



Henry M. Goldman School of Dental Medicine

Boston, Massachusetts

Project Summary

Submitted by: Trustees of Boston University
One Silber Way, 9th Floor
Boston, MA 02215

Submitted to: Boston Civic Design Commission

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In association with
Fort Point Associates, Inc.

June 30, 2017



BOSTON UNIVERSITY
HENRY M. GOLDMAN
SCHOOL OF DENTAL MEDICINE

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1.0 PROJECT SUMMARY

1.1 Project Description

Boston's South End, home to one of North America's largest Victorian residential districts, in 1967 also became home to Boston University's new Henry M Goldman School of Dental Medicine building, a Brutalist Style poured in place concrete structure designed by The Architect's Collaborative. Boasting an "honest" structural expression and clean, minimalist form, the building did not, perhaps due to its small stature, exhibit the grand gestures and repetitive forms consistent with Brutalism. In 1973, the original 3 story building at the corner of East Newton and Albany received a 4 story vertical addition and a ground level cafeteria addition. Both precast concrete extensions, while true in materiality to the original building, were much flatter and less organized aesthetically. Though functionally, the building did serve the Boston University Henry M Goldman School of Dental Medicine (BUGSDM) well.

As an international leader in dental education, research, and patient care with evolving pedagogies and ever increasing patient base, BUGSDM has exceeded the capacity of its current home. As a result, this proposed design renovates approximately 57,000 sf of existing gross floor area and adds approximately 49,000 sf of new gross floor area providing long overdue flexible, contemporary dental treatment space for patient care and clinical training as well as instructional and collaborative space fundamental to contemporary learning. New space in the addition also allows for the Simulated Learning Center to be relocated to 100 East Newton reuniting a fractured program which is currently distributed across separate buildings.

The new addition, which requires the removal of the existing one-story cafeteria, extends seven levels along the northwest edge of the property and two levels along the northeast edge. The two level portion rises on a basement containing new mechanical and electrical space. New metal panel walls and screen consistent with the refinished existing penthouse in height and appearance obscure rooftop mechanical / electrical equipment.

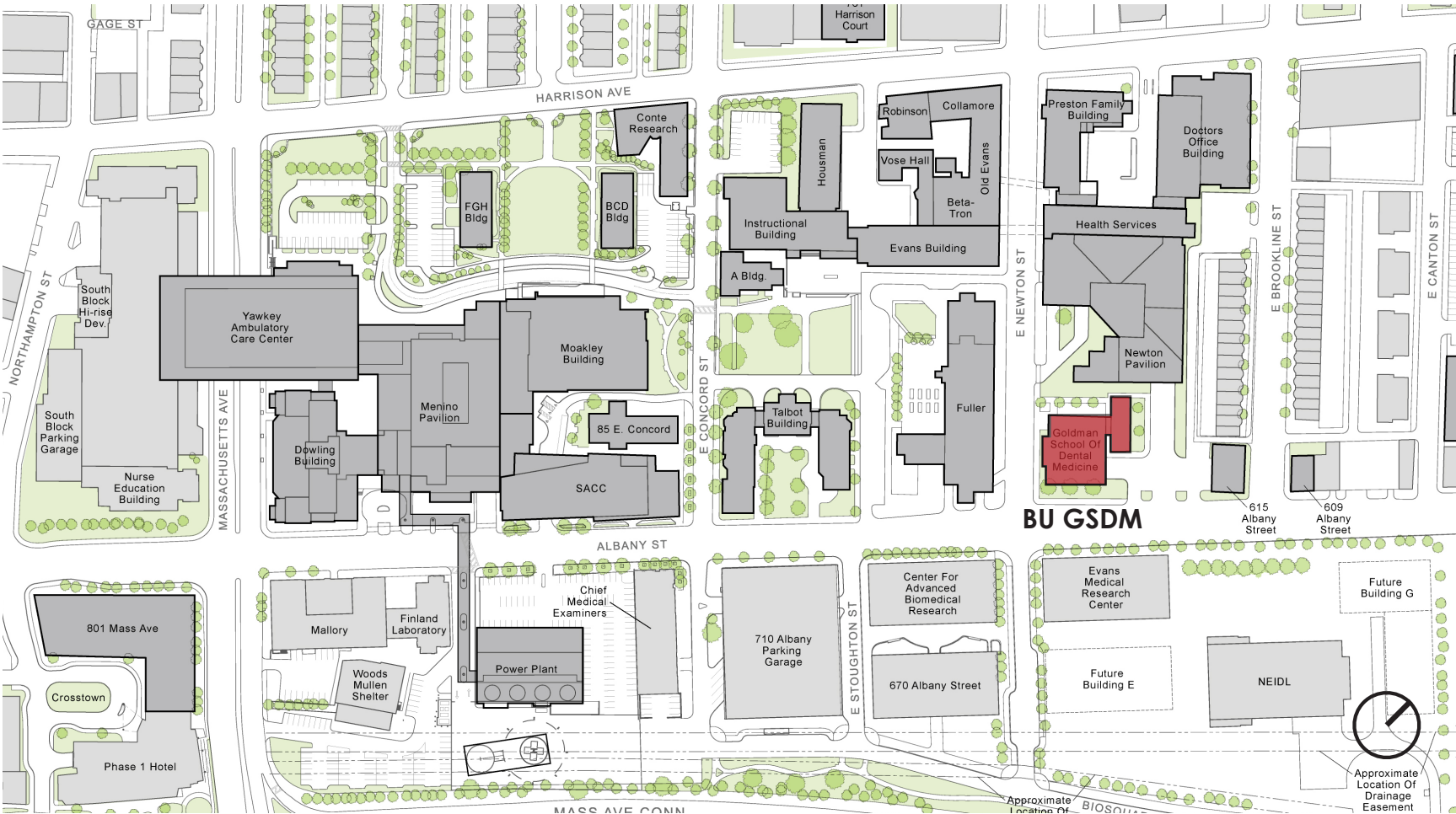
The predominate site intervention takes the form of a porch that connects the existing building entry on East Newton Street with a new public entry on Albany Street. The distinct entries, one academic and one public, dramatically clarifies wayfinding improving the student/staff/faculty experience and especially the patient experience.



