DRAFT SCOPE OF WORK TO PREPARE A DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE NYU CORE

A. INTRODUCTION

New York University (NYU) is seeking a number of discretionary actions (the "Proposed Actions") in connection with a proposed expansion of NYU facilities at NYU's academic core near Washington Square (see **Figure 1**). As illustrated in **Figure 2**, the project area for the Proposed Actions includes: a "Proposed Development Area," bounded by LaGuardia Place to the west, Mercer Street to the east, West Houston Street to the south, and West Third Street to the north,[1] where substantial new development is proposed on two superblocks as part of NYU's master plan; a "Commercial Overlay Area," bounded by Washington Square East and University Place to the west, Mercer Street to the east, West Fourth Street to the south, and the northern boundary of the existing R7-2 zoning district near East 8th Street to the north,[2] where the Proposed Actions would permit greater flexibility in ground-floor retail uses, and are expected to result in limited conversion of ground-floor uses in existing buildings to retail use; and a "Block 535 Demapping Area," where no new development is proposed, but where NYU seeks to acquire the property that contains its 251 Mercer Street cogeneration facility below-grade.

Over a period of approximately 19 years, NYU is proposing to construct within the Proposed Development Area: four new NYU buildings (including academic uses, residential units for NYU faculty and students, a new athletic facility, a University-affiliated hotel, and retail uses); below-grade academic uses; approximately four acres of publicly-accessible open spaces; and replacement below-grade accessory parking facilities. NYU also anticipates making space available to the New York City School Construction Authority (SCA) for the provision of an approximately 100,000-square-foot public school. By 2031, the Proposed Actions would result in the development of approximately 2.5 million gross square feet (gsf) of new uses in the Proposed Development Area. Within the Commercial Overlay Area, it is anticipated that NYU would develop up to approximately 24,000 gsf of neighborhood retail uses in the ground floors of five NYU buildings.

The Proposed Actions require environmental review and the preparation of an Environmental Impact Statement (EIS) under the New York State Environmental Quality Review Act (SEQRA) and City Environmental Quality Review (CEQR). The purpose of this Draft Scope of Work (the "Draft Scope") is to solicit public comments on the key issues that must be studied in the EIS. The preparation of a final scope based on the public comments will ensure that the full environmental impacts of NYU's Proposed Actions are identified and studied consistent with environmental law and regulations. Under those laws, public review of the Proposed Actions will not begin until the

[1] The Proposed Development Area includes: Block 524, Lots 1, 9, and 66; Block 533, Lots 1 and 10; and portions of Mercer Street and LaGuardia Place that are proposed to be demapped.

[2] The Commercial Overlay Area includes: Block 546, Lots 1, 5, 8, 10, 11, 15, 20, 21, 26, 30; Block 547, Lots 1, 4, 5, 8, 14, 15, 18, 19, 20, and 25; and Block 548, Lots 1, 4, 21, 24, 40, and 45.

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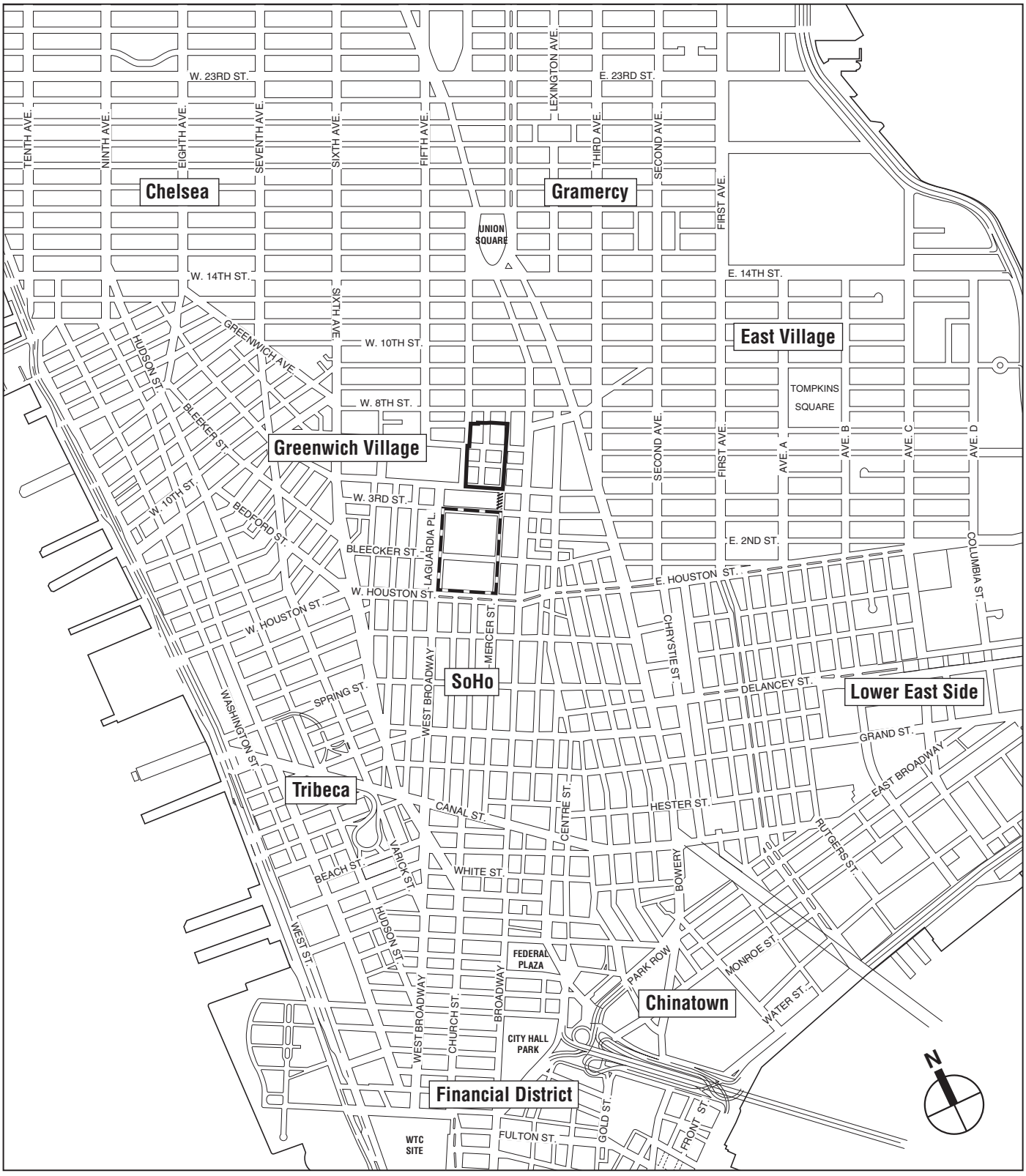


Proposed Development Area Boundary

Commercial Overlay Area Boundary

Block 535 Demapping Area

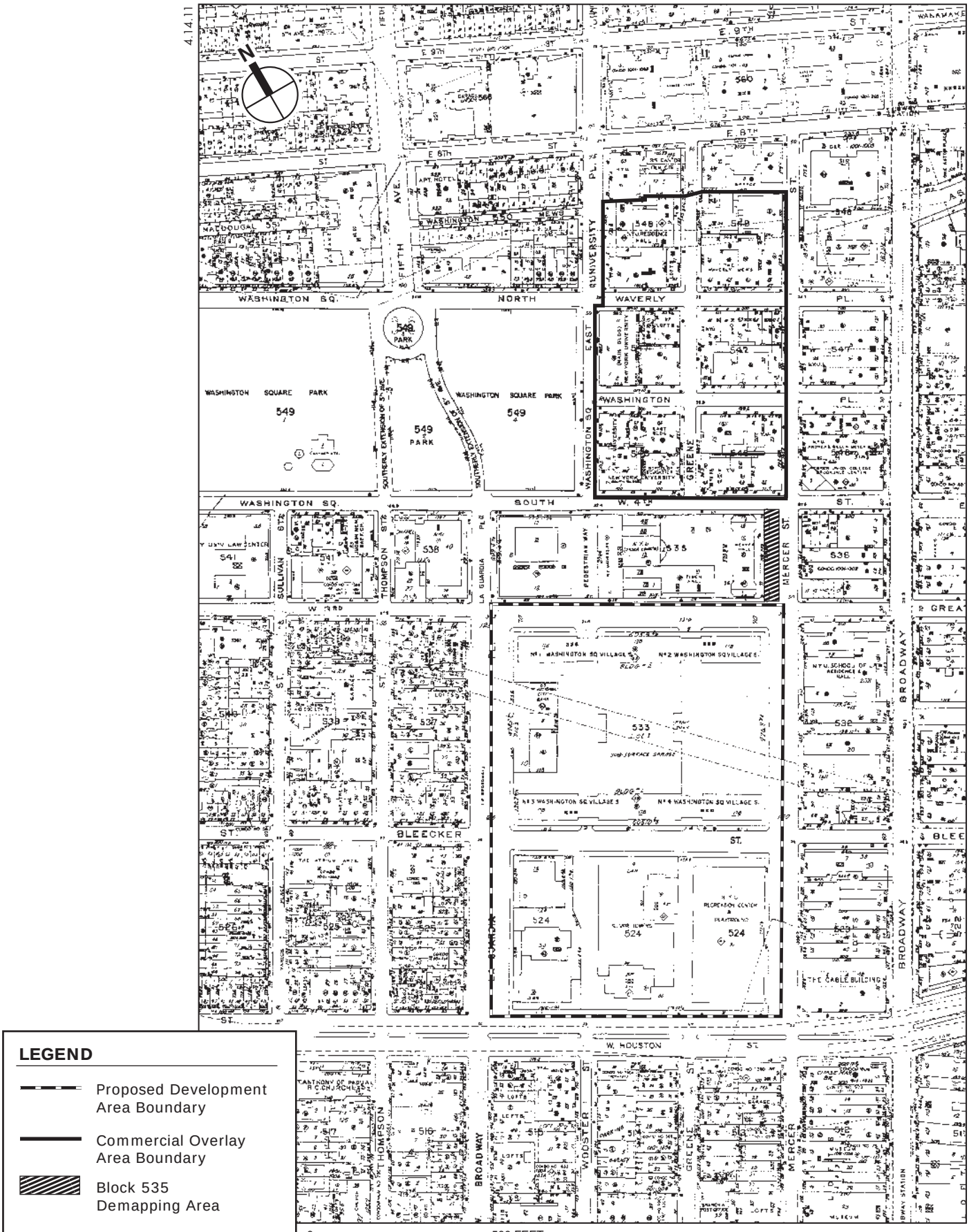
0 2000 FEET

SCALE

NYU Core

Regional Context

Figure 1



LEGEND

- Proposed Development Area Boundary
- Commercial Overlay Area Boundary
- Block 535 Demapping Area

NYU Core

Project Site
Figure 2

Department of City Planning (DCP)—acting on behalf of the City Planning Commission (CPC), which is the "lead agency"—has determined that the environmental issues have been adequately studied in the form of a Draft EIS (DEIS) in order to permit meaningful review by the public and decision-makers.

A public meeting has been scheduled to take public comments on this Draft Scope on May 24, 2011. The public meeting will consist of two sessions: one starting at 2 PM; and a second session starting at 6 PM. Both sessions will be held at Spector Hall, Department of City Planning, 22 Reade Street, New York, NY, 10007. Written comments on the Draft Scope will also be accepted by DCP until the close of business on June 6, 2011.

B. PROJECT DESCRIPTION

SITE CONDITIONS AND HISTORY

The project area is located within NYU's academic core near Washington Square Park. This area, together with the Union Square area, contains approximately 10.8 of the 15.0 million gsf of space NYU owns or leases in the City to accommodate its academic, administrative and residential needs. As shown in **Table 1**, NYU owns all of the properties within the Proposed Development Area[1] (with the exception of City-owned mapped streets) and a majority of the properties within the Commercial Overlay Area (collectively, the "project area"). The project area's existing uses comprise approximately 3.7 million of the 10.8 million gsf of space owned or leased by NYU in the Washington Square Park area.

Table 1
Existing Buildings in the Project Area

Building	Block/Lot	Lot Area (sf)	Address	Height	Current Use	Building Area (gsf)
PROPOSED DEVELOPMENT AREA						
Block 524 (the "South Block" of the Proposed Development Area)						
505 LaGuardia Place/Mitchell Lama	Lot 1	43,595	505 LaGuardia Place	295'	Residential	227,147
Morton Williams Associated Supermarket	Lot 9	16,189	130 Bleecker Street	19'	Supermarket	29,005
Silver Towers 1	Lot 66	169,132	100 Bleecker Street	293'	Residential	227,147
Silver Towers 2			110 Bleecker Street	292'	Residential	227,147
Coles Athletic Facility			181 Mercer Street	24'	Gymnasium/Athletic Facility	136,296
Block 533 (the "North Block" of the Proposed Development Area)						
Washington Square Village 1	Lot 1	288,067	1 Washington Square Village	161'	Residential	1,236,672
Washington Square Village 2			2 Washington Square Village	158'	Residential	
Washington Square Village 3			3 Washington Square Village	159'	Residential	
Washington Square Village 4			4 Washington Square Village	159'	Residential	
LaGuardia Retail	Lot 10	17,575	543 LaGuardia Place	16'	Retail	33,902

[1] The 505 LaGuardia Place building is not owned by NYU; the building is on property under a 99-year lease from NYU.

Table 1 (cont'd)
Existing Buildings in the Project Area

Building	Block/Lot	Lot Area (sf)	Address	Height	Current Use	Building Area (gsf)
COMMERCIAL OVERLAY AREA						
Block 546						
Goddard Hall	Lot 1	11,242	79 Wash. Sq. East	84'	NYU Dormitory	73,871
Pless Hall	Lot 5	5,960	82 Wash. Sq. East	85'	NYU Academic	46,829
Pless Hall Annex	Lot 8	2,787	26 Washington Place	86'	NYU Academic	23,520
East Building	Lot 10	8,779	239 Greene Street	116'	NYU Academic	91,268
Education Building	Lot 11	6,750	35 West Fourth Street	189'	NYU Academic	127,456
14 Washington Place	Lot 15	10,997	14 Washington Place	142'	Residential/ NYU Academic	129,070
Carter Hall	Lot 20	4,080	10 Washington Place	82'	NYU Academic	29,563
269 Mercer Street	Lot 21	11,047	269 Mercer Street	107'	NYU Academic	116,436
25 West Fourth Street	Lot 26	9,900	25 West Fourth Street	80'	NYU Academic	74,786
240 Greene Street	Lot 30	2,497	240 Greene Street	46'	NYU Academic	16,164
Block 547						
Silver Center	Lot 1,4	17,859	100 Wash. Sq. East	163'	NYU Academic	252,114
Waverly Building	Lot 5	5,104	24 Waverly Place	162'	NYU Academic	59,538
Brown Building	Lot 8	10,067	29 Washington Place	143'	NYU Academic	122,607
Kimball Hall	Lot 14	6,791	246 Greene Street	117'	NYU meeting space	64,499
Torch Club	Lot 14	--	18 Waverly Place	100'	NYU Alumni Lounge	-
Life Science Project	Lot 15	7,542	12 Waverly Place	80'	NYU Academic	52,810
285 Mercer Street	Lot 18	2,068	285 Mercer Street	125'	NYU Academic	22,927
7 Washington Place	Lot 19	2,706	7 Washington Place	56'	NYU Academic	14,099
15 Washington Place	Lot 20	15,000	15 Washington Place	63'	Residential	69,053
244 Greene Street	Lot 25	2,500	244 Greene Street	106'	NYU Academic	24,261
Block 548						
1 University Place*	Lot 1	12,527	1 University Place	212'	Residential and Retail	218,985
Weinstein Hall	Lot 4	22,220	5 University Place	88'	NYU Dormitory	161,589
Rufus Smith	Lot 21	3,300	25 Waverly Place	119'	NYU Academic	38,942
303 Mercer Street*	Lot 24	20,000	303 Mercer Street	78'	Residential	86,332
11 Waverly Place*	Lot 40	7,590	11Waverly Place	159'	Residential, Retail, Office	80,895
15 Waverly Place*	Lot 45	18,995	15 Waverly Place	87'	Residential and Retail	102,024

Note: * The four Block 548 properties indicated with an asterisk (1 University Place, 303 Mercer Street, 11 Waverly Place, and 15 Waverly Place) are not owned by NYU; all other properties listed are owned by NYU.
Sources: Lot Area and Building Area in the Proposed Development Area; Lot area and building area in Commercial Overlay Area from Lot Area and Building Area from Department of Finance via DCP MapPLUTO 09v1.

The Proposed Development Area—bounded by LaGuardia Place to the west, Mercer Street to the east, West Houston Street to the south, and West Third Street to the north—is comprised of two superblocks separated by Bleecker Street. The superblock north of Bleecker Street in the Proposed Development Area is referred to in this document as the "North Block," while the superblock south of Bleecker is referred to as the "South Block." Collectively, the North and South Blocks are largely residential in character, with mid- to high-rise apartment buildings, a number of private and public open spaces, and the Coles Sports and Recreation Center, which is

a gymnasium/recreational facility for NYU students, faculty, and alumni (see **Figures 3 and 4**). The Proposed Development Area also contains a number of retail uses located along LaGuardia Place.

The Commercial Overlay Area—bounded by Washington Square East and University Place to the west, Mercer Street to the east, West Fourth Street to the south, and the northern boundary of the existing R7-2 zoning district near East 8th Street to the north—is generally characterized by NYU academic and dormitory buildings, as well as four non-NYU residential buildings. There are several buildings in the Commercial Overlay Area that include ground floor retail, either as accessory to community facility (NYU) uses, or as non-complying uses under existing zoning.

The Block 535 Demapping Area—bounded by the western sidewalk of Mercer Street to the east, the existing NYU property line east of Weaver Hall to the west, West Third Street to the south, and West Fourth Street to the north—contains a renovated public space above-grade and NYU's 251 Mercer Street cogeneration facility below-grade. There is no proposed development within this approximately 4,000-sf area.

Table 1 provides details on existing buildings in the project area. The Proposed Development Area contains 10 buildings, as well as a variety of public and private open spaces and landscaped areas. The Commercial Overlay Area includes 26 individual buildings, of which 22 are owned and occupied by NYU.

The entire project area is currently zoned R7-2 (see **Figure 5**). There is a C1-5 overlay along LaGuardia Street on the two superblocks in the Proposed Development Area (this overlay area contains the Morton Williams Associated Supermarket and the LaGuardia Retail building).

The South Block of the Proposed Development Area (Block 524) is also part of a Large Scale Residential Development (LSRD) designated in 1964. The New York City Zoning Resolution provides for the creation of LSRDs "... to deal with certain types of problems which arise only in connection with large-scale residential developments and to promote and facilitate better site planning and community planning through modified application of the district regulations in such developments." The LSRD allowed the development of the three residential buildings within the LSRD, by permitting the distribution of floor area, open space, rooms and parking spaces without regard to zoning lot lines. The LSRD was modified by special permit and authorization in 1979 to permit the development of Coles Athletic Facility, and special permits relating to minor modifications to the design of the Coles rooftop open space were approved by CPC in 1999.

As shown in **Figure 22**, the Proposed Development Area is located immediately adjacent to three historic districts: the NoHo Historic District (State and National Register-eligible [S/NR-eligible], New York City Landmark [NYCL]) is located east of Mercer Street; the South Village Historic District (S/NR-eligible, NYCL-eligible) is located west of La Guardia Place; and the SoHo Cast-Iron Historic District (National Historic Landmark [NHL], S/NR, NYCL) and Extension (NYCL) are located south of West Houston Street. The Greenwich Village Historic District (S/NR, NYCL) is located north of West Fourth Street, and incorporates Washington Square Park and areas to the north and west of the park. University Village (aka Silver Towers and 505 LaGuardia Place) is S/NR-eligible and is a NYCL. Additionally, Washington Square Village is S/NR-eligible.

The Commercial Overlay Area contains a number of designated and eligible historic resources. These include: the Brown Building at 23-29 Washington Place (NHL, S/NR, NYCL); Silver Center/Hemmerdinger Hall at 100 Washington Square East (NR-eligible); and the 20-story

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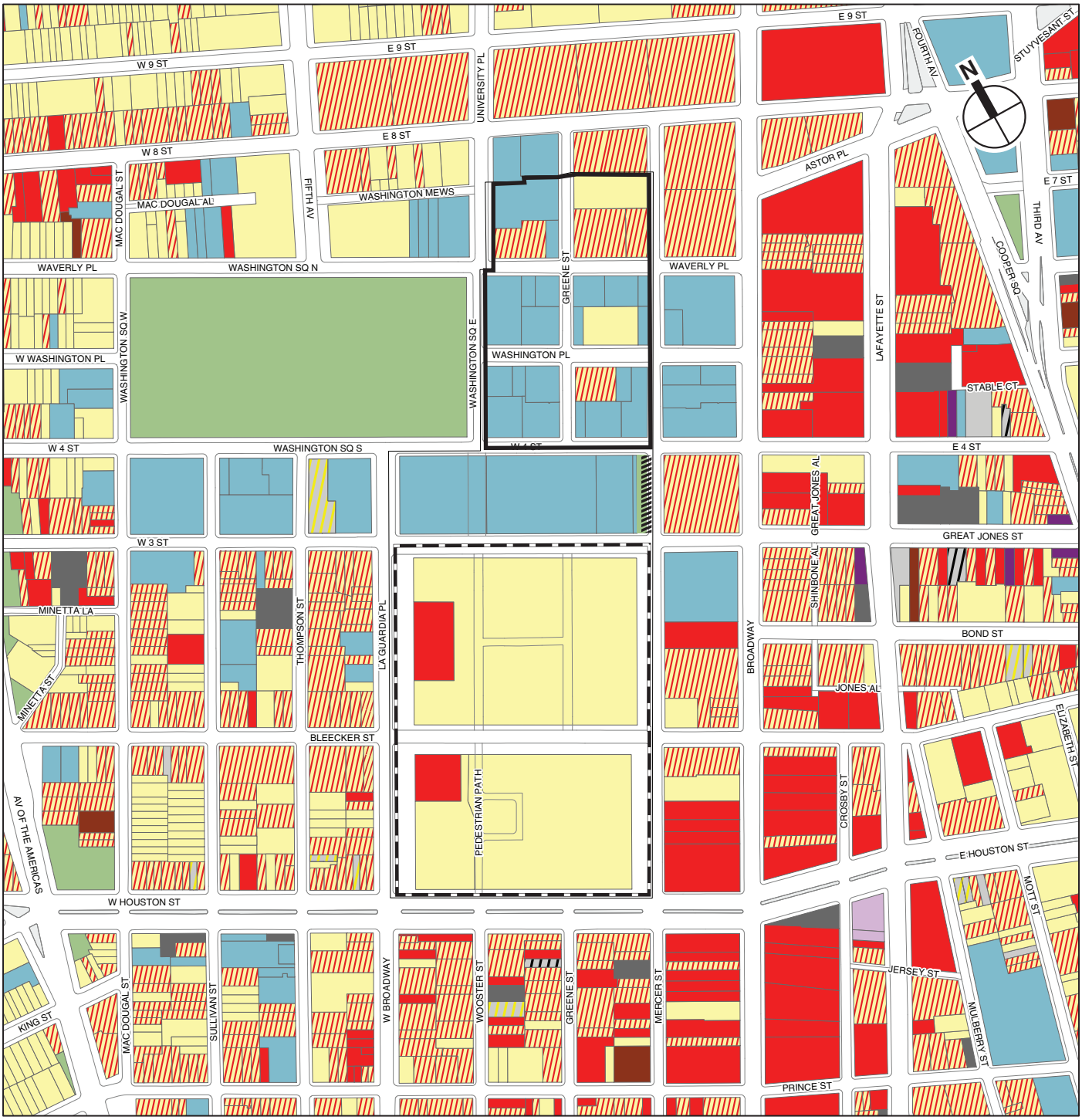

- Proposed Development Area Boundary
- Commercial Overlay Area Boundary
- Block 535 Demapping Area
- Residential
- Residential with Commercial Below
- Hotels
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Vacant Building
- Under Construction

Note: Each color indicates the dominant land use on each lot

0 200 500 FEET

SCALE

NYU Core

Land Use

Figure 3

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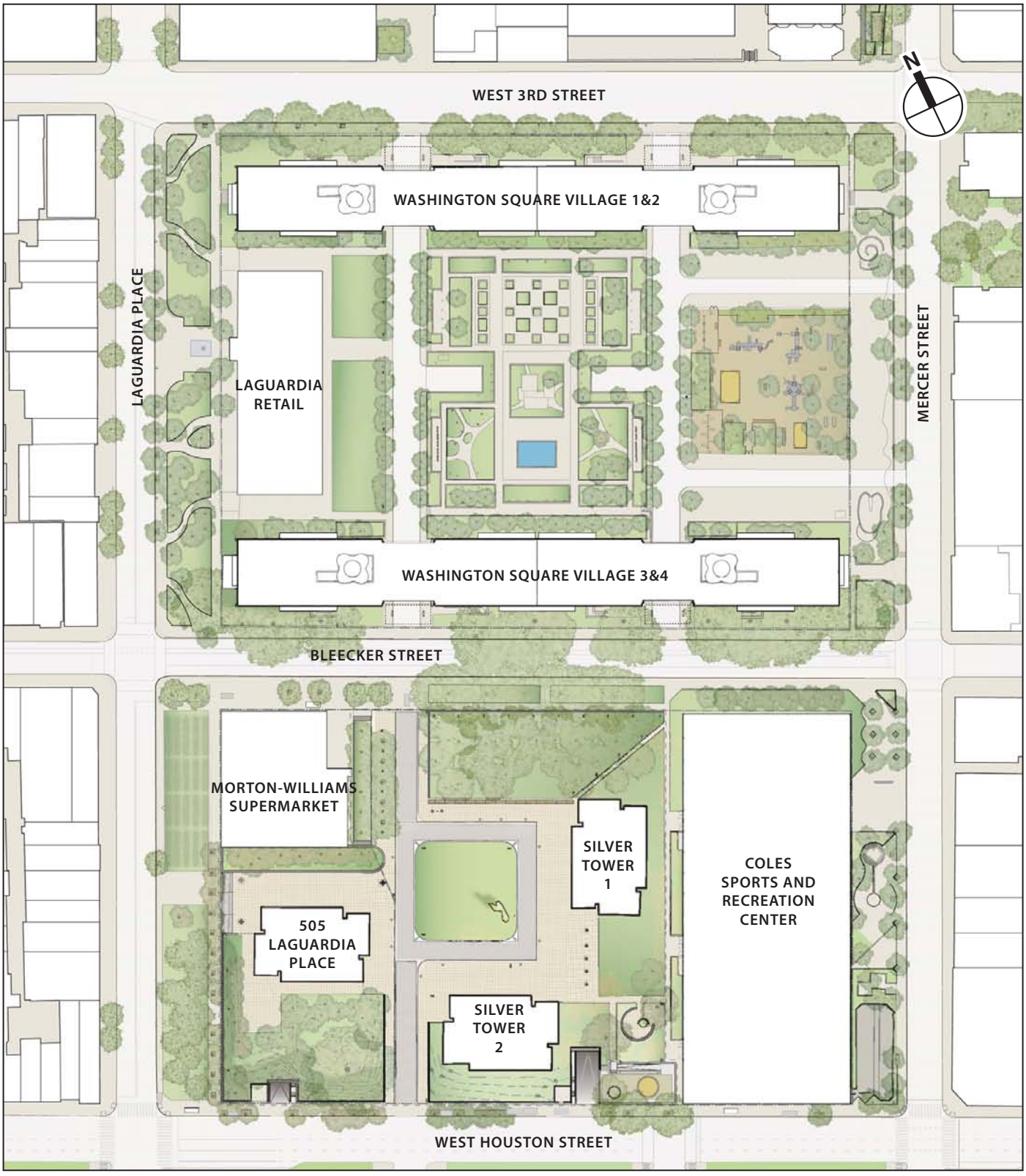

Existing Site Plan in Proposed Development Area

Figure 4

apartment building at One University Place/27 Waverly Place (NR-eligible). In addition, a potential NoHo Historic District Expansion has been determined S/NR-eligible by OPRHP. The NoHo Historic District Expansion is bounded by West Fourth Street, Washington Square East/University Place, mid-block between Waverly Place and East 8th Street, and Mercer Street. The Commercial Overlay Area is located adjacent to 13-19 University Place (NR-eligible); across Washington Square East/University Place from the Greenwich Village Historic District; and across Mercer Street from the NoHo Historic District.

