## Chapter 13:

## Mitigation

# A. INTRODUCTION

In accordance with the 2012 *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts are identified, mitigation to reduce or eliminate the impacts to the fullest extent practicable is developed and evaluated. Significant adverse impacts that could be partially mitigated were identified in the following technical areas: Shadows and Historic and Cultural Resources.

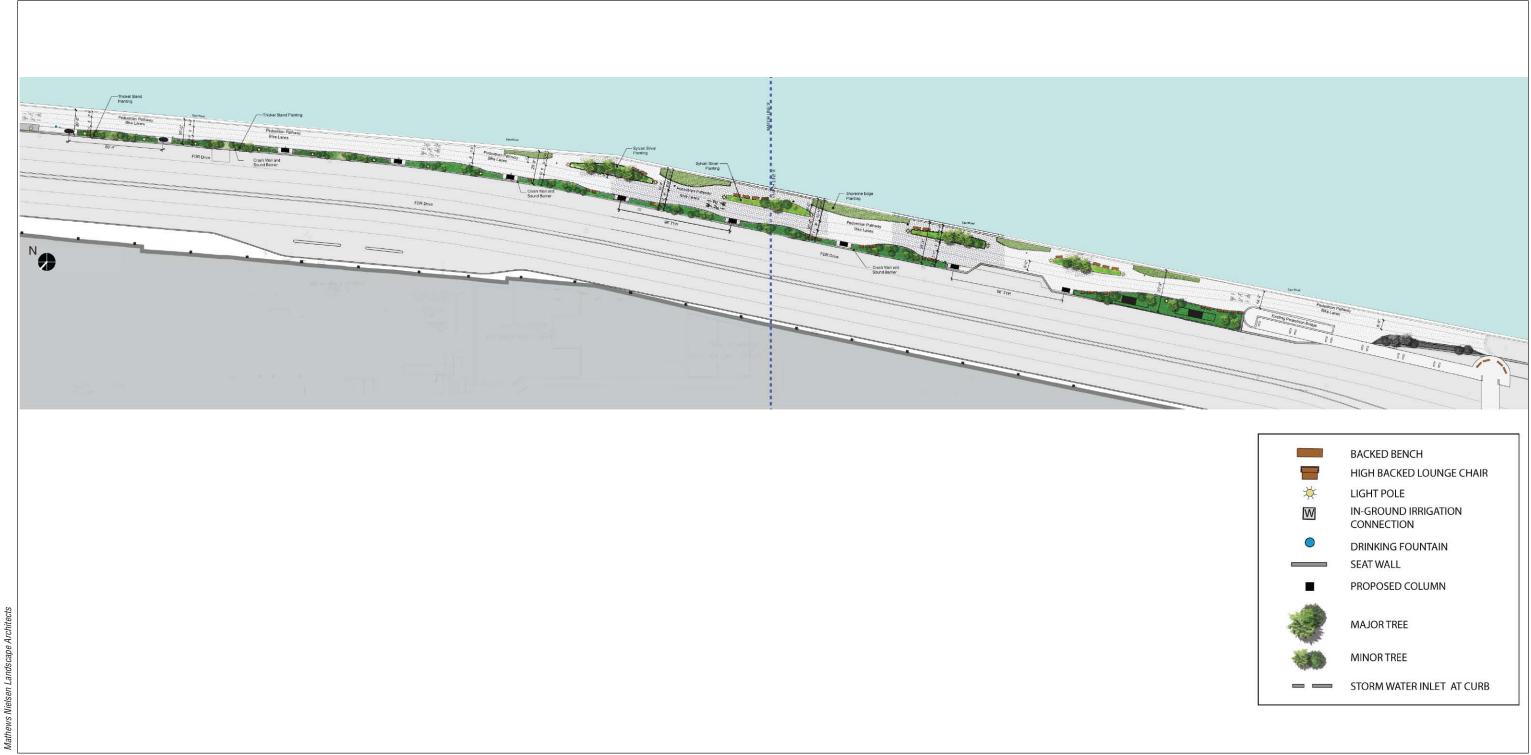
# **B. SHADOWS**

As discussed in Chapter 4, "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

