A. INTRODUCTION

Rockefeller University (the "applicant") is seeking a modification to an existing large scale community facility development ("LSCFD") plan, a City Map amendment and a special permit from the New York City Planning Commission (CPC) as well as other discretionary approvals to facilitate the development of: privately accessible open space; three new community facility buildings comprising a total of approximately 180,000 gross-square-feet (gsf); and an approximately 930-foot long, five-foot-tall traffic sound barrier (the "proposed project"). Specifically, the proposed project would include development of a new two-story, approximately 157,251 gsf laboratory building with two one-story pavilions and privately accessible landscaped green space on its roof; a one-story, approximately 3,353-gsf conference and meeting pavilion (the "Interactive Conference Center" or "ICC") located on the North Terrace at the north end of the platform structure; a new 20,498-gsf one-story fitness center; and a proposed new privately accessible landscaped area on the "North Terrace"), adjacent to the Rockefeller University's President's House, which is situated on the "superblock" bounded by East 62nd Street and the centerline of demapped East 68th Street, between York Avenue and the bulkhead east of the Franklin Delano Roosevelt (FDR) Drive and the East River Esplanade. The superblock (Block 1480, Lots 10 and 9010; Block 1475, Lots 5 and 9005) is designated as a Large-Scale Community Facility Development (LSCFD).

Both the laboratory building and the ICC building would be constructed on an approximately 930-linear-foot platform structure largely in air space over the FDR Drive. To structurally support the platform above which the laboratory building and North Terrace would be constructed, twenty columns would be located west of the FDR Drive immediately adjacent to and within an existing schist retaining wall, and ten columns would be located flush with the FDR Drive's eastern edge (within the western portion of the East River Esplanade).

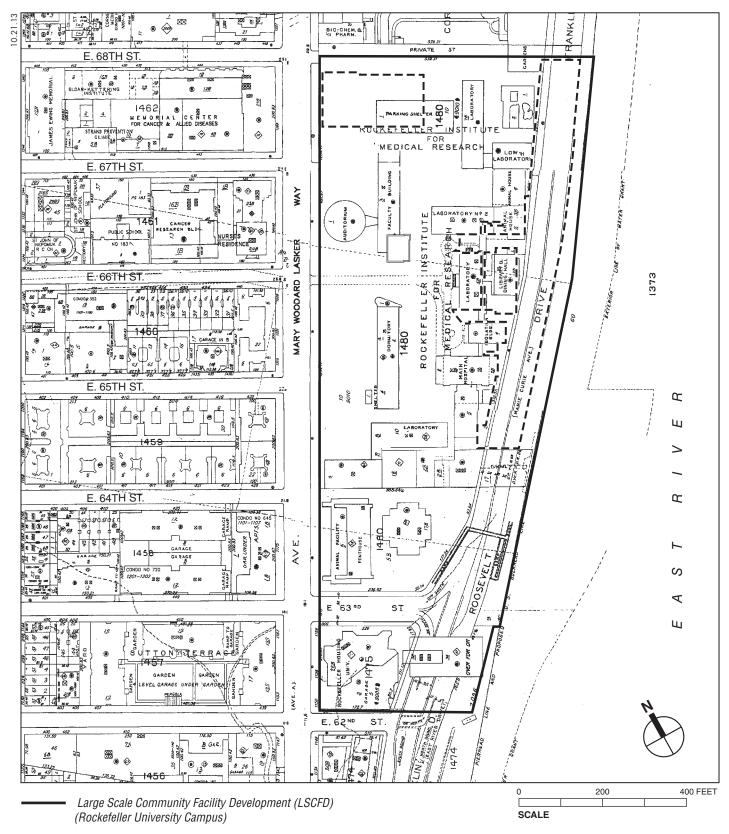
The proposed new 20,498-gsf fitness center would be built at the northwest corner of the university campus (see **Figures S-1 through S-3**).

In addition, an approximately 930-foot long, five-foot-tall sound barrier would be constructed along the eastern edge of the FDR Drive (between the FDR Drive and the East River Esplanade) that would extend the entire length of the proposed platform structure.

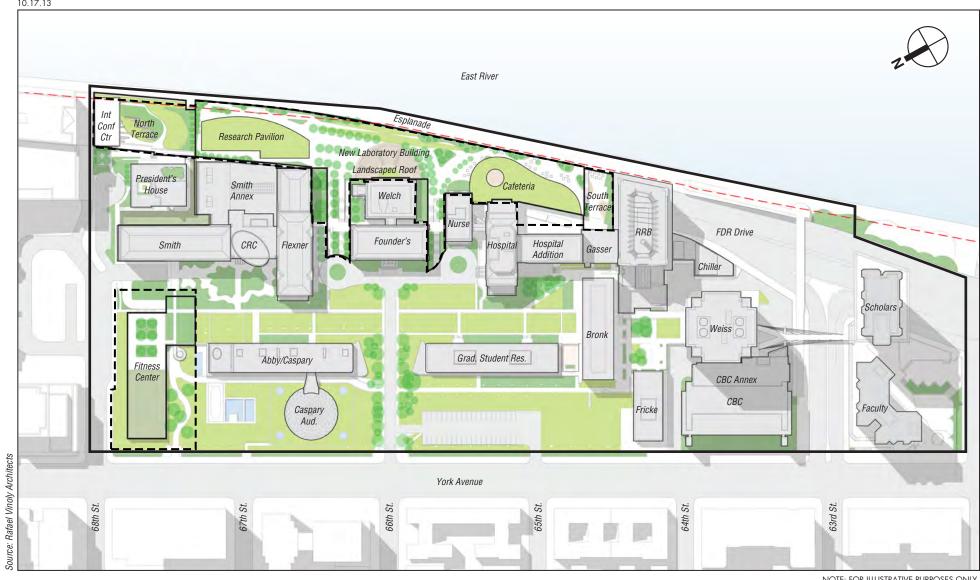
The proposed project would require the following discretionary actions, which are subject to City Environmental Quality Review (CEQR) and the Uniform Land Use Review Procedure (ULURP):

NEW YORK CITY PLANNING COMMISSION APPROVALS (SUBJECT TO UNIFORM LAND USE REVIEW PROCEDURE [ULURP])

• A special permit for construction in air space over the FDR Drive (as part of the special permit, the actions would also include a rear yard waiver) pursuant to Section 74-682 of the New York City Zoning Resolution ("ZR") (subject to ULURP);



--- Development Sites



Large Scale Community Facility Development (LSCFD) (Rockefeller University Campus)

Development Sites



- An amendment to the City Map pursuant to the New York City Charter to eliminate, discontinue, and close portions of the FDR Drive right-of-way and the disposition of real property related thereto, to allow for the placement of columns and footings in the East River Esplanade and on the west side of the FDR Drive associated with the construction of the proposed laboratory building (subject to ULURP); and
- Modification of Rockefeller University's previously approved LSCFD (C821257 ZAM) (subject to ULURP).

APPROVALS PURSUANT TO 1973 AGREEMENT, AS AMENDED

In addition, the proposed project would also require approvals pursuant to a 1973 Agreement (explained in more detail below, in Section B, "Rockefeller University"), as amended, between the CPC and Rockefeller University for:

- CPC approval of building and column locations in and over the FDR Drive and East River Esplanade pursuant to Article 12A of the 1973 Agreement, as amended in 1993 by Article 13 of the Third Amendment to the 1973 Agreement;
- Approval by the Director of City Planning pursuant to Article 12B of the 1973 Agreement of landscaping, security, and lighting plans in accordance with Article 11, a ventilation plan and a noise quality plan, plans for closing the FDR Drive and East River Esplanade in accordance with Article 7, and an environmental impact plan; and
- CPC, acting as City Coastal Commission, determination of consistency with Waterfront Revitalization Program.

OTHER APPROVALS

The project would also require the following ministerial approvals:

- Public Design Commission approval of a building over the FDR Drive and changes to the esplanade landscaping;
- NYCDOT approval of construction plans as they relate to closure of streets, highways, or individual lands, and diversions or rerouting of traffic;
- Permits from:
 - o U.S. Army Corps of Engineers (USACE):
 - Approval under Nationwide Permit 33;
 - o U.S. Coast Guard (USCG):
 - Authorization under the Ports and Waterways Safety Act (33 USC 1225(a)(2)(C)) and Notice to Mariners;
 - New York State Department of Environmental Conservation (NYSDEC) related to in-water construction-period activities:
 - Section 401 Water Quality Certification;
 - Storm Water Pollution Prevention Plan (SWPPP) (anticipated); and
 - NY-2C Discharge Permit (anticipated);

- New York State Department of Transportation (NYSDOT), in coordination with NYCDOT, approvals related to construction-period activities associated with lane closures on the FDR Drive; and
- Other approvals and/or permits from the following City agencies are anticipated: Department of Environmental Protection (DEP), Department of Parks and Recreation (DPR), Department of Buildings (DOB), Department of Small Business Services (DSBS), and the Fire Department of New York (FDNY).

All necessary permits would be obtained prior to the start of construction-related activities.

The Department of City Planning (DCP), acting on behalf of CPC, is the lead agency for the environmental review. The lead agency has determined that the proposed actions may potentially result in significant adverse environmental impacts, and that an Environmental Impact Statement (EIS) is required. This Draft Environmental Impact Statement (DEIS) has been prepared in accordance with Executive Order 91 of 1977, as amended, and CEQR Rules and Procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). The 2012 CEQR Technical Manual is generally used as a guide with respect to environmental analysis methodologies and impact criteria for evaluating the proposed project, unless otherwise stated.

RESTRICTIVE DECLARATION

In connection with the proposed project, a Restrictive Declaration would be recorded at the time of approval of all land use-related actions required to authorize the proposed project's development. The Restrictive Declaration would provide for the implementation of and include, among other components, a five-foot-tall sound barrier between the FDR Drive and the East River Esplanade; commitment to the location of the two proposed laboratory building stacks; the development of a restoration plan for the Philosopher's Garden (private open space within the Rockefeller University campus) prepared in consultation with LPC and detailed in Chapter 13, "Mitigation," of the EIS; and bulkhead repair and reconstruction and a substantial upgrade to the esplanade that would be implemented as mitigation measures, and "Project Components Related to the Environment" (i.e., certain project components which were material to the analysis of the environmental impacts in this EIS) which would be substantially consistent with the EIS.

B. ROCKEFELLER UNIVERSITY

DEVELOPMENT HISTORY

In 1901, the Rockefeller Institute of Medical Research (now known as Rockefeller University) was founded. In 1905, construction of a laboratory building (Founder's Hall), an animal house, and a powerhouse commenced. In 1910, an isolation pavilion and a 60-bed hospital opened, and in 1915-1916, a major expansion of the Institute's facilities was executed, resulting in a new laboratory and animal house, and a powerhouse at the southern end of the campus near East 64th Street. By 1952, 11 major buildings stood on the Institute grounds, which were bounded by York Avenue and the FDR Drive between East 63rd and East 68th Streets. Eight additional buildings were added to the campus between 1958 and 1975. In 1983, the Rockefeller University LSCFD was designated; the boundaries of the LSCFD include the entire Rockefeller University campus (Block 1480, Lots 10 and 9010; Block 1475, Lots 5 and 9005). The LSCFD extends from East 62nd Street to the centerline of demapped East 68th Street between York Avenue and the bulkhead east of the FDR Drive (see **Figure S-1**). The LSCFD designation, in effect, makes the campus a "superblock," allowing the University greater flexibility in utilizing its development rights, provided that the aggregate of all development does not exceed a maximum Floor Area

Ratio (FAR) of 10.0. The maximum permitted zoning floor area in the LSCFD is 6,051,090 zoning square feet (zsf).

In 1989, Rockefeller University was granted a special permit (C880671ZSM) pursuant to Section 197-c and 200 of the New York City Charter and ZR Section 74-862 to allow the development of a 15-story research building in the demapped air space over the FDR Drive. The LSCFD was subsequently modified (C821257(A)ZAM) in 1989 to reflect the construction of the research building. In 1998, approvals were granted to allow the construction of a pedestrian bridge in the demapped airspace across East 63rd Street. More recently, in 2007, the LSCFD was modified to facilitate the addition of 101,800 square feet (sf) of new laboratory and academic space, raising the floor area with the LSCFD to 1,853,053 sf.

1973 AGREEMENT AND SECTION 74-682 SPECIAL PERMIT (AIR RIGHTS)

In 1973 the Rockefeller University, New York Hospital (now the New York Presbyterian Hospital-Weill Cornell Medical Center [NYPH-Weill Cornell Medical College]¹), and the Hospital for Special Surgery were planning for expansion. The three institutions entered into an agreement with the City. Pursuant to that agreement, the City conveyed certain air rights over the FDR Drive. The rights are defined in the agreement and a change to the City map. The map change is titled: "Map showing a change in the City Map by eliminating, discontinuing and closing volumes of streets above designated lower limiting planes, and by laying out the lines and dimensions of a permanent easement for an elevated public pedestrian walkway in the area generally bounded by East 62nd Street, York Avenue, East 72nd Street and the East River, Borough of Manhattan." The map illustrates the limits of the air rights as they are defined in different areas. Rockefeller is adjacent to parcels A, B, and C, with the majority of the East River frontage in Parcel C.

Parcel C is defined as a "Volume of FDR Drive Eliminated Discontinued and Closed above elevation 25.0." The volume is defined by the schist wall that establishes Rockefeller University's eastern property line (immediately adjacent to the FDR Drive's western boundary), and by the U.S. Pier head and Bulkhead line to the east. To the east of the FDR Drive roadway is a pedestrian esplanade that follows the U.S. Pier head and Bulkhead line.

At the time of the agreement, the City's intention was to extend the public walkway south from Gracie Park where it would terminate at East 63rd Street. The City abandoned the idea of an elevated pedestrian walkway prior to any construction in the rights over the FDR Drive. The pedestrian walkway—which is the current East River Esplanade—was developed at the elevation of the FDR Drive.

The agreement was last amended on March 17, 1993 and now states that the pedestrian walkway cannot be built over and is defined as "between the vertical plane defined by the eastern most edge of the FDR Drive and the pier head-bulkhead line or within 25 feet of the vertical plane defined by the pier head-bulkhead line, whichever is wider". It then states that "the City Planning Commission, at its sole discretion, may eliminate, discontinue or close portions of the University Easement Space which fall within the aforementioned planes, for the limited purpose of allowing the placement therein of support columns, connecting girders and structural bracing

¹ The main campus of NYPH occupies several buildings in the study area. The main entrance to NYPH is located on demapped East 68th Street north of Rockefeller University. The block includes the hospital, emergency room, and a portion of Weill Cornell Medical College (WCMC).

that are found to be necessary and appropriate for permitted construction and one-story building."

The sale of the air rights over the FDR Drive did not include any Development Rights but does increase the Lot Area for purposes of Lot Coverage.

THE ROCKEFELLER UNIVERSITY STRATEGIC PLAN 2012-2020

Rockefeller University developed the *Rockefeller University Strategic Plan 2012-2020* that was approved by the Rockefeller University Board of Trustees on June 6, 2012. The strategic plan established one of Rockefeller University's essential objectives, to:

"Maintain the institution's small size and retain its non-departmental structure, so as to preserve its unique collaborative and cross-disciplinary culture. With around 75 laboratories, the University is small when compared to the size of major academic medical centers, and it should remain at approximately this size...Rockefeller's small size and flat administrative structure help to recruit the very best scientists and nurture their prodigious talent. The department-free structure encourages collaboration and stimulates interaction among researchers from widely differing disciplines, a feature that frequently leads to unexpected synergies with the potential for major advances."

C. EXISTING CONDITIONS ON THE PROJECT SITE

The affected area is defined by the LSCFD that includes the entire Rockefeller University campus (Block 1480, Lots 10 and 9010; Block 1475, Lots 5 and 9005); as well as an approximately 236-sf¹ area within the western portion of the East River Esplanade, a linear publicly accessible open space resource. The LSCFD designation, in effect, makes the campus a "superblock." The LSCFD extends from East 62nd Street to the centerline of demapped East 68th Street between York Avenue and the bulkhead east of the FDR Drive (see **Figures S-1 and S-2**).