GSDM 1969 - 1970



GSDM 1980's

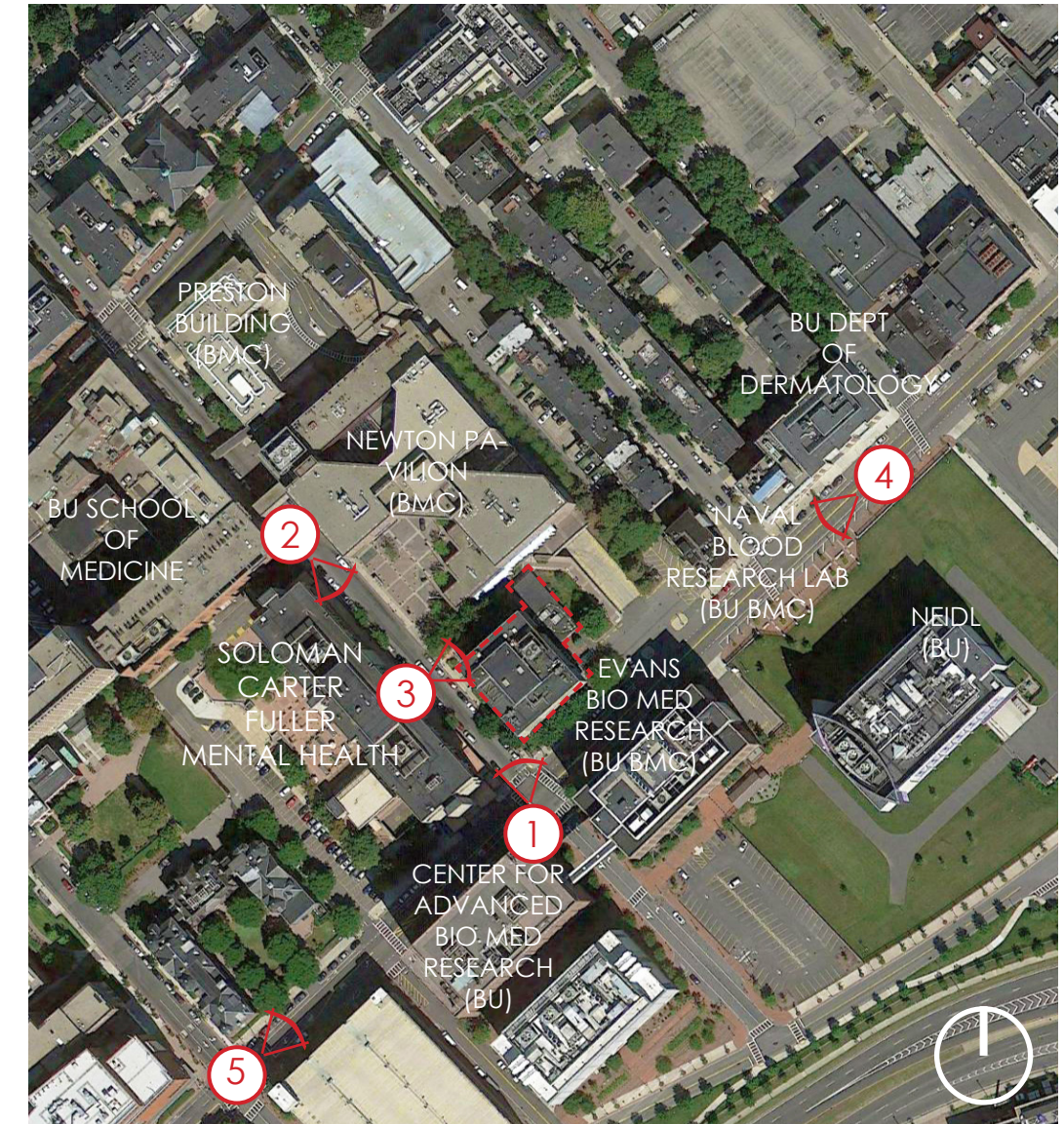


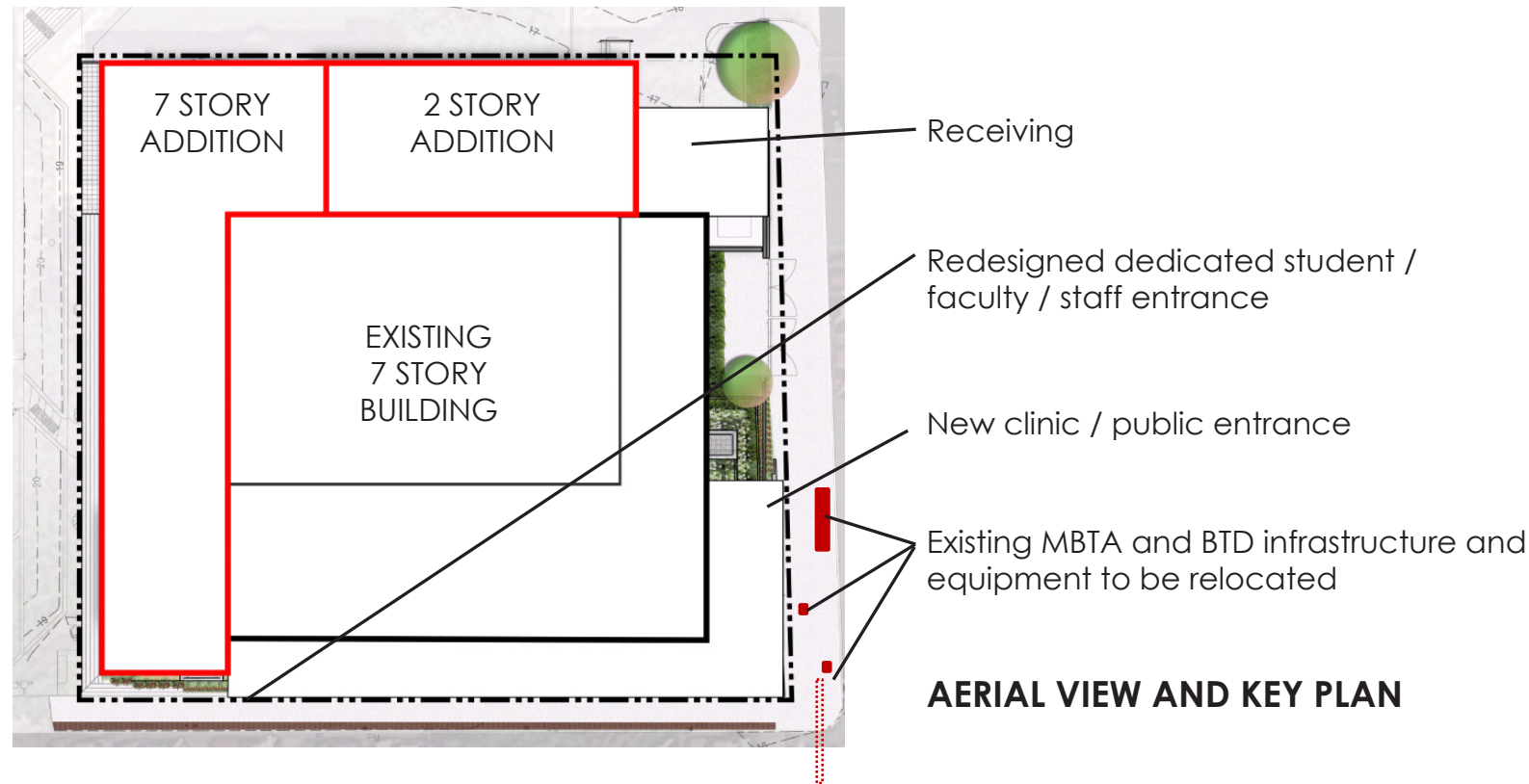
CONTEXTUAL CAMPUS PLAN



1.2 Project Context

The Harrison-Albany Corridor in Boston's South End Neighborhood, and in particular the area around the project site, is made up of architecture spanning a variety of periods, styles, and typologies. The existing GSDM building (figs. 1+3) and the Soloman Carter Fuller building to the south (fig. 2) are representative of Brutalism, a style characterized by simple masses and concrete construction that has fallen out of favor over the years. More historic architecture along East Brookline Street includes the Victorian style brick townhouses (c. 1900) and the somewhat revival style Naval Blood Research Laboratory (fig. 4). Remaining sites around the GSDM have filled out over the years with a variety of contemporary styles that exhibit more eclectic details and less stylistic references.





1.3 Project Facts

Street Address : 100 East Newton Street / 635 Albany Street

Building Uses : Academic - classroom, simulated learning, research lab, lab support, student collaboration, seminar, computer lab, administrative office, faculty office, cafe

Clinical - patient waiting, dental operator, dental radiology, patient consultation, telemedicine, research lab, lab support, office, conference

Building Support

Site Size : 24,492 SF

Building Size	:	Existing		
		Renovation	=	53,100 GFA
		to remain as is	=	31,100 GFA
		<hr/>		
		SubTotal	=	84,200 GFA
		New Construction	=	41,900 GFA
		<hr/>		
		Total	=	126,100 GFA

FAR	:	Allowed	Existing	Proposed
		6.5	3.3	5.25

Building Height	:	Allowed	Existing	Proposed
		120'-0"	103'-0"	104'-6"

Estimated Construction Period : 39 months

Project Benefits

optimized and reactivated urban public corner with appropriate hardscape, softscape and public space

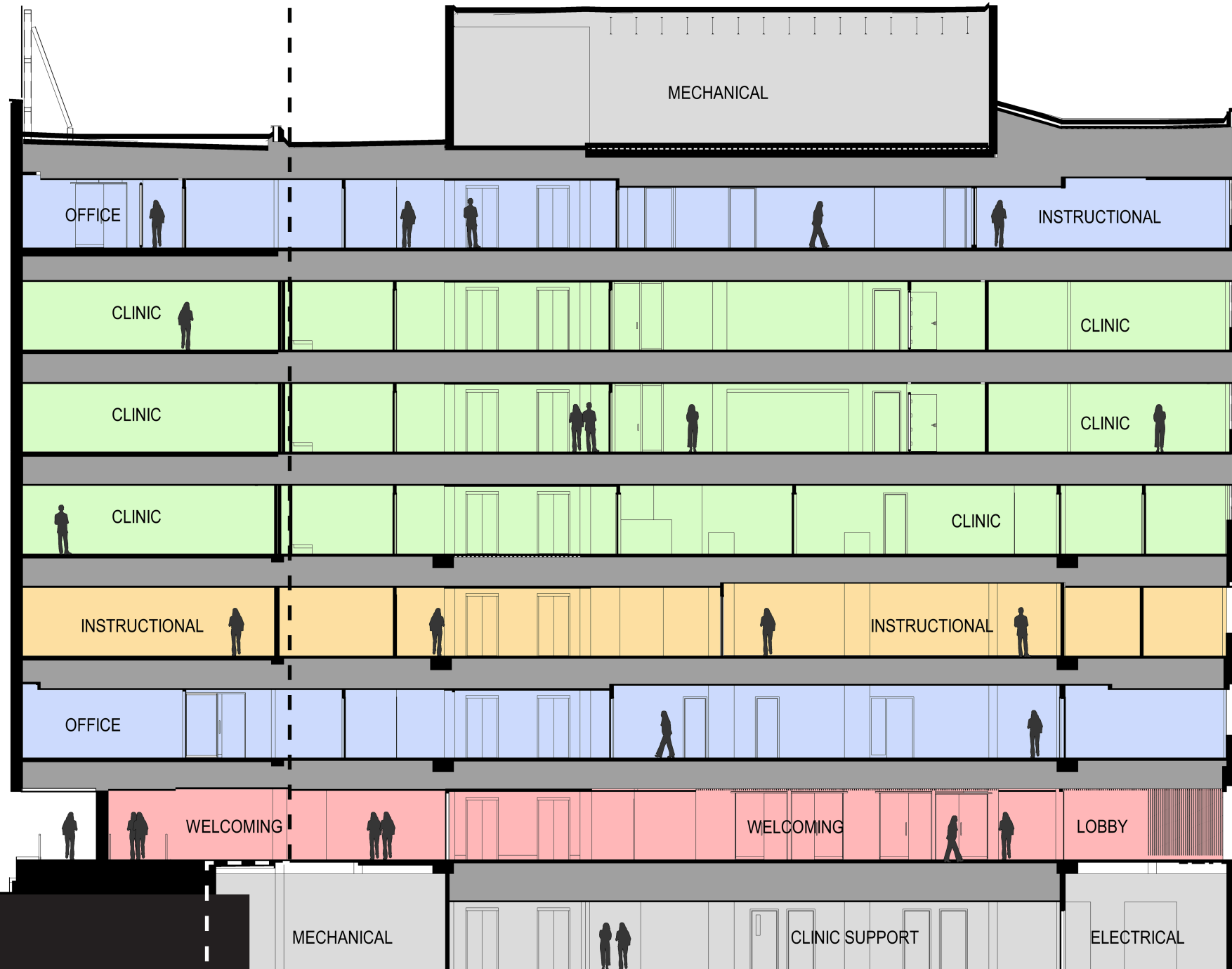
improved wayfinding and open space through the introduction of new Albany Street entry