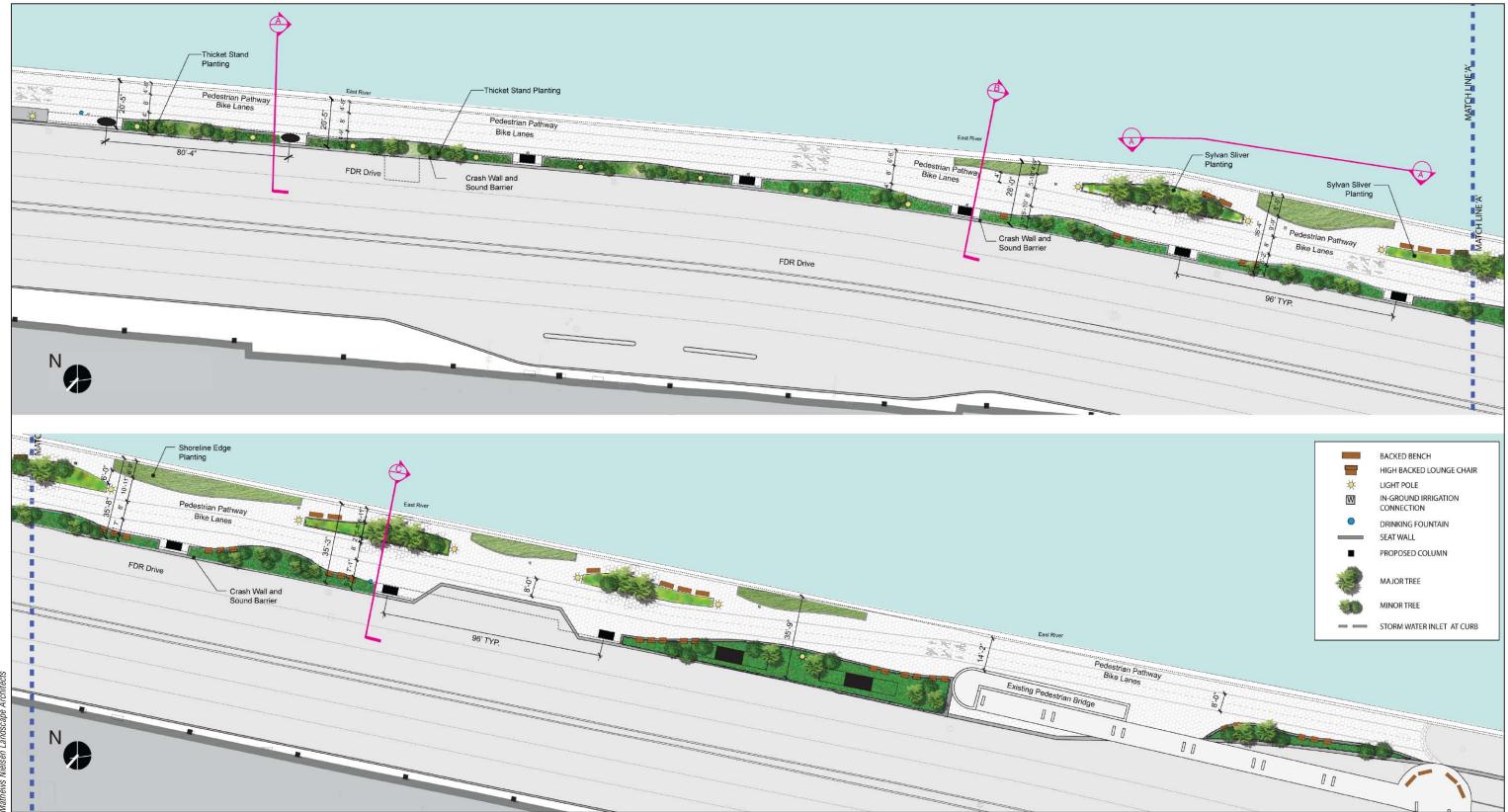
As partial mitigation for the shadow impact to the East River Esplanade, Rockefeller University—in consultation with the New York City Department of City Planning (DCP) and the New York City Department of Parks and Recreation (DPR)—will undertake a substantial upgrade to the portion of the esplanade adjacent to the project site. In addition, an approximately -foot area of the esplanade south of the project site would also be substantially upgraded as partial mitigation for the shadow impact (see **Figures 13-1 through 13-6**).<sup>1</sup> 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.