LABORATORY BUILDING SITE AND NORTH TERRACE SITE

The Laboratory building site and North Terrace Site are located within the LSCFD and primarily occupy air space over the FDR Drive. The Laboratory building site and North Terrace Site also include small areas of the eastern portion of the Rockefeller campus (west of the FDR Drive) where the new buildings would connect with the existing campus. These areas consist of the courtyards north and south of Welch Hall; the paved and grassy areas north and south of Founder's Hall that connect to the main campus to the west; an existing mechanical equipment area north of the courtyard between Welch Hall and the Flexner Hall Extension; and the small areas immediately adjacent to certain existing campus buildings that would abut and connect to the new laboratory building.

FITNESS CENTER SITE

The Fitness Center Site is occupied by a paved surface parking lot with a one-story concrete flat canopy structure that extends over the southeastern part of the parking lot. The vehicular entrances to the surface parking lot are from York Avenue and demapped East 68th Street. A metal and brick fence and several mature trees establish the campus boundary adjacent to the Fitness Center Site.

¹ The 236 sf includes the eight Y-shaped column footings at 24 sf each and the two oval column footings at 22 sf each.

EAST RIVER ESPLANADE

The approximately 236 sf¹ area within the western portion of the East River Esplanade where 10 columns and footings for the new laboratory building and the North Terrace would be located are paved areas immediately adjacent to the FDR Drive. The portion of the esplanade adjacent to the project site includes a paved walkway ranging from approximately 13 to approximately 17 feet wide and includes seating areas, lighting, and plantings. The locations for 20 columns and footings along the west side of the FDR Drive are within and adjacent to the campus's existing schist retaining wall.

POPULATION

The existing Rockefeller University LSCFD's user population includes approximately 720 on-campus residents among the 1,900 faculty and staff (worker population), and approximately 10 non-residential students.²

D. PROPOSED PROJECT

The proposed project would require modifications to the LSCFD to reflect the proposed floor area and lot coverage and would require a special permit for construction in air space over the FDR Drive. These modifications are subject to review under CEQR. The proposed project would add to the campus approximately 157,251 gsf of new laboratory and support space located on a platform spanning the FDR Drive, an approximately 3,353-gsf conference and meeting pavilion (the ICC) located on the North Terrace of the platform spanning the FDR Drive, and a new, approximately 20,498-gsf fitness center at the northwest corner of the campus, raising the total floor area of the LSCFD from approximately 1,853,053 zsf to approximately 2,012,811 zsf (see **Table S-1**). This floor area would be well within permitted limits. The proposed project would conform to the underlying R9 and R10 zoning designations on the campus, and the design of the buildings would comply with the bulk requirements of the Zoning Resolution.

¹ The 236 sf includes the eight Y-shaped column footings at 24 square feet each and the two oval column footings at 22 sf each.

² The types and numbers of workers, non-residential populations, and number of students (non-residential) were provided by Rockefeller University.

Table S-1 Summary of Existing, No Action, and With Action Conditions on the LSCFD Site

LSCFD (Total) Community Facility Institutional (Academic) No. of bldgs. 21 GFA of each bldg. (sq. ft.) 1,410,108 gsf Range from 1-story Chiller Plant to 38- story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces 0 No. of accessory spaces 100 Operating hours 24 hours/day Attended or non-attended Parking Lots No. of public spaces 0 No. of public spaces 0 No. of public spaces 100 Operating hours 24 hours/day Attended Or non-attended Parking Lots No. of public spaces 0	Existing Co	onditions			<u>Fu</u> ture	No Action ¹			Future W	ith Action	
Community Facility Institutional (Academic) No. of bldgs. GFA of each bldg. (sq. ft.) No. of stories of each bldg No. of stories of each bldg Range from 1-story Chiller Plant to 38-story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots	Laboratory building site	North Terrace Site and ICC	Fitness Center Site	LSCFD (Total)	Laboratory building site	North Terrace Site and ICC	Fitness Center Site	LSCFD (Total)	Laboratory building site	North Terrace Site and ICC	Fitness Center Site
Type (Academic) No. of bldgs. 21 GFA of each bldg. (sq. ft.) 1,410,108 gsf Range from 1-story Chiller Plant to 38- story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of public spaces No. of paccessory spaces Operating hours Attended or non-attended Parking Lots				(,				()	3		
Type (Academic) No. of bldgs. 21 GFA of each bldg. (sq. ft.) 1,410,108 gsf Range from 1-story Chiller Plant to 38- story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots	None—Air space above	None—Air	Institutional (Academic)— Parking Lot						Institutional (Academic)— New	Institutional (Academic)— New Interactive	Institutional (Academic) —New
No. of bldgs. GFA of each bldg. (sq. ft.) Range from 1-story Chiller Plant to 38- story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots	the FDR	space above	and Canopy					Institutional	Laboratory	Conference	Fitness
GFA of each bldg. (sq. ft.) No. of stories of each bldg No. of stories of each bldg Range from 1-story Chiller Plant to 38-story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots	Drive	the FDR Drive	Structure	No Change	No Change	No Change	No Change	(Academic)	Building	Center	Center
Range from 1-story Chiller Plant to 38- story Scholars' Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots	0	0	1	No Change	No Change	No Change	No Change	24	1	1	1
No. of stories of each bldg No. of stories of each bldg Residence Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots Chiller Plant to 38- story Scholars' Residence 100 201 24 hours/day Attended Or non-attended Vinattended Vinattended	N/A	N/A	13,104 gsf	No Change	No Change	No Change	No Change	2,012,811 gsf	157,251	3,353	20,498
Range from El. 18' Chiller Plant to El. 397' Scholars' Residence Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots Range from El. 18' Chiller Plant to El. 397' Scholars' Residence 0 0 0 Unattended	N/A	N/A	1	No Change	No Change	No Change	No Change	Range from 1 to 38 stories	3	1	1
Parking Garages No. of public spaces No. of accessory spaces Operating hours Attended or non-attended Parking Lots Operating Garages 0 0 24 hours/day Lotatended Unattended Unattended						J		Range from El. 18' to El		EL. 31' (North Terrace); El.	
No. of public spaces 0 No. of accessory spaces 100 Operating hours 24 hours/day Attended or non-attended Unattended Parking Lots	N/A	N/A	El. 46'	No Change	No Change	No Change	No Change	397'	El. 89.5'	46' (ICC)	El. 46'
No. of accessory spaces 100 Operating hours 24 hours/day Attended or non-attended Unattended Parking Lots											
Operating hours 24 hours/day Attended or non-attended Unattended Parking Lots	0	0	N/A	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
Attended or non-attended Unattended Parking Lots	0	0	N/A	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
Parking Lots	N/A	N/A	24 hours/day	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	N/A	N/A	Unattended	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
No. of public spaces 0											
	0	0	0	No Change	No Change	No Change	No Change	0	0	0	0
No. of accessory spaces	0	0	52 ² (included in LSCFD total)	No Change	No Change	No Change	No Change	108	0	0	10 (included in LSCFD total)
Operating hours 24 hours/day	N/A	N/A	24 hours/day	No Change	No Change	No Change	No Change	24 hours/day	N/A	N/A	24 hours/day

Notes:

Sources: Dept. of City Planning, PLUTO/ZoLa; NYC Department of Finance; Rockefeller University, Vinoly Architects; AKRF, Inc, field surveys.

Absent the proposed actions, no new development would occur on the development sites within the LSCFD. As described in the "Future No Action" section above, certain areas of the Bronk Building, the Smith Annex, and other campus buildings will be used for storage as part of typical University operations. The temporary IT Pavilion will be removed and the site will become a landscaped area. Also in the Future No Action scenario, the existing 45 parking spaces at the East 68th Street surface parking lot will be maintained.

² A 2006 survey of the Rockefeller LSCFD's East 68th Street surface parking lot identified 70 parking spaces. However, the East 68th Street parking lot has been functioning at a reduced capacity with 45 parking spaces since 2007 when trailers were installed for the construction of the Collaborative Research Center. Since 2007, the number of parking spaces on campus has been permanently reduced by 25. See the draft Scope of Work.

^{*} Building elevations are referenced to the Manhattan borough datum.

In addition to its location primarily over the FDR Drive, the Laboratory building Site and North Terrace Site also include small areas of the eastern portion of the Rockefeller campus (west of the FDR Drive) and locations where columns for the laboratory building platform and North Terrace platform would be located along the western edge of the East River Esplanade and within and adjacent to the campus's existing schist retaining wall along the western, southbound FDR Drive. As part of the proposed project a total of approximately 236 sf within the western portion of the East River Esplanade immediately adjacent to the FDR Drive would be demapped where 10 columns and footings for the new laboratory building and the North Terrace would be located. In addition, the areas of the esplanade that would be damaged by construction-related activities—which include existing pavers, benches, lighting, and plantings—would be replaced in-kind.¹

As described below, the proposed project would not result in any increase to the Rockefeller University residential, user, or worker populations as the laboratory building, the ICC, and the fitness center would provide new facilities that would allow for the spatial decompression and upgraded facilities for uses that currently take place on campus.

LABORATORY BUILDING SITE

The proposed approximately 157,251-gsf laboratory building would be constructed on a platform occupying air space spanning the portion of the FDR Drive between demapped East 68th Street and the Rockefeller Research Building north of East 64th Street (see **Figure S-3**). The lowest part of the laboratory building (the soffit) would be approximately 19 feet above the elevation of the FDR Drive. Eight Y-shaped columns and two oval columns would be located flush with the FDR Drive's eastern edge within the western portion of the East River Esplanade. These columns would support the new laboratory building and North Terrace, described below. Twenty columns would be located west of the FDR Drive immediately adjacent to and within the existing schist retaining wall (see **Figure S-4**).

The new laboratory building would contain two stories of laboratories and research and support space (providing a total of approximately 135,115 gsf of space). As described below, the new laboratory building would also have two one-story rooftop pavilions containing a total of approximately 22,136 gsf. The new building's laboratories would have large, open floor plates extending north-south that would meet current needs for collaborative research and that would also be adaptable to meet future configuration needs as research practices continue to evolve. The western edge of the laboratory building platform would abut the existing schist retaining wall that extends along the west side of the FDR Drive. The interior spaces in these areas of the building would be occupied by support and technical services not requiring access to natural light. The laboratories, offices, and shared spaces would be located in the eastern portions of the new building, providing access to light and eastward views to the East River. Certain sections of

¹Through consultation with DPR and DCP, Rockefeller University would undertake a substantial upgrade to the portion of the East River Esplanade adjacent to the project site (between the area north of the Rockefeller Research Building north of East 64th Street and demapped East 68th Street) and the segment of the esplanade extending an additional approximately 150 feet south of the project site. The bulkhead repair and rebuilding would extend the entire length of the portion of the esplanade adjacent to the project site and would also extend an additional approximately 150 feet south of the project site. These improvements would be undertaken as partial mitigation for the significant shadow impact to the esplanade that would result from the construction of the proposed laboratory building and North Terrace spanning FDR Drive (see also "Mitigation").



the existing schist retaining wall would be modified in areas where the new laboratory building would connect to existing campus buildings (see **Figures S-5 and S-6**).

The roof of the laboratory building would be approximately 18 feet above the elevation at the eastern edge of the existing Rockefeller University campus. The laboratory building's roof would be landscaped, creating a linear extension of the campus's open space and green space along its eastern edge. The new rooftop landscaping would add approximately 55,397 gsf of open space to the campus. As mentioned above, the roof of the new laboratory building would include two one-story pavilion structures that would house a dining hall and associated support spaces, providing a total of approximately 22,136 gsf of space included within the 157,251-gsf laboratory building. An amphitheater would be located at the center of the rooftop landscaping in the area adjacent to Welch Hall's east façade (see **Figures S-7 and S-8**).

There would also be two exhaust stacks located on the roof of the laboratory building that would be integrated into the overall design of the new laboratory building and landscaping (see **Figure S-9**). One stack would abut the north façade of the Hospital and the other would abut the south façade of the Flexner Hall Extension. Each stack would be slightly taller than the building it abuts to allow for appropriate exhausting. The stack abutting the Hospital would be approximately 178 feet above datum and the stack abutting the Flexner Hall Extension would be approximately 155 feet above datum. The footprints of the stacks would be small, with the stack abutting the Hospital being approximately 18 feet long by approximately seven feet wide, and the stack abutting the Flexner Hall Extension being approximately 28 feet long by approximately seven feet wide.

The new laboratory building is being designed to physically and visually connect with the overall Rockefeller University campus. Because of its low, linear design, its location at the rear of the campus over the FDR Drive, as well as the gradual eastward incline of the campus, the new laboratory building would not be visible from York Avenue. The new building would establish a podium for the campus that would provide visual cohesion in public views from points eastward (see **Figures S-2, S-9, and S-10**).

NORTH TERRACE SITE AND INTERACTIVE CONFERENCE CENTER

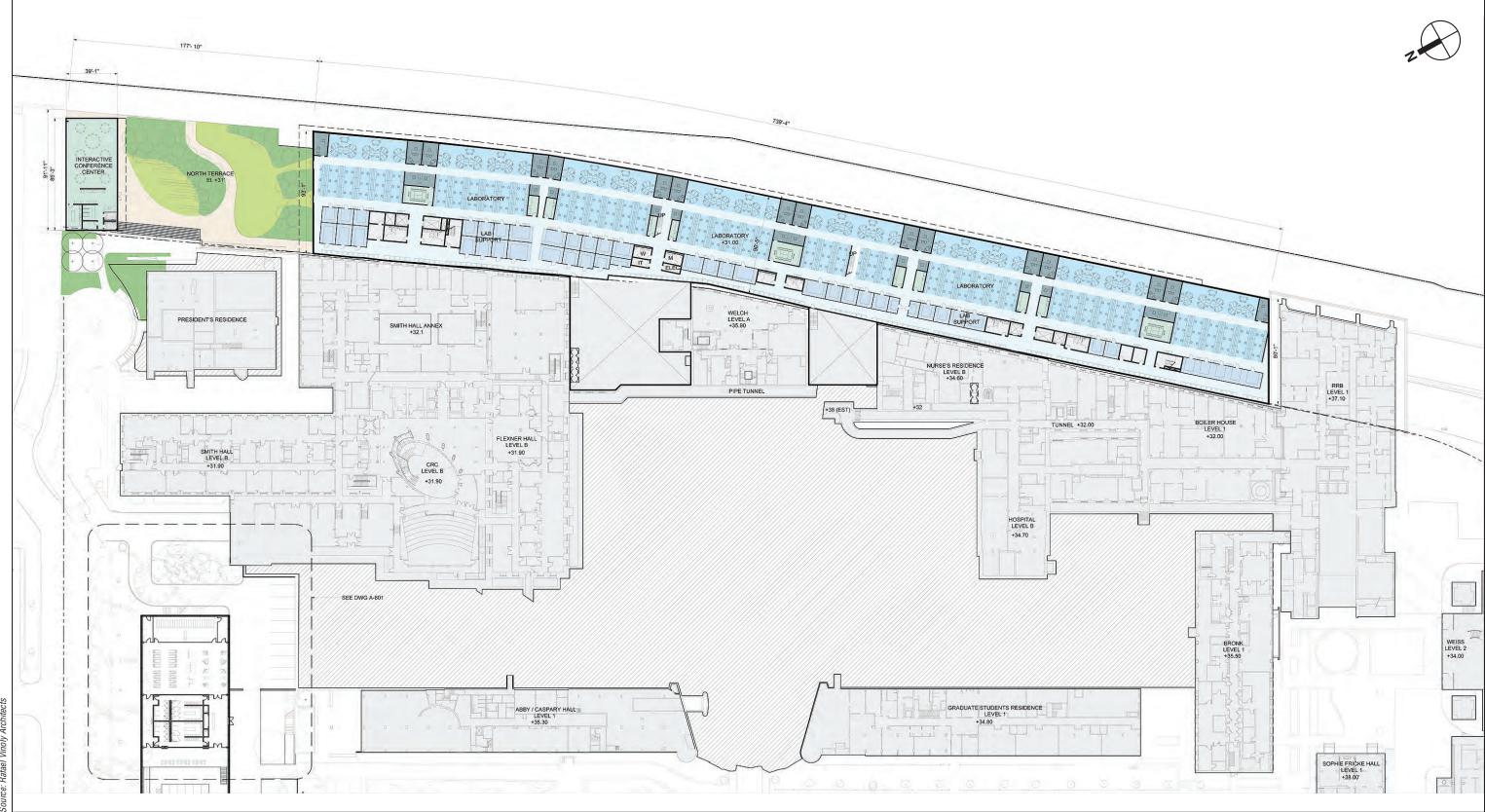
The North Terrace Site would be located at the north end of the platform structure spanning the FDR Drive (see **Figure S-11**). A new, one-story 3,353-gsf conference and meeting pavilion—the ICC—would be located on the north end of the North Terrace, with the North Terrace linking the ICC pavilion to the President's House. The North Terrace, the ICC, and the President's House would, together, provide the University with adequately-sized facilities for many key University activities, including conferences, retreats, colloquiums, and fund-raising events. Both the ICC and the adjacent landscaped areas would be readily accessible but secluded from the rest of the campus. Like the laboratory building, the North Terrace would also serve as a podium for the campus that would provide visual cohesion in public views from points eastward.

