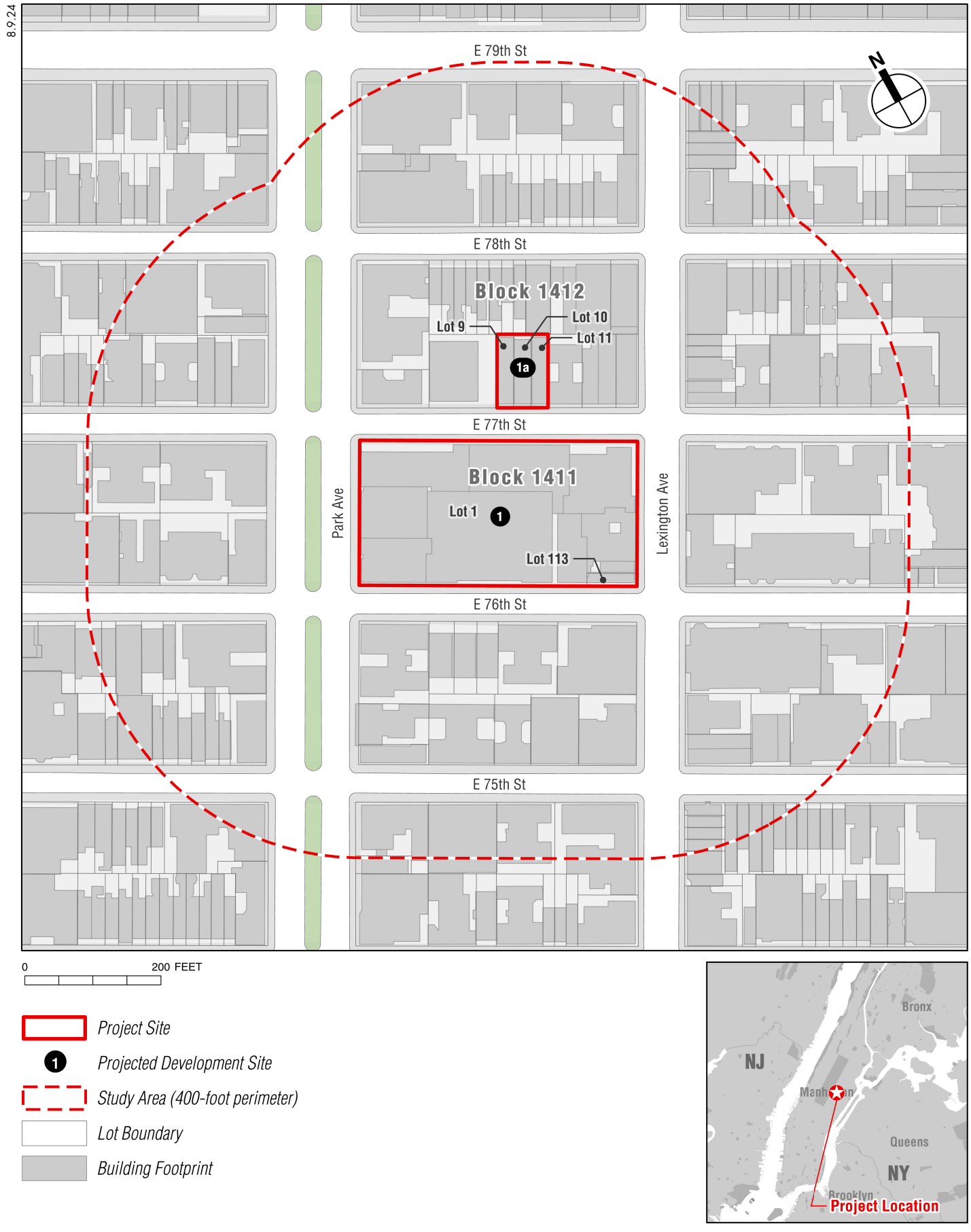
A. INTRODUCTION

This Draft Environmental Impact Statement (DEIS) considers the potential environmental impacts of the proposed Lenox Hill Hospital (LHH) redevelopment. Lenox Hill Hospital (the Applicant) is requesting a series of discretionary actions from the City Planning Commission (CPC), including a zoning map amendment to rezone from a C1-8X district to a C1-9 district and from an R8B district to a C1-8 district; zoning text amendments; special permits; and a zoning authorization (collectively, the Proposed Actions). The Proposed Actions would allow the enlargement and modernization of the existing LHH and the creation of a purpose-built hospital complex (the Proposed Project) to address critical infrastructure challenges and space needs. The proposed hospital building would permit LHH to meet current standards of healthcare delivery, including single-bedded patient rooms, as well as address projected future needs for an expanded emergency department (ED), new and larger state-of-the-art surgical suites (ORs), and other essential clinical and support spaces. The COVID-19 pandemic illustrated to LHH and other hospitals the need to have appropriate capacity, efficiency, and state-of-the-art facilities. The additional knowledge gained during the pandemic has been incorporated into the design to better address current pressing healthcare needs and respond to future crises.

The Proposed Project would be built on Block 1411, Lots 1 and 113 (Projected Development Site 1), bounded by Park and Lexington Avenues and East 76th and East 77th Streets in Manhattan (see **Figure ES-1**). The Proposed Project would include a new building on Lexington Avenue and additions and modifications to the existing hospital; the new building would include an ED, operating suites (including ORs and support space), and patient rooms (see **Figure ES-2**). Portions of the existing hospital complex would be renovated to accommodate connections to the new hospital building and create four new truck docks and a new ambulance bay for six ambulances inside the structure (see **Figure ES-3**). The Proposed Project would also provide a new entrance and lobby for the Mother-Baby Hospital on Park Avenue, as well as a new emergency stairway on the Park Avenue frontage.

Two building envelopes are proposed, each of which would accommodate the Proposed Project's program. Envelope 1 would include a new approximately 771,000-gross-square-foot (gsf) building on Lexington Avenue and 56,000 gsf of additions to the existing hospital. Envelope 2 would include a new approximately 867,000-gsf building and 8,000 gsf of additions to the existing hospital. With the existing buildings to remain, the overall gross floor area of the Proposed Project on Projected Development Site 1 would be approximately 1.4 million gsf with either Envelope 1 or Envelope 2.

Under Envelope 1, the portion of the new hospital building within 180 feet of Lexington Avenue would rise to a total height of up to 436 feet, inclusive of screened mechanical bulkheads (see **Figures ES-4a and ES-4b**). This portion of the new hospital building would contain eight floors of patient rooms and several mechanical floors. Under Envelope 1, the portion of the new hospital building at the midblock (180 feet west of Lexington Avenue) could rise to a height of

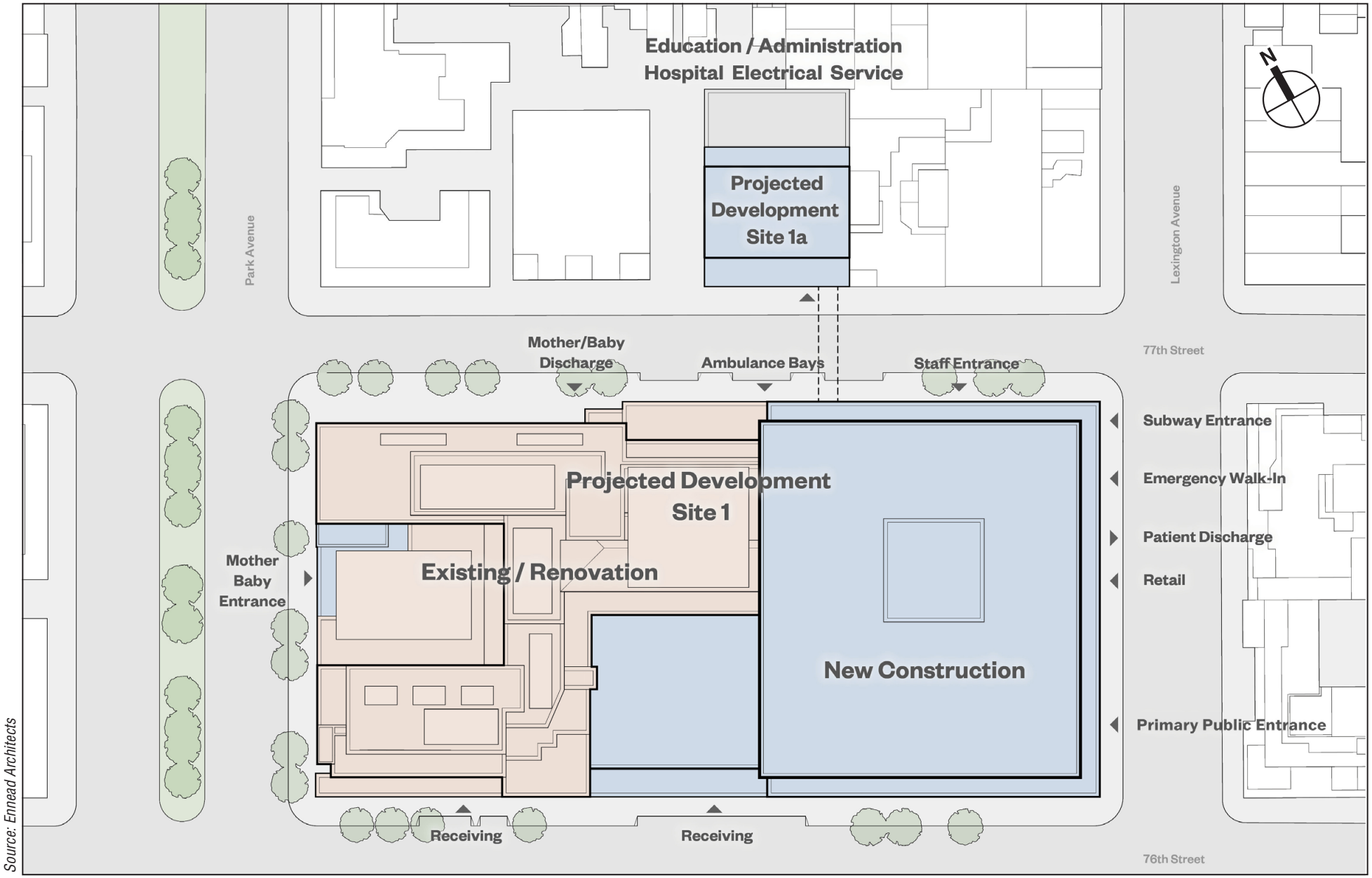


Project Location

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-1

8.9.24



Source: Ennead Architects

New Construction

Existing / Renovation

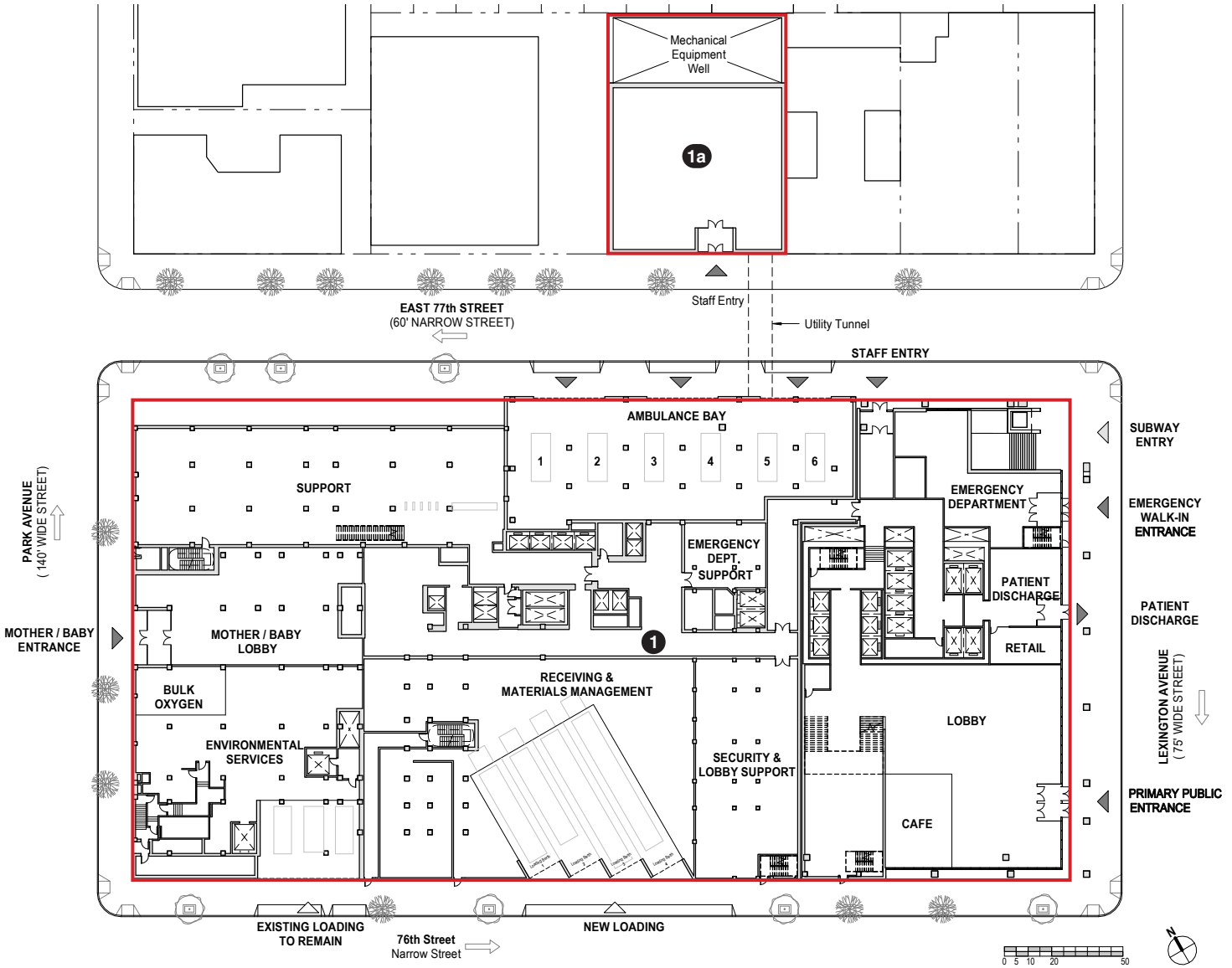
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Site Plan—(Envelope 1 and Envelope 2)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-2

8.9.24



Source: Ennead Architects

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

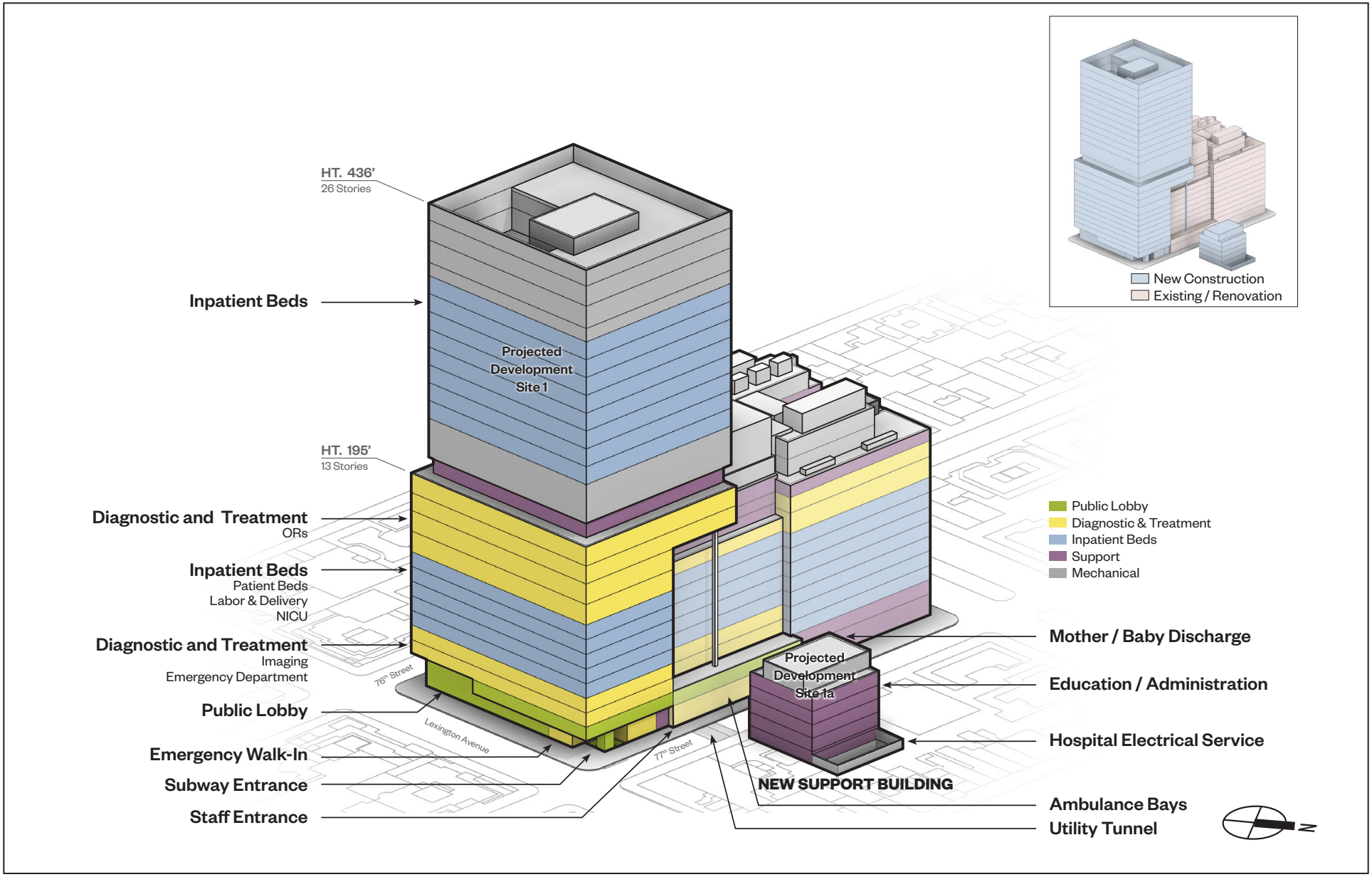
1 *Projected Development Site*

Proposed Ground Floor Plan—(Envelope 1 and Envelope 2)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-3

