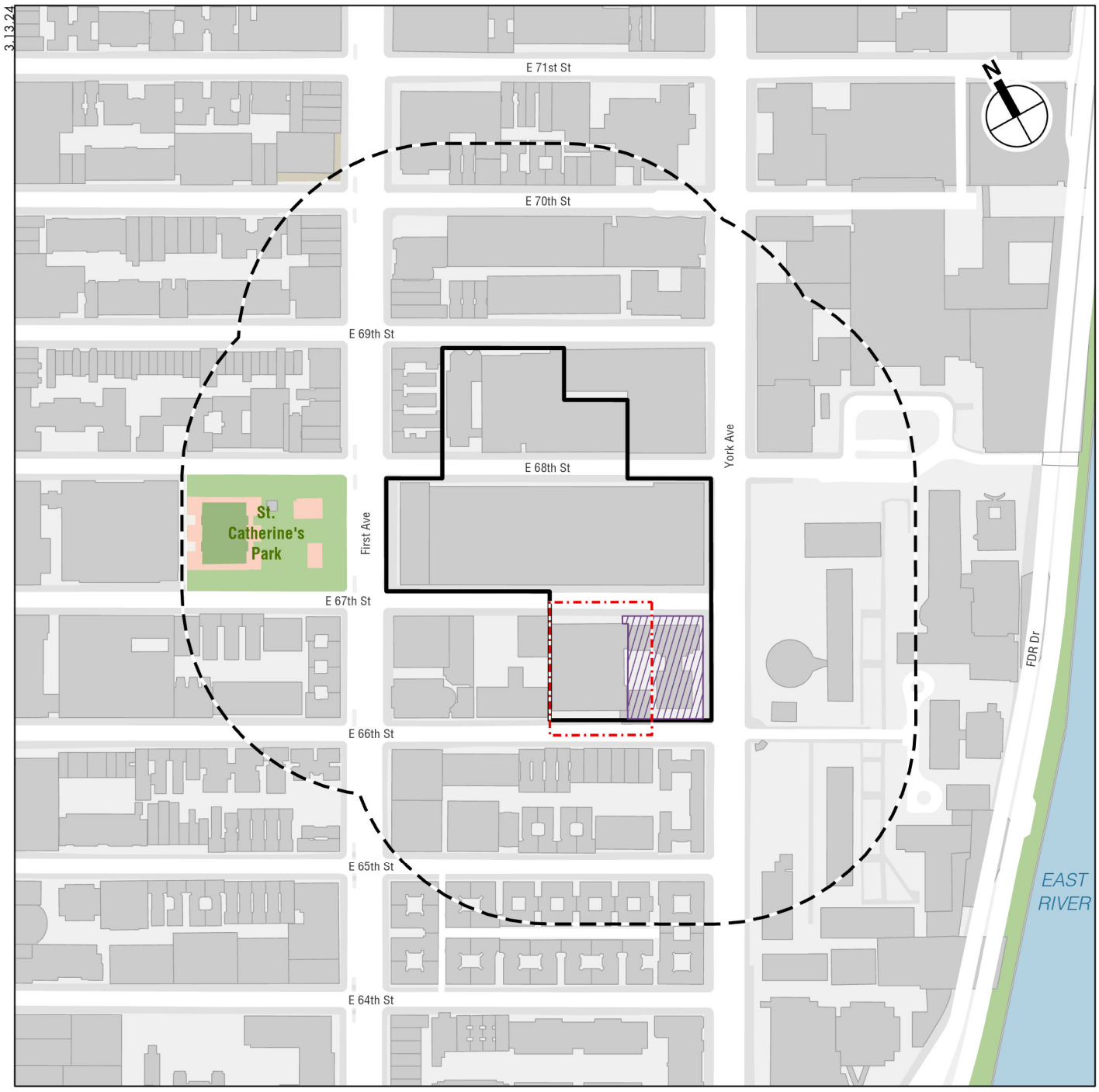
A. INTRODUCTION

Memorial Sloan Kettering Cancer Center (MSKCC) (the Applicant) is requesting a series of zoning actions including a rezoning from an R8 district to an R9 district; a zoning text amendment, authorizations, a special permit; a modification to a previously established Large Scale Community Facility Development (2001 LSCFD) (the Project Area), a curb cut certification and a revocable consent to construct an enclosed patient bridge across East 67th Street (Patient Bridge) to facilitate the development of a new 31-story inpatient hospital building (the Proposed Project) on MSKCC's campus on the east end of the block bounded by York and First Avenues and East 66th and East 67th Streets (Block 1461, on a portion of Lot 21 and a portion of Lot 13) (the Development Site) in Manhattan Community District 8 (see **Figure ES-1**).

The Proposed Actions would facilitate the development of the Proposed Project, also referred to as the "MSK Pavilion," a new, 31-story state-of-the-art facility entirely devoted to in-patient care for acutely ill cancer patients, providing 28 new state-of-the-art operating rooms and up to 206 new specialized single-bedded patient rooms and the necessary clinical and mechanical support spaces. The Proposed Project would replace the only two existing non-clinical, non-medical MSKCC buildings within the 2001 LSCFD, Scholars and Sloan. These two buildings contain contract housing for MSKCC medical staff and students as well as administrative offices. Below-grade parking connects with the existing Rockefeller Research Laboratories (RRL) building adjacent to the west. Existing research functions and staff would remain in RRL. However, some ground floor conference room space (approximately 2,080 square feet [sf]) would be removed to provide a new two-way parking garage ramp on East 67th Street to serve the existing 263 spaces in the garage, which would remain. The garage would continue to have an entrance on East 66th Street and would be available exclusively to MSKCC staff, patients, and visitors with valet service.

A two-story Patient Bridge over East 67th Street would provide a connection for patients and staff between the Proposed Project and MSKCC's Memorial Hospital on the block immediately to the north. Because the programming for the Proposed Project would be entirely devoted to the 28 operating rooms and up to 206 beds and the necessary clinical and mechanical support spaces, it would not function as a free-standing hospital, and the Applicant has stated that it would require the Patient Bridge to serve as the essential link to MSKCC's existing medical services, such as its Urgent Care Service, and its full range of therapeutic and diagnostic facilities housed elsewhere on its campus.

The New York City Department of City Planning (DCP), acting on behalf of the City Planning Commission (CPC), is the lead agency for the environmental review. Based on the Environmental Assessment Statement (EAS) that has been prepared, the lead agency has determined that the Proposed Actions have the potential to result in significant adverse environmental impacts, requiring that an Environmental Impact Statement (EIS) be prepared. The 2021 *City Environmental Quality Review (CEQR) Technical Manual* served as a general guide on the



Project Location

Figure ES-1

methodologies and impact criteria for evaluating the Proposed Project's effects on the various areas of environmental analysis.

B. PROJECT DESCRIPTION

DESCRIPTION OF THE DEVELOPMENT SITE, REZONING AREA, AND PROJECT AREA

As shown on **Figure ES-1**, the Development Site is located at 1233 York Avenue on portions of Lots 21 and 13 of Manhattan Block 1461. Two adjoining community facility buildings (Scholars and Sloan) occupy the entire frontage of the west side of York Avenue between East 66th and East 67th Streets. Both buildings are owned by MSKCC and provide contract housing to its professional staff and students, as well as administrative support services. The north building (Scholars) is 23 stories tall, and the south building (Sloan) is 20 stories tall; together, they total approximately 292,837 gross square feet (gsf). They contain a total of 355 contract housing units (primarily for professional staff and students for their terms of service or academic affiliation with MSKCC) and approximately 45,039 gsf of hospital administrative office space. As noted above, there is a 263-space parking garage below the Sloan and Scholars buildings and the adjacent RRL building (occupying most of Lot 13 and a portion of Lot 21), which is also owned by MSKCC and would continue to be used by MSKCC staff, patients, and visitors. There is no accessory parking for Sloan and Scholars residents in the garage.

As shown in **Figure ES-2**, the Rezoning Area (40,167 sf) comprises Block 1461 Lot 21 (western portion) and Lot 13, currently within an R8 zoning district.

The proposed Rezoning Area is within the 2001 LSCFD comprising MSKCC's medical buildings ranging in height from 4 to 23 stories located between York and First Avenues and East 66th and East 69th Streets.

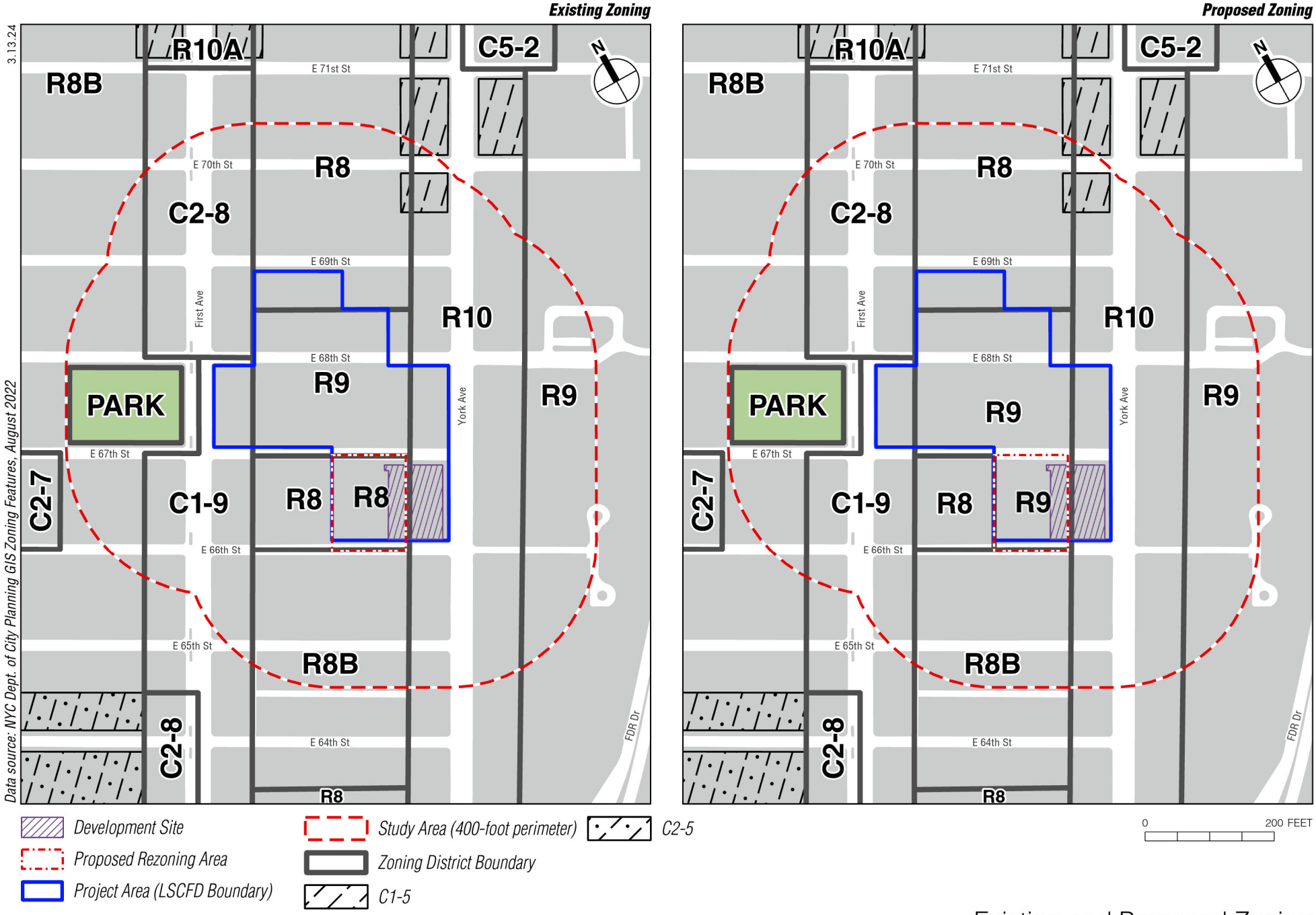
This interconnected campus spans most of three city blocks (Main Campus/Block 1462, and portions of Blocks 1461 and 1463) and is used exclusively for cancer treatment and research. Staff and patients in the Memorial Hospital building at 1275 York Avenue (across East 67th Street from the Development Site) on the Main Campus utilize these interconnections to access treatment centers, diagnostic centers, and procedural facilities throughout the Project Area (see **Figure ES-3**). The MSKCC buildings are interconnected at many levels, including through tunnels running below both East 67th and East 68th Streets.