improved patient experience in a clinic that sees 33,000 patients in 147,000 interactions per year

improved receiving area including screening and arrangement

renovated/upgraded dental instruction and dental clinic building with significantly improved energy efficiency and sustainability

ADDITION | EXISTING



- EXST PENTHOUSE ROOF
EL +121' - 0"
- ROOF LEVEL
EL +118' - 0"
- EIGHTH LEVEL
EL +106' - 0"
- SEVENTH LEVEL
EL +94' - 0"
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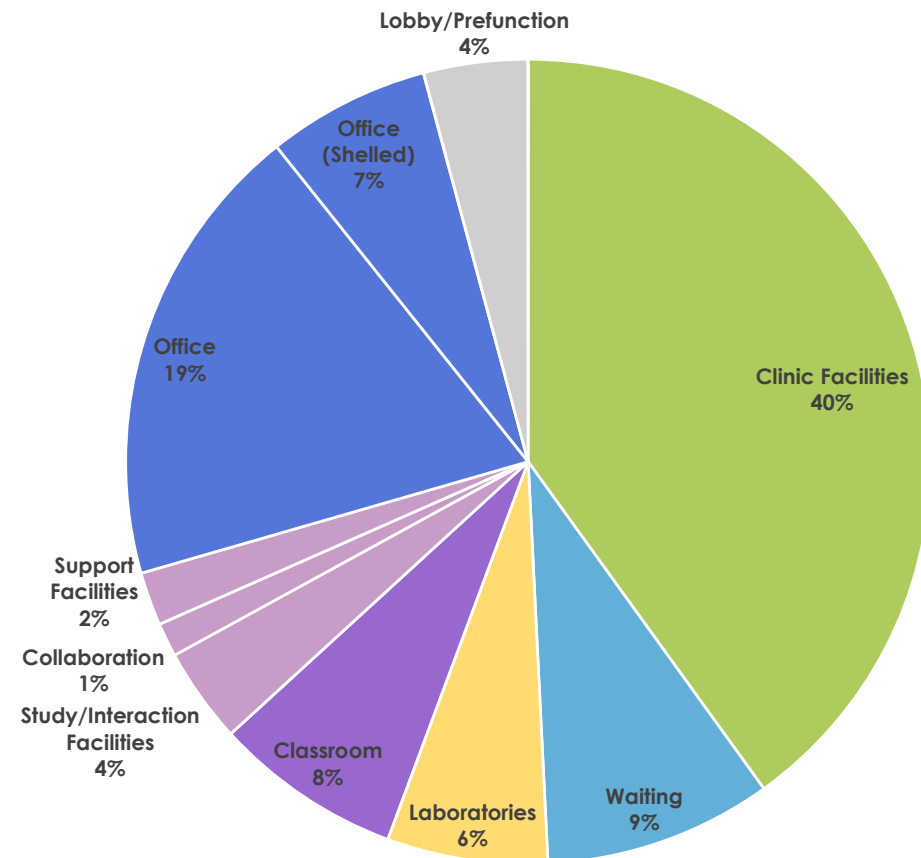
WEST COURT

ALBANY STREET

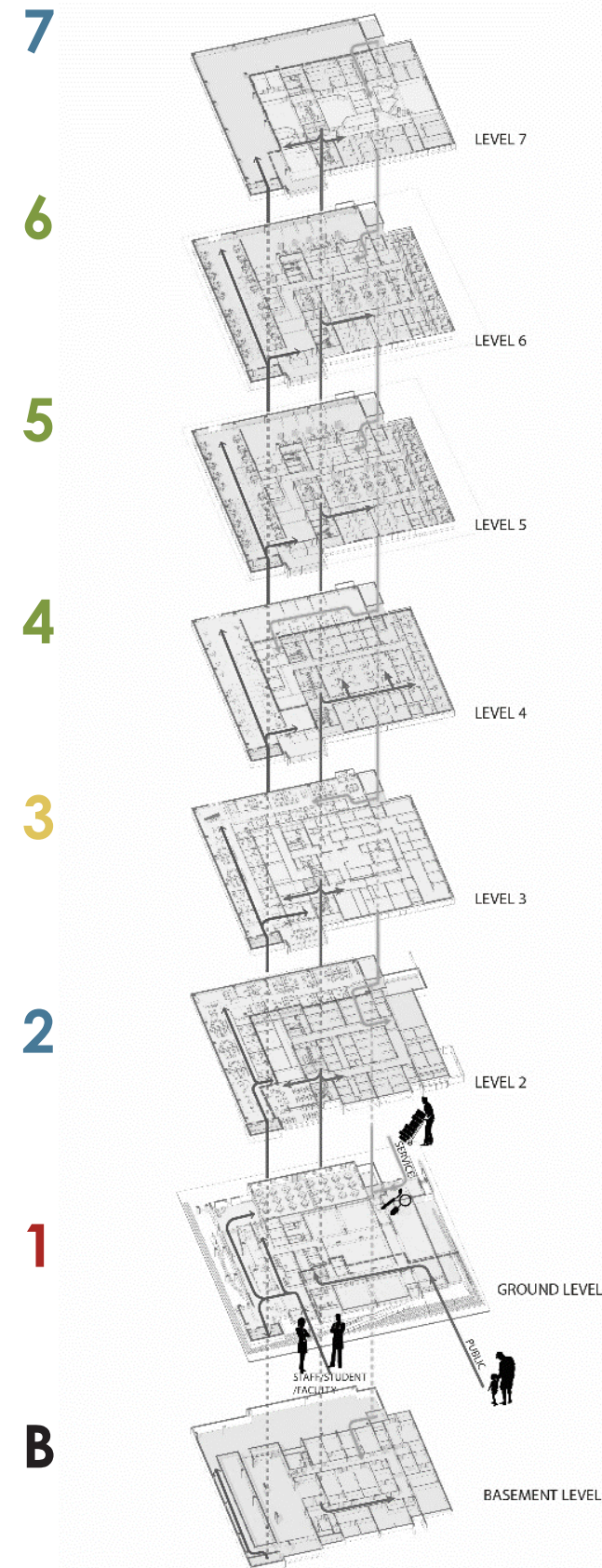
BUILDING SECTION

Program Overview

Space Type	Total	New	Renovated	Exist to Remain	Total
Classroom	4,643	2,560	-	3,430	5,990
Laboratories	3,479	3,820	505	800	5,125
Office	19,344	5,080	3,960	5,853	14,893
Office (Shelled)	-	5,200	-	-	5,200
Study/Interaction Facilities	347	2,960	-	87	3,047
Collaboration	2,058	750	-	335	1,085
Support Facilities	1,845	-	1,705	-	1,705
Clinic Facilities	21,472	11,301	12,864	7,680	31,845
Waiting	1,592	1,115	5,465	716	7,296
Lobby/Prefunction	890	1,440	1,890	-	3,330
Total (NASF)	55,670	34,226	26,389	18,901	79,516
Total GSF	96,587	47,713	62,923	33,664	144,300
Total GFA	84,200	41,900	53,100	31,100	126,100



1.4 Project Program



Program and Palette

7
Clinic, Administrative Offices
Cool colors that identify post doc clinic and provide for calming patient experience

6
Clinic
Cool colors that identify pre doc clinic and provide for calming patient experience

5
Clinic
Cool colors that identify pre doc clinic and provide for calming patient experience

4
Clinic, Administrative Offices
Cool colors that identify pre doc clinic and provide for calming patient experience

3
Academics, Simulated Learning Center, Faculty Offices
Palette enhances communication and stimulates learning and innovation