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Source: Ennead Architects

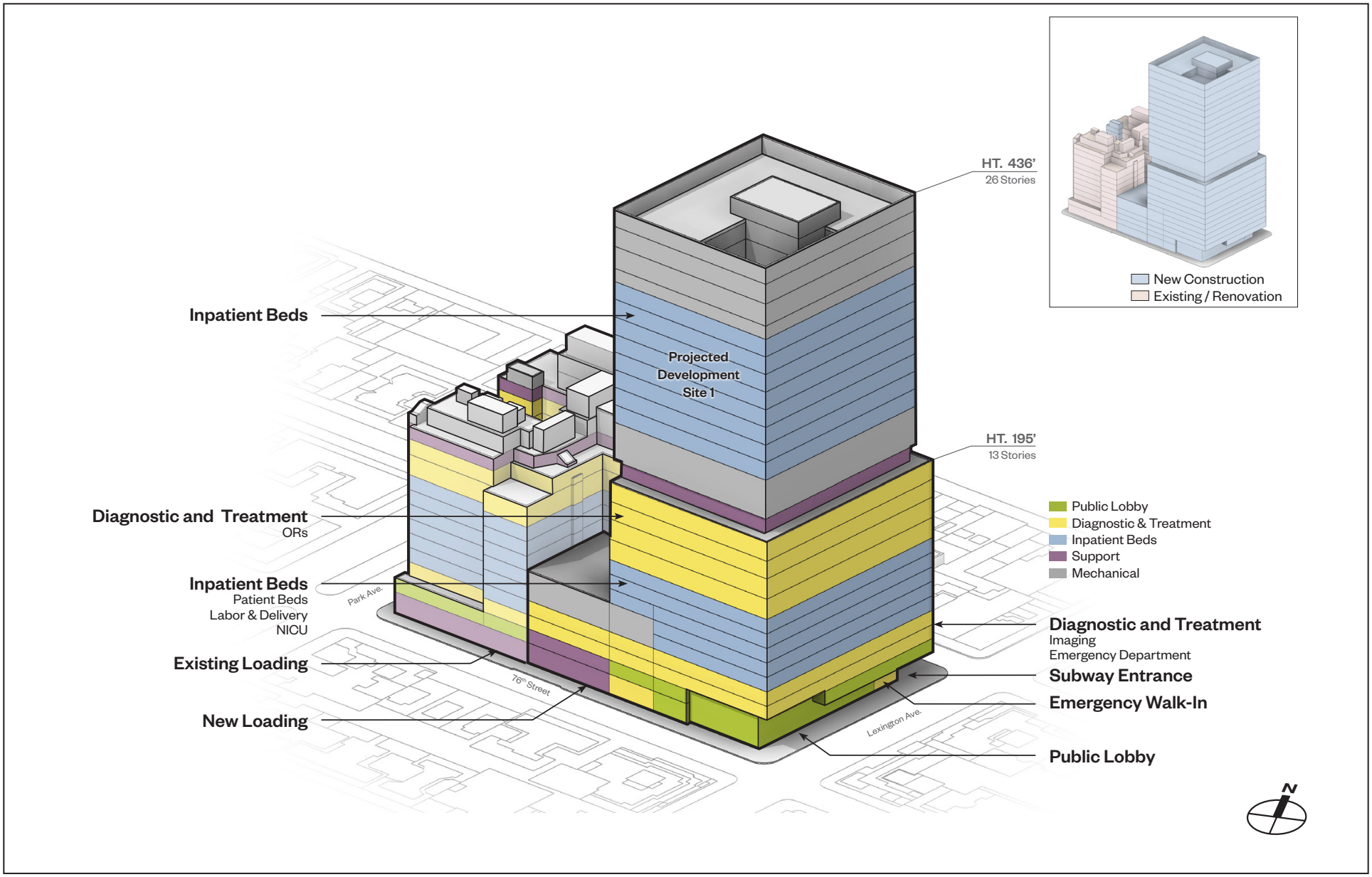
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Envelope 1 Massing (stacking)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-4a

8.9.24



Source: Ennead Architects

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Envelope 1 Massing (view from south)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-4b

approximately 210 feet, consistent with the highest floors currently existing in the midblock portion of Projected Development Site 1.

Under Envelope 2, the new hospital building would be reduced in height along the Lexington Avenue frontage, but the midblock portion would be taller than under Envelope 1 (see **Figures ES-4c and ES-4d**). In particular, the portion of the new hospital building within 180 feet of Lexington Avenue would be reduced from the height of Envelope 1 by 41 feet, to a total height of up to 395 feet, inclusive of screened mechanical bulkheads. Under Envelope 2, there would be 6 floors of patient rooms above the podium (the approximately 195-foot-tall base of the building), in addition to mechanical floors. To accommodate the hospital's programmatic needs, the midblock would be taller than under Envelope 1, rising to a height of 360 feet. With either envelope, the overall gross floor area of the Proposed Project on Projected Development Site 1 would be approximately 1.4 million gsf. The program, project population (staff, patients, visitors), site access, zoning actions, and construction duration would be the same for both Envelope 1 and Envelope 2.

The Reasonable Worst Case Development Scenario (RWCDS) for the EIS also considers the as-of-right development of 111-115 East 77th Street between Lexington and Park Avenues (Block 1412, Lots 9, 10, and 11) (Projected Development Site 1a) as part of the Proposed Project. Projected Development Site 1a would be redeveloped with an approximately 46,000-gsf, six-story, 75-foot-tall building to house hospital support functions. It would be connected to Projected Development Site 1 by a utility tunnel under East 77th Street.

In addition, the Applicant proposes to provide improvements to the 77th Street subway station of the Lexington Avenue (No. 6) line, providing Americans with Disabilities Act (ADA) access to the downtown platform and improving sidewalk conditions in the immediate area.

The New York City Department of City Planning (DCP), acting on behalf of the CPC, is the lead agency for environmental review. Based on the Environmental Assessment Statement (EAS) that was prepared, the lead agency determined that the Proposed Project has the potential to result in significant adverse environmental impacts, requiring that an EIS be prepared. The 2021 *City Environmental Quality Review (CEQR) Technical Manual* served as a general guide on the methodologies and impact criteria for evaluating the Proposed Project's effects on the various areas of environmental analysis.

B. PROJECT DESCRIPTION

PROPOSED ACTIONS NECESSARY TO FACILITATE THE PROPOSED PROJECT

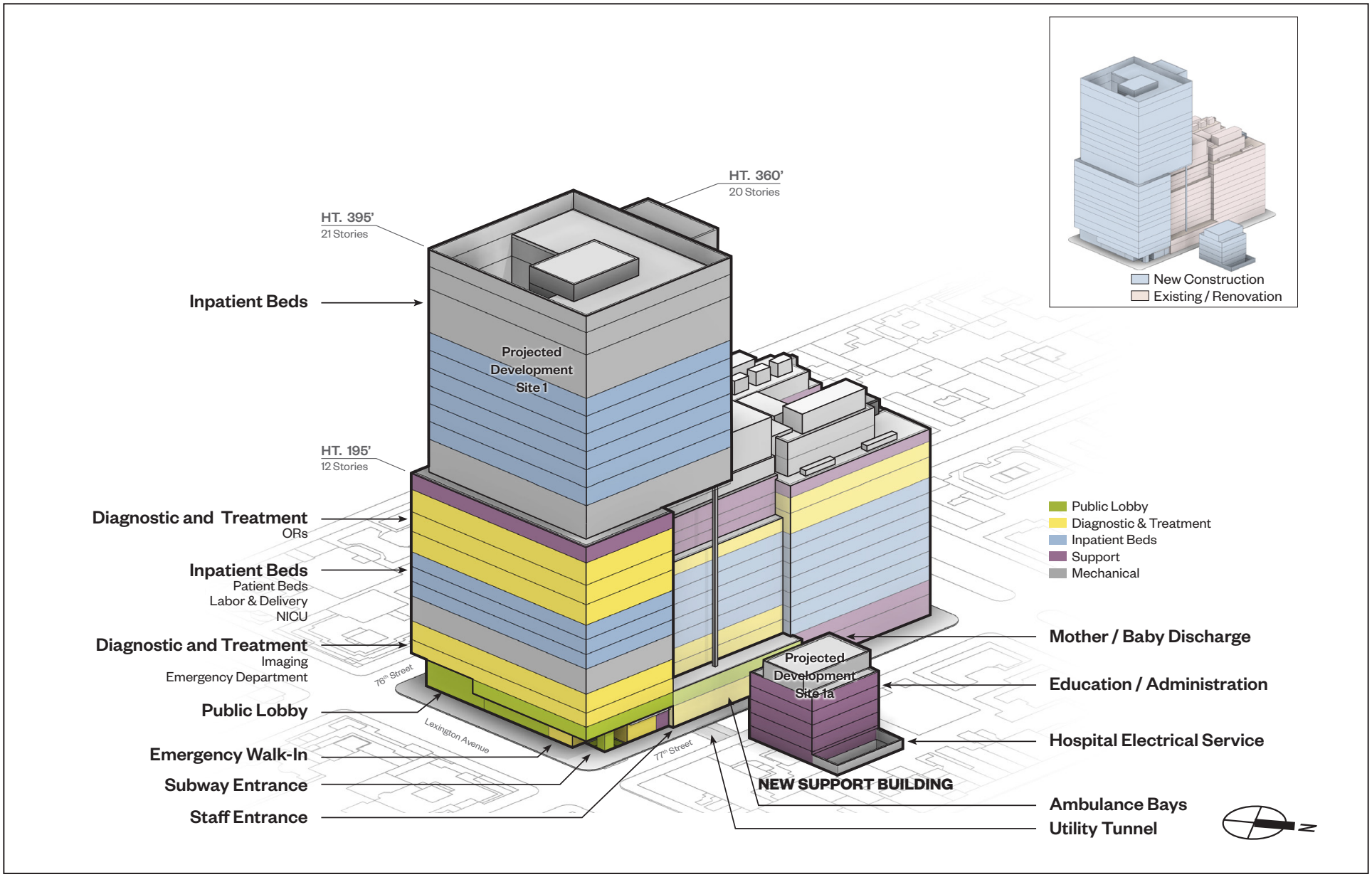
In order to accomplish the project, the Applicant is requesting the following zoning actions, which would be required for either massing envelope:

1. **Zoning Map Amendments (see Figure ES-5)**

   a. Rezone the Lexington Avenue frontage of Projected Development Site 1 from a C1-8X district to a C1-9 (R10 equivalent) district; and

   b. Rezone the midblock portion of Projected Development Site 1 from an R8B district to a C1-8 (R9 equivalent) district.

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Source: Ennead Architects

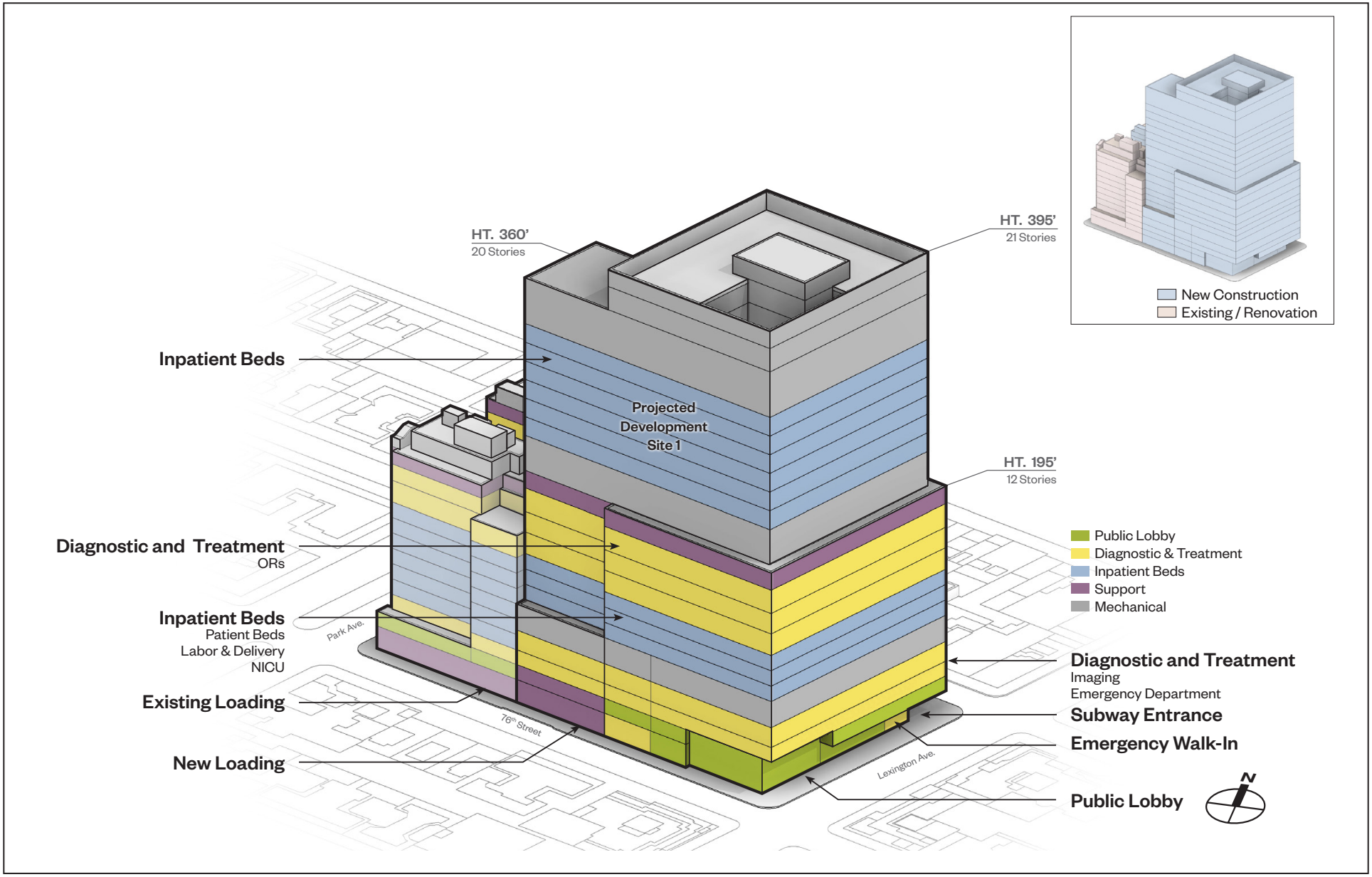
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Envelope 2 Massing (stacking)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-4c

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Source: Ennead Architects

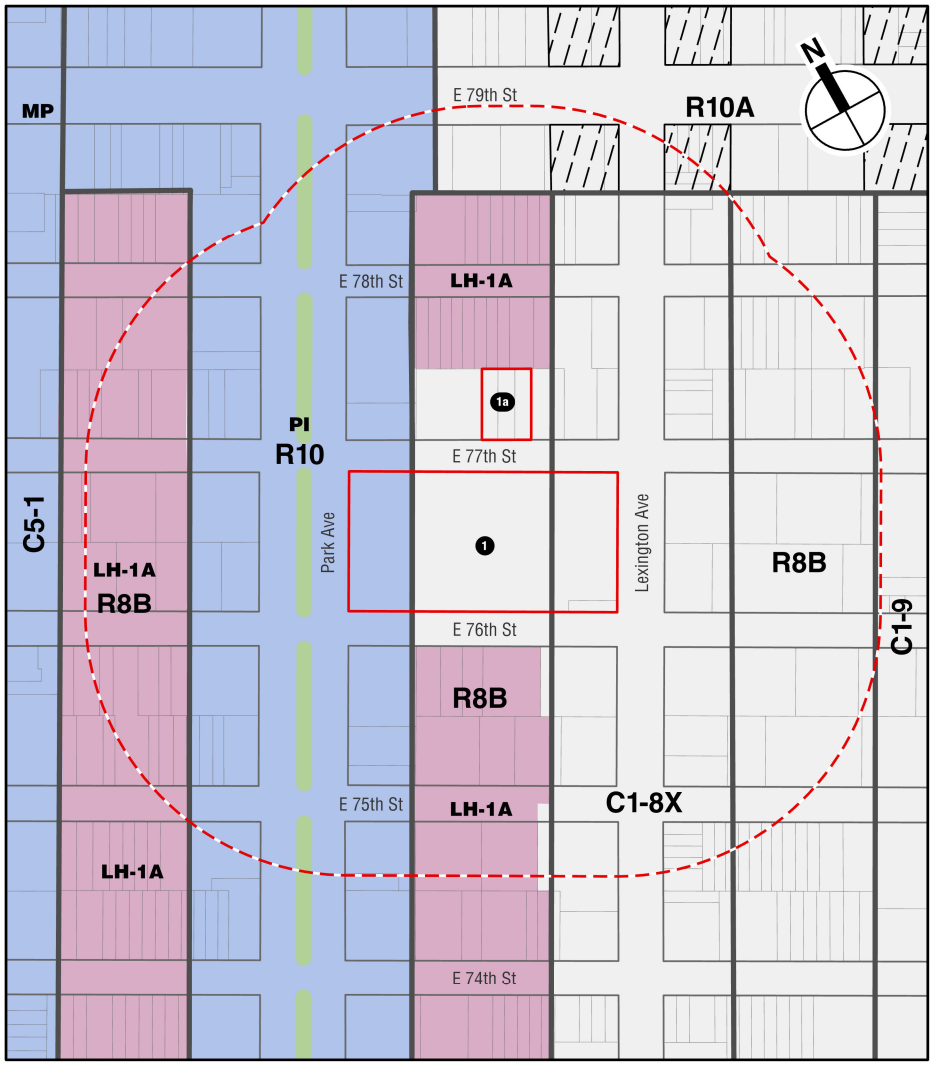
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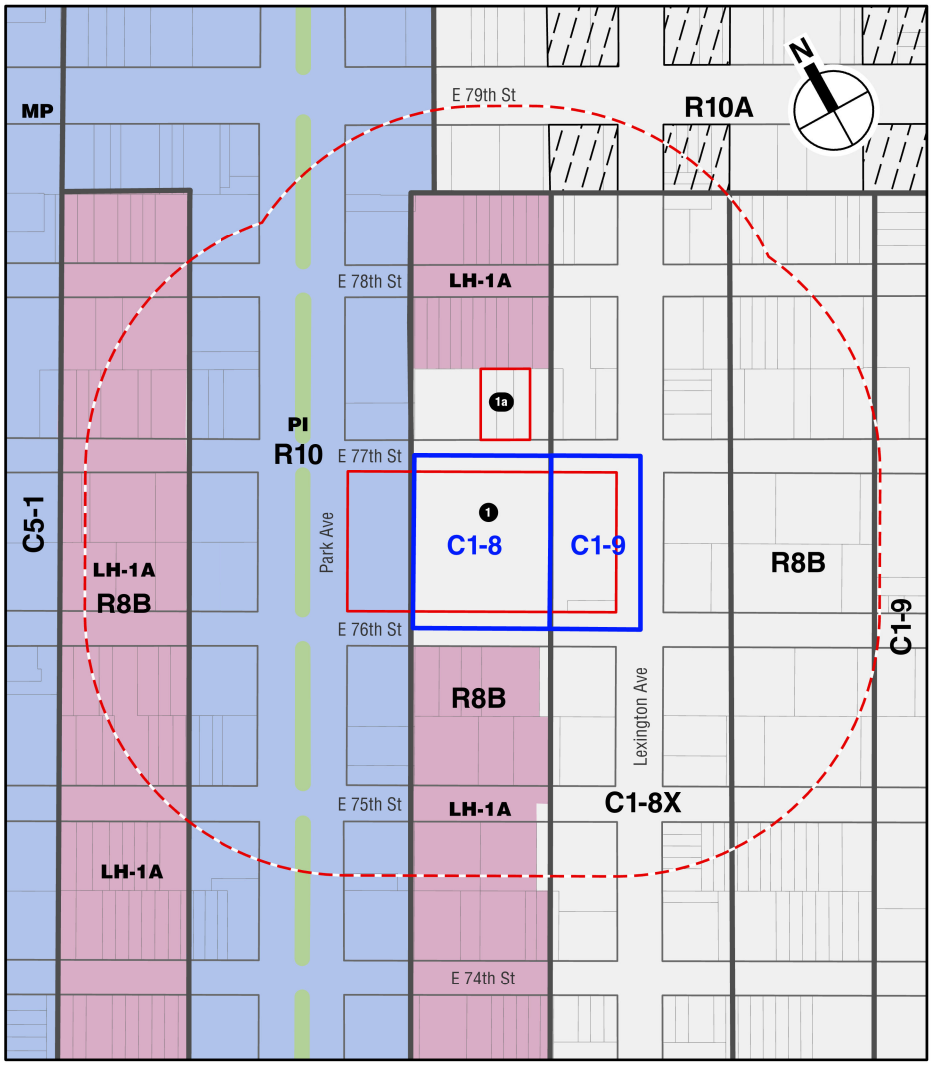
Envelope 2 Massing (view from south)