PROPOSED ACTIONS

The Proposed Actions required to facilitate the proposed project are as follows:

- **Zoning map change**: The entire project area is currently zoned R7-2 (see **Figure 5**). There is a C1-5 overlay along LaGuardia Street on the two superblocks in the Proposed Development Area, but this is the only location where retail is allowed in the project area (this overlay area contains the Morton Williams Associated Supermarket and the LaGuardia Retail building). As shown in **Figure 6**, NYU proposes to rezone the Proposed Development Area from R7-2 and R7-2/C1-5 to C1-7, and proposes to rezone the Commercial Overlay Area from R7-2 to R7-2/C1-5.
- **Large-Scale General Development (LSGD) Special Permit**:
  - Pursuit of waivers within a proposed LSGD to include the North and South Blocks. The precise boundaries of the LSGD on the South Block are subject to adjustment in order to conform to the scope of the Proposed Actions. As a consequence of this Proposed Action, the existing Large Scale Residential Development (LSRD) would be dissolved, with the existing waiver(s) incorporated into the new LSGD special permit.
  - Additional waivers and/or Zoning Resolution text amendments (may include height and setback waivers and potentially floor area and open space redistribution across zoning lot boundary lines, and court and location of use regulations).
- **Demapping and City disposition of portions of the following City streets (See Figure 7):**
  - LaGuardia Place between Bleecker and West Third Streets;
  - Mercer Street between Houston and Bleecker Streets;
  - Mercer Street between Bleecker and West Third Streets; and
  - Mercer Street between West Third and West Fourth Streets.
- **Elimination of New York City Department of Housing Preservation and Development (HPD) Deed Restrictions on Blocks 524 and 533**
- **Potential funding or financing approvals from the Dormitory Authority of the State of New York (DASNY)**
- **Public Authorities Law Site Selection by the New York City School Construction Authority (SCA)**
- **New York City Department of Transportation revocable consent for utility lines beneath City streets**

In addition to the above-described Proposed Actions, on March 3, 2011 NYU submitted an application to the New York City Landmark Preservation Commission (LPC) for a Certificate of Appropriateness (CofA) for proposed changes to landscaping at University Village, which is a New York City Landmark (NYCL). At a public hearing on April 5, 2011, LPC approved the proposed landscape changes.

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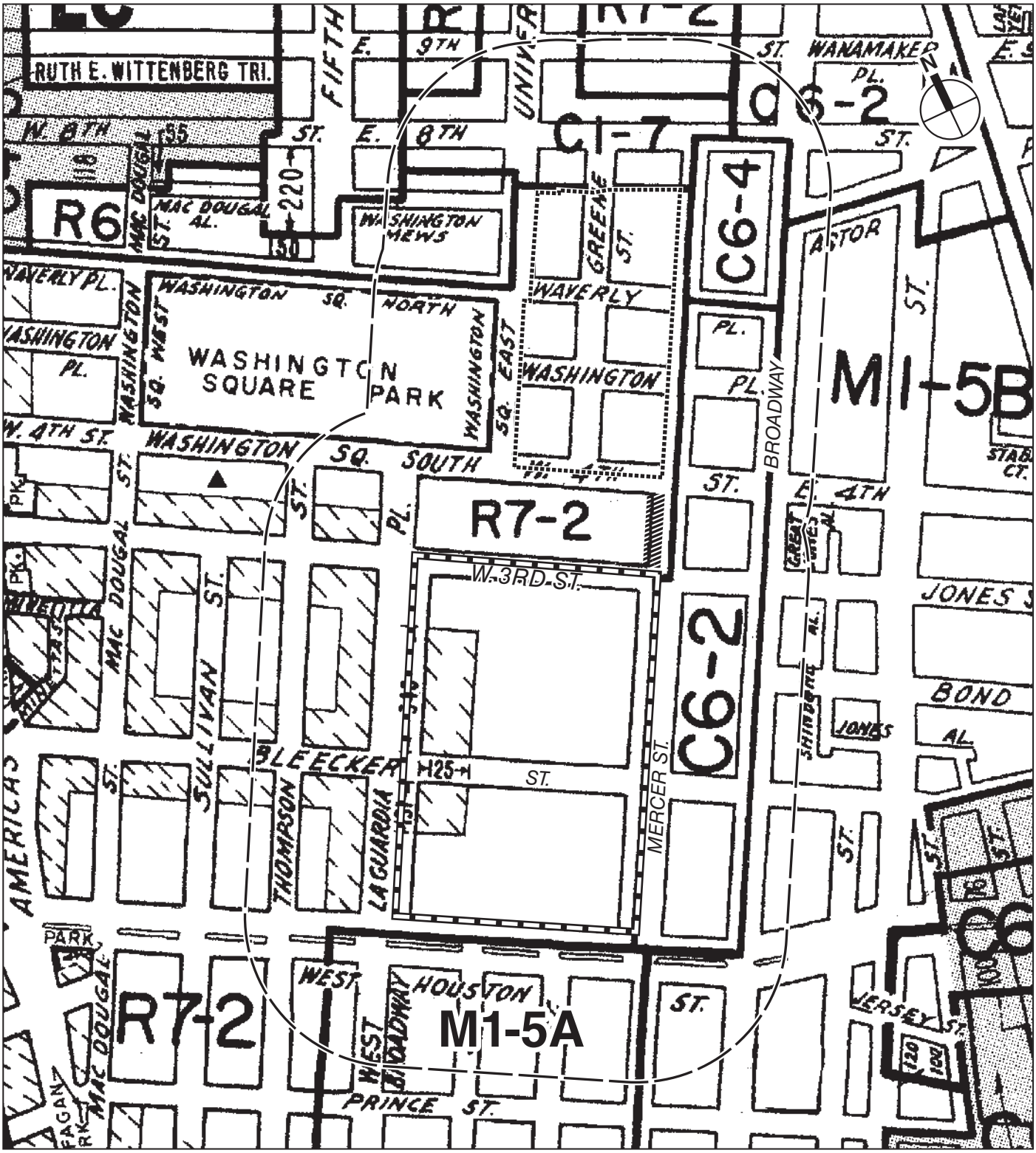

Proposed Development Area Boundary

Commercial Overlay Area Boundary

Study Area Boundary
(400-Foot Perimeter)

Block 535 Demapping Area

Zoning District Boundary

C1-5 Overlay

0 500 FEET

SCALE

NYU Core

Existing Zoning

Figure 5

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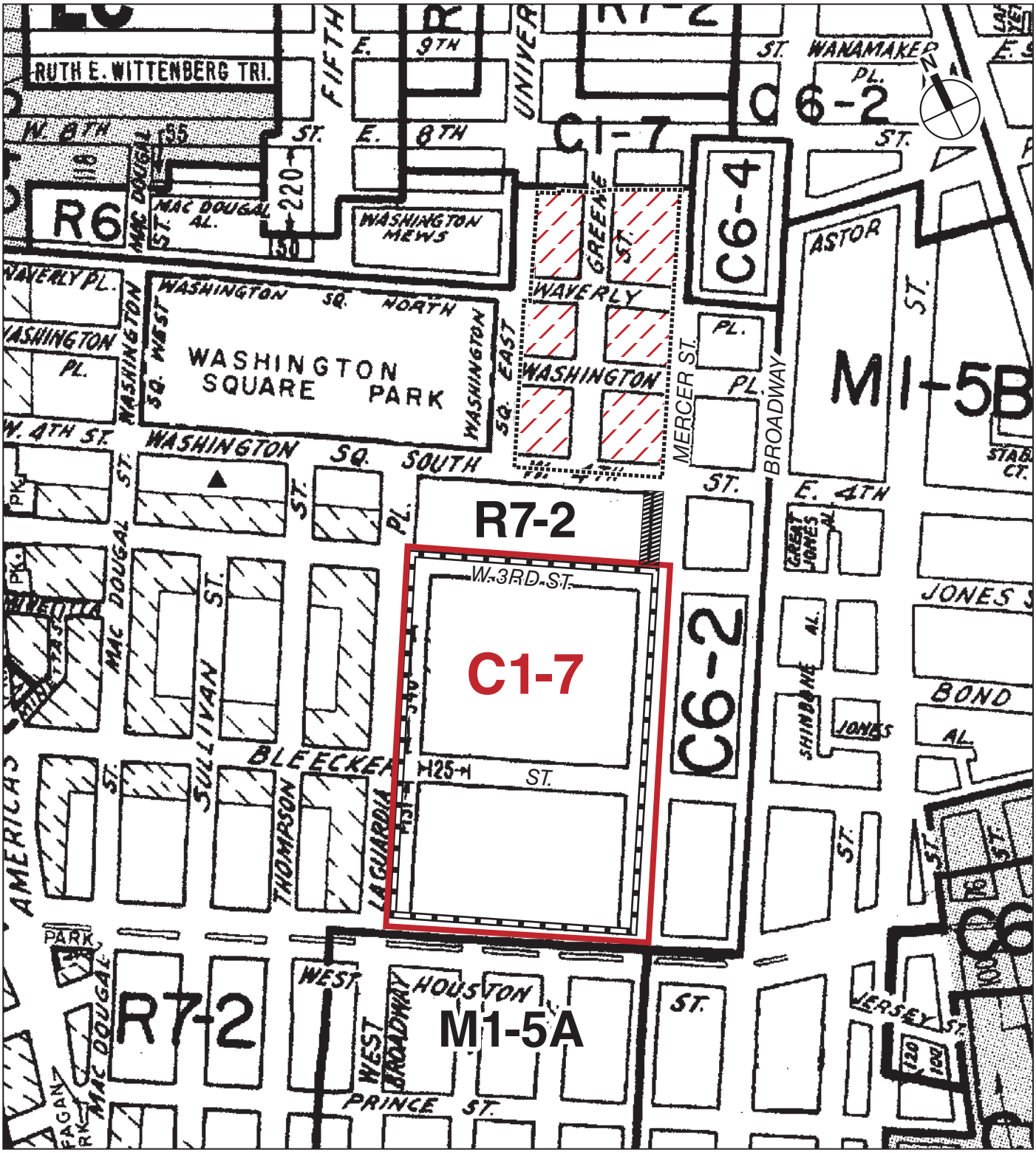

Proposed Development Area Boundary

Commercial Overlay Area Boundary

Block 535 Demapping Area

Zoning District Boundary

C1-5 Overlay

Area Boundary of Proposed Rezoning

Area of Proposed C1-5 Overlay

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SCALE

NYU Core

Proposed Zoning

Figure 6

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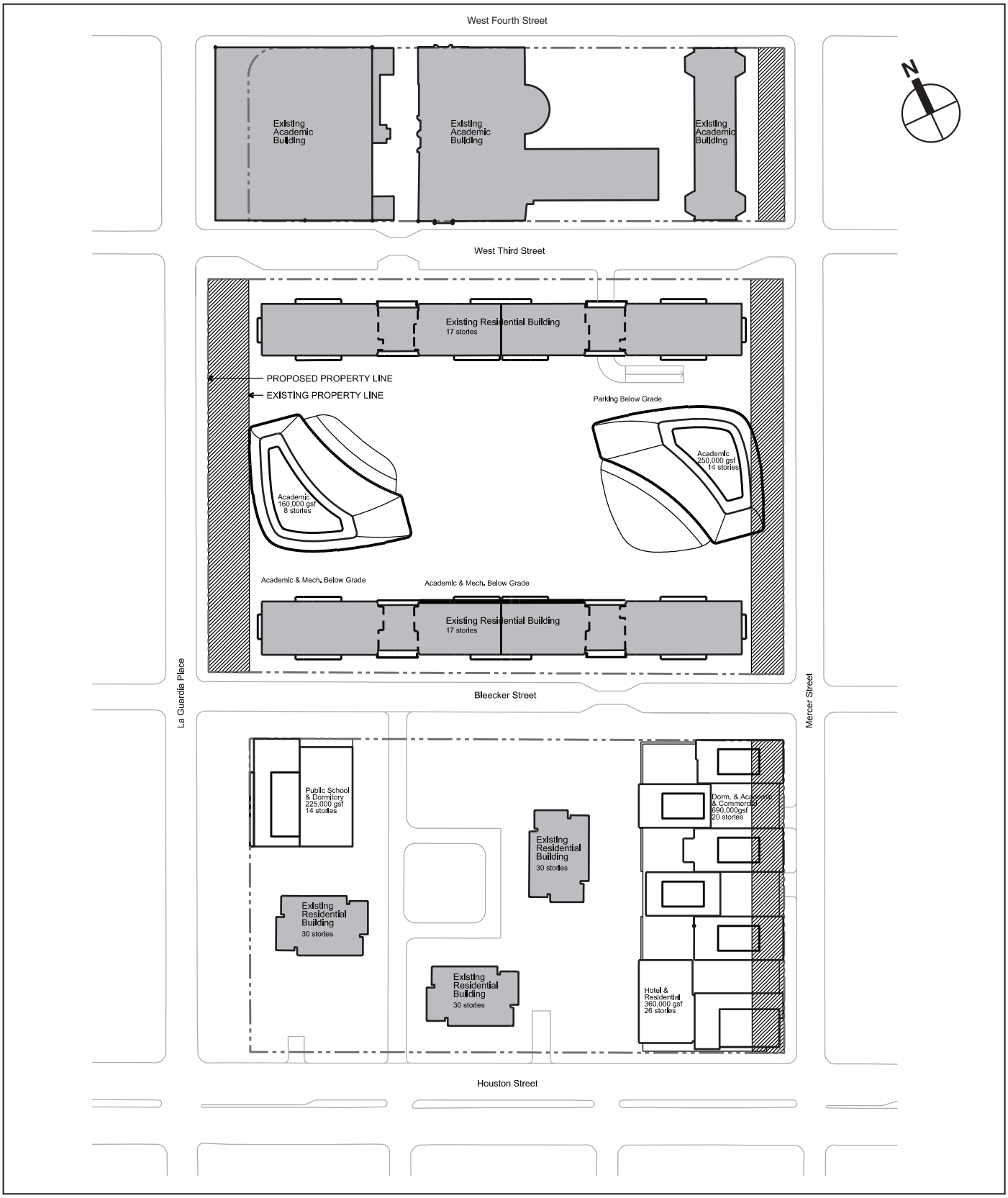

Proposed Demapping Areas

Existing Buildings

Proposed Buildings

NYU Core

Proposed Demapping Areas

Figure 7

PROPOSED DEVELOPMENT PROGRAM

PROPOSED DEVELOPMENT AREA

Beginning in 2013, over a period of approximately 19 years NYU is proposing to build the following within the Proposed Development Area:

- Four new NYU buildings that would include academic uses, residential units for NYU faculty and students, a new athletic facility, a possible University-oriented hotel with ancillary conference/academic space, and retail uses;
- A below-grade academic use on the North Block spanning the distance between LaGuardia Street and Mercer Streets (i.e., beneath and between the two proposed buildings on the North Block);
- Approximately four acres of publicly accessible open space;
- An approximately 30,000-gsf temporary gymnasium, which would be constructed on the North Block and which would operate until the opening of the proposed new athletic center on the South Block; and
- Below-grade replacement parking facilities on the North Block. The existing North Block garage contains 389 required accessory parking spaces and 281 additional, non-required spaces. The new parking facilities on the North Block would accommodate the relocation of the 389 existing required accessory parking spaces, and would be accessed from a new entrance on West Third Street. The remaining 281 existing spaces would be permanently displaced by the proposed project, resulting in a net loss of 281 below-grade parking spaces with the Proposed Actions.

NYU also anticipates making space available to the New York City School Construction Authority (SCA) for the provision of an approximately 100,000-square-foot public school. If SCA does not utilize the space for a public school by a yet-to-be-established date prior to 2031, NYU would utilize the 100,000-square-foot space for its own academic purposes.

The above-described development would require the demolition of three NYU-owned buildings within the Proposed Development Area: 1) the Coles Sports and Recreation Center; 2) a retail building containing the Morton Williams Associated Supermarket; and 3) a retail building with six storefronts (LaGuardia Retail).[1] The proposed below-grade academic space on the North Block would require the displacement of the existing, approximately 670-space below-grade parking garage on the North Block. As described above, the project would develop new below-grade parking to accommodate the relocation of the existing 389 required accessory spaces, resulting in an overall reduction of approximately 281 parking spaces within the Proposed Development Area. The demolition of the three NYU buildings would result in the loss of approximately 200,000 gsf of space.

A goal of the proposed project is to enhance public recreational opportunities in the Proposed Development Area by providing new and replacement publicly accessible open spaces in place of the private and publicly accessible open spaces to be removed. Overall, by 2031 the proposed project intends to provide an improvement in the quality, and a net increase in the quantity, of publicly accessible open spaces on the project site.

[1] The LaGuardia Retail building is occupied by Citibank; NYU Mail Services and Copy Central; Wine Barrel; Favela Cubana; and Bare Burger. It contains two vacant retail spaces.

The proposed project would incorporate a number of sustainable design measures that would reduce energy consumption, and GHG emissions, including measures to be incorporated in order to achieve the LEED Silver certification required by the NYU Sustainable Design Standards and Guidelines. In addition, NYU plans to utilize energy produced by the existing cogeneration facility operating at 251 Mercer Street, which would service the heating and cooling needs of several project buildings.

NYU's proposal within the Proposed Development Area also includes the re-cladding of the ground floor and second floor of the Washington Square Village apartment buildings. This would add transparency intended to complement the new publicly accessible landscaping on the North Block adjacent to these buildings. Immediately north of the Washington Square Village buildings, proposed improvements to West Third Street include enhanced pedestrian crossings between LaGuardia and Mercer Streets.

Table 2 shows the minimum and maximum density by use expected to be developed in the Proposed Development Area by 2031. Overall by 2031, the Proposed Actions would result in the development of approximately 2.5 million gross square feet (gsf) of new uses. **Figure 8** illustrates the site plan for the Proposed Development Area.

Table 2
Minimum and Maximum Density of New Development in the Proposed Development Area

Use	Minimum Amount[1] (gsf)	Maximum Amount[1] (gsf)
Academic	963,000	1,632,000
Student Housing (Dormitory)	180,000	525,000
Faculty Housing	0	220,000
Athletic Center	146,000	200,000
Retail	40,000	100,000
Hotel	0	180,000
Academic/Conference Space	0	85,000
Public School (PS/IS)	0	100,000
Parking	76,000	115,000
Mechanical/Service Areas	371,000	371,000

Notes:
1. The minimum and maximum gsf of new development anticipated for the Proposed Development Area are not calculated by summing the minimum and maximum anticipated gsf for each use, as maximizing certain uses would require minimizing other uses. Therefore, the approximately 2.5 million gsf of total development planned under all development scenarios is less than the total of maximum amounts by use, because the overall square footage would not allow for maximizing all proposed uses.

Source: New York University

The new uses are presented as a range for the Proposed Development Area in order to allow NYU a degree of flexibility in meeting its future programming needs. Specifically, there are a number of potential uses, and a variety of densities for those uses, primarily for the proposed Zipper Building, which would be developed by 2021.[1] The potential use variations for the Zipper Building include: maximizing academic uses instead of providing faculty housing; maximizing student dormitories instead of providing faculty housing; the exclusion of a hotel use in order to maximize academic, dormitory, or housing uses; and variation in the size of the proposed hotel

[1] Separate from the Zipper Building, the potential for variation in programming is limited to a total of 40,000 square feet of above-grade space in the proposed North Block buildings that could be either ground-floor retail or additional academic space; and a total of 39,000 square feet of below-grade space on the North Block that could be used for academic uses or additional space to accommodate valet and self-parking services (the amount of proposed parking would still be limited to 389 accessory spaces).

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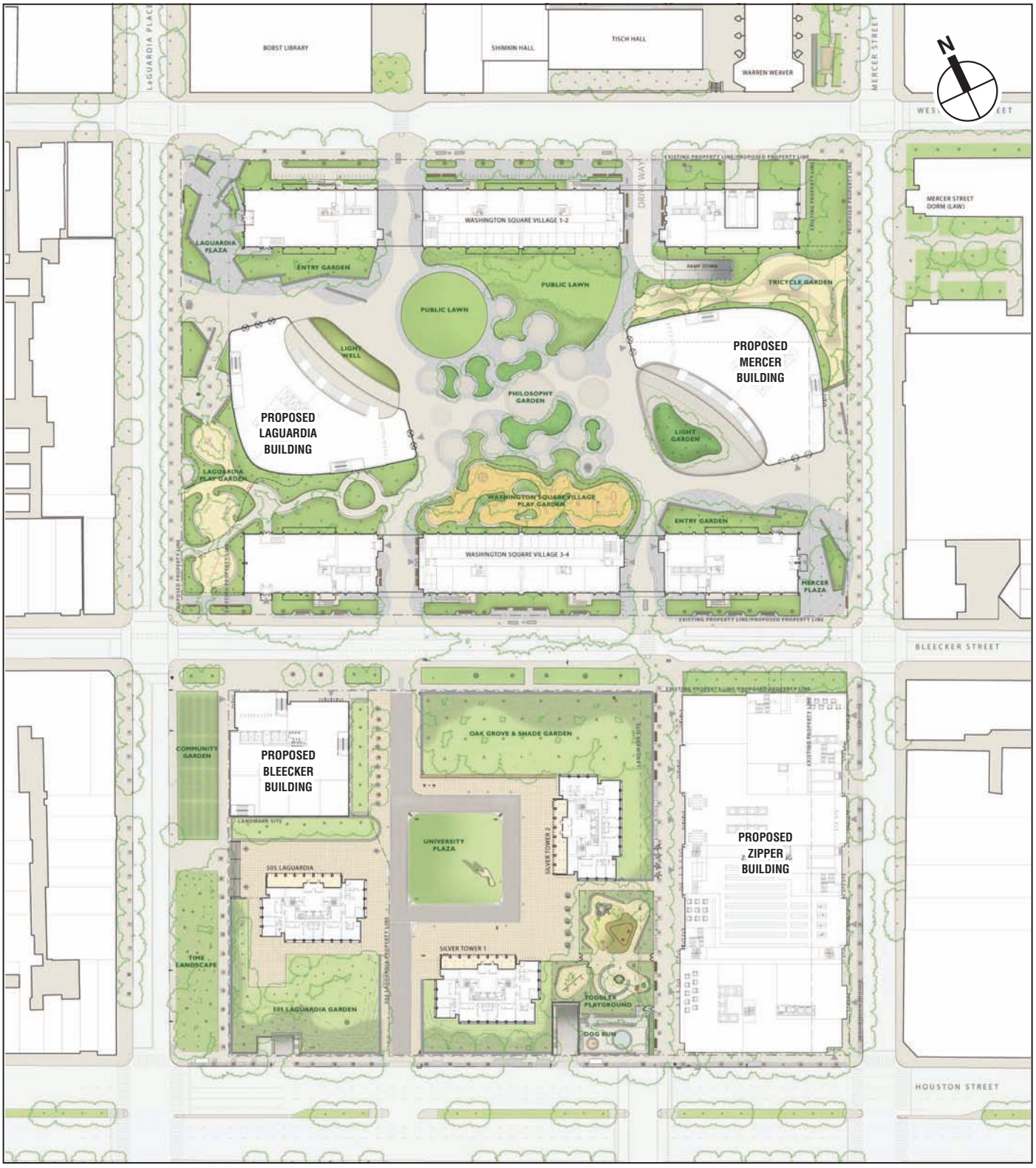

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SCALE

2031 Site Plan for Proposed Development Area

Figure 8

NYU Core

relative to faculty housing and academic uses. Within these contemplated use ranges, **Table 3** presents an "Illustrative Program" that reflects the scale and uses currently anticipated for the new project buildings.

Table 3
Illustrative Program for New Development in the Proposed Development Area

Use (gsf)	Zipper Building	Bleecker Corner Building	North Block Below-Grade	Mercer Building	LaGuardia Building	TOTAL GSF
Academic	135,000	38,000	484,000	250,000	160,000	**1,067,000**
Student Housing (Dormitory)	315,000	55,000	0	0	0	**370,000**
Faculty Housing	105,000	0	0	0	0	**105,000**
Athletic Center	146,000	0	0	0	0	**146,000**
Retail	55,000	0	0	0	0	**55,000**
Hotel	115,000	0	0	0	0	**115,000**
Academic/Conference Space	50,000	0	0	0	0	**50,000**
Public School (PS/IS)	0	100,000	0	0	0	**100,000**
Parking	0	0	76,000	0	0	**76,000**
Mechanical/Service Areas	129,000	32,000	210,000	0	0	**371,000**
TOTAL GSF	**1,050,000**	**225,000**	**770,000**	**250,000**	**160,000**	**2,455,000**

Source: New York University

COMMERCIAL OVERLAY AREA

The Commercial Overlay Area contains some non-complying ground-floor retail uses. The Proposed Actions, through a new C1-5 commercial overlay zoning designation, would serve to bring the existing retail uses into compliance, and would allow for the development of some additional ground-floor retail uses. As detailed below in the discussion of the Reasonable Worst-Case Development Scenario for the Commercial Overlay Area, the maximum amount of additional retail space expected to be developed in the Commercial Overlay Area would be approximately 24,000 gsf, and would be comprised of neighborhood retail uses at five locations within existing buildings.

C. PURPOSE AND NEED OF THE PROPOSED ACTIONS[1]

BACKGROUND

Founded in 1831, New York University is the largest private university in the United States, with approximately 55,000 students. NYU is also one of the largest employers in New York City, with over 16,000 employees.

NYU's Washington Square campus in Greenwich Village is the center of the University. It is the home of NYU's College of Arts and Science (founded 1831); School of Law (1835); Graduate School of Arts and Science (1886); Steinhardt School of Culture, Education, and Human Development (1890); Leonard N. Stern School of Business (1900); Courant Institute of Mathematical Sciences (1934); School of Continuing and Professional Studies (1934); Robert F. Wagner Graduate School of Public Service (1938); School of Social Work (1960); Tisch School

[1] Portions of Section C are statements provided by New York University.

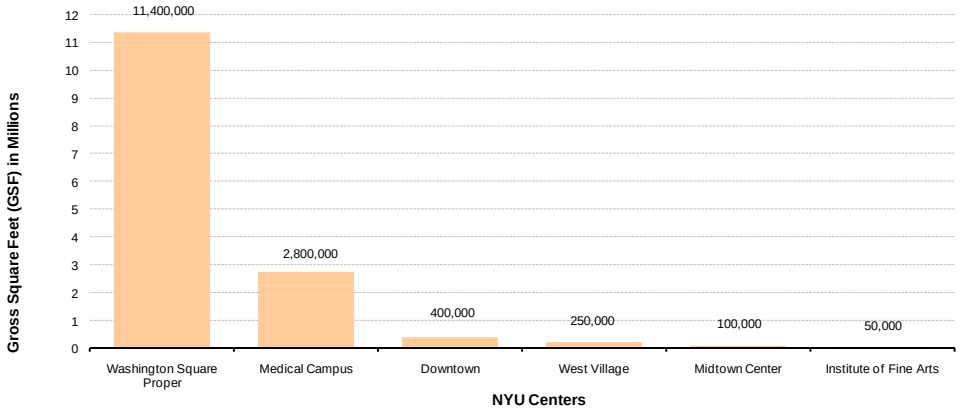
of the Arts (1965); and Gallatin School of Individualized Study (1972). It is also the home of NYU's main library—the Elmer Holmes Bobst Library and Study Center, which holds more than 3.3 million volumes.