The existing Sloan and Scholars buildings being largely contract housing for professional staff and students are the exception. They are the only MSKCC buildings in the 2001 LSCFD that are not used for clinical or research purposes. There is no connection between the Sloan and Scholars buildings and the MSKCC campus north of East 67th Street, and these buildings are accessed through street-level entrances.

No changes to the 2001 LSCFD boundaries are proposed. However, the rezoning of 40,167 sf from R8 to R9 would increase the allowable floor area in the LSCFD by 140,584.5 sf.

DESCRIPTION OF SURROUNDING AREA

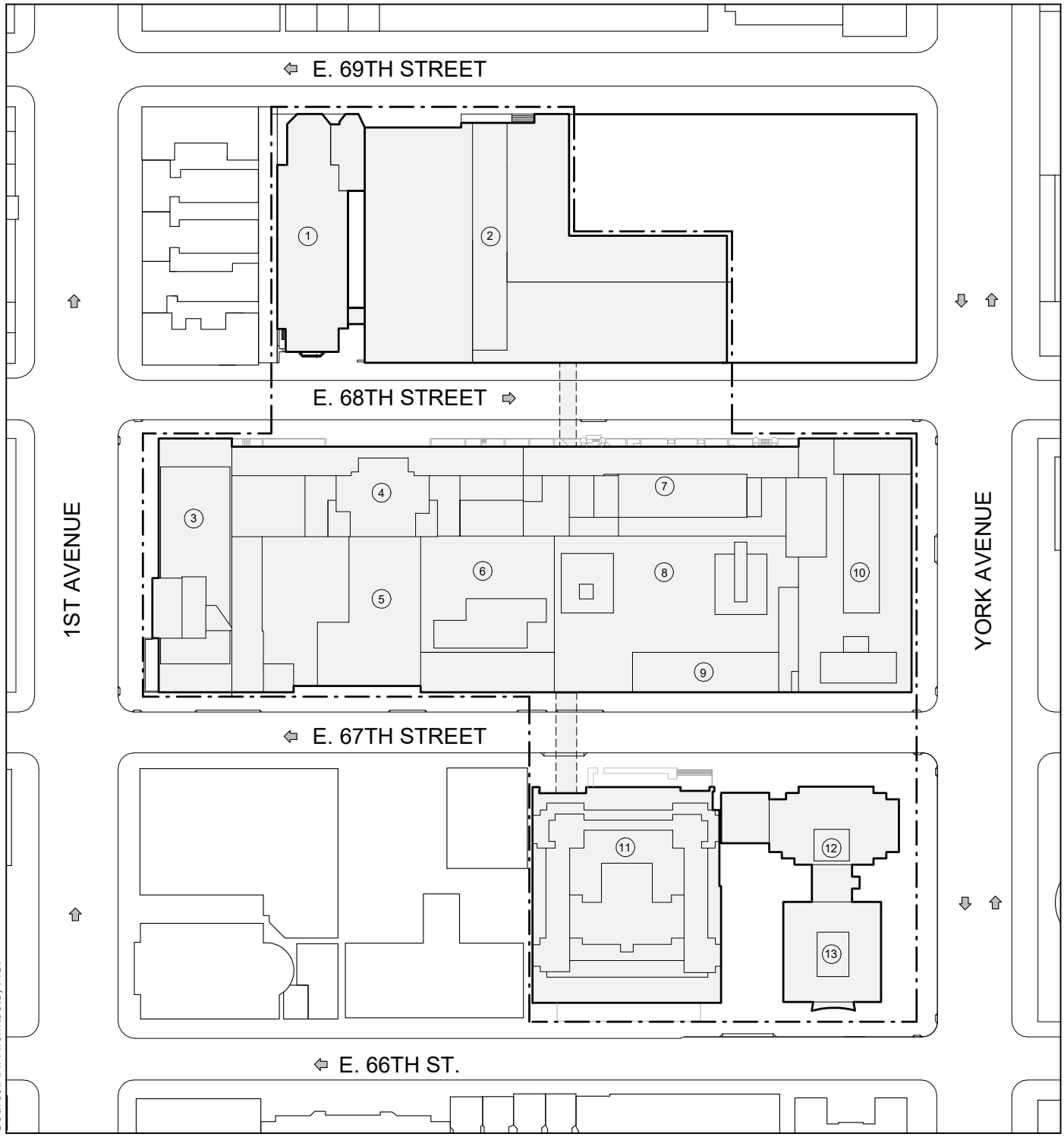
The area surrounding the Project Area is predominately institutional with hospitals and medical towers accounting for the largest segment; churches and schools are also prominent. Residential uses include multi-family walkup and elevator buildings and one- and two-family townhouses,



Existing and Proposed Zoning

Figure ES-2

MSK PAVILION



LEGEND

- LSCFD BOUNDARY
- EXISTING UNDERGROUND TUNNEL
- EXISTING CURB CUT
- EXISTING LSCFD BUILDING FOOTPRINT
- EXISTING BUILDING FOOTPRINT
- STREET DIRECTION

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

NORTH BLOCK:

1. SAINT CATHERINE OF SIENA CHURCH / 1 FLOOR
2. THE ZUCKERMAN RESEARCH CENTER / 23 FLOORS

MAIN HOSPITAL BLOCK:

3. SCHWARTZ BUILDING / 13 FLOORS
4. HOWARD BUILDING / 15 FLOORS
5. RADIATION ONCOLOGY BUILDING / 4 FLOORS
6. ENID A. HAUPT PAVILION / 7 FLOORS
7. BOBST BUILDING / 14 FLOORS
8. INFILL INFRASTRUCTURE / 9 FLOORS
9. WINSTON SURGICAL PAVILION / 4 FLOORS
10. MEMORIAL HOSPITAL / 20 FLOORS

SOUTH BLOCK:

11. ROCKEFELLER RESEARCH LABORATORY / 16 FLOORS
12. SCHOLARS RESIDENCE / 23 FLOORS
13. SLOAN HOUSE / 20 FLOORS

N

0' 50' 100' 200'

Existing LSCFD/MSKCC Campus Site Plan

and mixed residential and commercial uses. The areas north and east of the Project Area, including along York Avenue, are characterized primarily by large hospital and academic/research institutional uses, including New York-Presbyterian/Weill Cornell Medical Center, Hospital for Special Surgery, and Rockefeller University. Areas to the south and west of the Project Area are characterized by one- and two-family townhouses and medium-rise multi-family residential buildings along the midblocks, and medium- and high-rise mixed-use residential and ground floor commercial buildings along First Avenue. St. Catherine's Park, an important public open space, is found in the block west of the Project Area between East 67th and East 68th Streets. The surrounding area also contains school and religious institution uses, including one of each on the same block to the west of the Proposed Project.

The surrounding area is zoned with high-density residential and commercial districts mapped along the avenues: York Avenue is zoned R10 (FAR 10) to a depth of 125 feet on both sides north of East 69th Street and to a depth of 100 feet south of East 69th Street west of York Avenue. The area to the east of that R10 district is zoned R9 from East 63rd Street to East 72nd Street, which permits the three medical institutions occupying that district to be developed to FAR 10.[1] First Avenue is mostly in C1-9 or C2-8 commercial districts; the midblocks in the area are generally mapped as medium-density R8 and R8B residential districts. Two of the midblocks within the Project Area are zoned R9.

The area is served by the New York City Transit (NYCT) Q subway line, which has a train station (72nd Street Station) one avenue west of the Project Area with its nearest entrance at the intersection of Second Avenue and East 69th Street. The area is also served by the Number 6 subway line, which has a station (68th Street-Hunter College) at East 68th Street and Lexington Avenue. Metropolitan Transportation Authority (MTA) bus service is provided within the area along York Avenue (M31), First/Second Avenue (M15 and M15-SBS), East 67th/East 68th Street (M66), and East 71st/East 72nd Street (M72). The Citi Bike bicycle sharing station nearest to the Project Area is on First Avenue between East 67th and East 68th Streets.

DESCRIPTION OF THE PROPOSED PROJECT

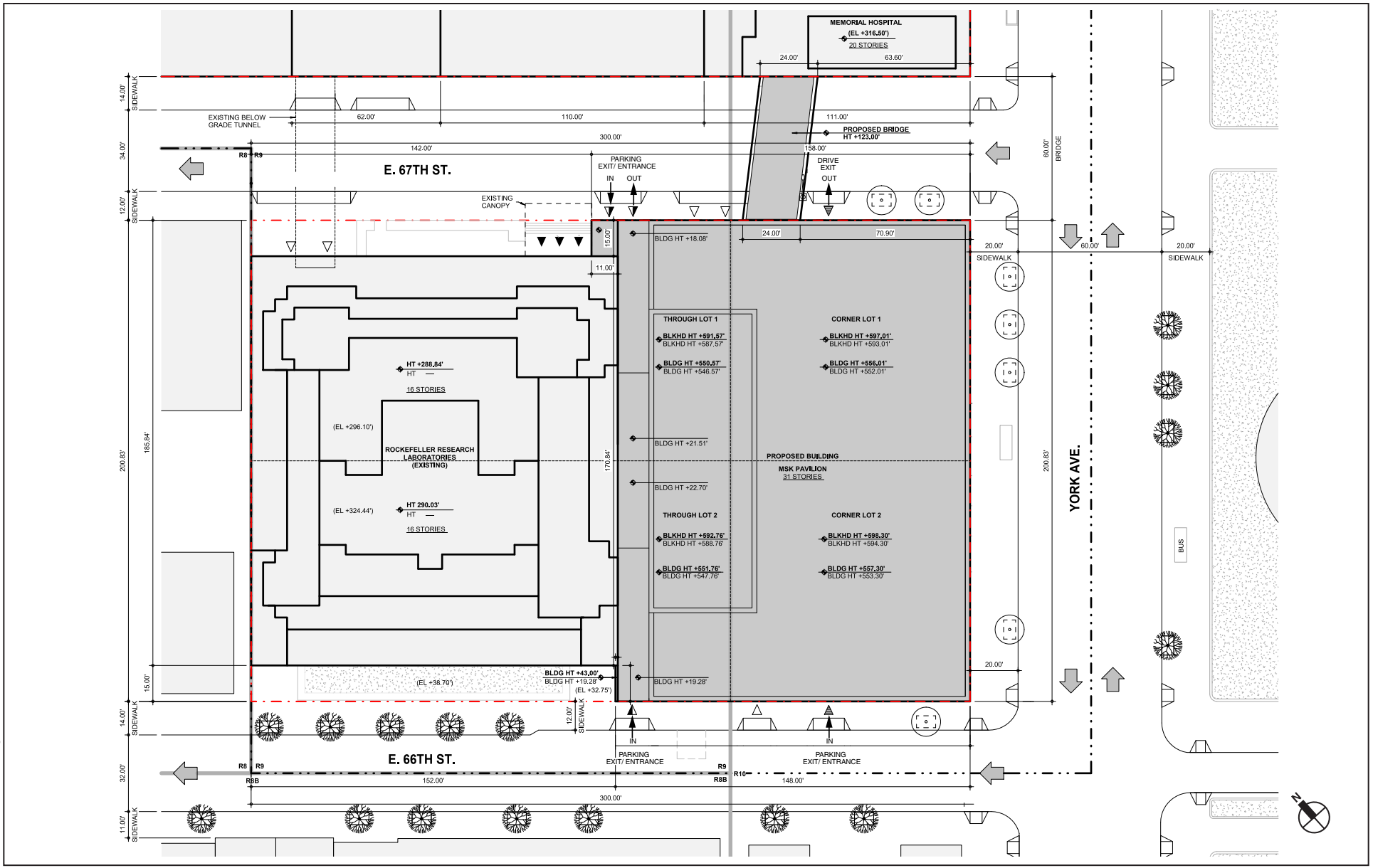
The Proposed Project replacing the Scholars and Sloan buildings on the Development Site[2] would be a new 31-story, approximately 903,065-gsf, state-of-the-art inpatient cancer treatment facility containing 28 operating rooms and up to 206 beds, with necessary medical support space. The maximum building envelope would encompass the entire footprint of the Proposed Project (see **Figure ES-4**) and would allow the building, including the mechanical bulkhead, to be as tall as 598.3 feet high above curb level. However, as proposed, the building rooftop would be up to 557.3 feet tall above grade (see **Figures ES-5 through ES-7**).