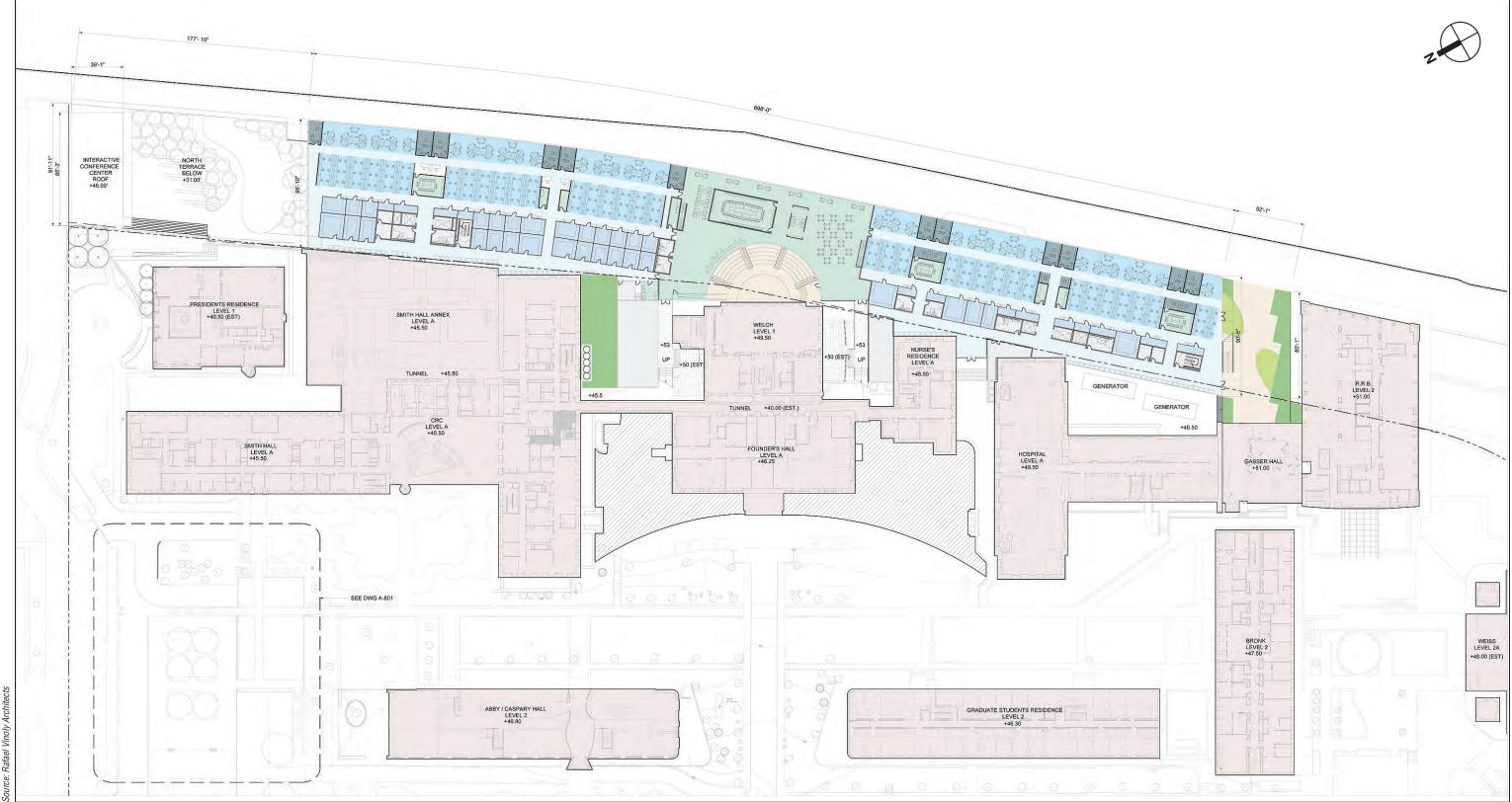
FITNESS CENTER SITE

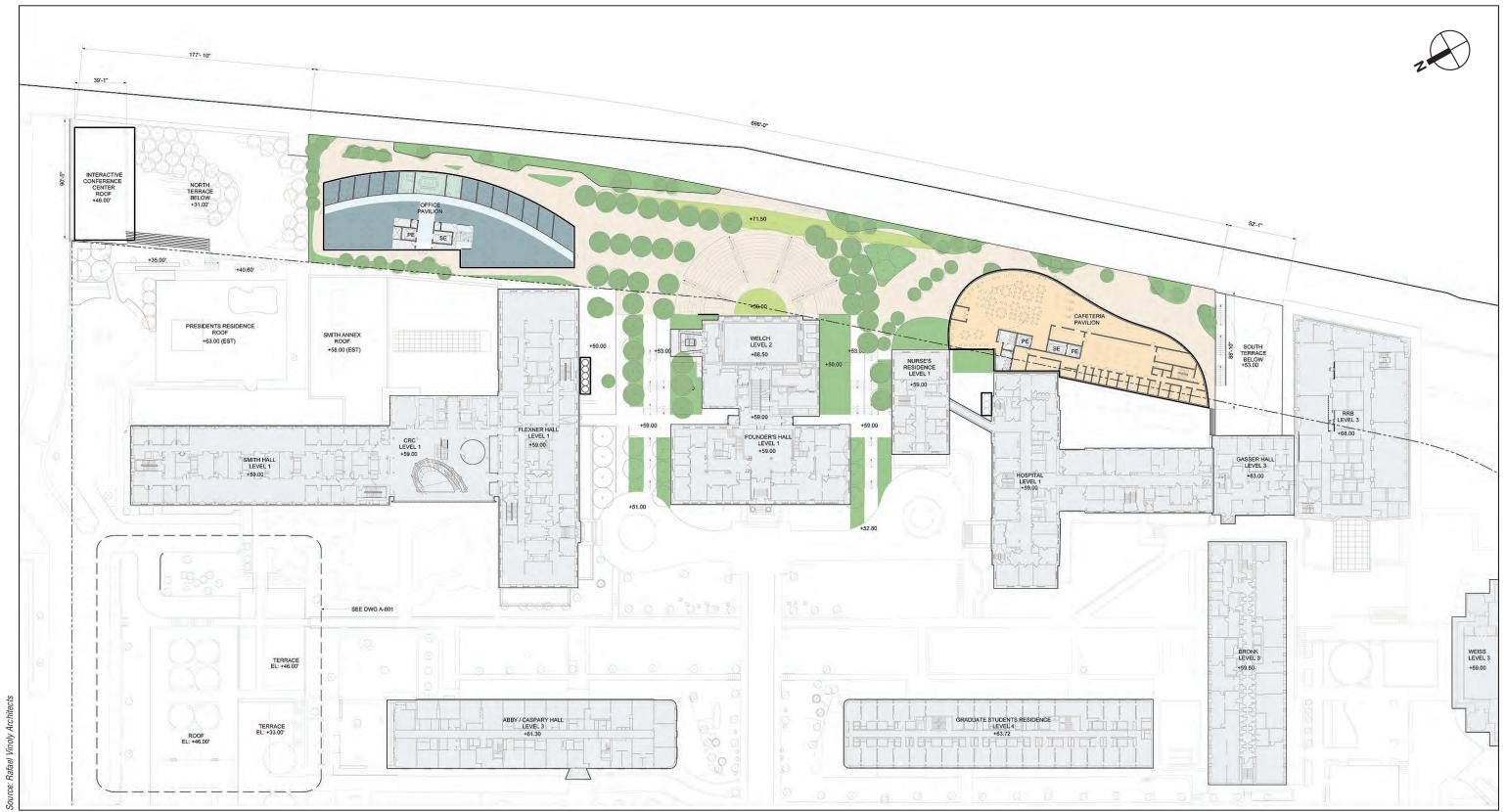
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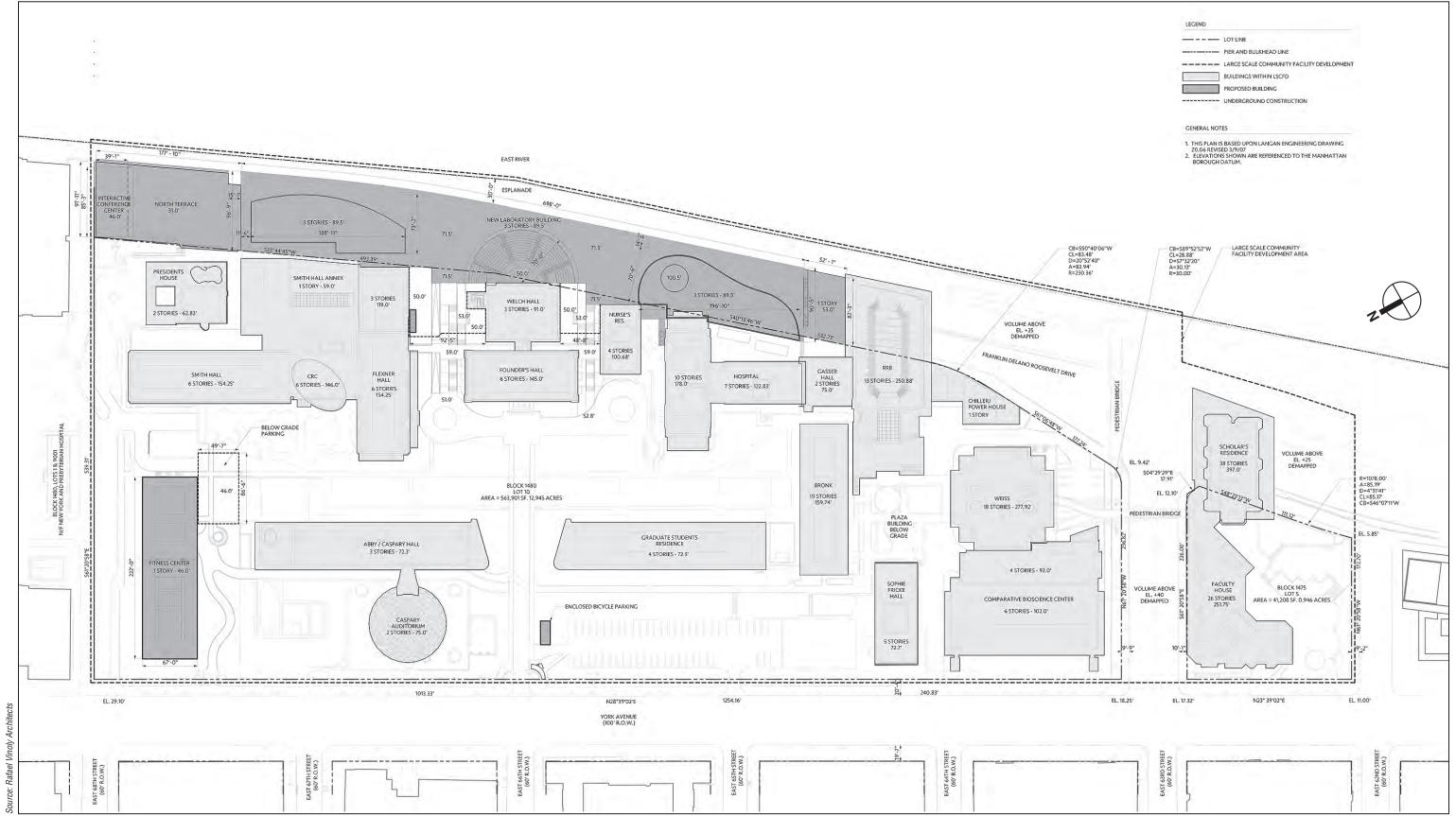
The northwest corner of the campus would be redeveloped with a new one-story, approximately 20,498-gsf fitness center, covered parking lot, and landscaping. The fitness center would include

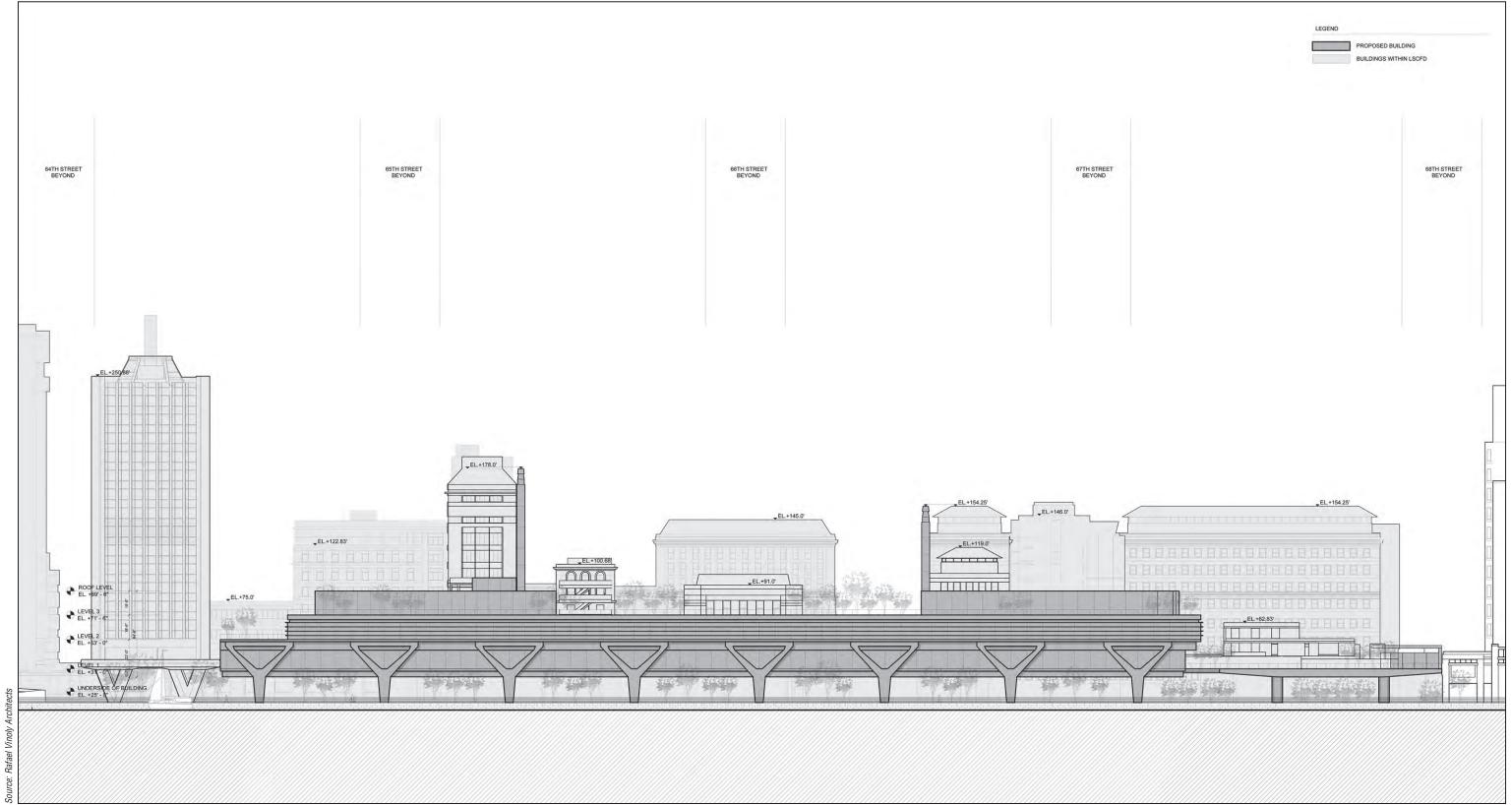
¹ Rainwater on the rooftop green space would be directed to the planted areas where it would be absorbed. Water than cannot be absorbed would be drained from the planters.