In addition to its Washington Square Campus, NYU also maintains other academic posts in Manhattan: the NYU School of Medicine at 550 First Avenue; the College of Dentistry at 324 East 24th Street; the Institute of Fine Arts at 1 East 78th Street; the Institute for the Study of the Ancient World at 15 East 84th Street; and the School of Continuing and Professional Studies at 11 West 42nd Street as well as the Woolworth building.

In addition to its Manhattan locations, NYU is formally affiliated with the Polytechnic Institute of NYU in Brooklyn, the second oldest school of engineering and technology in the country. NYU also has a research facility—the Nelson Institute of Environmental Medicine—near Tuxedo, New York. Throughout the City, NYU owns or leases approximately 15 million gross square feet of space to accommodate its academic, administrative and residential needs (see **Figure 9** for a breakdown of NYU-owned or leased spaces throughout the City).

Figure 9

Total Gross Square Feet for all NYU Centers in New York City [1]



NYU is also a global network university, with a comprehensive degree-granting liberal arts and sciences campus in Abu Dhabi and sites for study and research in Accra, Ghana; Berlin, Germany; Buenos Aires, Argentina; Florence, Italy; London, England; Madrid, Spain; Paris, France; Prague, the Czech Republic; Shanghai, China; and Tel Aviv, Israel, and another in development in Sydney, Australia.. The School of Law and the Tisch School of the Arts also have degree-granting programs in Singapore. NYU recently announced plans to create another degree-granting portal campus – in addition to its campuses in New York and Abu Dhabi—in Shanghai, the first American university with independent legal status approved by the Chinese Ministry of Education.

In the 1970s, NYU—at the time a good regional university—faced two key challenges: externally, key CUNY campuses had changed their admission and enrollment practices that put at risk NYU's enrollment; internally, NYU confronted significant budget shortfalls. These led to

[1] Based on 2010 data provided by NYU.

two key decisions: 1) NYU sold its Bronx campus to CUNY (it is now Bronx Community College) and consolidated all its operations at its Washington Square campus; and 2) it made a conscious and affirmative decision to transform itself from a regional university into a major research university. As a result, today NYU is a prominent, internationally-recognized research university.

During the last several decades, NYU has experienced rapid growth in its student body—crucial, to an institution with tuition-driven finances, to achieve its academic aspirations—but its physical facilities have not kept pace with the rate of the growth of its educational offerings. In 2006, NYU launched a comprehensive planning effort, which took a long-term view toward 2031, the year the University will celebrate its bicentennial. NYU's planning has been rooted in the understanding that in order to continue to thrive academically, it needed additional space, and in order to be respectful of its neighbors' concerns, NYU believes it must find a more thoughtful and transparent approach to its future development and growth. It also recognized the primacy of the Washington Square area as campus anchor while devising a citywide strategy for providing the physical space needed for NYU's long-range academic goals. The strategic plan, known as "NYU 2031," had the following objectives:

- Ensure that NYU has the appropriate infrastructure and facilities to maintain its academic excellence well into the future;
- Create a roadmap for NYU so that it can better plan for its further needs;
- Provide NYU neighbors with a level of predictability and transparency about NYU's projects; and
- Allow NYU to maximize use of its current footprint within the Washington Square area, thus relieving some pressure for growth into surrounding properties in the area.

The proposed project—"NYU Core"—is a key element in NYU's plan to meet its long-term needs with respect to academic space, housing for faculty and students, campus and neighborhood amenities, and recreational facilities. It is located within the existing boundaries of NYU's central Washington Square campus. Its key components—the four new buildings over 19 years proposed to be located on the two superblocks bounded by West Third Street, Mercer Street, West Houston Street and LaGuardia Place—are on two blocks that have been part of the NYU campus since the 1960s.

By proposing to locate the four new buildings in this location, NYU would be able to enhance its facilities significantly while minimizing its need to expand the footprint of its campus into the Greenwich Village neighborhood. The four new buildings proposed for these two blocks would serve the expansion needs of the existing NYU schools and divisions that are already located at the Washington Square campus and which cannot be as well served by facilities in remote locations of New York City.

NYU has stated that it developed the NYU Core project proposal with several planning objectives in mind:

- Locate the new buildings within the footprint of NYU's existing Washington Square campus to integrate the new buildings into the existing campus and minimize impacts to the character of the neighboring communities.
- Design the new buildings to accommodate program below grade and thus limit the size, height, and bulk of buildings above grade. This strategy is possible because below-grade spaces are well-suited for certain academic program needs such as classrooms, study areas,

rehearsal spaces, lounges, computer rooms, and student activity areas. Similar spaces have been successful in other Washington Square locations—for example, the law school library under Sullivan Street, the business school's classroom concourse under Gould Plaza, and the Bobst Library's lower levels are all vibrant and heavily-used spaces. By accommodating these uses below grade, the above-grade building component can accommodate academic program elements that require windows such as departmental and research space. With a substantial below-grade building program, the height and bulk of above-grade buildings are reduced, thus maximizing open space and circulation at grade level.

- Design the publicly accessible open space to be an integrated network of attractive spaces that are welcoming to the general public.
- Design the ground floors of all buildings to activate street frontages (and open space frontages) to enhance the public realm.
- Include a variety of uses in the new buildings—including academic space, dormitories, student services and other uses—to create a vibrant campus environment.
- Meet NYU's need for additional facilities in a manner that engages the public and allows for public input.

EXISTING ACADEMIC FACILITIES AND GROWTH CONSTRAINTS

NYU has over 11 million gross square feet of academic, administrative, student and faculty housing, student service spaces at its Washington Square campus. Approximately 5.4 million gross square feet is academic space including classrooms, laboratories, and offices for faculty and administrators. Close proximity of these uses allows efficiencies, and according to NYU, it helps maximize the quality of the conduct of research and the experience of learning when faculty and students can collaborate with other schools and departments.

As a result of the constraints of New York City's real estate market, NYU's history and the land use regulations in the Washington Square area, most of NYU's academic, administrative and student service space is located in former manufacturing or commercial buildings that the University has acquired and renovated over the years for academic use. The configuration of these buildings – many of which have relatively small floor plates and include internal columns that preclude large class rooms, laboratories and other specialty academic spaces—is atypical for a major university, and even for a university in an urban setting. Classes are held in the upper floors of a number of buildings without escalators, resulting in severe crowding of elevators before and after class.

The serious shortage of NYU's physical space—due to the imbalance between the size of its existing faculty and student body and its academic facilities—is the product of its history and the constraints of the real estate market and land use regulations. As noted above, faced with severe financial pressures that threatened NYU's solvency in the early 1970s, NYU sold its campus in the Heights Section of the Bronx to the City in 1973 and relocated its undergraduate college to its Washington Square campus. Unlike some neighborhoods of the City that were (or are) characterized by abandoned or deteriorated buildings, this area of Manhattan was already largely built and occupied. Moreover, due to the strength of the New York City real estate market and the nature of the Washington Square area, real estate in the vicinity of the Washington Square campus is very expensive and most blocks have been subdivided into numerous lots owned by different parties (and often leased to a variety of commercial and residential tenants), posing severe financial and logistical obstacles to NYU's acquisition of contiguous properties in the area. A further constraint is posed by New York City's zoning and historic preservation laws,

which include zoning regulations that prohibit most university uses (classrooms, teaching laboratories and dormitories) in the areas zoned for manufacturing use east of Broadway, south of Houston Street and west of Sixth Avenue, and historic preservation regulations that prohibit or severely restrict significant new construction in the several historic districts that surround the Washington Square area. These historic districts include: the Greenwich Village, Soho, and NoHo districts (see **Figure 10**).

The majority of NYU-owned property in and around the Washington Square campus has little or no remaining development potential (floor area). Only three sites (15 Washington Place, 25 West Fourth Street, and Cantor Film Center at 36 East Eighth Street) have development potential greater than 20,000 square feet. In total, those three sites would yield approximately 180,000 additional gross square feet, but each building is currently well utilized and would require swing space or permanent relocation in order to be developed. A further challenge is presented by the fact that approximately 16 percent of NYU's academic, administrative and student service spaces at the Washington Square Campus has been leased by NYU to meet its space needs; leased space is not considered as permanent as space owned by the University and subjects the University to real estate market risks and uncertainties.

The constraints noted above severely limit the potential for significant new buildings with large footprints in the Washington Square area, making the two superblocks on the NYU campus that are already owned by NYU and that have been part of its campus for decades a unique resource for the new academic buildings that NYU needs to meet its space needs.

NYU HOUSING

NYU houses approximately 50 percent of its undergraduates and 10 percent of its graduate students in approximately 12,000 beds. While many of these units are owned by the University, NYU currently leases approximately 20 percent of all these units. NYU believes that it is desirable for students at its schools and divisions located at the Washington Square Campus—particularly freshman, the majority of whom now come from outside the New York metropolitan area—to have the opportunity to live in student housing in order to create a strong academic community and become acclimated to the city.

NYU owns over 2,000 faculty housing units; approximately 15 percent of these units are rented to people who are not affiliated with the University, most or all of whom are protected by New York State tenant protections.

CURRENT ENROLLMENT

NYU has an enrollment of approximately 55,000 undergraduate, graduate, and professional students, representing every state in the country and 133 countries.[1] Approximately 43,500 students comprise the undergraduate, graduate, and professional programs, and there are approximately 11,500 non-credit students enrolled. The students attending the University are economically diverse with three-quarters receiving financial aid. NYU also has one of the highest number of needy (i.e., eligible for federal Pell Grants) students among the leading private research universities.

[1] Based on 2009 enrollment numbers provided by NYU.

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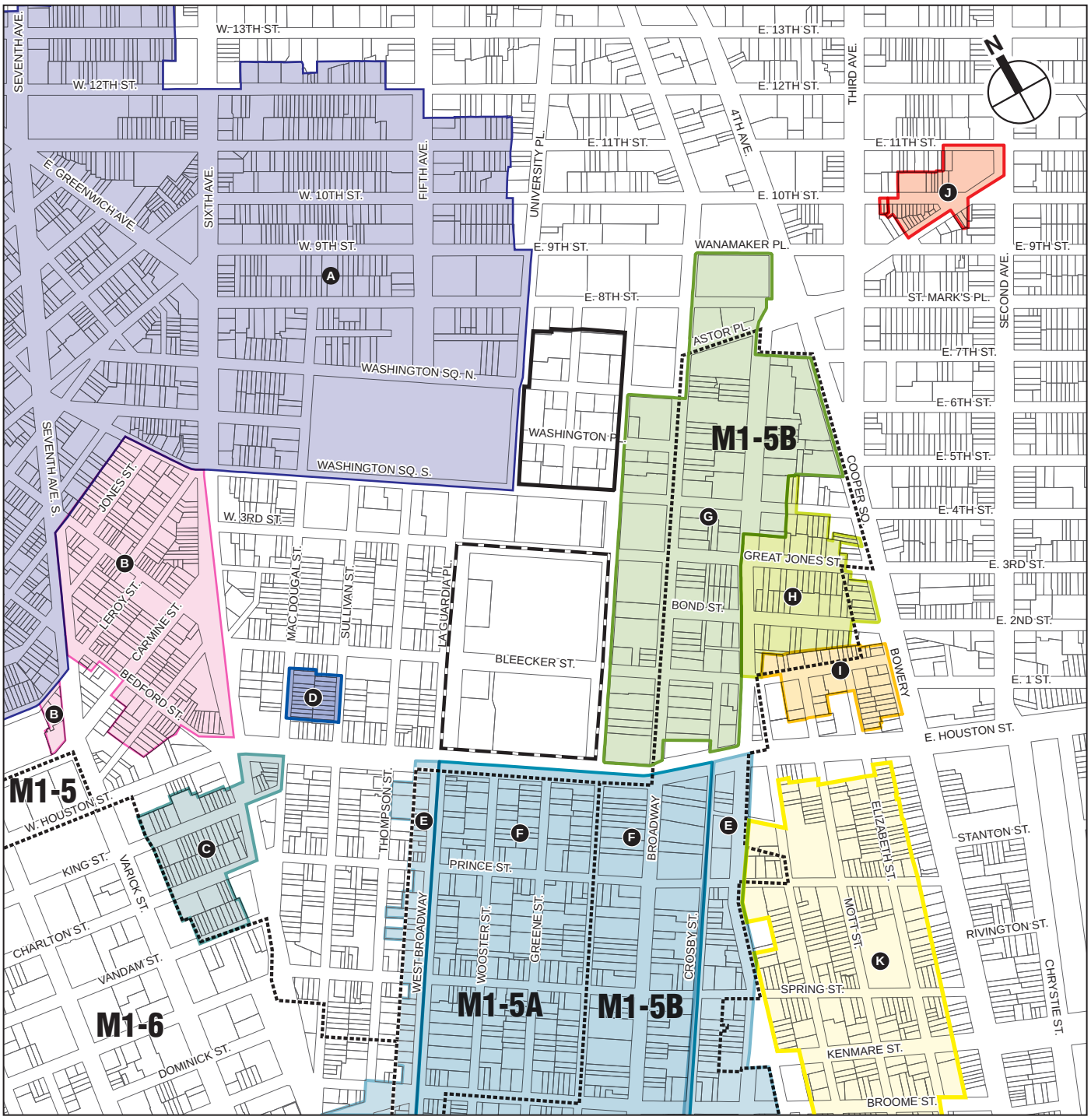


Proposed Development Area Boundary

Commercial Overlay Area Boundary

Manufacturing District Boundary

0 500 1000 FEET

SCALE

- A — Greenwich Village Historic District (S/NR, NYCL)
- B — Greenwich Village Historic Extension II (NYCL)
- C — Charlton-King-Vandam Historic District (S/NR, NYCL)
- D — MacDougal-Sullivan Gardens Historic District (S/NR, NYCL)
- E — SoHo-Cast Iron District Extension (NYCL)
- F — SoHo-Cast Iron District (NHL, S/NR, NYCL)
- G — NoHo Historic District (NYCL)
- H — NoHo Historic District Extension (NYCL)
- I — NoHo East Historic District Extension (NYCL)
- J — St. Mark's Historic District and Extension (S/NR, NYCL)
- K — Chinatown and Little Italy Historic District (S/NR)

Historic Districts and Manufacturing Zoning Districts

Figure 10

NYU Core

CURRENT FACULTY AND STAFF

NYU is one of New York City's largest employers with approximately 7,700 faculty members, half of whom are fulltime. In addition, it employs approximately 9,100 administrators and staff, including professional, clerical, custodial and security staff.[1]

NYU'S ECONOMIC CONTRIBUTION TO NEW YORK CITY

NYU employs over 16,000 people, consistently placing it in the top 10 employers in New York City. Each year, approximately two-thirds of graduating students remain and work in New York City, and well over half of all alumni (240,000 out of 360,000) live in the New York City metro area. Between $100 and $150 million is spent annually on new construction and renovation projects completed by NYU, and discretionary undergraduate spending is calculated at approximately $14.9 million per month. In total, taking into account direct and indirect multiplier effects, NYU's Washington Square campus accounted for more than 24,000 jobs and $2.25 billion in economic output to the city. NYU generated both directly and indirectly, over $77 million in New York City tax revenues and over $64 million in New York State tax revenues in 2009.

NYU GROWTH PROJECTIONS AND SPACE NEEDS

Over the last 20 years, NYU elevated its academic programs, increasing its student body by 24.5 percent between 1990-2005 even as it became a more selective school. Consistent with its plans to reduce its rate of student growth, NYU anticipates its undergraduate and graduate/professional growth in New York City will lessen over the next several decades, to a 0.5 percent average annual growth rate over a 25-year period. Fluctuations in admissions rates may occur from year to year.

According to NYU, despite the increase in enrollment during the past two decades, the requisite increase in maintenance, physical plant, faculty, and administrative support did not occur, as NYU growth in its faculty and academic facilities was restrained due to limited financial resources and the constraints on growth in the Washington Square area discussed above. The result today is that many of NYU's facilities are severely overburdened. Even though enrollment increases have subsided and NYU expects only a modest increase of students at Washington Square by 2031, an adjustment needs to occur now or academic quality will suffer. NYU has already begun to reduce its student-to-faculty ratio (which now stands at 12:1) by hiring additional faculty. But with facilities for existing faculty already limited, office and academic space is in severely short supply. NYU has concluded that without a serious upgrade and improvement in facilities as well as the ability to expand in its core area, the important gains of the last decade in the quality of its educational offerings would be compromised; in particular, NYU has concluded that it would damage the University's ability to continue to compete for top-quality faculty, which is key to an institution's academic success.

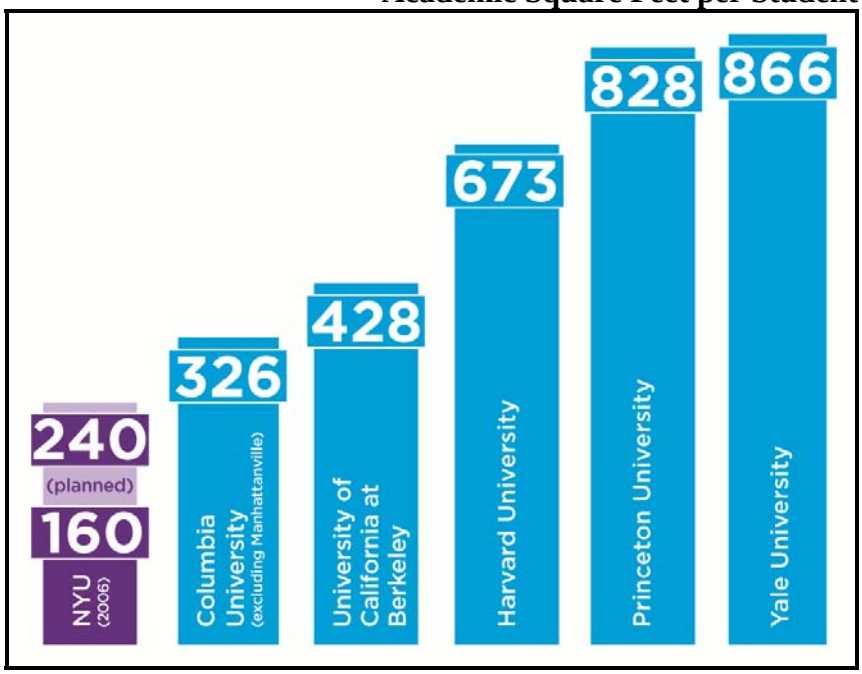
According to NYU, today it faces a shortage of academic facilities, classroom space, specialized teaching spaces (performance spaces, workshops, clinics), faculty offices, student service facilities, and student housing. Similarly the inventory of NYU's classrooms needs to be upgraded to include an increased number of flexible, and technologically sophisticated

[1] Based on 2009 faculty and staff numbers provided by NYU.

classrooms. Thus NYU's stated goal is to both decompress current facilities and allow for future state-of-the-art facilities.

As illustrated in **Figure 11**, NYU currently has 160 academic square feet per student, and even if it reached the projected ceiling of six million square feet, NYU would have only 240 square feet per student, among the lowest of its peer institutions.

Figure 11
Academic Square Feet per Student



Academic Program Space Limitations

NYU has stated that it needs to secure the space it requires in order to allow its academic programs to function at the level of excellence of its peer institutions and which its faculty and students need to flourish. Based on its vision to create a strong center in New York City that anchors a global academic network, and to do so by enhancing science, maintaining excellence in the arts and the professional schools, and building a stronger sense of community, NYU has determined that it will need an additional six million square feet by 2031. The additional square footage will allow NYU to relieve its overburdened facilities, as well as to make room for crucial additional investments.

The facility and space challenges of NYU's Steinhardt School of Culture, Education, and Human Development provide one of many illustrations of the issues NYU is facing. With 20 undergraduate programs and more than 40 graduate programs in education, performing and visual arts, communication, and health, the Steinhardt School of Culture, Education, and Human Development is one of the University's largest schools. The School is also home to 16 research institutes and centers whose mission is to develop policy and practice to improve conditions in urban areas and the international community. Ongoing research includes the effects of poverty

and immigration on learning, work with schools and government agencies on issues of childhood nutrition and obesity, and how digital media are transforming social relationships.

But the school's space, occupying portions of six buildings as well as leased or temporary space in six additional sites, can no longer provide for the current uses of the departments that inhabit them, let alone accommodate any expected future growth. Steinhardt's research capability has been significantly reduced because of a lack of space. While the school's enrollment has grown by 15 percent since 2001, it has had no corresponding increase in its space inventory. For example, Steinhardt's music department has grown tremendously in both enrollment and stature in recent years. However, its spatial growth has not kept up with the needs of its expanded programs and the needs of the many students from outside the music program who are served by the department. Its current facilities do not reflect its status as a top-ranked program, and the shortage of space has been noted by the national accrediting agencies. Yet Steinhardt's programs must remain at the Washington Square campus because of the high degree of collaboration with other NYU schools and programs, because Steinhardt offers a range of programs like music courses that students in other schools need access to at the Square, and because of its collaborations with NYC public schools in the area, particularly in the Lower East Side.

A second example of the space challenges that NYU is facing is illustrated by NYU's Tisch School of the Arts. One of NYU's signature strengths has long been the arts—cinematic, visual, performing, museum curatorship, and new media. NYU is committed to supporting and enhancing this dimension of its academic identity in the future. Drawing on the vast cultural resources of New York City, Tisch School of the Arts has created a unique and competitive training ground for artists. The school's Institute of Performing Arts, known for its renowned departments and programs, has produced some of the world's leading theater artists, actors, designers, directors, and playwrights. It now has an acute need for additional space, including practice rooms, studios, workshops, and theaters. In 1983, the Institute had 500 students and 79,000 square feet of facilities. Today it has 2,000 students in the same amount of space. This is a decrease from 158 square feet/student to 39 square feet/student. The school requires a transformative expansion and renewal for its facilities in dance, set costume and lighting design, musical theater, acting, directing and stage craft. Housing such programs requires large floor plates for practice and performance venues, theaters, studios, and workshops. The arts are a major element of New York City's prominence as a world capital; attaining the needed square footage is essential if NYU is to maintain its competitiveness, attract the best young artists as students and faculty, and enhance its programs and partnerships in all forms of the arts.

A third illustration of NYU's severe space shortages is its facilities for its soft matter research program, which is dedicated to scientific inquiry at the interface between physics, chemistry, biology and engineering. NYU is a major research institution and it will continue to develop new science programs while building on existing strengths—in physics and biology, for example—and by engaging in computational science as a foundation for scholarship and research across the University. The location of these emerging programs at the Washington Square campus is critical to capitalize on synergies created by being in close proximity to the Courant Institute of Mathematical Sciences (West Fourth Street) and the Center for Genomics and Systems Biology (Waverly Place). Given the limitations of its physical facilities, NYU's science initiatives are focused on areas that do not require the enormous amounts of space normally associated with scientific research. For example, NYU has developed strengths in physics that do not call for major observatories and large collider equipment, but rather—with smaller instrumentation—have become leaders in the field of cosmology and soft condensed matter. However even a less space-intensive program needs more space than the University can provide. The Physics

department has in its plan the "cluster hiring" of three new faculty members, which has a trickle effect in the need for three additional faculty office space, and the need for graduate student/research teams and laboratory space to support these hires, all proximate to the current Physics department. This space is not readily available today.

Washington Square Campus as the Hub of a Global Network University

In shaping its curriculum for the next century, NYU is guided by the fundamental tenet that the society of this century is increasingly global, and that this global society will grapple with transnational problems in health, environment, population, poverty, economics, education, politics and the complex relationships among cultures. NYU has been steadily increasing its global presence to meet these challenges and now has a network of academic centers spanning five continents. The newest center is a regional campus in the Middle East (Abu Dhabi) where students from around the world, including the United States, can earn an NYU degree by enrolling in a four-year liberal arts and science program. A Shanghai campus with a similar degree granting program is expected to open in 2013. This global outreach will enable NYU to be at the forefront of international research and teaching and a leader in educating people without barriers in a complex and multicultural world.

The Washington Square campus is the hub of this global network. The flow of knowledge and talent around the world, and to and from Washington Square, is key to NYU's success as an internationally engaged institution. Visiting faculty coming from locations abroad for guest lectures, seminars, and conferences require transient accommodations and use of swing faculty office space and classrooms. Each of the main global academic portals must have a home base at the Core that serves as a gateway for faculty, students and the wider public. Thus, even NYU's plans that disperse its facilities at locations remote from the Washington Square campus burdens the Washington Square campus with additional space demands.

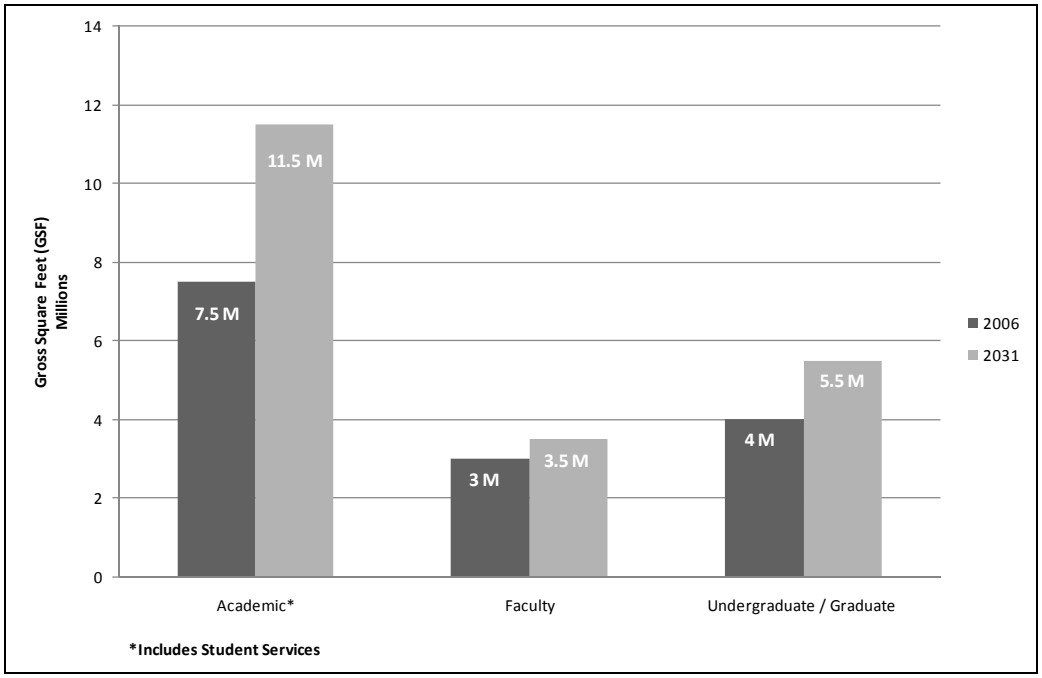
Student Wellness and Student Services

In what is a national trend, the need for student services related to health and wellness has grown dramatically over the past decade. Colleges and universities are now enrolling students with an array of physical and mental health challenges that in previous times might have precluded these students being able to attend college. NYU is not alone in facing the need to expand the basic health services that have traditionally been on campus, to include a full range of wellness services, including round the clock counselors, crisis teams, and patient rooms. These services need to be proximate to the main campus where the students can readily be served.