<sup>&</sup>lt;sup>1</sup> 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, and would include the segment of the esplanade extending an additional approximately 150 feet south of the project site.



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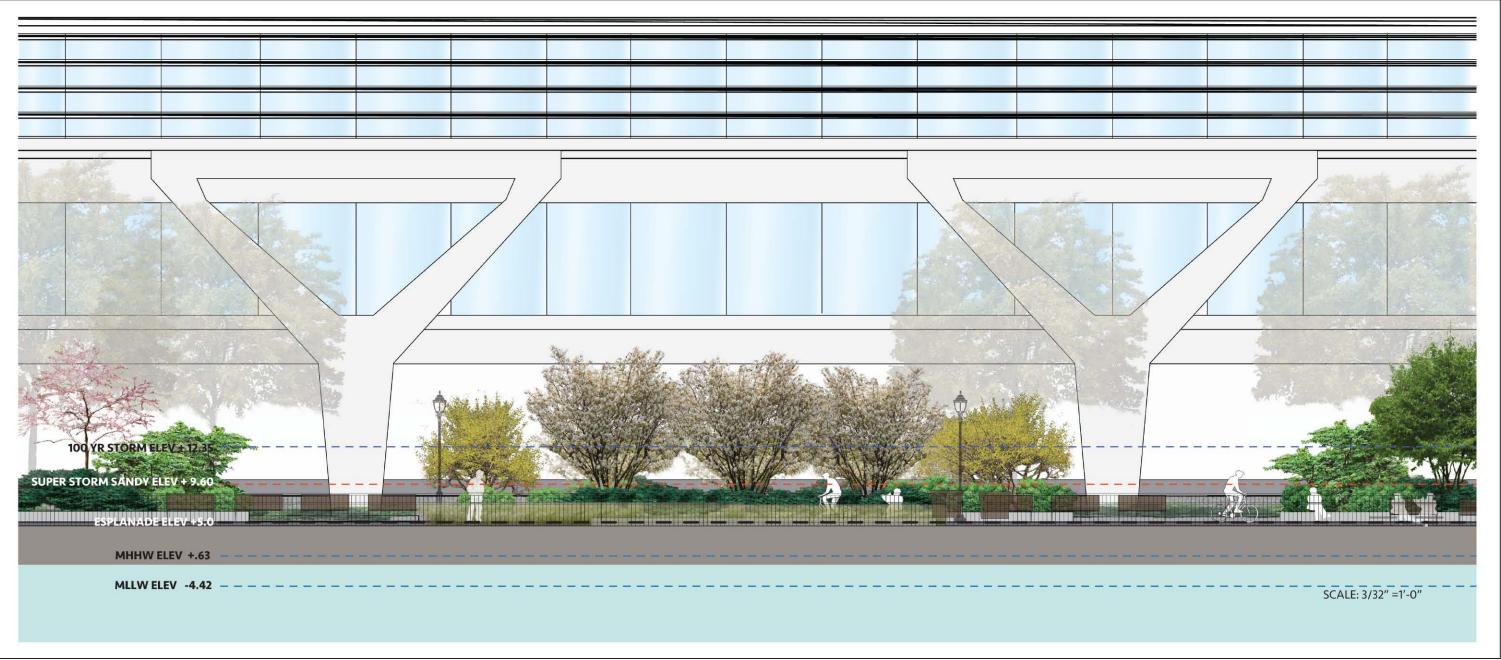
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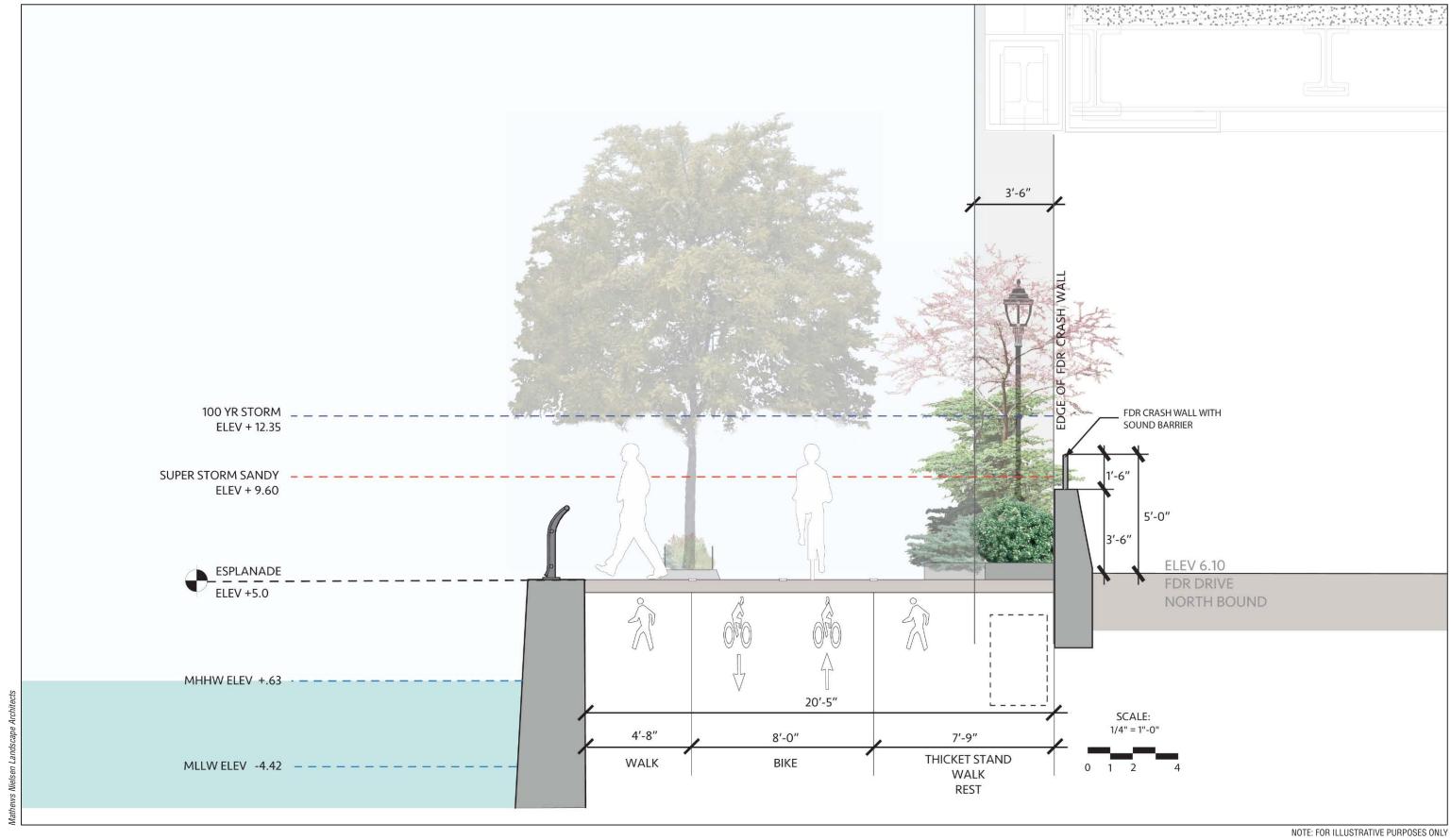
Esplanade Redesign and Reconstruction— Site Plan Enlargement Figure 13-2