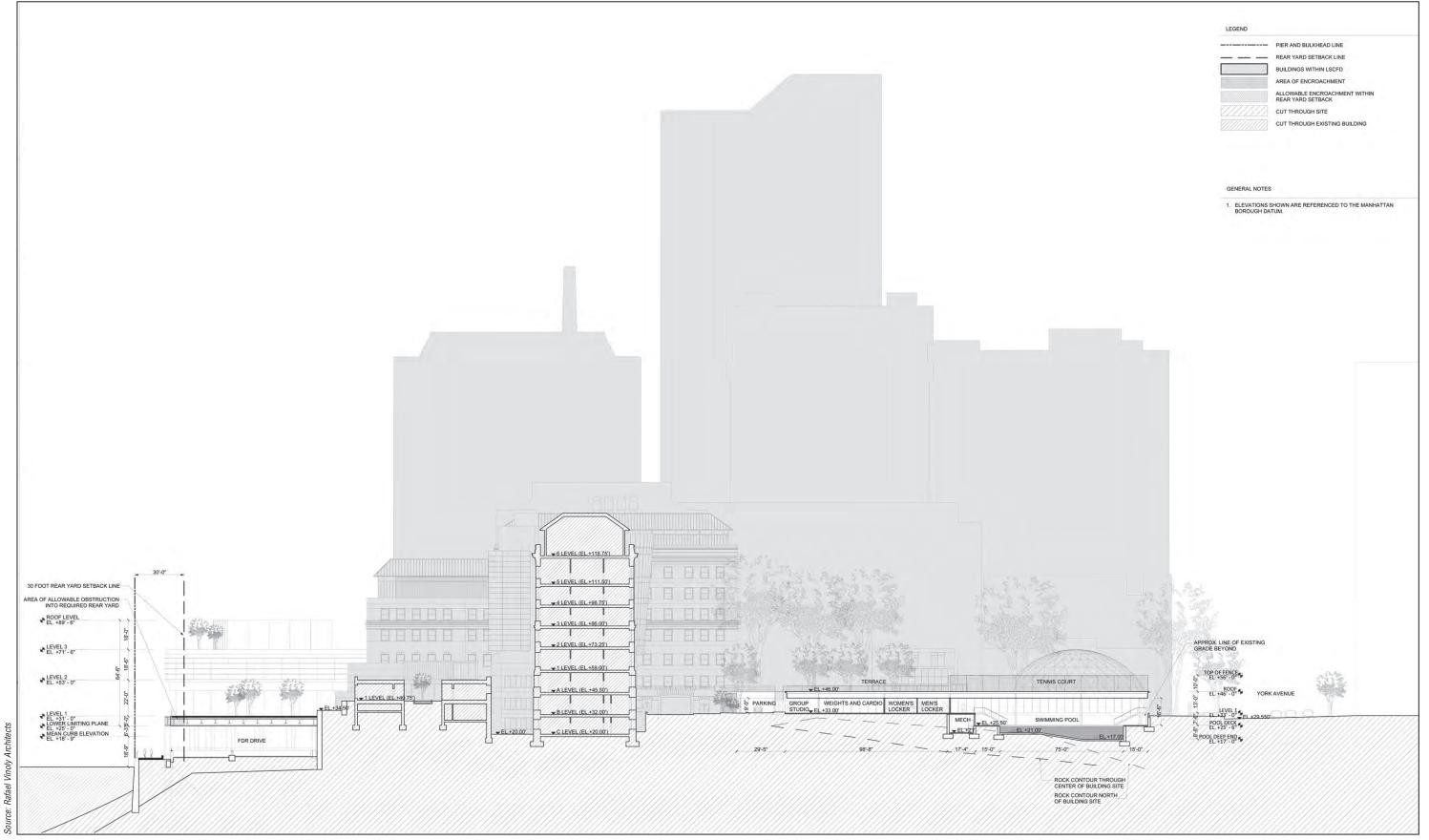












Laboratory Building Site Proposed Section Figure S-10



a swimming pool, and would have a rooftop tennis court and landscaping. Covered parking would be located within the southeastern portion of the Fitness Center Site and would contain 10 parking spaces that would be accessed by a modified driveway path from demapped East 68th Street. The new building would be small in scale. Because of the change in elevation of the campus from west to east, the roof of the new one-story building and parking structure would be at the same elevation as the landscaped area of the campus to the south and east. The roof of the fitness center and covered parking would have landscaping elements that would extend into the existing campus landscape to the east and south (see **Figures S-12 through S-15**). The fitness center would provide the existing Rockefeller user population with an improved campus amenity that would replace some limited fitness facilities that are currently located in other campus buildings.

EAST RIVER ESPLANADE

As part of the proposed project, a total of approximately 236 sf within the western portion of the East River Esplanade immediately adjacent to the FDR Drive, where 10 columns and footings for the new laboratory building and the North Terrace would be located, would be demapped. As described above, the areas of the esplanade that would be damaged by construction-related activities—that includes existing pavers, benches, lighting, and plantings—would be replaced in-kind.¹

In addition, a five-foot-tall barrier would also be constructed along the eastern edge of the FDR Drive to reduce existing noise levels on the East River Esplanade. This barrier would be built as part of the proposed project.

POPULATION

The proposed project would not result in an increase to the Rockefeller campus user population as the new laboratory building, the ICC, and fitness center would provide new facilities that would allow for the spatial decompression and upgrading of existing campus buildings. The proposed project is the RWCDS because other potential scenarios for development within the Rockefeller University LSCFD boundaries are either inconsistent with the University's objectives that have been established in the *Rockefeller University Strategic Plan 2012-2020* (described below under "Project Purpose and Need"), are impracticable, or both for the following reasons.

DAYTIME POPULATION

An increase to the University's daytime population would occur only if there were an increase in the number of laboratories operating on the campus. However, the University's trustees, through its *Strategic Plan*, have established the maximum number of laboratories at approximately 75, which is consistent with the current number of heads of research and their associated laboratories. This small number of researchers report directly to the president, without an intervening hierarchy. As such, this is a major attraction in recruiting the best scientists to Rockefeller University. Further, as a practical matter, 75 heads of research is at the outer limit of the number of researchers that can be effectively overseen by the president. This factor contributes to the reasoning behind the trustees' decision to maintain the current number of researchers at the University. Without an increase in the number of heads of research or

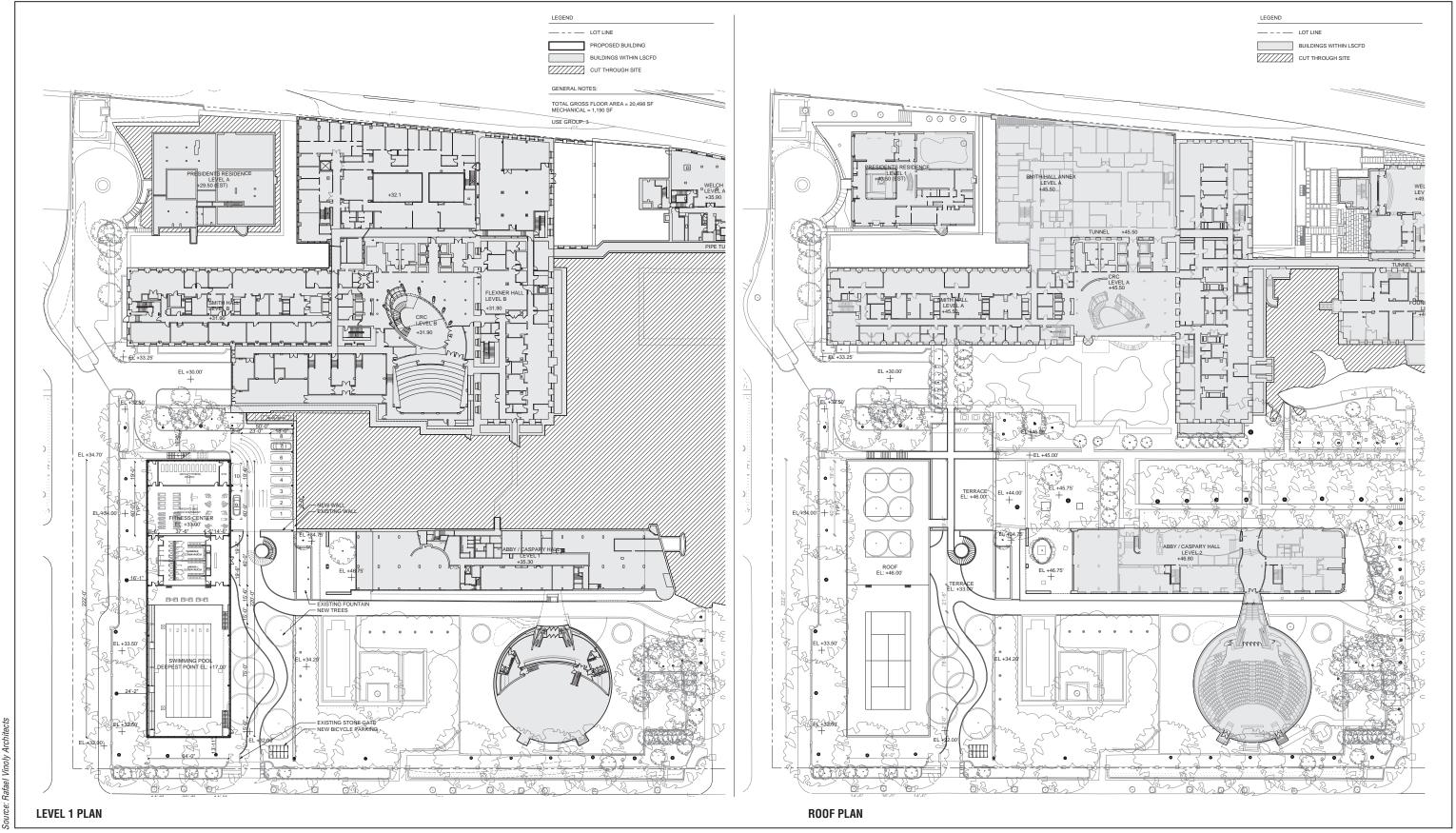
¹ See discussion of bulkhead repair and rebuilding and substantial esplanade upgrades described in "Mitigation."





