electrification of construction sites so that electrical construction equipment may be used; 3) use of construction curtains, especially during excavation and demolition to reduce dust and PM pollution; 4) frequent wetting of construction sites with reclaimed water to avoid fugitive dust; 5) implementation and enforcement of strong anti-idling policies; and 6) assurance that all equipment and vehicles are appropriately cleaned before leaving the construction site so that toxic material will not be spilled out into the streets of West Harlem. (WEACT)

### **Response 21-8:**

Columbia has committed to a robust program for reducing particulate matter emissions during construction. The level of tailpipe emissions reduction required by this program is Tier 4, which is achieved by either retrofitting Tier 2 or newer engines, or using engine already certified as Tier 4 by the original engine manufacturer. Early use of grid power, a detailed dust prevention program (including on-site speed limits,

wetting and/or the application of gravel to temporary routes on-site, truck covers, wheel washing, the use of chutes for drops from upper floors, avoiding multiple operations with loose material, and more), and strong anti-idling policies would be included as well. Detailed specifications would be required to be included in all construction contracts, Construction related air quality requirements with be included in the Restrictive Declaration for the Proposed Actions. It should be noted that potentially toxic materials found on-site would be dealt with separately according to the RAP/CHASP, which includes cleaning all trucks and equipment on-site and treatment or disposal of the wash water.

**Comment 21-9:** The DEIS provides no analysis of possible odor concerns during construction or demolition activities. A large facility involving 20 years of planned construction activities could pose a significant potential for odor impacts in an urban environment. (Alexander, Bonvell)

**Response 21-9:** Construction activity is not generally associated with odor problems. Odors which may be associated with construction are related to diesel exhaust, which is being minimized to the extent practicable; naturally occurring odors from excavation of materials such as peat, which are not expected in Manhattan; and the use paints, coatings, sealants, adhesives, composite wood, agrifiber products, and carpet systems, which are associated with indoor air quality and odor concern, and therefore the use of low emitting materials would be required by Columbia University to the extent practicable in an effort to ensure healthy indoor air quality and as part of the qualification process for LEEDS Silver rating. No odor nuisance would be expected due to the construction.

**Comment 21-10:** The construction chapter of the DEIS states that Columbia has committed to measures to significantly reduce air pollution during construction. How and by whom will these commitments be enforced? (Alexander, Bonvell)

**Response 21-10:** See Response to Comment 21-2.

*CONSTRUCTION NOISE*

**Comment 21-11:** Although the University admits that residential facilities such as the Riverside Park Community will be negatively impacted by noise pollution during construction, it disingenuously denies these impacts will be felt at Roberto Clemente Intermediate School (I.S. 195). When MTA constructed the Manhattanville Bus Depot, a small parcel with a

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much shorter construction timeframe, the noise and vibration frightened the school children and disrupted their ability to learn. Columbia plans to build on this exact site, excavating some 70 feet into the bedrock to place the depot below-grade. (Earle)

**Response 21-11:** The DEIS discloses that construction activities would produce noise levels that exceed the 3 dBA CEQR impact criteria and perceptible vibration levels at the location of I.S. 195. However, while these noise and vibration levels would be noisy and intrusive at times, because of their limited duration (approximately one year) they would not result in significant adverse impacts. Noise barriers, quiet equipment and other measures will be implemented as part of Columbia's noise reduction program. These will substantially reduce noise levels due to construction activities at I.S. 195. When construction is completed, noise levels would be less than currently experienced at this location, because with the Proposed Actions, the MTA Bus Depot would be relocated below-grade. This would eliminate the street-level noise currently generated by ventilating equipment at that facility.

**Comment 21-12:** The construction chapter does not address the cumulative impacts of noise from construction over 20 years, which represents a quarter of a lifetime. (Alexander, Bonvell)

**Response 21-12:** The construction noise analysis examines noise impacts based upon CEQR impact criteria, which takes into account the duration of construction activities, as well as the magnitude of the noise produced, in determining whether construction results in a significant noise impact. Also see Response to Comment 21-1.

### *CONSTRUCTION TRAFFIC*

**Comment 21-13:** The applicant wants to build a 17-acre "bathtub" up to seven stories deep. First, the construction cost of this venture will be so high as to make it impractical. Second, where is the plan to move 98,000, 20-yard trucks through the City and across the river? (South-CB9)

**Response 21-13:** Columbia University has considered the costs related to the construction of the central below-grade area. As described in Chapter 21, the proposed construction activities would occur over an approximately 22-year period. The analysis of trucks entering and leaving the Project Area was conducted in consideration of the number of trucks that would be needed to excavate the different construction areas, and the time periods during which these activities would occur. The construction-related traffic analysis was conducted to address peak conditions during different stages of construction and the peak hours during these stages.

The analysis found that no unmitigated impacts would be expected at any of the study area intersections. All material leaving the site for off-site disposal will be handled in accordance with federal, state, and local requirements (including 6 NYCRR Part 364 and USDOT regulations) covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

## CHAPTER 22: PUBLIC HEALTH

**Comment 22-1:** The DEIS failed to examine the conflict between risks posed by the operation of a level 3 biological laboratory facility and the adjacent high density residential area. The high risks associated with potentially lethal airborne pathogens permitted at a level 3 biological research laboratory proposed for Manhattanville conflicts with the residential uses. (CB9, Gil)

The DEIS plays down the high risks associated with potentially lethal airborne pathogens which are permitted at level 3 biological research laboratories proposed for Manhattanville. A level 3 facility would be able to handle the same live anthrax bacteria that can be used by terrorists, as well as germs that cause tuberculosis, virulent forms of Chlamydia, and meningitis. The possibility of storing, locating, or shipping any of these germs at a location that is subject to storm surge is beyond comprehension. (CB9, Shiffman, CTPC)

Biosafety-level 3 research should not be conducted in such a densely populated area. Columbia must implement measures that would ensure the public health and safety of West Harlem community members in case of any containment breach that may result from the University's use of biosafety level 3 research in an urban area as densely populated as West Harlem. (Shepard, Eisenberg, CTPC, Burlage, Mayhew)

The dispersion of hazardous chemicals from a potential spill within one of the proposed academic research laboratories was analyzed to assess the potential of exposure of the general public, students, and staff to hazardous fumes in the event of an accident. The analysis of chemical releases did not cover common laboratory chemicals such as poisons, carcinogens, reactives, explosives, or biotoxins, or other substances which may pose more unique hazards. Releases of other substances such as radioactive materials, even in small quantities, may have grave consequences, but were not discussed. There is no mention of protection of public health from possible releases of non-chemical dangers such as viruses, bacteria, biotechnology materials, genetically engineered life forms or materials, radiation, etc. (Alexander, Bonvell)

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**Response 22-1:** Columbia University would implement its existing programs such as physical containment, access controls, safety training, laboratory and chemical safety, industrial hygiene, occupational safety, biological safety, fire safety, chemical tracking, and radiation protection in compliance with local, state and federal regulations, at any new BSL-3 facility it would operate. Columbia has a team of specially trained professionals who inspect the facilities, identify and control hazards, plan for emergencies, and provide training and education to the University community to ensure that Columbia operates as safely as possible.

BSL-3 work is necessary for certain medical and public health academic research. Any new BSL-3 lab would build on already established standard operating procedures and emergency plans at Columbia's one existing BSL-3 lab. In order to prevent releases, research and safety staff are highly trained, utilize engineering controls, and follow all administrative procedures. The volume of materials used is very small and is kept secured at all times. Access to these facilities is strictly limited and closely monitored.