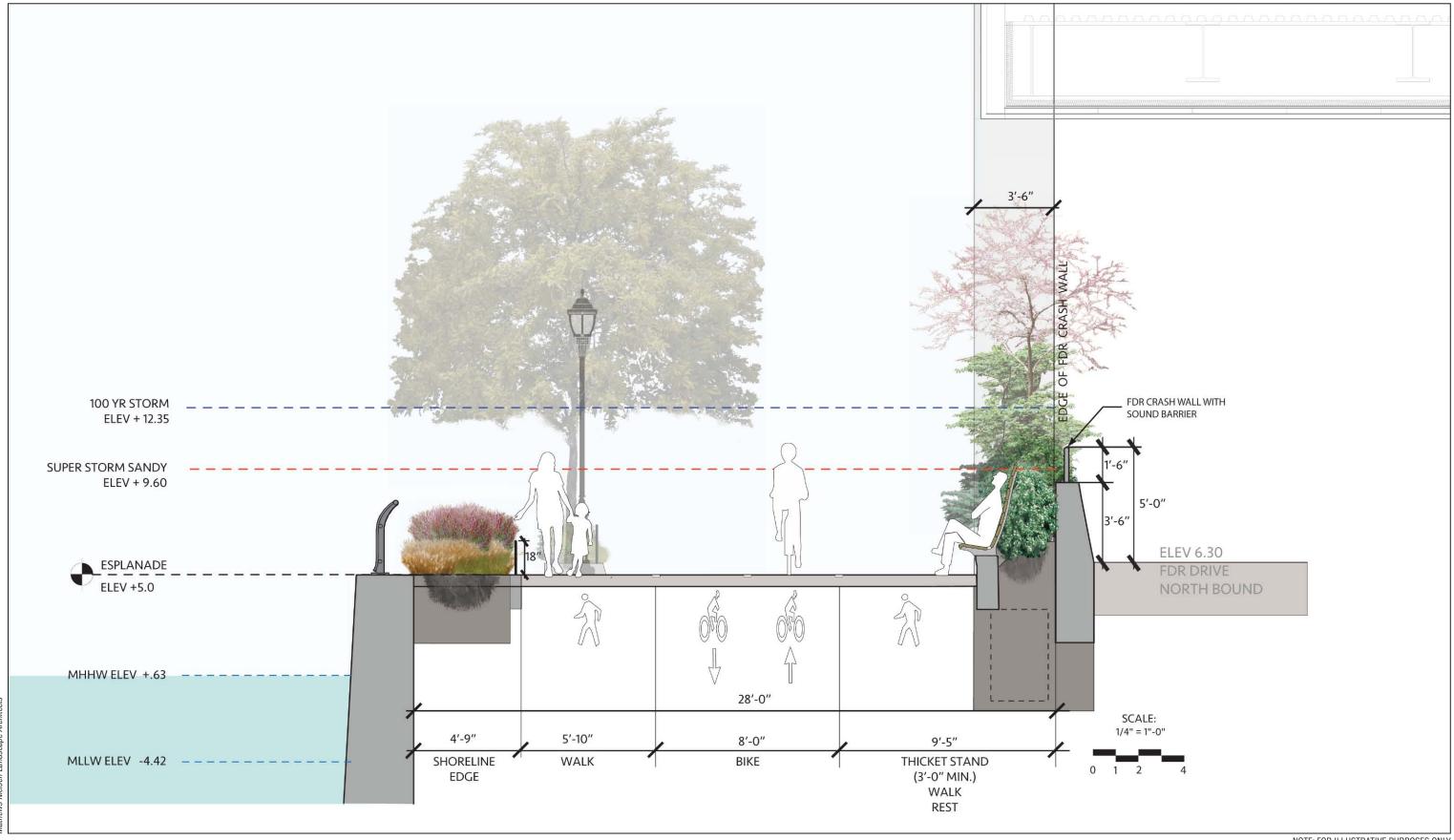
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