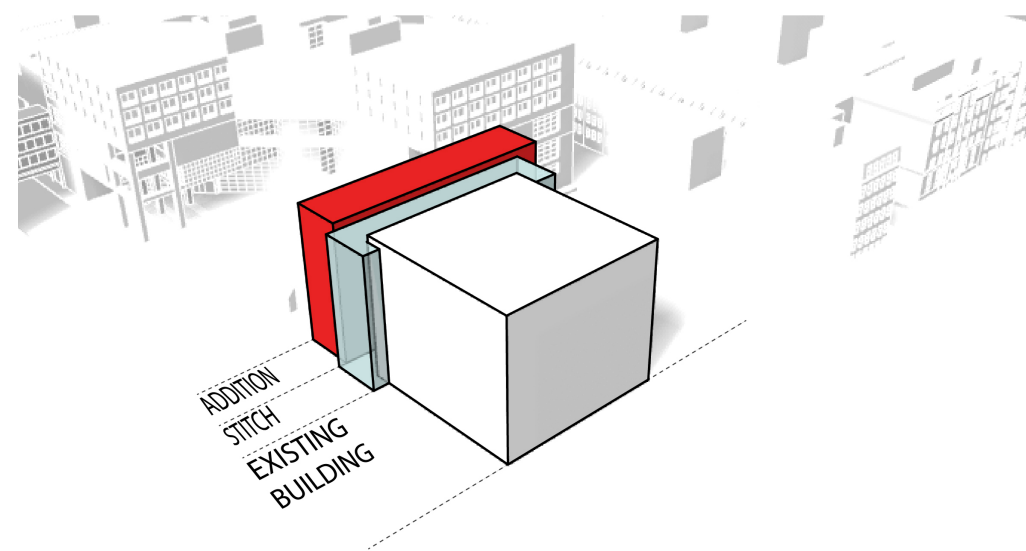
2
Clinic, Faculty Offices
Cool colors that identify post doc clinic and provide for calming patient experience

1
Entry, Admissions, Academics, Finance, Student Engagement, Clinic Reception
School colors provide branding and generate excitement

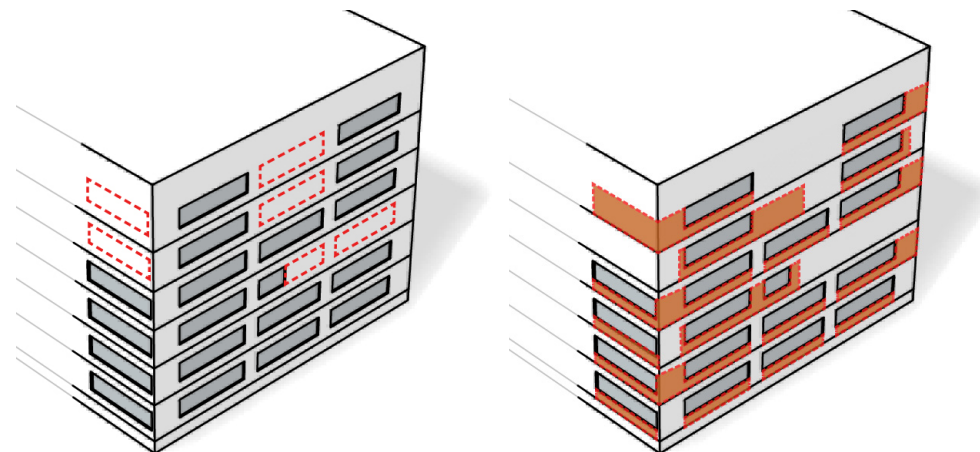
B
Central Sterilization and Utility / MEP
Neutral palette emphasizes cleanliness

2.0 DESIGN APPROACH

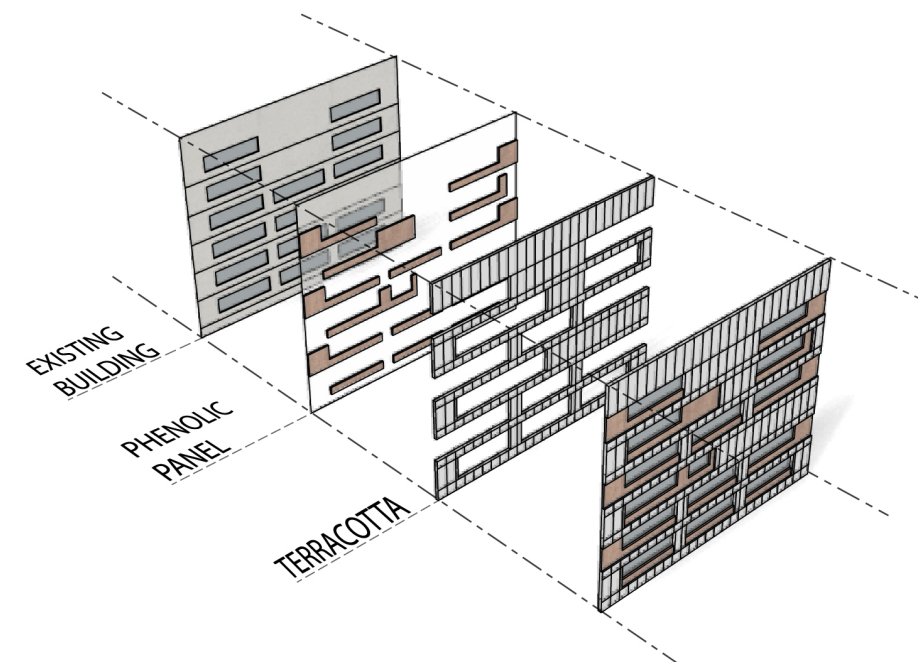
MASSING



FENESTRATION



DETAIL



FORM

Developing a cohesive whole from disparate pieces including the original, three-story cast-in-place concrete building, the four-story vertical precast concrete panel addition and the 49,000 square foot addition, the design proposes a composition of new and existing interlocking rectilinear forms stitched together programmatically and formally by a zone of core and collaborative spaces. That zone expresses itself prominently as glass projections displaying public gathering spaces and student / faculty collaboration spaces alive with activity visible from the exterior. In similar fashion, areas of existing exterior wall have been strategically selected and removed, connecting and activating interior with exterior, increasing daylight, and improving intuitive wayfinding.

Extruding up from grade, a new porch rises to meet the existing first floor at four feet above the public way. This urban expression weaves granite hardscape with pockets of vegetation both activating and softening the urban realm at the same time. The resultant spaces provide visual interest as well as formal and informal seating and gathering areas.

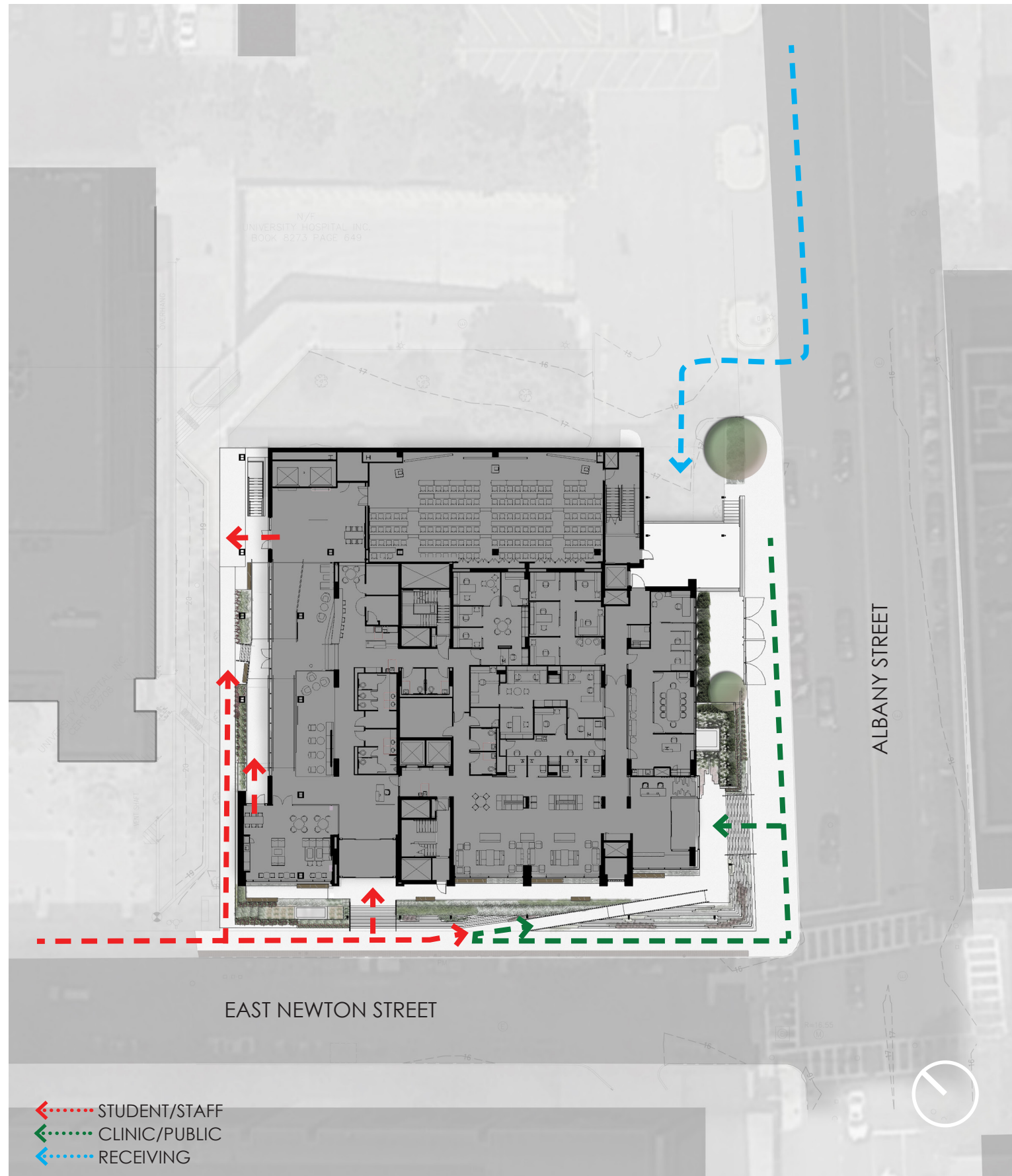
MATERIAL + PATTERN

With consideration of context and with respect for history, proposed materials, such as terracotta and brick, are common throughout and around Boston. Proposed material colors are reminiscent of the original building's concrete. Beginning at the entries, softer materials including warmer granite, wood tone phenolic panel and groundfaced masonry tie the interior with the exterior and temper the overall building countenance. Material variety also provides the opportunity to introduce depth and detail at multiple scales as materials and volumes intersect and interact. Phenolic panels and fenestration work together establishing a shifting but organized pattern across the skin.