**Comment 22-2:** Columbia's proposed and biohazard level 3 labs should not be constructed in a densely populated neighborhood in a seismically active floodplain. (Form 1, 2; J. Kraus.) Minimally, there needs to be a plan for evacuation, and containment of waste as to not pollute the Hudson. (L. Kraus)

Columbia plans to build a Level 3 lab on the 125th Street earthquake fault. The Washington Post has just reported that over 100 accidents and lost shipments at such labs have occurred since 2003. (Isaacs, Rugoff, CTPC)

**Response 22-2:** The New York City Building Code contains specific seismic design requirements which must be adhered to for the design of any new building structures in New York City. As described in Chapter 21 and Appendix K.5 of the FEIS, seismicity studies have been conducted that confirm that construction will at minimum, meet the standards of the building code. In addition, a site-specific probabilistic analysis of the seismicity potential in Subdistrict A will be undertaken for inclusion in final design documents for the proposed development. The combination of these design requirements and the seismic parameters from the site-specific investigations being undertaken will be incorporated into the final design of the Proposed Actions to ensure these concerns are addressed. Columbia's academic research laboratories have emergency procedures addressing research safety and security. The University has written contingency plans in place that would be implemented in the

event of an accidental release. Columbia has a team of 30 specially trained professionals who inspect the facilities, identify and control hazards, plan for emergencies, and provide training and education to the University community to ensure that Columbia operates as safely as possible.

**Comment 22-3:**

Harlem residents are fearful of Columbia's plans to conduct biosafety research at Manhattanville because of the potential for catastrophic results should infectious disease agents become accidentally released. This fear comes from the University's secretive behavior and refusal to engage the community in an honest discussion about the uses to which the expansion campus will be put and the potential that may result. We recommend that the City restrict any biosafety research to Level 2 operations and require, as conditions to issuing the Special Permit, Columbia to take the following measures to ensure the health and safety of the West Harlem community:

- Provide enforceable assurance that no research above BSL-2 research will ever be conducted in Manhattanville;
- Be responsive and accountable to the community by providing prompt information regarding containment and/or safety breaches;
- Provide transparency of operation;
- Provide for community oversight and public information dissemination of research activities; and
- Implement safety measures beyond those required by federal agencies and statutes.

Columbia should notify, in plain language and in a forum and media accessible to community members and the appropriate public safety and law enforcement body, of any research above BSL-1. (Hoang)

**Response 22-3:**

BSL 3 work is necessary for certain medical and public health academic research. All laboratory personnel in BSL-3 laboratories receive specific training, and are supervised by scientists competent in handling infectious agents and associated procedures. Any such BSL-3 laboratory would be highly secure. Access to these facilities is strictly limited and closely monitored.

Columbia's academic research laboratories have emergency procedures addressing research safety and security. The University has written contingency plans in place that would be implemented in the event of an accidental release. Columbia has a team of specially trained

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professionals who plan for emergencies and provide training to the University community in this regard.

Further, Columbia works closely with appropriate regulatory agencies on safety matters and that Columbia notify such agencies in the event of an emergency. The University also includes community notification by the agencies to whom Columbia is required to report in the event of an emergency. Procedures for BSL-3 laboratories are drilled annually, with the most recent exercise (August, 2007) involving participants from relevant University departments, New York Presbyterian Hospital, and the following outside organizations: FDNY and its HazMat unit, NYPD, the Federal Bureau of Investigation, the United States Department of Agriculture, and the New York City Department of Health and Mental Hygiene. In addition to working closely with appropriate regulatory agencies on safety matters, the University's Institutional Biosafety Committee has oversight for all activities with infectious materials. The Committee is comprised of Ph.D. research scientists, public health and medical professionals, University facilities officials, and community representatives. Also see Response to Comment 22-1.

### **Comment 22-4:**

The lack of planning for terrorist challenges in locating a safety level 3 biohazard laboratory in Manhattan should doom this frightening concept. (J. Kraus)

We are facing a biotech business park and labs which could be considered prime terror subjects. We submitted at scoping a 45-page document asking Columbia to take a look at really significant impacts. Those were not dealt with in the DEIS. (DeMott)

According to tests the Department of Defense conducted on what would happen if a biochemical facility were subjected to sabotage or terrorist attack, the biological and chemical poisons would be spread all over the neighborhood by the wind. The neighborhood means not just upper but all of Manhattan, depending on weather conditions. Is the Community Board aware of this? It should ask Columbia what it has to say about them. (Griffiths)

The DEIS does not adequately account for the potential environmental and economic impacts of the biotech labs, as follows:

- There is no analysis in the EIS of the fact that the area is seismically active. Subsequent submission of that data, as proposed by Columbia, is not subject to public review and analysis;
- There is inadequate consideration of flooding of the expansion area and its potential to shut down the cogeneration plants in the

“bathtub,” thereby releasing pathogens and other contaminants into the Hudson River and the air;

- There is no discussion of the potential failures of the EPA self-auditing process, in which Columbia participates; and
- There is no presentation of a worst-case scenario for terrorist attack or internal subterfuge. (Eisenberg)

**Response 22-4:** See Responses to Comments 22-1, 22-2, 22-3 1-36, 1-39 and 2-5.

**Comment 22-5:** The University does not discuss the nature of and risks associated with the chemicals that it uses at its facilities, its storage methodology, or mechanisms for ensuring public safety. (WEACT)

**Response 22-5:** Chapter 22 provides a detailed discussion with respect to Columbia University’s laboratory practices, including information on regulations and oversight, transport, handling, storage and disposal of hazardous wastes.

**Comment 22-6:** Columbia must provide an accurate analysis of breathing level pollution so that the public and decision makers can determine the expansion’s true pollution impact on the typical resident. (Earle)

**Response 22-6:** Chapter 19 and Chapter 21 present the results of air quality impacts from the construction and operation of the Proposed Actions on sensitive receptors, which include sidewalk locations, open spaces, residences or other places of public access. The results of the determined that there would be no significant adverse air quality impacts at these receptors. Chapter 22 considered the results of these analyses and concluded that no significant public health impacts would be expected from the Proposed Actions.

**Comment 22-7:** Air monitoring and dust containment are not adequately addressed in the EIS. This is a dangerous oversight given the current health hazards, e.g., asthma, already prevalent in the neighborhood. (CTPC)

**Response 22-7:** As described in Chapter 21, to ensure that the construction of the Columbia University development sites results in the lowest practicable diesel particulate matter (DPM) emissions, Columbia University has committed to implementing a state-of-the-art emissions reduction program for all of its construction activities, including a dust control program. These commitments will be included in the Restrictive Declaration for the Proposed Project. This program to reduce air pollutant emissions from construction would exceed that of any large-scale private project constructed in New York City to date. With these

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measures in place, during Columbia University's construction, and similar measures in place for non-Columbia University construction on other projected development sites (subject to an E-designation), the analysis determined that no significant adverse air quality or public health impacts would be expected during construction activities.

**Comment 22-8:** Columbia has chosen to ignore negative health impacts posed by the emission of lead, sulfur oxides, and nitrogen oxides, although EPA requires analysis of all six criteria pollutants and laboratory emissions of chemicals, odors, and potentially infectious pathogens. Even with the few pollutants it did analyze, the University fails to discuss the health impacts associated with incremental increases, and instead hides behind the development-friendly City guidelines. (Earle)

**Response 22-8:** Chapter 19 presents a comprehensive analysis of air pollutant emissions associated with the operation of the Proposed Actions. The determination of the pollutants for analysis is explained in Response to Comments 19-5 through 19-9. In consideration of this analysis, which includes the effects of the incremental increases of PM<sub>2.5</sub>, Chapter 22 concluded that no significant adverse public health impacts would be expected from the operation of the Proposed Actions.

**Comment 22-9:** How does the applicant plan to discharge bus and power plant emissions in a community that has one of the highest asthma rates in the country? There is a school and several high rise apartment buildings next to this site. (South-CB9)

**Response 22-9:** Chapter 19 provides a detailed analysis of potential impacts from all emission sources associated with the operation of the Proposed Actions. The analysis concludes that no significant adverse air quality impacts would be expected. Chapter 22 acknowledges the high asthma hospitalization rates in study area. However, the analysis concluded that neither construction nor operation of the Proposed Actions would significantly increase pollutant levels or result in any significant adverse air quality impacts. Consequently, the Proposed Actions would not be expected to have a significant effect with regard to asthma.