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-4d

8.9.24





Project Site

1 *Projected Development Site*

Study Area (400-foot perimeter)

Zoning District Boundaries

C1-5 Commercial Overlay District

Park Avenue Malls

Limited Height District (LH-1A)

Special Park Improvement District (PI)

Special Madison Avenue Preservation District (MP)

Proposed Zoning

LENOX HILL HOSPITAL REDEVELOPMENT

Existing and Proposed Zoning

Figure ES-5

2. Zoning Text Amendments

a. Map a Mandatory Inclusionary Housing area over the rezoned portions of Projected Development Site 1;

b. Modify Zoning Resolution (ZR) Section 66-513(a)(2) to allow a floor area bonus for transit improvements in combination with other floor area bonuses where explicitly permitted by a CPC special permit.

c. Modify the Special Park Improvement District regulations (ZR Section 92-21) to allow for a community facility bonus pursuant to ZR Section 74-904.

d. Create a new special permit under ZR Section 74-904 to allow:

i. A floor area increase of up to 12.0 floor area ratio (FAR) for a project predominantly dedicated to Use Group III(B) hospital use;

ii. A further floor area increase in connection with an authorization or special permit pursuant to ZR Section 66-51 for transit improvements; and

iii. Modifications of applicable bulk regulations.

3. Special Permits

Obtain a special permit pursuant to new ZR Section 74-904 to facilitate the proposed redevelopment by:

a. Permitting a floor area bonus of 2.0 FAR for a community facility project;

b. Incorporating a further floor area bonus of 0.5 FAR in connection with an authorization pursuant to ZR Section 66-511 for transit improvements; and

c. Modifying street wall, height, and setback and other bulk regulations.

4. Authorization

Obtain an authorization pursuant to ZR Section 66-511 to allow a floor area bonus of 0.5 FAR in connection with a major improvement to a mass transit station.

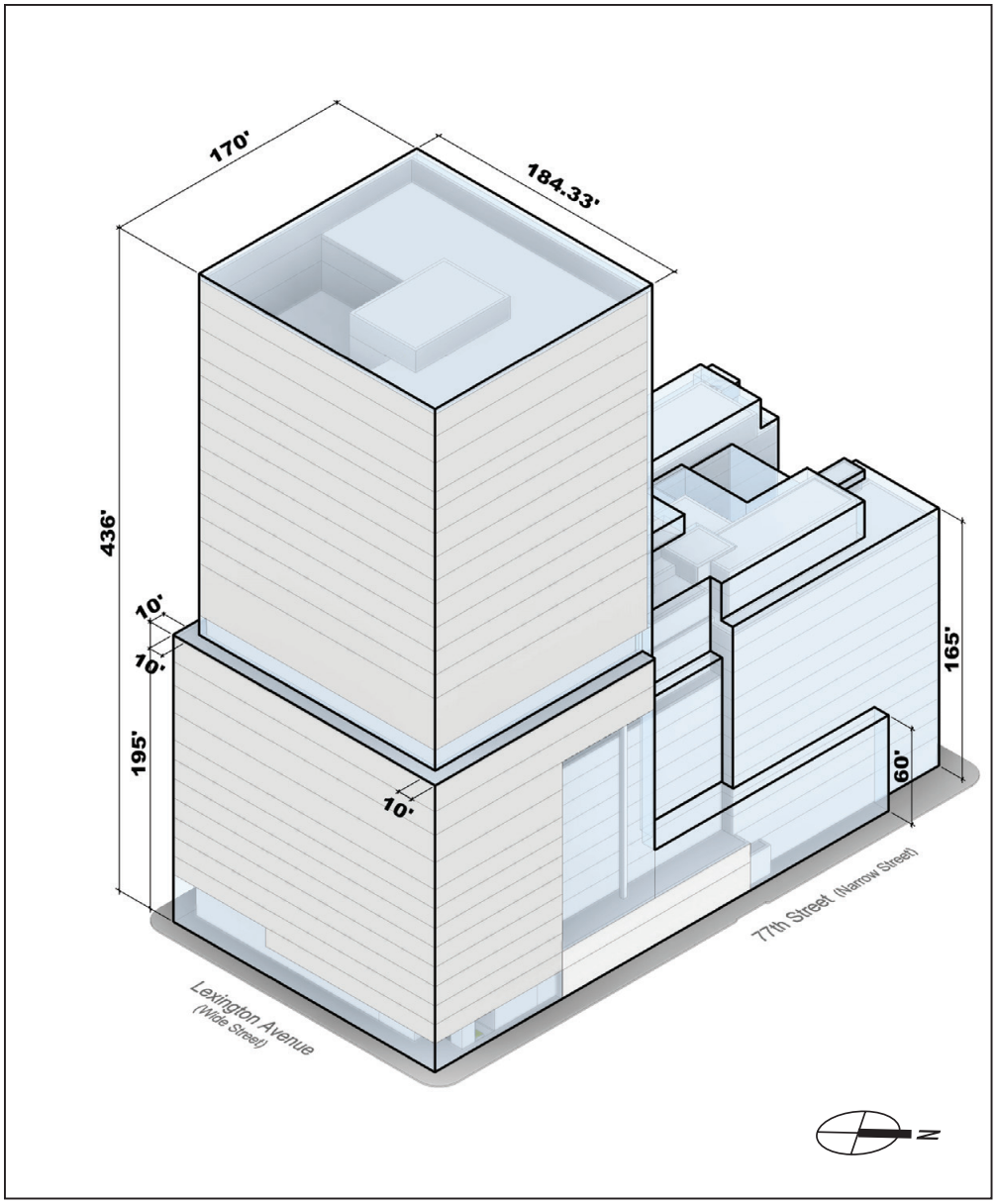
The maximum zoning envelopes allowed by these discretionary actions are shown in **Figures ES-6a and ES-6b**.

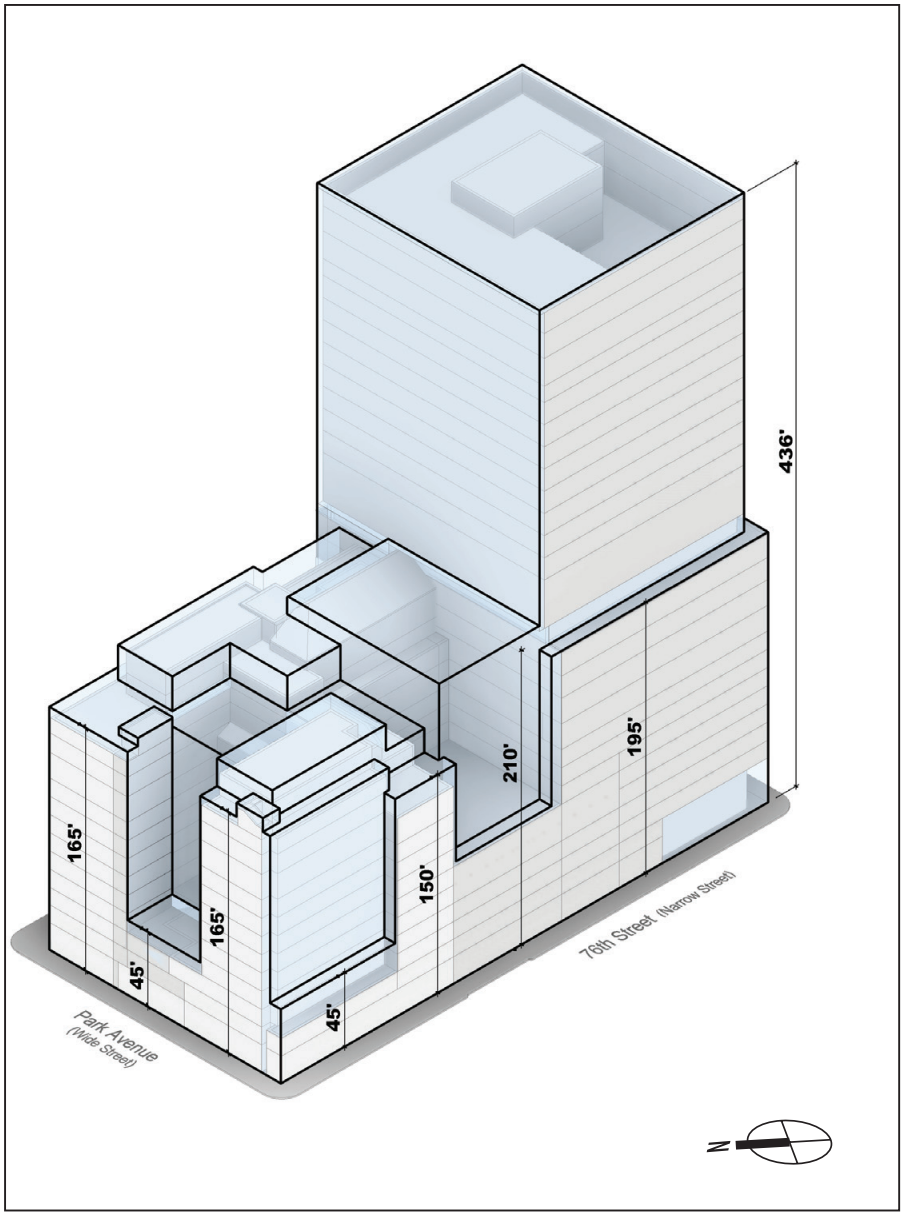
In addition, the Applicant would seek a Chairperson's certification of a transit easement volume pursuant to ZR Section 66-21, a non-discretionary, ministerial action through the CPC. The Applicant would request a revocable consent from the New York City Department of Transportation (DOT) and any other permits required for the proposed tunnel under East 77th Street. The Applicant would also seek a Certificate of Need from the New York State Department of Health (NYSDOH) and may seek tax-exempt financing of project costs through the Dormitory Authority of the State of New York.

DESCRIPTION OF THE PROJECT SITE AND REZONING AREA

The Project Site includes the approximately 82,760-square-foot hospital block (Block 1411, Lots 1 and 113) (Projected Development Site 1) and one ancillary site (Block 1412, Lots 9, 10, and 11) (Projected Development Site 1a). The area affected by the proposed rezoning and other approvals is limited to Projected Development Site 1. LHH occupies the Project Site, located in the Upper East Side neighborhood of Manhattan, Community District 8.

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Source: Ennead Architects

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

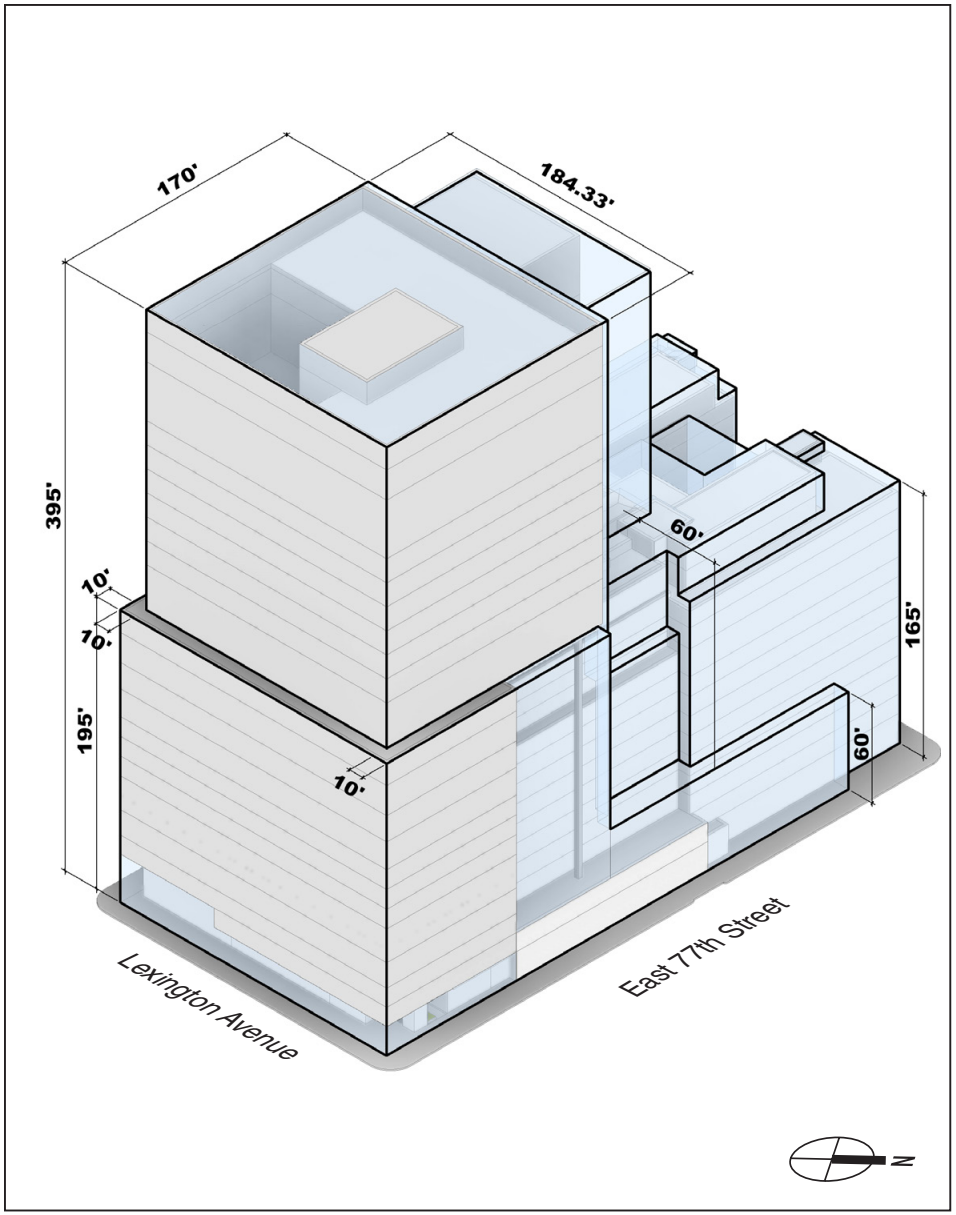
Maximum Zoning Envelope

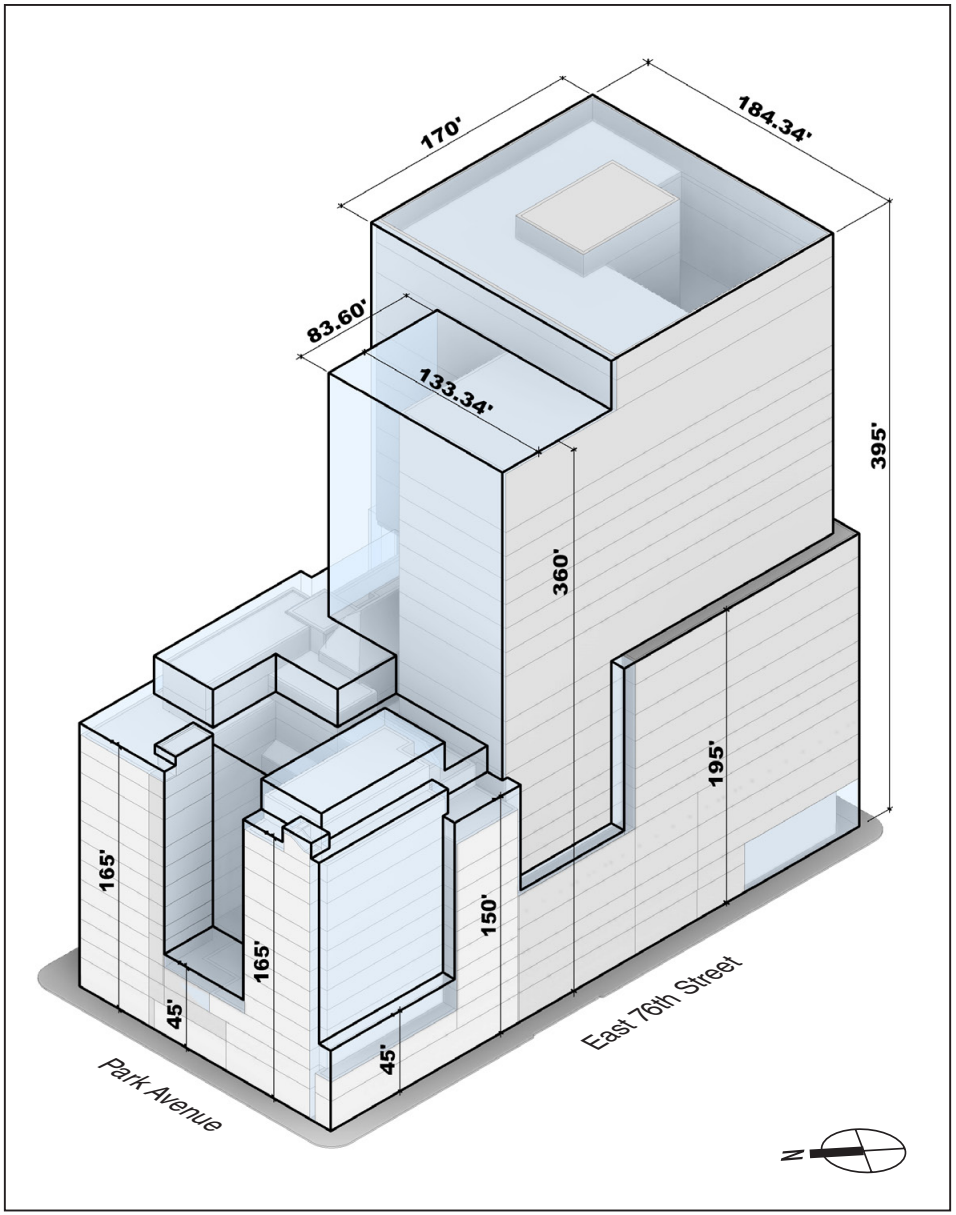
Proposed Maximum Zoning Envelope 1

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-6a

8.9.24





Source: Ennead Architects

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Maximum Zoning Envelope

Proposed Maximum Zoning Envelope 2

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-6b

Ten buildings ranging in height from 4 to 14 stories (40 to 200 feet high) and developed separately between the late 1880s and 1972 currently occupy Projected Development Site 1 (see **Figure ES-7**). Except for two rowhouses on the southeast corner of the site, the buildings have been renovated, improved, and interconnected to function, to the extent possible, as a single hospital facility. In total, Projected Development Site 1 contains approximately 781,500 gsf of development and 620,500 zoning square feet (zsf) of floor area, for a FAR of approximately 7.5. The hospital complex currently contains 450 beds (about a third of which are in single-bedded rooms), 25 ORs, an ED, and other diagnostic treatment facilities. There is one curb cut on East 76th Street that provides service access to the existing hospital.