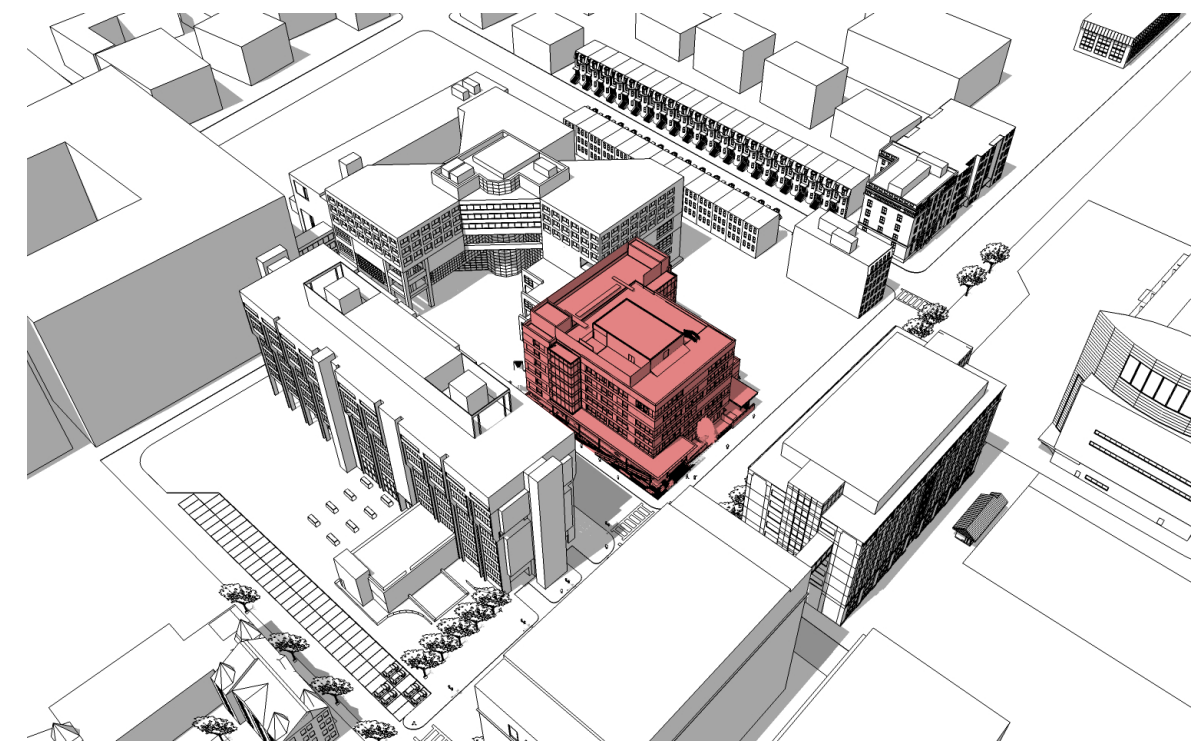
DETAIL

The envelope takes on a sort of 'shirt and jacket' relationship where layers are revealed through the incision of metal trim. That metal trim, along with the figurative carving of the skin reveal offset wood panels and then reveal further offset glazing affording a depth to the facade that is absent in the existing building. Material selection along with depth provide a canvas that will vary throughout the day as the sun travels around the building.

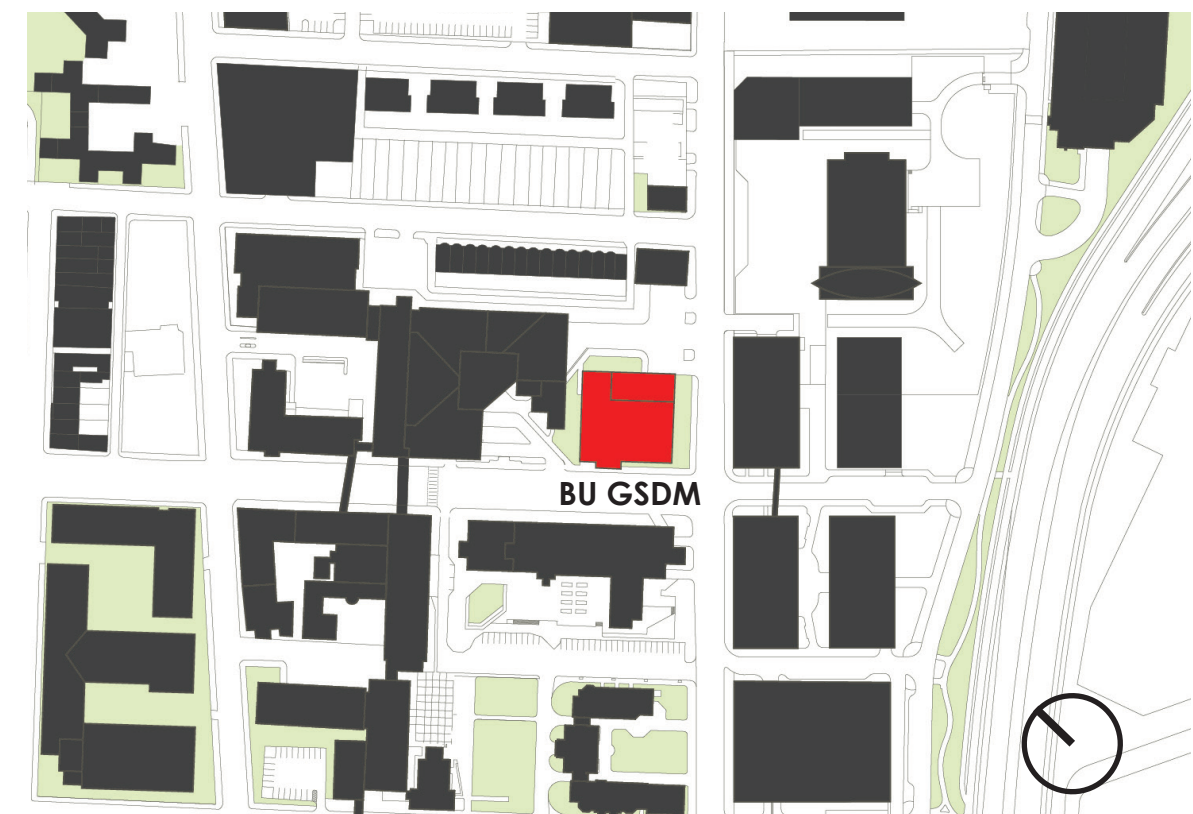
3.0 SITE DESIGN



SITE CIRCULATION

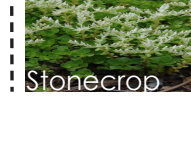
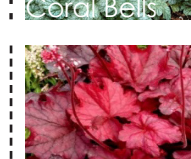
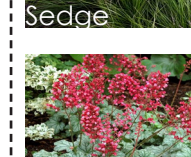
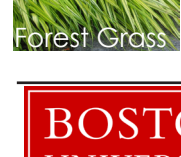
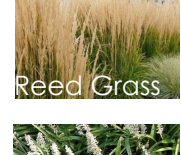
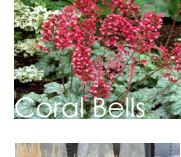
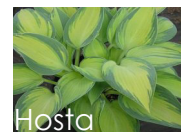