The Proposed Project would provide 28 operating rooms, including recovery and intensive care facilities and up to 206 in-patient beds for acutely ill patients (see **Figure** E**S-5**, above). There would also be clinical support floors and five mechanical floors distributed throughout the building.

At the ground level, a through-block driveway for patient drop-offs and pick-ups (see **Figure ES-8**) would provide direct weather-protected access into the double-height lobby. Located on the east

[1] The three medical institutions immediately east of the Project Area also have been developed beyond FAR 10 incorporating floor area over the adjacent FDR Drive.

[2] All staff who currently reside in Scholars and Sloan would be relocated to other MSKCC housing.

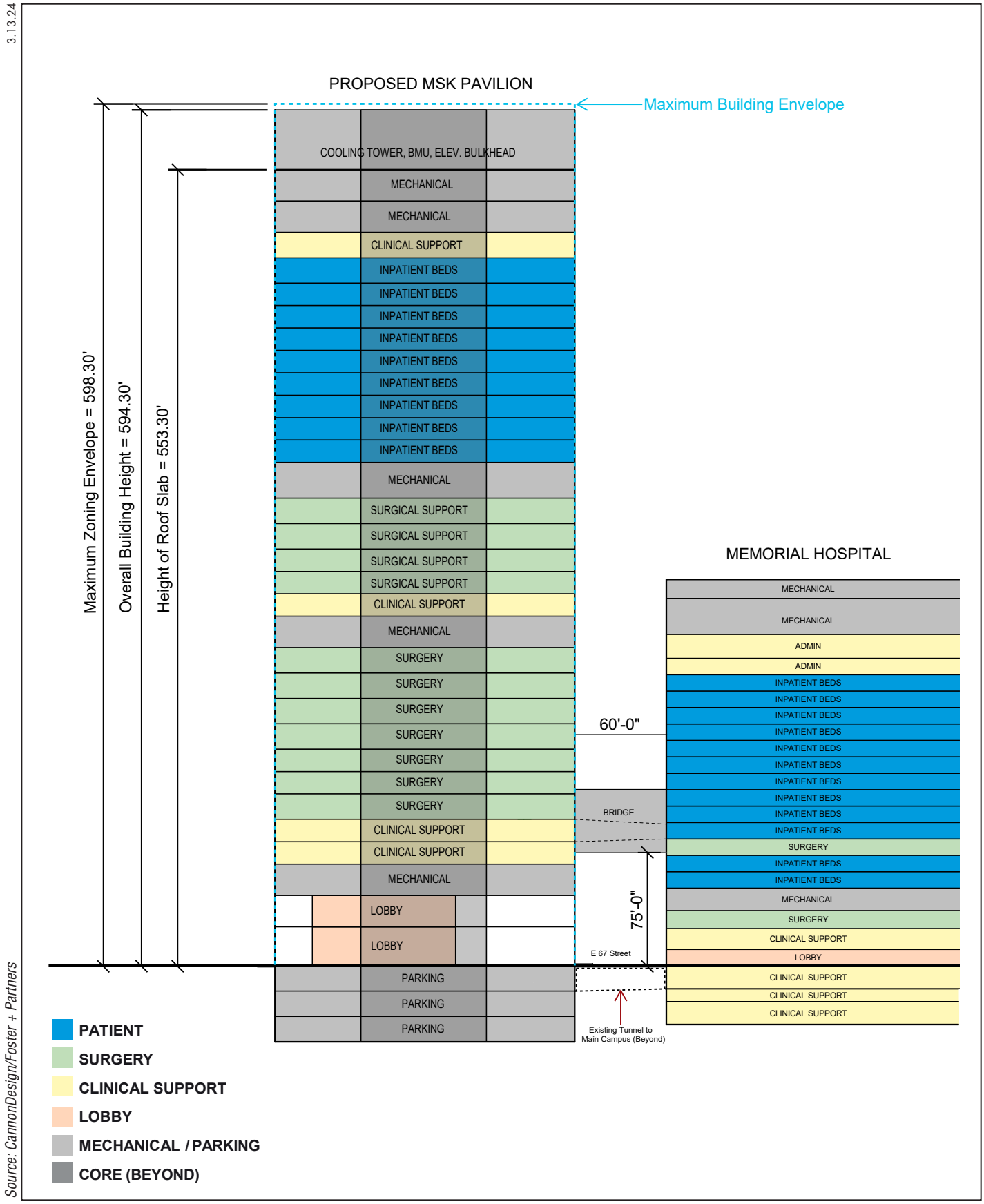


Source: CannonDesign/Foster + Partners. Adamson Associates International.

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Roof Plan

Figure ES-4

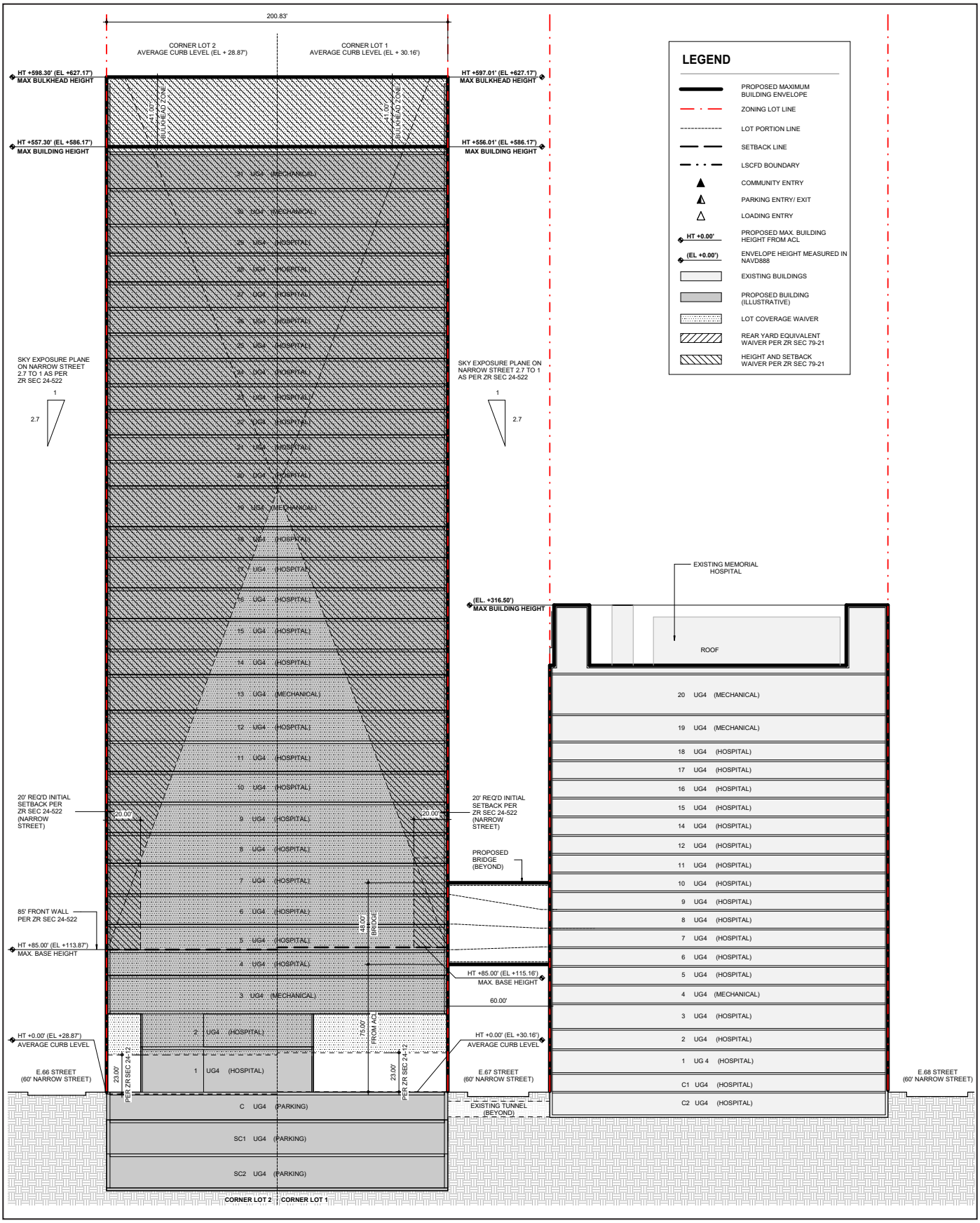


NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Program Stack
(North-South Section Looking West from York Avenue)

MSK PAVILION

Figure ES-5



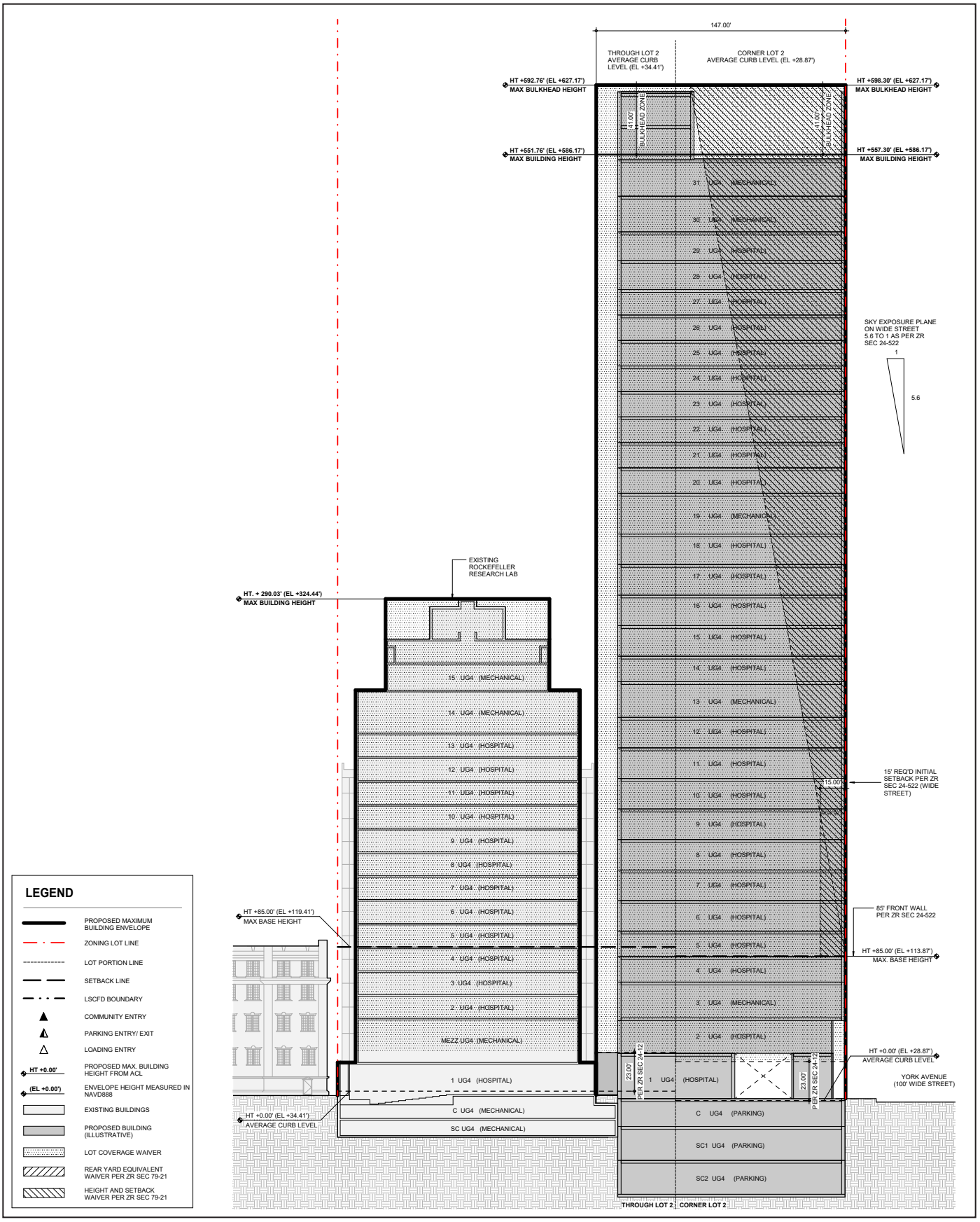
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Building Section - North-South Section

MSK PAVILION

Figure ES-6

3.13.24



Source:AAI Architects, P.C.