Projected Development Site 1 spans three zoning districts (see **Figure ES-5**). The western portion of the block is in an R10 residential district, the middle portion is in an R8B residential district, and the eastern portion is in a C1-8X (R9X equivalent) commercial district. The R10 portion of Projected Development Site 1 is also in the Special Park Improvement District.

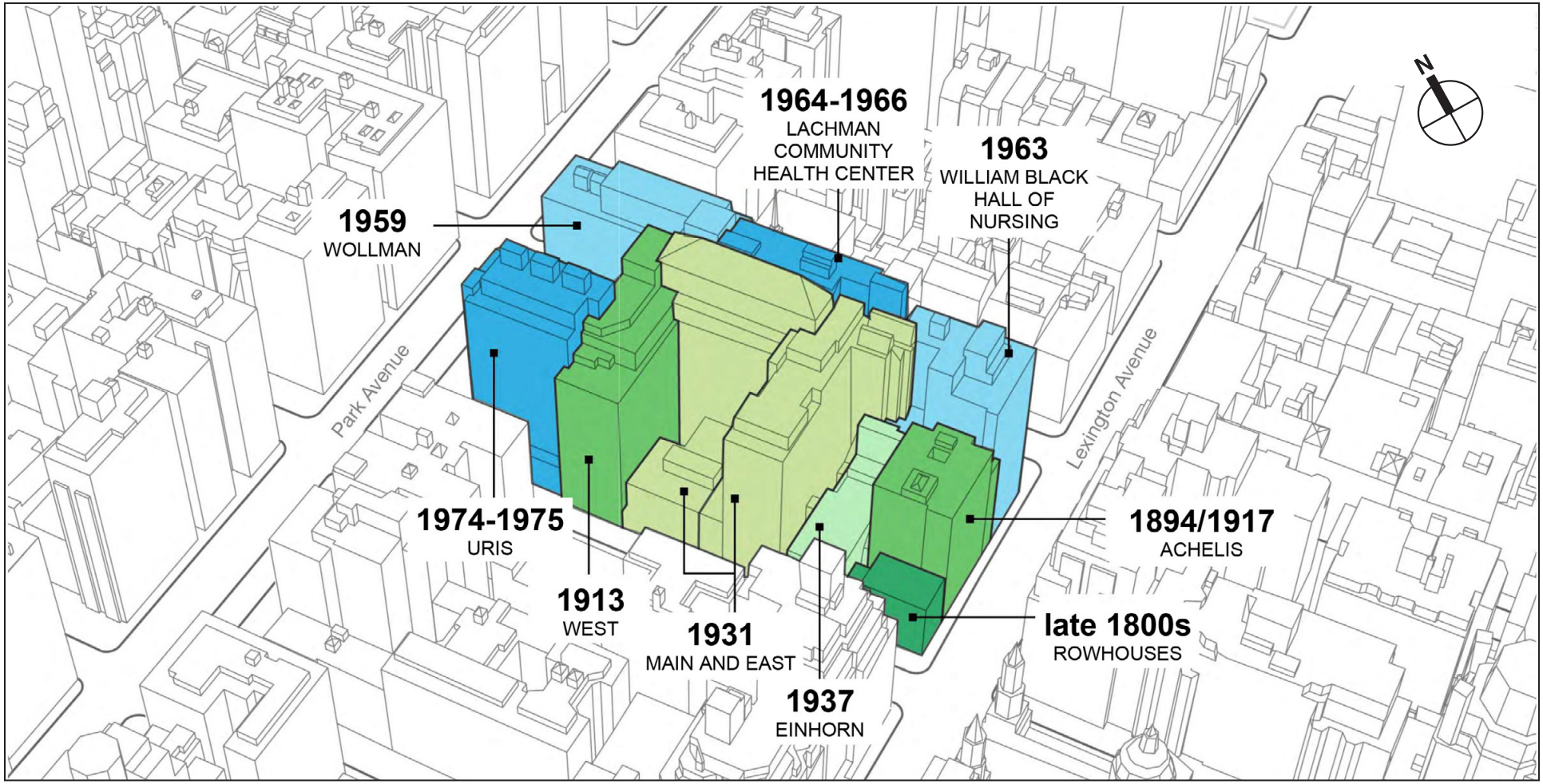
Projected Development Site 1a is occupied by three three-story buildings (approximately 23,200 gsf total) containing hospital support and clinical space. It is located in the R8B zoning district.

DESCRIPTION OF SURROUNDING AREA

The area surrounding LHH is a mix of institutional, residential, and retail uses. Institutional uses include churches (e.g., Eglise St. Jean Baptiste, Eighth Church of Christ, Scientist) and schools (e.g., Allen-Stevenson, Ramaz Upper School, the Hewitt School, and St. Jean Baptiste High School), as well as LHH and LHH-affiliated medical facilities. There are also residential uses (including multifamily elevator buildings and townhouses) and mixed-use commercial/ community facility buildings in the area. Neighborhood retail uses line much of Lexington Avenue. In this area, Park Avenue is characterized by large apartment buildings rising without setback to heights of 120 to 150 feet, with heights above the setback ranging from 160 to 210 feet. Lexington Avenue is characterized by a mix of both older and newer, large 11- to 16-story buildings that have large footprints and wide street frontages, with many buildings occupying wide portions of a single blockfront, and older 2- to 7-story buildings. Many of the larger and taller buildings have a 9- to 12-story base built to the sidewalk, with setbacks above the base. Older buildings with smaller footprints and narrower street frontages are also located on Lexington Avenue among larger buildings. Smaller buildings are generally located between East 77th and East 79th Streets and on the east side of Lexington Avenue. Buildings on Lexington Avenue are built to the sidewalk and faced in masonry; most buildings have ground floor retail. The east-west streets are developed with a variety of brick- and stone-clad buildings, including 7- to 15-story apartment buildings and institutional buildings located among low-rise, 3- to 7-story rowhouses and small apartment buildings, with larger high-rise buildings at the block ends. Most buildings are built to the sidewalk or are slightly recessed from the sidewalk beyond planted and paved yard areas with metal railings. Public open space in the surrounding area consists of a church yard, the Park Avenue Malls, and Central Park, which is located two blocks west of the Project Site.

As shown on **Figure ES-5**, the area is zoned with high-density districts along the avenues and major cross-town thoroughfares: Fifth Avenue and Park Avenue are in R10 (10.0 FAR) districts within the Special Park Improvement District; Madison Avenue is in a C5-1 (10.0 FAR) district in the Special Madison Avenue Preservation District; Lexington Avenue is in a C1-8X (9.0 FAR) district; Third Avenue is in a C1-9 (up to 12.0 FAR) district; and East 72nd Street and East 79th Street are in R10A (up to 12.0 FAR) districts with the exception of East 79th Street between Park Avenue and Fifth Avenue, which is in either an R10 or C5-1 district (10.0 FAR in each). The

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Source: Northwell Health

Existing Lenox Hill Hospital

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-7

midblocks in the area are generally mapped as R8B districts (5.1 FAR for community facility or 4.0 FAR for residential). Portions of the surrounding area are also located within the Upper East Side Historic District, including portions or the entirety of the blocks immediately north, south, and west of the Project Site; the Project Site itself is not within a historic district.

The study area is served by the Lexington Avenue subway line, which has a No. 6 train station adjacent to the Project Site at the intersection of Lexington Avenue and East 77th Street; Metropolitan Transportation Authority (MTA) bus service along Lexington Avenue (M101, M102, and M103), East 79th Street (M79-SBS), and East 72nd Street (M72); and Citi Bike, which has bike sharing stations at the southwest corner of the intersection of Park Avenue and East 76th Street and at the northwest corner of the intersection of Third Avenue and East 77th Street.

DESCRIPTION OF THE PROPOSED PROJECT

The Applicant proposes to construct a 21st century, state-of-the-art hospital complex with single-bedded patient rooms, new and improved operating suites, and an expanded ED on Projected Development Site 1. As noted above, two building envelopes are proposed, each of which would accommodate the Proposed Project's program.

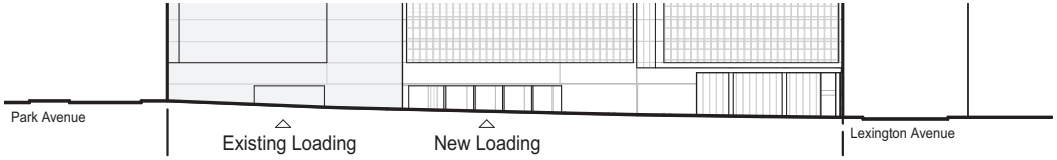
Envelope 1 and Envelope 2 would have the same ground floor, entrances, and access points. They each would have a podium (base) containing the ED, operating suites, and patient rooms which would rise to a height of approximately 195 feet (see **Figures ES-6a and ES-6b**). The primary public entrance and lobby would be on Lexington Avenue, with a small retail (pharmacy) space near the discharge area (see **Figures ES-8a and ES-8b**). In addition to the new primary public entrance, the new hospital building would provide an anticipated arcade and widened sidewalks on Lexington Avenue, glazing (glass façade) for transparency at the ground floor on Lexington Avenue and a portion of East 76th Street, and an improved ADA-accessible subway entrance at the corner of Lexington Avenue and East 77th Street (see **Figure ES-9**). The ED walk-in entrance would be located just south of the subway entrance along the Lexington Avenue sidewalk. The podium for Envelope 1 would contain five floors of inpatient beds, while the podium for Envelope 2 would contain three floors of inpatient beds (see **Figures ES-4a through ES-4d**, above). Above the podium, Envelope 1 would have eight additional stories of patient rooms and reach a total of 26 stories, including mechanical floors. The midblock portion of the new building under Envelope 1 could be approximately 210 feet tall, consistent with the highest floors currently existing in the midblock portion of Projected Development Site 1. The new building under Envelope 1 would create 771,000 gsf of new construction.

Envelope 2 would have six floors of patient rooms above the podium and would reach a total of 21 stories (395 feet). Envelope 2 would necessarily increase the bulk of new construction in the midblock in order to provide the same program as Envelope 1; its midblock height would reach 360 feet as compared to up to 210 feet for the maximum zoning envelope in the midblock with Envelope 1. The new building under Envelope 2 would create 867,000 gsf of new construction.

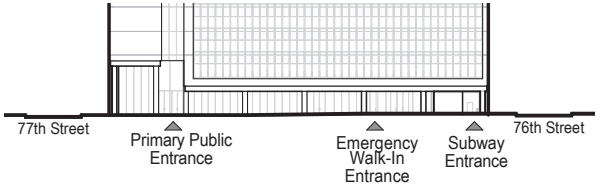
The Proposed Project would also include additions and renovations to portions of the existing hospital complex on Projected Development Site 1 (56,000 gsf with Envelope 1 and 8,000 gsf with Envelope 2) and connections between the new hospital building and the existing adjacent buildings.

To satisfy the Proposed Project's purpose and need, the Proposed Project with either envelope would increase the total number of patient beds by approximately 25 beds (from 450 to 475) and would convert all existing double-bedded rooms to single-bedded rooms. The Proposed Project

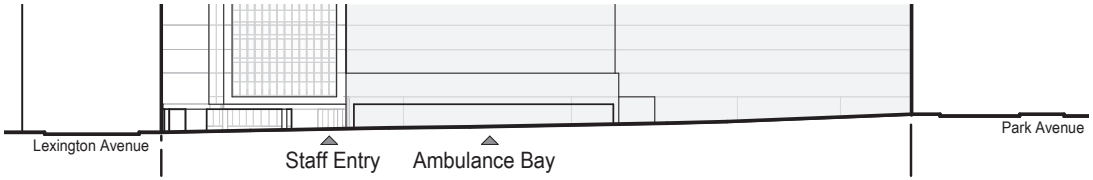
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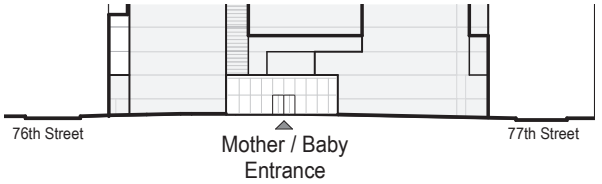
South Elevation - 76th Street



East Elevation - Lexington Avenue



North Elevation - 77th Street



West Elevation - Park Avenue



Source: Ennead Architects

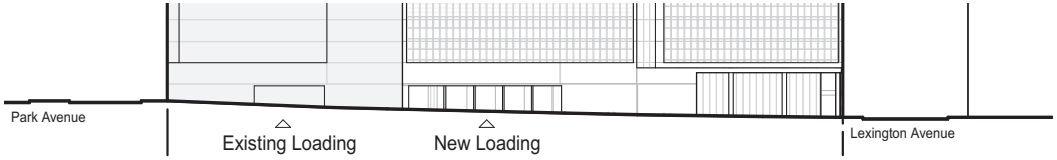
NOTES:
- For Illustrative Purposes Only
- Elevations are cropped from the overall elevations

Proposed Corner of Lexington Avenue and East 76th Street – New Entrance Envelope 1

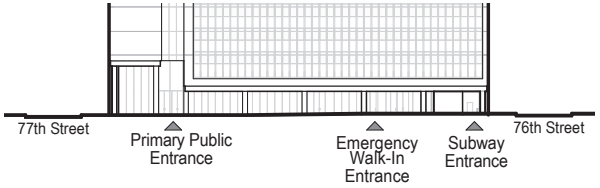
LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-8a

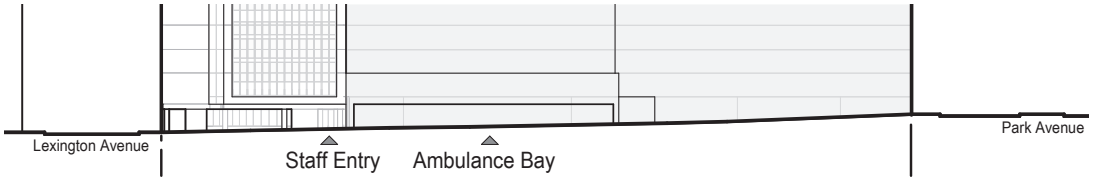
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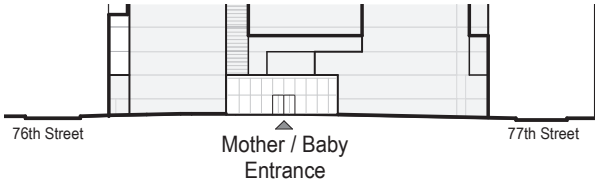
South Elevation - 76th Street



East Elevation - Lexington Avenue



North Elevation - 77th Street



West Elevation - Park Avenue



Source: Ennead Architects

NOTES:
- For Illustrative Purposes Only
- Elevations are cropped from the overall elevations

Proposed Corner of Lexington Avenue and East 76th Street – New Entrance Envelope 2

LENOX HILL HOSPITAL REDEVELOPMENT

Figure ES-8b

8.9.24



Source: Ennead Architects

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Corner of Lexington Avenue and East 77th Street –Subway Entry
Envelope 1 or 2

would also increase the number of ED treatment positions by 14 (from 34 to 48); all of these positions would be hard-walled rather than curtained positions. The number of ORs would increase by five (from 25 to 30), and all of the new ORFs would be sized for state-of-the art surgical equipment and procedures and larger surgical teams.

An additional labor and delivery room (increasing the total number from 12 to 13) would be provided in the proposed Mother-Baby Hospital. A new entrance and lobby would be provided on Park Avenue for the Mother-Baby Hospital, along with a new emergency stairway.

An off-street ambulance bay with six berths would be provided off East 77th Street. Four new and longer truck loading bays would be provided on East 76th Street. Overall, the hospital complex on Projected Development Site 1 would have a gross floor area of approximately 1.4 million square feet (sf), including below grade space, and a zoning floor area of approximately 1,034,500 sf for an FAR of 12.5. Patient rooms would comprise approximately 415,500 sf, the ED would comprise approximately 41,500 sf, and ORs would comprise approximately 132,000 sf.

