KPMB ARCHITECTS

Boston Planning and Development Agency

PUBLIC MEETING

Boston University Data Sciences Center | 665 Commonwealth Ave

June 04, 2019

Agenda

Data Sciences Center Project

Introduction

- Tim Czerwienski, AICP BPDA Project Manager
- Paul Rinaldi, Boston University

Building

- Luigi LaRocca, KPMB Architects

Landscape

- Skip Burck, Richard Burck Associates

Sustainability

- Jacob Knowles, BR+A
- Matt Smith, The Green Engineer

Transportation

- Jay Doyle, AECOM

Warren Towers Digital Signage

- Paul Rinaldi, Boston University

Lead Consultants

Data Sciences Center Project

KPMB Architects	Architect
Fort Point Associates	Planning and Permitting
Richard Burck Associates	Landscape Architect
Bard, Rao + Athanas Consulting Engineering	MEP Engineers
AECOM	Transportation
Transsolar KlimaEngineering	Sustainability Engineers
Haley & Aldrich	Geotechnical & Geothermal
Nitsch Engineering	Civil Engineer
Suffolk Construction	Pre-Construction Services
The Green Engineer	LEED Consulting

2013 -2023 IMP Projects

Campus Development

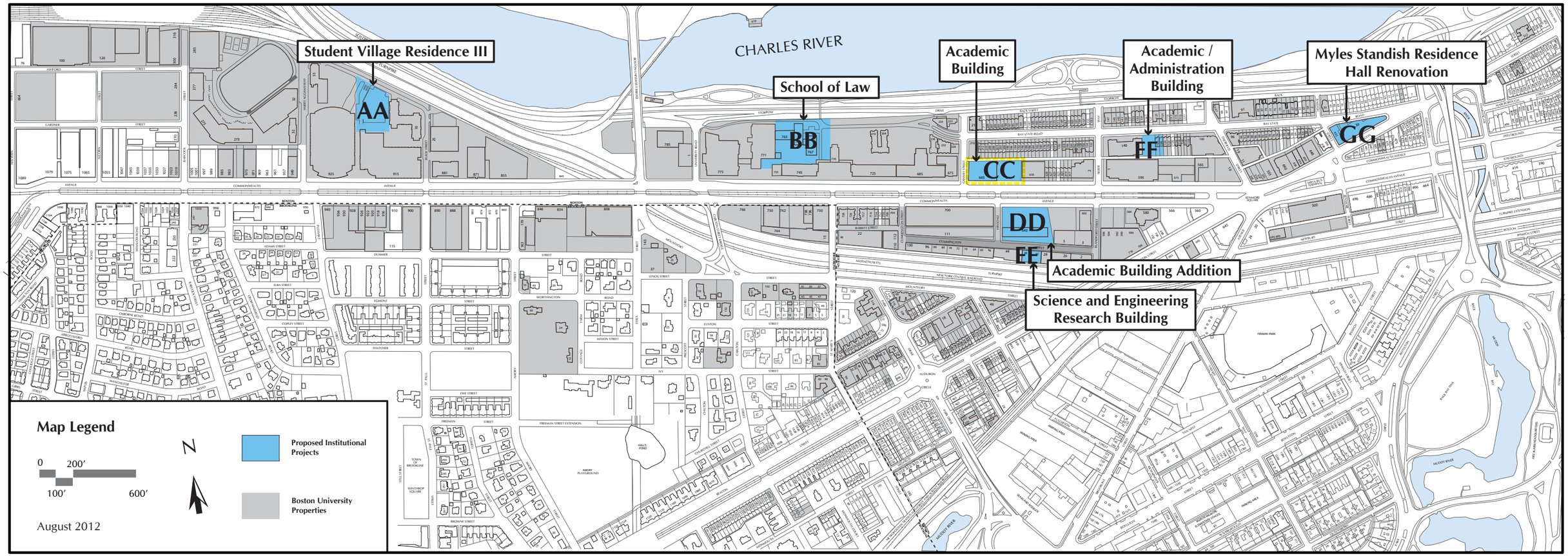


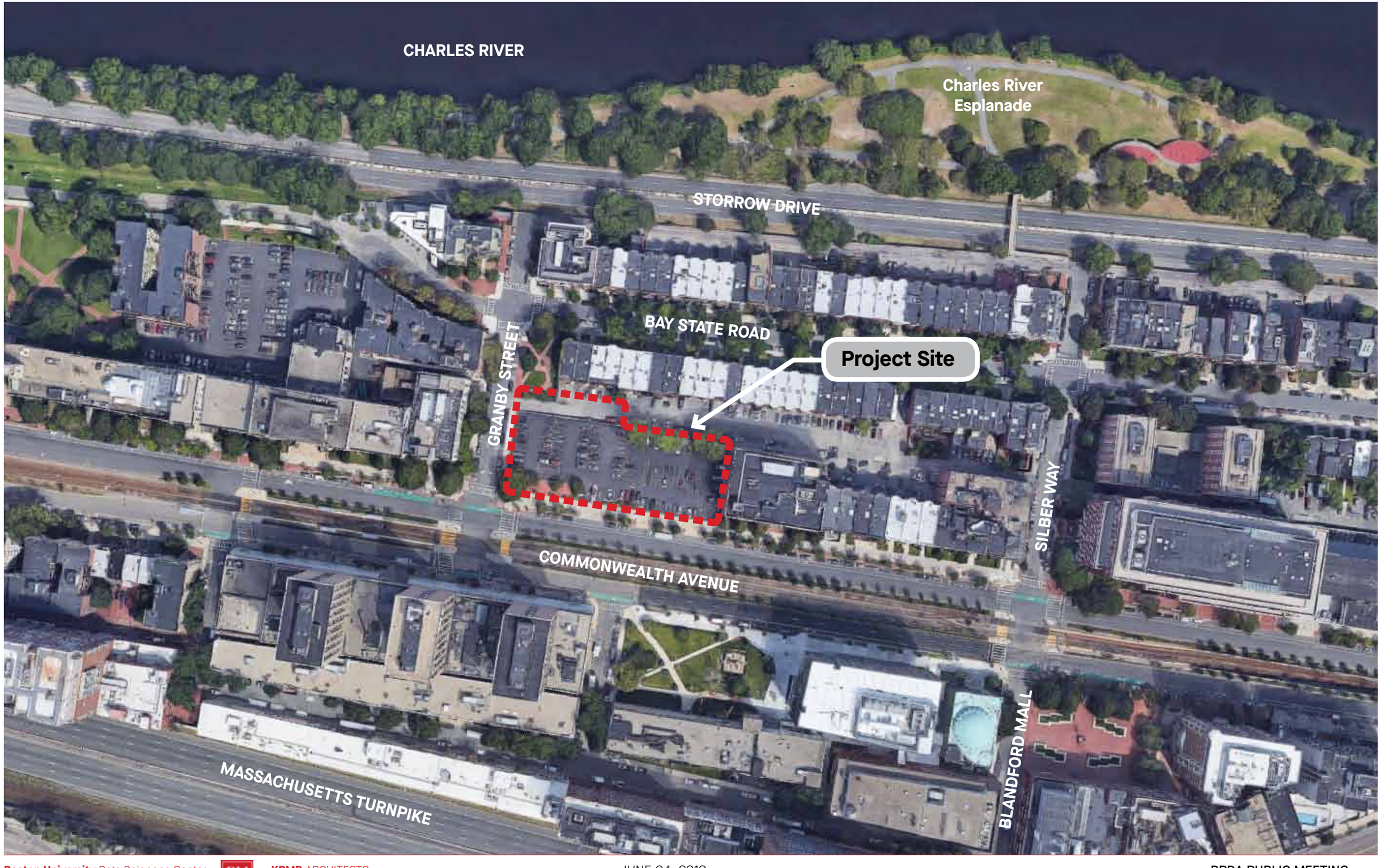
Figure 5-1, Proposed Institutional Projects

2012–2022 Institutional Master Plan
Boston University Charles River Campus

5-25

2013 -2023 Boston University Charles River Campus Institutional Master Plan Fifth Amendment -Site CC

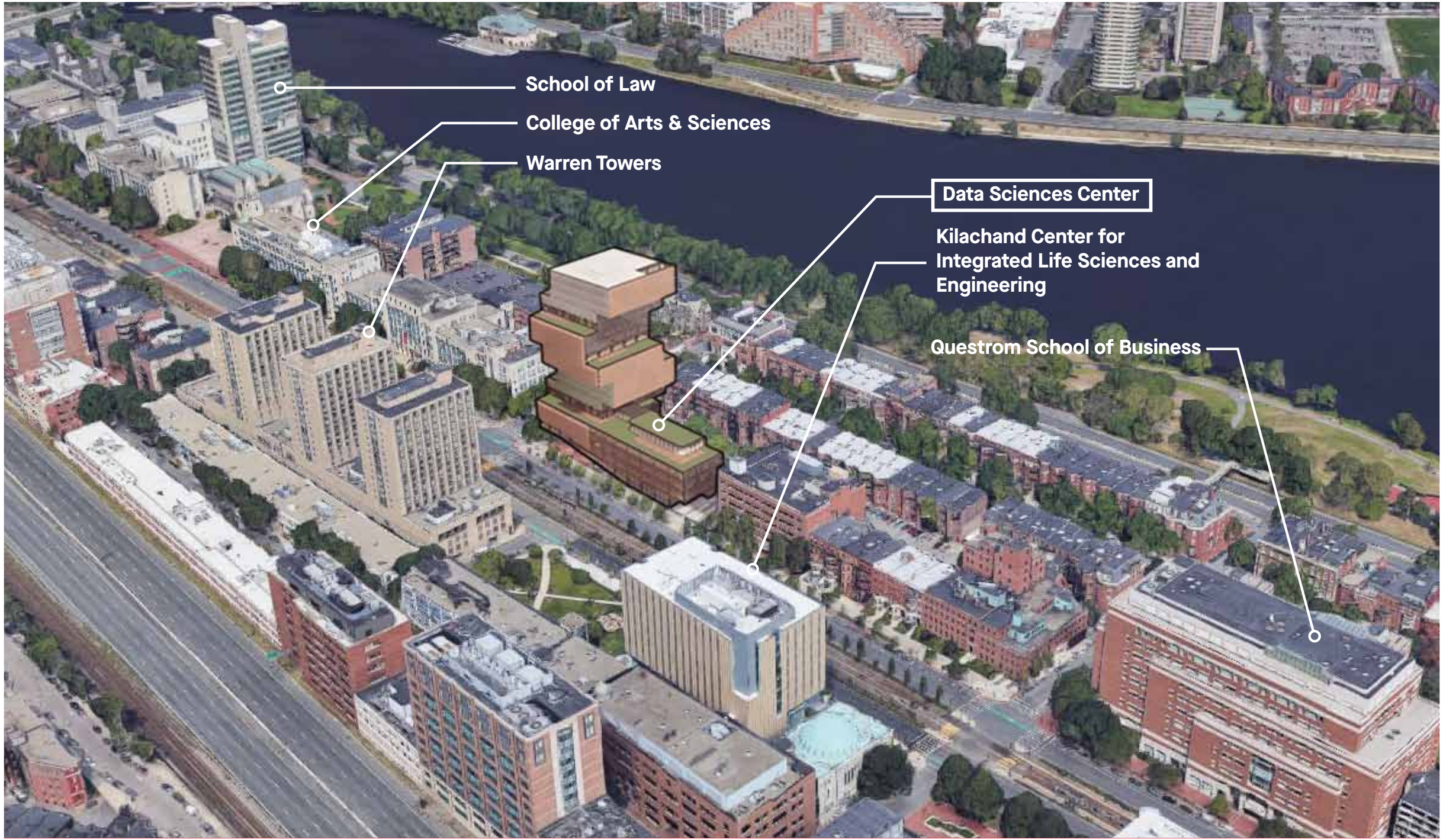
Program Element	2013 - 2023 IMP Projects	Proposed Changes
Location	645/665 Commonwealth Ave.	
Lot Area	42,000 square feet	47,700 square feet
Proposed Use	Institutional Use- academic, instruction research office, ancillary, parking (300 cars)	no on-site parking
Maximum Stories/Height	15 stories, 225 feet	19 stories, 305 feet
Proposed Max. Building Area	350,000 square feet	
Proposed FAR	8.4	
Current Zoning	(H-4 Underlying Zoning) IMP Area	