AERIAL VIEW



SITE CONTEXT PLAN

Site and Landscape Plan



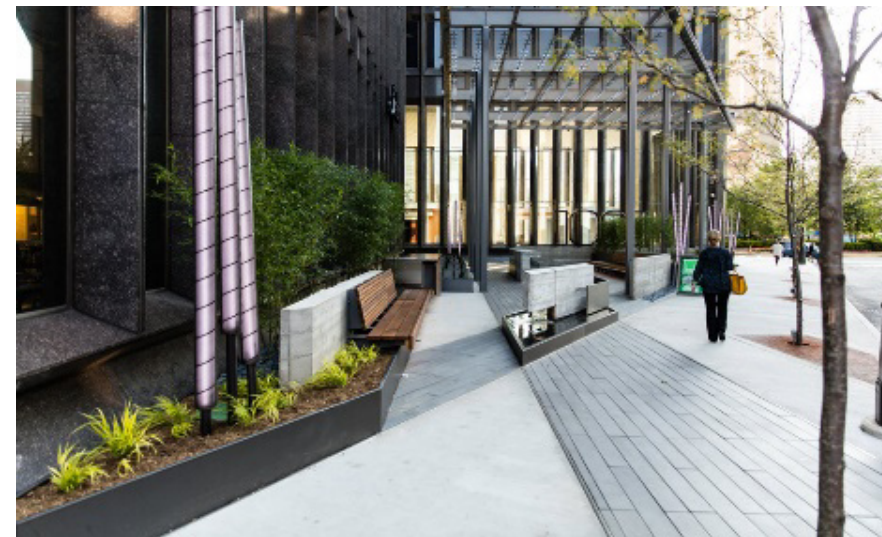
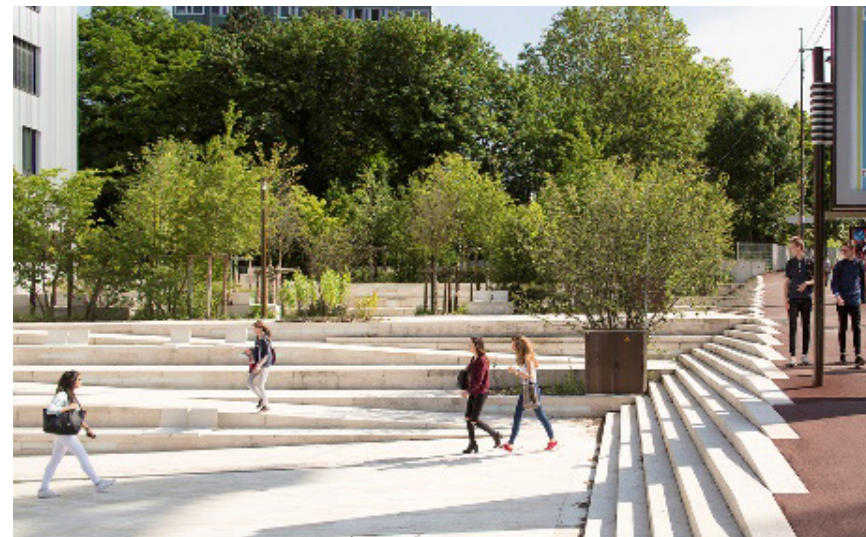
SCALE



View of Public Entry



MATERIAL EXAMPLES



KEY PLAN

View of Student/Staff/Faculty Entry



MATERIAL EXAMPLES



KEY PLAN

View of West Court



MATERIAL EXAMPLES



KEY PLAN

4.0 BUILDING DESIGN

Level 1



DEPARTMENTAL LEGEND

- STUDENT SPACE
- CLASSROOM
- OFFICE
- LOBBY
- VERTICAL CIRCULATION
- WAITING
- BUILDING SUPPORT




SCALE





DEPARTMENTAL LEGEND

-  COLLABORATION
-  OFFICE
-  LOBBY
-  VERTICAL CIRCULATION
-  CLINIC
-  CLINIC SUPPORT
-  BUILDING SUPPORT



SCALE





DEPARTMENTAL LEGEND

- COLLABORATION
- OFFICE
- LOBBY
- VERTICAL CIRCULATION
- SIMULATION LEARNING CENTER
- BUILDING SUPPORT



SCALE



Level 5
(Levels 4 + 6 similar)



DEPARTMENTAL LEGEND

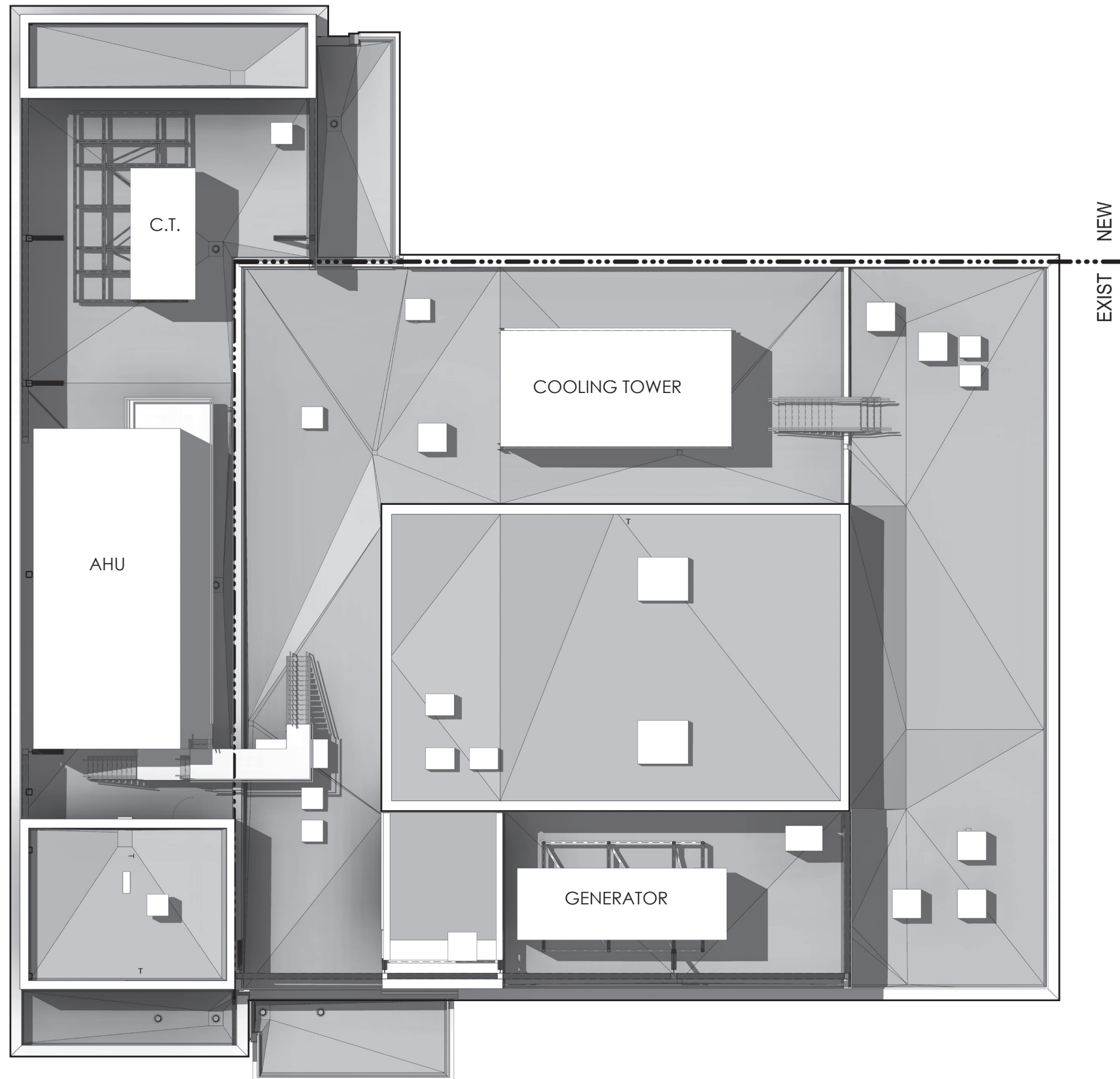
- COLLABORATION
- OFFICE
- LOBBY
- VERTICAL CIRCULATION
- CLINIC
- CLINIC SUPPORT
- BUILDING SUPPORT