Projected Development Site 1a would be redeveloped with an approximately 46,000-gsf, 75-foot-tall building to house hospital support functions, including educational and administrative space and below grade utility/mechanical functions. A utility tunnel under East 77th Street would connect it to the main hospital on Projected Development Site 1. While the tunnel would require a revocable consent from DOT, the building itself would be as-of-right under existing zoning. This related project may occur independent of the Proposed Project; however, it is analyzed as part of the Proposed Project.

The Applicant also proposes improvements to the Lexington Avenue 77th Street subway station, specifically improving access to the downtown platform of the station on the southwest corner of Lexington Avenue and East 77th Street by moving that access into Projected Development Site 1 (see **Figure ES-9**). Working with the MTA, the Applicant would replace the two existing 5-foot-wide stairways on the sidewalk adjacent to Project Site with a new 15-foot-wide stairway located within Projected Development Site 1, increasing stair capacity by approximately 50 percent; install an elevator to provide ADA access between the street level and the mezzanine and a ramp from the mezzanine to the southbound platform level of the subway station; and improve lighting and security systems within the station. The setback of the proposed subway stairs and ADA elevator would increase the sidewalk area by approximately 725 sf of open area adjacent to the new stairway and elevator, and the removal of the existing stairways on the sidewalk would further increase the open area by approximately 175 sf. These improvements would provide ADA access to the downtown platform of the station and increase street level circulation space at the street corner adjacent to the station's nearest access point to LHH.

C. PURPOSE AND NEED

BACKGROUND AND NEED FOR THE PROPOSED PROJECT

LHH was originally founded in 1857 and the first hospital building on Projected Development Site 1 was opened in the late 1860s. The 10 existing buildings were built on the site between 1872 and 1972, (see **Figure ES-7**). Over the years there were renovations, improvements, and interconnections among the buildings.

Since 2010 when LHH became part of Northwell Health as its New York City (NYC) flagship, more than $275 million have been invested in capital improvements. However, LHH's older buildings are not structurally configured to meet current needs or to adapt to future requirements

in healthcare. Medicine and technology have evolved, requiring changes to reduce the potential for transmission of infections, to improve patient satisfaction, and to increase space for equipment for monitoring and treatment. These factors, along with the long-term piecemeal hospital development, have meant that existing hospital facilities are unsuitable for necessary upgrades and are expensive to maintain. For example, the buildings to be demolished cannot be used for inpatient care because their structures cannot accommodate necessary heating, ventilation, and air conditioning (HVAC) infrastructure, sensitive modern imaging equipment, or patient transport between buildings. The six other buildings were designed independent of each other; they lack the appropriate space and structural elements needed to comply with the 2018 Facility Guidelines Institute's (FGI's) *Guidelines for Design and Construction of Health Care Facilities* (FGI Guidelines) that LHH is seeking to provide with the Proposed Project.

The purpose and need for the Proposed Project are improving health outcomes for patients and ensuring that LHH will remain a resource for the community and NYC for years to come. The current facility, parts of which date back to the 1800s, is not sustainable for the clinical demands of future generations. A revitalized hospital complex would allow LHH to continue providing top-tier care to all of its patients.

With more than 144,000 annual patient visits, including over 50,000 emergency room visits, LHH is a vital component of the healthcare delivery system in NYC and is dedicated to meeting the needs of patients who rely on the hospital for all levels of inpatient and emergency services. While LHH receives patients from all five boroughs and beyond, its "service area" is composed of Manhattan, parts of western Queens, and parts of southern Brooklyn. The highest volume of the hospital's patients originate from these areas where some 3.5 million people reside, and the average age of the population is expected to increase over the next two decades. As the service area population gets older, higher volumes of chronic disease and complex health issues are expected. The patient population is also expected to increase with programmatic growth at LHH, which continues to grow and invest in services including cardiac surgery, neurosurgery, orthopedics, and cancer services.

Recently, the COVID-19 pandemic highlighted constraints and affirmed the need for upgrades to their physical plant to ensure that LHH can continue to provide world-class healthcare over the next century. Specifically, the pandemic highlighted the need to provide intensive care units, to have flexible facilities for multiple uses, and to isolate infectious patients in rooms separated by walls, rather than in curtained bays or in hallways. Specific needs are described in more detail below:

PATIENT ROOMS

Of the current 450 patient beds, 278 are in 139 double-bedded rooms (each double-bedded room is approximately 230 to 250 sf). NYSDOH announced its plans to adopt FGI Guidelines, which generally require single-bedded rooms (except for Neonatal Intensive Care Unit beds). The industry standard for patient rooms has changed to single-bedded rooms of approximately 250 to 375 sf to reduce infectious disease transmission, to provide space for modern hospital equipment to be brought into the rooms when needed, to provide space for family members and other visitors, and to enhance patients' privacy.

OPERATING ROOMS

The existing LHH campus does not have sufficient floor area or a configuration that accommodates a transition to optimally sized operating suites. Since the 1970s, the national

standard size of surgical suites, including ORs as well as critical support space, has effectively tripled, both to support modern equipment needs and ensure sterile movement of supplies.

At an average size of 400 sf, the existing ORs do not have adequate space for modern monitoring, imaging, and robotic equipment. Modern ORs are sized universally so that multiple surgical specialties can operate interchangeably. The FGI Guidelines require a minimum OR size of 600 sf for specialty ORs.

Many of LHH's existing ORs have ceiling heights of 9 feet 5 inches to 10 feet 5 inches, which limit the use of newer, larger equipment. Unlike walls that can be moved, ceiling heights are more difficult, if not impossible, to change.

EMERGENCY DEPARTMENT

The existing LHH complex has an ED that, at approximately 14,000 sf, is undersized relative to the needs of the community and current demand. There are too few ED positions, there is not adequate space to provide separate areas for infectious and non-infectious patients, and too little privacy is afforded to the patients. Of the 34 existing ED positions, 15 beds are located in the hallway. The patients positioned in the hallway bays are separated from one another by a curtain, offering minimal privacy, with little room to accommodate support persons. Industry-standard practices for EDs, including individual patient rooms and adequate space for the clinical team to collaborate most effectively, are essential to meet the growing need for emergency services and deliver superior outcomes for the approximately 50,000 annual ED visits received at LHH.

MOTHER-BABY HOSPITAL

The existing mother-baby services at LHH are spread across six different units throughout the hospital; there is no consolidated zone for mothers and newborns. Two postpartum units are adjacent to a regional medicine unit, and expectant mothers enter the hospital through the same lobby as all other patients. Over half of the postpartum rooms at LHH are currently double-bedded. At full capacity, 70 percent of mothers and newborns share a room. From a post-pandemic standpoint, there is an expectation for hospitals to provide contained, infection-free areas for healthy patients.

OTHER NEEDED IMPROVEMENTS

Ambulance Arrivals

Ambulances delivering patients to LHH must currently park along the sidewalk on East 77th Street. Arriving patients are taken across the sidewalk into the hospital, exposing patients to inclement weather and everyday street and sidewalk traffic. This results in an unpleasant experience for patients. Further, the existing limitation in ambulance parking results in some ambulances having to double-park to deliver patients, consequently causing traffic congestion.

Truck Docks

On East 76th Street, the hospital's three existing loading bays are too short for many of the trucks that serve the hospital. As a result, trucks frequently park on or across the sidewalk, and sometimes reach into the street. Further, the current hospital configuration does not provide for the separation of clean and soiled materials. Loading activities taking place on the street and sidewalk interfere with pedestrian and vehicular movement.

Subway Station Access and Sidewalk Improvements

The 77th Street subway station of the Lexington Avenue No. 6 train is outdated, does not provide ADA access, and was originally designed with the token booths on mezzanine levels multiple steps above the subway platforms. The existing subway access stairway takes a significant amount of space (approximately 175 sf) from the sidewalk.

BENEFITS OF THE PROPOSED PROJECT

As described above, the Proposed Project would create an enlarged and modernized healthcare facility. Buildings on the east end of the hospital block that are the oldest in the complex would be demolished and replaced by a new hospital building. To the west of the new building, other existing buildings would be demolished and reconstructed or renovated and upgraded to current standards and connected to the new structure.

PATIENT ROOMS

The Proposed Project would provide a total of 475 single-bedded patient rooms, a net increase of 25 beds and 164 patient rooms. Single-bedded rooms would reduce transmission of infectious diseases, provide space for modern hospital equipment to be brought into the rooms when needed, provide sufficient space for family members and other visitors, and enhance patients' privacy. The rooms would also be consistent with the FGI Guidelines and industry standards.

The Proposed Project would provide an additional 25 beds compared to the existing hospital (6 percent increase). This incremental need is the result of multiple factors. While the New York Region, like the nation overall, has seen a shift to ambulatory settings for less acute cases, population growth and the aging population are driving the need for additional inpatient beds. The older population is hospitalized at a significantly higher rate than the younger population due to increased incidence of diseases that are often exacerbated by chronic conditions. In addition to an increase in the number of inpatients, the average length of stay is expected to grow by 8 percent due to the increased complexity of cases.[1] Lastly, the increment of 25 beds assumes additional investment in cardiac and neurosurgery programs, for which LHH is well known.

OPERATING ROOMS

The Proposed Project would result in a net increase of 5 ORs compared to existing conditions. However, of the new total of 30 ORs, the majority would be located in the new building.

The ORs would be sized for advanced equipment, technology, surgical procedures, and larger surgical teams. The FGI Guidelines require a minimum OR size of 600 sf for specialty ORs. The Proposed Project would provide a variety of OR sizes based on the types of procedures to be performed. Accounting for sufficient space in the OR for the patient, larger surgical teams, mobile and image-guided equipment, ceiling booms, cameras, high-definition monitors, and at times robotic technology is critical in appropriately sizing the OR. Furthermore, each of these

[1] As part of the planning for the Proposed Project, the Applicant consulted with Sg2 on projected future trends in healthcare. Sg2 is a division of Vizient, a healthcare performance improvement company that specializes in providing healthcare intelligence and strategic advisory services by leveraging data, analytics, and industry expertise in making informed decisions about growth, innovation, and resource optimization.

components must be located in the appropriate zone proximal to the sterile field. The new ORs would also have minimum ceiling heights of 10 feet with floor-to-floor heights of approximately 18 feet to accommodate newer and larger equipment.

Using the specialty OR as the baseline design, the Proposed Project would improve patient access to procedures, reduce turn-over time, and increase overall efficiency throughout the hospital. Hybrid ORs have also become commonplace as they permanently integrate imaging technology (e.g., CT, MRI, or vascular imaging technologies) into the OR. Hybrid ORs typically range in size from 825 to 1,000 sf, require a dedicated control room, and also may require a systems component room outside of the OR. The Proposed Project would create a mix of ORs ranging from 600 to 1,000 sf to accommodate state-of-the-art equipment.

EMERGENCY DEPARTMENT

The Proposed Project would increase the number of ED treatment positions from 34 to 48; all of these 150-sf positions would be hard-walled rather than curtained positions. Overall, the proposed ED would be approximately 41,500 sf. The proposed expansion of the ED would create space to isolate infectious or immuno-compromised patients and would offer patients more comfort and privacy.

MOTHER-BABY HOSPITAL

The Proposed Project would create a Mother-Baby Hospital, designed to separate non-infectious patients from all other services provided at LHH and to improve the experience of expectant families while continuing the clinical excellence of LHH's maternal child services. The single-bedded rooms created by the Proposed Project would provide adequate space for mothers to be joined by their families and ensure a better quality of sleep while recovering from childbirth. The Proposed Project would also provide an additional labor and delivery room (increasing the number from 12 to 13) and expand LHH's state-of-the-art neonatal intensive care unit to comply with industry standards and afford families and neonates adequate levels of privacy and quiet.

OTHER IMPROVEMENTS

Ambulance Arrivals

The new ambulance bay on East 77th Street would allow six ambulances to park and discharge patients under the building in a weather-protected space off the street. This would greatly improve both the patient experience arriving to the hospital and the flow of traffic on the street.

Truck Docks

The new truck docks would allow four additional trucks to be accommodated at the same time. They would be long enough and angled to allow all the trucks using them to be off the street and off the sidewalk, such that they would no longer interfere with pedestrian and vehicular movement on East 76th Street. The new docks would also provide for the separation of clean and soiled materials.

Subway Station Access and Sidewalk Improvements

As described above, the Proposed Project would replace the two existing 5-foot-wide stairways on the sidewalk adjacent to Projected Development Site 1 with a new approximately 15-foot-wide stairway located within Projected Development Site 1, increasing space on the sidewalk by

approximately 175 sf as well as increasing stair width by approximately 50 percent. The Proposed Project would also install an elevator between the street level and the mezzanine and a ramp from the mezzanine to the southbound platform level of the subway station to provide ADA access. Further, it would improve lighting and security systems within the station. The proposed subway stairway and elevator access would be set back from the property line, increasing the sidewalk by approximately 725 sf of open area adjacent to the new stairway and ADA elevator (see **Figure ES-9**). These improvements would provide ADA access to the downtown side of the station and increase street level circulation space.

With the new building on the east end of the hospital block, the primary public entrance would be moved from the midpoint of the East 77th Street frontage to a more accessible location on Lexington Avenue near East 76th Street (see **Figures ES-8a and ES-8b**), convenient to buses travelling on Lexington Avenue as well as the subway entrances. The setback of the ground floor of the building under an anticipated arcade would also provide pedestrians with more sidewalk space and more protection from inclement weather.

D. ANALYSIS FRAMEWORK

The Proposed Actions would change the regulatory controls governing land use and development at Projected Development Site 1. The *CEQR Technical Manual* serves as the general guide on the methodologies and impact criteria for evaluating the Proposed Actions' potential effects on the various environmental areas of analysis.

During a CEQR review, the lead agency is required to take a "hard look" at the environmental impacts of proposed actions and, to the maximum extent practicable, avoid or mitigate potentially significant adverse impacts on the environment, consistent with social, economic, and other essential considerations. An EIS is a comprehensive document used to systematically consider environmental effects, evaluate reasonable alternatives, and identify and mitigate, to the maximum extent practicable, any potentially significant adverse environmental impacts. The EIS provides a means for the lead and involved agencies to consider environmental factors and choose among alternatives in their decision-making processes related to a proposed action.

The Draft Scope of Work for this EIS only considered the Proposed Project with what is now known as Envelope 1. As noted below, in response to comments regarding the height of the new hospital building on Lexington Avenue, the Applicant developed a second building massing (Envelope 2) that would reduce the height along the Lexington Avenue frontage to 395 feet and, to accommodate the program, would have a taller midblock that would rise to a height of 360 feet. The program, population, site access, zoning actions, and construction duration would be the same for both envelopes. Envelope 1 and Envelope 2 are both analyzed in this EIS.

This section outlines the conditions examined in the EIS.

BUILD YEAR

Construction is expected to commence in March 2027 when design of the facility is complete, NYSDOH approval has been acquired, and most outpatient services have been relocated to other Manhattan-based Northwell facilities. The Proposed Project would then be constructed in a single phase over the course of approximately nine years, of which approximately three years would be interior work only under Envelope 1 and two and a half years would be interior work only under Envelope 2. The Proposed Project would be completed and fully operational by 2036.

LHH must maintain hospital operations during construction of the Proposed Project. Closing a hospital in New York State is a highly regulated process, would result in a significant disruption in care, and is only undertaken when there are significant financial strains.

As noted above, LHH has served NYC residents for over 160 years and patients rely on this hospital and its care providers for a broad range of services. With more than 144,000 annual patient visits, including over 50,000 emergency room visits, LHH is a vital component of the healthcare delivery system in NYC. The hospital employs over 4,000 team members who rely on the hospital for their livelihood. Further, many of the patients treated at LHH are part of a care continuum; they see primary care physicians and specialists that are in the LHH/Northwell network of care, and LHH is an important part of this system.

However, maintaining hospital operations affects the length of the construction period. While much of the construction period would focus on the new tower, there would still be a large part of the work taking place west of the Lexington Avenue building, where existing hospital buildings would remain. This portion of the construction would have to be phased to allow hospital operations to continue, and the phasing takes more time.

REASONABLE WORST CASE DEVELOPMENT SCENARIO

In order to assess the possible effects of the Proposed Project, an RWCDS was developed to account for existing conditions, the Future without the Proposed Project (No Action condition), and the Future with the Proposed Project (With Action condition). The incremental difference between the future No Action condition and future With Action condition serves as the basis for identifying potential environmental impacts, as described below.

IDENTIFICATION OF THE PROJECT SITE

The first step in establishing the development scenario for the Proposed Project is to identify those sites where new development could be reasonably expected to occur. As identified above, the Project Site is larger than the proposed rezoning area. The rezoning area would cover only the portion of Block 1411 (Projected Development Site 1) from Lexington Avenue to 100 feet east of Park Avenue. The Park Avenue frontage of Block 1411 and Lots 9, 10, and 11 of Block 1412 would not be rezoned. Additionally, Block 1412, Lots 9, 10, and 11 (Projected Development Site 1a) are considered part of the Project Site but would not be subject to the other proposed discretionary actions other than the revocable consent for the utility tunnel under East 77th Street to connect with the main hospital on Projected Development Site 1.

THE FUTURE WITHOUT THE PROPOSED PROJECT (NO ACTION CONDITION)

Absent the Proposed Project, the main hospital complex on Projected Development Site 1 will remain in its current form, with most ambulatory (outpatient) uses on the main hospital block relocating to other facilities (including Projected Development Site 1a). Approximately 650 daily outpatients, 944 daily visitors (associated with those outpatients), and 257 staff members will be relocated (see **Table ES-1**) to off-site facilities, including Northwell's as-of-right Third Avenue project, which is currently in construction. In the No Action condition, these relocations will make approximately 13,500 sf within the existing hospital available to convert a limited number of double-bedded rooms to single-bedded rooms without any effect on the total number of beds, and will allow for reconfiguration of certain suboptimal spaces.