Over the last decade, students' demand for career counseling has also increased tremendously. In 1997, the University's Wasserman Center for Career Development made 62,000 student contacts, in 2008 it made 135,000; counseling appointments rose from 9,000 to 14,000 in the same period and attendance at career seminar and employer presentations jumped from 3,000 to 20,000 a year. Although the Wasserman Center has nearly doubled in size (currently at 20,000 square feet) there is still a shortfall in interview rooms and meeting space. Most critically, there is a need for employer presentation and career fair space for larger audiences; recently both employers and students have been turned away from these events. Usage of the Center by graduates has also doubled, and alumni demand currently exceeds the Center's capacity. Well over 60 percent of NYU graduates stay and work in New York City and if more space were available, the number of alumni using the Center would be 50 percent higher.

As shown in **Figure 12**, across its City-wide campuses, NYU estimates that it will require approximately 6 million gross square feet of new space in New York City over 25 years, of which two-thirds is academic space and one-third is housing for undergraduates, graduate and professional students, and faculty. The NYU Core project would result in approximately 1.3 million square feet of new NYU development above grade, and an additional 1.1 million square feet of new development below grade.[1]

Figure 12
NYU Projected Space Needs By 2031



NYU CORE

NYU has considered which university functions require location at the Washington Square campus. Co-locating faculty offices, classrooms, research facilities, student service spaces and dormitories at the Washington Square Campus encourages interaction among NYU's faculty and students, interaction between faculty members in diverse disciplines, interdisciplinary research teams and academic and social engagement with the University. NYU believes that physical proximity in a campus setting is the best way to promote integration of disciplines and interaction among the faculty and students, and thus to create a learning and research community. An interchange of ideas among various intellectual disciplines is greatly facilitated by having several schools in one place, and it is key to the accomplishments of NYU's faculty, graduates, and students. A campus setting also makes possible the planned provision of open space and other amenities, which benefit faculty, students, and neighborhood residents alike.

[1] The remaining approximately 100,000 gsf of space that could be developed as a result of the Proposed Actions would be for a public school development by the SCA.

The two NYU-owned superblocks within the existing footprint of the Washington Square Campus that would be the site of the four proposed buildings and new publicly accessible open space that would comprise the central elements of the NYU Core project are the focal point of the NYU Core project because of the campus growth constraints identified above, and because the two superblocks are immediately proximate to the recently built NYU co-generation facility on the west side of Mercer Street on the block immediately north of the two superblocks. Because of its efficient co-generation of both electricity and hot water and cooling water, the co-generation facility is expected to reduce substantially the carbon footprint of the proposed new buildings as compared to locating them at a more remote location that could not be served by the co-generation facility. These advantages, in addition to NYU's objective of limiting the growth of its footprint within the surrounding communities, makes the two superblocks the most appropriate location for creating the additional space needed at the Washington Square Campus.

Created through the urban renewal program in the 1950s, the superblocks provide the University with over two million square feet of potential growth on its own property and within its existing footprint, a significant portion of it planned for below ground. Development here concentrates academic and residential space at the University's core: this builds a strong sense of University community and allows for the most efficient use of space. The proposed site plan has been designed to improve pedestrian flow through the introduction of through-block connections and green spaces with enhanced amenities and greater circulation options. Moreover, through its sight lines, pedestrian corridors and publicly accessible open space, the proposed NYU Core project is intended to reconnect the superblock landscape to the urban fabric of its surrounding neighborhoods, while reinvigorating the area with a series of new and enhanced public spaces. The proposed buildings are intended to be compatible with the existing residential towers on the two superblocks, and to provide a rare opportunity to mend some of the ways in which the creation of the superblocks damaged the rich texture of neighborhood life by creating poor pedestrian experiences with sidewalks isolated from building entrances, and privatized open space.

The NYU Core project also reflects NYU's determination that the amount of space that it needs for its existing academic programs at the Washington Square campus cannot be accommodated by ad hoc acquisitions of properties in the area as they become available. Furthermore, NYU believes that the need for ad hoc acquisitions, which often creates friction with local communities over individual building initiatives, should be minimized.

PROGRAMMATIC NEEDS FOR THE PROPOSED DEVELOPMENT:

- Academic Space (projected as approximately 1 million square feet)
  - Allows for continued incremental growth on NYU's property, thereby reducing pressure on the surrounding neighborhood.
  - Allows the university to better organize and more efficiently utilize some of the large loft block buildings which have classrooms on high floors, causing elevator delays and general scheduling problems.
  - Provide new, modern facilities; many of NYU's assets are 19th Century buildings that are not easy to convert to modern academic uses (i.e., column free class-rooms and dance studios; sound-proofed music practice rooms, etc).

  - Serves the disciplines and programs of NYU's long term academic plans; the academic space on the superblocks would largely be dedicated to classroom, student support space, faculty offices and department space.

- Student Residential (projected as approximately 370,000 square feet)
  - Allows up to 1,200 student beds on the property, increasing the percentage of students that can be accommodated within NYU housing at the Washington Square core campus, and providing a safety valve if local leases are not renewed.
  - The university has a goal of putting freshman students closer to the Washington Square core campus to help them acclimate to the city and the university and become more engaged with the university's academic life and student activities.
- New Athletic Facility (projected as approximately 146,000 square feet)
  - Allows replacement of the outdated sports facility that the university built 30 years ago; it lacks basic amenities such as air conditioning and adequate spaces for modern day athletic requirements. A Division III school, NYU has 19 varsity teams and a robust intramural club sports program.
- Faculty Residential (projected as approximately 105,000 square feet)
  - The University currently houses over 2,000 faculty and the ability to offer housing is critical to recruitment of faculty members, many of whom are recruited from around the nation and the world.
- University-Affiliated Hotel (projected as 115,000 square feet, plus academic/conference facilities at 50,000 square feet)
  - The hotel would provide convenient, moderately priced, accommodations for those traveling to the NYU campus, a growing need as scholars from around the world (including NYU's several international campuses) visit NYU to participate in conferences, lectures, research and teaching.
  - NYU consistently draws people to New York City for both academic and other programming purposes who prefer to stay within walking distance of the Washington Square campus.
  - The hotel facility would act as an academic/conference space to support NYU's executive education programming, and its wide array of academic conferencing that takes place throughout the year.
  - The hotel would also be open to the general public to the extent that hotel rooms are available.
- Publicly accessible open space
  - Create more open, porous sites that increase pedestrian connections and a sense of openness to the public.
  - Encourage public circulation through blocks that currently have a closed design.
  - Define more useable public open spaces of various sizes and typologies (existing open spaces on the site are mostly private).
  - Improve the streetscape at the side walk level.

- A commercial overlay within the commercial overlay area north of the two superblocks (projected to affect ground-floor uses in five existing NYU buildings in the area)
  - Allow for an enlivened, more flexible streetscape to better connect NYU's buildings to the City and the surrounding area.
  - Bring zoning up to date to reflect pre-existing non-conforming use.

D. ANALYSIS FRAMEWORK

The Proposed Actions would change the regulatory controls governing land use and development in the project area and would allow its development over the long term. The DEIS will analyze the Proposed Actions' potential to generate significant adverse environmental impacts as the development takes place, and in 2031, the expected year of completion of the proposed project. As necessary, the DEIS will consider alternatives that would reduce or eliminate impacts identified in the technical analyses and propose mitigation for such impacts, to the extent practicable mitigation exists.

The approach to the DEIS analysis is discussed below.

OVERVIEW

The DEIS for the development of the project area will contain:

- A description of the proposed project, the proposed development program, and their environmental setting;
- The identification and analysis of any significant adverse environmental impacts of the proposed project, including the short- and long-term impacts;
- An identification of any significant adverse environmental impacts that cannot be avoided if the proposed project is implemented;
- A discussion of reasonable alternatives to the proposed project;
- An identification of irreversible and irretrievable commitments of resources that would be involved in the proposed project, should it be implemented; and
- The identification and analysis of practicable mitigation to address any significant adverse impacts generated by the proposed project.

ANALYSIS APPROACH

Each chapter of the DEIS will assess whether development resulting from the Proposed Actions could result in significant adverse environmental impacts. The analysis approach will be to describe existing conditions, and then project conditions forward into the Future without the Proposed Actions, incorporating information available on known land-use proposals and, as appropriate, changes in anticipated overall growth. Finally, the Future with the Proposed Actions will be described, the differences between the Future without and with the Proposed Actions will be assessed, and any significant adverse environmental impacts will be disclosed. The DEIS will also identify and analyze appropriate mitigation for any identified significant adverse environmental impacts.

REASONABLE WORST-CASE DEVELOPMENT SCENARIOS

Proposed Development Area

Although the Illustrative Program described above (and summarized in **Table 3**) reflects what is currently contemplated by NYU, it is possible that the desired programming and timing of development of certain buildings could change over time. Since the LSGD special permit approvals would specify a range of floor areas by land use for the Proposed Development Area, for analysis purposes potential building program development scenarios that could result from the LSGD special permit approvals will be identified. In addition, SCA could decline the option to build a public school on the South Block as part of the proposed Bleecker Building, or could decide to build the school at a later date than is currently anticipated (by 2021). Given these potential variations with respect to the overall programming, the analyses for certain technical areas will be based on "reasonable worst-case development scenarios" (RWCDS) drawn from this range of potential building program development scenarios. Each of these RWCDS will be formulated to represent the scenario that could result in the maximum potential impacts from the Proposed Project in the affected technical area. Several categories of technical analysis in the EIS will be analyzed using this approach, where such a RWCDS would result in potential impacts greater than those generated by the Illustrative Program currently contemplated by NYU. The total development for each RWCDS would be limited to the total approximately 2.5 million gsf permitted by the LSGD special permit approvals. The RWCDS that are expected to be utilized in the EIS are presented in **Table 4**. The Illustrative Program for the proposed project is also presented. For those technical areas where potential project impacts are not dependent on the floor area of each use, the Illustrative Program will be assumed. Each technical analysis area in the EIS will identify the RWCDS, if any, that would be utilized for analysis.

Table 4
Reasonable Worst Case Development Scenarios (RWCDS) for the Proposed Development Area
Full Build (by 2031)

Use	Illustrative Program	RWCDS 1 (Max Academic)	RWCDS 2 (Max Dormitory)	RWCDS 3 (Max Hotel)
Academic	1,067,000	1,632,000	1,137,000	1,002,000
Student Housing (Dormitory)	370,000	180,000	525,000	395,000
Faculty Housing	105,000	0	0	0
Athletic Center	146,000	156,000	146,000	146,000
Retail	55,000	40,000	100,000	100,000
Hotel	115,000	0	0	180,000
Academic/ Conference Space	50,000	0	0	85,000
Community Facility (Public Elementary School)	100,000	0	100,000	100,000
Parking	76,000	76,000	76,000	76,000
Mechanical/ Service Areas	371,000	371,000	371,000	371,000
TOTAL GSF	**2,455,000**	**2,455,000**	**2,455,000**	**2,455,000**

Note: RWCDS for the Proposed Development Area does not include the 23,236 square feet of ground-floor retail development projected for the Commercial Overlay Area.
Sources: New York University and AKRF, Inc.

Commercial Overlay Area

The Proposed Actions would result in the application of a C1-5 commercial overlay on all properties in the Commercial Overlay Area. As compared to the existing R7-2 zoning, the C1-5

overlay would permit the same residential FAR (0.87 to 3.44) and the same community facility FAR (6.5). However, unlike the existing R7-2 zoning, the C1-5 overlay permits commercial uses up to an FAR of 2.0, effectively allowing for ground-floor and second-floor retail or other commercial uses.

In the Commercial Overlay Area, limited new development is expected as a result of the proposed C1-5 commercial overlay zoning designation. The proposed commercial overlay will bring some existing retail uses into compliance, allow modest flexibility for neighborhood retail uses, and provide opportunities to activate the street. Because there are ground floor academic uses NYU wishes to retain, the overlay would result in new retail uses at a limited number of locations.

For purposes of CEQR analysis, a RWCDS was developed for the Commercial Overlay Area that considered physical criteria—as well as NYU's desire to retain all existing second-floor uses and certain critical ground-floor uses as non-retail institutional uses—in determining the maximum potential incremental commercial development that could reasonably be expected to result from the Proposed Actions. As shown in **Table 5**, the RWCDS for the Commercial Overlay Area assumes that up to 23,236 of ground-floor retail uses would be developed in a total of five buildings within the Commercial Overlay Area. **Figure 13** identifies the projected sites where the analysis assumes ground-floor retail uses would occur.

These new retail uses would all occur within NYU-owned buildings, and in keeping with the existing retail in the area, would be oriented to meeting the demands of the neighborhood's residents, workers, and visitors. The changes in use identified in Table 5 and described above will be assessed for the two build years as part of the overall impact analysis for the Proposed Actions.

STUDY AREAS

Each technical study must address impacts within an appropriate geographical area. These "study areas" vary depending on the technical issue being addressed. Section E, "Environmental Impact Statement (EIS) Scope of Work," identifies the study areas that will be used for the technical areas of analysis.

FUTURE ANALYSIS YEAR AND BASELINE CONDITIONS

The analysis of the Proposed Actions will be performed for the expected year of completion of the proposed project, which is 2031. However, since the proposed development would be built out over an approximately 19-year period, some buildings would be completed before 2031 and they could result in significant adverse impacts prior to completion of the full development program. Therefore, the analysis will also consider an interim 2021 analysis year, which as detailed below, accounts for full development of the South Block.

2021 ANALYSIS YEAR

Future Without the Proposed Actions. For purposes of a conservative analysis, the future condition without the Proposed Actions in 2021 assumes no new development within the Proposed Development Area. Within the Commercial Overlay Area, with or without the Proposed Actions, NYU plans to develop an additional 20,000 gsf of academic uses at 25 West Fourth Street. Also within the Commercial Overlay Area at 15 Washington Place, NYU plans a

Table 5

Reasonable Worst-Case Development Scenario (RWCDS) for the Commercial Overlay Area

				EXISTING[1]							NO BUILD						BUILD[2]						INCREMENT					
Block	Lot	Address	Lot Area	Built FAR	Bldg Area (gsf)	Res Area (gsf)	Office Area (gsf)	Retail Area (gsf)	Other Area[3] (gsf)	Res Units	Bldg Area (gsf)	Res Area (gsf)	Office Area (gsf)	Retail Area (gsf)	Other Area[3] (gsf)	Res Units	Bldg Area (gsf)	Res Area (gsf)	Office Area (gsf)	Retail Area (gsf)	Other Area[3] (gsf)	Res Units	Bldg Area (gsf)	Res Area (gsf)	Office Area (gsf)	Retail Area (gsf)	Other Area[3] (gsf)	Res Units
546	1	79 WASHINGTON SQUARE E	11,242	3.46	38,899	33,859	2,520	2,520	0	120	38,899	33,859	2,520	2,520	0	120	38,899	33,859	2,520	2,520	0	120	0	0	0	0	0	0
546	5	82 WASHINGTON SQUARE E	5,960	6.79	40,467	0	0	0	40,467	0	40,467	0	0	0	40,467	0	40,467	0	0	3,362	37,105	0	0	0	0	3,362	-3,362	0
546	8	26 WASHINGTON PLACE	2,787	6.16	17,163	0	0	0	17,163	0	17,163	0	0	0	17,163	0	17,163	0	0	0	17,163	0	0	0	0	0	0	0
546	10	18 WASHINGTON PLACE	8,779	7.95	69,800	0	0	0	69,800	0	69,800	0	0	2,000	67,800	0	69,800	0	0	2,000	67,800	0	0	0	0	0	0	0
546	11	35 WEST 4 STREET	6,750	18.59	125,450	0	0	0	125,450	0	125,450	0	0	0	125,450	0	125,450	0	0	0	125,450	0	0	0	0	0	0	0
546	15	14 WASHINGTON PLACE	10,997	10.52	115,694	109,094	0	2,470	1,962	151	115,694	109,094	0	2,470	1,962	151	115,694	109,094	0	4,432	0	151	0	0	0	1,962	-1,962	0
546	20	10 WASHINGTON PLACE	4,080	5.28	21,549	0	0	0	21,549	0	21,549	0	0	0	21,549	0	21,549	0	0	0	21,549	0	0	0	0	0	0	0
546	21	8 WASHINGTON PLACE	11,047	9.11	100,628	0	95,628	0	0	0	100,628	0	95,628	0	0	0	100,628	0	95,628	0	0	0	0	0	0	0	0	0
546	26	21 WEST 4 STREET	9,900	5.73	56,684	0	56,684	0	0	0	56,684	0	56,684	0	0	0	56,684	0	56,684	0	0	0	0	0	0	0	0	0
546	30	31 WEST 4 STREET	2,497	4.00	9,980	0	7,480	2,500	0	0	9,980	0	7,480	2,500	0	0	9,980	0	7,480	2,500	0	0	0	0	0	0	0	0
547	1	32 WAVERLY PLACE	17,859	10.08	180,000	0	0	0	180,000	0	180,000	0	0	0	180,000	0	180,000	0	0	0	180,000	0	0	0	0	0	0	0
547	4	28 WAVERLY PLACE	3,048	9.40	28,641	0	0	0	28,641	0	28,641	0	0	0	28,641	0	28,641	0	0	0	28,641	0	0	0	0	0	0	0
547	5	24 WAVERLY PLACE	5,104	10.48	53,482	0	0	0	53,482	0	53,482	0	0	0	53,482	0	53,482	0	0	0	53,482	0	0	0	0	0	0	0
547	8	23 WASHINGTON PLACE	10,067	9.08	91,402	0	0	0	91,402	0	91,402	0	0	0	91,402	0	91,402	0	0	0	91,402	0	0	0	0	0	0	0
547	14	18 WAVERLY PLACE	6,791	7.52	51,044	0	0	0	51,044	0	51,044	0	0	0	51,044	0	51,044	0	0	6,112	44,932	0	0	0	0	6,112	-6,112	0
547	15	12 WAVERLY PLACE	7,542	5.60	42,264	3,300	0	0	38,964	7	42,264	3,300	0	0	38,964	7	42,264	3,300	0	0	38,964	7	0	0	0	0	0	0
547	18	10 WAVERLY PLACE	2,068	9.94	20,550	0	18,700	1,850	0	0	20,550	0	18,700	1,850	0	0	20,550	0	18,700	1,850	0	0	0	0	0	0	0	0
547	19	7 WASHINGTON PLACE	2,500	3.92	9,800	0	0	0	9,800	0	9,800	0	0	0	9,800	0	9,800	0	0	1,800	8,000	0	0	0	0	1,800	-1,800	0
547	20	15 WASHINGTON PLACE	15,000	4.75	71,270	71,270	0	0	0	78	129,000	0	0	0	129,000	0	129,000	0	0	10,000	119,000	0	0	0	0	10,000	-10,000	0
547	25	21 WASHINGTON PLACE	2,500	7.97	19,936	19,936	0	0	0	0	19,936	19,936	0	0	0	0	19,936	19,936	0	0	0	0	0	0	0	0	0	0
548	*1*	*1 UNIVERSITY PLACE*	*12,527*	*17.48*	*218,985*	*200,000*	*0*	*18,985*	*0*	*265*	218,985	200,000	0	18,985	0	265	218,985	200,000	0	18,985	0	265	0	0	0	0	0	0
548	4	5 UNIVERSITY PLACE	22,220	5.23	116,237	0	0	0	116,237	0	116,237	0	0	0	116,237	0	116,237	0	0	0	116,237	0	0	0	0	0	0	0
548	21	25 WAVERLY PLACE	3,300	9.10	30,042	0	0	0	30,042	0	30,042	0	0	0	30,042	0	30,042	0	0	0	30,042	0	0	0	0	0	0	0
548	*24*	*303 MERCER STREET*	*20,000*	*4.32*	*86,332*	*86,332*	*0*	*0*	*0*	*63*	86,332	86,332	0	0	0	63	86,332	86,332	0	0	0	63	0	0	0	0	0	0
548	*40*	*11 WAVERLY PLACE*	*7,590*	*10.66*	*80,895*	*50,895*	*3,900*	*26,100*	*0*	*160*	80,895	50,895	3,900	26,100	0	160	80,895	50,895	3,900	26,100	0	160	0	0	0	0	0	0
548	*45*	*15 WAVERLY PLACE*	*18,995*	*5.37*	*102,024*	*88,424*	*0*	*13,600*	*0*	*120*	102,024	88,424	0	13,600	0	120	102,024	88,424	0	13,600	0	120	0	0	0	0	0	0
		TOTALS			**1,799,218**	**663,110**	**184,912**	**68,025**	**876,003**	**964**	**1,856,948**	**591,840**	**184,912**	**70,025**	**1,003,003**	**886**	**1,856,948**	**591,840**	**184,912**	**93,261**	**979,767**	**886**	**0**	**0**	**0**	**23,236**	**-23,236**	**0**

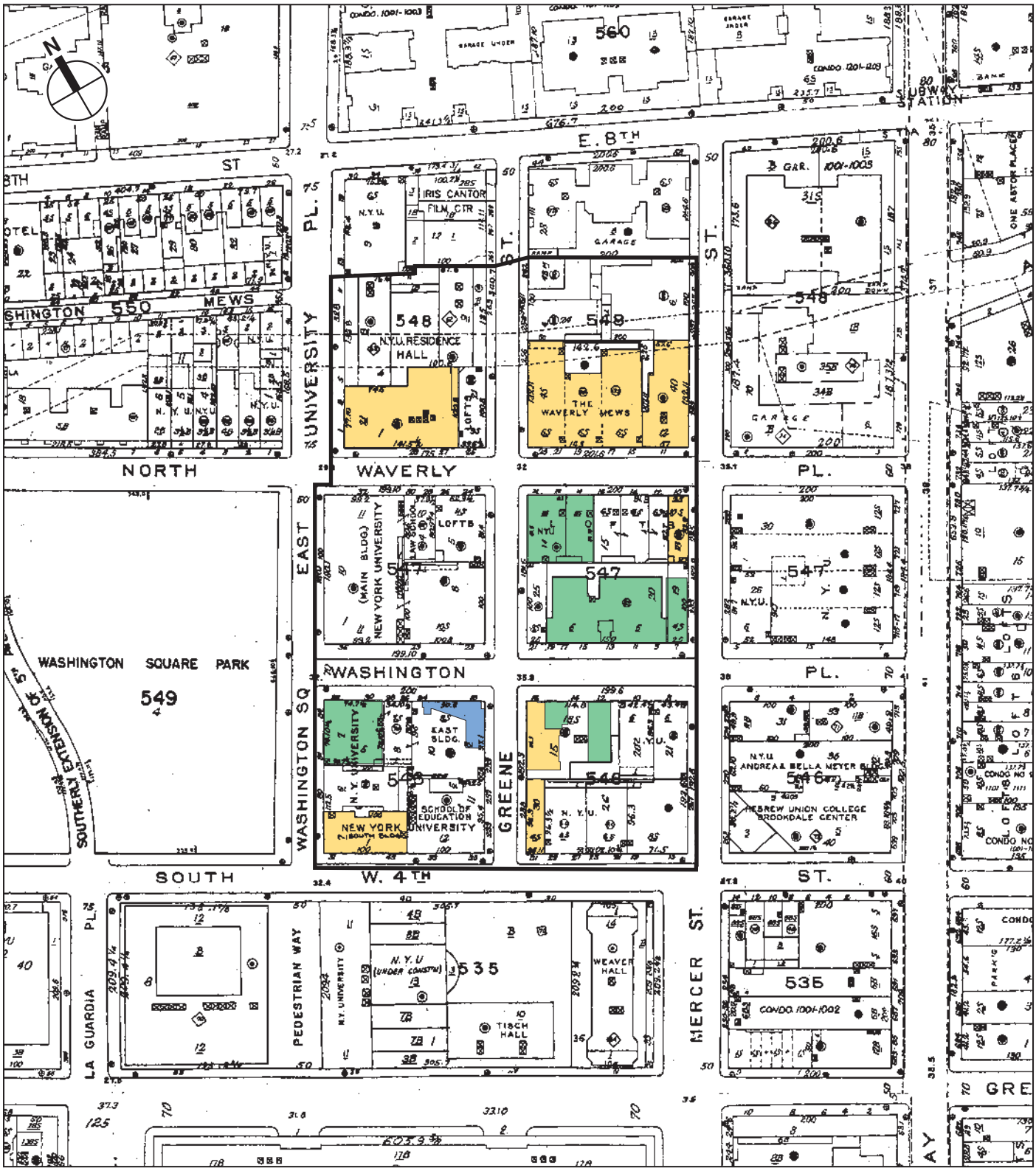
Notes: Properties indicated in italics are non-NYU owned.

[1] Lots in the Commercial Overlay Area are currently zoned R7-2. R7-2 districts allow a maximum residential FAR of 3.44 and a maximum community facility FAR of 6.5.

[2] In the future with the Proposed Project, zoning in the Commercial Overlay Area would change from R7-2 to R7-2/C1-5. R7-2 districts allow residential uses at a maximum FAR of 3.44, and with community facility uses, a maximum FAR of 6.5. C1-5 overlay zoning in R7-2 districts allows for FAR of 2.0 for commercial uses.

[3] "Other Area" includes portions of the building allocated for uses other than residential, office, retail, garage, or factory use. "Other Area" includes space allocated to storage and community facility uses, including primarily academic buildings owned by NYU.

4.8.11



Commercial Overlay Area Boundary

Existing Ground Floor Retail

Ground Floor Retail in the Future without the Proposed Project

Projected Ground Floor Retail

0 200 FEET

SCALE

Ground Floor Retail in the Commercial Overlay Area

Figure 13

NYU Core

renovation and building addition that would convert the approximately 74,000-gsf residential building into a 129,000-sf academic building.

Future With the Proposed Actions. By the end of 2021, it is anticipated that construction would be completed for all proposed uses (including publicly accessible open spaces) on the South Block within the Proposed Development Area. The only development activity that would occur on the North Block by 2021 would be the construction and demolition of an approximately 30,000-gsf temporary gymnasium. The gymnasium would accommodate recreational demands from the displaced Coles. **Figures 14 and 15** illustrate proposed development on the South Block by 2021, including the temporary gymnasium on the North Block. Construction of the new permanent buildings would not commence on the North Block until 2022. **Table 6** shows the amounts and types of development anticipated within the Proposed Development Area under the Illustrative Program and under each RWCDS by 2021. Within the Commercial Overlay Area, under the RWCDS by 2021 up to 23,326 gsf of neighborhood retail uses would be developed in the ground floor of five buildings. In total, by 2021 there would be approximately 1.3 million gsf of completed development on the project site.

Table 6
Illustrative Program and RWCDS for the Proposed Development Area
Phase I (2021 Analysis Year)

Use (gsf)	Illustrative Program	RWCDS 1 (Max Academic)	RWCDS 2 (Max Dormitory)	RWCDS 3 (Max Hotel)
Academic	173,000	738,000	283,000	148,000
Student Housing (Dormitory)	370,000	180,000	525,000	395,000
Faculty Housing	105,000	0	0	0
Athletic Center	146,000	156,000	146,000	146,000
Retail	55,000	40,000	60,000	60,000
Hotel	115,000	0	0	180,000
Academic/Conference Space	50,000	0	0	85,000
Public School (PS/IS)	100,000	0	100,000	100,000
Parking	0	0	0	0
Mechanical/Service Areas	161,000	161,000	161,000	161,000
TOTAL GSF	**1,275,000**	**1,275,000**	**1,275,000**	**1,275,000**

Sources: New York University and AKRF

2031 ANALYSIS YEAR

Future Without the Proposed Actions. The future condition without the Proposed Actions in 2031 assumes that the site of the existing Morton Williams supermarket would be redeveloped as-of-right, at some point after the 2021 expiration of the property's HPD deed restrictions. The approximately 175,000-sf, nine-story building would contain an approximately 25,000-square-foot supermarket and NYU academic space. **Figures 16 and 17** illustrate the Proposed Development Area in the future without the Proposed Actions by 2031. The redevelopment of the Morton Williams site is the only change expected to occur within the Proposed Development Area in the future without the Proposed Actions.