SCALE

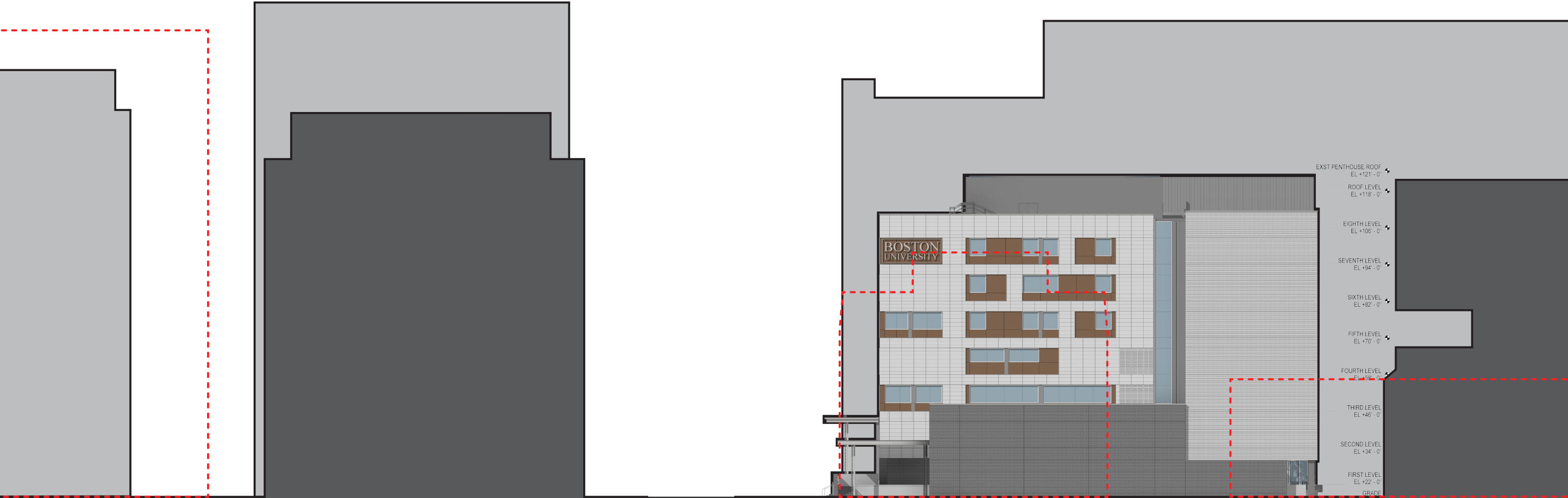


Roof Plan



SCALE





ALBANY STREET

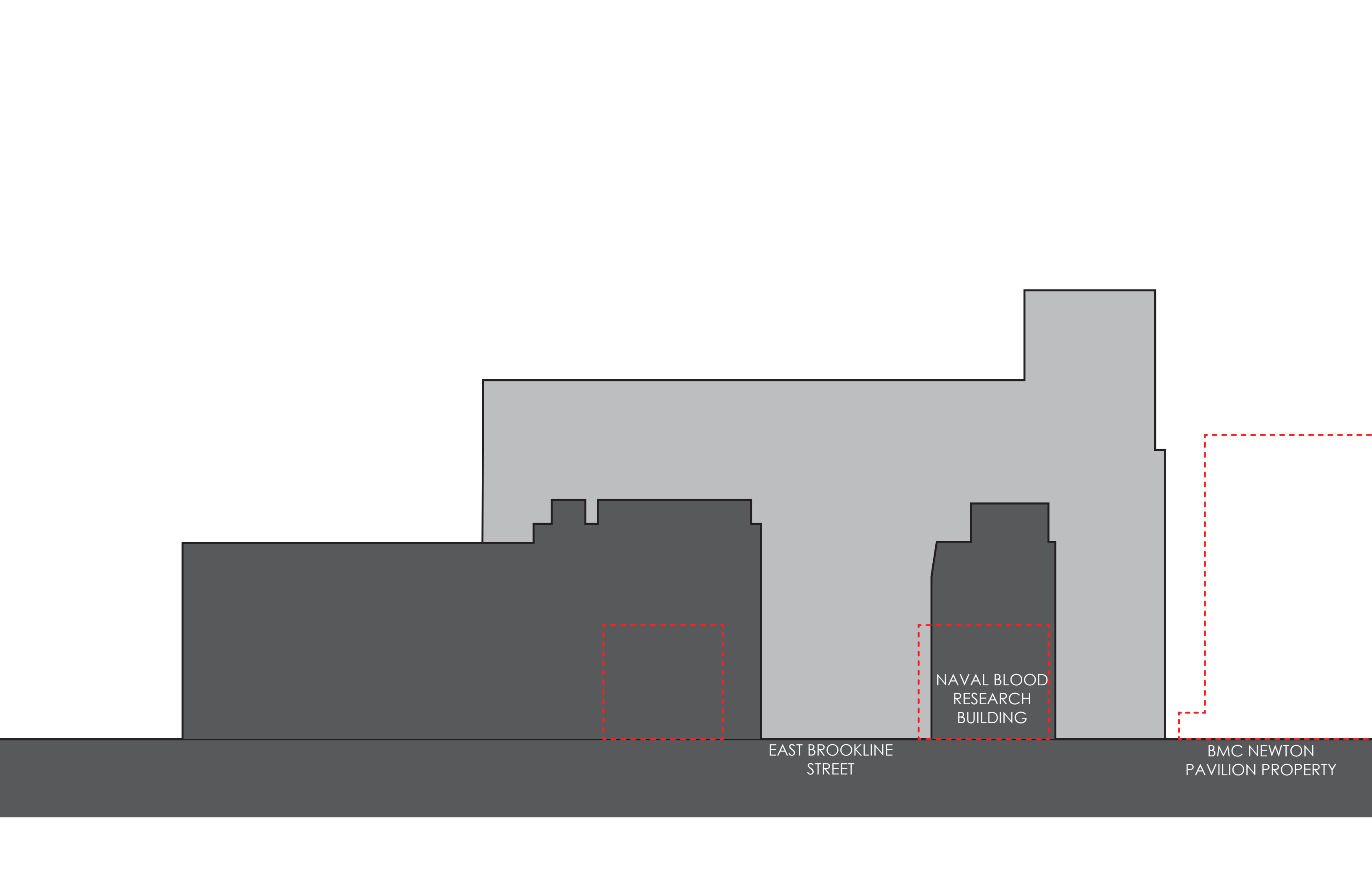
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- SECOND LEVEL
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- FIRST LEVEL
EL +22'-0"
- GRADE