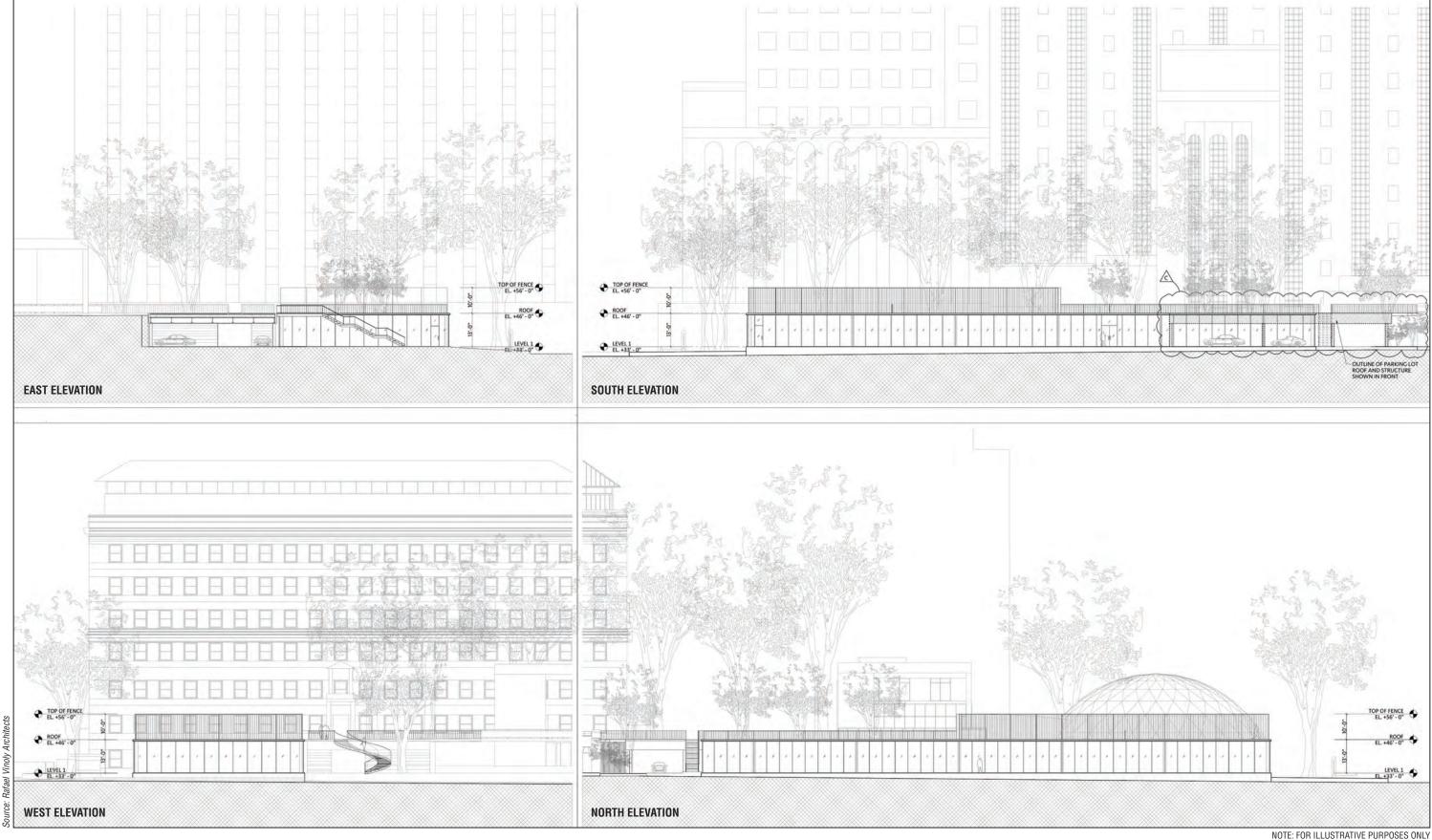
View southeast from York Avenue

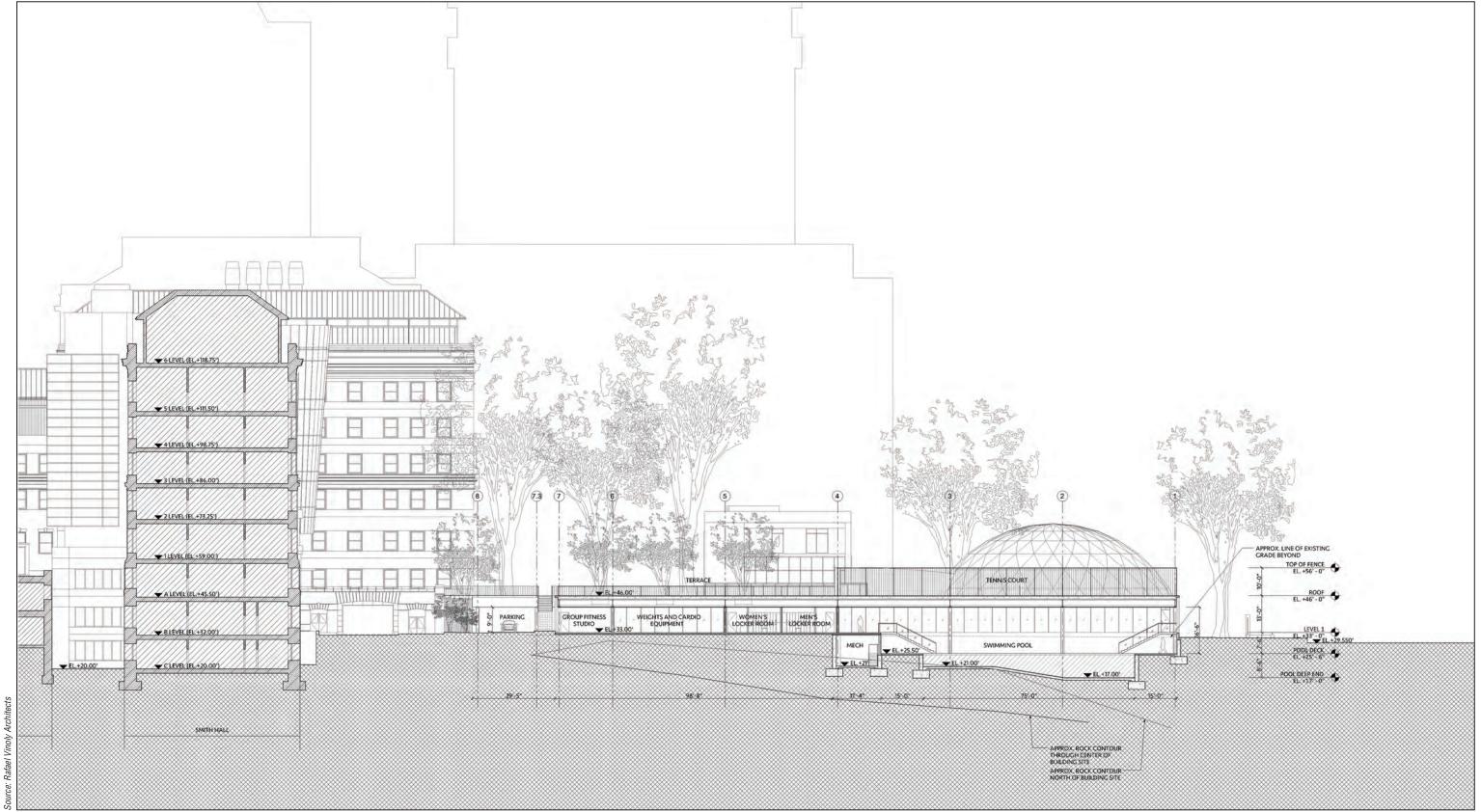
View south from New York Presbyterian Hospital-Weill Cornell Medical College



Fitness Center Site
Proposed Floor Plans
Figure S-13







associated laboratories, there is no reason for the University to increase the support staff which is sized appropriately for the current number of laboratories on campus.

ON-CAMPUS RESIDENTIAL POPULATION

An increase to the University's on-campus residential population would require the construction of a new residential building or the conversion of the Bronk Building to residential use. However, conversion of the Bronk Building to residential use is not feasible and space that would be vacated in the Bronk Building as a result of the construction of the new Laboratory building is fully committed to other uses. Moreover, there is no demand for additional University housing absent a substantial growth in the number of laboratories on campus. Again, as discussed above, this is not an objective of the University as established by the Board of Trustees in the *Rockefeller University Strategic Plan 2012-2020*.

Further, there is no demand for additional University housing. There would be no such demand unless there was a substantial growth in the number of laboratories on campus which, as described above, is not an objective of the University as established by the Board of Trustees in the *Rockefeller University Strategic Plan 2012-2020*. Therefore, the proposed project would not result in any increase to the campus population. Other potential scenarios for development within the Rockefeller University LSCFD boundaries are inconsistent with the University's objectives that have been established in the *Rockefeller University Strategic Plan 2012-2020* and are impracticable.

E. PROJECT PURPOSE AND NEED

The Rockefeller University is a world-leading research and educational institution with a record of scientific accomplishments, including having more Nobel Laureates in Medicine and Chemistry than any other institution in the world. As such, it attracts many millions of dollars in research grants annually.

The university's need for developing new laboratory space to meet contemporary standards is critical. In its quest to attract and retain the world's top scientists, Rockefeller University seeks to offer world-class laboratories that meet or exceed the standards of competing institutions across the country and abroad.

Research practices have changed in recent years with emphasis being placed on maximizing opportunities for collaboration among researchers achieved through adjacencies of laboratory space. The open exchange of information and ideas among researchers is enabled through large open floor plates. The practical changes in laboratory spatial requirements include:

- A decrease in the ratio between laboratory bench areas and the technical support that serves them. More core space is needed relative to bench space in today's laboratory.
- Increased requirements for climate control through the provision of sophisticated environmental building services.
- Stricter structural vibration standards to allow for the operation of more sensitive instrumentation.
- An increased need to maximize the flexibility for changes in the layouts of spaces.
- The need to maximize horizontal connectivity and reduce the balkanization between programs created by the vertical stratification of multi-level buildings and cellular interiors.

• An awareness of the importance of "soft" spaces: lounges, informal congregation areas, seminar rooms, and general food and beverage spaces as true components of the building's research area rather than tacked on program "amenities."

The design and location of the new laboratory building responds to the fundamental design constraints and opportunities of the campus. The building's design has been developed to allow for maximizing opportunities for collaboration among researchers through adjacencies of laboratory space. The open exchange of information and ideas among researchers would be enabled through the two-story laboratory building's large open floor plates, informal common areas, and support space. The modern laboratory space would enable Rockefeller University to continue to attract top-flight researchers from around the world in order to remain one of the foremost bio-medical research institutions in the world. The siting of the new laboratory building at the eastern edge of the campus would maintain the integrity of the campus landscape; minimize new construction on the campus's York Avenue frontage; integrate the campus in a north-south direction; and create a cohesive campus appropriate to its existing structures and landscape.

To maintain its leadership position and continue its 20th century success well into the 21st century, Rockefeller University believes it must be able to compete in a global market for the world's best biomedical researchers. Having laboratory and research space that are at the cutting edge of design and technology are imperative for Rockefeller University to continue to successfully recruit the top faculty and researchers to its campus. The ICC would provide the University with adequately-sized facilities for many key University activities, including conferences, retreats, colloquiums, and fund-raising events. The new fitness center would partially consolidate and replace some fitness uses located elsewhere on the campus and would provide much needed amenities to the campus, including a swimming pool and tennis court, and would have rooftop landscaping. The vacated spaces would be reused as University support space and storage, as needed.

BRONK BUILDING AND SMITH ANNEX

The core principle of the University's *Strategic Plan*—to maintain the institution's small size and retain its non-departmental structure, so as to preserve its unique collaborative and cross-disciplinary culture—informed the planning studies that resulted in the recommendation to construct a new Laboratory building rather than modernizing existing older research facilities (the "Bronk Building" and the "Smith Annex") on the campus. The Bronk Building in particular was determined to be unsuitable for modernizing into state-of-the-art research laboratories, which require large open floors allowing for flexible laboratory layouts. The Bronk Building is only 60 feet wide and has a double-loaded corridor running the length of the building. The corridor is flanked on both sides by plumbing and utility shafts that prevent opening up the floors to accommodate large, flexible laboratories.

Of the nine floors in the Bronk Building, the first, second, and ninth floors contain shared core facilities (primarily specialized laboratory equipment, such as microscopy) and related space that is still serviceable for certain limited research purposes but does not meet state-of-the-art laboratory standards. Alternatives were studied in consideration of the potential reuse of the Bronk Building's third through eighth floors, with the possibility of converting these six floors into student housing to replace the current housing facilities in the Graduate Student Residence and Sophie Fricke Hall and then converting those two buildings into offices. However, it was determined that this alternative would be cost prohibitive; instead, the decision was made by the

University to renovate and upgrade the existing student housing facilities in their current locations.

When the proposed new Laboratory building is complete, the University intends to convert the Bronk Building's third through eighth floors to much needed office and support space. Specifically, the University intends to use these six floors of the Bronk Building to address the following unmet needs: 1) accommodate certain relocated uses from the Smith Annex and Gasser Hall; 2) relocate IT staff and support space from the temporary IT Pavilion; 3) move sensitive IT equipment to a higher, more secure location; 4) provide office and research space for Emeritus Professors, and a permanent teaching laboratory; and 5) provide the University with on-campus storage space.

Rockefeller University's *Strategic Plan* calls for state-of-the-art laboratory space but does not envision an increase in the number of laboratories on the Rockefeller University campus. Rockefeller University's aim is to have laboratory space of the highest quality to continue to facilitate the recruitment and retention of outstandingly innovative scientists.

F. ANALYSIS FRAMEWORK

The 2012 CEOR Technical Manual serves as the general guide on the methodologies and impact criteria for evaluating the proposed project's potential effects on the various environmental areas of analysis. In disclosing impacts, the EIS considers the proposed action's adverse impacts on the environmental setting. Commencement of construction is anticipated in mid-2015 with a 50month construction period, the proposed project is expected to be completed by mid-2019. Because the proposed project is anticipated to be fully operational in 2019, its environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternatives assess current conditions and forecasts these conditions to 2019 (the analysis year that was determined appropriate for this project) for the purposes of determining potential impacts. The EIS provides a description of "Existing Conditions" for the year 2013 and forecasts these conditions to the future 2019 analysis year without and with the proposed project ("No Action" and "With Action" conditions, respectively). To forecast the No Action condition, information on known land-use proposals and, as appropriate, changes in anticipated overall growth, are incorporated. The differences between No Action and With Action conditions are assessed for whether such differences are adverse and/or significant; and any significant adverse environmental impacts are disclosed. The EIS also identifies and analyzes appropriate mitigation for any identified significant adverse environmental impacts.

The proposed project is considered to be the reasonable worst-case development scenario (RWCDS) for the purpose of analyzing the potential environmental impacts of the proposed project. To establish a conservative framework for assessing potential impacts in the future analysis year, the EIS assumes a baseline condition in which, absent the proposed actions, no new development will occur within the LSCFD, the air rights spanning the FDR Drive will not be developed, and the surface parking lot and canopy structure will remain. Also absent the proposed actions, certain areas of the Bronk Building, the Smith Hall Annex, and other campus buildings will be used for storage of University equipment and furniture, as needed, as part of

¹ The 50-month construction period reflects temporary lane closures on the FDR Drive, for certain project-related construction activities for the new laboratory building and North Terrace, which would only be permitted by NYCDOT during limited time periods.

the typical University operations. In addition, the temporary IT Pavilion, located south of the University's East 66th Street entrance near York Avenue, will be removed and the site will be returned to its prior use as a tennis court or would become a landscaped area.

Based on the preliminary screening assessments outlined in the *CEQR Technical Manual* and as detailed in the Draft Scope of Work, the following environmental areas would not require detailed analysis for the proposed project in this EIS: socioeconomic conditions, community facilities, natural resources, ¹ water and sewer infrastructure, solid waste and sanitation services, energy, transportation, and greenhouse gas emissions.

FUTURE NO ACTION SCENARIO

Absent the proposed project, in the Future No Action scenario no new development will occur within the LSCFD. In this scenario, the air rights spanning the FDR Drive will not be developed and the surface parking lot and canopy structure will remain.

In the Future No Action scenario, certain buildings located within the Rockefeller University campus, (the Bronk Building, the Smith Hall Annex, and other campus buildings) will be used for storage of University equipment and furniture, as needed, as part of the typical University operations.

In the Future No Action scenario, the temporary IT Pavilion, located south of the University's East 66th Street entrance near York Avenue, will be removed and the site will be become a landscaped area.²

A 2006 survey of the Rockefeller LSCFD's East 68th Street surface parking lot identified 70 parking spaces. Since 2007, the number of parking spaces on campus has been permanently identified as 108 spaces. In the Future No Action scenario, the existing 108 parking spaces, including the 52 parking spaces at the East 68th Street surface parking lot, will be maintained.

FUTURE WITH ACTION SCENARIO

As detailed above, in the Future With Action scenario, the proposed actions would facilitate a proposal by the applicant to facilitate the development of the following: on-campus privately accessible open space; three new community facility buildings comprising a total of approximately 180,000 gross-square-feet (gsf); and an approximately 930-foot long, five-foottall traffic sound barrier along the western edge of the East River Esplanade.

The proposed project would include development of a new two-story, approximately 157,251 gsf laboratory building with two one-story pavilions and privately accessible landscaped green space on its roof; a one-story, approximately 3,353-gsf conference and meeting pavilion (the "Interactive Conference Center" or "ICC"); a new 20,498-gsf one-story fitness center; and a proposed new privately accessible open space (the "North Terrace"), within the Rockefeller University campus. The new laboratory building would supplement existing research facilities and laboratory space located within the Bronk Building and the Smith Annex, which were

¹ Construction-related natural resources are addressed in the Chapter 12, "Construction."

² The IT Pavilion was built in 2007 to temporarily house certain IT uses and staff that needed to be relocated when the Collaborative Research Center (CRC) and laboratory renovations of Smith and Flexner Halls were under construction. The construction associated with the CRC was completed in 2012. In the Future No Action scenario, the IT population and equipment will be relocated to other existing buildings and spaces on campus.

determined to be unsuitable for modernizing into state-of-the-art research laboratories (which require large open floors allowing for flexible laboratory layouts).

Both the laboratory building and the ICC building would be constructed on an approximately 930-linear-foot platform structure largely in air space over the FDR Drive. To structurally support the platform above which the laboratory building and North Terrace would be constructed, twenty columns would be located west of the FDR Drive immediately adjacent to and within an existing schist retaining wall, and ten columns would be located flush with the FDR Drive's eastern edge (within the western portion of the East River Esplanade).

The proposed new 20,498-gsf fitness center would be built at the northwest corner of the university campus (refer to **Figures S-1 through S-3**).

In addition, an approximately 930-foot long, five-foot-tall sound barrier would be constructed along the eastern edge of the FDR Drive (between the FDR Drive and the East River Esplanade) that would extend the entire length of the proposed platform structure.

Additionally, in the Future With Action scenario, the area of the campus that currently contains the IT Pavilion would be redeveloped with landscaping.

Also in the Future With Action scenario, certain areas of the Bronk Building, the Smith Annex, which currently contain laboratory uses, and other campus buildings, would continue to be used for storage, as needed, and would be consistent with the typical operations of the University.

In the Future With Action scenario, the proposed project would accommodate 10 parking spaces at the Fitness Center Site. The existing 42 parking spaces at the 68th Street parking lot would be relocated as part of the proposed project and accommodated elsewhere within the LSCFD.

Construction of the laboratory proposed project is anticipated to begin in mid-2015 and be completed by mid-2019 (see **Figures S-16 and S-17**).

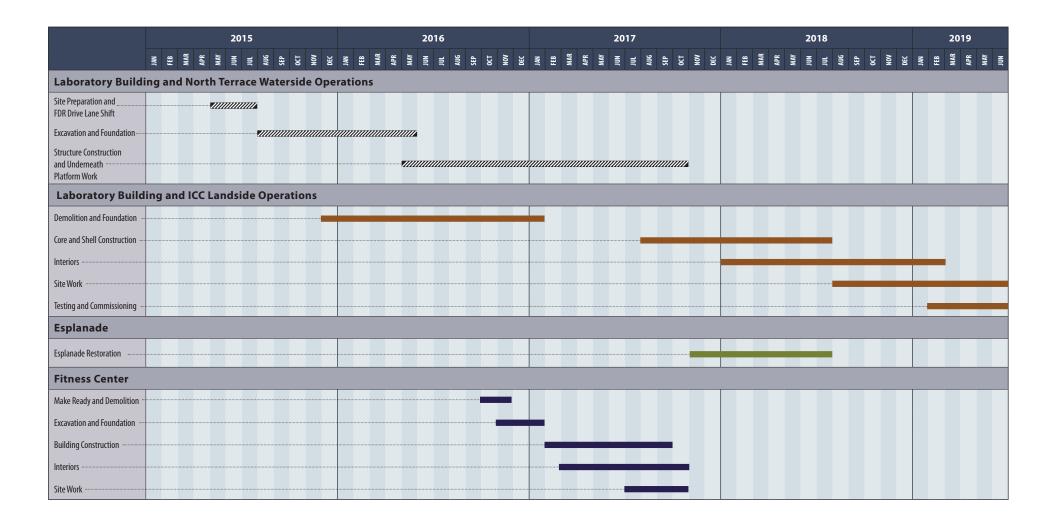
Under the currently anticipated construction sequencing (described in more detail in Chapter 12, "Construction"), site preparation and FDR Drive lane shift work would occur in May through July of 2015. Construction of the proposed platform spanning over the FDR Drive ("Waterside Operations") would occur between August 2015 and October 2017. The proposed laboratory building and ICC located on the North Terrace ("Landside Operations") would be constructed between November 2015 and March 2019. In July 2018, site work activities around the new laboratory building and ICC would begin and would last approximately 12 months. Finally, testing and commissioning of the laboratory building and ICC would take place between February and June 2019.