Within the Commercial Overlay Area there are no known additional planned projects beyond those identified to be developed in the future without the Proposed Actions by 2021 (see above).

Future With the Proposed Actions. By 2031 the full development program for the proposed project (described above) is expected to be complete. **Figures 18 and 19** illustrate development resulting from the Proposed Actions within the Proposed Development Area by 2031.

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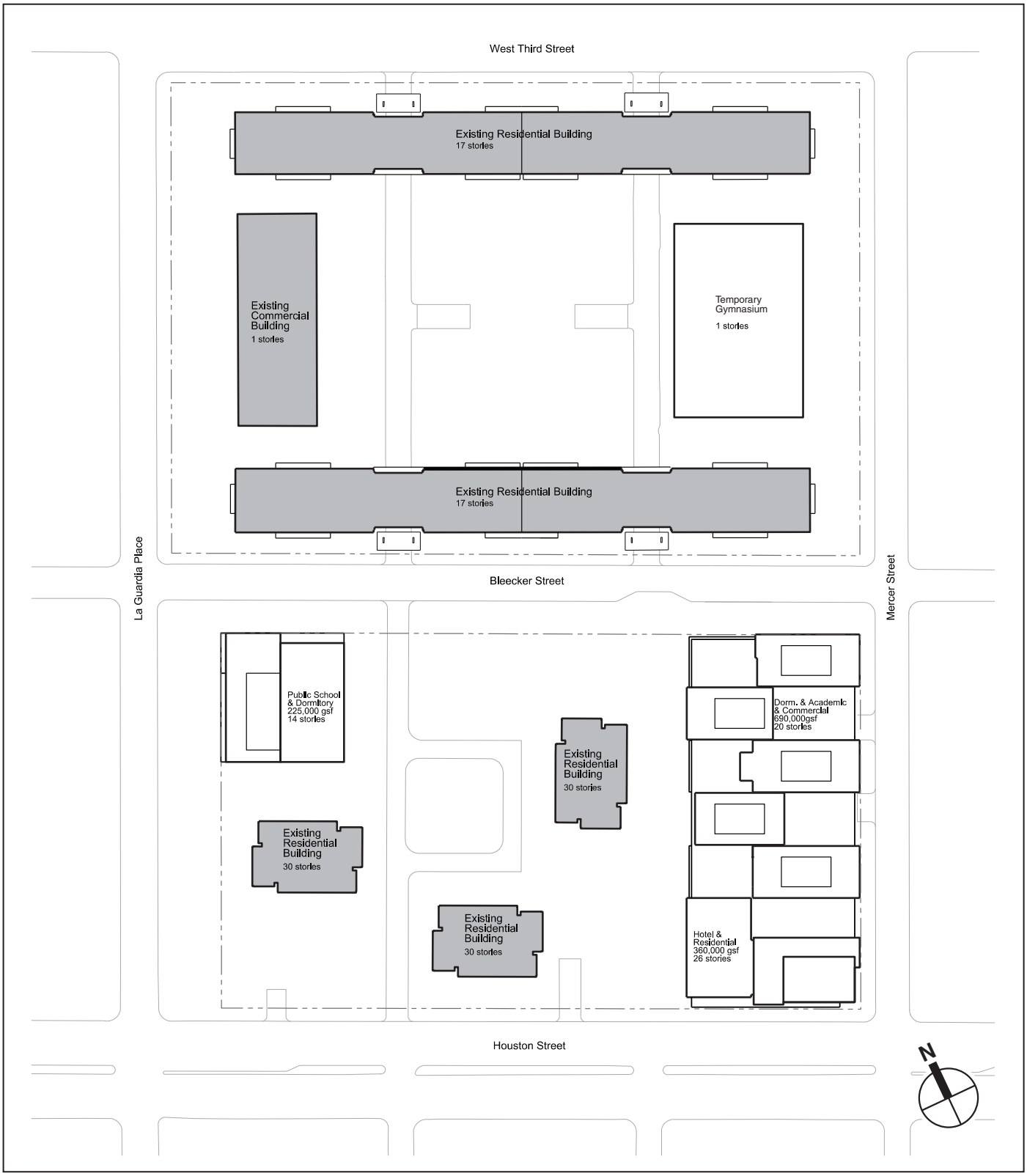

Existing Buildings

Proposed Buildings

Illustrative Site Plan of Proposed Development Area Future with the Proposed Actions Phase 1 (2021)

Figure 14

NYU Core

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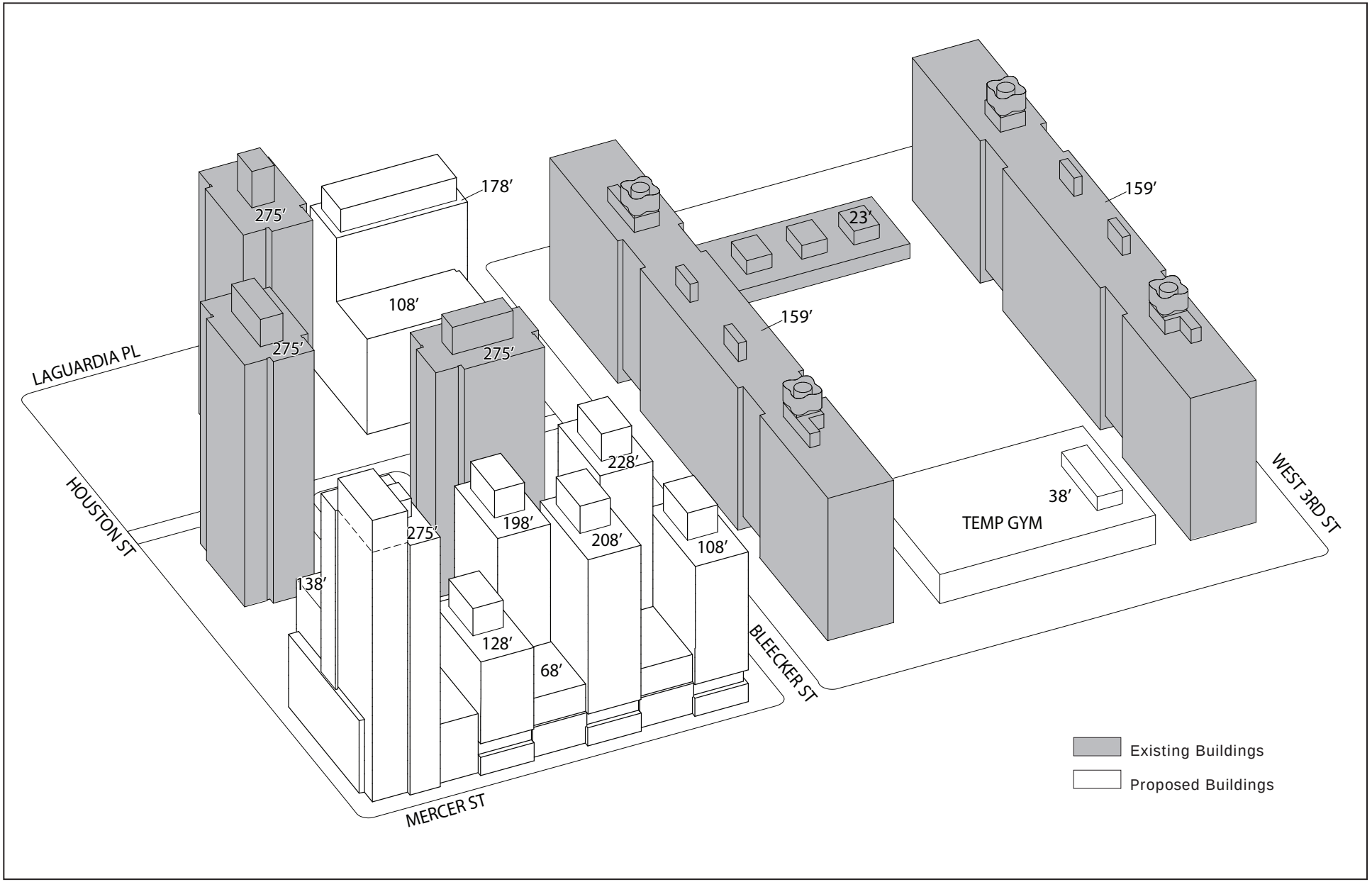
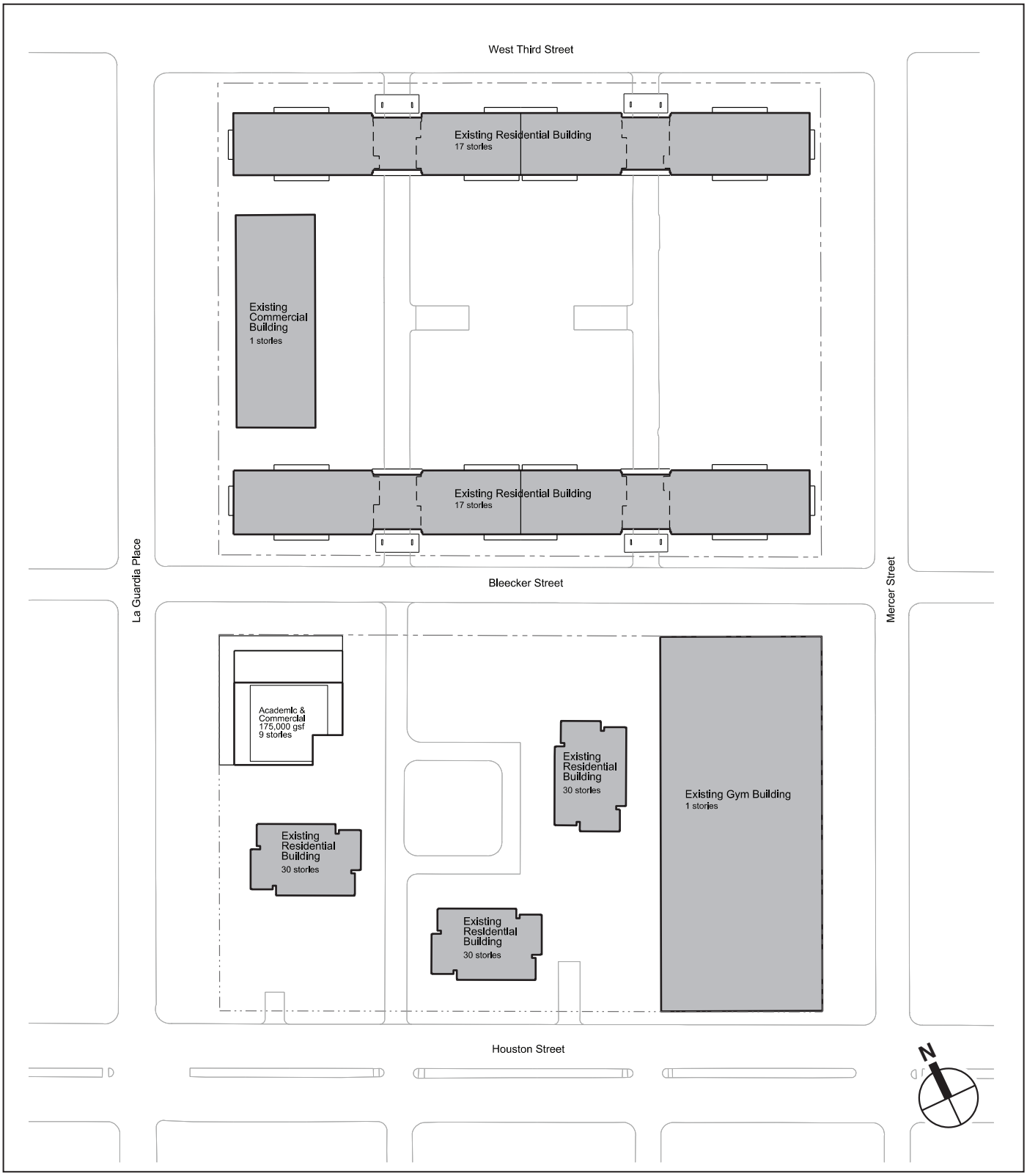


NOTE: Estimated building heights are to roof parapet; mechanical space on portions of roofs are 17' to 27' higher than parapet height.

Illustrative Axonometric of Proposed Development Area
Future with the Proposed Actions Phase 1 (2021)
Figure 15

NYU Core

4.11.11



Existing Buildings

Future Buildings

Illustrative Site Plan
Future Without the Proposed Actions in 2031
Figure 16

NYU Core

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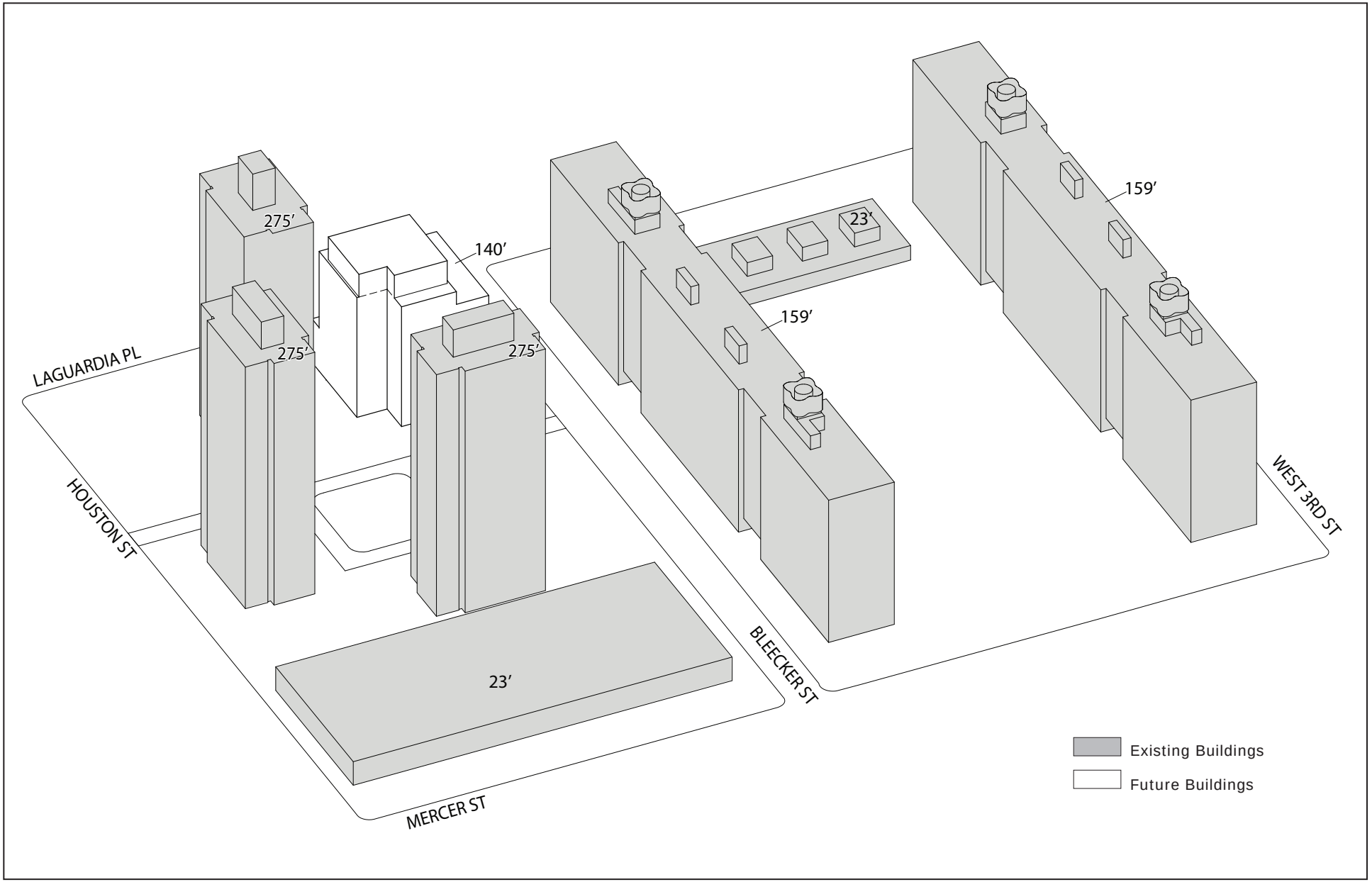


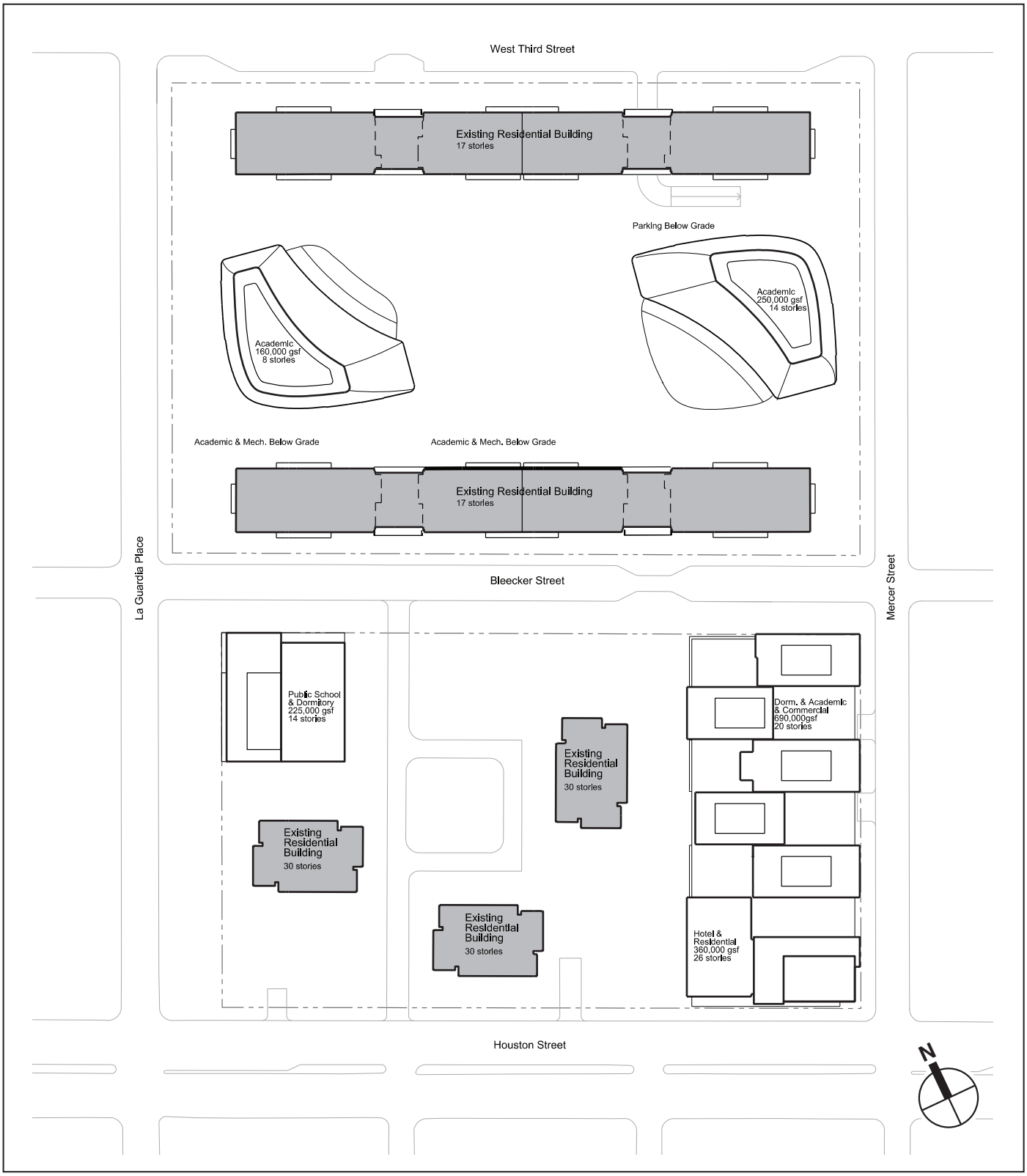
NOTE: Estimated building heights are to roof parapet; mechanical space on portions of roofs are 17' to 27' higher than parapet height.

NYU Core

Illustrative Axonometric - Future Without the Proposed Actions in 2031

Figure 17

4.13.11

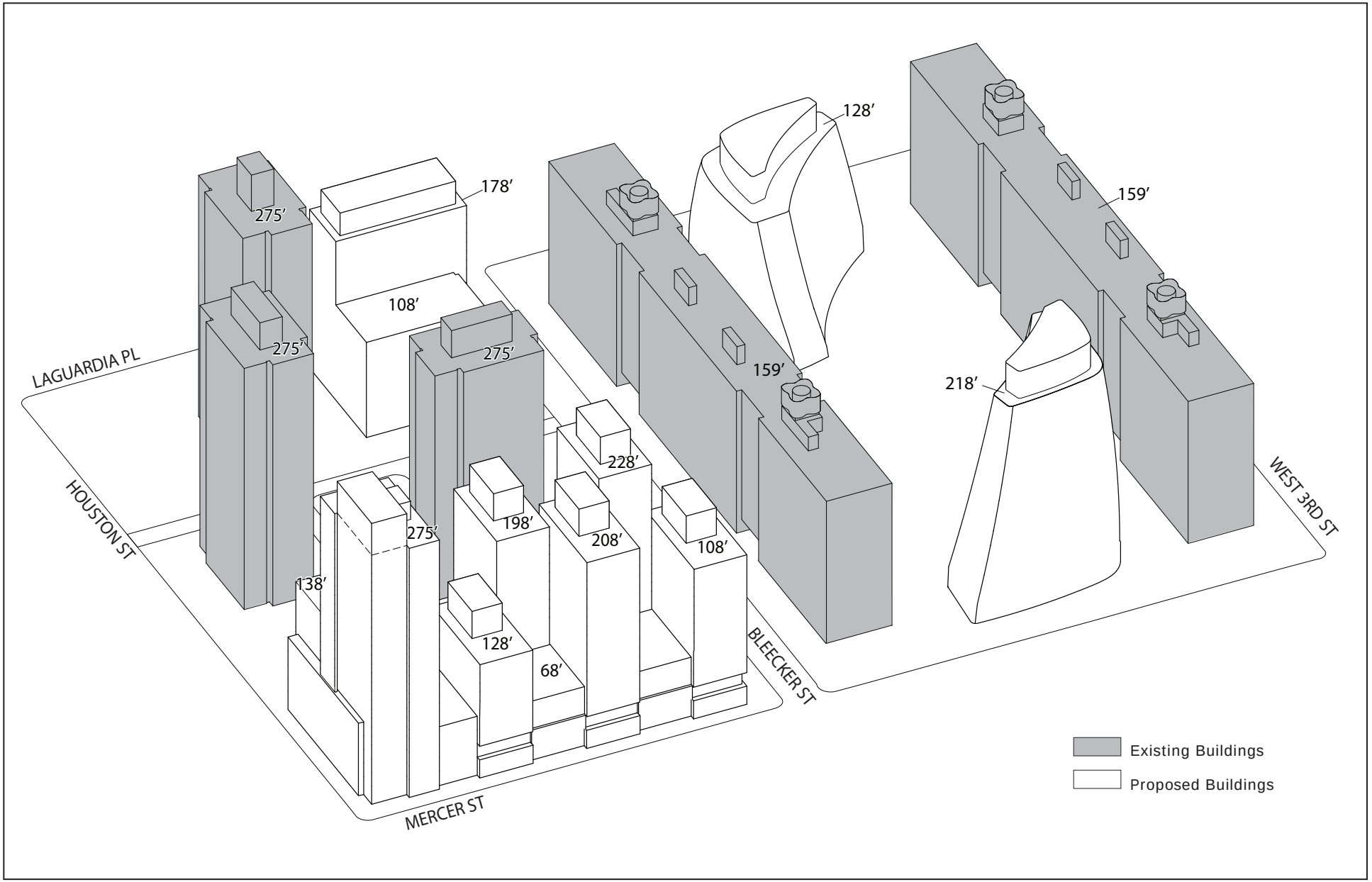


Existing Buildings

Proposed Buildings

Illustrative Site Plan of Proposed Development Area
Future with the Proposed Actions Phase 2 (2031)
Figure 18

NYU Core



NOTE: Estimated building heights are to roof parapet; mechanical space on portions of roofs are 17' to 27' higher than parapet height.

Illustrative Axonometric of Proposed Development Area
Future with the Proposed Actions Phase 2 (2031)
Figure 19

NYU Core

ENVIRONMENTAL REVIEW PROCESS

CPC as lead agency in the environmental review has determined that the proposed actions and project have the potential to result in significant environmental impacts and, therefore, pursuant to City Environmental Quality Review (CEQR) procedures, has issued a positive declaration requiring that an EIS be prepared in conformance with all applicable laws and regulations, including the State Environmental Quality Review Act (SEQRA), the City's Executive Order No. 91, and CEQR regulations (August 24, 1977), as well as the relevant guidelines of the 2010 *CEQR Technical Manual*. This draft scope of work has been prepared in accordance with those laws and regulations and the City's *CEQR Technical Manual*.

In accordance with SEQRA and CEQR, this Draft Scope of Work has been distributed for public review. A public hearing has been scheduled for May 24, 2011 at Spector Hall, Department of City Planning, 22 Reade Street, New York, NY, 10007, and the period for submitting written comments will remain open for ten days, or until June 6, 2011. After considering comments received during the public comment period, a Final Scope of Work will be prepared to direct the content and preparation of a DEIS. As the next step in the process, once the lead agency has determined that the DEIS is complete, it will be subject to public review, in accordance with the CEQR and Uniform Land Use Review Procedure (ULURP) processes with a public hearing and a period for public comment. A Final EIS (FEIS) will then be prepared to respond to those comments received on the DEIS. The lead agency will make CEQR findings based on the FEIS, before making a decision on project approval.

E. ENVIRONMENTAL IMPACT STATEMENT (EIS) SCOPE OF WORK

TASK 1: PROJECT DESCRIPTION

The first chapter of the EIS introduces the reader to the project and sets the context in which to assess impacts. The chapter will contain a project identification, including context of the overall master plan, the development parcels, and the proposed commercial overlay area; the background and/or history of NYU's development in the project area; a statement of purpose and need for the proposed project; a detailed description of the Proposed Actions necessary to achieve the project; a description of the development program and project siting and design; and a discussion of approvals required, procedures to be followed, and the role of the EIS in the process. The chapter will also discuss the framework of the analyses for the EIS. It will identify the analysis years and project phasing, and describe the reasonable worst-case development scenarios based on NYU's Illustrative Program and the program flexibility provided by the Proposed Actions.