**Comment 22-10:** The residents of Manhattanville Houses are concerned about the effects of the Columbia project on the area's high rates of asthma and cancer; pollution; noise; the presence of biotech labs; and rodents from the demolition. We need more a comprehensive report of how Columbia University is going to ensure the health and safety of the Manhattanville community concerning these issues. (Matthews, Lewis-CB9, Kappner-CTPC)

- Response 22-10:** See Response to Comments 22-1, 22-7, 22-9 and 22-15.
- Comment 22-11:** The air pollution produced by the MTA Manhattanville Bus Depot discourages outdoor activity, encouraging a lifestyle that increases the rate of obesity, diabetes, and depression in the community. The DEIS provides no clear analysis of the impact of relocating the depot operations while construction is taking place. MTA has the authority to locate its facilities anywhere it deems necessary to fulfill its operational needs, but this is inadequate as an analysis of the environmental impact of Columbia’s plan. (Calloway)
- Response 22-11:** As described in Appendix O.1, “Bus Depot Temporary Relocation,” Columbia’s development would be contingent upon Columbia entering into an agreement with MTA for modifying or reconstructing the bus depot; this agreement has not been reached at this time. Such an agreement would involve a variety of MTA processes addressing a modification or reconstruction plan, including but not limited to SEQRA and/or NEPA and Title VI of the U.S. Civil Rights Act of 1964. These processes would include review and analysis of the feasibility and environmental and other impacts of any proposed modification or reconstruction plan, as of the time such a plan was to be formulated and prior to any implementation.
- Comment 22-12:** An applicant for approval of a major project such as this is always subject to review of its ability to comply with requirements and to conduct its actions consistent with regulations and permit restrictions. Columbia University is obligated to demonstrate that it has the commitment to comply with permit requirements. Columbia University should incorporate its voluntary self-audit reports into the EIS and provide a detailed plan for management of environmental, health, and safety across the site. (Alexander, Bonvell)
- Response 22-12:** Columbia University has an existing management structure for environmental health and safety matters. The requirements of the proposed zoning, the Restrictive Declarations, and the GPP, will be legally enforceable. Also see Response to Comment 22-1.
- Comment 22-13:** The level of displacement that Columbia’s plan will result in will have extremely negative public health effects, not only on the health of the local community, but of the City as a whole. (Suhubiner, CTPC)
- Response 22-13:** The level of displacement both direct and indirect is limited. Residents directly displaced would be relocated on a voluntary basis to locations within northern Manhattan. The indirect residential displacement impact would be mitigated through a variety of measures. See Chapter 23. As

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discussed in Chapter 10. “Neighborhood Character,” displacement would not result in significant impacts on neighborhood character.

**Comment 22-14:** Columbia ignores any discussion of the health impacts of the noise that its expansion project will generate. Because urban noise can have such a detrimental impact on health, particularly with children, an assessment of the public health impact of the project’s noise generation should be required. (WEACT)

**Response 22-14:** With the exception of one location on West 125th Street, operation of the Proposed Project will result in changes in noise level that are barely perceptible, and would not be expected to have any significant adverse health effects. At one location on West 125th Street, midblock between Broadway and Twelfth Avenue, because of the addition of a traffic signal at this location, a significant increase in noise levels would be expected at adjacent locations. However, in terms of magnitude, the noise levels would be comparable to noise levels at many street locations in the study area (less than some and more than others) and would not be expected to constitute a significant public health impact. Noise levels within 560 Riverside Drive, a Columbia University-owned building with double-glazed windows and air conditioning, would be expected to remain within recommended the CEQR recommended 45 dBA L<sub>10</sub> interior standard. In terms of construction, while construction activities will result in significant impacts at specified locations and times (see Chapter 21), because of the noise control and noise mitigation measures being implemented by Columbia University, noise levels due to the construction activities would be less than typical noise levels due to construction activities. While construction activities would be noisy and intrusive at times, they would not be expected to result in significant public health impacts. Also see Response to Comment 21-11.

**Comment 22-15:** Columbia must develop an aggressive, public extermination plan before breaking ground, and it must assist community areas both within and outside the expansion, in successfully curing any rat or other infestation as a result of the expansion. (Sherwood)

**Response 22-15:** As described in Chapter 21, construction contracts would include provisions for a rodent (mouse and rat) control program. Before the start of construction, the contractor would survey and bait the appropriate areas and provide for proper site sanitation. During the construction phase, as necessary, the contractor would carry out a maintenance program. Coordination would be maintained with appropriate public agencies. Only EPA and DEC-registered rodenticides would be permitted, and the contractor would be required to perform rodent

control programs in a manner that avoids hazards to persons, domestic animals, and non-target wildlife.

## CHAPTER 23: MITIGATION

### GENERAL COMMENTS

**Comment 23-1:** As stated in CB9’s resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must meet the goals and objectives outlined in the 197-a Plan including, but not limited to, mitigating all direct and indirect adverse impacts with respect to job creation for local residents, economic development, socioeconomic conditions, environmental protection and sustainable development, public transit, neighborhood character, public open space and other impact areas, as delineated by CB9 in the 197-a Plan. (CB9-1, Lewton)

**Response 23-1:** The FEIS, Chapter 23, “Mitigation,” has been revised to describe specific mitigations to address significant adverse impacts identified in the areas of indirect residential displacement, historic resources, open space, shadows, traffic, transit (subway and bus), noise, and construction.

**Comment 23-2:** The EIS should require that avoidance of impacts be considered first and treat mitigation as a fallback and markedly less desirable alternative. It did not do that. (CTPC)

**Response 23-2:** The EIS discusses and analyzes strategies that have been incorporated in the design of the Proposed Project to avoid and minimize potential adverse environmental impacts. It also considers alternatives that would avoid or reduce potential adverse environmental impacts (see Chapter 24). Strategies incorporated into the design of the Proposed Project include measures aimed at minimizing air quality impacts, such as limitations on the annual fuel usage and minimum stack heights. These are described in Chapter 19. In addition, Columbia University has made a commitment to implement an air quality emissions reduction program throughout the construction period that would exceed that of any large-scale private project constructed in New York City to date. Columbia’s emissions reduction program would substantially reduce particulate matter (PM) emissions so there would not be a significant adverse impact from PM<sub>2.5</sub> due to construction of the Proposed Project. The emissions reduction program is described in detail in Chapter 21.

The purpose of the EIS is to identify the potential for significant impacts under reasonable worst-case development scenarios with the Proposed Actions. For all significant adverse impacts identified, practicable mitigation measures were identified in Chapter 23 to avoid

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these impacts upon implementation of the Proposed Actions, and alternatives were considered.

**Comment 23-3:** The DEIS gives no long-term plan for mitigating the effects of the Columbia expansion on residential displacement, environmental justice, and housing. It says that if these mitigations cannot be met, then things will be as is. For a city looking toward any type of sustainable growth, this is not helpful. (Ruiz)

**Response 23-3:** See Responses to Comments 23-1 and 23-2. The EIS does not find a significant environmental justice impact.

**Comment 23-4:** Mitigations for Columbia's Proposed Actions are dependent upon the University's commitment to Restrictive Declarations. Therefore, Columbia's past safety and environmental history becomes even more important and should be clearly reviewable under CEQR and SEQRA. (Alexander, Bonvell)

**Response 23-4:** Columbia's commitments to mitigation will be set forth in a Restrictive Declaration that will be enforced by the City. The purpose of the CEQR analyses is to identify potential significant adverse impacts that could result from the Proposed Actions. It is not the purpose of CEQR review to analyze or consider the past practices of Columbia University.

*SOCIOECONOMIC CONDITIONS*

**Comment 23-5:** As stated in CB9's resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must guarantee that all housing developed directly by Columbia as a result of the Proposed Actions would meet the inclusionary housing requirements of the 197-a Plan, and that in all Columbia-developed and -owned housing, an equal amount of housing for the University and the community would be created both on-site and off-site; and that no direct displacement would occur in the 17-acre area. (CB9-1, Lewton)

**Response 23-5:** Regarding inclusionary housing, see Response to Comment 1-58. As described in Chapter 4, Columbia has acquired control of three sites outside of the Project Area to provide relocation sites for new, permanent, and affordable replacement housing buildings for tenants that would be directly displaced from ~~six~~ existing residential buildings in the 17-acre Project Area. It is anticipated that by 2030, all directly displaced residents in the Project Area would be relocated to new housing within the study areas.