CHARLES RIVER
Charles River
Esplanade
STORROW DRIVE
BAY STATE ROAD
GRANBY STREET
Project Site
COMMONWEALTH AVENUE
SILBER WAY
BLANDFORD MALL
MASSACHUSETTS TURNPIKE

Project Goals

- Develop a hub for the core fields associated with the interdisciplinary study of data sciences;
- Develop instructional spaces that support contemporary approaches to teaching and learning;
- Through the use of innovative design and technologies, construct one of the most sustainable buildings in the area;
- Enhance the urban fabric of Commonwealth Avenue by replacing a surface parking lot with a project that engages with the public realm on its first floor and adjacent spaces; and
- Create a creative and exciting addition to the skyline of Boston.

Project Context

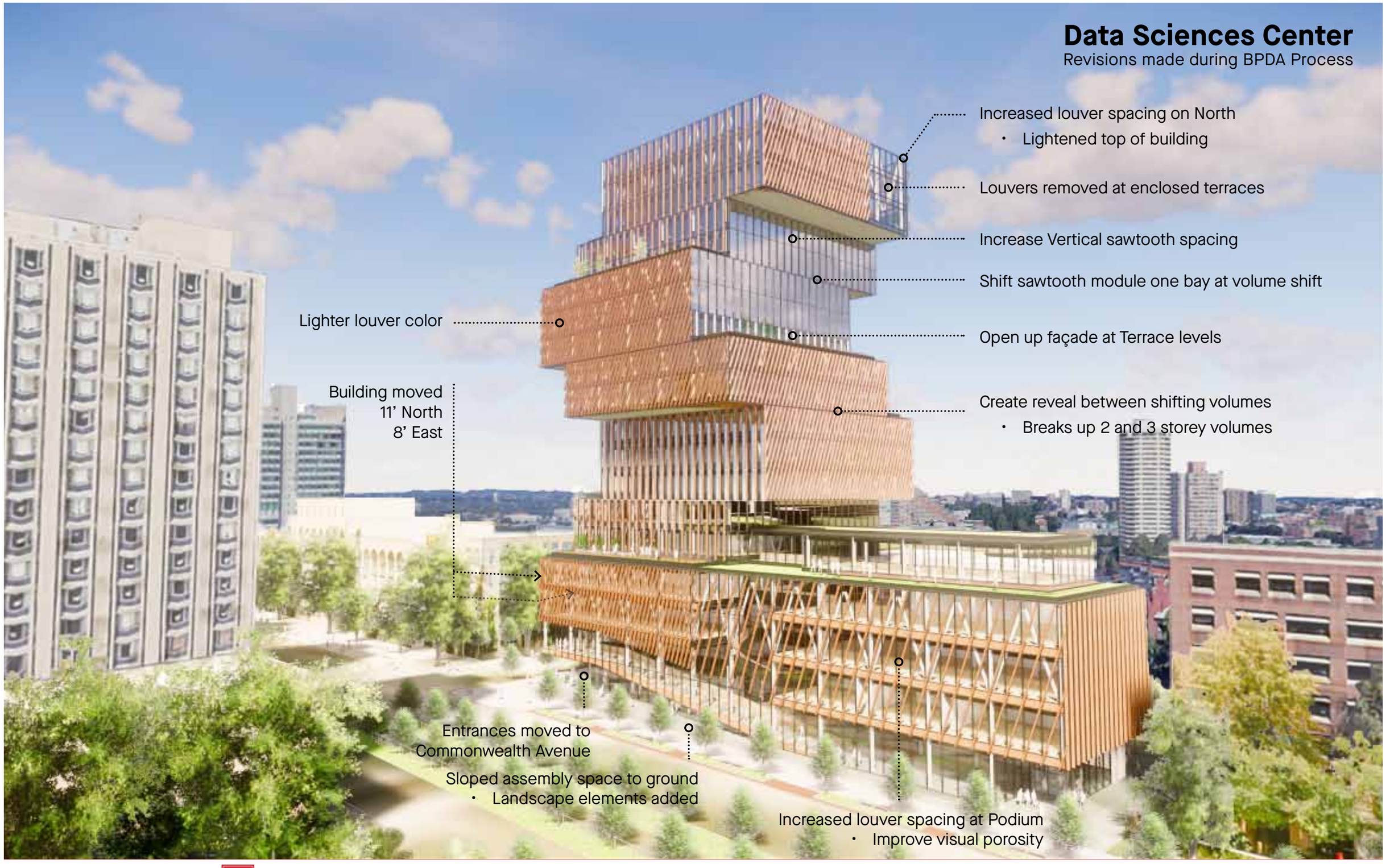


Data Sciences Center

Original Envelope Design

Data Sciences Center

Revisions made during BPDA Process



Data Sciences Center

Data Sciences Center
Commonwealth Avenue view west

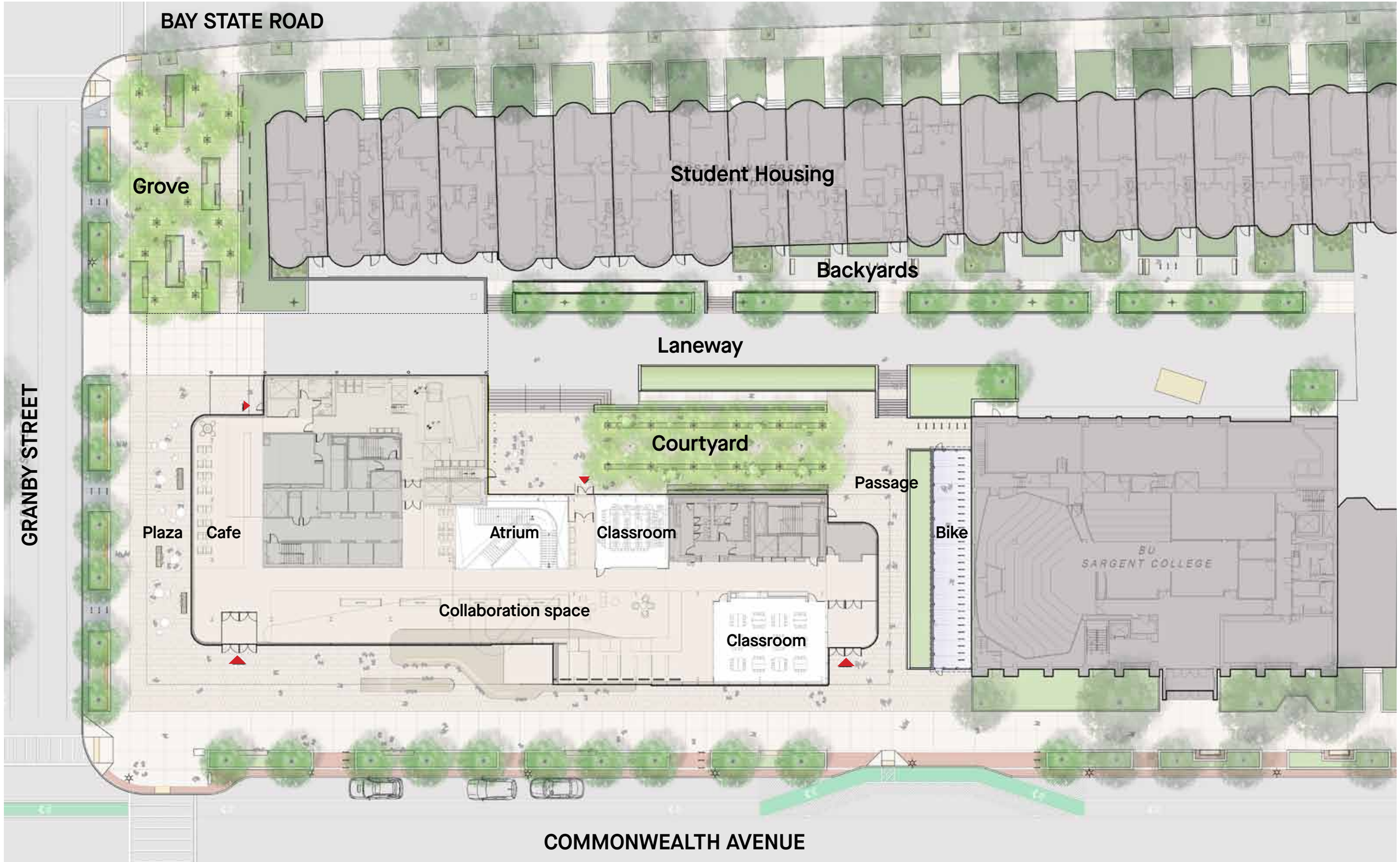
Data Sciences Center
Commonwealth Avenue view west