Portions of the East River Esplanade that would be damaged by construction-related activities—including existing pavers, benches, lighting, and plantings—would be replaced in-kind.² Esplanade-related work would be undertaken between January and November 2017 and July 2018. The construction of the fitness center would occur between October 2016 and October 2017.

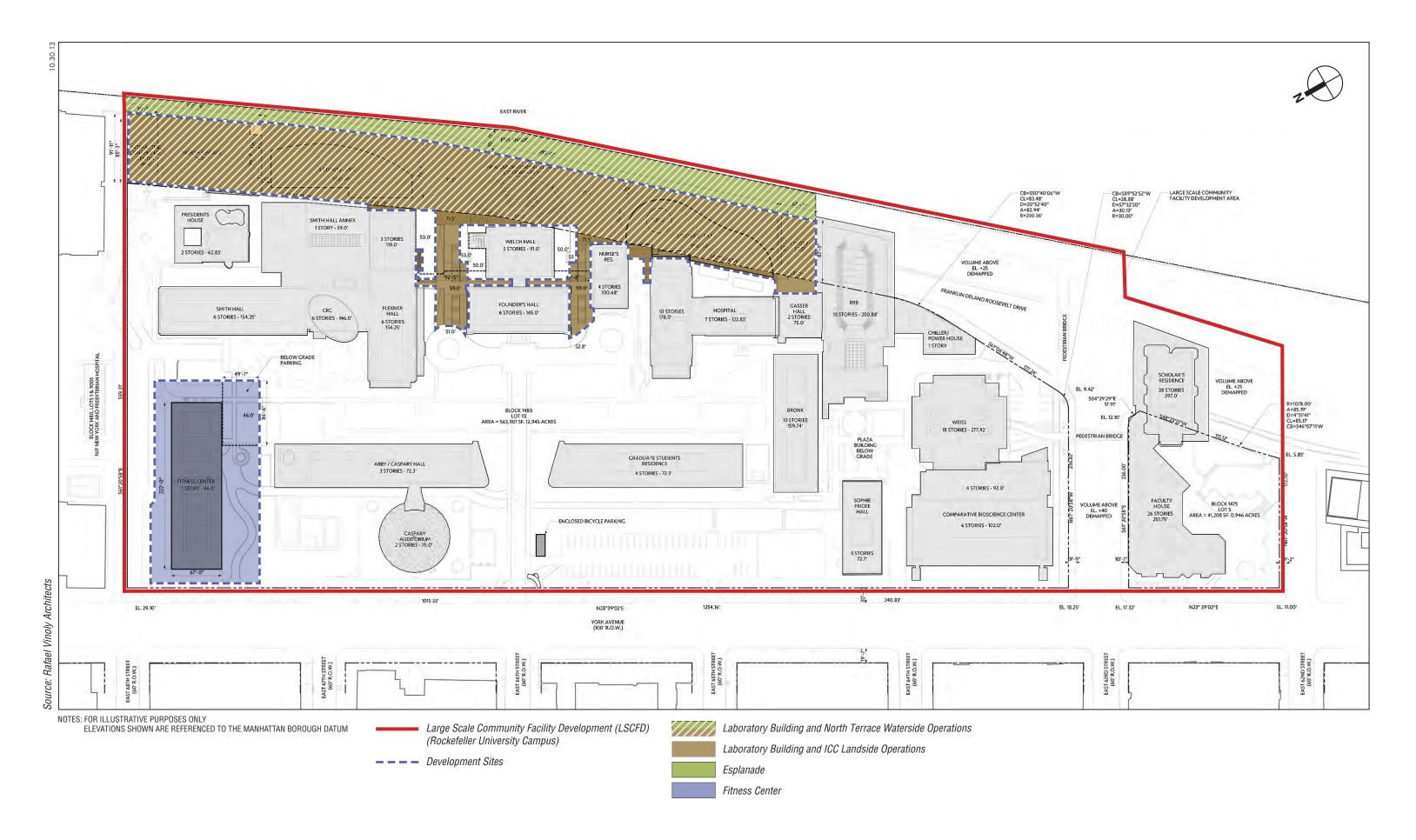
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¹ Waterside operations would include construction activities primarily from the esplanade and from barges. Landside Operations would primarily occur from the Rockefeller University campus.

² See discussion of bulkhead repair and rebuilding and substantial esplanade upgrades as described in Chapter 13, "Mitigation."







The proposed project would conform with the underlying R9 and R10 zoning designations on the campus, and the design of the buildings would comply with the bulk requirements of the Zoning Resolution.

The proposed project would not result in any increase to the Rockefeller campus user population as the laboratory building, the ICC, and the fitness center would provide new facilities that would allow for the spatial decompression and upgrading of existing campus facilities, which would support the *Rockefeller University Strategic Plan 2012-2020*.

G. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

The proposed project would not introduce any new incompatible land uses to the project site, but would allow Rockefeller University to provide research facilities, university amenities, and new open space on the campus. The proposed development would be compatible with existing development in the surrounding area, including nearby institutional, residential, and commercial uses, and the other existing buildings that have previously been developed in air space above the FDR Drive to the north and south of the Laboratory Building Site and the North Terrace Site. The columns to be located in the western edge of the East River Esplanade are structurally necessary for the proposed laboratory building and North Terrace and would have a minimal impact on users of the esplanade.

The proposed project would not change the underlying zoning of the project site, but the proposed project would require modifications to the previously approved LSCFD, a demapping of column volumes in the FDR Drive, a special permit for construction in airspace over a street, and other CPC approvals. These actions would facilitate the development of new, modern facilities that would improve Rockefeller University's ability to perform word-class research, and would not result in land use conflicts. The proposed project would be compatible with the City's Waterfront Revitalization Program (WRP), and would not adversely affect any applicable public policies. Overall, the proposed project would not result in any significant adverse impacts related to land use, zoning, or public policy and the proposed project would be compatible with existing and planned institutional uses in the surrounding community.

OPEN SPACE

Overall, the proposed project would not result in any significant direct adverse impacts to open space resources. While column footings would be constructed along the East River Esplanade as part of the proposed project, and the proposed project would result in significant adverse shadows impacts as well as construction-related noise and open space impacts, with the incorporation of Project Components Related to the Environment (PCREs) and proposed mitigation measures, including improvements to the Esplanade and replacement-in-kind of areas affected during construction, the proposed project would not result in any significant adverse direct impacts to open space resources.

Approximately 236 sf of space within the western portion of the East River Esplanade would be demapped to accommodate ten columns supporting the platform spanning the FDR Drive. As shown in **Table S-2**, surveys conducted during both weekday and weekend periods indicated that the resources within these sections of the esplanade, including benches and landscaped areas, are not sought out by esplanade users as most esplanade users pass through the space as active users). Due to its relative isolation and limited access points, this small, approximately 236-sf area of the East River Esplanade attracts a limited number of passive users. The esplanade

is predominantly used for active recreation, including running and biking, and the most heavily utilized elements of the esplanade adjacent to the project site—particularly the walkway/bikeway—would not be affected by the proposed project.

In addition, while temporary construction-related noise and construction-duration open space impacts would occur, disruptions of access to the esplanade would be limited to certain periods when usage is minimal. Access to the esplanade during construction of the proposed project would be limited at certain overnight periods. Therefore, the proposed project would not substantially limit access to the esplanade or impair its operation as a predominantly active recreational space. Further, the portions of the East River Esplanade that would be affected by construction-related activities would be replaced in-kind as part of the proposed project. Other construction-related impacts, such as noise impacts, would be temporary and limited to the period on construction. Therefore, the proposed project would not adversely affect the East River Esplanade.

It should be noted that the proposed project would result in a significant adverse shadows impact on the esplanade. This shadows impact may directly affect the usability of the esplanade for passive users, but with mitigation measures introduced with the proposed project this effect would not rise to the level of a significant adverse direct open space impact.

Overall, the proposed project would not result in any significant adverse direct open space impacts.

Table S-2 **Open Space Utilization—East River Esplanade**

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Survey Period ¹	Total Users ²	Walkway/Bikeway Users ³	Seating Area Users ⁴						
Weekday									
Morning	79	77 (97%)	2 (3%)						
Midday	17	12 (71%)	5 (29%)						
Evening	51	39 (76%)	12 (24%)						
Weekend									
Morning	64	60 (94%)	4 (6%)						
Midday	67	56 (84%)	11 (16%)						
Evening	98	86 (88%)	12 (12%)						

Notes:

¹The portion of the esplanade adjacent to the project site was surveyed for periods of 15 to 20 minutes during each survey period.

Sources: AKRF, Inc. field surveys, July 14 and 17, 2013

Total number of users indicates the number of people recorded as sitting within or passing through the esplanade during each 15- to 20-minute survey period.

Activities on the walkway/bikeway portion of the esplanade include running/jogging, biking, walking, and dog-walking.

Seating areas include benches and planted areas along the FDR Drive crash wall and benches close to the East River.

¹ To partially mitigate the proposed project's significant adverse shadows impact, Rockefeller University—in consultation with DCP and DPR—would undertake a substantial upgrade to the portion of the esplanade adjacent to the project site and would extend an additional approximately 150 feet south of the project site. See discussion of bulkhead repair and rebuilding and substantial esplanade upgrades described in "Mitigation."

SHADOWS

A detailed shadows analysis was conducted. The shadow analysis concludes that the proposed laboratory building and North Terrace would cast between approximately three and five and a half hours of new shadows on portions of the East River Esplanade in the afternoons in the spring, summer, and fall, and 33 minutes on the winter analysis day. These new shadows would eliminate the remaining areas of direct sunlight on the esplanade adjacent to the project site for between 50 minutes in the early spring and fall and up to two hours and 40 minutes on the summer solstice. Therefore, the proposed project would cause significant adverse shadow impacts in those seasons to users of the open space seeking direct sun.

All affected portions of the esplanade would continue to receive a minimum of five and a half hours of direct sunlight each day throughout the growing season, and, consequently, any vegetation in planters would not be adversely impacted by the new shadows. Further, any new plantings would be shade tolerant. In addition, the esplanade is adjacent to the East River, and would continue to receive ambient skylight and reflected sunlight from the river throughout the periods when new project-generated shadow would fall within the esplanade. Further, shadows cast by the proposed project would not result in any significant adverse impacts to aquatic resources of the East River. No other sunlight-sensitive resources would be substantially affected by the proposed project.

As described below in "Mitigation," the significant adverse shadow impact would be partially mitigated through a substantial upgrade to the portion of the East River Esplanade adjacent to the project site and an additional approximately 150-foot-long section of the esplanade south of the project site. Partial mitigation would also include bulkhead repair and rebuilding that would be undertaken where deficiencies have been identified in studies undertaken by DPR. The bulkhead repair and rebuilding would extend the entire length of the area adjacent to the project site and would extend an additional approximately 150 feet south of the project site. These measures are included in a Restrictive Declaration.

Between the Draft and Final EIS, the applicant will consider, in consultation with DPR and DCP, whether there are additional mitigation measures that are feasible and practicable that could be implemented to further alleviate the significant adverse shadows impact.

HISTORIC AND CULTURAL RESOURCES

ARCHAEOLOGICAL RESOURCES

As described in the November 2012 Phase 1A Archaeological Documentary Study² of the Rockefeller University campus, which was submitted to and approved by the New York City Landmarks Preservation Commission (LPC) on April 16, 2013, the Laboratory Building Site and North Terrace Site have no sensitivity for archaeological resources. Therefore, the proposed project would have no adverse impacts on archaeological resources in these areas of the project site.

¹ Bulkhead repair and rebuilding would include the area adjacent to the project site and the area extending approximately 150 feet south of the project site (approximately mid-block between East 63rd and East 64th Streets and demapped East 68th Street). See Chapter 13, "Mitigation."

² Phase 1A Archaeological Documentary Study, Rockefeller University campus, New York, New York. AKRF, November 2012.

The Fitness Center Site has no sensitivity for archaeological resources dating to the precontact period and low sensitivity for archaeological resources dating to the historic period, therefore, development of the fitness center on the Fitness Center Site would have no adverse impacts on archaeological resources. It should be noted that the Fitness Center Site is adjacent to an area of moderate archaeological sensitivity. The findings of the Phase 1A report recommend that if project plans are altered in such a way that impacts would occur in the location of archaeological sensitivity, a Phase 1B archaeological investigation should be undertaken to confirm the presence or absence of archaeological resources associated with the 19th century occupation of the Fitness Center Site. The proposed project would not impact potential human remains associated with the late-18th/early-19th century cemetery located on the campus of Rockefeller University. However, if project plans are altered in such a way that impacts would occur in this archaeologically sensitive area, a Phase 1B archaeological investigation is recommended to confirm the presence or absence of human remains and archaeological resources associated with the cemetery. In addition, an unanticipated discoveries plan was prepared in response to a LPC comment letter dated April 16, 2013. The unanticipated discoveries plan was submitted to LPC on May 1, 2013.

ARCHITECTURAL RESOURCES

The proposed laboratory building would directly affect five buildings identified as contributing to the significance of the Rockefeller University Historic District which is State/National Register-eligible and New York City Landmark-eligible—the Flexner Hall Extension, Welch Hall, the Nurse's Residence, the Hospital, and the Boiler House. The eastern facades of the basement and subbasement levels of these four historic buildings, part of the eastern wall of the Boiler House, in addition to part of the eastern wall of the Smith Hall Annex, the Hospital Extension, and Gasser Hall, would be modified to connect to the laboratory building. Two segments of the upper portion of the schist wall, immediately north and south of Welch Hall, would also be removed.

The proposed project would include two exhaust stacks on the roof of the laboratory building that would be integrated into the building's overall design, with one stack adjacent to the south façade of the Flexner Hall Extension and the other stack adjacent to the Hospital. As described in LPC's October 30, 2013 comment letter, LPC determined that the addition of exhaust stacks to both the south façade of the Flexner Hall Extension and the north façade of the Hospital would constitute a significant impact to these S/NR- and NYCL-eligible properties "due to their location, size, and direct physical connections to the buildings."

The proposed North Terrace and ICC would be located at the north end of the platform structure spanning the FDR Drive. The ICC pavilion would be a small scale structure that would not compete visually with the President's House or any other buildings within the historic district. The segment of the schist wall adjacent to the President's House would be modified to connect to the North Terrace but no physical connections or alterations would be made to the President's House.

The proposed one-story fitness center with a covered parking lot and landscaping would be small in scale and would complement the design of the 1958-1959 expansion buildings. Based on the original Dan Kiley Plans and the National Register criteria for evaluation (36 CFR 60 and 63), LPC has determined that the canopy structure and parking area are contributing elements to the Rockefeller University Historic District's Dan Kiley-designed landscape, the proposed removal of the canopy structure and parking area would result in an adverse impact to the historic district. As partial mitigation for the removal of these landscape elements, a restoration plan for the

Philosopher's Garden, which is located immediately south of the Fitness Center Site, would be prepared and implemented prior to construction of the fitness center. The restoration plan would be included in a Restrictive Declaration.