The socioeconomic conditions analysis in Chapter 4 of the EIS concluded that the Proposed Actions would result in a potentially significant adverse indirect residential displacement impact by the 2030 analysis year. Columbia University has committed to measures to

partially mitigate this impact. These mitigation measures are presented in Chapter 23 of the FEIS.

**Comment 23-6:** We understand that Columbia, at the urging of the Borough President's office, has agreed to create an affordable housing fund to in part alleviate displacement. While that amount alone will not go far very in addressing the local housing need, it can be leveraged with other funding sources to create a bigger pool of funds, and it is a good starting point. We now need to understand the details of how and when the Columbia fund will be disbursed, managed, and leveraged. (MAS-Kersavage)

**Response 23-6:** Chapter 23 provides an estimate of the number of affordable units that the Fund would preserve and/or develop, as well as details on how and when the Columbia fund will be disbursed and leveraged.

**Comment 23-7:** Columbia hasn't dealt with the issue of affordable housing. \$20 million does not pay for a lot of housing in New York City. (Vusica, M. White) \$20 million is a paltry sum when in fact a minimum of \$500 million is needed, not to mention the right of TIL tenants to remain in their current homes if they so choose. (Bailey) Columbia has no interest in affordable housing. (Gruenthal, White)

**Response 23-7:** As described in Chapter 23, using a reasonably conservative portfolio mix and default scenario, it is expected that approximately 1,110 affordable units would be created or preserved by the \$20 million fund. This 1,110 unit-count represents approximately 84 percent of the total number of at-risk units in the primary study area (1,318 units).

**Comment 23-8:** Columbia wants to build and situate itself first before affordable housing options can even get rolling. Phase II, as defined in the FEIS, is expected to commence in 2015. That's when the other half of the \$20,000,000 can even be envisioned. So the first building in the Phase II part of Columbia's build out would receive a certificate of occupancy around 2017. Just to get \$10 million dollars toward this housing fund will take 20 years, notwithstanding the first \$10 million will not be seen for more than a few years. So who will benefit from this 10 million, even the first 10 million, which is not such a big deal? Also, Columbia will only agree to give toward a housing fund if the money can be deposited in an organization that it can agree to. If there is no agreement there is no fund. Approving this plan with such a commitment is meaningless. (Tajiddin)

**Response 23-8:** As described in Chapter 23, in accordance with the provisions of the \$20 million fund, at the time of the issuance of the first new Building Permit for the first building of the Phase 1 development, \$10 million

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dollars would be deposited in the Fund. This would be before 2015. See also the response to Comments 23-6 and 23-7.

**Comment 23-9:** Columbia must ensure availability of high-quality housing that is affordable to our low-income community members, whose average family income hovers at little more than \$23,000. (Shepard)

**Response 23-9:** As described in Chapter 23, Columbia would contribute \$20 million toward an affordable housing fund that would promote the preservation and development of affordable housing in the area. Columbia also would enact a range of programs to reduce University-generated housing demand, including allocating retiree units to faculty of Phase 1 and Phase 2 programs, developing a graduate student residence to accommodate graduate students of Phase 1 and Phase 2 programs, and committing to a faculty residential loan program to encourage home ownership.

**Comment 23-10:** The Columbia plan does not include mandatory affordable housing like the 197-a Plan. CB9 has limited opportunity for building affordable housing because of lack of sites. All developers building residential buildings must include 50 percent affordable housing, and all affordable housing stock must be kept. (Forms 1, 2)

**Response 23-10:** Comment noted. While the 197-a Plan Alternative 2 maintains the 50 percent affordability requirement, the FEIS analysis of development under that alternative would result in 402 units of housing, of which 201 would be affordable because Subdistrict 2 would be predominantly for Columbia University community facility uses. Subdistrict 1 under the 197-a Plan Alternative 2 would be as a light manufacturing district that would not allow residential uses. As noted in the DEIS, the legal authority to adopt a mandatory (as opposed to voluntary) inclusionary housing provision has not been determined, nor has the feasibility of a mandatory program been confirmed. Currently, the New York City Zoning Resolution provides FAR incentives for inclusionary housing, but does not require inclusionary housing.

**Comment 23-11:** In exchange for the windfall Columbia will receive in the form of additional developable square footage from its planned rezoning and from its purchase from the City of undervalued parcels within the site, the University should be required to take steps to counteract secondary displacement. CPC should scale down the bulk of Columbia's project and make the University earn it back as a density bonus in return for low-income housing funded off-site in Community District 9. Instead of simply agreeing to Columbia's 6.8 million-square-foot proposal, it should allow something less than that as-of-right and give the University the opportunity to earn the rest by providing affordable units in the community. (Press)

**Response 23-11:** Chapter 23 describes the measures Columbia is advancing to address secondary (indirect) residential displacement. Those measures are aimed at reducing University-generated housing demand within the study areas (through the provision of additional University housing outside the study area) and a \$20 million contribution to an affordable housing fund to facilitate the development and preservation of affordable units in the community. Also described in Chapter 23, Columbia has committed to provide funding for anti-eviction/anti-harassment legal assistance for Manhattanville residents.

*OPEN SPACE*

**Comment 23-12:** The park space that Columbia talks about putting in is currently where the Cotton Club is located. It must be noted that this is not a part of the expansion area, or at least the park concept is not in Columbia's GPP. While the present location of the Cotton Club is not its original location, the club still has symbolic value. History is very important to West Harlem and the residents would resent the Cotton Club moving again. (Tajiddin)

**Response 23-12:** As described in Chapter 23, Columbia University has agreed to create new public parkland on Block 1996, Lot 1, the location of development Site 5 of the Illustrative Plan. This site is currently occupied by the Cotton Club and, as described in Chapter 1, is identified for development of commercial and/or retail space in the Illustrative Plan. This parcel is located in Subdistrict A of the Academic Mixed-Use Area and is included in the area associated with the GPP.

As described in Chapter 23, Columbia intends to acquire the site through either: (a) negotiation with the Cotton Club and relocating the Cotton Club within the immediate area (if reasonable terms can be agreed upon); or (b) through the exercise of the authority of the New York State Urban Development Corporation (doing business as the Empire State Development Corporation [ESDC]). As described in Response to Comment 1-23, any business owners who could be relocated due to the ESDC's exercise of eminent domain authority will be provided relocation assistance as required by ESDC and spelled out in the GPP. This is not the original location of the Cotton Club and the ownership and management of the club is not the same as that of the historic club.

**Comment 23-13:** While the improvements to neighborhood open spaces are commendable, they are not for the greater West Harlem community. 3333 Broadway is a private property, and Manhattanville Houses and General Grant Houses only allow egress rights. And although Columbia offers to donate \$450,000 a year for 25 years toward the renovated West

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Harlem Waterfront park, this park is not something that Columbia created for the West Harlem community. It will get maintained with or without Columbia. The University may even benefit from this donation, perhaps as a tax write-off. (Tajiddin)

**Response 23-13:** As described in Chapter 23, Columbia has agreed to contribute \$500,000 per year, increasing at 3 percent annually, for the West Harlem Waterfront park for a period of 25 years. The funding would commence following the approval of the proposed rezoning but not later than the opening of the park and is intended to allow DPR to hire dedicated staff and to provide enhanced services in a manner that would promote the attractiveness of the space for increased public use and enjoyment. University funding of the park will be used to ensure increased usage, access, convenience, safety, and enjoyment by the neighboring community and general public. As a non-profit educational institution, Columbia University would not benefit from a charitable deduction as a tax write-off.