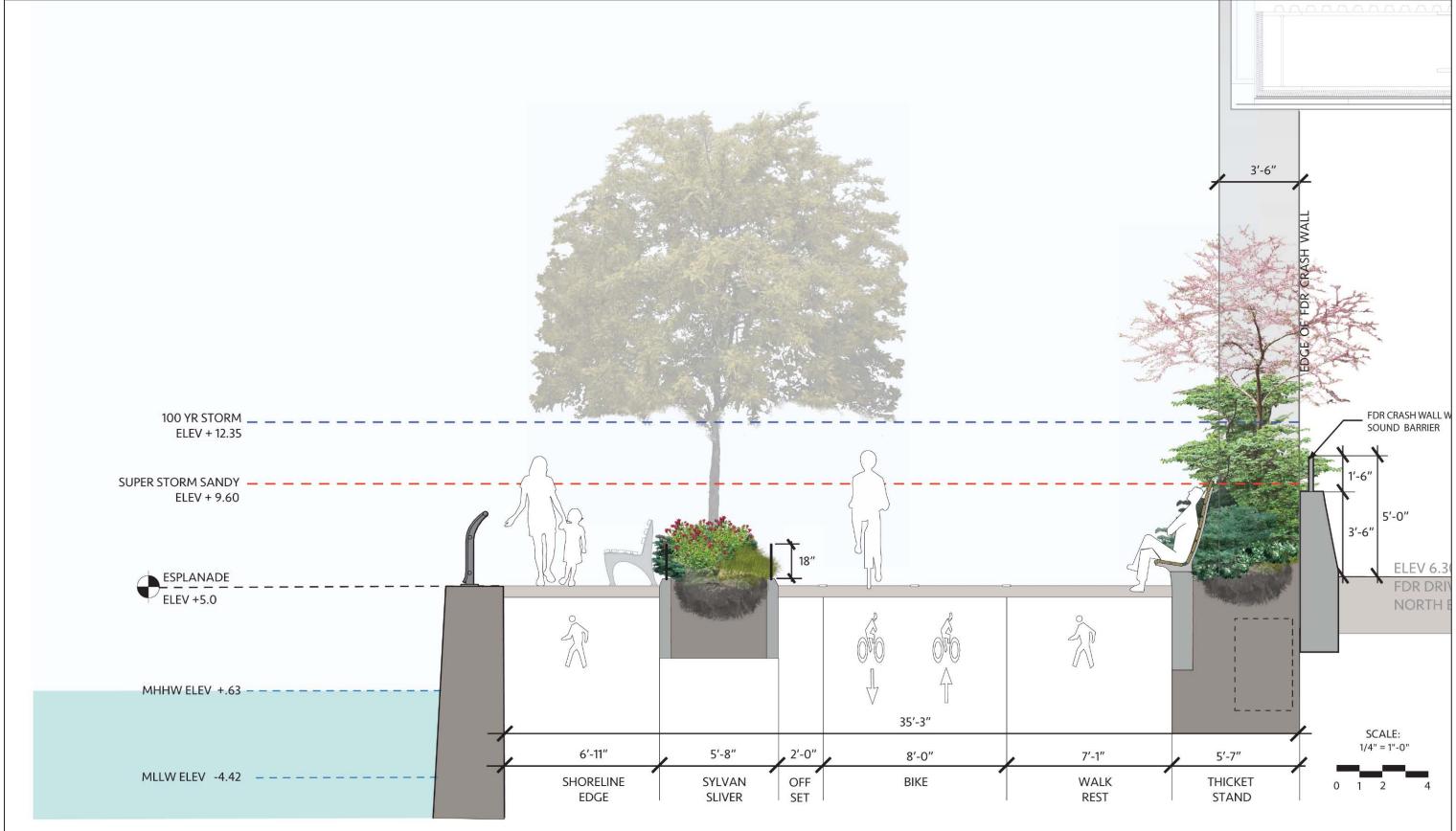
# Esplanade Redesign and Reconstruction— Section A: Narrow Section Figure 13-4