Table ES-1
Project Population – Typical Average Weekday Daily Persons

Population	Existing	No Action	With Action	Project Increment
Projected Development Site 1 (Hospital Block)				
Staff*	**2,990**	**2,733**	**3,070**	**337**
Inpatient	*2,558*	*2,582*	*2,930*	*348*
Ambulatory	*432*	*151*	*140*	*-11*
Patients	**1,262**	**612**	**633**	**21**
Inpatient	*450*	*450*	*475*	*25*
Ambulatory	*812*	*162*	*158*	*-4*
Visitors	**2,191**	**1,247**	**1,298**	**51**
Inpatient	*1,013*	*1,012*	*1,069*	*57*
Ambulatory	*1,178*	*235*	*229*	*-6*
Projected Development Site 1a (East 77th Street Site)				
Staff*	**108**	**108**	**110**	**2**
Inpatient	*33*	*33*	*35*	*2*
Ambulatory	*75*	*75*	*75*	*0*
Patients	**4**	**4**	**0**	**-4**
Inpatient	*0*	*0*	*0*	*0*
Ambulatory	*4*	*4*	*0*	*-4*
Visitors	**6**	**6**	**0**	**-6**
Inpatient	*0*	*0*	*0*	*0*
Ambulatory	*6*	*6*	*0*	*-6*
Total – Projected Development Sites 1 and 1a				
Staff*	**3,098**	**2,841**	**3,180**	**339**
Inpatient	*2,591*	*2,615*	*2,965*	*350*
Ambulatory	*507*	*226*	*215*	*-11*
Patients	**1,266**	**616**	**633**	**17**
Inpatient	*450*	*450*	*475*	*25*
Ambulatory	*816*	*166*	*158*	*-8*
Visitors	**2,197**	**1,253**	**1,298**	**45**
Inpatient	*1,013*	*1,012*	*1,069*	*57*
Ambulatory	*1,184*	*241*	*229*	*-12*

Note: * Staff includes physicians (employed and voluntary), nurses, other clinical, administrative, and building operations employees, students, and volunteers.

Under the No Action condition, the Applicant may redevelop Projected Development Site 1a. However, the No Action condition conservatively assumes that buildings on Projected Development Site 1a will continue to be used as-is. The above-mentioned relocations from the main hospital complex pertain to Projected Development Site 1.

THE FUTURE WITH THE PROPOSED PROJECT (WITH ACTION CONDITION)

As described above, the Proposed Project would create a new state-of-the-art hospital complex on Projected Development Site 1 that would include 475 single-bedded patient rooms, 30 operating suites, and an enlarged and updated ED. As discussed above, a new building would be constructed on Lexington Avenue and would include an ED, operating suites, and patient rooms in the podium, which would rise to a height of approximately 195 feet before a setback (see **Figures ES-4a through ES-4d**). Envelope 1 would have eight additional stories of patient rooms above the podium and would rise to a height of 26 stories (436 feet including mechanical floors). The midblock section of the new building under Envelope 1 could be approximately 210 feet tall, consistent with the highest floors currently existing in the midblock portion of Projected Development Site 1. Envelope 2 would have six stories of patient rooms above the podium and rise to a total of 21 floors (395 feet including mechanical floors). In order to accommodate the

Proposed Project's program, the midblock section of Envelope 2 would rise to a height of 360 feet. With either envelope, the ground floor of the new hospital building would have a primary entrance and a public lobby at the Lexington Avenue frontage.

The Proposed Project would also include additions and modifications to portions of the existing hospital complex on Projected Development Site 1 to accommodate connections to the new hospital building's podium. A new lobby and emergency stairway to the Mother-Baby Hospital would be provided on Park Avenue. Off-street parking for up to six ambulances would be provided on East 77th Street to alleviate the existing street congestion and allow the enclosed transfer of patients into the hospital. The Proposed Project would also provide new, longer truck docks inside the building configured to reduce sidewalk and street congestion on East 76th Street, as shown in **Figure ES-3**. Overall, the hospital complex with Envelope 1 would have a gross floor area of approximately 1,398,000 sf and a zoning floor area of 1,034,471 sf for an FAR of 12.5. Overall, the hospital complex with Envelope 2 would have a gross floor area of approximately 1,390,000 sf and a zoning floor area of 1,034,471 sf for an FAR of 12.5. As a result of the Proposed Project, there would be 17 additional patients, 45 additional visitors, and 339 additional workers (see **Table ES-1**). This change accounts for the relocation of the limited remaining ambulatory programs on the main hospital block to facilities outside of the Project Site.

The zoning approvals would allow for a slightly larger building envelope to provide flexibility in the building massing; therefore, to account for the RWCDS in terms of bulk and height, the maximum zoning envelope will conservatively be used to represent the With Action condition in the environmental analysis. As shown in **Figures ES-6a and ES-6b**, the Proposed Project's podium and building heights are slightly shorter than the maximum heights allowed in the zoning envelope; therefore, an approximately 195-foot podium height is assumed for the purpose of the EIS. For Envelope 1, the new building on Lexington Avenue would reach a total height of 436 feet (26 stories) and the midblock portion could reach a height of 210 feet. For Envelope 2, the new building on Lexington Avenue would reach a total height of 395 feet (21 stories) and the midblock portion would reach a total height of 360 feet (20 stories). The zoning approvals would restrict the maximum floor area to 12.5 FAR under either Envelope 1 or Envelope 2; therefore, the Proposed Project's gross and zoning floor areas represent the RWCDS for the With Action condition.

Projected Development Site 1a, directly across East 77th Street, would be redeveloped with an approximately 46,000-gsf, 75-foot-tall (six-story) building, including support space for LHH. There would also be a utility tunnel under East 77th Street connecting to the main hospital. As noted, this related project may occur independent of the Proposed Project to support overall LHH growth; however, for a conservative analysis, it is being analyzed as part of the Proposed Project.

As shown in **Table ES-2**, the Proposed Project would result in an overall development increment of approximately 631,300 gsf (Envelope 2) to 639,300 gsf (Envelope 1) of hospital/community facility uses and 25 additional hospital beds under the With Action condition as compared to the No Action condition.

The Applicant also proposes to provide improved access to the Lexington Avenue 77th Street subway station, at the southwest corner of Lexington Avenue and East 77th Street within the LHH property. The new stairway and elevator from the street level to the mezzanine would not only improve station access, but would also increase sidewalk space for pedestrians. This improvement would provide ADA access to the downtown side of the station and increase street level circulation space at the street corner adjacent to the station's nearest access point to LHH.

Table ES-2
Development Program Summary

Components	Existing/No Action Condition	With Action Condition (Envelope 1)	With Action Condition (Envelope 2)	Increment (Envelope 1)	Increment (Envelope 2)
Projected Development Site 1/ Hospital Block (gsf)	781,500	1,398,000	1,390,000	616,500	608,500
Projected Development Site 1/ Hospital Block (beds)	450	475	475	25	25
Projected Development Site 1a/ East 77th Street Site (gsf)	23,200	46,000	46,000	22,800	22,800
Project Site Total (gsf)	**804,700**	**1,444,000**	**1,436,000**	**639,300**	**631,300**

Notes: gsf = gross square feet; Square footages shown are approximate and include mechanical/utility space and below-grade space.
Source: Northwell/LHH

The analysis of the impacts of the Proposed Project encompasses Envelope 1 and Envelope 2. Because the program, project population (staff, patients, visitors), site access, zoning actions, and construction duration would be the same for both Envelope 1 and Envelope 2, there are no differences in impacts for most CEQR technical areas, including Land Use, Zoning, and Public Policy, Community Facilities and Services, Historic and Cultural Resources, Hazardous Materials, Water and Sewer Infrastructure, Transportation, Greenhouse Gas Emissions and Climate Change, and Noise. In other technical areas such as Shadows, Urban Design and Visual Resources, Air Quality, and Construction, both Envelope 1 and Envelope 2 are analyzed.

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

The analysis concluded that the Proposed Project would be compatible with existing land use in the surrounding area and would not result in any significant adverse impacts to land use, zoning, or public policy. The Proposed Project would not result in a substantial change in the land use on the Project Site because it would continue the existing hospital-related uses. It is also located in an area with numerous public facility and institutional uses. The Proposed Actions, including the proposed discretionary special permits, would modify only the zoning regulations on the Project Site and would not affect zoning regulations applicable to other sites in the study area. The Proposed Project would be consistent with the mix of institutional, residential, and retail uses in the area surrounding LHH, and the proposed bulk would be consistent in scale with other institutions and medical facilities in the area. In addition, the Proposed Project has been designed to be consistent with and supportive of the public policies applicable to the Project Site and the study area. The Proposed Project would contribute to OneNYC's goal for growth in emerging fields, promoting access to healthcare, and modernizing key infrastructure; would further the New York Works' goal of expanding new job opportunities in the life sciences and healthcare industry; and would support the City's LifeSci NYC efforts by redeveloping space for advancing healthcare and meeting the growing needs of New Yorkers.

COMMUNITY FACILITIES AND SERVICES

According to the *CEQR Technical Manual*, if a project would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect

triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery.

The Proposed Project would have direct effects on the LHH healthcare facility; it would not have direct effects on other types of community facilities. Since no residential units that would increase the population in the area are included in the project, an indirect effects analysis of the Proposed Project is not needed. The Proposed Project would not result in direct or indirect effects that would substantially deteriorate service delivery in the study area, and would not result in significant adverse impacts to community facilities and services. The Proposed Project would allow the enlargement and modernization of the existing LHH and the creation of a purpose-built hospital complex to address critical infrastructure challenges and space needs. The proposed hospital building, under either Envelope 1 or Envelope 2, would permit LHH to meet current standards of healthcare delivery, including single-bedded patient rooms, as well as address projected future needs for an expanded ED, new and larger state-of-the-art ORs, and other essential clinical and support spaces.

OPEN SPACE

The Proposed Project with either Envelope 1 or Envelope 2 would not result in significant adverse impacts to open space by directly or indirectly affecting open space resources.

DIRECT EFFECTS

In the With Action condition, the Proposed Project with either Envelope 1 or Envelope 2 would cast shadows on the publicly accessible garden at 103 East 77th Street belonging to the Eighth Church of Christ, Scientist, which is considered a direct effect on open space. The garden is located across the street from Projected Development Site 1 and abuts Projected Development Site 1a. As detailed in Chapter 4, "Shadows," the Proposed Project with both Envelopes 1 and 2 would both cast new shadows on the church garden and allow new areas of sunlight to the rear of the garden in the spring, summer, and fall. The increase in shadows on the vegetation is considered a significant adverse shadow impact to the vegetation in the garden. However, this would not constitute a significant adverse open space impact because the additional shadow would not significantly affect the use of the garden and there would be no displacement or alteration of the open space.

INDIRECT EFFECTS

Following the methodology of the *CEQR Technical Manual*, indirect open space effects may occur when a project would add enough of a population, either residents or workers, to noticeably diminish the ability of an area's open space to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce 200 or more residents or 500 or more workers to an area. Neither of these thresholds are met under Envelope 1 or Envelope 2, which have the same projected population; therefore, an indirect effects analysis is not required, and the Proposed Project with either Envelope 1 or Envelope 2 would not result in any significant adverse indirect open space impacts. Disruptions and noise added to this open space during construction are discussed in Chapter 16, "Construction." In addition, as noted in Chapter 11, "Air Quality" and Chapter 13, "Noise," the Proposed Project would not result in any significant adverse air quality and noise impacts that would result in significant adverse impacts to open space.

SHADOWS

The Proposed Project would cause significant adverse shadow impacts to the trees and plantings in the publicly accessible church garden on the north side of East 77th Street. The Proposed Project with either Envelope 1 or Envelope 2 would cast new shadows on the Eighth Church of Christ, Scientist garden located across the street from Projected Development Site 1 and abutting Projected Development Site 1a, in the spring, summer, and fall, causing significant adverse impacts to the vegetation of the garden. An alternative to reduce the shadow impact was considered (see below in "Alternatives"); the analysis concluded that virtually any development on Projected Development Sites 1 or 1a that would be taller than the existing buildings would cause significant adverse shadow impacts on the March 21/September 21 analysis day. Therefore, the significant adverse shadow impacts to the church garden would be unavoidable. Potential mitigation measures are being explored and will be refined between the DEIS and FEIS. If no mitigation measures are agreed upon, this will remain a significant adverse impact.

The Proposed Project would cast new shadows on several other sunlight-sensitive resources in the vicinity, but the analysis concluded, after quantifying the extent and duration of those new shadows and assessing the sensitivity of the affected resources, that these new shadows would not cause a significant adverse impact to those resources.

HISTORIC AND CULTURAL RESOURCES

With either Envelope 1 or Envelope 2, the Proposed Project would not result in any significant adverse impacts to historic or cultural resources. As there are no architectural resources on the Project Site, the Proposed Project would not result in any adverse impacts to architectural resources on the Project Site.

In the study area, no architectural resources would be demolished or altered. Because the Proposed Project would be constructed within 90 feet of historic architectural resources—including 14 buildings within the Upper East Side Historic District (listed on the State and National Registers of Historic Places [S/NR], designated as a New York City Historic District [NYCHD]) and the Eglise St. Jean Baptiste (S/NR, New York City Landmark [NYCL])—the Applicant would prepare and implement a Construction Protection Plan (CPP) prior to the start of construction activities at the Project Site. With the preparation and implementation of a CPP for these historic architectural resources, the Proposed Project would not be expected to result in any direct impacts to architectural resources in the study area.

The evaluation for the Proposed Project's potential to result in indirect, or contextual, impacts determined that the Proposed Project with either Envelope 1 or Envelope 2 would not result in any significant adverse visual or contextual impacts on architectural resources in the study area. While the Proposed Project with either Envelope 1 or Envelope 2 would change the context of some nearby architectural resources, it would not result in changes to an architectural resource causing the resource to become a different visual entity or isolate an architectural resource from its setting or visual relationships with the streetscape, or otherwise impact the resource's visual prominence. Further, the Proposed Project with either Envelope 1 or Envelope 2 would not obstruct public views to historic architectural resources. Therefore, the Proposed Project would not result in indirect adverse impacts to any of the architectural resources located in the study area. Overall, the Proposed Project would not introduce incompatible visual, audible, or atmospheric elements to a historic resource's setting. With the implementation of a CPP for the architectural resources within 90 feet of the Project Site, the Proposed Project would not result in any significant adverse impacts to historic and cultural resources in the study area.

URBAN DESIGN AND VISUAL RESOURCES

A preliminary assessment of urban design and visual resources was conducted and concluded that the Proposed Project with either Envelope 1 or Envelope 2 would not result in significant adverse impacts to urban design or visual resources in the study area. With either Envelope 1 or Envelope 2, the eastern portion of Projected Development Site 1 would be developed with a new hospital building that would replace existing hospital buildings. With Envelope 1, the portion of the new hospital building within 180 feet of Lexington Avenue would be a new 26-story hospital building (approximately 436 feet tall, inclusive of screened mechanical bulkheads) that would have an approximately 195-foot-tall podium, with 8 stories of patient rooms and mechanical floors above the podium. Under Envelope 1, the midblock portion of the new hospital building (180 feet west of Lexington Avenue) could rise to a height of approximately 210 feet, consistent with the highest floors currently existing in the midblock portion of Projected Development Site 1. With Envelope 2, on the eastern portion of Projected Development Site 1, the portion of the new hospital building within 180 feet of Lexington Avenue would have 21 stories (approximately 395 feet tall, inclusive of screened mechanical bulkheads) with an approximately 195-foot-tall podium, with 6 stories of patient rooms and mechanical floors above the podium. The midblock portion of Envelope 2 would rise to a height of approximately 360 feet. With either envelope, the overall gross square footage of the Proposed Project on Projected Development Site 1 would be approximately 1.4 million gsf.

While the new hospital building's overall height would be taller than nearby buildings in the study area, the new hospital building, with either Envelope 1 or Envelope 2, would have a podium that would be compatible with the height and form of existing buildings on Lexington Avenue, including buildings across Lexington Avenue to the east and across East 76th Street to the south. The podium would also be built to the street line of Lexington Avenue consistent with other buildings along Lexington Avenue but would have an anticipated arcade and glazing at the ground floor that would enhance the pedestrian experience. Above the podium, the new hospital building would have a setback before rising to its overall height (which would be approximately 41 feet shorter with Envelope 2 compared to Envelope 1). The setback would provide a visual break in the massing that would reduce the perceived height of the building. The new hospital building's design draws from the context of the surrounding neighborhood in terms of cladding materials and color palette.

The new hospital building's overall height would be taller than other study area buildings with either Envelope 1 or Envelope 2; however, it would be compatible with the variety of building heights in the study area, which includes the approximately 427-foot-tall Carlyle Hotel to the west at 981 Madison Avenue. The Proposed Project would be viewed in the context of existing buildings with different massings, heights, and forms that characterize the varied urban design of the study area, including the range of building scales, forms, and styles along Lexington Avenue. Further, the new hospital building would activate the sidewalks adjacent to Projected Development Site 1, including an anticipated arcade and widened sidewalks, glazing at the ground floor providing transparency into the new building, and an improved subway station entrance at the corner of East 77th Street and Lexington Avenue. The proposed alterations and modifications to the buildings on the western portion of Projected Development Site 1 would not substantially alter existing massings and would provide transparency and activate uses on the adjacent sidewalks on Park Avenue while maintaining the urban design character of the building form. In addition, the new building that would be built on Projected Development Site 1a would be compliant with as-of-right zoning controls and would be consistent with the scale, form, and massing of nearby study area buildings.

The Proposed Project would not adversely affect views to any study area visual resources or view corridors. While the Eglise St. Jean Baptiste, a visual and architectural resource, is located diagonally to the southeast across Lexington Avenue and East 76th Street from Projected Development Site 1, views to this visual resource would remain available from Lexington Avenue and East 76th Streets. The Proposed Project would be compatible with the varied urban design character of the study area and would not adversely impact the pedestrian experience. The Proposed Project would not adversely affect views of the Eglise St. Jean Baptiste, nor would the Proposed Project alter significant view corridors. Therefore, no significant adverse urban design impacts would result from the Proposed Project.