### *CONSTRUCTION-NOISE*

**Comment 23-14:** Columbia suggests that to mitigate noise impacts, individuals can close the windows and use air conditioners. Many Manhattanville residents do not have air conditioners, and others cannot afford the electricity bills associated with running air conditioners. The University must find credible and feasible methods to mitigate its noise impact, including purchasing air conditioners for impacted units and helping defray the cost of increased utility bills. (Earle)

**Response 23-14:** As described in Chapter 23, to address the significant adverse noise impacts to residents at the 3333 Broadway (Riverside Park Community) and 95 Old Broadway and 1430 Amsterdam Avenue (Manhattanville Houses), the buildings with direct line-of-sight to the Subdistrict A construction, Columbia University would make available air conditioning units (e.g. sleeve units for residents of 3333 Broadway and window units for residents of 95 Old Broadway and 1430 Amsterdam Avenue), at no cost to the residents for the units, as mitigation for construction impacts. Prior to the commencement of construction in the vicinity of the affected sites, Columbia would notify each of the affected residents that they are eligible to receive an air condition unit. Columbia would have in place an arrangement with a vendor and the residents would notify the vendor of their desire to receive a unit. The vendor would, at Columbia's expense, install the air conditioners. If the air conditioners were to become the property of the residents and if a resident were to remove the air conditioner upon vacating his or her apartment, Columbia would provide a replacement unit replacement.

This process would be in force until after the source of the impact, i.e., construction activities, was removed.

## CHAPTER 24: ALTERNATIVES

### GENERAL COMMENTS

**Comment 24-1:** At a minimum, DCP must hold Columbia to task to fulfill its legal obligation to considering the West Harlem Master Plan as an alternative that is far superior to the Columbia plan because it addresses and indeed avoids the significant adverse impact its expansion will have on the economy, environment, and health of the Manhattanville community. (WEACT).

**Response 24-1:** The West Harlem Master Plan is a policy statement about the future of the Project Area and other portions of Manhattanville. It does not make specific recommendations for the Project Area that could be compared, as an alternative, to the Proposed Actions. The Alternatives chapter considers several alternatives that would reduce the scale of the Academic Mixed-Use Development. These, like the Proposed Actions, would have some significant adverse environmental impacts requiring mitigation.

**Comment 24-2:** The DEIS has failed to adequately consider as an alternative a project without the use of eminent domain. (CTPC) It is not reasonable for the EIS to dismiss the no-eminent domain, “infill” alternative. While in the review of a purely private rezoning it may be appropriate to take the private developer’s own statement of its goals and objectives as determinative in considering the feasibility of alternatives, the fact that it is a public development project also under review here demands that alternatives should be measured against public goals and objectives. Columbia’s estimation of its long term needs, its insistence on an exclusively Columbia-controlled integral campus, and its proposed urban design and open space parameters are not required for the alleged purposes of a public land use improvement project, or even for one with certain civic project components. Columbia can build as-of-right under various proposed rezoning schemes and achieve most, if not all, of the public benefits the project is alleged to offer. (Siegel, Van Buren)

**Response 24-2:** The DEIS considered several alternatives which would not involve the use of eminent domain. These include: the Infill Alternative with FAR 6 and Full Build Scenarios; and the CB 9 197-a Plan Alternative. The FEIS also presents an analysis of an Expanded Infill Alternative, which considers Columbia development limited to property currently under public ownership and on sites owned or controlled by Columbia, as well

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as an analysis of CB9's proposed revisions to its 197-a Plan Alternative (197-a Plan Alternative 2).

**Comment 24-3:** An infill approach, along with the parameters and restrictions of the 197-a Plan, would ameliorate the conflict between town and gown, as well as save homes, commercial, manufacturing, and retail businesses and jobs so important to us all. (J. Levine)

**Response 24-3:** The infill approach is considered in several iterations in Chapter 24. See the Infill Alternative, both FAR 6.0 Scenario and Full Build Scenario, Expanded Infill Alternative, 197-a Plan Alternative 1, and 197-a Plan Alternative 2 in Chapter 24 of the FEIS. All but one of the infill options and the 197-a Plan alternatives would not meet Columbia's goal for program space, particularly academic research space, or the ability to create a campus with full open space. The Full Build Scenario of the Infill Alternative would theoretically meet program goals, but it would require an FAR of 10, which is out of context for the neighborhood, would have no open space other than a truncated through-block north-south passageway, and would require substantially more on street loading docks and curb cuts than the Proposed Actions. As noted in the FEIS, the direct residential development displacement associated with the Proposed Actions would not constitute a significant adverse impact. However, Columbia has committed to replacing all the housing, under the same public programs that guarantee rents and other features now, at three sites that are identified and analyzed in the FEIS. The University has also committed to several measures to reduce the significant adverse indirect residential displacement identified for the 2030 analysis year. The infill approaches, like the Proposed Actions, would directly displace substantial numbers of businesses and employees. Displacement estimates for the infill approaches range from 52 displaced businesses with 590 employees under the 197-a Alternative Plan 1, to 74 displaced businesses with 690 employees under the Expanded Infill Alternative (as compared to the Proposed Actions, which would directly displace up to 85 businesses with 880 employees). And while all of the infill approaches would create a substantial amount of new employment, the Proposed Actions would generate the greatest amount of net new employment when compared to the infill approaches, and would provide a larger and broader range of employment opportunities—including entry level positions, skilled trades (e.g., carpenters, plumbers, electricians), administrative support, and professional service positions in finance, customer service, and general administration.

**Comment 24-4:** Columbia's preferred floor plate and subgrade construction is the key for the significant adverse impacts from this project. Eminent domain,

displacement, and the long-term construction impacts are driven directly from the floor plate choice and subgrade construction. From a CEQR perspective, did the DEIS look at alternatives to avoid those significant adverse impacts? It did not. If it had, the DEIS would have concluded that the 197-a alternative development scenario enables the avoidance of the significant adverse impacts that result from Columbia's proposal. (Stanislaus, M. White)

**Response 24-4:** Chapter 1 contains detailed descriptions, which has been updated in the FEIS, of floor plate requirements for academic research buildings and the need for a deep, central below-grade service area. The DEIS contains a fully quantified analysis of a 197-a Plan Alternative development scenario; the FEIS contains a detailed analysis of a scenario based on CB9 revisions to the 197-a Plan as well as an Expanded Infill Alternative, which would avoid use of eminent domain for private property, but would contain a smaller deep basement. Both of these alternatives would avoid direct residential displacement, but would not avoid indirect residential displacement. Like the Proposed Actions, development under these alternatives would require special equipment or mitigation during construction to avoid significant traffic, air quality and noise impacts.

**Comment 24-5:** The EIS should have examined alternatives outside of the City. Many universities operate with diverse geographical sites; Columbia itself does that with its uptown medical center and its Lamont-Doherty Earth Observatory in Palisades, NY. Proximity is not necessary. (CTPC)

**Response 24-5:** Chapter 1 of the FEIS discusses the constraints of using Lamont-Doherty campus and the limited space available at the medical center on pages 1-14 through 1-18. Columbia University, the first institute of higher education in New York City, has stated that it is committed to remaining in New York City.

**Comment 24-6:** The DEIS analysis was conducted in biased fashion to minimize the severity of impacts of Columbia University's 197-c proposal, and marginalize the significant differences of impact with the 197-a Plan. The core foundation for the bias was the assumed very poor existing condition in the Manhattanville area that is used to reinforce a wholesale clearance of the area embedded in Columbia's 197-c proposal as compared with an infill alternative. While Columbia University provided analysis of the impacts of the 197-a Plan and its comparison to the 197-c proposal in the DEIS, its analysis and conclusions were skewed in favor of Columbia University's 197-c proposal. The DEIS claim that the 197-a Plan has significant impacts ignore the magnitude of the difference between the impacts of the 197-c proposal and the impacts of the 197-a Plan. (CB9)

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**Response 24-6:** DCP, acting on behalf of the lead agency, undertook the analyses for the DEIS, not Columbia University. The DEIS analysis was not conducted in a biased fashion. The DEIS contains a fully quantified analysis of a 197-a Plan Alternative development scenario; the FEIS contains a detailed analysis of a scenario based on CB9 revisions to the 197-a Plan. Assuming the development scenario under the 197-a Plan Alternative were realized, it would have traffic impacts similar to the Proposed Actions (among others), and a similar but lesser adverse indirect residential displacement impact, while also providing substantial job growth. However, as discussed in the FEIS, there are several reasons why the development scenario would be unlikely to be fully realized. For this reason, the EIS may overstate both the beneficial and adverse impacts of the 197-a Plan Alternative.