The proposed project would affect approximately 236 sf within the western portion of the East River Esplanade immediately adjacent to the FDR Drive where 10 columns and footings for the new laboratory building and the North Terrace would be located. The East River Esplanade is not a historic or cultural resource; therefore, the proposed modifications to the small portions of the esplanade would not affect any historic or cultural resources.

The proposed developments sites are located within 90 feet of contributing elements of the Rockefeller University Historic District. Therefore, a Construction Protection Plan (CPP) would be developed in consultation with LPC and implemented prior to construction to avoid inadvertent construction-related damage to the contributing elements in the historic district located within 90 feet of the development sites.

The new laboratory building and ICC would primarily replace air space over the FDR Drive, placing the bulk of the footprint of the proposed laboratory building and ICC outside the boundaries of the Rockefeller University Historic District. Modifications to five contributing buildings of the Rockefeller University Historic District to connect these structures to the proposed laboratory building would be restricted to alterations required to either seal certain existing openings or to extend existing window openings to doorways in the basements and subbasements to create connections. As described above, the placement of the two exhaust stacks has been developed after close consideration of their potential effects on Founder's Hall and the historic district. The proposed stacks have been designed to both minimize their actual footprint and visibility and also to be sited away from Founder's Hall. The proposed stack locations would eliminate direct impacts to Founder's Hall by siting the stacks away from Founder's Hall, limit their visibility, and minimize effects to the adjacent Rockefeller University Historic District buildings. However, LPC has determined that the two proposed stacks would result in a significant impact to historic and cultural resources. Through consultation with LPC, the stacks have been redesigned in terms of their materials and surface articulation to better harmonize with the historic properties. LPC has determined these design changes to be acceptable and serve as partial mitigation for the significant impact, as described in Chapter 13, "Mitigation," and discussed below.

The proposed laboratory building, ICC, and fitness center are sited at or near the edges of the historic district boundary. The proposed laboratory building and ICC would be at the eastern perimeter of the historic district, which has historically been the rear of the campus, with the primary facades of the original campus buildings facing west. The fitness center would remove the canopy structure and parking area from the north end of the campus, replacing them with a low-rise structure designed to complement the buildings of the 1958-1959 campus expansion. Though the three project structures would alter the setting of the historic district to the north and east, the proposed project would not introduce incompatible visual, audible, or atmospheric elements to the setting of the district, isolate the district from the streetscape, or obstruct significant public views of the resource such that it would affect the characteristics of the Rockefeller University Historic District that qualify it for listing on the S/NR or for designation as a NYCL.

In the 400-foot- study area, with the proposed project, no architectural resources in the study area would be directly or indirectly significantly adversely affected with the proposed project.

URBAN DESIGN AND VISUAL RESOURCES

The proposed project would not result in any significant adverse impacts to urban design or visual resources. The proposed platform structure for the laboratory building and North Terrace would affect the pedestrian experience along the adjacent portion of the East River Esplanade, however, those changes would not result in any significant adverse impacts. The proposed laboratory building, North Terrace, and ICC would be visible from the adjacent portion of the esplanade and from more distant views from Roosevelt Island, the Roosevelt Island tram, and the Queensboro Bridge. Those views would not be adversely affected because the proposed laboratory building, North Terrace, and ICC would be located among many structures along a densely developed section of the East River waterfront that span over the FDR Drive. The visibility of the proposed fitness center would be limited to its immediately surrounding vicinity.

HAZARDOUS MATERIALS

A Phase I ESA prepared in October 2012 in order to evaluate potential contamination on the project site identified potential sources of contamination, including filling of the eastern portion of the project site (Laboratory Building Site and North Terrace Site) with fill materials of unknown origin, and potential historical releases from hospital/laboratory research facilities at Rockefeller University and elsewhere in the neighborhood. Soil sampling on the Rockefeller University campus in 2007 identified only minor soil contamination typical of urban fill, with no evidence of a spill or release.

Based on the findings of the Phase I ESA, to reduce the potential for human or environmental exposure to contamination during and following construction of the proposed project, a Subsurface (Phase II) Investigation would be conducted in accordance with a New York City Department of Environmental Protection (DEP)-approved Work Plan to determine whether past or present, on-site or off-site activities have affected subsurface conditions. Following implementation of this Phase II investigation and based on its findings, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared (and submitted to DEP for review and approval) for implementation during proposed construction. The RAP would address requirements for items such as: soil stockpiling, soil disposal and transportation; dust control; quality assurance; and contingency measures should petroleum storage tanks or contamination be unexpectedly encountered. The CHASP would include measures for worker and community protection, including personal protective equipment, dust control and emergency response procedures. The Phase II investigation and RAP and CHASP, as needed, would be undertaken in consultation with DEP, as established in the Restrictive Declaration.

Lead-based paint, asbestos-containing materials (ACM) and polychlorinated biphenyl (PCB)-containing electrical equipment may be present at the project site. During and following demolition and renovation associated with the proposed project, regulatory requirements pertaining to ACM, lead-based paint and PCBs and chemical use and storage would be followed.

With the implementation of these measures identified in the Restrictive Declaration, the proposed project would not result in any significant adverse impacts related to hazardous materials.

AIR QUALITY

The proposed project would not add any new sources of air pollutants. A quantitative analysis was performed to assess the potential effects of an accidental chemical spill in any of the

proposed laboratory fume hoods and the ensuing emissions from the ventilation system on air quality in the laboratory building (near air intakes) and in the surrounding area. The exhaust stream from the fume hoods would be handled via a dedicated system (separate from the building ventilation). The fume hood exhaust stream from the south side of the laboratory building would be vented via a stack adjacent to the Hospital building at a height of 181 feet from datum. The fume hood exhaust stream from the north side of the laboratory building would be vented via a stack adjacent to the Flexner Hall Extension at a height of 145 feet from datum. (Both stack heights would be at least 10 feet above the respective buildings.) The system would be designed to maintain a minimum operating exhaust velocity of 3,000 feet per minute, with the exhaust flow rate of 33,333 and 37,500 cubic feet per minute for the south and north exhaust systems, respectively (based on current design parameters). Commitments regarding the exhaust parameters would be included in the Restrictive Declaration and would be developed further between the Draft and Final EIS.

A detailed analysis was also prepared to assess the potential effect of constructing a deck structure over the FDR Drive on the dispersion of pollutants from the roadway in nearby publicly accessible areas. In addition, a screening analysis was undertaken to assess the potential effect of existing nearby large pollutant sources on air quality within the proposed project. The analysis concludes that no significant adverse impact on air quality would occur as a result of the operation of the proposed project.

NOISE

The proposed design for the laboratory platform and ICC includes the construction of a five-foot barrier along eastern side of the FDR Drive between the FDR Drive and the East River Esplanade. This barrier would reduce noise levels on the esplanade and would result in noise levels on the esplanade that, depending upon the distance from the FDR Drive, would be less than or comparable to existing noise levels. Therefore, no significant adverse noise impacts would occur on the esplanade as a result of the proposed project.

Based on noise level measurements at the project site, noise levels at the locations of the proposed buildings fall below the level that would require specific noise attenuation requirements, according to CEOR Technical Manual noise exposure guidelines.

PUBLIC HEALTH

The proposed project would not result in significant unmitigated adverse impacts in any of the technical areas related to public health: air quality, water quality, hazardous materials, or noise. Therefore, an assessment of potential impacts on public health is not necessary, and the proposed project would not result in any significant adverse impacts on public health.

NEIGHBORHOOD CHARACTER

The proposed project would be in keeping with the defining characteristics of the neighborhood character of the study area. The study area is defined by institutional uses, private open space, and a dense urban context. The proposed project would develop a new laboratory building, a small conference and meeting pavilion, and a fitness center. These facilities would allow for the spatial decompression of existing Rockefeller University buildings, and provide state-of-the-art research facilities that would further Rockefeller University's mission. Changes associated with the proposed project regarding land use, zoning, and public policy; socioeconomic conditions; urban design and visual resources; transportation; and noise are not expected to adversely affect neighborhood character.

With regard to open space, although the proposed project would result in the demapping of a small, approximately 236-sf area within the western edge of the East River Esplanade, this change would not be considered a significant adverse neighborhood character impact. The proposed platform structure for the laboratory building and ICC would include eight Y-shaped columns and two oval columns that would be located at the western edge of the East River Esplanade. The walkway/bikeway that is the esplanade's most highly utilized component would not be altered by the construction of the ten columns. Further, the esplanade would continue to contain small planted areas, some trees, and benches and a walkway/bikeway. Upon completion of the construction of the proposed project, areas of the esplanade damaged by construction-related activities would be replaced in-kind. Therefore, the proposed project would not result in any significant adverse impacts to neighborhood character due to open space resources.

The new shadows cast by the proposed laboratory building and North Terrace would eliminate the remaining areas of direct sunlight on the esplanade adjacent to the project site for between 50 minutes in the early spring and fall and up to two hours and 40 minutes on the summer solstice. Therefore, the proposed project would cause significant adverse shadow impacts in those seasons to users of the open space seeking direct sun. Although the proposed project would cast new shadows that would shade portions of the East River Esplanade, all affected portions of the esplanade would continue to receive a minimum of five and a half hours of direct sunlight each day throughout the growing season. The incremental shadows would not be expected to adversely affect vegetation on the esplanade or aquatic resources of the East River. Further, any new plantings would be shade tolerant. Because most users of this open space resource are predominantly walkers, runners, and bicyclists, the proposed project would not result in significant adverse impacts to neighborhood character due to shadows.

The proposed project would result in changes to the Rockefeller University Historic District (S/NR-eligible, NYCL-eligible) that would result in significant impacts to historic and cultural resources. These impacts would result from the removal of the concrete canopy structure and parking area at the campus's northwest corner and locating two stacks for the proposed laboratory building adjacent to the south façade of the Flexner Hall Extension and the north façade of the Hospital. These impacts would be partially mitigated, as described in "Mitigation." The existing canopy structure is small in scale and set away from the adjacent streets. The dense tree coverage at the perimeter of the campus obscure views to this structure from the study area. The replacement of the concrete canopy structure and parking area with the new fitness center would result in a new structure similar in scale to the existing structure and would not be expected to significantly adversely affect the nearby character of the neighborhood. The stacks that would be located on the roof of the laboratory building are sited at the rear of the campus. They would be visible in distant views from the Queensboro Bridge and Roosevelt Island and would be viewed in the context of other tall structures.

Although the proposed project would change the context of the Rockefeller University Historic District with the introduction of the new laboratory building and ICC on the North Terrace located at the eastern edge of the campus, two new stacks located adjacent to two historic campus buildings, and the new one-story fitness center at the campus's northwest corner, the features of the campus that contribute to neighborhood character are the brick and metal fence and trees that establish the campus edge along York Avenue and demapped East 68th Street.

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¹ See discussion of bulkhead repair and rebuilding and substantial esplanade upgrades as described in Chapter 13, "Mitigation."

These elements would not be affected by the proposed project and therefore, the proposed project would not adversely affect neighborhood character.

Overall, the combined effect of changes to the defining elements of the study area would not result in any significant adverse impacts to neighborhood character. The neighborhood character of the area would benefit from the new institutional facilities, which would support a defining characteristic of the area. While the development on the project site would noticeably change the character of the area with the new laboratory building and ICC built on a platform over the FDR Drive and the new fitness center at the northwest corner of the campus, these changes would not diminish the study area's overall character, and would therefore not constitute a significant adverse impact. 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

Based on the analyses presented in this chapter, construction of the proposed project would result in a significant adverse construction impact related to noise and open space. Potential mitigation for this significant adverse impact is discussed below in "Mitigation." Information regarding other key technical areas is summarized below.

TRANSPORTATION

Construction worker and truck trips associated with the proposed project would not result in any significant adverse traffic, parking, transit, or pedestrian impacts. Maintenance and Protection of Traffic (MPT) Plans would be developed for any lane closures. Coordination with the New York City Department of Transportation's (NYCDOT) Office of Construction Mitigation and Coordination (OCMC) would be undertaken to ensure proper implementation of MPT plans and requirements. These measures would be included in a Restrictive Declaration to be recorded by the Applicant against the property.

AIR QUALITY

Construction activities associated with the proposed project would not result in any significant adverse stationary or mobile source air quality impacts. To ensure that construction of the proposed project would result in the lowest practicable diesel particulate matter (DPM) emissions, the applicant would implement through a Restrictive Declaration an emissions reduction program for construction activities that would include, to the extent practicable: reduction of the amount of diesel equipment to be used; use of clean fuel, best available tailpipe reduction technologies, and newer equipment; placement of emissions sources away from sensitive receptors; implementation of dust control measures; and restriction on vehicle idling.

NOISE

The proposed project would have the potential to result in significant adverse impacts with respect to construction noise. Rockefeller University is committed to implementing a program of source controls (i.e., the use of quiet construction equipment) and path controls (i.e., the use of noise barriers and noise shields) that exceed the noise control measures required by the New York City Noise Control Code, and which will be included in the Restrictive Declaration. However, even with these measures, elevated noise levels resulting from construction are predicted to occur for an extended duration at two sensitive receptor locations immediately adjacent to the project site: the portion of the East River Esplanade between East 63rd Street and demapped East 68th Street (located immediately east of the project site) and the New York Presbyterian Hospital-Weill

Cornell Medical Center (NYPH-Weill Cornell Medical College) (located immediately north of the project site). However, the existing noise levels on the East River Esplanade exceed the 55 $dBAL_{10(1)}$ noise level recommended for open space by CEQR noise exposure guidelines. In addition, the East River Esplanade is primarily used for active recreation during daytime hours, while most of the activities associated with the excavation and foundation task for the platform construction would occur during the night time when the esplanade is lightly used.

At this time, because measures have not been identified to fully or partially mitigate the significant adverse construction noise impact, this impact has been identified in the DEIS as unmitigated. There are no feasible and practicable measures that could be implemented to mitigate the construction noise impact at this location. However, it is possible that new mitigation may be identified between Draft and Final EIS. Should any construction noise mitigation measures be identified between the Draft and Final EIS, they would be included in the Restrictive Declaration.

HISTORIC AND CULTURAL RESOURCES

No significant adverse impacts to archaeological resources would occur as a result of the proposed actions on the Laboratory Building Site, the North Terrace Site, or the Fitness Center Site during the construction of the proposed project. Regarding architectural resources, construction of the proposed fitness center would involve the demolition of the canopy structure and parking area that are contributing elements to the Rockefeller University Historic District's Dan Kiley-designed landscape, resulting in an a significant impact to historic and cultural resources. As partial mitigation for the removal of these landscape elements, a restoration plan for the Philosopher's Garden, which is located immediately south of the Fitness Center Site, would be prepared in consultation with LPC and implemented prior to construction of the fitness center. The restoration plan would be included in the Restrictive Declaration. Since the proposed project is located within 90 feet of contributing elements of the Rockefeller University Historic District (S/NR- and NYCL-eligible), a CPP would be developed in consultation with LPC and implemented prior to construction to avoid inadvertent construction-related damage. With these measures in place, construction would not be expected to result in significant adverse impacts on historic or cultural resources. The CPP would be included in the Restrictive Declaration.

NATURAL RESOURCES

Implementation of erosion and sediment control measures and stormwater management measures identified in the SWPPP would minimize potential impacts to water quality of the East River from the discharge of stormwater runoff during land-disturbance construction activities. The SWPPP would comply with New York State Department of Environmental Conservation (NYSDEC) technical standards for erosion and sediment control and include structural (e.g., silt fencing) and non-structural (e.g., routine inspection, dust control, cleaning, and maintenance programs) best management practices (BMPs). With the implementation of these measures, the discharge of runoff and recovered sea water during excavation activities would not result in significant adverse impacts to East River water quality, aquatic biota, and any NYSDEC littoral zone tidal wetlands adjacent to the seawall. Implementation of a Pollution Prevention Plan developed for the in-water construction activities would minimize the potential for discharge of materials to the East River during caisson installation and construction activities conducted from barges. Installation of the caissons would require authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and Section 401 water quality certification from NYSDEC. Therefore, potential impacts to aquatic resources would be limited to minor and temporary increases in suspended sediment. Any localized and temporary increases in suspended sediment and temporary loss of aquatic habitat would not result in significant adverse impacts to water quality, littoral zone tidal wetland, essential fish habitats (EFHs), or aquatic biota, including threatened and endangered species. The proposed project would require the removal of approximately 23 trees along the East River Esplanade to allow for the construction of the new laboratory building and ICC and 5 to 10 trees would be removed at the Fitness Center Site to construct the fitness center. Tree replacement, protection, and transplanting would comply with the City's applicable rules and regulations. Trees under the jurisdiction of DPR may not be removed without a permit pursuant to Title 18 of the Administrative Code of the City of New York. Chapter 5 of Title 56 of the Rules of the City of New York establishes rules for valuing trees that are approved for removal in order to determine the appropriate number of replacement trees. The majority of trees on the Rockefeller University campus would remain in place and be unaffected by construction activities. Overall, construction of the proposed project would have no significant adverse impacts to the floodplain, ecological communities, and terrestrial natural resources in the area.