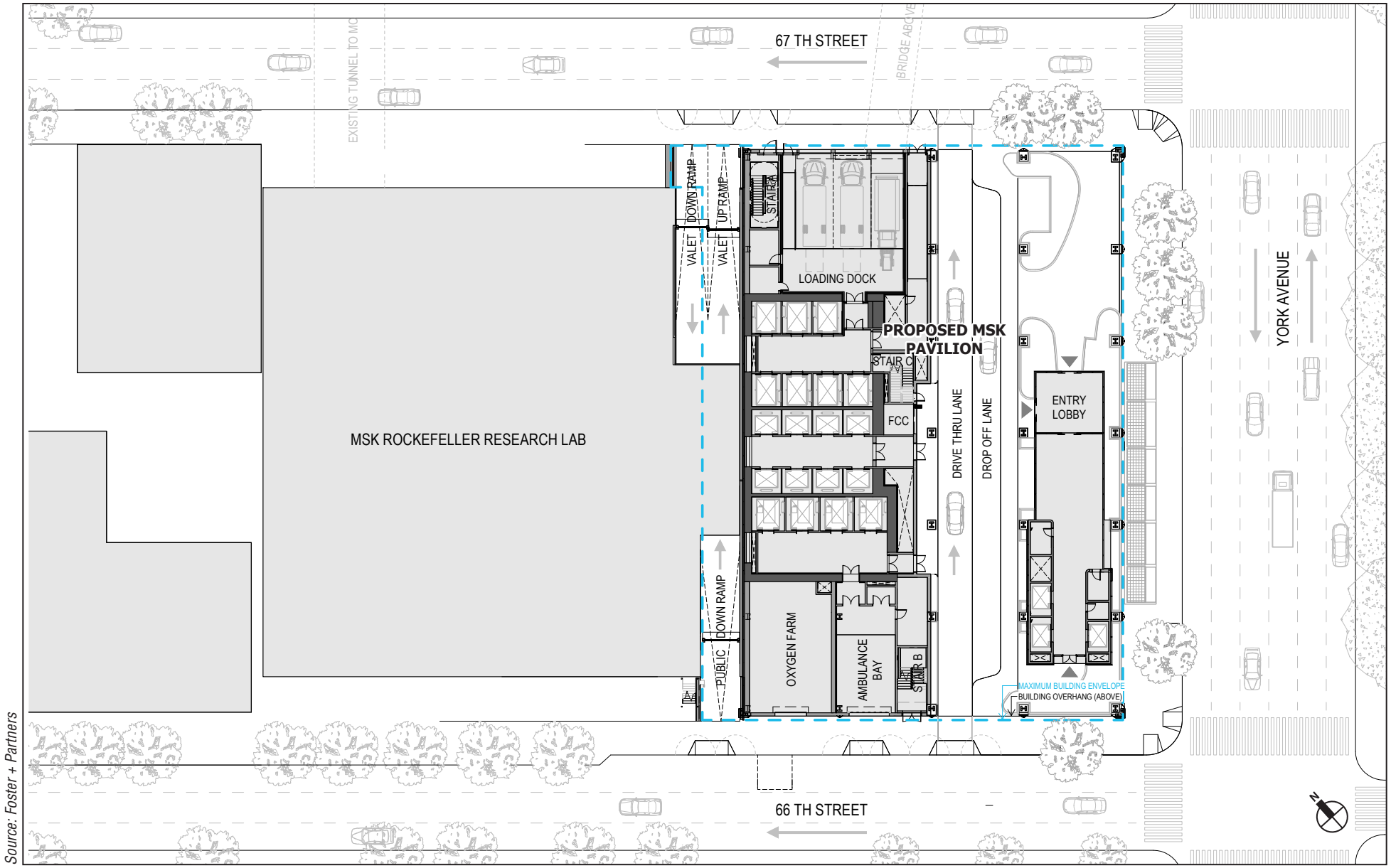
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Building Section - East-West Section

MSK PAVILION

Figure ES-7

3.26.24



Source: Foster + Partners

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Ground Floor Plan

MSK PAVILION

Figure ES-8

side of the building along York Avenue, the glass-enclosed lobby would be set back from the building line providing entry plazas with space for sidewalks, landscaping, seating, signage, and possibly public art (see **Figure ES-9**). The new entry plazas to the building would provide approximately 2,800 sf of public open space. In addition to the entrances along the driveway, the lobby would have doors facing both streets.

West of the driveway would be the elevator cores and loading docks and other service areas. The upper level of the lobby would span the driveway and connect to the elevator banks. On the north façade of the building, there would be a two-story Patient Bridge connecting floors 5 and 6 with floors 8 and 9 of the Memorial Hospital building to the north across East 67th Street (see **Figures ES-5 and ES-6**, above).

The RRL building would remain adjacent to the Proposed Project; there would be no redevelopment on Lot 13 other than for modifications to the below-grade garage, to create a garage entrance and exit on East 67th Street. No programmatic changes are proposed for the RRL building; however, some ground-floor conference room space (approximately 2,080 sf) would be removed to accommodate the modified garage exit. There is an existing tunnel running from the RRL basement to the main campus (see **Figure ES-3**, above).

The public entrance to the garage would remain on East 66th Street, and a new two-way garage ramp would be built on East 67th Street to provide a valet entrance for vehicles dropped off at through block driveway and an exit for all vehicles. The same number of parking spaces, 263, would be maintained in the garage and those spaces would continue to be available exclusively to staff, patients, and visitors with valet service provided. There would be three loading docks on East 67th Street and one on East 66th Street.

PROPOSED ACTIONS NECESSARY TO FACILITATE THE PROPOSED PROJECT

In order to accomplish the Proposed Project, the Applicant is requesting the following zoning actions, all of which occur within the Project Area:

1. Zoning map amendment to rezone Block 1461, Lot 13, and the western portion of Lot 21 from R8 to R9 (see **Figure ES-2**, above). The existing maximum permitted zoning floor area within the Project Area (a/k/a the 2001 LSCFD) is approximately 2,212,906 sf and the utilized zoning floor area is approximately 1,962,800 sf (inclusive of the Sloan and Scholars buildings). With this proposed rezoning, the permitted zoning floor area within the Project Area would increase by 140,584.5 sf.
2. Zoning text amendment to Zoning Resolution (ZR) Section 79-43 to authorize CPC, by special permit, to allow modification of lot coverage and signage regulations in Manhattan Community District 8, for zoning lots located in R9 and R10 districts.
3. Authorizations pursuant to ZR Section 79-21 to allow for the location of a new 31-story inpatient hospital building on the south block within the 2001 LSCFD without regard for (a) height and setback regulations applicable within the interior of the 2001 LSCFD, (b) rear yard regulations to facilitate construction of the Proposed Project, and (c) to allow for the distribution of floor area for all zoning lots within the 2001 LSCFD without regard for zoning lot lines and streets.
4. Special permit pursuant to ZR Section 79-43, as amended, to allow modifications of regulations relating to height, setback applicable to the perimeter of the 2001 LSCFD, lot coverage, and signs to facilitate construction of the Proposed Project.

3.13.24



Source: CannonDesign/Foster + Partners

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Corner of York Avenue and
East 67th Street - Ground Floor Entrance

MSK PAVILION

Figure ES-9

5. Modification to the 2001 LSCFD to update the Site Plans and zoning calculations for the three zoning lots previously authorized by the CPC.
6. Cancellation of the 2001 LSCFD Restrictive Declaration.
7. Certification pursuant to ZR Section 26-15 to permit more than one curb cut on East 67th Street for accessory parking, loading bays and the through block driveway and on East 66th Street for accessory parking and the through block driveway.
8. Revocable Consent from the New York City Department of Transportation (DOT) for the Patient Bridge over East 67th Street. The Revocable Consent application will be coordinated with required approvals for the Patient Bridge from the New York City Public Design Commission.

The Proposed Project would also require a Certificate of Need from the New York State Department of Health (DOH). A coordinated review will be conducted.

C. PURPOSE AND NEED

The Proposed Project represents the culmination of the site selection and planning process for the "New Hospital Building" first certified by CPC into the Uniform Land Use Review Procedure (ULURP) for the 2001 Approvals and identified in the 2001 FEIS. Following two decades of strategic planning, MSKCC has now identified the Development Site as the location for this building, which would be connected physically and programmatically to the existing Memorial Hospital via a two-story Patient Bridge.

With a zoning floor area of 641,582 sf, the Proposed Project would utilize the zoning floor area attributable to the Development Site, the remaining unused zoning floor area within the 2001 LSCFD, and the additional floor area resulting from the proposed rezoning of Lot 13 and a western portion of Lot 21 in Block 1461 from R8 to R9.

EXISTING NEEDS

As a hospital and research institution entirely devoted to cancer care, MSKCC recognizes the demographics that indicate a dramatic increase in the numbers of cancer patients in the future. The Centers for Disease Control and Prevention (CDC) estimate that annual cancer rates will increase by 50 percent by 2050. New cases in New York City are expected to reach 47,000 by 2030 and 60,000 by 2050. While these projections will result in more cancer cases among all age groups, MSKCC expects to see the largest increase in young people and in older New Yorkers as the population ages. In particular, the acuity that comes with having older patients is expected to require more complicated interventions than current facilities and infrastructure at Memorial Hospital can accommodate. Among younger patients, MSKCC is seeing more cases of prostate, colon, and breast cancer. Further, MSKCC facilities' inpatient rooms and operating rooms are currently frequently operating at or near capacity.

MSKCC has stated that new single-bedded patient rooms are needed. This configuration is not only what is now required by regulation and by best practice, but in MSKCC's case it is also critical to the care of immunosuppressed patients. The New York State Health Code mandates single-bedded patient rooms for new construction, and accordingly, no new inpatient beds in other than single-bedded rooms have been approved for construction in the State for the past decade. The ratio of single-bedded patient rooms to two-bedded patient rooms in the existing 50-year-old Memorial Hospital is very low, which poses major operational challenges to MSKCC in providing its intensive level of patient care. In recent years, clusters of single-bedded airborne infectious

isolation rooms have been introduced on most Memorial Hospital bed floors, and dedicated units featuring single-bedded rooms for specialty patient populations, such as those requiring bone marrow transplants, have been constructed in compliance with these requirements. The Proposed Project would be designed to provide the mandated universal clinical separation of all patients, to accommodate adequate space within patient rooms for medical equipment, staff, and loved ones, and to create appropriate provisions for Health Information Privacy and Portability Act (HIPPA) patient privacy.