TASK 2: LAND USE, ZONING AND PUBLIC POLICY

The Proposed Actions would require a number of discretionary actions as described above, and, through the provision of new academic, residential, and other facilities at NYU, would result in changes to land use and changes to land use densities in the project area. This chapter will:

A. In a study area radius of approximately ¼ mile from the project area, which reflects the area most sensitive to project land use impacts (see **Figure 20**)[1], provide a brief

[1] According to the *CEQR Technical Manual*, the appropriate study area for land use and zoning is related to the type and size of the project being proposed as well as the location and neighborhood context of the area

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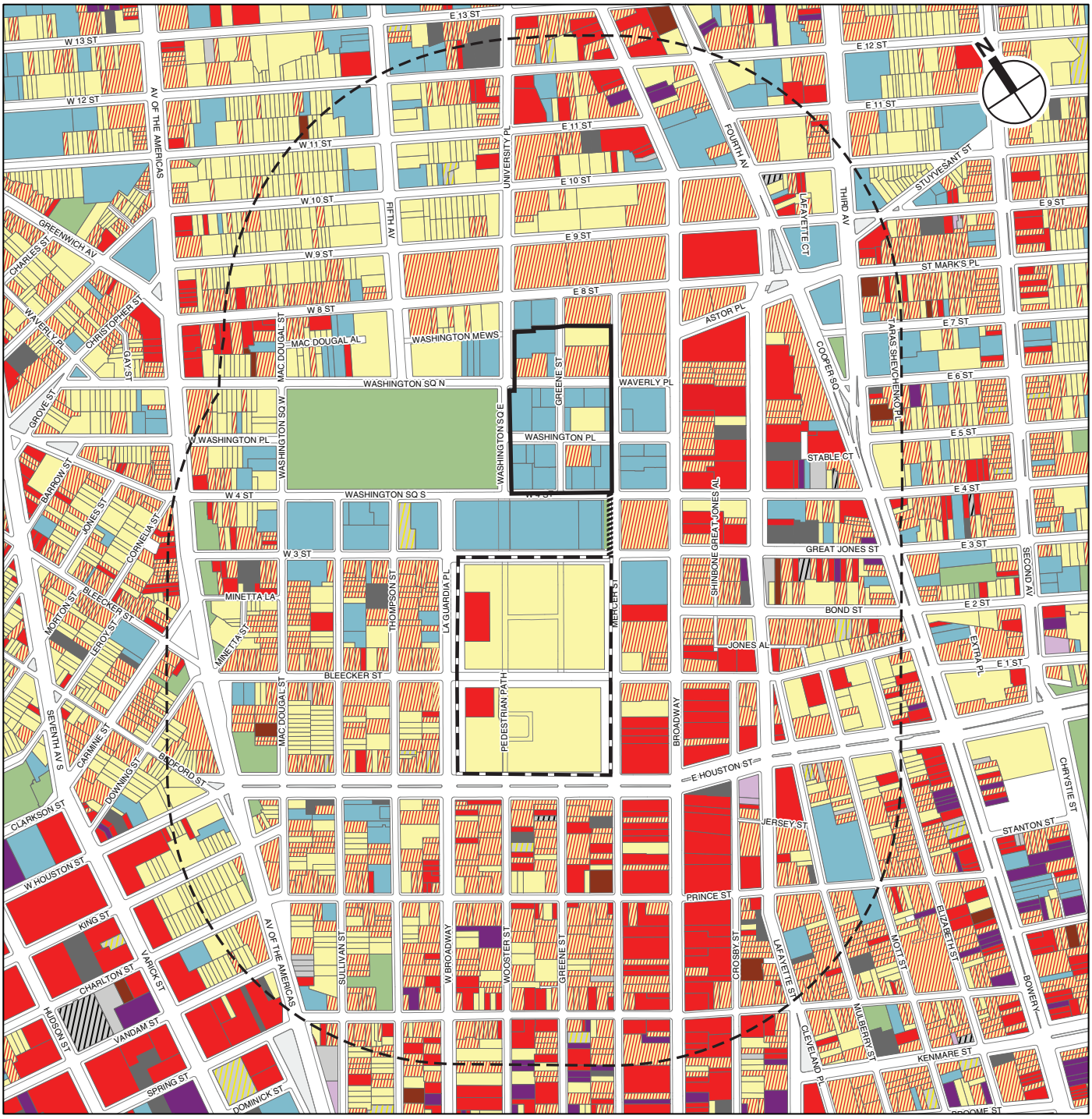

- Proposed Development Area Boundary
- Commercial Overlay Area Boundary
- Block 535 Demapping Area
- Study Area Boundary (1/4-Mile Perimeter)
- Residential
- Residential with Commercial Below
- Hotels
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Vacant Building
- Under Construction

0 500 1000 FEET

SCALE

Note: Each color indicates the dominant land use on each lot

NYU Core

Land Use Study Area

Figure 20

development history of the Proposed Development Area, the Commercial Overlay Area, and the surrounding neighborhoods. Describe conditions in the project area, including existing conditions and the underlying zoning.

B. Describe predominant land use patterns, including a description of recent development trends.

C. Describe the existing zoning and any recent zoning actions in the study area.

D. Describe other relevant public policies that apply to the project area and the study area. The project area is not located within the boundaries of the City's Coastal Zone. Therefore, an assessment of the project's consistency with the City's Waterfront Revitalization Program is not required.

E. Prepare a list of future projects in the study area and describe how these projects might affect land use patterns and development trends in the study area in the future without the project. Also, identify any pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area as they relate to the proposed project.

F. Assess impacts of the Proposed Actions and resulting development on land use and land use trends, zoning, and public policy. Discuss potential changes associated with the addition of the proposed project.

TASK 3: SOCIOECONOMIC CONDITIONS

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if an action may reasonably be expected to create substantial socioeconomic changes in an area. This can occur if an action would directly displace a residential population, substantial numbers of businesses or employees, or eliminate a business or institution that is unusually important to the community. It can also occur if an action would bring substantial new development that is markedly different from existing uses and activities in the neighborhood, and therefore would have the potential to lead to indirect displacement of businesses or residents from the area.

With respect to the Proposed Actions, the following describes the level of assessment that is warranted, and the scope of analysis for the five principal socioeconomic issues of concern:

DIRECT RESIDENTIAL DISPLACEMENT

The Proposed Actions would not directly displace any residents from the project site. Therefore, the Proposed Actions would not result in significant adverse impacts due to direct residential displacement, and no further analysis of this issue is required.

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that could be affected by the project. Unless the project involves a large scale, high density development or is a generic project, the study area should generally include at least the project site and the area within 400 feet of the site's boundaries. When other, more indirect effects may also occur, a larger study area should be used. Typically, such secondary impacts can occur within a radius of 0.25 to 0.5 miles from the site of a proposed project. A radius of 0.25 miles was selected for this analysis because beyond that distance, land use, zoning, and public policies are far more heavily influenced by conditions outside of the project area.

DIRECT BUSINESS DISPLACEMENT

The Proposed Actions would result in the direct displacement of up to seven businesses from the project site—the Morton Williams Supermarket and up to six retail stores within the LaGuardia Retail building. Collectively, the employment displaced from the project site would be well below the 100-employee CEQR threshold warranting analysis. Therefore, the Proposed Actions would not result in significant adverse impacts due to direct business displacement, and no further analysis of this issue is required.

INDIRECT RESIDENTIAL DISPLACEMENT

The project would provide up to approximately 1,750 dormitory beds and up to 260 dwelling units for NYU faculty; this is more than the 200-unit *CEQR Technical Manual* threshold for assessing the potential indirect effects of an action. Therefore, an assessment of indirect residential displacement will be conducted.

The concern with respect to indirect residential displacement is whether a proposed action—by introducing a substantial new development that is markedly different from existing uses, development, and activities within the neighborhood—could lead to increases in property values, and thus rents, making it difficult for some residents to afford their homes. The objective of the indirect residential displacement analysis is to determine whether the Proposed Actions would either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

The indirect residential displacement analysis will use 2000 and 2010 U.S. Census data, Census American Community Survey data, New York City Department of Finance's Real Property Assessment Data (RPAD) database, as well as current real estate market data, to present demographic and residential market trends and conditions for the study area. The presentation of study area characteristics will include population, housing value and rent, cooperatives and condominium conversion, estimates of the number of housing units not subject to rent protection, and median household income. Following *CEQR Technical Manual* guidelines, the preliminary assessment will perform the following step-by-step evaluation:

- **Step 1**: Determine if the Proposed Actions would add substantial new population with different income as compared with the income of the study area population. If the expected average incomes of the new population would be similar to the average incomes of the study area populations, no future analysis is necessary. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then Step 2 of the analysis will be conducted.
- **Step 2**: Determine if the Proposed Actions' population is large enough to affect real estate market conditions in the study area. If the population increase may potentially affect real estate market conditions, then Step 3 will be conducted.
- **Step 3**: Determine whether the study area potentially contains a population at risk of indirect displacement resulting from rent increases due to changes in the real estate market caused by the new population.

If the preliminary assessment finds that there is a substantial population potentially at risk of indirect displacement, a detailed analysis will be conducted. The detailed analysis would be framed in the context of existing conditions and evaluations of the Future No-Action and With-Action conditions in 2021 and 2031. The detailed analysis would utilize more in-depth

demographic data and field surveys to characterize existing conditions of residents and housing; identify populations at risk of displacement; assess current and future socioeconomic trends that may affect these populations; and examine the effects of the proposed project on prevailing socioeconomic trends and, thus, its impact on the identified population at risk.

INDIRECT BUSINESS DISPLACEMENT

The concern with respect to indirect business and institutional displacement is whether a proposed project could lead to increases in property values, and thus rents, making it difficult for some businesses or institutions to remain in the area. The Proposed Actions could introduce new retail and hotel uses to the project area that collectively exceed the *CEQR Technical Manual's* 200,000-square-foot commercial threshold for "substantial" new development warranting assessment. Therefore, a preliminary assessment of indirect business displacement will be conducted.

The indirect business displacement analysis will characterize conditions and trends in employment and businesses within the study area using the most recent available data from public and private sources such as New York State Department of Labor, the U.S. Census Bureau, and ESRI, as well as discussions with local real estate brokers as necessary. This information will be used in a preliminary assessment to consider:

- Whether the Proposed Actions would introduce enough of a new economic activity to alter existing economic patterns;
- Whether the Proposed Actions would add to the concentration of a particular sector of the local economy enough to alter or accelerate existing economic patterns;
- Whether the Proposed Actions would directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses; and
- Whether the Proposed Actions would directly or indirect displace residents, workers, or visitors who form the customer base of existing businesses in the area.

If the preliminary assessment finds that the Proposed Actions could introduce trends that make it difficult for businesses that are essential to the local economy to remain in the area, a detailed analysis will be conducted. Following *CEQR Technical Manual* guidelines, the detailed analysis would be framed in the context of existing conditions and evaluations of the Future No-Action and With-Action conditions in 2021 and 2031, including any changes in economic activities anticipated to take place by the time the project is complete. The detailed analysis would determine whether the Proposed Actions would increase property values and thus increases rents for a potentially vulnerable category of businesses, and whether relocation opportunities exist for those firms.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

Based on the guidelines in the *CEQR Technical Manual*, a preliminary assessment of effects on specific industries will be conducted to determine whether the Proposed Actions would significantly affect business conditions in any industry or category of businesses within or outside the study area, or whether the Proposed Actions would substantially reduce employment or impair viability in a specific industry or category of businesses.

TASK 4: COMMUNITY FACILITIES AND SERVICES

As defined for CEQR analysis, community facilities are public or publicly funded schools, libraries, child care centers, health care facilities and fire and police protection. A project can affect facility services directly, when it physically displaces or alters a community facility; or indirectly, when it causes a change in population that may affect the services delivered by a community facility.

The Proposed Actions would not have any direct effects on community facilities, because the proposed project would not physically displace or alter any community facilities. However, by adding new students and faculty and providing new residences, the proposed project would create increased demand for various community facilities. The following describes the level of analysis required to estimate the potential indirect effects of the Proposed Actions on community facilities.

INDIRECT EFFECTS

As per the *CEQR Technical Manual*, depending on the size, income characteristics, and age distribution of the new population, a project may have indirect effects on public schools, libraries, or child care centers. Indirect effects on police, fire, and health care services occur only when a "sizeable new neighborhood" is introduced by a project. The proposed project would not introduce a new neighborhood, and therefore, analyses of police, fire, and health care services are not warranted.

Public Schools

An analysis of public schools is required if a project introduces more than 50 elementary/middle school or 150 high school students. According to *CEQR Technical Manual* guidelines, in Manhattan the 50-student threshold for analysis of elementary/middle school capacity is achieved if a project introduces at least 310 residential units (not including dormitory rooms); the threshold for analysis of high school capacity is 2,492 residential units. The proposed project is not expected to result in the addition of 310 residential units (not including dormitory rooms), and therefore, a detailed analysis of public schools is not required. A preliminary assessment of public schools will be conducted, which is expected to screen out the potential for significant adverse impact, and note the additional capacity that would be provided by the on-site public school.

Libraries

An analysis of libraries is undertaken if the project would result in more than a 5 percent increase in the ratio of residential units to libraries in the borough. In Manhattan, the CEQR threshold for this increase is 901 residential units. Since the proposed project could include a combination of faculty housing and dormitory uses in excess of 901 units, a preliminary assessment of the potential impacts on public libraries will be conducted. The analysis will focus on the potential effects of the project-generated population on branch libraries, accounting for the fact that university students and faculty living in the proposed housing would utilize the extensive NYU library facilities available to NYU students and faculty.

Day Care Centers

An analysis of day care centers is necessary when a project would introduce more than 50 eligible children (170 low- to moderate-income housing units in Manhattan, as identified in

Table 6-1b of the 2010 *CEQR Technical Manual*). Based on this criterion, the proposed project would not trigger the threshold for an analysis of day care centers. Accordingly, the DEIS will not analyze indirect impacts on day care centers.

TASK 5: OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. An analysis of open space is conducted to determine whether or not a proposed project would have direct effects resulting from the elimination or alteration of open space, and/or an indirect effects resulting from overtaxing available open space.

DIRECT EFFECTS

According to the *CEQR Technical Manual*, an assessment of a project's potential direct effects may be appropriate if the project would result in a physical loss of publicly accessible open space (by encroaching on an open space or displacing an open space); change the use of an open space so that it no longer serves the same user population (*e.g.*, elimination of playground equipment); limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether on a permanent or temporary basis.

The proposed project would require the direct displacement of several private and publicly accessible open spaces within the Proposed Development Area. However, the proposed project intends to enhance public recreational opportunities in the Proposed Development Area by providing new and replacement open spaces. For example, on the site of LaGuardia Gardens/DOT strip on the North Block, the proposed site plan includes a new children's playground on the south side of the block and a plaza with seating on the northern part of the block. The design would also incorporate the existing statue of Mayor LaGuardia. On the North Block face that includes the Mercer Playground/DOT Strip, there would be a new playground on the northern end of the block and a plaza area with seating in the southern section. Overall, by 2031 there would be a net increase in the amount of publicly-accessible open space on the project site.

A detailed assessment of the Proposed Actions' direct effects on open space will be provided that considers the types, quantities, and quality of displaced publicly accessible open spaces as compared to the new publicly accessible open spaces that would result from the Proposed Actions. The analysis will also consider the anticipated timing over the 19-year project build-out of open space displacement as compared to the provision of new open spaces.

INDIRECT EFFECTS

Indirect effects may occur when the population generated by a project would be sufficiently large to noticeably diminish the ability of an area's open space to serve the future population. The population thresholds for CEQR assessment of indirect effects vary, depending upon the current adequacy of open space in the project's study area. The proposed project is located within the NoHo district, which is identified by the *CEQR Technical Manual* as an underserved

area in terms of open space.[1] If a project is located in an underserved area, an open space assessment should be conducted if a proposed action is expected to generate more than 50 residents or 125 workers. The Proposed Actions would exceed these thresholds. Since the Proposed Actions would introduce a large population to an area underserved by open space, a full, detailed open space analysis will be conducted.

The EIS will assess potential project effects on open space, including direct and indirect effects. Given the Proposed Actions' introduction of new students, faculty and other employees, workers, and residents to the project area, the analysis will consider both passive and active open space resources, requiring two study areas: one that considers the supply and demand for passive open space required by the non-residential population, including the non-resident student/faculty/other employee population; and one that considers the supply and demand for both passive and active open space required by the residential population, including the resident student/faculty/other employee population. As recommended in the *CEQR Technical Manual*, the non-residential open space study area will comprise all census tracts that have 50 percent of their area located within ¼ mile of the project area (including both the Proposed Development Area and the Commercial Overlay Area, because the Proposed Actions would result in an increase in non-residential populations in both areas). The residential study area will include all census tracts that have at least 50 percent of their area located within a ½-mile of the Proposed Development Area (the Proposed Actions would not result in an increase in the residential population of the Commercial Overlay Area, so it is excluded from the residential study area boundary delineation). Both study areas will be adjusted for census tract boundaries, as shown in **Figure 21**.

Tasks for the open space analysis will include:

A. Prepare a demographic analysis of the study areas' user populations, including workers, residents, and daytime university students. The analysis of residential population will break down user groups by age cohort. Data sources will include the 2000 and 2010 U.S. Census data, Census American Community Survey data, as well as daytime user population estimates from New York University.

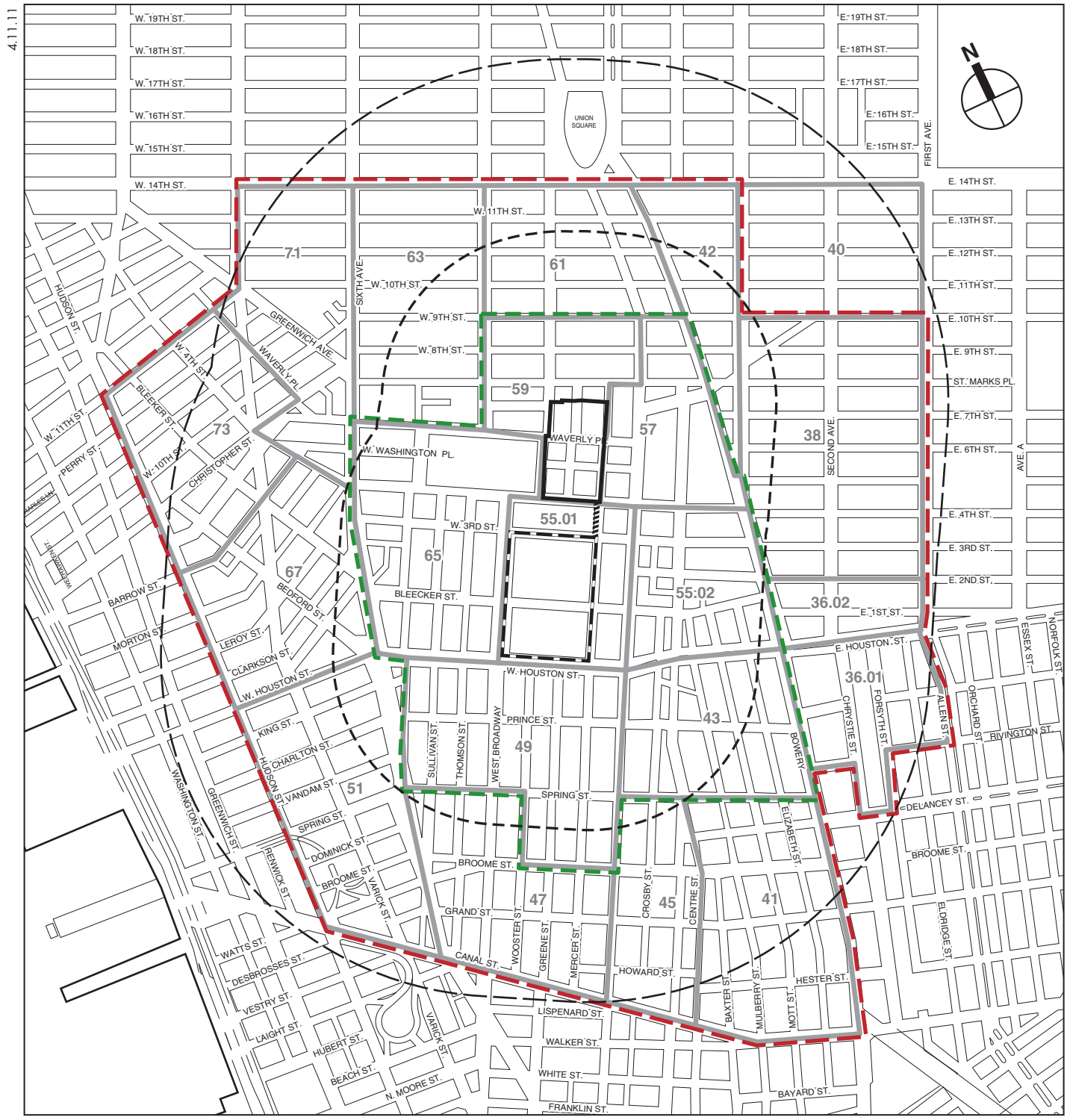
B. Inventory existing publicly accessible passive open space within both the ¼-mile non-residential study area and the ½-mile residential study area. Active open spaces will be inventoried for the residential study area. The condition and use of existing facilities will be described based on the inventory.

C. Based on existing user populations and the inventory of existing open spaces, calculate the open space ratios and compare these ratios to City guidelines to assess adequacy.

D. Assess expected changes in future levels of open space supply and demand in both 2021 and 2031 based on other planned development projects within the study areas. Open space ratios will be developed for future conditions and compared with existing ratios to determine changes in future levels of adequacy; and

E. Based on the population and open space resources added by the Proposed Actions, assess their effects on open space supply and demand. The assessment of impacts will be based on a comparison of open space ratios with the Proposed Actions and their

[1] Underserved areas are areas of high population density in the City that are generally the greatest distance from parkland, where the amount of open space per 1,000 residents is currently less than 2.5 acres.



NYU Core

Open Space Study Areas

Figure 21

associated public space, and open space ratios in the Future without the Proposed Actions. The analysis will include a detailed discussion of the open space added and eliminated by the Proposed Actions, and a qualitative description of the recreational facilities provided and eliminated by the Proposed Actions.

TASK 6: SHADOWS

The *CEQR Technical Manual* requires a shadow analysis for proposed projects that have the potential to cast new shadows on a publicly-accessible open space or historic resource with sun-sensitive features. The proposed new buildings in the Proposed Development Area are expected to reach heights of up to approximately 300 feet (including mechanicals), and could potentially cast new shadows on nearby open spaces or on historic resources with significant sunlight-dependent features. Therefore, the shadows assessment will begin with a screening analysis to determine if and when new shadows from the proposed project would reach open spaces or sun-sensitive features of historic resources. Specifically, the screening analysis will:

A. Identify existing and planned sun-sensitive landscapes and historic resources within the path of shadows that would be cast by the proposed project's maximum building envelopes.

B. In coordination with the analyses for open space and historic resources, map and describe any sun-sensitive areas.

If shadows could reach any such resources, a detailed shadow analysis will be performed, including the following:

1. Preparation of a three-dimensional digital model of the area within the potential shadow sweep of the proposed buildings that will include existing structures, the proposed building envelopes, and topographical data.
2. Preparation of shadow diagrams for time periods when incremental shadows from the proposed action would fall on sun-sensitive resources on the four analysis days recommended by the *CEQR Technical Manual*: December 21 (the shortest day of the year), June 21 (the longest day of the year), March 21/September 21 (the equinoxes), and May 6/August 6 (the midpoints between the equinoxes and the longest day of the year).
3. Creation of a duration table that identifies entering and exiting times for incremental shadows on each sun-sensitive resource for the four analysis days.
4. Identification and assessment of any potential impacts of incremental shadows on sun-sensitive resources. If potential adverse impacts are identified, the amount of remaining sunlight on those sensitive resources as well as the types of vegetation and or recreational activities involved will be considered in reaching impact conclusions.
5. If necessary, identification of potential mitigation measures for any significant adverse impacts generated by the proposed action.
6. Qualitative description of the effects of shadows on project-generated public open spaces.

The shadows analysis will be limited to the shadow effects generated by the buildings proposed for the Proposed Development Area. Within the Commercial Overlay Area, the Proposed Actions would not result in new structures (or the addition to existing structures of 50 feet or

more) requiring assessment (the anticipated development within the Commercial Overlay Area resulting from the Proposed Actions would occur within the ground floor of existing buildings).

TASK 7: HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources include both architectural and archaeological resources. The *CEQR Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. Historic resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC) or determined eligible for NYCL designation (NYCL-eligible); properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements).

According to the *CEQR Technical Manual*, a historic and cultural resources assessment is required if there is the potential to affect either archaeological or architectural resources. University Village (aka Silver Towers and 505 LaGuardia Place) is S/NR-eligible and is a NYCL. Washington Square Village is S/NR-eligible. Further, the Proposed Development Area is across streets from three historic districts: the NoHo Historic District (S/NR-eligible, NYCL) is located east of Mercer Street, the South Village Historic District (S/NR-eligible, NYCL-eligible) is located west of La Guardia Place, and the SoHo Cast-Iron Historic District (NHL, S/NR, NYCL) is located south of West Houston Street. The Greenwich Village Historic District (S/NR, NYCL) is located north of West Fourth Street, and incorporates Washington Square Park and areas to the north and west of this park.

The Commercial Overlay Area contains a number of designated and eligible historic and cultural resources. These include: the Brown Building at 23-29 Washington Place (NHL, S/NR, NYCL); Silver Center/Hemmerdinger Hall at 100 Washington Square East (NR-eligible); and the 20-story apartment building at One University Place/27 Waverly Place (NR-eligible). A potential NoHo Historic District Expansion has been determined S/NR-eligible by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The NoHo Historic District Expansion is bounded by West Fourth Street, Washington Square East/University Place, mid-block between Waverly Place and East 8th Street; and Mercer Street. In addition, the Commercial Overlay Area is located adjacent to 13-19 University Place (NR-eligible), across Washington Square East/University Place from the Greenwich Village Historic District, and across Mercer Street from the NoHo Historic District.

Since any new construction on, or alterations to, the University Village landmark site must be approved by LPC as per New York City Landmarks Law, this chapter of the EIS will reference and quote text from LPC's review with respect to University Village. LPC shall also review the historic and cultural resources assessment under CEQR. Because NYU may also seek DASNY financing, OPRHP will be consulted with respect to impacts on historic and cultural resources associated with those actions.

ARCHAEOLOGICAL RESOURCES

Since redevelopment of the Proposed Development Area would entail in-ground disturbance, it is necessary to analyze the potential impacts of the proposed project on archaeological resources.

The Proposed Actions would not result in any in-ground disturbance within the Commercial Overlay Area. LPC will be contacted regarding the Proposed Development Area's potential for archaeological sensitivity. OPRHP's Concurrence with LPC's determination will be sought. If LPC or OPRHP determine that the Proposed Development Area may be sensitive for archaeological resources, the following work will be undertaken:

A. Prepare a Stage 1A Archaeological Assessment for LPC/OPRHP review. The Stage 1A Archaeological Assessment will identify the potential for areas identified by LPC or OPRHP as requiring further study to contain precontact-period and/or historic-period archaeological resources.

B. Qualitatively discuss any impacts on potential archaeological resources that are expected in the future without the proposed project.

C. Describe the proposed project and the potential impact it could have on archaeological resources through subsurface disturbance.

D. If applicable, develop measures to avoid, minimize, or mitigate any adverse impacts on archaeological resources in consultation with LPC/OPRHP.