Data Sciences Center
Commonwealth Avenue Elevation

Data Sciences Center
Commonwealth Avenue view east

Data Sciences Center
Cambridge view

Public Realm Landscape


BAY STATE ROAD
Grove
Student Housing
Backyards
Laneway
GRANBY STREET
Courtyard
Passage
Plaza
Cafe
Atrium
Classroom
Bike
BU
SARGENT COLLEGE
Collaboration space
Classroom
COMMONWEALTH AVENUE

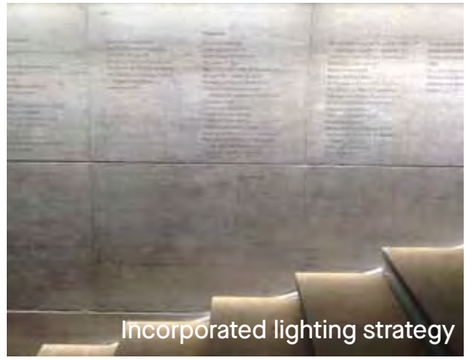

Chalkboard wall at east end of North Plaza creates an outdoor classroom

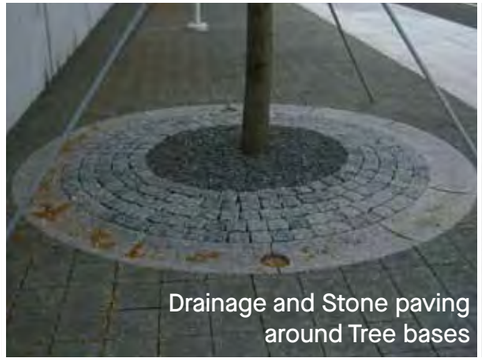

Runnel + Paving


Green top of walls

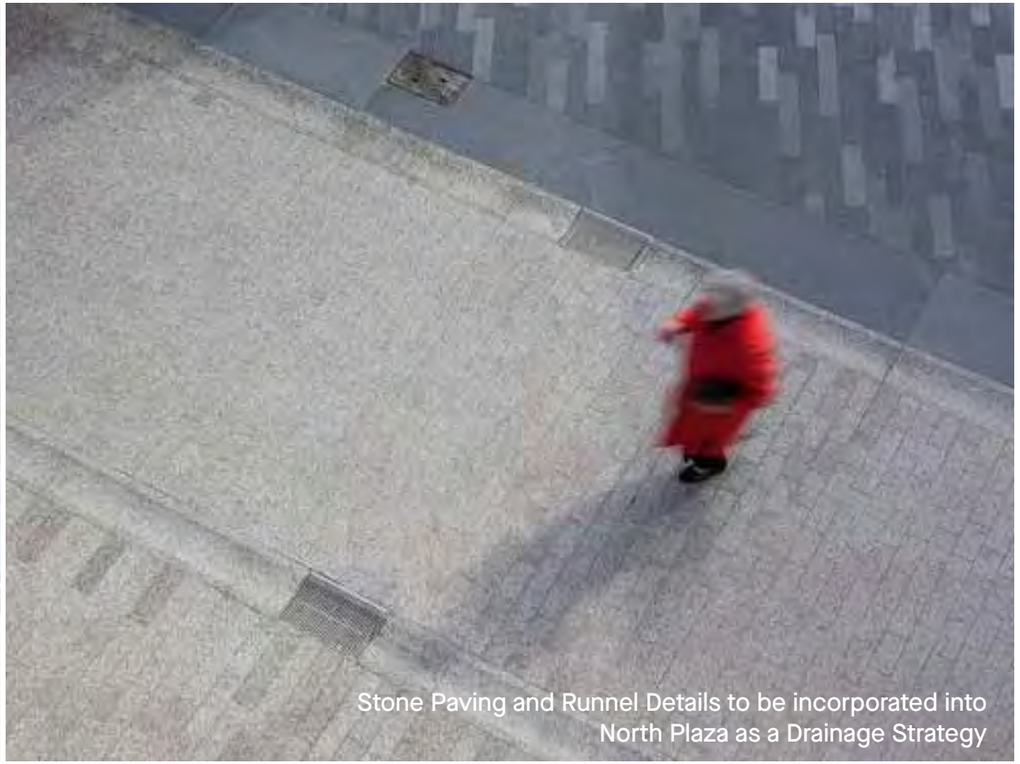

Use of Ivy walls to soften North Plaza

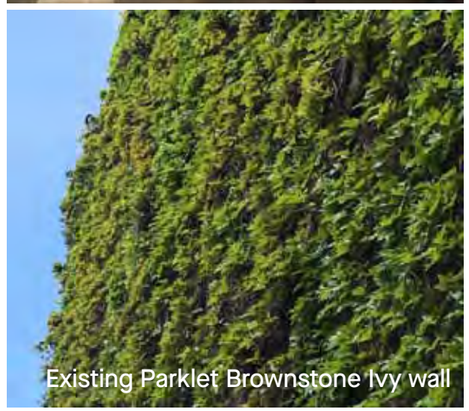

Stone walls become benches


Incorporated lighting strategy


Drainage and Stone paving around Tree bases

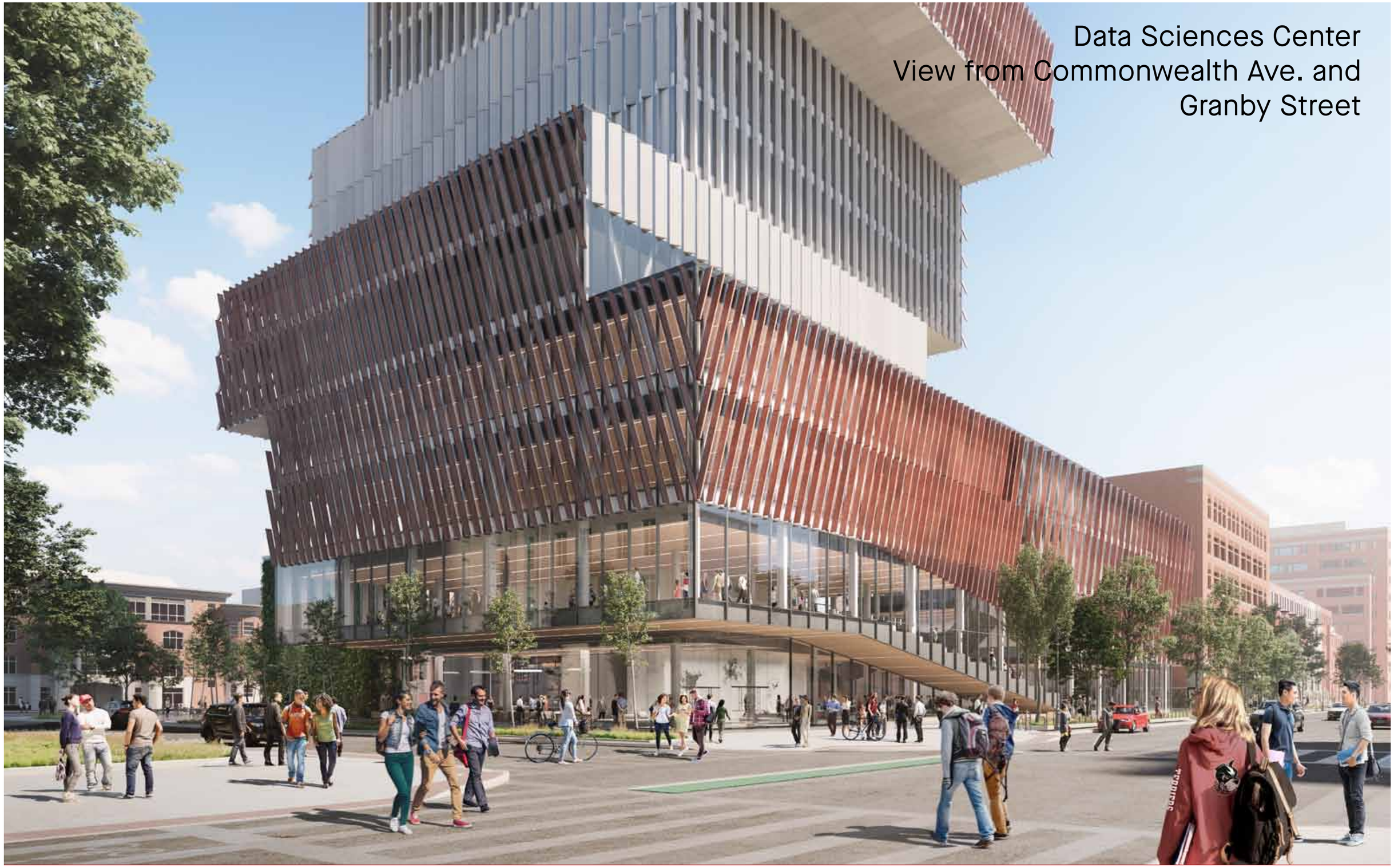

Drainage and Stone paving around Tree bases


Stone Paving and Runnel Details to be incorporated into North Plaza as a Drainage Strategy