In addition, existing MSKCC facilities' inpatient rooms and operating rooms are often scheduled at or near capacity, restricting their ability to provide the necessary treatment for a growing population of cancer patients. In direct response to this present and rising need, the additional inpatient beds, operating rooms, procedure rooms, and diagnostic imaging modalities would allow MSKCC to meet the needs of the community and the region by providing the space and the resources needed to expand their treatment platform. Further, with thoughtful planning regarding the flexibility of the building and its systems, the Proposed Project would allow MSKCC to continue to adapt and respond to the evolution of medical technology and innovations in patient care delivery, positioning MSKCC to continue to deliver state-of-the-art cancer care for years to come.

BENEFITS OF THE PROPOSED PROJECT

The Applicant has stated that the Proposed Project has been designed to allow MSKCC to provide the highest level of patient care to address rising acuity, to enhance its diagnostic abilities, to reduce recovery times, to provide patients with a seamless experience through digital communications and wireless connectivity, and to drive additional advancements in cancer research and patient outcomes.

The Proposed Project would allow MSKCC to house the technology and inventions it needs to meet the complexity of care necessary for the patients of the future, including cutting-edge robotics, improved digital infrastructure, and enhanced operating rooms. With up to 206 single-bedded rooms for acutely ill patients and 28 state-of-the-art operating and procedures suites, the Proposed Project will be designed to provide the capacity required for the influx and acuity of future cancer patients, and the families who care about them. The design of vertical floor-to-floor heights to accommodate room clearances as well as interstitial levels between ceiling and bottom-of-slab for necessary high-performance air-changing equipment, technology-driven conduits, and other advanced technologies for both the operating rooms and the inpatient rooms are as critical to the overall design as the horizontal dimensions of each floorplan.

The Patient Bridge to Memorial Hospital would provide critical access to facilitate the sharing of functions, facilities, and equipment for the benefit of patients. The Patient Bridge would also streamline MSKCC's clinical and translational research capabilities and allow ease of access in triaging patients from different facilities including operating rooms and intensive care units (ICUs).

Long-term, the construction of the Proposed Project would permit the staged modernization of the patient rooms in Memorial Hospital, which is now 50 years old, so that it too will be able to provide greater access to MSKCC's state-of-the-art inpatient care. MSKCC would remain operational throughout construction of the Proposed Project.

D. ANALYSIS FRAMEWORK

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.

This section outlines the conditions examined in the EIS.

BUILD YEAR

The Proposed Project would be built out over the course of approximately six years. Following land use approvals, construction of the Proposed Project would commence in late 2024. As shown in **Table ES-1**, construction of the Proposed Project would consist of the following stages, some of which would overlap: demolition (approximately 15 months); excavation and foundations (approximately 17 months); superstructure and exteriors (approximately 16 months); interiors and finishing (approximately 31 months); and sitework (approximately 7 months). The Proposed Project is expected to be completed and operational by 2030.

Table ES-1
Anticipated Construction Schedule—Proposed Project

Construction Task	Start Month	Finish Month	Approximate Duration (months)[1]
OVERALL	**Month 1**	**Month 70**	**70**
Demolition	Month 1	Month 15	15
Excavation and Foundations	Month16	Month 32	17
Superstructure and Exteriors	Month 32	Month 47	16
Interiors and Finishing + Closeouts	Month 40	Month 70	31
Sitework	Month 60	Month 66	7

Note: [1] Construction would proceed in several stages, some of which would overlap.
Source: Turner Lend Lease, November 2023.

REASONABLE WORST CASE DEVELOPMENT SCENARIO

In order to assess the possible effects of the Proposed Project, a Reasonable Worst Case Development Scenario (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 DEVELOPMENT SITES

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 Proposed Actions are limited to the Project Area which, with the exception of Block 1463, Lots 5 and 1002 under the ownership of Roman Catholic Church of St. Catherine of Siena, exclusively

contains Applicant-controlled sites and would not result in development beyond that proposed for the Development Site. Since the Proposed Actions would only apply to the Development Site, there would be no other "affected sites" that would be potentially developed as a result of the Proposed Actions.

THE FUTURE WITHOUT THE PROPOSED PROJECT (NO ACTION CONDITION)

The No Action condition anticipates conditions in 2030 absent the Proposed Project. Under this scenario, the Sloan and Scholars buildings would remain on the Development Site and would continue to operate 355 contract housing units for medical students, interns, and medical staff for their terms of service or academic affiliation with MSKCC. The units would be fully occupied under the No Action condition. In addition, the buildings would continue to house approximately 45,039 gsf of hospital administrative office space. The existing office space is occupied by departmental staff that support the administrative and operations functions for a portion of MSKCC's Medical & Surgical Oncology services, in addition to staff from supporting services in Environmental Health & Facilities. These operations would remain in the No Action scenario. As an LSCFD, all future development modifying the 2001 LSCFD boundaries or zoning calculations within the Project Area boundaries is subject to regulation, so there are no as-of-right development opportunities within the Project Area. If the Proposed Actions are not approved, the Proposed Project could not be built. The Applicant has determined that the Development Site is the only feasible site for the construction of the Proposed Project that can proceed without disruption or diminishment to existing hospital services.

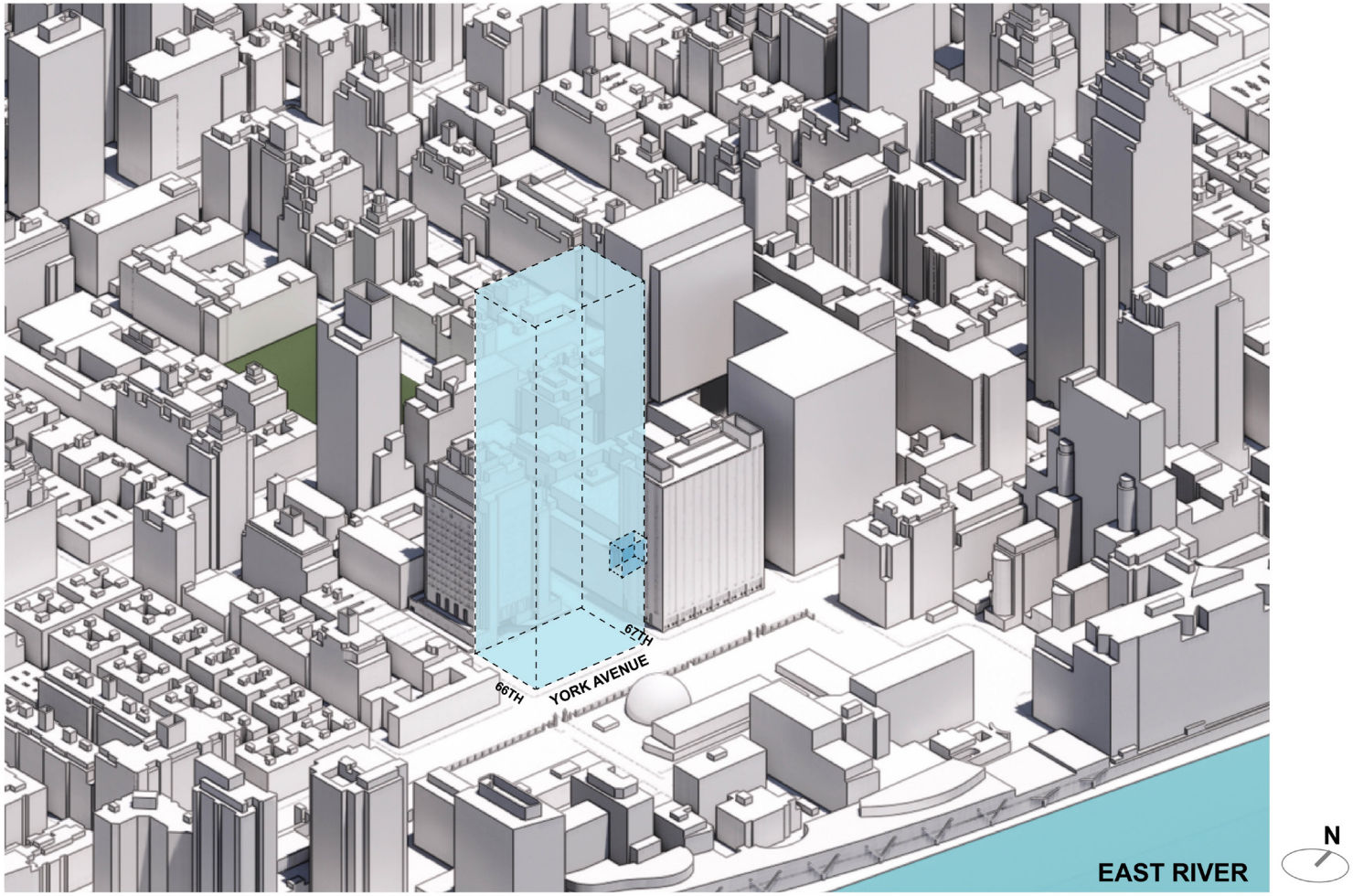
THE FUTURE WITH THE PROPOSED PROJECT (WITH ACTION CONDITION)

The With Action condition is generally the same as the Proposed Project described in Section B. Project Description; however, the zoning approvals would allow for a slightly larger building envelope (extending an additional 4 feet in height and an additional 13 feet to the west) to provide flexibility in the building massing (see **Figure ES-10**); therefore, to account for the With Action RWCDS in terms of bulk and height, the maximum building envelope will conservatively be used to represent the With Action condition in the environmental analysis.

The With Action condition would include the development of a new 31-story (rooftop up to 557.3 feet above grade; up to 598.3 feet above grade to top of maximum building envelope), approximately 903,065-gsf inpatient hospital building for the Proposed Project. The Proposed Project would include a proposed two-story Patient Bridge connecting the MSK Pavilion with the Memorial Hospital building (across East 67th Street). Accounting for the new entry plazas to the building, there would be approximately 2,800 sf of public open space provided on the Development Site in the With Action condition.

As noted above, the Scholars and Sloan buildings would be demolished. The RRL building would remain and continue in its existing use, except that a small amount of ground-floor conference room space would be lost to create a new garage ramp on East 67th Street. The parking garage would continue to be available exclusively to staff, patients, and visitors with valet service. There are no programmatic changes proposed for the RRL building. The garage would continue to have a total of 263 accessory parking spaces but would have an optimized layout for improved maneuverability. The garage entrances would be on East 66th and East 67th Street and the exit would be relocated from East 66th Street to East 67th Street.

As shown in **Table ES-2**, the Proposed Project would result in an overall development increment of approximately 610,228 gsf of hospital/community facility uses, including up to 206 additional



Source: CannonDesign/Foster + Partners

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Maximum Zoning Envelope

hospital beds under the With Action condition as compared to the No Action condition. As summarized in **Table ES-3**, the daily non-residential population on the Development Site would increase by 657 workers, 240 patients, and 480 visitors under the With Action condition as compared with the No Action condition, while the residential population would decrease by 561 residents.

Table ES-2
Development Program Summary

Components	Existing/No Action Condition	With Action Condition	Increment
Development Site			
Residential (gsf)	224,291	0	-224,291
Residential (DUs)	355	0	-355
Hospital Support/Office (gsf)	45,039	0	-45,039
Inpatient Hospital (gsf)	0	852,159	852,159
Inpatient Hospital (beds)	0	206	206
Parking (spaces)[1]	263	263	0
Total (gsf)	**292,837[2]**	**903,065[2]**	**610,228[2, 3]**

Notes:
gsf = gross square feet; Square footages shown are approximate and include mechanical/utility space.
DUs = dwelling units
[1] Parking facility encompasses the RRL (Lot 13) and the MSK Pavilion (Development Site) cellars.
[2] Includes parking square footage.
[3] Includes loss of approximately 2,080 gsf of RRL conference room space located above proposed garage exit.
Source: MSKCC, Adamson Associates International, Foster+Partners

Table ES-3
Development Site Population

Population	Existing/No Action Condition	With Action Condition	Increment
Development Site			
Residents[1]	561	0	-561
Workers[2]	180	837	657
Administrative/Support	*180*	*0*	*-180*
Hospital Staff	*0*	*837*	*837*
Patients	0	240	240
Visitors	0	480	480

Notes:
[1] Occupants of contract housing provided in the Scholars and Sloan buildings.
[2] There would be no change to the number of lab staff (663) in the RRL building as a result of the Proposed Project.
Source: MSKCC

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

The Proposed Actions 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 Development Site; the MSK Pavilion would be a new, 31-story inpatient cancer care facility for MSKCC on the east end of the block bounded by York and First Avenues and East 66th and East 67th Streets and would replace two existing MSKCC community facility buildings with a new

MSKCC community facility. Moreover, the Development Site is, and will continue to be, part of the larger 2001 LSCFD that includes numerous patient care and research facilities. The Proposed Project would be compatible with other similar land uses found in the surrounding area, which includes a concentration of major research and health care facilities that have co-existed for many years in a mixed-use neighborhood with residential, retail, and other community facility uses. Overall, the Proposed Project would not adversely affect the land use character of the study area and would not result in significant adverse land use impacts in the study area.