ARCHITECTURAL RESOURCES

The following tasks will be undertaken as part of the architectural resources analysis:

A. Describe and map architectural resources in the Proposed Development Area and Commercial Overlay Area.

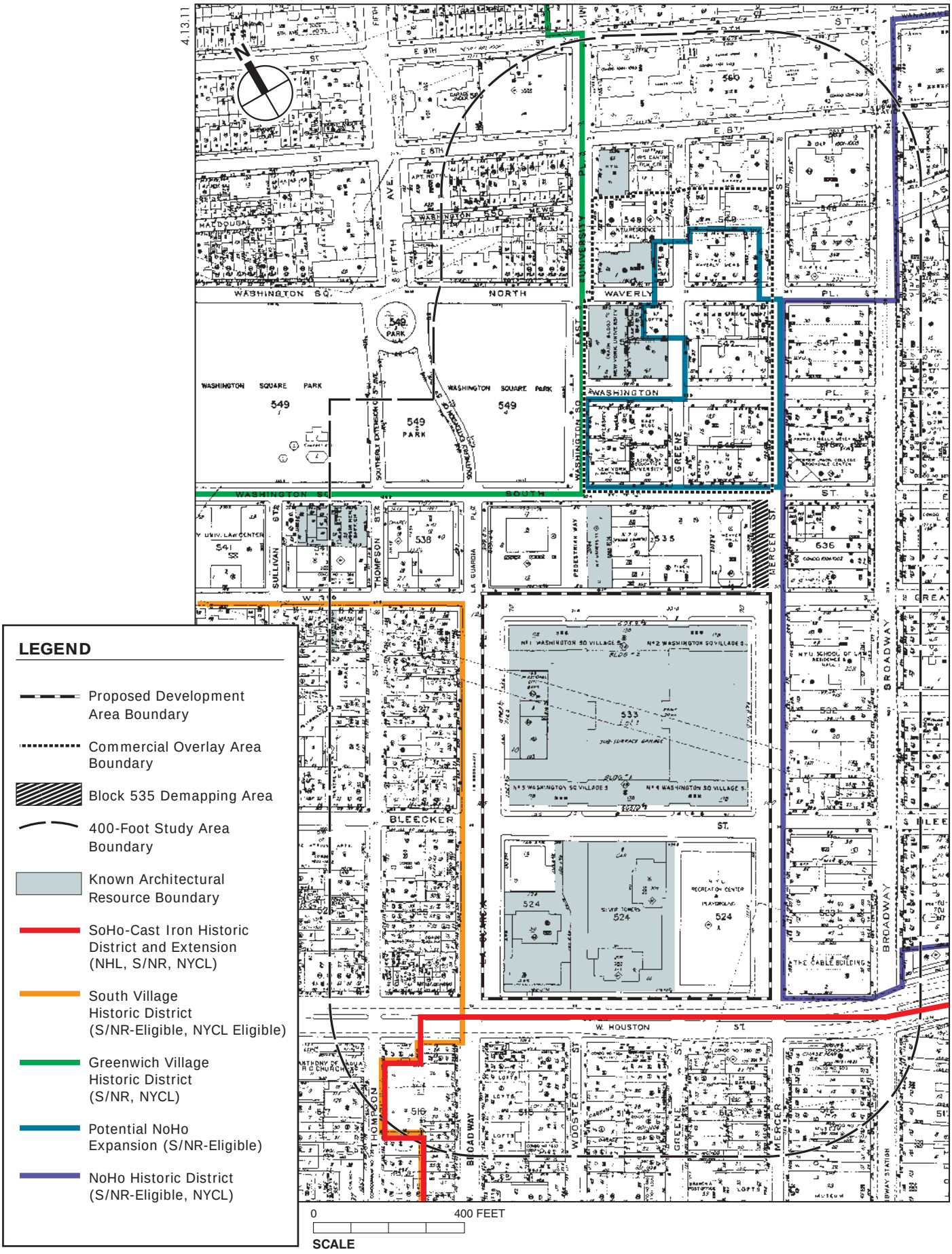
B. Within a 400-foot study area, map and briefly describe known architectural resources, which include portions of the NoHo, South Village, Greenwich Village, and SoHo Cast-Iron historic districts. The study area for architectural resources is shown on **Figure 22.** Longer contextual views available beyond the 400-foot study area will also be considered, as appropriate.

C. Conduct a field survey of the study area not included within the boundaries of the historic districts to identify any potential architectural resources that could be affected by the proposed project. Potential architectural resources comprise properties that appear to meet the eligibility criteria for NYLC designation and/or S/NR listing. Map and briefly describe any potential architectural resources.

D. Qualitatively discuss any impacts on architectural resources that are expected in the future without the proposed project as a result of other expected development projects.

E. Describe the proposed project and any additional potential development and the impact it would have on the architectural resources in the Proposed Development Area and Commercial Overlay Area. Assess the project's potential for indirect impacts on any known or potential architectural resources, including visual and contextual impacts and impacts relating to significant new shadows on sunlight-sensitive resources.

If applicable, develop measures to avoid, minimize, or mitigate any adverse impacts on architectural resources in consultation with LPC and OPRHP.



Historic and Cultural Resources Study Area

Figure 22

NYU Core

TASK 8: URBAN DESIGN AND VISUAL RESOURCES

The Proposed Actions would result in physical changes to the project site beyond the bulk and form permitted as-of-right. These changes would affect a pedestrian's experience of public space, requiring an urban design assessment. Since the overall change to the pedestrian experience is likely to be sufficiently significant to require greater explanation, a detailed analysis will be conducted.

The analysis will be undertaken as follows:

A. Prepare a concise narrative of the Projected Development Area, the Commercial Overlay Area, and the surrounding ¼-mile study area. Consideration will also be given to potential longer view corridors available beyond the ¼-mile study area, as appropriate. This narrative will address the components of urban design as defined in the 2010 *CEQR Technical Manual*: streets, buildings, visual resources, open space, natural resources, wind, and sunlight. The narrative will be supported with items from the detailed analysis checklist in Section 330 of Chapter 10 in the *CEQR Technical Manual*, which include photographs, birdseye views, area maps including one showing existing view corridors and access to visual resources, and information on building massing, floor area, lot and tower coverage, building heights, open area, building setbacks, and average floor plate sizes.

B. Based on planned and proposed development projects and using the information gathered above for existing conditions, assess whether and how urban design conditions are expected to change in the Future without the Proposed Actions. This will include evaluation of the Bleecker Corner building planned for the project site in the Future without the Proposed Actions, as well as other planned projects in the study area.

C. Present program information for the proposed project, including site plans, zoning calculations, floor area calculations, lot and tower coverage, building heights and setbacks, floorplate sizes, and streetwall heights. Program information will also include, as appropriate, sketches or renderings of the Future with the Proposed Actions condition for existing views, elevations along street fronts, detailed landscape plans, and sections through street and other pedestrian areas, and proposed program and use distribution.

D. Assess how the Proposed Actions would affect urban design relative to the Future without the Proposed Actions condition, describing the project in terms of how it would affect the areas' defining elements of urban design, and determine the significance of those changes.

TASK 9: NATURAL RESOURCES

A natural resources assessment is conducted when a natural resource is present on or near the project area and when an action involves the disturbance of that resource. The *CEQR Technical Manual* defines natural resources as: water resources, including surface water bodies and groundwater; wetland resources (freshwater and tidal); surface water hydrology; upland resources, including beaches, maritime dunes, erosional slopes and bluffs; shrublands, grasslands, meadows and old fields; upland forests, woodlands and barrens; and built resources, including piers and other waterfront structures, old piers, pile fields and other ruins, beach protection structures, flood protection structures; and significant, sensitive, or designated resources, as indicated by the New York Natural Heritage Program. The project area is located in a fully developed area in Manhattan and has limited potential to provide the habitat required

by state- or federally-listed rare, threatened and/or endangered species. A screening analysis will be presented in the EIS identifying whether the proposed project would result in significant impacts on natural resources. In addition, due to anticipated facade materials (i.e., glass), landscaping, and landscaping placement, and lighting for the new buildings, the potential for impacts due to bird strikes will also be examined.

TASK 10: HAZARDOUS MATERIALS

The analysis examines the potential for the presence of hazardous materials in the project area. It then determines any resulting additional testing, remediation, mitigation or other measures that would need to occur prior to or during construction to ensure there would be no potential for significant adverse impacts associated with any such hazardous materials. This analysis begins with a summary of a Phase I Environmental Site Assessment (ESA) that will be prepared for the project area, and a description of ongoing remediation efforts.[1] The Phase I ESA will include:

A. A land use history of the project area from historical maps, atlases, and other records.

B. A review of databases maintained by the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (DEC) and online records of various New York City agencies relating to identified problem sites or activities on or adjacent to the project area, including registered underground storage tanks, hazardous waste disposal sites, hazardous waste generators or treatment facilities, and hazardous substance releases. The database search areas will be at least as extensive as those recommended in ASTM Standard E1527-05.

C. Available information on subsurface conditions (geology and hydrogeology).

D. A visual inspection of the project area for any evidence of contamination, including the presence of drums or tanks and chemical use/storage.

Based on the findings of the Phase I ESA, a protocol for a program of subsurface testing (soil and groundwater) in the areas to be disturbed by the proposed project will be prepared and submitted for review and approval by the New York City Department of Environmental Protection (DEP). The findings of this testing program will be used to determine the scope of a Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) which would be implemented during construction of the proposed project. The RAP would include measures to both remediate any concerns identified by the subsurface testing and to properly address any unexpectedly encountered hazardous materials. The CHASP would include necessary measures to protect construction workers and the community including, for example, procedures for dust control and management of surplus excavated soil.

In addition, the Hazardous Materials chapter of the EIS will assess potential impacts from any anticipated future use of hazardous materials. Based on information supplied by NYU, the

[1] On December 26, 2009, an oil leak was discovered in the boiler room that sits beneath Buildings 3 and 4 of Washington Square Village. According to NYU, immediate steps were taken to address the leak and clean up the oil, including activating the University's incident response team, hiring an environmental services firm with expertise in this area, and notifying the appropriate government agencies. As part of the cleanup, a remediation plan was developed and approved by the New York State Department of Environmental Conservation.

The existing remediation documents can be found here: http://www.nyu.edu/construction/wsv/links.html

chapter will describe the general types and quantities of hazardous materials expected to be used, and the way in which they would be stored, used, and disposed of.

TASK 11: WATER AND SEWER INFRASTRUCTURE

The *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater. A preliminary analysis of a project's effects on the water supply system is warranted if a project would result in an exceptionally large demand for water (i.e., those that would use more than 1 million gallons per day), or if a project is located in an area that experiences low water pressure (e.g., Rockaway Peninsula or Coney Island). The need for an analysis of a project's effects on wastewater and stormwater conveyance depends on a project's proposed density, its location, and its potential to increase impervious surfaces.

For the proposed project, an analysis of water supply is not warranted because the project would not result in a demand of more than 1 million gallons per day, nor is it located in an area that experiences low water pressure. However, an analysis of the project's effects on wastewater and stormwater infrastructure is warranted because the project would exceed the *CEQR Technical Manual* threshold of 1,000 residential units (in Manhattan). The following describes the scope of analysis of the effects of the proposed project's incremental sanitary and stormwater flows on the capacity of the sewer infrastructure.

EXISTING CONDITIONS

- The existing stormwater drainage system and surfaces (pervious or impervious) on the project site will be described, and the amount of stormwater currently generated from the site will be estimated using NYCDEP's volume calculation worksheet.
- The existing sewer system serving the project site will be described based on records obtained from NYCDEP's Bureau of Environmental Planning and Analysis (BEPA). Records obtained will include sewer network maps, drainage plans, capacity information for sewer infrastructure components, and other FOIL requests. The existing flows to the Newtown Creek water pollution control plant (WPCP) that serves the project site will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented. Existing capacity information for pump stations, regulators, etc. within the affected drainage area will be presented.

FUTURE NO ACTION CONDITION

- Any changes to the project site's stormwater drainage system and surface area expected in the Future without the Proposed Actions will be described.
- Any changes to the sewer system expected to occur in the Future without the Proposed Actions will be described based on information provided by BEPA.

FUTURE WITH THE PROPOSED ACTIONS

- Assess future stormwater generation from the proposed project and its potential for impacts. A stormwater management plan provided by the applicant will be assessed and incorporated into the preliminary infrastructure assessment. The assessment will also discuss any planned sustainability elements that are intended to reduce stormwater runoff. Any changes to the site's surface area (pervious or impervious) will be described, and runoff coefficients and runoff for each surface type/area will be presented. Volume and peak discharge rates of

stormwater from the site will be determined based on the NYCDEP volume calculation worksheet. Sanitary sewage generation for the project will be estimated. The effects of the incremental demand on the system will be assessed to determine the impact on operations of the WPCP.

- Based on the analyses of future stormwater and wastewater generation, the change in flows and volumes to the sewer system and/or waterbodies due to the proposed project will be determined.

A more detailed assessment may be required if increased sanitary or stormwater discharges from the proposed project are predicted to affect the capacity of the existing sewer system, exacerbate Combined Sewer Overflow (CSO) volumes/frequencies or contribute greater pollutant loadings in stormwater discharged to receiving water bodies. The scope of a more detailed analysis, if necessary, will be developed based on conclusions from the preliminary infrastructure assessment (described above) and coordination with NYCDEP.

TASK 12: SOLID WASTE AND SANITATION SERVICES

A solid waste assessment determines whether a project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP or Plan) or with state policy related to the City's integrated solid waste management system. The City's solid waste system includes waste minimization at the point of generation, collection, treatment, recycling, composting, transfer, processing, energy recovery, and disposal.

According to the *CEQR Technical Manual*, few projects have the potential to generate substantial amounts of solid waste (50 tons per week or more) and, therefore, would not result in a significant adverse impact. Based on Citywide solid waste generation rates identified in Table 14-1 of the *CEQR Technical Manual*, the proposed project would generate less than 50 tons per week of solid waste, and therefore would not result in a significant adverse impact. The EIS will provide the following information with respect to the proposed project:

- The solid waste and service demand generated by the project will be disclosed, based on estimates using Table 14-1 of the *CEQR Technical Manual*.
- The proposed location and method of storage of refuse and recyclables prior to collection will be disclosed, including description of the planned use of compactors, dumpsters and/or roll on/roll off refuse containers to avoid large piles of bags with refuse on the sidewalk or building perimeter awaiting collection.
- The anticipated method of refuse disposal (i.e., private carters or New York City Department of Sanitation).
- Project features that enhance recycling (*i.e.*, those that facilitate the separation, storage, collection, processing, or marketing of recyclables) beyond that required by law will be identified.

TASK 13: ENERGY

This chapter of the EIS will assess the additional demands the proposed project would place on the energy supply. The projected amount of energy consumption during long-term operation will be estimated based on project-specific energy modeling provided by the applicant, if available, or based on a more conservative estimate using average annual whole-building energy use rates for New York City (per Table 15-1 of the *CEQR Technical Manual*). The assessment will also

describe any planned "green measures" to reduce energy consumption, including NYU's planned use of energy generated by its existing cogeneration facility operating at 251 Mercer Street as well as other measures to be incorporated in order to achieve the LEED Silver certification required by the *NYU Sustainable Design Standards and Guidelines.*

TASK 14: TRANSPORTATION

The *CEQR Technical Manual* states that a quantified transportation analysis may be warranted if a proposed action results in 50 or more vehicle-trips and/or 200 or more transit/pedestrian trips during a given peak hour. Based on preliminary population and travel demand estimates for the Proposed Actions, it is expected that these thresholds will be exceeded for several critical time periods (i.e., weekday AM, midday, and PM). Therefore, the EIS transportation impact assessment will evaluate vehicular and pedestrian access and circulation and the potential impacts project-generated trips may have on key area intersections and nearby transit services. As part of the operational analyses, an assessment of vehicular and pedestrian safety based on recent accident data will also be prepared. Since the proposed project will be completed in two phases, the EIS transportation impact assessment will evaluate the required analysis elements, determined via the methodology described below, for the 2021 and 2031 analysis years. The transportation scope will include the following tasks:

TRAVEL DEMAND AND SCREENING ASSESSMENT

A. Prepare travel demand estimates and transportation analysis screening. Detailed trip estimates of the proposed development program will be prepared using standard sources, including the *CEQR Technical Manual*, U.S. census data, approved studies, other references, population data from NYU, and travel characteristics developed from the 2009 NYU Washington Square Campus on-line travel survey. The trip estimates will be summarized by peak hour, mode of travel, and person vs. vehicle trips. The results of these estimates will be summarized in a Travel Demand Factors memo for review and concurrence by the lead agency. For traffic, a detailed vehicle trip assignment will be prepared to determine the appropriate intersections for analysis of potential traffic impacts. The trip estimates will also identify the numbers of peak hour person trips made by transit and the numbers of pedestrian trips traversing the area's sidewalks, corner reservoirs, and crosswalks. As recommended by the *CEQR Technical Manual*, the appropriate transit and pedestrian elements will be selected for analysis.

B. Prepare travel demand estimates for No Build projects. For the detailed analyses of various transportation elements, the projection of future traffic, transit, and pedestrian volume levels will incorporate trips from known No Build projects. The projection of these trips would be based on the approved set of travel demand factors and other appropriate references.

TRAFFIC

C. Define traffic study area. The traffic study area will include key intersections along the travel corridors that provide access to and egress from the proposed project area. Because the time periods during which trip-making is expected to be the greatest for the project's development components, which are primarily academic-related, would occur on weekdays, the analysis of the area's traffic conditions will focus on the weekdays AM, midday, and PM peak hours. Based on the detailed vehicle trip assignments for

these time periods, and in coordination with the lead and involved agencies, intersections will be selected for analysis. The analyzed intersections are likely to include those listed below and illustrated in **Figure 23**.

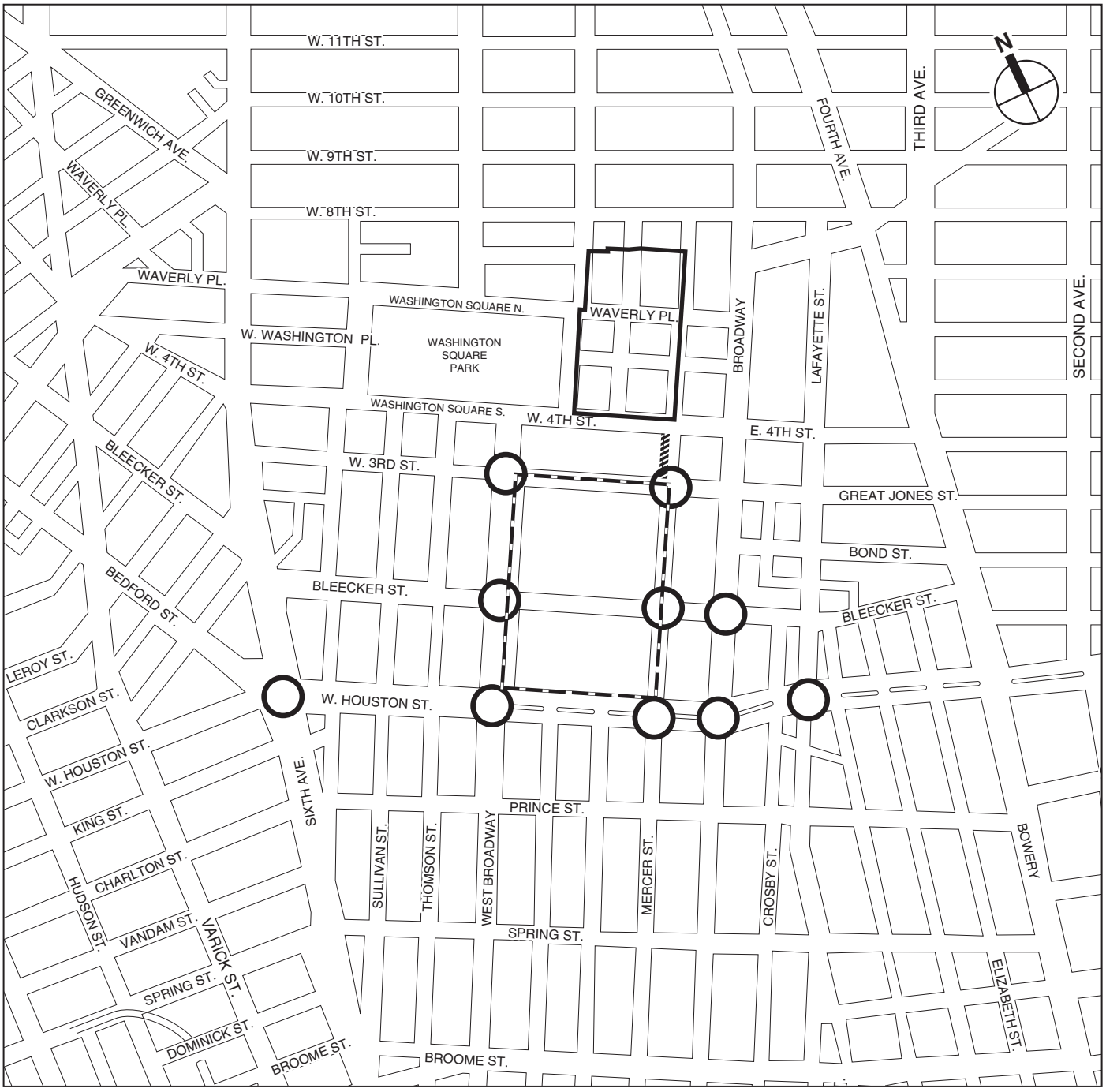
(1) Avenue of the Americas and West Houston Street;
(2) LaGuardia Place and West Third Street;
(3) LaGuardia Place and Bleecker Street;
(4) LaGuardia Place and West Houston Street;
(5) Mercer Street and West Third Street;
(6) Mercer Street and Bleecker Street;
(7) Mercer Street and West Houston Street;
(8) Broadway and Bleecker Street;
(9) Broadway and West Houston Street; and
(10) Lafayette Street and Houston Street.

D. Perform traffic data collection. Traffic volumes and relevant data at the study area intersections were collected in 2010 as per *CEQR* guidelines via a combination of manual and machine counts. Manual turning movement and vehicle classification counts were conducted for peak weekday time periods, including the AM, midday, and PM analysis peak hours. These manual counts were supplemented with continuous (7-day) automatic traffic recorder (ATR) counts at key locations to identify temporal and daily traffic variations. The CEQR-standard 9-day ATR counts are not warranted for this study since the detailed analysis will be limited to peak hour conditions on a weekday only, as discussed above. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations, and bus stop locations at study area intersections were inventoried. Traffic control devices (including signal timings) in the study area were recorded and verified with official signal timing data from the New York City Department of Transportation (NYCDOT). Additional data will be collected, as necessary, to address analysis needs.

E. Conduct existing conditions analysis. Balanced peak hour traffic volumes will be prepared for the capacity analysis of study area intersections. This analysis will be conducted using the *2000 Highway Capacity Manual* (*HCM*) methodology with the latest approved *Highway Capacity Software* (*HCS*). The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the weekday AM, midday, and PM peak hours will be determined, as appropriate.

F. Develop the future No Build condition. Future No Build traffic volumes will be estimated by adding a background growth, in accordance with CEQR guidelines, to existing traffic volumes, and incorporating incremental changes in traffic resulting from other projects in the area. Trip estimates generated for future projects and the modes of transportation for these trips will be determined for the three peak analysis hours using standard sources, census data, and information from other environmental studies, where available. Physical and operational changes that are expected to be implemented independent of the proposed project, if any, would also be incorporated into the future traffic analysis network. The No Build v/c ratios, delays, and LOS at the study area intersections will be determined.

G. Perform traffic impact assessment for the proposed project. Project-generated vehicle trips will be overlaid onto the future No Build traffic network. Physical and operational changes, particularly those related to site access to the proposed uses, will be incorporated into the analyses. The potential impact on v/c ratios, delays, and LOS will



NYU Core

Traffic Study Area

Figure 23

then be evaluated in accordance with *CEQR Technical Manual* criteria. Where impacts are identified, feasible measures, such as signal retiming, phasing modifications, roadway restriping, addition of turn lanes, revision of curbside regulations, turn prohibitions, and street direction changes, etc. will be explore to mitigate the traffic impacts.

PARKING

H. Analyze current and future parking conditions. An inventory of the off-street parking supply and utilization as well as on-street parking regulations in the parking study area were performed to obtain data for the weekday overnight/early morning, midday, and PM peak periods. Based on the travel demand estimates, a parking accumulation analysis will be prepared to determine the anticipated demand of the proposed project and evaluate the utilization of the planned on-site parking facility. In addition, parking displacement resulting from the removal of existing public parking will be addressed and incorporated into the area's future parking supply and utilization projections. Where proposed improvements and/or traffic mitigation measures are expected to displace on-street parking spaces, they will also be addressed.

TRANSIT

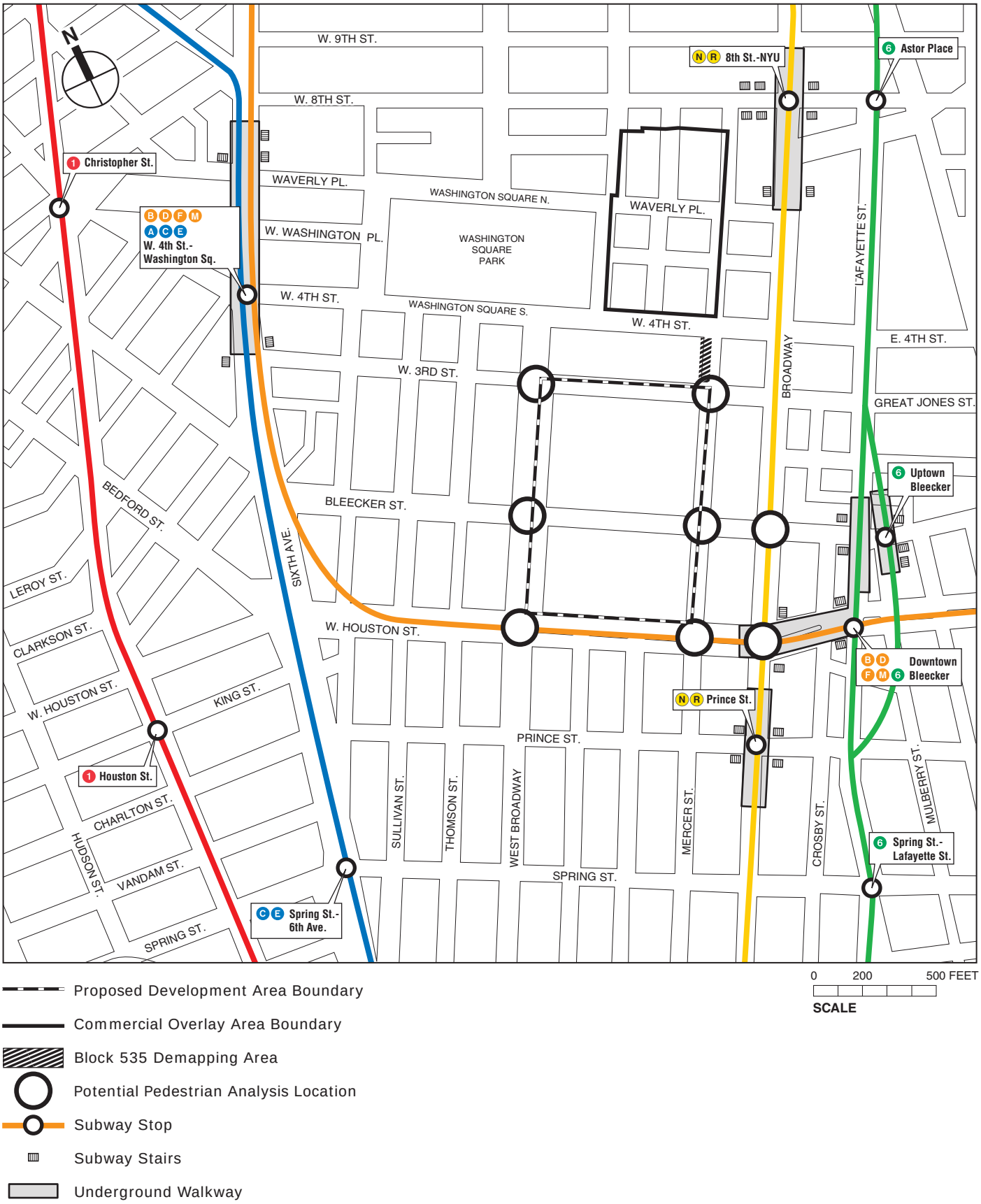
I. Define transit study area. The transit study area will include transit stations and bus routes serving the project area. Based on the trip estimates, study locations for detailed analysis will be selected from the five nearby subway stations (stairways and possibly control areas) listed below and illustrated in **Figure 24**. These are the locations where project-generated trips are most expected to traverse.