**Comment 24-7:** The alternative of constructing new University facilities on top of the existing above-grade MTA Bus Depot is a vague alternative. It does not properly explain how the MTA's depot would practically conform to this alternative. (CTPC)

**Response 24-7:** The discussion of the alternative that would build over the existing bus depot is not exhaustive, because early on the option was found to be infeasible, and it was rejected.

### *197-A PLAN ALTERNATIVE*

#### *General Comments*

**Comment 24-8:** Every item that Columbia proposes as part of its plan should be compared side by side with the 197-a Plan to evaluate its adverse impacts on the affected and surrounding communities. Because this comparison is not part of the EIS, alternatives are marginalized. (CTPC)

**Response 24-8:** The EIS is not an EIS on the 197-a Plan Alternative, but it is an EIS on the Proposed Actions only. The impacts of the 197-a Plan Alternative are compared to those of the Proposed Actions in Chapter 24.

**Comment 24-9:** Although no assumptions were made on below-grade components in the 197-a Alternative Development Scenario, a significant amount of below-grade support space for academic services, parking, deliveries, waste management, mechanical systems, and even recreational uses such as swimming pools could be developed through separate conventional basements under Columbia-owned properties that may be interconnected by tunnels. If all of Columbia's currently owned properties were developed with 2 floors of basements, in excess of 672,750 square feet of underground service area space could be provided. Columbia's own plan recognizes the viability of interconnected basements because its plan includes constructing a

basement in building 7 that would be connected to the proposed central below-grade service area.

While this may result in some increased impacts at street level on traffic and parking, the critical question is whether increased impacts outweigh the avoidance of the significant adverse impacts arising from Columbia's Proposed Actions, including direct displacement, use of eminent domain, long term construction impacts, the significantly lengthy closure of city streets in order to relocate essential city services and infrastructure, and the indeterminate volume of material that would have to be excavated and trucked to areas outside of New York City to be stored and dumped. The DEIS failed to analyze this critical question. Any potential increase in impacts due to the relocation of certain uses to street level will result in fewer and lesser impacts overall, because of the avoidance of the significant and adverse impacts of Columbia's Proposed Actions. (CB9)

**Response 24-9:**

Two different structural engineering firms, one hired by Columbia, the other by ESDC have advised that because of subsurface conditions, in most of Subdistrict A west of Broadway only a few buildings could be developed with conventional basements of more than one level, and none with more than two levels. In most of Subdistrict A west of Broadway, beyond approximately 30 feet (two basement levels), slurry wall construction would be necessary. Separate buildings connected by tunnels could not offer centralized loading, centralized mechanical/HVAC, or substantial parking. Science support space also requires high floor to ceiling heights (about 15 feet), so it could not be easily accommodated below grade without slurry wall construction of a deep basement. It would have to be provided above grade and with redundancies, which would reduce the area for academic research program. The DEIS thoroughly addresses construction impacts of the Proposed Actions, proposing mitigation, as necessary. Chapter 12 and Chapter 21 both address the issue of disposing of excavated materials. The FEIS has been revised to be more specific about the proposed central below-grade service area.

**Comment 24-10:**

CB9 believes that the performance, design, and space criteria cited by Columbia University to meet its needs can be accomplished within the 197-a Plan Alternative Development Scenario. This would avoid the significant and adverse impacts that would result from Columbia University's Proposed Actions and would preserve existing uses and buildings; it would produce a modern urban campus in Manhattanville that is integrated with—and open to—the community, substantially advancing Columbia's community revitalization goals and objectives, as well as addressing its long-term campus expansion needs. In order to

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fully disclose information to the City Planning Commission as required by CEQR, Columbia must fully analyze the comparative impacts from implementing the 197-a Alternative Development Scenario. (CB9)

### **Response 24-10:**

As discussed in FEIS Chapter 24, the revised 197-a Plan Alternative development scenario would produce approximately half the academic program space that Columbia has stated it needs, and only 46 percent of the academic research program space available in the Proposed Actions. If the requirements of the revised 197-a Plan Alternative were further relaxed to allow new construction on sites containing resources of historic interest to CB9 that were not found eligible for landmarking or listing on the S/NR, the results would differ only slightly. The “relaxed” revised 197-a Plan Alternative would produce 53 percent of the academic program space that Columbia has stated it needs, and approximately half the academic research program space provided under the Proposed Actions. As discussed more fully in the FEIS, neither version of the alternative would provide a campus-like setting for the development, since there would be no central open space or north-south pedestrian corridors linking the development from West 125th to West 133rd Streets, and because—without the central loading and distribution systems and below-grade parking of the Proposed Actions—the area would be characterized by curb cuts and truck-loading activities.

### **Comment 24-11:**

CB9’s 197-a Plan provides for developing Manhattanville without mass community displacement or environmental degradation, as Columbia’s plan would. (WEACT)

### **Response 24-11:**

As detailed in the DEIS and FEIS, both the 197-a Plan and the Proposed Actions could lead to significant adverse indirect residential displacement impacts, although those of the 197-a Plan would be generally lesser than those of the Proposed Actions. The analyses do not conclude that either the Proposed Actions or the 197-a Plan Alternative would lead to mass community displacement or environmental degradation.

### *Socioeconomic Conditions*

### **Comment 24-12:**

In comparing the significant adverse indirect displacement impact of Columbia University’s 197-c Plan with the 197-a Plan, the DEIS concludes that by 2030 the 197-a Plan “...could result in some indirect displacement of at-risk population in 1,319 unprotected units in the primary study area, including 823 units in the Riverside Park Community/3333 Broadway.”

The DEIS conclusion is false and unsupported. The DEIS arrives at this conclusion despite its acknowledgement the 197-c proposal would

introduce a greater University-related population to the area than the 197-a Plan, and therefore the 197-a Plan Alternative impacts would be less. Moreover, the DEIS ignores the 197-a Plan's requirement to preserve and protect existing affordable housing units and create new ones. The true difference between the 197-a Plan and the 197-c proposal is that the 197-c proposal will result in severe significant and adverse indirect displacement, while the 197-a Plan will not. In addition, the 197-a Plan will preserve and expand the supply of affordable housing. (CB9)

**Response 24-12:** The DEIS analysis does not quantify the number of residents that would be displaced by either the Proposed Actions or the 197-a Plan development scenario. The analysis identifies the at-risk population—i.e., those that could not afford rent increases if they were to occur—and evaluates whether development could result in increased rents which in turn, could lead to displacement of the at-risk population. Within the primary study area, in the future without the Proposed Actions, all residents within the 1,319 unprotected primary study area units are vulnerable to displacement. The DEIS analysis states the 197-a Plan, if realized, could, like the Proposed Actions, have an upgrading effect which in turn, could lead to displacement. It also acknowledges that this effect would be less than that of the Proposed Actions, because (1) the plan would contain 211 units of affordable housing and (2) the plan would not introduce students and faculty who would seek housing near the project site. As also stated in the DEIS, this conclusion relies on the assumption of a successful development scenario, which might overstate both the potential benefits and the potential adverse impacts of development scenario. In the analysis of the revised 197-a Plan (197-a Plan Alternative 2), which acknowledges that Columbia would develop the properties it owns (about 74 percent of properties—65 percent of the land area—in Subdistrict A), the FEIS discloses that more community facility space would be constructed, slightly fewer affordable housing units would be built, and less manufacturing use would be preserved and no new manufacturing use would be introduced.

**Comment 24-13:** The difference in direct displacement between the 197-a Plan and the 197-c Plan is very stark: the 197-a Plan, based on analysis in the DEIS, would add 1,116 residents (421 units), while the 197-c Plan would directly displace 291 existing residents. However, even these figures underestimate the impact of the 197-a Plan's proposals for inclusionary housing and calls for an aggressive program of affordable housing preservation. (CB9)

**Response 24-13:** The DEIS analysis in Chapter 24 is clear that half (221) of the units developed under the 197-a Plan Alternative would be affordable, and

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that this would lessen that alternative's impact on indirect residential displacement. The FEIS analysis of the revised 197a- Plan Alternative and its "relaxed" version shows that it would produce slightly fewer units of affordable housing (201 units). These figures include units produced in Other Area east of Broadway as well as those that would be located in Subdistrict A. In addition, Columbia has identified three sites, which have been added to the Proposed Actions in the FEIS, for construction of enough housing to provide relocation units to all households directly displaced by the Proposed Actions.