The Proposed Project would modify only the zoning regulations on the 2001 LSCFD and would not affect zoning regulations applicable to other sites in the study area. The proposed rezoning of the midblock area from R8 to R9 is consistent with the existing uses and zoning in the area, including the 2001 rezonings of the two midblocks to the north, also owned by MSKCC, from R8 to R9 in conjunction with the creation of the 2001 LSCFD. Full implementation of the requested zoning actions would result in a LSCFD developed to FAR 10, a compatible density for the study area with no residual unutilized floor area for future development. In addition, the Proposed Project would be compatible with, and supportive of, the public policies applicable to the Development Site and the study area. The Proposed Project would contribute to OneNYC's goals for growth, sustainability, resiliency, and equity; would further the New York Works' goal of expanding new job opportunities in the life sciences and healthcare industry; and would represent a new important step in the City's efforts to support the life sciences industry (LifeSci NYC). Therefore, the Proposed Project would not result in significant adverse zoning and public policy impacts in the study area.

COMMUNITY FACILITIES

The Proposed Actions would not result in direct or indirect significant adverse impacts to community facilities. The analysis of direct effects on community facilities and services concluded that although 12 to16 existing rooms in Memorial Hospital would be lost for the Patient Bridge connection, the Proposed Project would significantly expand the existing in-patient care facilities at MSKCC, and its operation would not result in any significant adverse direct effect impacts to community facilities and services. Temporary impacts during construction are examined below in "Construction."

In accordance with the *CEQR Technical Manual*, since no residential units that would increase population are included in the Proposed Project, there is no need to analyze indirect effects of the Proposed Project, and there is no potential for significant adverse indirect effect impacts to community facilities and services including public schools, early childhood programs, libraries, health care facilities, fire protection, police protection, and other community facilities as a result of the Proposed Project.

OPEN SPACE

The Proposed Actions would not result in direct or indirect significant adverse impacts to open space. The Proposed Project would not alter or eliminate any publicly accessible open space resources. Based on the analyses provided for shadows, air quality, noise, and construction, study area open spaces would not experience project-related significant adverse impacts.

The Proposed Project would introduce new workers and visitors to the Project Area, which would increase demand on publicly accessible open space resources. Currently the passive open space ratio in the study area for non-residential users (0.058 acres/1,000 people) is below the City's guideline of 0.15 indicated in the *CEQR Technical Manual* and would remain below the guideline

in both the future with the With Action condition and the No Action condition. While the Proposed Project would add some hospital workers and visitors to the area, it would also create a small amount of on-site open space to help offset the demand for passive open space from that new population. Overall, the Proposed Project would result in a 0.44% decrease in the passive open space ratio from 0.0683 to 0.0680 compared with the No Action condition and therefore would not result in a significant adverse open space impact.

SHADOWS

The Proposed Actions would have the potential to result in significant adverse shadows impacts. The detailed shadows analysis determined that the Proposed Project would cast incremental shadows on six publicly accessible open spaces and five sunlight-sensitive historic resources, in one or more seasons. In most cases, the new shadow would be limited in extent and duration and would not substantially affect the use of the open spaces, the health of their trees and plantings, or in the case of the historic resources, the public's ability to appreciate the historic features.

However, the Proposed Project would cause significant adverse shadow impacts to one sunlight-sensitive historic resource: the stained-glass windows of St. John of Nepomucene Church. The windows on the north and east (rear) façades would receive approximately an hour to an hour and a half of new shadow during spring, summer, and fall mornings. Given the duration of the incremental shadow and its elimination of direct sunlight on the windows above the altar during morning services, the incremental shadow would cause a significant adverse impact to this historic resource. Potential mitigation measures to mitigate the projected historic resource impact are described below in "Mitigation."

HISTORIC AND CULTURAL RESOURCES

The Proposed Actions would not result in any significant adverse impacts to historic or cultural resources. As there are no architectural resources on the Development Site, the Proposed Project would not result in any adverse impacts to architectural resources on the Development Site.

In the study area, no architectural resources would be demolished or altered. The Proposed Project's potential to result in indirect, or contextual, impacts was also evaluated, and it was determined that the Proposed Project would not result in any significant adverse visual or contextual impacts on architectural resources in the study area. While the Proposed Project would change the context of some nearby architectural resources, the Proposed Project would not result in changes to an architectural resource causing it 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 would not obstruct public views to historic architectural resources. Although as identified above under "Shadows," the Proposed Project would cast shadows on certain of the stained-glass windows in the Church of St. John Nepomucene which are considered to be a significant adverse shadows impact, they would not affect the other features of the church which contribute to its historic importance. Therefore, the Proposed Project would not result in indirect adverse impacts to any of the known or potential architectural resources located in the study area. Overall, the Proposed Project would not introduce incompatible visual, audible, or atmospheric elements to any historic architectural resource's setting.

URBAN DESIGN AND VISUAL IMPACTS

The preliminary assessment of urban design and visual resources concluded that the Proposed Actions would not result in significant adverse impacts to urban design or visual resources in the study area. The new 31-story, approximately 903,065-gsf inpatient hospital building (with a roof height of up to 557.3 feet above grade and an overall height including the rooftop mechanicals of up to 598.3 feet above grade), would replace the Sloan and Scholars buildings on the Development Site. While the new building would be taller than nearby buildings in the study area, it would be located within the context of the Project Area buildings to the north that have a variety of massings, heights, and forms. The new building would be compatible with the varied urban design character of the Project Area which includes older and newer buildings with masonry cladding, along with newer additions and the modern, 23-story (approximately 400-foot-tall) Zuckerman Research Center at 411 East 68th Street that has a primarily glass curtain wall with masonry panels at the base. Further, the new building would have a recessed base with glazing that would activate the Development Site and would contribute public open space critical to the pedestrian experience of urban design. The new building would be sited within the context of tall institutional buildings on the west side of York Avenue north of the Development Site. The new building would otherwise maintain the strong street wall that characterizes the west side of York Avenue north of and including the Development Site. The new building would be located among other tall institutional buildings in the study area to the north and west of the Development Site and Project Area, which also includes many newer, tall buildings that have glazed curtain walls. The new building would also be reflective of other newer hospital buildings immediately adjacent to the Project Area, including the 17-story (approximately 320-foot-tall) David H. Koch Center at 437 East 68th Street that has a glass curtain wall with patterned fritting and the 15-story (approximately 231-foot-tall) Weill Greenberg Center at 1305 York Avenue that has an undulating, panelized curtain wall. The new building would be of a height and form that would be compatible with these large, tall buildings, including institutional buildings on York Avenue and East 69th and East 70th Streets, and both institutional and residential buildings on First Avenue. Further, the study area to the south and east of the Development Site and Project Area is already characterized by tall institutional buildings that have been built during different development periods. Therefore, while the new building would be taller than study area buildings to the south and east, it would be compatible with the overall varied urban design character of the study area, including the study area on York Avenue to the north. Overall, 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 to any study area visual resources. While the Rockefeller University campus is located across York Avenue from the Development Site, views to this visual resource would remain available from existing vantage points. The Proposed Project would not adversely affect views along any view corridors in the study area. Therefore, no significant adverse urban design impacts would result from the Proposed Project.

HAZARDOUS MATERIALS

The Proposed Actions would not result in significant adverse impacts related to Hazardous Materials. The Phase I Environmental Site Assessment (ESA) performed for the Proposed Project identified potential sources of contamination on or near the Development Site. The identified concerns included: a closed-status petroleum spill which may have occurred on or near the

Development Site; reported hazardous waste generation on the MSKCC campus (potentially including the Development Site) and in the surrounding area; and on-site chemical storage in the vicinity of floor drains.

Based on ESA findings, a Phase II investigation of the Development Site was conducted in accordance with a New York City Department of Environmental Protection (DEP)-approved Work Plan. The Phase II investigation indicated that existing structures on the Development Site are underlain by a thin layer of soil above bedrock. Primary contaminants of concern identified by the Phase II included somewhat elevated concentrations of selected metals, polychlorinated biphenyls (PCBs), and the pesticide 4,4-DDE in selected soil samples, and petroleum- and solvent-related volatile organic compounds in sub-slab vapor samples. Elevated concentrations of acetone, ethanol, and the chlorinated solvent-related VOC tetrachloroethene (PCE) were detected in one sub-slab vapor sample each. PCE was not detected in on-site soil or groundwater. The vapor detections appeared to be isolated and not indicative of a wide-spread condition, though the detected concentration of PCE would require mitigation based on New York State Department of Health (NYSDOH) guidance.

To reduce the potential for adverse impacts associated with demolition and construction resulting from the Proposed Project, subsurface disturbance would be conducted in accordance with a DEP-approved site-specific Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP). Following construction, a Remedial Closure Report (RCR) would be prepared to document compliance with the RAP/CHASP and submitted to DEP for review and approval.

The ESA also identified the potential for hazardous materials in existing buildings (such as asbestos-containing materials (ACM), lead-based paint (LBP), and PCB-containing equipment and lighting fixtures). Regulatory requirements for maintenance and (if necessary) disposal of such materials prior to or during demolition would continue to be followed.

With the implementation of the above measures, the Proposed Actions would not result in any significant adverse impacts with respect to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

Based on the methodology set forth in the *CEQR Technical Manual,* the Proposed Project would not result in increases in demand for water and treatment of sewage; therefore, it would not result in a significant adverse impact on the City's water supply, wastewater treatment, or stormwater management and treatment infrastructure.

The Proposed Project would generate approximately 20,136 gallons per day (gpd) of sanitary sewage, which represents an incremental decrease of 40,468 gpd compared with the No Action condition. Therefore, the Proposed Project would not result in an increase in flows to the Newtown Creek Wastewater Resource Recovery Facility (WRRF), and the WRRF would continue to operate below its maximum permitted capacity of 275 million gallons per day (mgd). In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), the Proposed Project would be required to utilize low-flow plumbing fixtures, which would help to further reduce sanitary flows to the WRRF. The Proposed Project would be required to file a Site Connection Proposal (SCP) 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.

As compared with existing conditions, the Proposed Project would result in similar or reduced flows to the City's combined sewer system as under existing conditions, as there would be a decrease in sanitary sewage generation, and no change to stormwater runoff (the Development Site 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) that 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 onsite storage of stormwater runoff and slower release to the sewer system.

As Proposed Project would result in similar or reduced flows to the City's combined sewer system as under existing conditions, it is not expected to result in an increase in combined sewer overflow (CSO) volumes or frequencies during rain events. Because of the available capacity of the Newtown Creek 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 BMP measures to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. 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 Actions would not result in significant adverse transportation impacts related to traffic, transit, pedestrians, parking, or street user safety as detailed below.