OPEN SPACE

During the course of construction, the East River Esplanade immediately east of the project site (between East 63rd Street and demapped East 68th Street) may be narrowed or protected for varying periods of time. A minimum eight-foot-wide pathway through the affected portion of the esplanade would be provided except for the very limited times when the East River Esplanade is expected to be closed during the removal of the protective platform as well as when cranes are lifting materials or equipment over the pedestrian walkway. This closure would only occur during the night time when the esplanade would be lightly used. No open space is located at the Fitness Center Site. Construction activities would be conducted with the care mandated by the close proximity of open space to the project site. Air emissions control measures—including watering of exposed areas and dust covers for trucks—would be implemented to ensure compliance with the New York City Air Pollution Control Code, which regulates construction-related dust emissions.

As described below, a significant construction period impact to open space, i.e., the portion of the East River Esplanade adjacent to the project site, would result from construction activities associated with the proposed project. The applicant would provide a minimum eight-foot-wide pathway through the affected portion of the esplanade to serve as partial mitigation for this significant construction period impact to open space. Between the Draft and Final EIS, the applicant will consider whether there are additional mitigation measures that would be feasible and practicable to implement to alleviate this impact. Construction open space mitigation measures would be included in the Restrictive Declaration.

HAZARDOUS MATERIALS

Construction of the proposed project would not result in any significant adverse hazardous materials impacts. During and following demolition activities associated with the proposed project, applicable federal, state, and local requirements pertaining to asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCB)-containing materials, and chemical use and storage would be followed. Based on the findings of the Phase I ESA, a Subsurface (Phase II) Investigation Work Plan would be conducted in accordance with a DEP-approved Work Plan to determine whether past or present, on-site or off-site activities have affected subsurface conditions. Following implementation of this Phase II investigation and based on its findings, a RAP and associated CHASP would be prepared (and submitted to DEP for review and approval) for implementation during proposed construction. These commitments would be included in a Restrictive Declaration. These commitments would be included in

Restrictive Declaration. Consequently, with the implementation of the above measures, no significant adverse impacts related to hazardous materials would be expected during construction of the proposed project.

MITIGATION

SHADOWS

As discussed above in "Shadows," the shadow analysis concludes that the proposed laboratory building and North Terrace would cast between approximately three and five and a half hours of new shadows on portions of the East River Esplanade adjacent to the project site in the afternoons in the spring, summer, and fall, and 33 minutes on the winter analysis day. These new shadows would eliminate the remaining areas of direct sunlight on the esplanade adjacent to the project site for between 50 minutes in the early spring and fall and up to two hours and 40 minutes on the summer solstice. Therefore, the proposed project would cause significant adverse shadow impacts in those seasons to users of the open space seeking direct sun. All affected portions of the esplanade would continue to receive a minimum of five and a half hours of direct sunlight each day throughout the growing season, and, consequently, any vegetation in planters would not be significantly impacted by the new shadows. Further, any new plantings would be shade tolerant. In addition, the esplanade is adjacent to the East River, and would continue to receive ambient skylight and reflected sunlight from the river throughout the periods when new project-generated shadow would fall within the esplanade. No other sunlight-sensitive resources would be substantially affected by the proposed project.

Shadows Mitigation

As partial mitigation for the shadow impact to the East River Esplanade, Rockefeller University—in consultation with DCP and DPR—will undertake a substantial upgrade to the portion of the esplanade adjacent to the project site. In addition, an approximately 150-foot-area of the esplanade south of the project site would also be substantially upgraded as partial mitigation for the shadow impact. The design of the esplanade improvements, including the additional segment south of the project site would be developed in consultation with DCP and DPR between the Draft and Final EIS.

Specific esplanade improvements include:

- Overall redesign and reconstruction of this portion of the esplanade, with improved spatial
 organization of the walkway/bikeway and seating areas, new planting beds, and new shade
 tolerant plantings;
- Creation of a designated walkway/bikeway widened to the desired width of 12 feet, as per consultation with the DPR;
- Planting of 14 four-inch caliper (major) trees that will be resistant to flood waters (currently there are 15);
- Planting of 64 two-inch caliper (minor) trees that will be resistant to flood waters (currently there are nine);
- Installation of new benches to increase seating capacity from the existing 152 to 410 people;

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¹ Substantial esplanade upgrades would include the portion of the esplanade adjacent to the project site, between the area north of the Rockefeller Research Building north of East 64th Street and demapped East 68th Street.

- Installation of seven new in-ground irrigation hydrants;
- Installation of two drinking fountains (currently there are none); and
- Relocation and replacement of damaged lighting fixtures.

In addition to the substantial esplanade upgrades, Rockefeller University will also undertake the repair and rebuilding of the portion of the East River bulkhead adjacent to the project site and the area extending approximately 150 feet south of the project site where deficiencies have been identified in studies undertaken by DPR. The bulkhead repair and rebuilding will serve as partial mitigation for the significant adverse shadows impacts to the portion of the East River Esplanade adjacent to the project site.

The bulkhead repair and rebuilding would extend the entire length of the area adjacent to the project site and would also extend an additional approximately 150 feet south of the project site. Bulkhead repair and rebuilding would be undertaken in areas where deficiencies have been identified in studies undertaken by DPR. The bulkhead repair and rebuilding would begin begin prior to the start of construction of the laboratory building platform and would continue during the early site preparation and demolition activities associated with the platform construction. The bulkhead repair and rebuilding work is anticipated to take approximately five months to complete. Bulkhead work would be undertaken from barges on the East River. No closures of the esplanade would be required during the bulkhead repair and rebuilding. However, the installation of a construction fence adjacent to the bulkhead work area would be required. The construction fence would likely be required for the entire four-month duration of the bulkhead repair and rebuilding work. Narrowing of the esplanade may be necessary at certain times during bulkhead-related construction, however a walkway a minimum of eight feet wide would remain open at all times during this task.

The esplanade reconstruction activities, including the substantial upgrades, are anticipated to be undertaken for the same duration as the esplanade replacement in-kind construction-related activities that would occur with the proposed project. The substantial esplanade upgrades would be undertaken between November 2017 and March 2018 for the west portion of the esplanade and between March 2018 and July 2018 for the east portion of the esplanade.

The bulkhead repair and rebuilding and the esplanade upgrades that would be undertaken as partial mitigation would not substantially change the construction schedule. Therefore, these mitigation measures—bulkhead repair and rebuilding and the esplanade upgrades—would not result in additional significant adverse construction impacts not identified in the EIS. These mitigation measures—bulkhead repair and rebuilding and the esplanade upgrades—and construction requirements will be included in the Restrictive Declaration.

Between the Draft and Final EIS, the applicant will consider, in consultation with DPR and DCP, whether there are additional mitigation measures that are feasible and practicable that could be implemented to further alleviate the significant adverse shadows impact.

HISTORIC AND CULTURAL RESOURCES

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As discussed above in "Historic and Cultural Resources," the concrete canopy structure and parking area on the Fitness Center Site are contributing elements to the Rockefeller University Historic District which has been determined S/NR- and NYCL-eligible. Therefore, the removal

¹ Bulkhead repair and rebuilding would include the area approximately mid-block between East 63rd and East 64th Streets and demapped East 68th Street.

of the canopy structure and parking area that would occur with the construction of the proposed Fitness Center would result in an adverse impact to the historic district. In addition, the proposed laboratory stacks that would be located adjacent to the Flexner Hall Extension and the Hospital would result in a significant impact to historic and cultural resources.

Historic and Cultural Resources Mitigation

Partial mitigation measures for the removal of the canopy structure and parking area include the preparation and implementation of a restoration plan for the Philosopher's Garden, which is located immediately south of the Fitness Center Site. This plan would be developed in consultation with LPC and would be prepared and implemented prior to construction of the fitness center. LPC is in receipt of revised stack drawings indicating that the stacks have been redesigned in terms of their materials and surface articulation to better harmonize with the historic properties. LPC finds these design drawings to be acceptable and partial mitigation for the significant impact. Measures to minimize or partially mitigate these adverse impacts to the Rockefeller University Historic District would be implemented in consultation with LPC and are included in the Restrictive Declaration.

In addition, prior to construction of the proposed project, and in consultation with LPC, Rockefeller University would develop and implement a CPP for the President's House, Flexner Hall and the Flexner Hall Extension, Welch Hall, Founder's Hall, the Nurse's Residence, the Hospital, and the Boiler House which would either be modified as part of the proposed connection with the new laboratory building or are within 90 feet of the Laboratory Building Site. In addition, Smith Hall, Abby Aldrich Rockefeller Hall, the perimeter campus fence, and the Kiley-designed Philosopher's Garden and Lasker Fountain would be included in the CPP as these contributing elements to the historic district are located within 90 feet of the Fitness Center Site. The CPP would be prepared in coordination with a licensed professional engineer and would follow the guidelines set forth in Section 523 of the CEQR Technical Manual, including conforming to LPC's New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings. The CPP would also comply with the procedures set forth in the New York City Department of Buildings (DOB)'s Technical Policy and Procedure Notice (TPPN) #10/88. The CPP would also be included in the Restrictive Declaration.

CONSTRUCTION—OPEN SPACE

As discussed above under "Construction," a significant construction period impact to open space, i.e., the portion of the East River Esplanade adjacent to the project site, would result from construction activities associated with the proposed project.

Construction—Open Space Mitigation

As partial mitigation for the significant construction period impact to open space, the applicant would provide a minimum eight-foot-wide pathway through the affected portion of the esplanade. This pathway would always be maintained to allow for pedestrian and bike movement through the East River Esplanade except for the very limited night time closures during specific construction activities requiring the lifting of construction materials over the

¹ TPPN #10/88 was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. TPPN #10/88 outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

walkway/bikeway from barges located in the East River to the project site. However, the closure periods would only occur at night, and would not prevent or limit access to the esplanade during the day. Therefore, the construction of the proposed project would have a temporary significant impact on the East River Esplanade during a portion of the construction period. Between the Draft and Final EIS, the applicant will consider whether there are additional mitigation measures that would be feasible and practicable to implement to alleviate this impact. Construction open space mitigation measures would be included in the Restrictive Declaration.

ALTERNATIVES

As per *CEQR* guidance, the alternatives selected for consideration in an EIS are generally those which are feasible and have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of the action. Three alternatives for the proposed project were analyzed in detail:

- A **No Action Alternative**, which is mandated by the State Environmental Quality Review Act (SEQRA) and CEQR, and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part;
- A York Avenue Alternative, in which two new buildings would be constructed along the Rockefeller University campus's west boundary along York Avenue between East 64th Street and demapped East 68th Street in an area currently occupied by parking uses, the Caspary Auditorium, the IT Pavilion, and Sophie Fricke Hall.
- A North-South Alternative, in which the two new buildings would be constructed on the Rockefeller University campus: one building would be located at the northwest corner of the campus at York Avenue and demapped East 68th Street and the other building would replace Sophie Fricke Hall and would be located between the Bronk Building and the Weiss Research Building.

In addition to these three alternatives, two other alternatives were considered—a Lesser Density Alternative and a No Unmitigated Impact Alternative. The Lesser Density Alternative assumes that a smaller laboratory building would be constructed in air space over the FDR Drive, resulting in either a building that only partially spans over the FDR Drive from East 64th to demapped East 68th Streets or a one-story, rather than a two-story, laboratory building spanning the FDR Drive. The No Unmitigated Impact Alternative considers a laboratory building that would avoid impacts to shadows, historic and cultural resources, construction noise, and construction-period open space, which are impacts that would occur with the proposed project.

The applicant believes that these alternatives would not meet the goals and objectives of the proposed project.

UNAVOIDABLE ADVERSE IMPACTS

Unavoidable significant adverse impacts are defined as those that meet the following two criteria: (1) there are no reasonably practicable mitigation measures to eliminate the impacts; and (2) there are no reasonable alternatives to the proposed project that would meet the purpose and need of the action, eliminate the impact, and not cause other or similar significant adverse impacts. The proposed project would result in significant adverse noise impacts during construction that would not be fully mitigated.

It is possible that new unmitigated impacts related to noise during the construction period may be identified between the Draft and Final EIS. If conditions change or it is determined that proposed mitigation measures are not feasible, additional mitigation measures may be explored.

If it is determined that other measures are not available to mitigate identified significant adverse impacts, either in part or in whole, those impacts would be identified in the FEIS as unmitigated and a discussion will be included in the FEIS.

Although Rockefeller University is committed to implementing a program of source controls and path controls that exceed the noise control measures required by the New York City Noise Control Code, even with these measures, elevated noise levels resulting from construction are predicted to occur for an extended duration at two sensitive receptor locations: the portion of the East River Esplanade between East 63rd Street and demapped East 68th Street, and the New York Presbyterian Hospital-Weill Cornell Medical Center.

These two receptor locations would likely experience over two years of exceedances of the CEQR noise impact criteria resulting from construction of the proposed project. However, the existing noise levels on the East River Esplanade exceed the $55~dBAL_{10(1)}$ noise level recommended for open space by CEQR noise exposure guidelines. In addition, the East River Esplanade is primarily used for active recreation during daytime hours, while most of the activities associated with the excavation and foundation task for the platform construction would occur during the night time when the esplanade is lightly used. There are no feasible and practicable measures that could be implemented to mitigate the construction noise impact at this location.

The NYPH-Weill Cornell Medical College building has double-glazed windows and central air-conditioning and would be expected to provide at least 28-35 dBA of attenuation of exterior noise. Consequently, this building would be expected to experience interior $L_{10(1)}$ values during most of the time that are below 45 dBA $L_{10(1)}$ (the CEQR acceptable interior noise level criteria). However, although the NYPH-Weill Cornell Medical College buildings have double-glazed windows and alternate ventilation, during some limited time periods, construction activities may result in interior noise levels that would be above the 45 dBA $L_{10(1)}$ noise level recommended by CEOR.

Therefore, only the construction noise impact at the East River Esplanade would be an unavoidable significant adverse impact as there are no feasible and practicable measures that could be implemented to fully mitigate the construction noise impact at this receptor location. However, this impact would occur during a limited period of time during project construction and there would be no noise impacts once construction activities are complete. There is no feasible construction approach to the proposed project that would eliminate this unmitigated significant adverse impact. As noted above, it is possible that new unmitigated impacts related to noise during the construction period may be identified between the Draft and Final EIS.

GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

The proposed project would not result in a population increase on the project site, but rather would provide for new state of the art facilities and a decompression of existing Rockefeller University facilities. The surrounding study area is generally fully developed, and the level of development is controlled by zoning. As such, the proposed project would not "induce" new growth in the study area. The proposed project and related actions are specific to the project site only. In addition, the proposed project would not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect development.

Therefore, the proposed project would not induce significant new growth in the surrounding area.

IRREVERSIBLE AND IRRETRIEVABLE IMPACTS

The proposed project would result in new developments to the Rockefeller University campus, an existing institution, and has been designed to optimize the use of the existing campus, rather than expand into a new neighborhood. By building the proposed laboratory building, North Terrace, and ICC over the FDR Drive, space that would be otherwise be underutilized would be put to productive use.

Overall, the proposed project would expend a modest amount of resources.