**Comment 24-14:** The DEIS states, without any support whatsoever, that the 197-a Plan would result in the displacement of 52 businesses and institutional uses and 620 employees. This contradicts the very basis of the 197-a Plan to preserve the local businesses that exist in Manhattanville. (CB9)

**Response 24-14:** Business displacement under the 197-a Plan Alternative is a function of the amount of space assumed to be constructed for or converted to either community facility or office use. CB 9 identified the sites assumed for analysis purposes to be redeveloped or converted and these sites were used in the development scenario. The analysis tallied the buildings whose uses and tenants would change or that would be demolished, counted the employment therein, and assumed, as was done for the Proposed Actions, that these represented displacement of businesses and institutions and their employees. The revised 197-a Plan Alternative and its relaxed version in the FEIS would allow Columbia substantially more flexibility in merging sites and redeveloping substantial portions of the Project Area, so the displacement from these alternatives would be greater than the alternative based on the original plan. The same method was used to analyze direct displacement of businesses, institutional uses, and employment of the Proposed Actions as well as the 197a-Plan Alternative.

**Comment 24-15:** The DEIS also arbitrarily dismissed employment creation from the 197-a Plan. Although it acknowledges that full implementation of the 197-a Plan would add 5,445 employees, it states—again without adequate foundation—that "...a number of factors suggest the amount and type of development assumed are unlikely to be realized under current or likely future market conditions." The essential basis for this claim is that manufacturing jobs cannot be created in New York City. (CB9)

**Response 24-15:** The factors are listed and documented in Chapter 24, pages 24-41 through 24-42, of the DEIS.

**Comment 24-16:** The DEIS relies almost exclusively on the benefits of construction in analyzing the fiscal impacts of the 197-c proposal. With respect to post-construction impacts, there would be no fiscal benefit from Columbia's uses in the proposed Academic Mixed-Use Area because Columbia is a

non-profit. Ground floor retail uses would provide a limited fiscal benefit in this area. The 197-a Plan, by contrast, is aimed at preserving and expanding the tax base and uses in the Manhattanville area. The DEIS also completely ignores construction jobs that would be generated through the 197-a Plan Development Scenario Alternative. (CB9) The Columbia plan will not produce jobs for our community and the 197-a Plan will. (Forms 1, 2)

**Response 24-16:**

Section E, “Economic and Fiscal Benefits and Costs Analysis,” in Chapter 4 describes the fiscal benefits that would be generated by uses in the Academic Mixed-Use Area. The annual operation of the completed Academic Mixed-Use Development would generate non-property-related tax revenues for New York City, MTA, and New York State. These tax revenues are projected to be significant. In total, the operation of the completed Academic Mixed-Use Development is estimated to generate approximately \$82.44 million annually (in 2007 dollars) in non-property-related tax revenues for New York City, MTA, and New York State. Of these revenues, the largest portion would come from personal income taxes, sales tax, business taxes, and numerous miscellaneous taxes on the direct, indirect, and induced economic activity. New York State would receive about \$56.31 million annually in tax revenues, the MTA would receive about \$1.10 million annually, and New York City, about \$25.04 million annually. With respect to property taxes, based on preliminary analysis of the likely property taxes from the ground-floor retail space (determined by the capitalization of the likely rent received by the University and on property taxes paid on similar space), it is estimated that the property taxes would more than offset the loss from the decrease in the value of the area’s taxable space. Overall, it is estimated that the revenues paid to the City would equal about \$3.92 million annually, an increase of about \$1.98 million from the area’s 2004/2005 amount. Because the analysis of construction impacts of a development project depends almost entirely on the cost of construction as its major economic input, the construction jobs generated by the 197a-Plan Alternative or any of the other build alternatives would be lower in proportion to the decrease in floor area, compared to the Proposed Actions.

As described in Chapter 24, the amount and types of uses assumed under the 197-a Plan Alternative 2 development scenario could generate up to an estimated 3,630 employees, of whom 3,088 would be University-generated employees. This is compared to a total of 7,086 employees generated by the Proposed Actions, of which 6,399 would be University-generated employees. See also Responses to Comments 4-44 through 4-48.

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### *Historic Resources*

**Comment 24-17:** The DEIS fails to recognize the major differences between the 197-a Plan and the 197-c proposal regarding historically significant properties. While historically significant properties identified in the 197-a Plan would be considered for landmark designation, they would not be landmarked or otherwise protected under the 197-c proposal. Consequently, the impacts on all of the historically significant properties were ignored in the DEIS. The DEIS does recognize that there would be a significant impact on historic resources in the 197-c proposal from the proposed demolition of the Sheffield Farms Stable at 3229 Broadway, which would be preserved under the 197-a Plan. (CB9)

**Response 24-17:** The DEIS did not fail to recognize the 197-a Plan properties identified as historically significant. Properties identified in the 197-a Plan as having historic significance have already been considered for landmark designation. As part of the DEIS process, both the LPC and SHPO toured the Project Area and reviewed its resources. Those listed in the DEIS as eligible for landmark status or for listing on the S/NR are those that the agencies determined to be of appropriate significance. In accordance with the *CEQR Technical Manual*, the DEIS analysis adequately considered the potential for significant adverse impacts to properties landmarked, listed as eligible for landmark status, or eligible for listing on the S/NR. The determinations by SHPO and LPC would be the same, independent of the Proposed Actions or the 197-a Plan.

### *Open Space*

**Comment 24-18:** The DEIS states that because of the larger amount of open space in the 197-c proposal (2.16 acres) versus the 197-a Plan (0.41 acres), the 197-c proposal better serves the public's use of open space. All of Columbia's proposed open space would be developed on Columbia-owned property and therefore would not qualify as public open space. Such space would be subject to restrictions and limitations imposed by Columbia University and not fully accessible to the public. (CB9)

**Response 24-18:** As stated in the DEIS and FEIS, the open spaces to be developed on Columbia owned or controlled provided would be fully accessible to the public. Under CEQR, privately owned open space is considered both qualitatively and quantitatively if the open space is accessible to the public on a constant and regular as the proposed open spaces would be. See also Response to Comment 6-1.

### *COGENERATION ENERGY SUPPLY ALTERNATIVE*

**Comment 24-19:** Although the DEIS mentions a potential cogeneration plant, it provides no detailed summary plan as to the capacity of the plant, its fuel source,

its projected output, how it will help to alleviate the campus's dependence on Consolidated Edison, or any other design parameters. The pollution emission profile of the cogeneration array is not included in the dispersion modeling of the project's overall pollution output. (WEACT)

**Response 24-19:** The EIS provides a detailed air quality analysis of the Cogeneration Energy Supply Alternative in Chapter 24. As described in the chapter, a cogeneration plant, which could generate a portion of the electricity needed to serve the academic research buildings and the other campus facilities, instead of purchasing electricity from Con Edison, is being considered as an option to increase reliability of electrical service and potentially decrease its costs. All relevant design parameters and assumptions are included in the discussion of this alternative. The analysis concludes that compared with the Proposed Actions, the Cogeneration Energy Supply Alternative would result in similar levels of pollutant emissions, and like the Proposed Actions, no significant adverse air quality impacts are expected from the Cogeneration Energy Supply Alternative.

**Comment 24-20:** Columbia must use best available technology emission controls and "clean" alternative fuels on all its emission sources, including the planned power generators and campus vehicle fleets. (Shepard)

**Response 24-20:** The cogeneration plant would be designed to meet all applicable federal, state and local air quality regulations. The proposed air pollution control equipment described in the Cogeneration Alternative section is equivalent to or exceeds "best available control technology."