TRAFFIC

Based on a detailed assignment of project-generated vehicle trips, two intersections were identified as warranting detailed analysis for the weekday PM peak hour. Analyses performed for these intersections showed that the Proposed Project would not result in significant adverse impacts. The Applicant would establish a traffic monitoring plan (TMP) at the proposed entrances to the through-block driveway and garage on East 66th Street and East 67th Street and the traffic analysis locations at First Avenue and East 67th Street and Second Avenue and East 67th Street to be undertaken within a year following the Proposed Project's full occupancy. The Applicant, prior to performing any TMP, would submit a scope of work for DOT review and approval. The TMP would document any queuing at the proposed entrances to the through-block driveway and garage on East 66th Street. The purpose of the TMP would be to confirm the accuracy of the With Action trip generation and vehicle trip assignment assumptions, taking into consideration other planned or approved projects and changes to background conditions not anticipated in the DEIS. Should DOT conclude that the above analysis demonstrates that any queuing at the proposed entrances to the through-block driveway and garage on East 66th Street is occurring, the Applicant would cooperate with DOT to assess improvements to address these conditions.

TRANSIT

The Proposed Project's incremental subway trips would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour subway trips at a station. Therefore, a detailed analysis of subway facilities is not warranted, and the Proposed Project is not expected to result in any significant adverse subway impacts.

In addition, incremental bus trips would be fewer than 50 peak hour bus riders on a bus route in a single direction. Therefore, based on *CEQR Technical Manual* guidelines, a detailed analysis of buses is not warranted, and the Proposed Project is not expected to result in any significant adverse bus line-haul impacts.

CITYWIDE FERRY SERVICE

The Proposed Project's incremental Citywide Ferry Service trips would not exceed the *CEQR Technical Manual* analysis threshold of 25 or more passenger ferry trips in a single direction on a single route or 50 or more passengers at a ferry landing. Therefore, a detailed ferry landing or line-haul analysis is not warranted, and the Proposed Project would not result in any significant adverse ferry impacts.

PEDESTRIANS

The Proposed Project's incremental pedestrian trips would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour pedestrian trips during any peak hour. Therefore, a detailed pedestrian analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse pedestrian impacts.

PARKING

The Proposed Project would accommodate its own parking demand for patients and visitors on-site. Available public off-street parking would accommodate all parking demand from staff. There would not be a parking shortfall within ¼-mile of the Proposed Project under future conditions. Therefore, the Proposed Project is not expected to result in the potential for a significant parking shortfall.

STREET USER SAFETY

The Proposed Project 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.

AIR QUALITY

The Proposed Actions would not result in significant adverse impacts related to mobile source or stationary source air quality. The maximum pollutant concentrations and concentration increments from mobile sources with the Proposed Project are projected to be lower than the corresponding CEQR de minimis criteria, and therefore did not warrant further analysis.

In terms of industrial sources, no businesses were found to have a New York State Department of Environmental Conservation (NYSDEC) air permit or DEP certificate of operation within the study area, and no other potential sources of concern were identified. Therefore, no potential significant adverse air quality impacts would occur on the Proposed Project from industrial sources.

The analysis of the existing major and large source of emissions determined there would be no significant adverse air quality impact on the Proposed Project. An (E) Designation (E-760) would be applied to ensure that the Proposed Project would not result in any significant adverse air quality impacts from existing major and large sources of emissions.

Finally, 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. An (E) Designation (E-760) would be applied to ensure that the Proposed Project would not result in any significant adverse air quality impacts from existing laboratory exhaust sources of emissions.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The Proposed Actions would not result in significant adverse greenhouse gas (GHG) emissions or climate change impacts. The assessment of GHG emissions estimated that the building energy and vehicle use associated with the Proposed Project would result in up to approximately 14 thousand metric tons of carbon dioxide equivalent (CO_2e) emissions per year with a building carbon intensity of 0.00693 metric tons CO_2e per square foot—much less than the Citywide average of 0.01184 metric tons CO_2e per square foot for hospitals. In addition, total GHG emissions associated with the construction, including direct emissions and upstream emissions associated with construction materials (embodied emissions), would be approximately 24 thousand metric tons—equivalent to less than two years of operation. It was determined that the Proposed Project is consistent with the applicable citywide GHG emissions reduction and climate change goals, and that there would be no significant adverse GHG emission or climate change impacts.

The Proposed Project would replace the existing Sloan and Scholars buildings with an energy efficient, sustainable, state-of-the-art inpatient cancer treatment facility that would meet the needs for projected increased annual cancer rates while achieving reductions in building energy consumption. The Proposed Project would meet these needs and achieve reductions beyond what would be achievable through refurbishing the existing buildings. This would be done through a building design that incorporates building insulation and window glazing that will exceed building code requirements, high-efficiency heating systems, and roofing systems to reduce heating/cooling loads. Overall, the Proposed Project would support the City's GHG goals by virtue of its density and location in an area well-served by public transportation, and through commitments to utilize electric systems or Con Edison district steam for heating, ventilation and air conditioning and other services. Therefore, the Proposed Project would align with the City's five emissions reduction goals, as defined in the *CEQR Technical Manual*.

NOISE

The Proposed Actions would not result in significant adverse noise impacts. The noise analysis determined 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. The *CEQR Technical Manual* has noise attenuation values for buildings based on exterior $L_{10(1)}$ noise levels for the purposes of achieving interior noise levels of 45 dBA or lower for hospital or nursing home 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 future increases in traffic with the Proposed Project based on the Noise Passenger Car Equivalent (Noise PCE) values' proportional analysis results, including the noise contribution from vehicular traffic on adjacent roadways, and by calculating the cumulative noise level in the future condition based on the future vehicular traffic noise on adjacent roadways.

Based on the projected noise levels, up to 28 dBA window/wall attenuation would be required to achieve acceptable interior noise levels per the *CEQR Technical Manual* noise exposure guideline for hospital or nursing home uses.

To implement the attenuation requirements, an (E) Designation (E-760) 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 Actions would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines.

PUBLIC HEALTH

The Proposed Actions would not result in unmitigated significant adverse impacts in the areas of air quality, water quality, hazardous materials, or operational noise. As presented below in "Construction," the analysis determined that construction activities would result in unmitigated significant adverse construction-period noise impacts at receptors adjacent to the Proposed Project's work areas. However, construction of the Proposed Project would not result in chronic exposure to high levels of noise, prolonged exposure to noise levels above 85 dBA, or episodic and unpredictable exposure to short-term impacts of noise at high decibel levels, as per the *CEQR Technical Manual*. Consequently, construction of the Proposed Project would not result in a significant adverse public health impact.

NEIGHBORHOOD CHARACTER

The Proposed Actions would not result in significant adverse impacts to neighborhood character. The neighborhood character of the study area is primarily defined by its mix of institutional/community facility and residential land uses, as well as the diverse urban and architectural context of the area. The Proposed Project would be consistent with the existing character of the neighborhood, particularly in that it would not result in a substantial change in use on the Development Site but rather replace two existing MSKCC community facility buildings with a new state-of-the-art facility serving MSKCC's long-term mission of advancing cancer research and caring for cancer patients.

The Proposed Project would be consistent with other similar uses found throughout the surrounding area, which includes a concentration of major research and health care facilities that have co-existed for many years in a mixed-use neighborhood with residential, retail, and other community facility uses. 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

The Proposed Project's construction activities would result in significant adverse construction traffic and noise impacts. Findings specific to each of the key technical areas are summarized below.

TRANSPORTATION

The Proposed Actions would result in significant adverse impacts related to construction traffic. Potential transportation impacts during peak construction conditions were assessed in the same manner as the operational impacts, as presented above in "Transportation."

Traffic

For purposes of the construction traffic analysis, the combined daily workforce and truck trip projections in the peak quarter (second quarter of 2028) were used as the basis for estimating peak hour construction trips. Based on a detailed assignment of these project-generated vehicle trips, 14 intersections 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 P.M). Significant adverse construction traffic impacts were identified at eight intersections. Potential improvement measures that may be implemented to mitigate these impacts are discussed below in "Mitigation."

Transit

During peak construction, the estimated number of peak-hour transit trips would be 430, with 300 subway trips, 77 railroad trips, and 53 bus trips. 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. The railroad trips would be below the *CEQR Technical Manual* analysis thresholds of 200 or more railroad trips per station. 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 of 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, the estimated number of peak-hour pedestrian trips traversing the area's sidewalks, corners, and crosswalks would be approximately 858. Based on a detailed assignment of these project-generated pedestrian trips and considering pedestrian elements with reduced sidewalk widths and corner areas due to Maintenance and Protection of Traffic (MPT) elements during construction, three sidewalks, six corners, and two crosswalks were selected for analysis for the weekday AM and PM construction peak hours; among these elements, all three sidewalks and two of the six corners were also selected for analysis for the weekday AM, midday, and PM operational peak hours. No significant adverse pedestrian impacts were identified at these pedestrian elements during any peak hour. Therefore, consistent with the *CEQR Technical Manual*, the Proposed Project would not result in any significant adverse construction pedestrian impacts.

Parking

The anticipated construction activities are projected to generate temporary on-street parking reductions of up to 18 parking spaces due to MPT elements and a maximum parking demand of 651 parking spaces during peak construction from construction workers and the closure of the below-grade garage as it undergoes improvements. This parking demand is expected to be mostly accommodated by parking facilities within a ¼-mile radius of the Development Site during the AM period but there would be a larger shortfall during the midday period, where approximately 633 and 185 public parking spaces would be available during the AM and midday peak utilization periods, respectively. There would be shortfalls of approximately 18 and 466 spaces during the

AM and midday peak periods, respectively, but per the *CEQR Technical Manual*, a parking shortfall in Manhattan would not constitute a significant adverse impact due to the magnitude of available alternative modes of transportation.

AIR QUALITY

Measures would be taken to reduce pollutant emissions during construction under the Proposed Project in accordance with all applicable laws, regulations, and building codes. Contractors would be required under contract specifications to implement an emissions reduction program to minimize the air quality effects from construction, which would be included in the Project Component Related to the Environment (PCREs), consisting of the following components: use of ultra-low sulfur diesel (ULSD) 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 U.S. Environmental Protection Agency's [EPA] Tier 3 emission standard) and best available tailpipe reduction technologies to further reduce air pollutant emissions. With the implementation of these emission reduction measures, 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 carbon monoxide (CO) concentrations would be below their corresponding *de minimis* thresholds or National Air Quality Ambient Standards (NAAQS), respectively. Therefore, construction of the Proposed Project would not result in significant adverse air quality impacts due to construction sources.

NOISE

The Proposed Actions would result in significant adverse impacts related to construction noise. Noise levels from construction of the Proposed Project are expected to be comparable to those from typical New York City construction 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 New York City construction site during the portions of construction when the loudest activities would occur.

The detailed analysis of construction noise concluded that construction of the Proposed Project has the potential to result in construction noise levels that exceed the construction noise impact criteria defined herein at 10 receptors surrounding the proposed construction work area (i.e., the northern and northwestern façades of the 1213 York Avenue residential building, northern façade of 434 East 66th Street residential building, northern façades of 436 and 438 East 66th Street residential buildings, and the eastern and southeastern façades of 425 East 66th Street RRL building.

At these receptors, construction could produce noise level increases that would be noticeable and potentially intrusive during the most noise-intensive nearby construction activities and would produce noticeable increases over the course of construction. The analysis evaluated the construction periods with the potential to result in the greatest levels of construction noise; however, the predicted maximum levels would not persist throughout construction, and the noise levels would fluctuate throughout the construction period. Construction noise control measures are discussed below in "Mitigation."

VIBRATION

The buildings of most concern with regard to the potential for structural or architectural damage due to vibration are the existing buildings and structures immediately adjacent to or across East 66th Street from the Development Site. However, given their distances from anticipated locations of rock excavation, vibration levels at these buildings and structures would not be expected to exceed 0.50 in/sec Peak Particle Velocity (PPV), including during pile driving, which would be the most vibration intensive activity. Additional receptors farther away from the Development 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 impact pile driver, 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 50 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.

ALTERNATIVES

NO ACTION ALTERNATIVE

Under the No Action Alternative, i.e., the future without the Proposed Project, the Sloan and Scholars buildings would remain on the Development Site. There would be no Patient Bridge connection to Memorial. Without the Proposed Project, MSKCC would lack the 28 operating rooms to meet the anticipated surge in demand for complex surgeries for acutely ill patients that is expected to steadily increase through 2050. All of the existing residents and administrative office workers would remain on the Development Site, while no new patients, visitors, or health care staff would replace them.