- West Fourth Street A/C/E/B/D/F/M subway station;
- 8th Street-Broadway N/R subway station;
- Uptown Bleecker Street- Lafayette Street 6 subway station;
- Downtown Bleecker Street-Lafayette Street 6/B/D/F/M subway station; and
- Prince Street N/R Subway station.

The project area is served by several nearby bus routes, including the M1, M2, M3, M5, M6, M8, and M21.

J. Prepare bus analyses. The projected incremental bus trips will be distributed to these routes to determine if a bus line-haul analysis would be warranted. If the results show that no single bus route is expected to incur 50 or more peak hour trips in one direction of travel, then in accordance with CEQR guidelines, a quantified bus line-haul analysis would not be warranted and only a qualitative discussion of the area's available bus routes will be presented in the EIS. If one or more routes were determine to incur incremental trips exceeding the 50 peak hour trip per direction threshold, baseline ridership data will be gathered for a detailed bus line-haul analysis.

K. Prepare subway analyses. A distribution of the projected subway trips will be performed in accordance with *CEQR* guidelines to determine if subway line-haul, control area, and/or vertical circulation analyses would be warranted. Original data at the subway station elements expected to require analysis were gathered in 2010, in accordance with CEQR guidelines. Supplemental data collection will be conducted as needed to address



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NYU Core

Transit and Pedestrians Study Area

Figure 24

additional elements requiring analysis. Detailed analyses of affected subway elements will be conducted for the critical weekday peak periods: AM and PM peak hours. Where significant subway impacts are identified, feasible mitigation measures, including widening stairways and adding turnstiles, will be explored to alleviate these impacts.

PEDESTRIANS

L. Define pedestrian study area. Given the substantial amount of peak hour pedestrians expected to be generated by the proposed project, a detailed analysis of area sidewalks, corner reservoirs, and their adjoining sidewalks is likely to be warranted. The pedestrian study area will include key pedestrian pathways to/from the project area and nearby transit services. The intersections consisting of the required pedestrian analysis elements are expected to include those cornering the two development blocks and along Broadway, as depicted in **Figure 24**.

M. Prepare pedestrian analyses. An assignment of the projected pedestrian trips will be performed in accordance with *CEQR* guidelines to identify those pedestrian elements (sidewalk, corners, crosswalks) that would experience 200 or more incremental peak hour pedestrian trips and thus requiring a detailed analysis of potential impacts. Original data at the locations shown in **Figure 24** were gathered in 2010 to develop existing baseline conditions. Additional data will be collected as needed to supplement the 2010 data and to address additional elements requiring analysis. As with traffic, detailed analyses will be conducted for the critical weekday peak periods: AM, midday, and PM peak hours if warranted. Where significant pedestrian impacts are identified, feasible mitigation measures, including widening crosswalks, extending corners, and eliminating sidewalk obstructions, will be explored to alleviate these impacts.

VEHICULAR AND PEDESTRIAN SAFETY

N. Examine vehicular and pedestrian safety issues. Accident data for the traffic study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York State Department of Transportation (NYSDOT). These data will be analyzed to determine if any of the studied locations may be classified per CEQR criteria as high vehicle crash or high pedestrian/bike accident locations and whether trips and changes resulting from the proposed project would adversely affect vehicular and pedestrian safety in the area. If high accident locations are identified, feasible mitigation or improvement measures will be explored to alleviate potential safety impacts.

TASK 15: AIR QUALITY

ISSUES

The proposed project is not expected to exceed the 2010 *CEQR Technical Manual* carbon monoxide mobile source screening threshold of 170 new vehicle trips during a peak traffic hour at a single intersection. The number of vehicle trips generated by the proposed project may exceed the fine particulate matter ($PM_{2.5}$) emission screening thresholds discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual* at certain locations. Therefore, a detailed analysis of project-generated mobile sources on air quality is not warranted, except at locations that exceed the *CEQR Technical Manual* screening thresholds, where the greatest number of

project-generated trips are projected, and where overall build traffic volumes are highest. However, the proposed project would replace an existing parking facility; therefore, the mobile source CO analysis will examine the new parking facility.

A stationary source air quality impact analysis will be conducted to determine the effects of emissions from the proposed project's fossil fuel-fired heating, ventilation and air conditioning (HVAC) systems onproject buildings and the surrounding area. In addition, the proposed project would construct new academic buildings adjacent to an area zoned for industrial/manufacturing uses, and near the existing NYU Central Energy Plant. Therefore emissions from these sources, as well as existing large-scale residential, commercial, and institutional sources, will be assessed to determine their potential effects on the proposed project.

SCOPE OF WORK

Mobile Sources

A. Gather existing air quality data. Collect and summarize existing ambient air quality data for the study area. Specifically, ambient air quality monitoring data published by the New York State Department of Environmental Conservation (NYSDEC) will be compiled for the analysis of existing and future conditions.

B. Assess the potential CO impacts associated with proposed relocation of parking facilities. Information on the conceptual design of the relocation of the parking facilities will be employed to determine potential off-site impacts from emissions. The analysis will be used following the procedures suggested in the *2010 CEQR Technical Manual* for parking facilities to determine maximum potential worst-case impacts. Cumulative impacts from on-street sources and emissions from the proposed relocation of the parking facilities will be calculated, where appropriate.

C. Compare existing and future levels with standards. Future CO pollutant levels with and without the proposed project will be compared with the National Ambient Air Quality Standards (NAAQS) to determine compliance with standards, and the City's CO *de minimis* criteria will be employed to determine the impacts of the proposed project.

D. Provide a qualitative discussion of the effects of the proposed parking garage on 1-hour average NO_2 concentrations at nearby locations.

E. In the event that the project generated trips exceeds the *2010 CEQR Technical Manual* threshold of 19 or more heavy duty diesel vehicle equivalents at any intersection during a peak hour, a detailed microscale analysis of mobile source impacts will be required for $PM_{2.5}$. The mobile source air quality analysis will be performed to determine the effects of project-generated vehicle trips on PM levels within the study area, and, where significant project impacts are predicted to occur, develop feasible traffic measures to alleviate those impacts. The EPA mobile source dispersion model, CAL3QHCR, will be used for the PM microscale analysis and vehicular emissions will be computed with EPA's emissions model, MOBILE6.2. Mobile source PM impacts will be evaluated against current CEQR interim guidance criteria and other available criteria, and where necessary, combined with stationary source PM impacts to determine whether the criteria are exceeded.

Stationary Sources

A. The potential impacts of the proposed project's HVAC systems will be evaluated. The analysis involves determining the distance (from the exhaust point) within which potential

significant impacts may occur, on elevated receptors (such as open windows, air intake vents, etc.) that are of a similar or greater height when compared to the height of the proposed project's HVAC exhaust(s). The distance within which a significant impact may occur is dependent on a number of factors, including the height of the discharge, type(s) of fuel burned and development size. Project-on-existing and project-on-project impacts will be determined, where applicable. The analyses will use the HVAC screening procedures outlined in the *2010 CEQR Technical Manual*.

B. Analyze potential effects from existing or proposed commercial, institutional or large-scale residential developments in the surrounding area to determine their potential effects on the proposed project. Sources within 400 feet of the project site will be considered. The analyses will use the HVAC screening procedures outlined in the *2010 CEQR Technical Manual*.

C. Potential impacts from large emission sources within 1,000 feet of the proposed project, such as the NYU Power Plant, will be evaluated. Impacts on project buildings of a similar or greater height will be modeled using the EPA SCREEN3 model to estimate maximum pollutant concentrations (sulfur dioxide, carbon monoxide, particulate and/or nitrogen dioxide concentrations) for comparison with ambient air quality standards. For the NYU Power Plant, emissions information will be based on the permit limits obtained from the current Title V operating permit or other available data.

D. An assessment will be performed of the potential for combined impacts of criteria air pollutants from the proposed project's stationary sources with pollutants from other existing or planned future commercial, institutional or large-scale residential sources in the defined study areas that may contribute to ambient air quality concentrations. The cumulative impact analysis will consider HVAC sources of pollutants within a 400-foot radius of the Proposed Development Area. Maximum predicted impacts will be added to background concentrations based on the latest monitoring data at nearby stations operated by NYSDEC and compared with ambient air quality standards. This analysis will assess the potential impact of these other sources on proposed development sites as well as existing development sites on the North and South Blocks.

E. If a proposed or existing HVAC system fails the stationary source screening analysis, then perform more detailed stationary source analyses with the AERMOD model. For this analysis, five years (2005-2009) of meteorological data from nearby La Guardia Airport and concurrent upper air data from Brookhaven, New York will be utilized for the simulation program. Concentrations of nitrogen dioxide, sulfur dioxide, and particulate matter will be determined at sensitive receptor sites. Predicted values will be compared with national and State ambient air quality standards and other relevant criteria. In the event that violations of standards or criteria are predicted, examine design measures to reduce pollutant levels to within standards.

F. A field survey will be performed to determine if there are any manufacturing or processing facilities within 400 feet of the proposed project. The New York City Department of Environmental Protection's (NYCDEP's) Bureau of Environmental Compliance (BEC) files will be examined to determine if there are permits for any industrial facilities that are identified. A review of federal and state permits will also be conducted.

G. If manufacturing or processing facilities are identified within 400 feet of the proposed project, an industrial stationary source air quality analysis as detailed in the *2010 CEQR Technical Manual* will be performed. The AERMOD dispersion model screening database

will be used to estimate the short-term and annual concentrations of critical pollutants at the potential receptor sites. Predicted worst-case impacts on the proposed project will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in the NYSDEC's *DAR-1 AGC/SGC Tables* (September 2007) to determine the potential for significant impacts. In the event that violations of standards are predicted, measures to reduce pollutant levels to within standards will be examined.

TASK 16: GREENHOUSE GAS EMISSIONS

In accordance with the *2010 CEQR Technical Manual*, greenhouse gas (GHG) emissions generated by the Proposed Actions will be quantified and an assessment of consistency with the City's established GHG reduction goal will be performed. Emissions will be estimated for the analysis years and reported as carbon dioxide equivalent (CO_2e) metric tons per year. GHG emissions other than carbon dioxide (CO_2) will be included if they would account for a substantial portion of overall emissions, adjusted to account for the global warming potential (GWP). Construction-related emission throughout the duration of construction will be quantified if the extent and duration of construction or the expected use of materials is found to be potentially significant. Relevant measures to reduce energy consumption and GHG emissions, including measures to potentially be incorporated in order to achieve the LEED Silver certification required by the *NYU Sustainable Design Standards and Guidelines*, will be discussed and included in the emissions estimates to the extent practicable.

The GHG analysis will consist of the following subtasks:

EMISSIONS ESTIMATES

Direct Operations Emissions—Emissions from on-site boilers used for heat and hot water and on-site electricity generation, if any, would be quantified. Emissions would be based on available project specific information on the expected energy and fuel use or the carbon intensity factors specified in the *CEQR Technical Manual*.

Indirect Operations Emissions—Emissions associated with purchased electricity and/or steam generated off-site and consumed on-site during the project's operation will be estimated.

Indirect Operations Mobile Source Emissions—Emissions from vehicle trips to or from the project site will be quantified using trip distances and vehicular emission factors provided in the *CEQR Technical Manual*.

Construction Emissions—Emissions from construction engines and emissions associated with the extraction and production of construction materials will be qualitatively discussed, and quantified if deemed potentially significant. Opportunities for reducing GHG emissions associated with construction will be considered.

ASSESSMENT OF CONSISTENCY WITH THE GHG REDUCTION GOAL

To determine the consistency with the City's overall GHG reduction goal, consistency with the following City's goals will be assessed as relevant to the proposed project, addressing the project's carbon intensity based upon its density, fuel choices, geographic setting, avoided GHG emissions, and building energy efficiency. The City's goals include improved building energy efficiency, use of clean power, transit-oriented development and sustainable transportation, and the reduction of construction-associated emissions.

This section will outline potential measures which could reduce energy use and GHG emissions associated with the proposed project, and will identify the measures which would be implemented as part of the proposed project, and measures still under consideration. To the extent that information is available, the potential of these measures to reduce GHG emissions will be discussed. Overall, the project design, location, and incorporated measures relevant to GHG emissions will be assessed for consistency with the City's GHG reduction goal.

TASK 17: NOISE

The *CEQR Technical Manual* requires that the noise study address whether the proposed project would result in a significant increase in noise levels (particularly at sensitive land uses such as residences), and what level of building attenuation is necessary to provide acceptable interior noise levels within the proposed buildings.

The proposed project will generate vehicular trips, but given the background conditions and the anticipated project-generated traffic, it is not expected that project-generated traffic would be likely to result in significant noise impacts. It is assumed that outdoor mechanical equipment would be designed to meet applicable regulations and no detailed analysis of potential noise impacts due to outdoor mechanical equipment will be performed. Consequently, the noise analysis will examine the level of building attenuation necessary to meet CEQR interior noise levels requirements. The building attenuation study will be an assessment of noise levels in the surrounding area associated primarily with traffic and nearby uses and their potential effect on the proposed project.

Specifically, the proposed work program will include the following tasks:

A. Select appropriate noise descriptors. Appropriate noise descriptors to describe the existing noise environment will be selected. The L_{eq} and L_{10} levels will be the primary noise descriptors used for the EIS analysis. Other noise descriptors including the L_1, L_{10}, L_{50}, L_{90}, L_{min}, and L_{max} levels will be examined when appropriate.

B. Based on the traffic studies (see Task 16, "Traffic and Parking"), perform a screening analysis to determine whether there are any locations where there is the potential for the proposed project to result in significant noise impacts (doubling of traffic volume) due to project generated traffic.

C. Select receptor locations for building attenuation analysis purposes. A maximum of nine (9) receptor locations will be selected. Receptor locations will include locations adjacent to the proposed project area.

D. Perform 20-minute measurements at each receptor locations during typical weekday AM, midday, and PM peak periods. L_1, L_{10}, L_{50}, L_{90}, L_{min}, and L_{max} values will be recorded.

E. Data analysis and reduction. The results of the noise measurement program will be analyzed and tabulated.

F. Determine the level of attenuation necessary to satisfy CEQR criteria. The level of building attenuation necessary to satisfy CEQR requirements is a function of exterior noise levels and will be determined. Measured values will be compared to appropriate standards and guideline levels. As necessary, recommendations regarding general noise attenuation measures needed for the proposed project to achieve compliance with standards and guideline levels will be made. Due to the relatively high ambient noise

levels adjacent to the project area, any development in the area would be expected to require double-glazed windows together with the provision for some kind of alternate ventilation (i.e., air conditioning) to achieve acceptable interior noise levels.

G. If the results of the screening analysis indicate that a doubling of traffic would occur, a mobile source noise analysis would be performed using either proportional modeling or the Traffic Noise Model (TNM), where appropriate.

TASK 18: PUBLIC HEALTH

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects.

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any one of these technical areas and the lead agency determines that a public health assessment is warranted, an analysis will be provided for that specific technical area.

TASK 19: NEIGHBORHOOD CHARACTER

The character of a neighborhood is established by numerous factors, including land use patterns, the characteristics of its population and economic activities, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include noise levels, traffic, and pedestrian patterns. The proposed project represents a change that could affect the character of the surrounding area. Therefore, the EIS analysis will consist of the following.

A. Based on the other EIS chapters, summarize the predominant factors that contribute to defining the character of the neighborhood, including land use, zoning and public policy; open space; historic and cultural resources; urban design and visual resources; transportation; and noise.

B. Based on planned development projects, public policy initiatives, and planned public improvements, changes that can be expected in the character of the neighborhood in the future without the project will be described.

C. Assess and summarize the project's impact on neighborhood character.

As suggested in the *CEQR Technical Manual*, the study area for neighborhood character is typically consistent with the study areas in the relevant technical areas assessed under CEQR.

TASK 20: CONSTRUCTION IMPACTS

Construction of the proposed project would occur in two phases over a period of approximately 19 years. Construction activities associated with the South Block would occur in the first nine-year phase. The second phase would last approximately ten years, and would address construction on the North Block. For construction activities of the scale and duration estimated

for the proposed project, the *CEQR Technical Manual* calls for an assessment of construction-related impacts, with a focus on transportation, air quality, and noise, as well as consideration of other technical areas such as open space, historic and cultural resources, hazardous materials, and natural resources. The EIS will include quantitative analyses of potential transportation, air quality, and noise impacts.

For purposes of analyzing the reasonable worst-case development scenarios, construction impacts will be evaluated when maximum potential impacts are expected during construction activity on the project site. The potential for impacts during the two construction phases will be based on detailed construction schedules, phasing plans, and staging plans that are being developed for the proposed project. The construction assessment will focus on areas where construction activities may result in specific environmental impacts. Construction impacts will be evaluated according to the *CEQR Technical Manual* guidelines.

NYU is committed to implementing various measures during construction that would minimize to the extent practicable the effects of construction from the proposed project. For example, construction would be sequenced to minimize direct effects from construction at any one location (i.e., no one location would experience the effects of construction for the full 19 year construction period). Also, in order to maintain accessibility to open space resources throughout the period of construction, NYU would work to make new open spaces available, if feasible, before existing public open spaces are displaced. To address sources of air emissions, an emissions reduction program would be implemented at the project site and would include components such as: diesel equipment reduction; clean fuel; best available tailpipe reduction technologies; utilization of equipment that meets specified emission standards; and fugitive dust control measures, among others. NYU would also commit to noise control measures that address both source controls (i.e., reducing noise levels at the source) and path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors). In addition, since the proposed project would result in construction activities within 90 feet of sensitive historic resources, NYU would prepare a Construction Protection Plan (CPP) prior to demolition and construction activities, to be submitted to the New York City Landmarks Preservation Commission (LPC) for review and approval. Assuming these measures[1], the analysis in each technical area will assess the potential for significant adverse impacts and identify additional measures that may be required to mitigate those impacts.

Technical areas that will be the focus of the analysis include:

A. *Transportation Systems*. This assessment will consider temporary or partial losses in lanes, sidewalks, and other transportation services during the various phases of construction; identify the increase in person and vehicle trips from construction workers and deliveries; describe and assess any temporary modifications to street operations, and analyze potential temporary impacts to the transportation systems serving the project sites.

B. *Air Quality*. A quantitative air quality analysis (i.e., model-predicted concentrations) will be conducted to determine the potential for air quality impacts due to onsite construction activities and project generated traffic (mobile sources) on local roadways for certain pollutants. The mobile source analysis will be performed for nearby roadway intersections using information provided in the traffic analysis. If traffic volumes exceed the screening

[1] These measures would be incorporated in a Restrictive Declaration for the Proposed Actions.

thresholds defined in the *CEQR Technical Manual*, detailed dispersion analysis will be prepared. The pollutants of concern include carbon monoxide (CO) and particulate matter (PM). A dispersion analysis of onsite construction activities will also be performed to determine the potential for air quality impacts on sensitive receptors. Air pollutant sources would include combustion exhaust associated with non-road engines (e.g., cranes, excavators) and trucks operating on-site, as well as onsite activities that generate fugitive dust (e.g., excavation, demolition). The pollutants of concern include CO, PM, and nitrogen dioxide (NO_2). To formulate the reasonable worst-case scenarios for analysis, the highest emissions averaged over annual and short term (24 hours or less) periods will be identified. To that end, construction-related emissions will be calculated throughout the duration of construction on an annual and peak-day basis for $PM_{2.5}$, resulting in a complete profile of emissions for all years. $PM_{2.5}$ is generally used for this analysis, representing the worst-case pollutant, because $PM_{2.5}$ has the highest ratio of emissions to impact criteria when compared to other pollutants. Based on that analysis, and accounting for the location of sources and sensitive receptors in all construction periods, worst-case annual and short-term scenarios will be identified for modeling, including at least one scenario for annual and short-term in each of the two construction phases. The projected ambient concentrations of each pollutant (for both mobile and on-site analyses) will then be determined at sensitive receptor locations for the selected analysis scenarios The potential for significant impacts will be determined by a comparison of model predicted total concentrations to the National Ambient Air Quality Standards, or by comparison of the predicted increase in concentrations to applicable CEQR thresholds. For 1-hour NO_2 impacts, a qualitative discussion will be provided of the effects of construction activities. The air quality analysis will also include a discussion of the strategies to reduce project related air pollutant emissions associated with construction activities which would be included in the construction plan and be applied during the construction period. If significant adverse impacts are identified, mitigation measures will be identified and analyzed.

C. *Noise and Vibration*. A quantified analysis will be prepared which will examine potential noise impacts due to construction-related stationary and mobile sources. In terms of stationary sources, the effects of construction activities depend on the type and quantity of construction equipment used, as well as the distance from the construction site to the receptor. The mobile source analysis will evaluate the noise generated by construction-related vehicles as they travel to and from the project site. Impacts will be determined based upon the impact criteria contained in the *CEQR Technical Manual*.

Specifically, the proposed work program will include the following tasks:

- Select appropriate noise descriptors. The one-hour L_{eq} level will be the primary noise descriptor used for the construction noise analysis.
- Select receptor locations. Noise-sensitive receptor locations (including residences, schools, churches, open spaces, and other noise-sensitive land uses) near the project sites and created by the proposed project will be selected for analysis. Receptors will be placed at multiple elevations on potentially affected buildings in order to determine the vertical extent of potential impacts.
- Select analysis time periods. One time period (i.e. day) in each year of construction will be selected for analysis. Typically the selected time period is during the 3-month span during which the most construction equipment is

expected to be operating on site. This determination will be based on a detailed construction equipment and activity schedule. The selected time period will be assumed to represent worst-case conditions during each year of construction. (If necessary, a refined analysis may be performed for additional time periods during the year.)

- Determine existing noise levels. Existing noise levels will be determined by noise measurements performed at at-grade receptor locations, and by use of a combination of measurements and mathematical models for elevated receptor locations. Twenty-minute measurements will be performed at each receptor location during typical weekday peak periods. L_{eq}, and 1/3 octave band values will be recorded.
- Determine future noise levels. Noise effects due to construction activities will be evaluated using the CadnaA computerized model, an analysis tool based on the acoustic propagation standards promulgated in International Standard ISO 9613-2 for noise prediction and assessment developed by DataKustik. For each worst-case analysis time period, CadnaA will be used to determine the noise levels due to construction activities based on the type, number, and locations of the equipment expected to be in use on the project site during that time period, as well as the construction-generated vehicle trips on adjacent roadways. The construction-generated noise levels would be combined with the predicted future no-action levels in order to determine the total noise level expected to occur during construction.
- Determine noise impacts. Noise levels with project-related construction activities will be compared to No-Build noise levels to determine project impacts. Based on the criteria contained in the *CEQR Technical Manual*, a change of 3 dBA or more for two or more consecutive years will be considered a significant noise impact.
- Propose mitigation measures. Based on the results of the construction noise analysis, if necessary, the feasibility, practicability, and effectiveness of implementing measures to mitigate significant construction noise impacts will be examined. Mitigation measures may include noise barriers, equipment curtains or enclosures, quieter equipment, relocating equipment, providing acoustically rated windows and an alternate means of ventilation, or any combination thereof.

Construction activities have the potential to result in vibration levels that may result in structural or architectural damage, and/or annoyance or interference with vibration-sensitive activities. A construction vibration assessment will be performed. This assessment will determine critical distances at which various pieces of equipment may cause damage or annoyance to nearby buildings based on the type of equipment, the building construction, and applicable vibration level criteria. Should it be necessary for certain construction equipment to be located closer to a building than its critical distance, vibration mitigation options will be proposed. Vibration mitigation measures may include less powerful equipment, alternate equipment, alternative construction methods, a vibration monitoring program, or a combination thereof.

D. *Open Space*. According to the *CEQR Technical Manual*, a construction impact analysis for open space should be conducted if an open space resource would be used for an

extended period of time for construction-related activities, such as construction staging, or if access to an open space would be impeded for an extended period during construction activities. With the proposed project, construction activities are planned to be phased such that new open spaces would be made available prior to the use of existing open spaces for construction activities, where feasible. However, access to these new open spaces could be impeded by construction activities, and in some cases construction activities would occur within close proximity to new and existing open spaces. Therefore, the construction impacts analysis will document the potential effects of construction staging and construction activities on the quantity, quality (including potential air quality, construction noise, and other safety concerns), and access to public open space that would be available on the project site during both phases of construction. In addition, the Department of Parks and Recreation will be consulted to coordinate the replacement of street trees lost as a result of the project.

E. *Historic and Cultural Resources*. As described in the *CEQR Technical Manual*, construction impacts may occur on historic and cultural resources if in-ground disturbances or vibrations associated with construction undermine the foundation or structural integrity of nearby resources. For the proposed project, the assessment of construction impacts on historic and cultural resources will consider the possibility of physical damage to any architectural or archeological resources identified in the project's historic and cultural resource assessment (see Task 7: Historic and Cultural Resource, above). Specifically, historic resources within and adjacent to the project site would be evaluated for their sensitivity to potential adverse impacts from construction vibrations.

   There are also regulatory mechanisms that address many of the concerns regarding vibrations associated with construction. Because the proposed project is located within 90 feet of a NYCL resource (University Village), the project is required to comply with DOB Technical Policy and Procedure Notice (TPPM) #10/88, which supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent NYCL and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

F. *Hazardous Materials*. In coordination with the work performed for hazardous materials, above, summarize actions to be taken during project construction to limit exposure of construction workers to potential contaminants.

G. *Other Technical Areas*. As appropriate, discuss the other areas of environmental assessment for potential construction-related impacts.

TASK 21: MITIGATION

If significant project impacts are identified in the analyses discussed above, measures will be identified and assessed to mitigate those impacts. This task summarizes the findings and prepares the mitigation chapter for the EIS. The formulation and assessment of any recommended mitigation measures would be conducted in close coordination with DCP and other city agencies as necessary. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 22: ALTERNATIVES

The purpose of an alternatives analysis is to examine reasonable and practicable options that avoid or reduce project-related significant adverse impacts while achieving the goals and objectives of the proposed project. The specific alternatives to be analyzed are typically finalized with the lead agency as project impacts become clarified. However, they will likely include a Reduced Impact Alternative and a Lesser Density Alternative in addition to the No Action Alternative.

The analysis will be primarily qualitative, except where specific project impacts have been identified (e.g., traffic intersections with significant impacts). However, the qualitative analysis will be of sufficient detail to allow comparisons of associated environmental impacts and attainment of project goals and objectives. Within the DEIS, the assessment of various RWCDS will reflect a range of alternative programs that could be developed by NYU in meeting their programmatic needs.

TASK 23. SUMMARY CHAPTERS

The executive summary will summarize relevant material from the body of the EIS to describe the proposed project, the necessary approvals, study areas, environmental impacts predicted to occur, measures to mitigate those impacts, unmitigated and unavoidable impacts (if any), and alternatives to the proposed project. In addition summary chapters for the EIS may include the following (as appropriate):

- Unavoidable significant adverse impacts that cannot be mitigated;
- Growth-inducing aspects of the proposed project; and
- Irreversible and irretrievable commitment of resources.

These analyses draw from the work done in the technical areas, as relevant. They are intended to inform the decision maker of the environmental "costs" and benefits of the proposed project. ✷