HAZARDOUS MATERIALS

The Proposed Project would entail demolition of portions of the existing hospital, followed by excavation for new construction and renovations of existing structures to allow the enlargement and modernization of the existing LHH and the creation of a purpose-built hospital complex to address critical infrastructure challenges and space needs. To avoid any potential for hazardous materials exposure, all federal, state, and local requirements and regulations would be followed, and the following procedures would be, or have been, implemented:

- The results of the Phase I ESA and Subsurface Investigation (described below) have been summarized in reports for agency review as part of the EIS.
- Based on the findings of the Subsurface Investigation, an (E) Designation (E-777) for hazardous materials would be placed on the site to ensure that, regardless of whether Envelope 1 or Envelope 2 is implemented, the Applicant completes the remediation in accordance with the requirements of the New York City Mayor's Office of Environmental Remediation (OER). OER's (E) Designation process, described in greater detail in the sections below, includes: 1) conducting thorough environmental testing of the site, and 2) the preparation of a remedial plan for implementation during construction that specifies procedures for identifying and managing any anticipated or unanticipated contamination, imposes appropriate construction health and safety procedures, and includes the installation of any necessary engineering controls to ensure the protection of future site inhabitants, the surrounding community, and the environment following construction.
- Prior to demolition, a comprehensive asbestos survey of the existing building would be conducted, and any asbestos-containing materials (ACM) would be removed and disposed of in accordance with applicable requirements.
- Suspect mercury-containing or suspect polychlorinated biphenyl (PCB)-containing equipment would be disposed of in accordance with applicable regulatory requirements.
- Any demolition activities with the potential to disturb lead-based paint (LBP) materials would be performed in accordance with the applicable regulatory requirements.
- Prior to any building renovation or demolition activities, all remaining chemical, medical/biological, and radioactive materials would be removed and disposed of in accordance with applicable regulations.
- All on-site petroleum storage tanks would be closed and removed prior to redevelopment in accordance with applicable requirements.
- Transportation of material leaving the Project Site for off-site disposal would be performed in accordance with all applicable requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

- If dewatering activities are required, such activities would be performed in accordance with local requirements for discharge to sanitary/combined sewers. Pretreatment would be performed if necessary to meet the New York City Department of Environmental Protection (DEP) requirements.

With the implementation of these procedures, no significant adverse impacts related to hazardous materials would result from the Proposed Project.

WATER AND SEWER INFRASTRUCTURE

The Proposed Project with either Envelope 1 or Envelope 2 would not result in significant adverse impact on the City's water and sewer infrastructure. Based on the methodology set forth in the *CEQR Technical Manual,* while the Proposed Project would result in minor increases in demand for water and treatment of sewage as compared to the No Action condition, the incremental increases would not constitute a significant adverse impact on the City's water supply, wastewater treatment, or stormwater management and treatment infrastructure.

SEWER SYSTEM AND WASTEWATER TREATMENT

In the 2036 analysis year, the With Action condition would generate an incremental increase of 16,551 gallons per day (gpd) of sewage over the No Action condition. This incremental increase in the volume of sanitary flow to the combined sewer system and the Wards Island Wastewater Resource Recovery Facility (WRRF) would not be substantial when compared with the WRRF's average daily flow of 202 million gallons per day (mgd) and would not result in an exceedance of the WRRF's permitted capacity of 275 mgd. Therefore, it is not anticipated to create a significant adverse impact on the City's sanitary sewage treatment system. In addition, in accordance with the NYC Plumbing Code (Local Law 33 of 2007), the developments on the Projected Development Sites would be required to utilize low-flow plumbing fixtures, which would help to further reduce sanitary flows to the WRRF. The developments on the Projected Development Sites would also be required to file a Site Connection Proposal Application for approval from DEP to tie into the sewer system. In this process, before a building permit can be issued, site connection proposals must be certified for sewer availability by DEP. This analysis and any improvements would be undertaken, as necessary, in coordination with DEP.

STORMWATER FLOWS

The Project Site is within the service area of the Wards Island WRRF. In the With Action condition, flows from the Project Site to the WRRF would be comparable to or lower than the existing condition flows, as there would be a minor decrease in sanitary sewage generation, and no change to stormwater runoff (the Projected Development Sites would be fully impervious rooftop space under both existing and With Action conditions). Furthermore, a reduction in stormwater peak flows to the combined sewer system would be achieved with the incorporation of stormwater source control best management practices (BMPs); specifically, on-site detention would be required as part of the DEP site connection approval process. DEP's detention performance standard is intended to reduce peak discharges to the City's sewer system during rain events by requiring greater on-site storage of stormwater runoff and slower release to the sewer system. The implementation of DEP's stormwater performance standard over time is expected to provide additional capacity to the existing sewer system, thereby improving its performance. In addition, as coverage under the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater

Discharges from Construction Activity (GP-0-10-001) is required for any development that would involve soil disturbance of one or more acres, a Stormwater Pollution Prevention Plan (SWPPP), consisting of both temporary erosion and sediment controls and post-construction BMPs, would be required of the Applicant.

The Proposed Project would result in similar flows to the City's combined sewer system as under existing conditions, and therefore is not expected to result in an increase in combined sewer overflow volumes or frequencies during rain events. With the incorporation of BMP measures to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. Because of the available capacity of the Wards Island WRRF, the projected flows to the combined sewer system would not have a significant adverse impact on water quality. Therefore, it is concluded that the Proposed Project would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

TRANSPORTATION

The Proposed Project would not result in significant adverse impacts to transportation from the operation of the Proposed Project; the preliminary assessment found that the Proposed Project would not exceed any CEQR thresholds warranting a detailed analysis. The incremental increase in person and vehicle trips would fall below the CEQR Level 1 threshold for traffic, transit (subway and bus), and pedestrians; therefore, detailed traffic, transit, and pedestrian analyses are not warranted.

AIR QUALITY

The maximum hourly incremental increase in traffic from the Proposed Project would not exceed the *CEQR Technical Manual* carbon monoxide (CO) screening threshold of 170 peak hour trips at nearby intersections in the study area, nor would it exceed the particulate matter (PM) emissions screening threshold discussed in Chapter 17, Sections 210 and 311, of the *CEQR Technical Manual*. Therefore, a quantified assessment of mobile source emissions is not warranted for the Proposed Project with either Envelope 1 or Envelope 2, and no potential significant adverse air quality impacts from mobile sources associated with the Proposed Project would occur.

Restrictions would be placed on the use of electrically and/or utility steam-powered HVAC systems for the Projected Development Sites. The analysis of potential gas-fired kitchen equipment associated with the Proposed Project with either Envelope 1 or Envelope 2 determined that no significant adverse air quality impacts would occur. An (E) Designation (E-777) would be applied to ensure that the Proposed Project would not result in any significant adverse air quality impacts.

A review of manufacturing and process emission sources within a 400-foot study area, and major and large sources of emissions within 1,000 feet of the Projected Development Sites, was performed. No existing or potential sources of industrial emissions were identified, and no large or major sources of emissions were identified. Therefore, no analysis of the potential impacts of these emissions was required, and no potential significant adverse air quality impacts from these emission sources would occur on the Proposed Project.

An analysis of nearby existing laboratory exhaust systems determined there would be no significant adverse air quality impacts on the Proposed Project in the event of a chemical spill in a laboratory.

GREENHOUSE GASES AND CLIMATE CHANGE

The building energy use and vehicle use associated with the Proposed Project is projected to result in up to approximately 9,000 metric tons of carbon dioxide equivalent (CO_2e) emissions per year with the Proposed Project in 2036. The Proposed Project will be designed with fully electrified heating, cooling, and hot water systems for the new space. Air source heat pumps will be utilized to provide heating and hot water to the proposed hospital, while cooling would be provided using cooling towers and water-cooled chillers. This equipment would generally be more energy efficient than its fossil fuel-fired counterparts. Furthermore, the Proposed Project would include additional energy efficiency measures in its design to reduce energy consumption in line with the City's goals to reduce carbon emissions and applicable local laws, such as the immediate carbon intensities established in Local Law 97 and the energy consumption reporting in Local Law 84.

To provide reliable building systems, the Proposed Project is anticipated to utilize Con Edison steam to provide heating for the Proposed Project in the event of a loss of utility power. In addition, a distillate oil-fired boiler system may be installed to be used as a back-up in the unlikely event of an interruption of both electrical and utility steam services simultaneously. These systems would only be used in an emergency condition, and the boilers would be operated periodically for very limited periods of time for testing outside of an actual emergency. Therefore, emissions from these systems are not included.

Furthermore, New York State and NYC require 70 percent of electricity to be generated from renewable energy sources by 2030 and 100 percent renewable electricity by 2040, which would result in a significant reduction of emissions associated with the buildings' electricity consumption. However, this analysis conservatively uses emissions from the NYC electric grid expected for 2030. The total greenhouse gas (GHG) emissions associated with the Proposed Project construction, including direct emissions and upstream emissions associated with construction materials, would be an additional 19,108 metric tons.

The *CEQR Technical Manual* defines five goals by which a project's consistency with the City's GHG reduction goal is evaluated: (1) efficient buildings; (2) clean power; (3) sustainable transportation; (4) construction operation emissions; and (5) building materials carbon intensity.

As for efficient buildings, the Applicant is required at a minimum to achieve the energy efficiency requirements of the NYC Building Code. In 2020, as part of the City's implementation of strategies aimed at achieving the *OneNYC* GHG reduction goals, the City brought the New York City Energy Conservation Code (NYCECC) up to date with the 2020 Energy Conservation Code of New York State (2020 ECCNYS), which substantially increased the stringency of the building energy efficiency requirements and adopted the ASHRAE 90.1-2016 standard as a benchmark. The NYCECC also aligns with NYStretch Energy Code 2020, developed by New York State Energy Research and Development Authority (NYSERDA). The Proposed Project would comply with the NYCECC and would use fully electric heating, cooling, and hot water systems for the new space. The Applicant is also evaluating potential energy efficiency measures and design elements, such as certification under the Leadership in Energy and Environmental Design (LEED) Building Design and Construction for healthcare. Therefore, the Proposed Project would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

The Proposed Project would also support the other GHG reduction goals by virtue of its location in an area well supported by low carbon utilities, proximity to public transportation, and

commitment to construction air quality controls.[2] Additionally, the Proposed Project would be designed to use low-carbon alternatives where practicable. While designs are currently being evaluated, the Proposed Project would target for up to 75 percent of steel and 25 percent of cement to utilize low-carbon alternatives. These alternatives may include recycled steel (that may utilize electric arc furnaces for processing scrap metal) and cement replacements (such as slag, fly-ash, silica fume, calcined clay, and interground limestone). All of these factors demonstrate that the Proposed Project supports the GHG reduction goals as defined in the *CEQR Technical Manual*.

NOISE

A noise assessment was undertaken to determine the levels of noise attenuation that may be needed to achieve interior noise levels that are acceptable and in accordance with the *CEQR Technical Manual* guidance, which provides noise attenuation values for buildings based on exterior $L_{10(1)}$ noise levels for the purposes of achieving interior noise levels of 45 "A" weighted decibels[3] (dBA) or lower for community facility uses and 50 dBA or lower for commercial office and laboratory uses. The With Action condition $L_{10(1)}$ noise levels were determined by adjusting the existing noise measurements to account for background growth in traffic volumes (i.e., increases in traffic volumes not resulting from the Proposed Project) on adjacent roadways.

Based on the projected noise levels, up to 31 dBA of window/wall attenuation would be required for the Proposed Project with either Envelope 1 or Envelope 2 to achieve acceptable interior noise levels per the *CEQR Technical Manual* noise exposure guideline at community facility uses.

To implement the attenuation requirements, an (E) Designation (E-777) for noise would be applied specifying the appropriate window/wall attenuation. By meeting the design guidelines specified in the Noise (E) Designation, buildings developed as a result of the Proposed Project would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines of 45 dBA L_{10} for community facility uses and 50 dBA L_{10} for commercial office and laboratory uses.

PUBLIC HEALTH

The analyses presented in the EIS concluded that the Proposed Project with either Envelope 1 or Envelope 2 would result in no unmitigated significant adverse impacts in the areas of air quality, water quality, hazardous materials, or operational noise. While the construction analysis determined that construction activities would result in unmitigated temporary significant adverse noise impacts on the façades of multiple residential buildings either adjacent to or with a direct line of sight to the construction work areas and various portions of LHH as defined by *CEQR Technical Manual* thresholds, the public health assessment determined that the construction noise impacts would not generate significant adverse public health impacts.

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[2] Construction air quality controls would be implemented as Project Components Related to the Environment (PCREs) to reduce air pollutant emissions and avoid the potential for significant adverse air quality impacts during construction. All project commitments would be memorialized in a Restrictive Declaration that would be recorded against the Project Site to ensure PCREs and mitigation measures are implemented.

[3] In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise.

NEIGHBORHOOD CHARACTER

A preliminary analysis of the Proposed Project's effects on neighborhood character was conducted and concluded that the Proposed Project would not result in significant adverse impacts to neighborhood character and that a detailed analysis is not warranted.

The neighborhood character of the 400-foot study area is primarily defined by its mix of institutional, residential, and ground floor retail uses, as well as the diverse urban and architectural context of the area. The Proposed Project would reinforce the existing institutional nature of the Project Site and neighborhood and would contribute to the mix of land uses in the area and the diverse urban and architectural context. Benefits of the Proposed Project would include the activation of the streetscape, the strengthening of an existing neighborhood community facility institution, and improvements to the local subway station. Overall, the Proposed Project would be compatible with the defining characteristics of the study area's neighborhood character and would not result in significant adverse neighborhood character impacts.

CONSTRUCTION

Construction associated with the Proposed Actions would result in temporary disruptions in the surrounding area. As described below, the Proposed Project's construction activities under both Envelope 1 and Envelope 2 would result in temporary significant adverse noise impacts. Findings specific to each of the key technical areas are summarized below.

TRANSPORTATION

Potential transportation impacts during peak construction conditions were assessed as described below.

Traffic

For purposes of the construction traffic analysis, the combined daily workforce and truck trip projections in the peak quarter (second quarter of Year 4, which would occur in 2030 for both Envelope 1 and Envelope 2) were used as the basis for estimating peak hour construction trips. Based on a detailed assignment of these project-generated vehicle trips, two intersections (East 79th Street and Park Avenue and East 77th Street and Third Avenue) were selected for detailed analysis during the construction AM and PM peak hours (6:00 to 7:00 AM and 3:00 to 4:00 PM). During all stages, as under existing conditions, one travel lane on East 76th Street and East 77th Street would be maintained, and one bus lane and two travel lanes on Lexington Avenue would be maintained. Therefore, on streets bordering the Project Site, traffic capacity would not be reduced by the construction Maintenance and Protection of Traffic (MPT) elements because there would be no travel lane closures. The two intersections would operate at similar levels of service in the 2030 With Action condition when compared to the 2030 No Action condition, and no significant adverse traffic impacts would occur during the Weekday AM and PM construction peak hours.

Transit

During peak construction for both Envelope 1 and Envelope 2, the estimated number of peak-hour transit trips would be 220, with 195 subway trips and 25 bus trips. Proposed Project-generated subway trips would be dispersed among the study area's subway stations/lines such that trip-making for any single subway station/line would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour subway trips. Proposed Project-generated bus trips would be

dispersed among the local bus routes serving the study area, such that trip-making for any single bus route would not exceed the *CEQR Technical Manual* analysis threshold of 50 or more peak hour bus trips on any bus route in any direction. Construction worker-related transit trips would also be made outside of the commuter peak hours, which correspond with lower background transit levels and are typically not subject to concern or assessment of operating conditions. Therefore, consistent with the *CEQR Technical Manual*, a detailed transit analysis for the Proposed Project's construction condition is not warranted and the Proposed Project would not result in any significant adverse construction transit impacts.

Pedestrians

During peak construction for both Envelope 1 and Envelope 2, the estimated number of peak-hour person trips added to the area's sidewalks, corners, and crosswalks would be approximately 415 pedestrians per hour during the weekday AM and PM construction peak hours. Based on the detailed assignment of construction-generated pedestrian trips, one sidewalk and one corner would exceed the *CEQR* analysis threshold of 200 pedestrian trips during the weekday AM and PM construction peak hours. In addition to this sidewalk and corner, considering the effects of a planned narrowing of study area sidewalks and corners during construction due to MPT elements and the diversions of pedestrian trips due to the short, temporary relocation of the ED walk-in entrance from the south side of East 77th Street to the north side of East 76th Street (with Envelope 1 and Envelope 2), a total of seven sidewalks and three corners were recommended for detailed analysis for the weekday AM and PM construction peak hours, and typical weekday AM, midday, and PM peak hours. No significant adverse pedestrian impacts were identified at these pedestrian elements during any peak hour. Therefore, the Proposed Project would not result in any significant adverse construction pedestrian impacts.

Street User Safety

The Proposed Project under Envelope 1 and Envelope 2 would add modest pedestrian and vehicular trips to routes already traversed by heavy volumes at high crash locations in the study area. Therefore, the Proposed Project is not expected to result in the potential for significant adverse safety impacts.

Parking

The parking demand from construction activities under both Envelope 1 and Envelope 2 is expected to be fully accommodated by parking facilities within a ¼-mile radius of the Project Site, and the Proposed Project would not result in any significant adverse parking impacts during construction.

AIR QUALITY

Measures would be taken to reduce pollutant emissions during construction of the Proposed Project under both Envelope 1 and Envelope 2 in accordance with applicable laws, regulations, and building codes. These include the use of ultra-low sulfur diesel fuel, dust suppression measures, idling restrictions, and diesel equipment reduction. In addition, construction of the Proposed Project would utilize newer equipment (i.e., equipment meeting the United States Environmental Protection Agency Tier 3 emission standard) and best available tailpipe reduction technologies to further reduce air pollutant emissions. With the implementation of these emission reduction measures, which would be included in the Project Components Related to the Environment (PCREs), the dispersion modeling analysis of construction-related air emissions for

both non-road and on-road sources determined that particulate matter ($PM_{2.5}$ and PM_{10}), annual average nitrogen dioxide (NO_2), and CO concentrations would be below their corresponding *de minimis* thresholds or National Air Quality Ambient Standards, respectively. Therefore, construction of the Proposed Project under both Envelope 1 and Envelope 2 would not result in significant adverse air quality impacts due to construction sources.

NOISE

Noise levels from construction of the Proposed Project under both Envelope 1 and Envelope 2 are expected to be comparable to those from typical NYC construction projects involving a new building or buildings with concrete slab floors and foundation on piles. Similarly, potential disruptions to adjacent residences and other receptors from elevated noise levels generated by construction would be expected to be comparable to those that would occur immediately adjacent to a typical NYC construction site during the periods when the loudest activities would occur.

A detailed analysis of construction noise considered the magnitude and duration of potential construction noise effects by evaluating noise from construction of the Proposed Project during various periods throughout construction. During approximately two years of the construction schedule in which only interior fit-out work at newly constructed spaces would be occurring (i.e., Stage 2 and 3 interior fit-out), an exterior hoist would still have the potential to generate noise and was consequently included in the construction noise analysis. However, as the only exterior noise-generating equipment during these times, the hoist alone would not have the potential to result in significant adverse noise impacts during these periods. Additionally, the portion of Stage 4 occurring after completion of Stage 3, which is entirely interior renovations, would not include any exterior noise-generating equipment. This period would therefore not have the potential to produce substantial noise effects at nearby receptors because the existing building façade would shield interior noise-generating construction equipment. Consequently, this portion of Stage 4 was not evaluated as part of the construction noise analysis.