Under the No Action Alternative, none of the impacts or changes resulting from the Proposed Project identified in the other chapters of this EIS would occur. There would be no changes in land use or zoning, no improvements to health care facilities. There would be no increase in the shadows falling on the windows of the Church of St. John Nepomucene. There would be no construction of the Proposed Project and hence no construction period traffic or construction noise impacts requiring mitigation.

REDUCED HEIGHT ALTERNATIVE

CEQR requires that alternatives be considered that would avoid or reduce the potential significant adverse impacts. As described above in "Shadows," the Proposed Project would cause significant adverse shadow impacts. In order to avoid the significant adverse shadows impact on the stained-glass windows in the Church of St. John Nepomucene, this alternative would be approximately 380 feet tall, or approximately 210 feet shorter than the Proposed Project. However, at this reduced height this alternative would not fulfill the purpose and need of the Proposed Project which is to address the anticipated future cancer patient needs with 28 new state-of-the-art operating rooms and up to 206 new single-bedded patient rooms. It is questionable that any such smaller building (likely eliminating between 12 and 14 floors of those anticipated with the Proposed Project) could be used as a hospital accessory facility for surgical inpatient purposes given the likely significant

loss of interstitial floor-to-floor heights for critical surgical technology components and air handling equipment; the effect of fewer operating rooms on the anticipated volumes of surgical caseloads; the loss of necessary floorspace for the program adjacencies critical to the complexities of the Applicant's highly specialized operating rooms; and the loss of patient beds with adjacency to the operating rooms and post-surgical facilities. While the reduction in height would result in no significant adverse impacts on the church's stained-glass windows, the Reduced Height Alternative would fail to meet the needs of MSKCC and the anticipated demand of the community it serves.

MITIGATION

SHADOWS

As described above in "Shadows," the Proposed Project would cause a significant adverse shadow impact to the stained-glass windows of St. John of Nepomucene Church (S/NR-eligible, NYCL-eligible), located at 1224 First Avenue at the northeast corner of East 66th Street. The *CEQR Technical Manual* identifies potential mitigation strategies to reduce or eliminate, to the greatest extent practicable, adverse shadow impacts to sunlight-sensitive historic architectural features, including changes to the bulk or configuration of projected or potential development sites that cause or contribute to the adverse impact. For adverse impacts to stained-glass windows, potential mitigation measures could also include the provision of artificial lighting to simulate the effect of direct sunlight.

The provision of artificial lighting simulating sunlight will be explored in consultation with the New York City Landmarks Preservation Commission (LPC) and the church between publication of the DEIS and FEIS. If feasible, such a mitigation measure would partially or fully mitigate the shadow impact. In the absence of full mitigation, the significant adverse shadow impact would be considered unmitigated.

CONSTRUCTION

Transportation

Construction associated with the Proposed Project would result in temporary disruptions in the surrounding area. As described above in "Construction," the Proposed Project's construction activities could result in significant adverse traffic impacts at two intersections during the AM construction peak hour and seven intersections during the PM construction peak hour.

A detailed construction traffic analysis was prepared to identify specific temporary impacts that may occur during construction. Temporary significant adverse traffic impacts are expected to occur at the First Avenue and East 61st Street and at the York Avenue and East 63rd Street intersections during the AM construction peak hour. With the implementation of standard traffic mitigation measures (signal timing changes), which are subject to review and approval by DOT, these significant adverse traffic impacts could be fully mitigated. During the PM construction peak hour, temporary significant adverse traffic impacts are expected to occur at seven intersections (Second Avenue and East 65th Street; Second Avenue and East 64th Street; First Avenue and East 65th Street; York Avenue and East 65th Street; York Avenue and East 64th Street; York Avenue and East 63rd Street; and FDR Drive Service Road and East 62nd Street). With the implementation of standard traffic mitigation measures (signal timing changes and removal of on-street curbside parking), which are subject to review and approval by DOT, the significant adverse traffic impacts at all intersections except York Avenue and East 63rd Street and FDR Drive Service Road and

East 62nd Street could be fully mitigated. The York Avenue and East 63rd Street and FDR Drive Service Road and East 62nd Street intersections would remain unmitigated due to the lack of feasible mitigation measures available. Additional mitigation measures will be explored between the DEIS and FEIS in consultation with DOT. In the absence of full mitigation, the significant adverse construct traffic impact would be considered unmitigated.

Noise

As discussed above in "Construction," the Proposed Project's construction activities would result in significant adverse noise impacts at 10 receptors surrounding the proposed construction work area (i.e., northern and northwestern façade of the 1213 York Avenue residential building, northern façade of 434 East 66th Street residential building, northern façades of 436 and 438 East 66th Street residential buildings, and the eastern and southeastern façades of 425 East 66th Street RRL building). Construction of the Proposed Project would follow the construction noise control requirements of the New York City Noise Control Code as well as abiding by a PCRE to not utilize impact pile driving. At building façades that are predicted to experience noise impacts, potential mitigation measures may include the offer of storm windows for façades that do not already have insulated glass windows and/or window air conditioning units on impacted façades of residences that do not already have alternative means of ventilation; however, the most noise-intensive construction activity nearest the receptors experiencing significant adverse impacts would only be partially mitigated.

Additional mitigation measures to control noise at these sensitive receptor locations will be further explored between the DEIS and FEIS. Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures would be considered unavoidable.

UNAVOIDABLE ADVERSE IMPACTS

According to the *CEQR Technical Manual*, 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 "Alternatives," and "Mitigation," no feasible building massing alternative that would meet the Applicant's sole purpose for pursuing the Proposed Project, i.e., to increase its surgical capacity by 2030 though adding 28 operating rooms, up to 206 patient beds and related support spaces for the treatment of the anticipated increase in cancer patients requiring complex surgeries in the future has been identified that would avoid the significant adverse shadow impact on St. John of Nepomucene Church. The provision of artificial lighting simulating direct sunlight on the stained-glass windows of the church will be explored in consultation with LPC and the church between publication of the DEIS and FEIS. If feasible, such a mitigation measure would be partially or fully mitigated. However, if no feasible mitigation is identified then the shadows on St. John of Nepomucene Church would be an unavoidable adverse impact.

As described above in "Mitigation," the Proposed Project would result in significant adverse impacts with respect to construction traffic and noise. To the extent practicable, mitigation has been proposed for the identified significant adverse impacts. However, in some instances no practicable mitigation has been identified to fully mitigate significant adverse impacts, and there are no reasonable alternatives to the Proposed Project that would meet the purpose and need, eliminate potential impacts, and not cause other or similar significant adverse impacts. In other cases, mitigation has been proposed, but absent a commitment to implement the mitigation, or if the mitigation is determined to be impracticable upon further review between the publication of

DEIS and FEIS, the impacts may not be eliminated, and the Proposed Project would result in unavoidable adverse impact vis-à-vis construction traffic and noise.

GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

Development resulting from the Proposed Actions would be limited to the Proposed Project on the Development Site, which consists of the existing MSKCC Sloan and Scholar buildings, and a Patient Bridge connection to the existing Memorial Hospital building across East 67th Street. The Proposed Project would not result in a substantial change in the land use of the Development Site; it would replace existing community-facility-related MSKCC buildings containing contract housing and administrative hospital support space with a new inpatient hospital building for MSKCC.

The Proposed Project would result in an incremental increase of 657 workers; however, it would not result in any indirect or direct business displacement, nor would it significantly affect business conditions in any industry or category of businesses 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 businesses 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 MSKCC campus and the surrounding 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.

While the Proposed Project would result in incremental water demand, it would not represent a significant increase in demand on the New York City water supply system, and would not result in any significant adverse impacts on the City's water supply. In addition, the Proposed Project would generate an incremental decrease in sewage generation at the Newtown Creek WRRF and would not result in an exceedance of the plant's permitted capacity. Therefore, the Proposed Project would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Compared with existing conditions, the Proposed Project would result in similar or reduced flows to the City's combined sewer system, as there would be a decrease in sanitary sewage generation, and no change to stormwater runoff (the Development Site 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 BMPs that 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 onsite storage of stormwater runoff and slower release to the sewer system.

The Proposed Project would result in similar or reduced flows to the City's combined sewer system as under existing conditions, it is not expected to result in an increase in CSO volumes or frequencies during rain events. Because of the available capacity of the Newtown Creek 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 BMP measures to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. Therefore, the Proposed Project would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

Overall, the Proposed Project is not expected to induce any significant additional growth beyond that identified and analyzed in this EIS.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section summarizes the potential impacts of the Proposed Project on the loss of environmental resources, both in the immediate future and in the long term and identifies whether the Proposed Project forecloses future options or involve trade-offs between short- or long-term environmental gains and losses. According to the *CEQR Technical Manual*, environmental resources include human-made and natural resources.

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

The resources are considered irretrievably committed because their reuse for some purpose other than the construction of the Proposed Project would be highly unlikely. The Proposed Project constitutes an irreversible and irretrievable commitment of the Development Site as a land resource, thereby rendering the land's 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. As previously described, the Proposed Actions would facilitate the replacement of two non-clinical and non-research buildings with the construction a new, 31-story state-of-the-art facility entirely devoted to in-patient care for acutely ill cancer patients, providing 28 new state-of-the-art operating rooms and up to 206 new highly specialized single-bedded patient rooms and the support spaces required to support them. The Proposed Project would replace on the Development Site two existing MSKCC buildings, Scholars and Sloan, which contain contract housing for MSKCC staff, administrative offices, and below-grade parking connecting with the existing RRL building. Existing research functions and staff would remain in RRL, but approximately 2,080 sf of conference room space would be removed to provide a new two-way parking garage ramp on East 67th Street to serve the existing 263 spaces in the garage, which would remain. The garage would continue to have an entrance on East 66th Street and would be available exclusively to MSKCC staff, patients, and visitors with valet service.

A two-story Patient Bridge over East 67th Street would provide a medically necessary connection for staff and patients between the Proposed Project and MSKCC's Memorial Hospital on the block to the north. Since the Proposed Project would not be designed to function as a free-standing hospital, the proposed Patient Bridge would provide an essential link to existing medical services—its Urgent Care Service, and the therapeutic and diagnostic facilities housed elsewhere on the MSKCC Campus.

The Proposed Project has been designed to allow MSKCC to augment its current surgical capacity to provide the highest level of care for rising acuity, to enhance its diagnostic abilities and reduce recovery times, to provide patients with a seamless experience through digital communications and wireless connectivity, and to drive additional advancements in cancer research and patient outcomes.

As described in Chapter 1, "Project Description," benefits of the Proposed Project include:

- The Proposed Project would allow MSKCC to house the technology and inventions it needs to meet the complexity of care necessary for the patients of the future, including cutting-edge robotics, improved digital infrastructure, and enhanced operating rooms.
- With its 28 state-of-the-art operating rooms and up to 206 single-bedded rooms for acutely ill patients, the Proposed Project will be designed to provide the capacity required for the influx and acuity of future cancer patients, and the families who care about them. The design of vertical floor-to-floor heights to accommodate room clearances as well as interstitial levels between ceiling and bottom-of-slab for necessary high-performance air-changing equipment, technology-driven conduits, and other advanced technologies for both the operating rooms and the inpatient rooms are as critical to the overall design as the horizontal dimensions of each floorplan.
- The Patient Bridge to Memorial Hospital would provide critical access to facilitate the sharing of functions, facilities, and equipment for the benefit of patients. The Patient Bridge would also streamline MSKCC's clinical and translational research capabilities and allow ease of access in triaging patients from different facilities including operating rooms and ICUs.
- Long-term, the construction of the Proposed Project would permit the staged modernization of the patient rooms in Memorial Hospital, which is now 50 years old, so that it too will be able to provide greater access to MSKCC's state-of-the-art inpatient care. MSKCC would remain operational throughout construction of the Proposed Project.

The Proposed Project would also be consistent with, and supportive of, the public policies applicable to the Project Site and the study area. ✷