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Esplanade Redesign and Reconstruction— Section B: Mid-Section Figure 13-5

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Esplanade Redesign and Reconstruction— Section C: Wide Section Figure 13-6 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;
- 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 portion of the esplanade adjacent to the project site and would extend an additional approximately 150 feet south of the project site.<sup>1</sup> Bulkhead repair and rebuilding would be undertaken in areas where deficiencies have been identified in studies undertaken by the New York City Department of Parks and Recreation (DPR). The bulkhead repair and rebuilding would 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 four 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. This 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 minimum eight-foot wide pathway through the affected portion of the esplanade would remain open at all times during this task (see **Figure 13-7**).

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, as described in Chapter 12, "Construction." The substantial esplanade upgrades would be undertaken between November

<sup>&</sup>lt;sup>1</sup> Bulkhead repair and rebuilding would include the entire 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).

	2015					2016					2017						2018						2019		
ł	FEB MAR APR MAY	JUL AUG	SEP OCT		FEB	APR May	JUL AUG	SEP OCT	NOV DEC	JAN Feb	MAR APR	MAY JUN	JUL AUG	SEP OCT	DEC	JAN Feb	MAR APR	MAY JUN	JUL AUG	SEP OCT	NOV Dec	JAN	MAR APR	MAY JUN	
Bulkhead																									
Bulkhead Repair and Rebuilding																									
Laboratory Building	g and North T	Terrace W	aterside	Opera	tions																				
Site Preparation and FDR Drive Lane Shift																									
Excavation and Foundation					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,																				
Structure Construction and Underneath Platform Work																									
Laboratory Buildin	g and ICC La	ndside Oj	peration	s																					
Demolition and Foundation					-	-	-	_																	
Core and Shell Construction														-		_	-	-							
Interiors																-	-	-	-	-	-		•		
Site Work																				-	-		-	-	
Testing and Commissioning																									
Esplanade																									
Esplanade Restoration																									
Fitness Center																									
Make Ready and Demolition									-																
Excavation and Foundation																									
Building Construction														-											
Interiors												_													
Site Work														-											

<sup>1.</sup> Construction fences would be erected on the esplanade during the Bulkhead Repair and Rebuilding, Site Preparation, and FDR Drive Lane Shift tasks.