## **OTHER COMMENTS**

### *ENVIRONMENTAL JUSTICE*

**Comment EJ-1:** Pursuant to the DEC Commissioner's Policy 29, the full EJ analysis requires applicants proposing to develop within an environmental justice community to develop an enhanced public participation process; complete an environmental impact assessment and mandatory project scoping; and conduct the appropriate cumulative impact analysis of all environmental factors that can affect the project area, taking into consideration the special susceptibility of the local population. Columbia has failed in this task. (WEACT)

**Response EJ-1:** The Environmental Justice regulations require that the lead agency determine whether there has been a high and disproportionate impact on vulnerable communities. An environmental justice analysis was conducted and is presented in Appendix L, "Environmental Justice."

## **Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS**

The analysis requires that a community at risk be identified (the EIS characterizes the population in the study area as a community at risk) and that the effect of the identified significant adverse environmental impacts on this community be analyzed. CPC, as lead agency for the EIS, found that relative to the Proposed Actions' overall effects, the Proposed Actions are not expected to result in any disproportionate significant adverse impacts on minority and low-income populations. As described in Appendix L, in addition to the extensive public participation process being undertaken as part of the Proposed Actions' environmental review process, public participation will be sought throughout the DEC permit review process, in accordance with the DEC Policy. An extensive public outreach program to the affected communities will be implemented, including minority and low-income populations in the study area, providing these groups with ample opportunity to have any of their concerns addressed. A Public Participation Plan will be developed and submitted to DEC in conjunction with the required permit applications.

### **Comment EJ-2:**

Manhattanville, with a population that is 88 percent minority and grossly disproportionately impacted by environmentally harmful land uses, is the epitome of an environmental justice (EJ) community. Within a few blocks, this low-income community of color suffers the burdens of a sewage treatment plant that processes 170 million gallons of water per day (and is under a consent order from the New York State Department of Environmental Conservation [DEC] for violating both allowed air emission and water effluence); the MTA Manhattanville Bus Depot, which emits toxic diesel pollution as it services an above-capacity share of 250 buses each day; a marine garbage transfer station that once serviced up to 90 truckloads of garbage each day and is under constant threat of becoming recommissioned as the City's garbage processing capacity is stressed; not to mention dry cleaners and gas stations that store and emit toxic chemicals. Columbia plans to add to this toxic cocktail by constructing two energy plants, three boilers of moderate size, and three cooling towers; conduct 22 years of construction spewing air, noise, and vibration pollution; threaten the water quality of the Hudson with construction outfall and sewage overflow from overstressing North River's capacity just as community uses are returning to the area; and increase traffic-related pollution. The campus will also be reducing accessibility of community amenities like the waterfront park and the I.S 195 playground. Columbia needs to address this cumulative impact instead of providing the oversimplified listing of the TRI data it describes in the DEIS. (Subudhi)

The DEIS fails to address the impacts—particularly air emissions during construction and operation of on-site energy plants—on a community that is an environmental justice community due to existing high air pollution levels. (Shiffman, CTPC)

As stated in CB9’s resolution on the Columbia 197-c Plan with its 10 conditions requiring adherence to the 197-a land use plan, Columbia must not build pollution emitting power sources—such as power plants and cogeneration facilities—or research facilities above biosafety level 2, or other noxious installations that would contribute to the already high environmental burdens of this community. (CB9-1, Lewton, CTPC)

**Response EJ-2:**

As presented in Appendix L, “Environmental Justice,” the entire study area has been determined to be a potential environmental justice area. An Environmental Justice analysis was conducted, and considered the concerns listed in the comment as part of the analysis.

As part of the Proposed Actions, (and contingent on Columbia University entering into an agreement with the Metropolitan Transportation Authority [MTA]), the MTA Bus Depot would be relocated below-grade generally in its current location. The EIS provides an analysis of the effects of the proposed below-grade Bus Depot’s emissions in Chapter 19, “Air Quality,” and notes that the Restrictive Declaration for the Academic Mixed-Use Area would include provisions for the reconstructed bus depot to utilize clean burning natural gas, and provisions for the locations and height of combustion exhaust stacks. The Restrictive Declaration for the ventilation systems associated with the reconstructed MTA Manhattanville Bus Depot would ensure that the emissions from future bus depot operations do not result in any significant air quality impacts. The stationary source analysis presented in Chapter 19 also concluded that operation of the proposed central energy plants and package boilers would not result in significant adverse air quality impacts. To ensure the avoidance of impacts, limitations on the annual fuel usage and minimum stack heights would be included in the Restrictive Declaration for the Academic Mixed-Use Area.

Chapters 11, “Natural Resources,” and 14, “Infrastructure,” provide an analysis of the potential effects of the Proposed Actions on CSO events and the water quality of the Hudson River. Those analyses conclude that no significant impacts would be expected from the Proposed Actions. Chapter 17, “Traffic and Parking,” found no significant impacts to traffic would occur in the Project Area with the operation of the Proposed Actions. Parking, transit and construction-related noise and traffic impacts would be fully or partially mitigated as presented in

## **Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS**

Chapter 23. With respect to access to the waterfront during construction, Chapter 21 states that throughout the construction period, access to surrounding residences, businesses, institutions, and waterfront uses in the Project Area and primary study area would be maintained. Construction of the Proposed Actions would not limit access to the I.S. 195 playground, as no construction activities would occur on either West 133rd Street between Broadway and Twelfth Avenue or on Broadway north of West 133rd Street.

Based on the results of the comprehensive analyses conducted as part of the EIS, the environmental justice analysis concluded that relative to the Proposed Actions' overall effects, the Proposed Actions are not expected to result in any disproportionate significant adverse impacts on minority and low-income populations.

**Comment EJ-3:** Appendix L, "Environmental Justice," states that the ethnic makeup of our neighborhood is one-third Asian (33 percent). While Asians are a growing and welcome ethnic group in the community, their numbers do not come close to this figure. (Kooperkamp)

**Response EJ-3:** The total number of Asians shown on Table L-1 is a typographical error, which can be easily identified, because the total for the column is obviously much greater than the sum of each block group and exactly the same as that in the adjacent column, which refers to Blacks. The FEIS has been revised to reflect the correct breakdown for Asians, which is approximately 4 percent.

**Comment EJ-4:** The DEIS analysis of the 197-c proposal failed to account for the fact that the Project Area constitutes an environmental justice community due to existing high environmental burdens and the increased risks from air emissions during construction and from the operation of the cogeneration plant that is proposed as an alternative to the 197-c proposal. (CB9)

**Response EJ-4:** The DEIS contains a detailed analysis of air and other impacts during construction; As described in Chapter 21, no significant air quality impacts are expected from the construction of the Proposed Actions. The cogeneration plant is not proposed as part of the Proposed Actions; however, an analysis of its impacts showed that although emissions would be slightly greater than those of the proposed central energy centers, they would not add significantly to the pollutant burden in the area (see Chapter 24). An Environmental Justice analysis was conducted and presented in Appendix L, "Environmental Justice." Based on the results of the comprehensive analyses conducted as part of the EIS, the environmental justice analysis concluded that relative to the

Proposed Actions' overall effects, the Proposed Actions are not expected to result in any disproportionate significant adverse impacts on minority and low-income populations.

*COMMUNITY OUTREACH*

**Comment CO-1:** Columbia made its intentions known to the public in the winter of 2003. Despite an intense community effort to convince Columbia to include residents and local leaders in the planning process, Columbia has flatly refused. Instead, the University chose to conduct a series of “public meetings” hosted by CB9 where it gave grand presentations, lecturing residents about the “benefits” that the new campus would bring to the West Harlem community. Although Columbia has claimed to be considerate of the community concerns, it has never allowed the community any input into the proposed development. (WEACT) It is disheartening in a democracy to feel, as so many do, that Columbia’s proposal was a *fait accompli* from the very beginning, years ago. (Petrides)

**Response CO-1:** Columbia has stated that since 2003, it has participated in hundreds of meetings with community groups, civic organizations, and others regarding our proposed expansion. As a result of feedback received from the various members of the community, some changes were made to the proposed expansion including varied building heights and open space adaptations.

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