Existing Parklet Brownstone Ivy wall

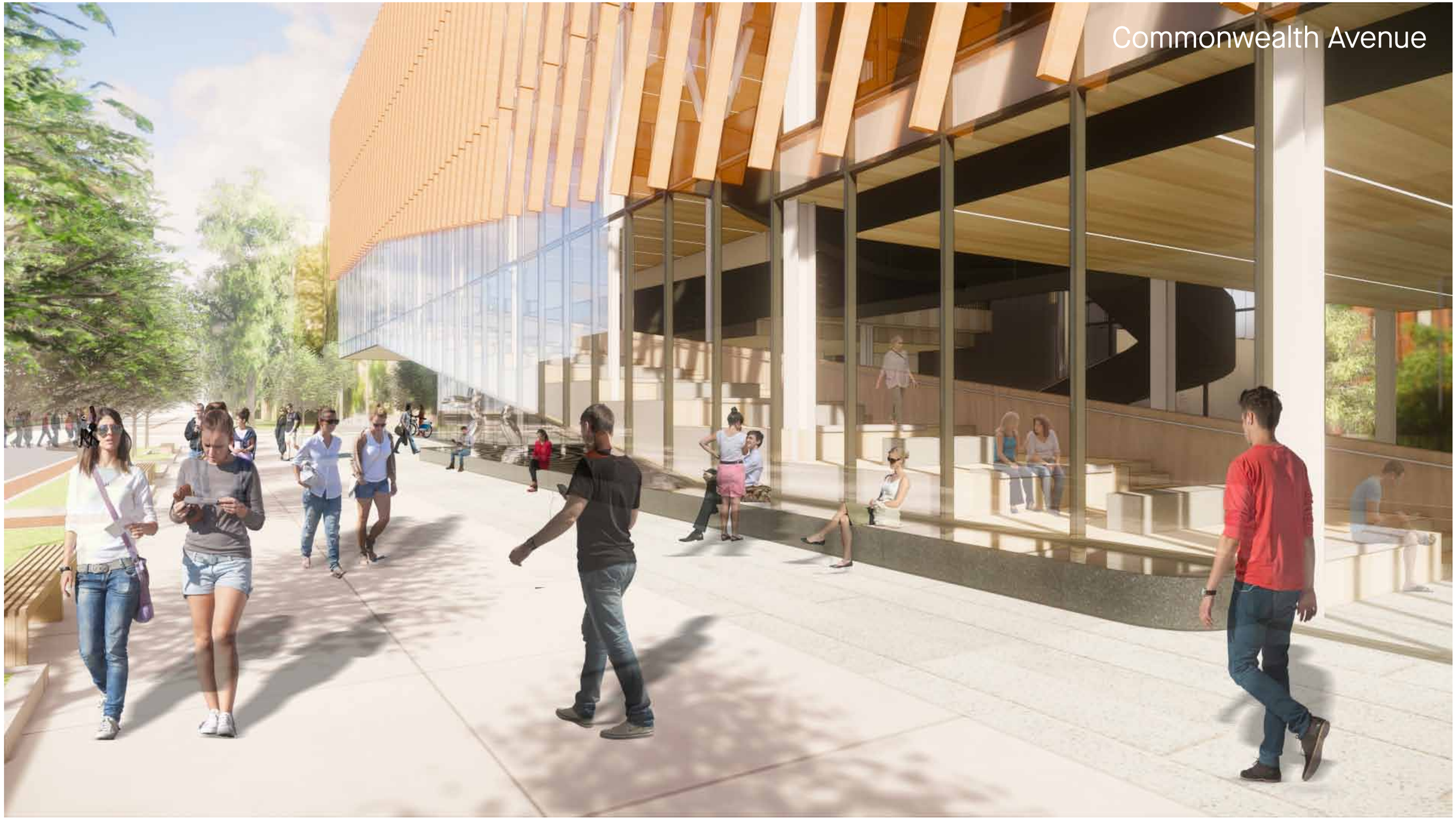

Stone Paving and Benches to be incorporated thorough Ground, Plaza & Parkette

Data Sciences Center
View from Commonwealth Ave. and
Granby Street



View at East Plaza along Commonwealth Avenue looking west to East entrance of Data Sciences Center