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, as described in Chapter 12, "Construction." Therefore, these mitigation measures—bulkhead repair and rebuilding and the esplanade upgrades—would not result in additional significant adverse construction impacts not identified in Chapter 12, "Construction." These mitigation measures—bulkhead repair and rebuilding and the esplanade upgrades—and construction requirements will be 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.

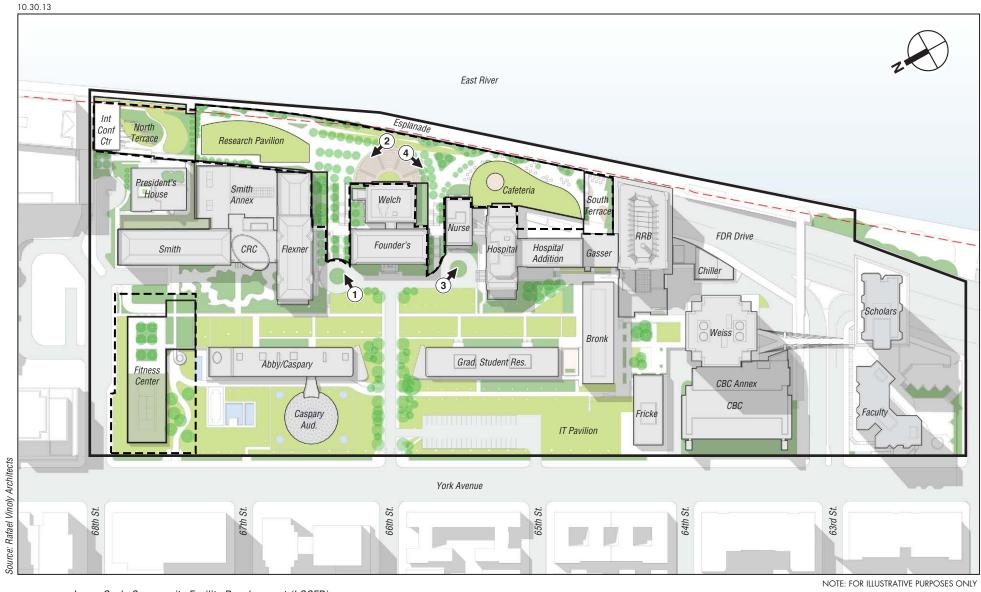
# C. HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 6, "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 eligible for listing on the State and National Registers of Historic Places (S/NR-eligible) and for designation as a New York City Landmark (NYCL-eligible). Therefore, the removal 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 the New York City Landmarks Preservation Commission (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 (see **Figures 13-8 through 13-10**). 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 a Restrictive Declaration.

In addition, prior to construction of the proposed project, and in consultation with LPC, Rockefeller University would develop and implement a Construction Protection Plan (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



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

--- Development Sites

Note: These views correspond to Figures 13-9 and 13-10

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Rockefeller University LSCFD Proposed Site Plan Figure 13-8



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Pedestrian view from Founder's Hall toward the proposed stack adjacent to the Flexner Hall Extension



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Pedestrian view northwest from the rooftop landscaping toward the proposed stack adjacent to the Flexner Hall Extension

View 2

View 1

Views to the Stack adjacent to the Flexner Hall Extension Figure 13-9





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Pedestrian view southeast including the Nurse's Residence (in the foreground) View 3 toward the proposed stack adjacent to the Hospital



FOR ILLUSTRATIVE PURPOSES ONLY

Pedestrian view southwest from the rooftop landscaping toward the proposed stack adjacent to the Hospital

View 4



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.<sup>1</sup> The CPP would also be included in the Restrictive Declaration.

# **D. CONSTRUCTION—OPEN SPACE**

As discussed in Chapter 12, "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 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.

<sup>&</sup>lt;sup>1</sup> 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.