The construction noise analysis predicted noise levels due to construction with Envelope 1 could exceed the impact criteria at 16 receptors surrounding the proposed construction work area. Noise levels due to construction with Envelope 2 could exceed the impact criteria at 14 receptors, most but not all of which are the same receptors as with Envelope 1. At these receptors, construction would produce noise level increases that would be noticeable and potentially intrusive during the most noise-intensive nearby construction activities; however, the predicted maximum levels would not persist throughout construction, and the noise levels would fluctuate over the course of the construction period. While the greatest levels of construction noise would not persist throughout construction, these locations would experience construction noise levels whose magnitude and duration could constitute temporary significant adverse impacts. Further construction noise control measures are discussed below in "Mitigation."

VIBRATION

For both Envelope 1 and Envelope 2, the buildings of most concern for potential structural or architectural damage due to vibration are the existing buildings and structures immediately adjacent to Projected Development Sites 1 and 1a. However, given their distances from the construction work areas, vibration levels at these buildings and structures would not be expected to exceed 0.50 inches per sec Peak Particle Velocity (PPV), including during sitework activities, where use of the vibratory roller would be the most vibration-intensive activity. Additional

receptors farther away from the Project Site would experience less vibration than those listed above, and similarly would not be expected to cause structural or architectural damage.

In terms of potential vibration levels that would be perceptible and annoying, the equipment that would have the most potential for producing levels that exceed the 65 vibration decibels (VdB) limit is the vibratory roller, which would have the potential to produce perceptible vibration levels (i.e., vibration levels exceeding 65 VdB) at receptor locations within a distance of approximately 250 feet, depending on soil conditions. However, the operation of this equipment would occur for limited periods of time at any given location, and therefore would not result in any significant adverse impacts. Consequently, there is no potential for significant adverse vibration impacts from construction of the Proposed Project under Envelope 1 or Envelope 2.

ALTERNATIVES

NO ACTION ALTERNATIVE

The No Action Alternative is the "Future without the Proposed Project," or "No Action condition," described previously in "D. Analysis Framework," and analyzed in the EIS.

With the No Action Alternative, the main hospital complex on Projected Development Site 1 will remain in its current form, with most ambulatory uses on the main hospital block relocating to other facilities (including Projected Development Site 1a). Approximately 650 daily patients, 944 daily visitors, and 257 workers will be relocated to facilities beyond the Project Site, including Northwell's as-of-right Third Avenue project, which is currently under development. In the No Action Alternative, these relocations will make approximately 13,500 sf within the existing hospital available to convert a limited number of double-bedded rooms to single-bedded rooms (no change in the total number of beds) and will allow for reconfiguration of certain suboptimal spaces. However, the majority of the rooms will remain double-bedded, the ORs and ED will remain undersized, ambulances will still be parked and double-parked along East 77th Street, and longer trucks will still extend out of the loading dock onto the sidewalk and East 76th Street. Under the No Action Alternative, the Applicant may redevelop Projected Development Site 1a, but the No Action Alternative in this analysis conservatively assumes that buildings on Projected Development Site 1a will continue to be used as-is, other than the above-mentioned relocations from the main hospital complex on Projected Development Site 1.

Without the discretionary actions needed to facilitate the enlargement and modernization of the existing LHH complex, the No Action Alternative would fall short of the Proposed Project in advancing public policy goals such as OneNYC's goal for growth in emerging fields, promoting access to healthcare, and modernizing key infrastructure. It would be less supportive of the New York Works' goal of expanding new job opportunities in the life sciences and healthcare industry and of the City's LifeSci NYC efforts to redevelop space for advancing healthcare and meeting the growing needs of New Yorkers. In terms of community facilities and services, it would not provide any of the benefits of the Proposed Project, including 475 new and renovated single-bedded rooms, 30 state-of-the-art ORs, 48 ED treatment positions, a new entrance and lobby for the Mother-Baby Hospital, internal ambulance access, additional truck docks that are adequately sized and allow separation of clean and soiled material, and improved subway access to the downtown subway platform at East 77th Street. The No Action Alternative would not significantly upgrade the facilities of LHH nor enhance its ability to treat its patients. The No Action Alternative would not create 339 new jobs at the hospital. The No Action Alternative would not affect existing urban design and visual resources, but it also would not create a new hospital building with a

major entrance in glass façade on Lexington Avenue, nor would it make other streetscape improvements.

The No Action Alternative would avoid the significant adverse shadow impacts and the temporary significant adverse construction noise impacts that would be expected to occur with the Proposed Project with either Envelope 1 or Envelope 2.

NO SIGNIFICANT ADVERSE IMPACT ALTERNATIVE

CEQR requires that alternatives be considered that would avoid or reduce the potential significant adverse impacts—in this case caused by shadows and temporary construction noise. As noted above in "Shadows," the Proposed Project with either Envelope 1 or Envelope 2 would cause significant adverse shadow impacts to the publicly accessible garden owned and maintained by the Eighth Church of Christ, Scientist, on the north side of East 77th Street. Therefore, additional shadow sensitivity studies were conducted to identify an alternative version of the Proposed Project that would not cause significant adverse shadow impacts to the garden. The analysis concluded, for reasons detailed below, that virtually any development on Projected Development Sites 1 or 1a that would be taller than the existing buildings would cause significant adverse shadow impacts on the March 21/September 21 analysis day. Therefore, significant adverse shadow impacts to the church garden would be unavoidable and no alternative that would avoid a significant adverse shadow impact and meet the Proposed Project's purpose and need exists.

In order to completely avoid the significant adverse construction noise impacts identified above in "Construction," construction of the Proposed Project with either Envelope 1 or Envelope 2 would have to be restricted in such a manner so as to occur neither on the same block, nor within one block of any noise receptors, which would require elimination of the proposed rezoning in the vicinity of these sensitive receptors. This would severely limit any additional development and would not allow the Proposed Project to achieve its goals and objectives.

Mitigation measures have been identified for temporary noise impacts during construction. However, there is no alternative that would avoid a significant adverse temporary construction noise impact and produce a project that would satisfy the goals and objectives of the Proposed Project.

MITIGATION

This section considers mitigation measures to address potential significant adverse impacts resulting from the Proposed Project in the areas of Shadows and Construction Noise.

SHADOWS

The Proposed Project with either Envelope 1 or Envelope 2 would cast new shadows on the Eighth Church of Christ, Scientist garden located across the street from Projected Development Site 1 and abutting Projected Development Site 1a, in the spring, summer, and fall, causing significant adverse impacts to the vegetation of the garden. The garden is mostly shaded in existing conditions, with some low level and dappled sunlight filtered through shade tolerant trees. The mature planting beds include shade tolerant, perennial species including hosta, ivy, pee-wee, boxwoods, and hydrangeas. The brick perimeter wall at the back of the garden has cascading Boston ivy, a strong shade-tolerant species.

An alternative to reduce the shadow impact has been considered in the Alternatives analysis, which concluded that virtually any development on Projected Development Sites 1 or 1a that would be

taller than the existing buildings would cause significant adverse shadow impacts on the March 21/September 21 analysis day. Therefore, shadow impacts to the church garden would be unavoidable and no such alternative exists. Potential mitigation measures are being explored and will be refined between the DEIS and FEIS.

CONSTRUCTION NOISE

With both Envelope 1 and Envelope 2, the Proposed Project's construction activities would result in temporary significant adverse impacts related to noise. The construction noise analysis for Envelope 1 predicted noise levels due to construction could exceed the construction noise impact criteria at 16 receptors surrounding the proposed construction work area. Noise levels due to construction with Envelope 2 could exceed the impact criteria at 14 receptors, most but not all of which are the same receptors as with Envelope 1. At these receptors, construction would produce noise level increases that would be noticeable and potentially intrusive during the most noise-intensive nearby construction activities; however, the predicted maximum levels would not persist throughout construction, and the noise levels would fluctuate over the course of the construction period. While the greatest levels of construction noise would not persist throughout construction, these locations would experience construction noise levels whose magnitude and duration could constitute temporary significant adverse impacts.

However, construction would typically occur during weekday daytime hours and would therefore not produce noise during nighttime hours when residents would be most sensitive to noise. Further, construction would comply with NYC Noise Control Code regulations and commit to the use of lower noise emission limits for select pieces of equipment, additional shielding for Stage 2 concrete operations and along East 76th Street, and use of existing Con Edison power in lieu of a generator during Stage 3 construction. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the NYC Noise Control Code. These measures would include a variety of source and path controls. The results of the construction noise analysis assume that each of the measures described below would be implemented.

The control measures listed below would be implemented as PCREs beyond NYC regulations for the construction of the Proposed Project with either Envelope 1 or Envelope 2:

- Equipment such as compressors and impact wrenches would be required to meet the mandated noise levels to be used for construction of the Proposed Project.
- Impact pile drivers would not be used.
- In lieu of a generator, power during Stage 3 construction would be drawn from the existing Con Edison grid.
- Throughout the construction period, concrete operations would be located within the construction barrier.
- During Stages 2 and 3 of construction, noise barriers along East 76th Street would be 12 feet tall and cantilevered towards the work area, and 8 feet tall along any remaining perimeter.

Mitigation measures to control noise at the receptors predicted to experience impacts would also be offered during construction of the Proposed Project. While some of the impacted buildings feature modern façade construction, including insulated glass windows and an alternative means of ventilation that would allow for the maintenance of a closed-window condition, it is not possible to definitively determine the presence of these features at all receptors that would have the potential to experience temporary significant adverse construction noise impacts. Under Envelope

1, the northern façade of 122 East 76th Street, the northern façade of 114-118 East 76th Street, the northern façade of 1068 Lexington Avenue, the southern and western façades of 117 East 77th Street, the southern façades of 110-122 East 76th Street, and the northern, eastern, and southern façades of LHH buildings are predicted to experience a temporary significant adverse construction noise impact. Under Envelope 2, the northern façades of 122 East 76th Street, the northern façade of 110-118 East 76th Street, the northern façade of 1068 Lexington Avenue, the southern and western façades of 117 East 77th Street, the southern façades of 110-122 East 76th Street, and the northern, eastern, and southern façades of LHH buildings are predicted to experience a temporary significant adverse construction noise impact. The Applicant would offer to provide and install storm windows for the above façades that do not already have insulated glass windows and/or one window air conditioner per living room or bedroom or patient room or any other noise sensitive spaces that do not already have alternative means of ventilation. These mitigation measures would be implemented prior to the start of construction.

Building façades with insulated glass windows or storm windows and alternative ventilation would provide sound attenuation such that even during warm weather conditions, interior noise levels would be approximately 30 dBA less than exterior noise levels. However, the most noise-intensive construction activity nearest the receptors experiencing significant adverse impacts would result in interior noise levels up to 62 dBA L_{10}, which is 17 dBA greater than the level considered acceptable according to *CEQR Technical Manual* noise exposure guidelines. Consequently, the temporary significant adverse noise impacts predicted to occur at the above-mentioned receptors would be only partially mitigated and thus unavoidable.

UNAVOIDABLE ADVERSE IMPACTS

Unavoidable significant adverse impacts are those that would occur if a proposed project or action is implemented regardless of the mitigation employed, or if mitigation is impracticable.

As described above in "Shadows," the Proposed Project with either Envelope 1 or Envelope 2 would cast new shadows on the Eighth Church of Christ, Scientist garden located across the street from Projected Development Site 1 and abutting Projected Development Site 1a, in the spring, summer, and fall, causing significant adverse impacts to the vegetation of the garden. An alternative to reduce the shadow impact has been considered (see above section, "Alternatives"); however, the analysis concluded that virtually any development on Projected Development Sites 1 or 1a that would be taller than the existing buildings would cause significant adverse shadow impacts on the March 21/September 21 analysis day. Therefore, the significant adverse shadow impacts to the church garden would be unavoidable. Potential mitigation measures are being explored and will be refined between the DEIS and FEIS. If no mitigation measures are agreed upon, this will remain a significant adverse impact.

As described above in "Construction" and "Mitigation," construction of the Proposed Project with either Envelope 1 or Envelope 2 would result in temporary significant adverse noise impacts. To the extent practicable, mitigation has been proposed for the identified significant adverse impacts. However, no practicable mitigation has been identified to fully mitigate the temporary construction noise impacts, and there is no reasonable alternative to the Proposed Project that would meet its purpose and need, eliminate potential impacts, and not cause other or similar significant adverse impacts.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

The term "growth-inducing aspects" generally refers to the potential for a proposed action to trigger additional development in areas outside the project site that would otherwise not have such development without the proposed project. The *CEQR Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed action is appropriate when the project:

- Adds substantial new land use, new residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or
- Introduces or greatly expands infrastructure capacity.

The development that would occur with the Proposed Actions would be limited to the Proposed Project on Projected Development Site 1, which is fully occupied by existing LHH buildings. As noted above in "Land Use, Zoning, and Public Policy," the Proposed Actions would not result in a substantial change in the land use on the Project Site because it would continue the existing hospital-related uses. The Project Site is located in an area with public facility and institutional uses, and the Proposed Actions would be compatible with existing land use in the surrounding area; therefore, no significant adverse impacts to land use, zoning, or public policy would occur. Further, the Proposed Actions, including the proposed discretionary special permits, would modify only the zoning regulations on the Project Site and would not affect zoning regulations applicable to other sites in the study area.

As discussed on page 5 and pages 10e–10f of the "Socioeconomic Conditions" section of the EAS,[4] while the Proposed Project would result in an incremental increase of 339 workers, it would not result in any indirect or direct business displacement, nor would it significantly affect business conditions in any industry or category of business within or outside of the study area. The Proposed Project would not reduce employment or impair the economic viability of businesses in any industry or category of business within or outside of the study area. The Proposed Project would not constitute a new economic activity in the study area that could substantively alter existing economic patterns; rather, the Proposed Project would strengthen the existing cluster of medical, research, and other institutional uses on the Upper East Side. Therefore, the Proposed Project is not expected to introduce or accelerate a trend of changing socioeconomic conditions.

As noted above in "Water and Sewer Infrastructure," while the Proposed Project would result in incremental increase in water demand, it would not represent a significant increase in demand on the NYC water supply system, and the Proposed Project would not result in any significant adverse impacts on the City's water supply under either Envelope 1 or Envelope 2.

The incremental increase of 16,551 gpd of sewage that the Proposed Project would generate in the 2036 analysis year would not be substantial when compared with the WRRF's average daily flow of 202 mgd and would not result in an exceedance of the WRRF's permitted capacity of 275 mgd. Compared with existing conditions, the Proposed Project would result in an increase in flows to the combined sewer system during wet weather, primarily due to the increase in sanitary flow resulting from the larger development. The Proposed Project surface coverage and the weighted runoff coefficients of the Projected Development Sites would remain as in existing conditions.

[4] The EAS evaluated Envelope 1 (which preceded the formulation of Envelope 2); however, the assessment of socioeconomic conditions is the same for Envelope 2 since the incremental increase in the number of workers generated by the Proposed Project would be the same under either massing scenario.

The Proposed Project would result in similar flows to the City's combined sewer system as under existing conditions, and therefore is not expected to result in an increase in combined sewer overflow volumes or frequencies during rain events. Because of the available capacity of the Wards Island WRRF, the projected flows to the combined sewer system would not have a significant adverse impact on water quality. In addition, with the incorporation of BMPs to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. The Proposed Project would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and built, would be expended in the construction and operation of the Proposed Project. These resources include the materials used in construction; energy in the form of fuel and electricity consumed during construction and operation of the Proposed Project; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the project.

The resources are considered irretrievably committed because their reuse for some purpose other than the construction of the Proposed Project under either Envelope 1 or Envelope 2 would be highly unlikely. The Proposed Project under either Envelope 1 or Envelope 2 constitutes an irreversible and irretrievable commitment of the Project Site as a land resource, thereby rendering land use for other purposes infeasible, at least in the near term.

These commitments of land resources and materials are weighed against the benefits of the Proposed Project. The Proposed Project is the development of a 21st century, state-of-the-art hospital complex with single-bedded patient rooms, new and improved operating suites, and an expanded ED on Projected Development Site 1. Under either Envelope 1 or Envelope 2, it would also include additions and modifications to portions of the existing hospital complex on Projected Development Site 1 and connections between the new hospital building and the existing adjacent buildings. Projected Development Site 1a would be redeveloped with a new building to house hospital support functions, including educational and administrative space and below grade utility/mechanical functions. A utility tunnel under East 77th Street would connect it to the main hospital on Projected Development Site 1.[5] Additionally, improvements to the Lexington Avenue 77th Street subway station would be made. The purpose and need for the Proposed Project are grounded in improving health outcomes for patients and ensuring that the hospital will remain a resource for the community and NYC for years to come. A revitalized hospital would allow LHH to continue providing top-tier care to all its patients. Benefits of the Proposed Project under either Envelope 1 or Envelope 2 include the following:

- The Proposed Project's single-bedded rooms would result in improvements to patient care, a reduction in the risk of cross infection, more privacy for the patient and their family and loved ones, and greater flexibility in operation.

[5] While the tunnel would require a revocable consent from DOT, the building on Projected Development Site 1a would be as-of-right under existing zoning. This related project may occur independent of the Proposed Project; however, for a conservative analysis, it was analyzed as part of the Proposed Project.

- New ORs would accommodate state-of-the-art equipment and would provide maximum flexibility across surgical platforms, facilitating improved patient access to procedures, reduced turn-over time, and increased overall efficiency throughout the hospital.
- An ED with an increased number of treatment positions (from 34 to 48, all of which would be 150-sf hard-walled positions rather than curtained positions) would create space to isolate infectious or immuno-compromised patients and would offer patients more comfort and privacy.
- The creation of a Mother-Baby Hospital, designed to separate non-infectious patients from all other services provided at LHH, would improve the experience of expectant families.
- A new ambulance bay on East 77th Street would allow six ambulances to park and discharge patients under the building in a weather-protected space off the street. This would improve both the patient experience arriving to the hospital and the flow of traffic on the street.
- New truck docks would allow four additional trucks to be accommodated at the same time. The new truck docks would also be long enough and angled to allow all the trucks using them to be off the street and off the sidewalk. The new docks would also provide for the separation of clean and soiled materials. Loading activities would be off the street and sidewalk and would no longer interfere with pedestrian and vehicular movement on East 76th Street.

As noted above in "Land Use, Zoning, and Public Policy," the Proposed Project under either Envelope 1 or Envelope 2 would also be consistent with, and supportive of, the public policies applicable to the Project Site and the study area. ✷