BOSTON
UNIVERSITY



BMC NEWTON PAVILION PROPERTY

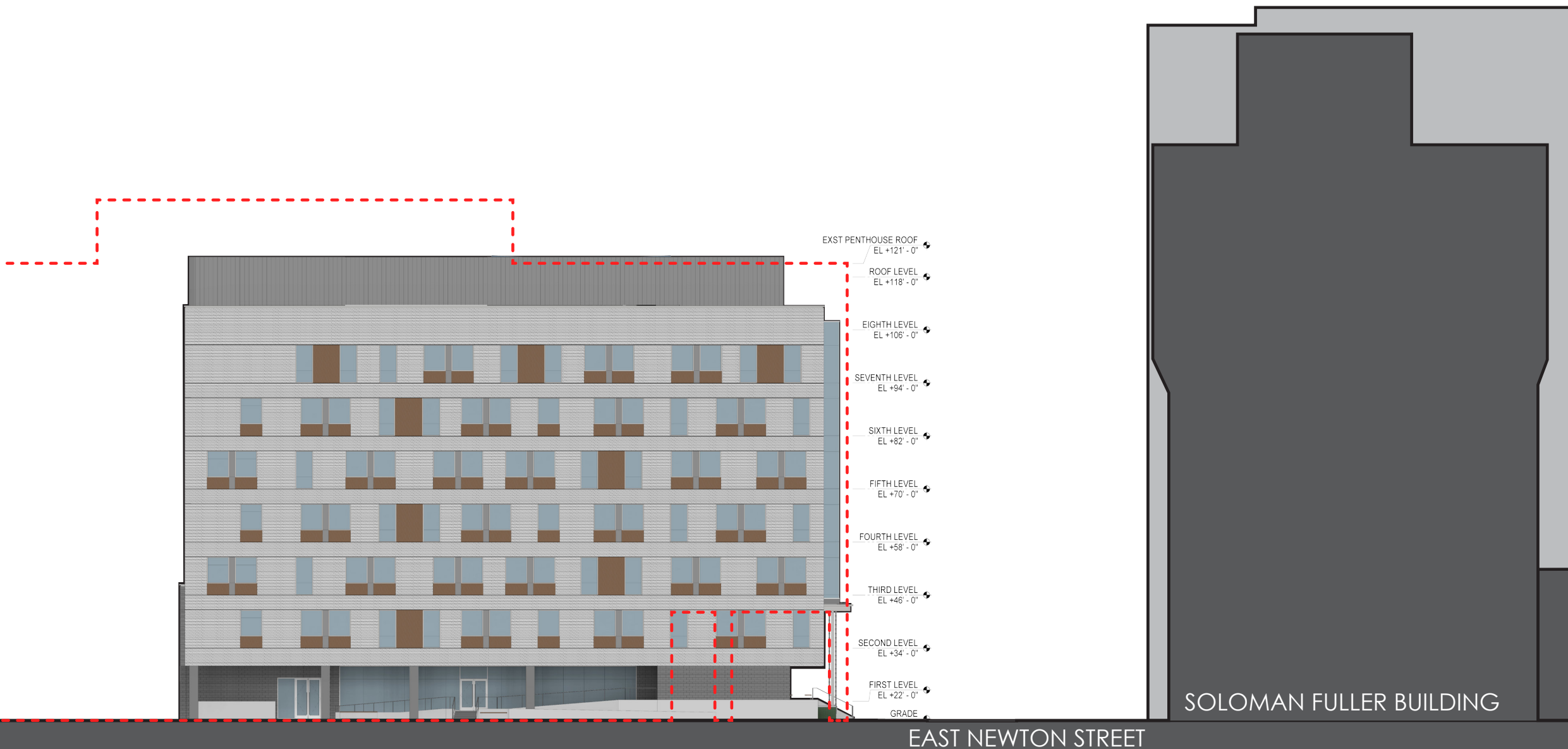
NORTH ELEVATION



EAST BROOKLINE
STREET

NAVAL BLOOD
RESEARCH
BUILDING

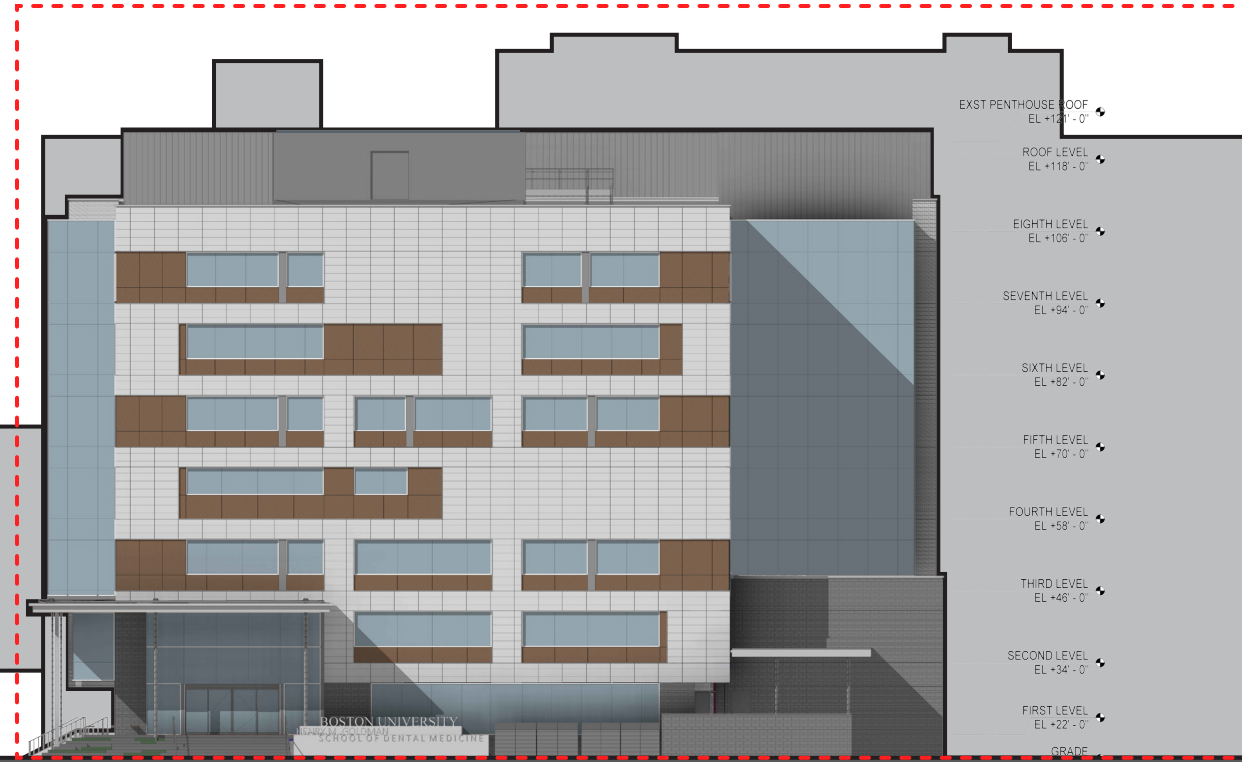
BMC NEWTON
PAVILION PROPERTY



WEST ELEVATION

SOLOMAN FULLER BUILDING

EAST NEWTON STREET



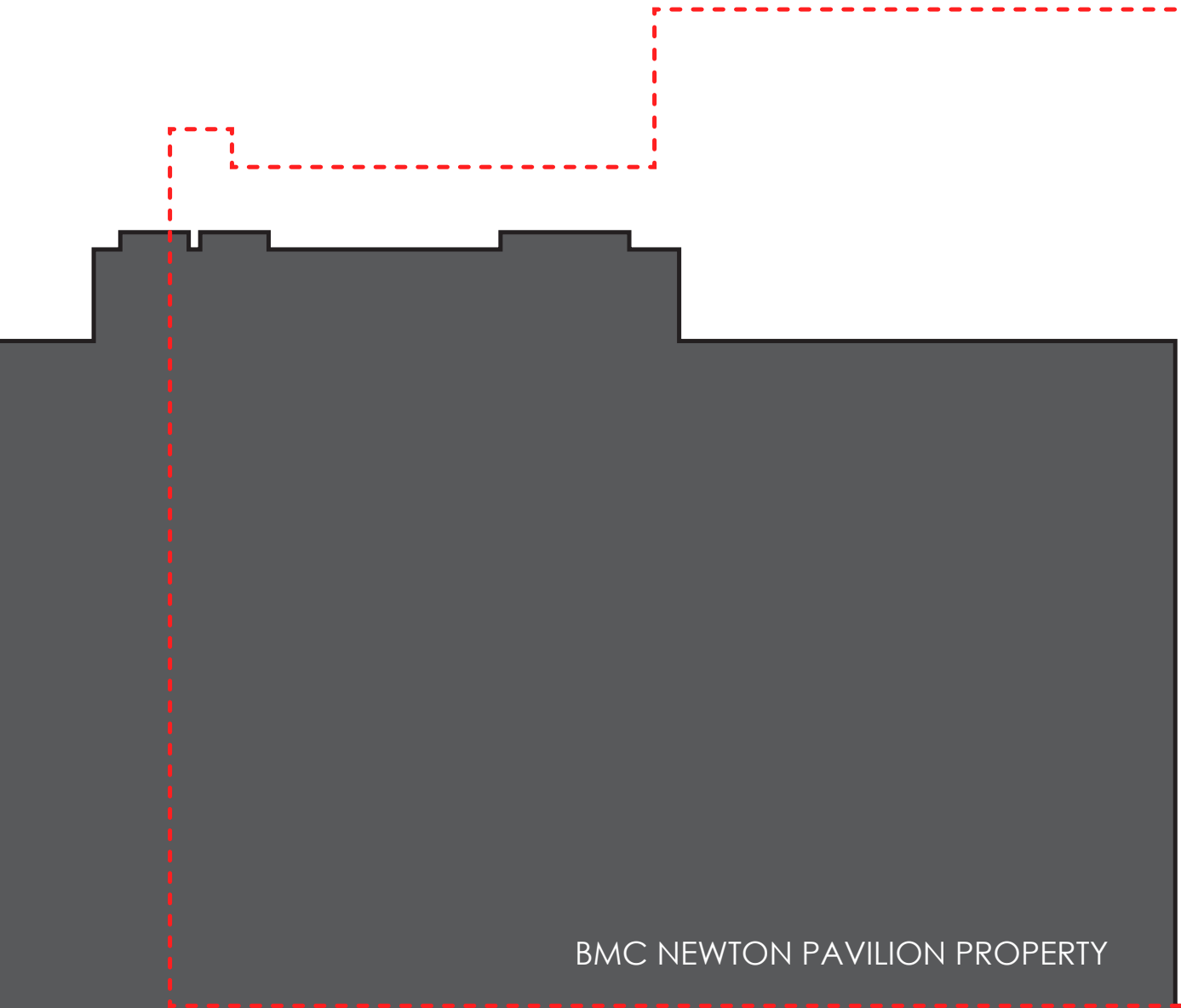
BOSTON UNIVERSITY
SCHOOL OF DENTAL MEDICINE



BMC NEWTON
PAVILION PROPERTY

NAVAL BLOOD
RESEARCH
BUILDING

EAST ELEVATION



BMC NEWTON PAVILION PROPERTY



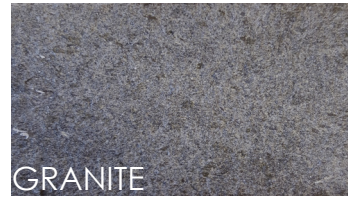
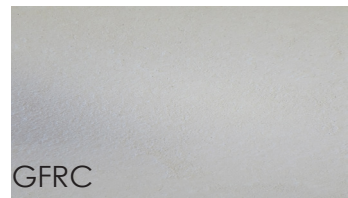
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EL +34' - 0"
- FIRST LEVEL
EL +22' - 0"
- GRADE
EL +18' - 0"

ALBANY STREET



SOUTH ELEVATION

View Looking West from Albany Street



View Looking East from East Newton Street



SUSTAINABILITY GOAL : LEED SILVER



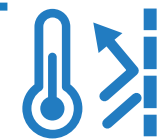
FREE COOLING AT AHU
REDUCED TEMP HEATING
HOT WATER



DOAS. WITH SENSIBLE
REHEAT AND RECIRCULATING
SYSTEM IN PLACE
OF ONCE THRU AIR



DEMAND CONTROL
VENTILATION IN HIGH
OCCUPANCY AREAS



ROOF
EXISTING R-Value : 12
PROPOSED R-Value : 35

WALL
OVERCLADDING
EXISTING R-Value : 1.00
PROPOSED R-Value : 21.22

ADDITION
PROPOSED : 20.66

GLAZING
EXISTING U-Value : 1.25
SHGC : 0.70

PROPOSED U-Value : 0.34
SHGC : 0.21



RAIN WATER CAPTURE /
IRRIGATION @ CANOPY



DROUGHT TOLERANT
NATIVE PLANTS
DRIP IRRIGATION

View Looking North from Albany Street