View North to laneway from Commonwealth Avenue



Commonwealth Avenue view looking West

Plaza

View looking north from corner of Granby Street and Commonwealth Avenue

View East from Laneway _ Existing

View East from Laneway

Laneway view looking southeast to courtyard and interior atrium

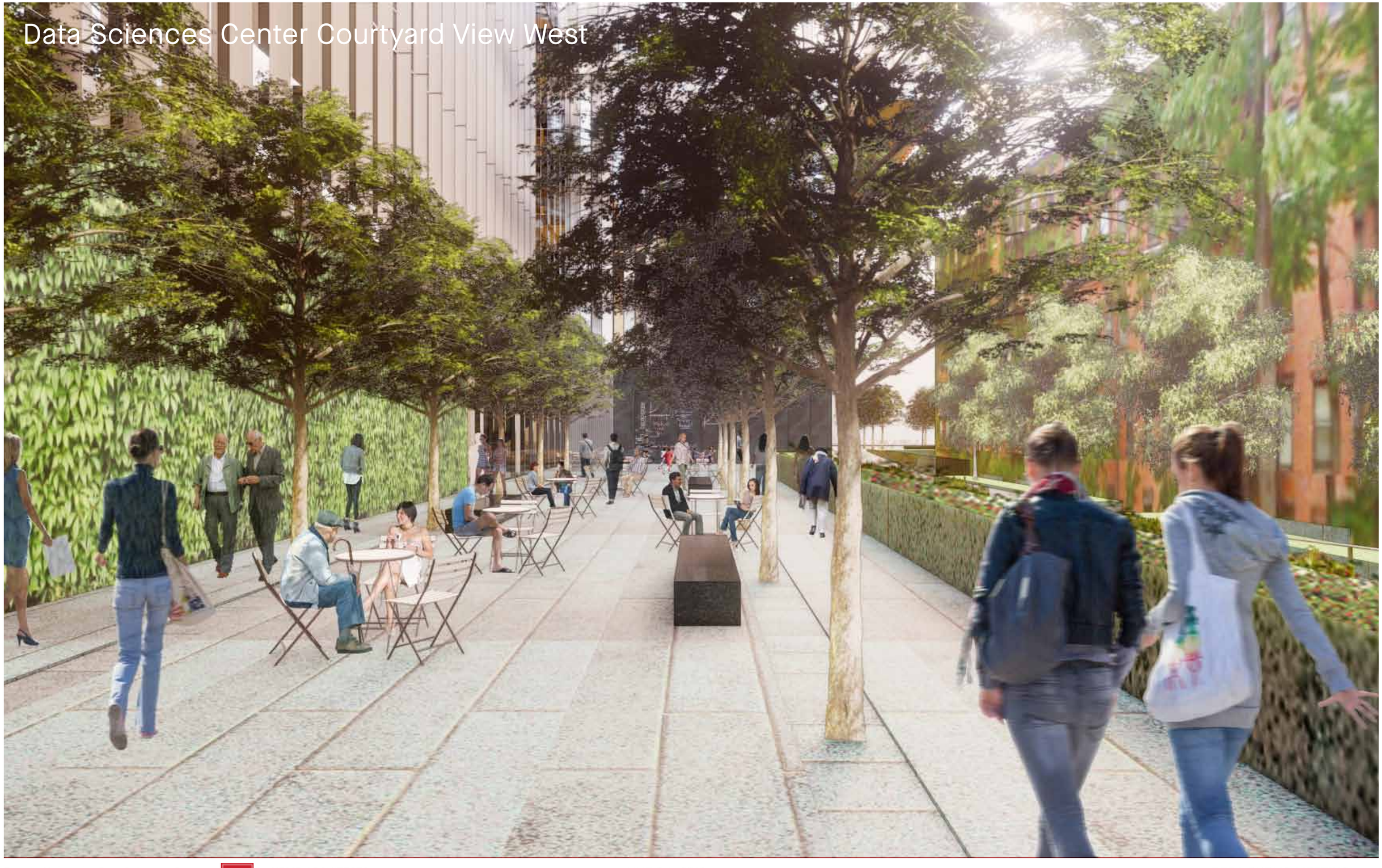
Courtyard View Looking South

View from Laneway looking south to courtyard and interior atrium

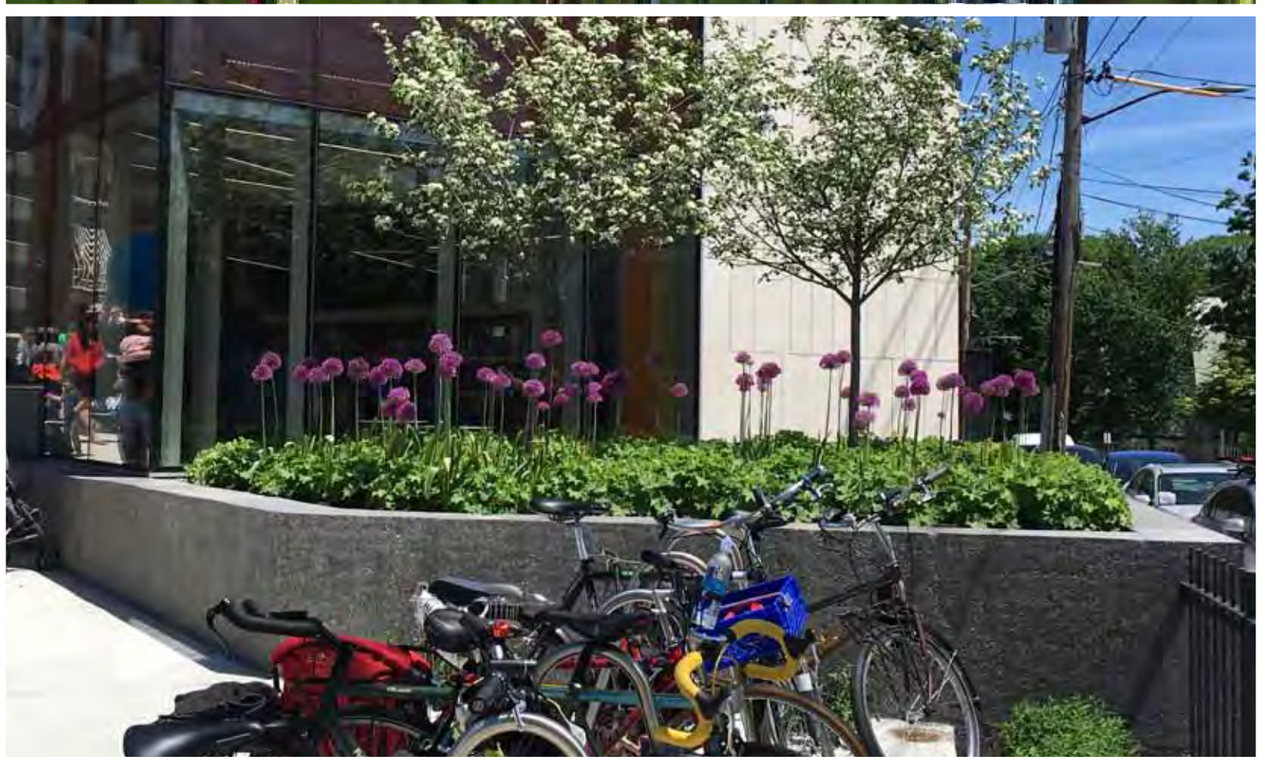
View West from Laneway - Existing

View West from Laneway

Data Sciences Center Courtyard View West



Open Space/Grove



Existing View of Open Space


View of Open Space/Grove

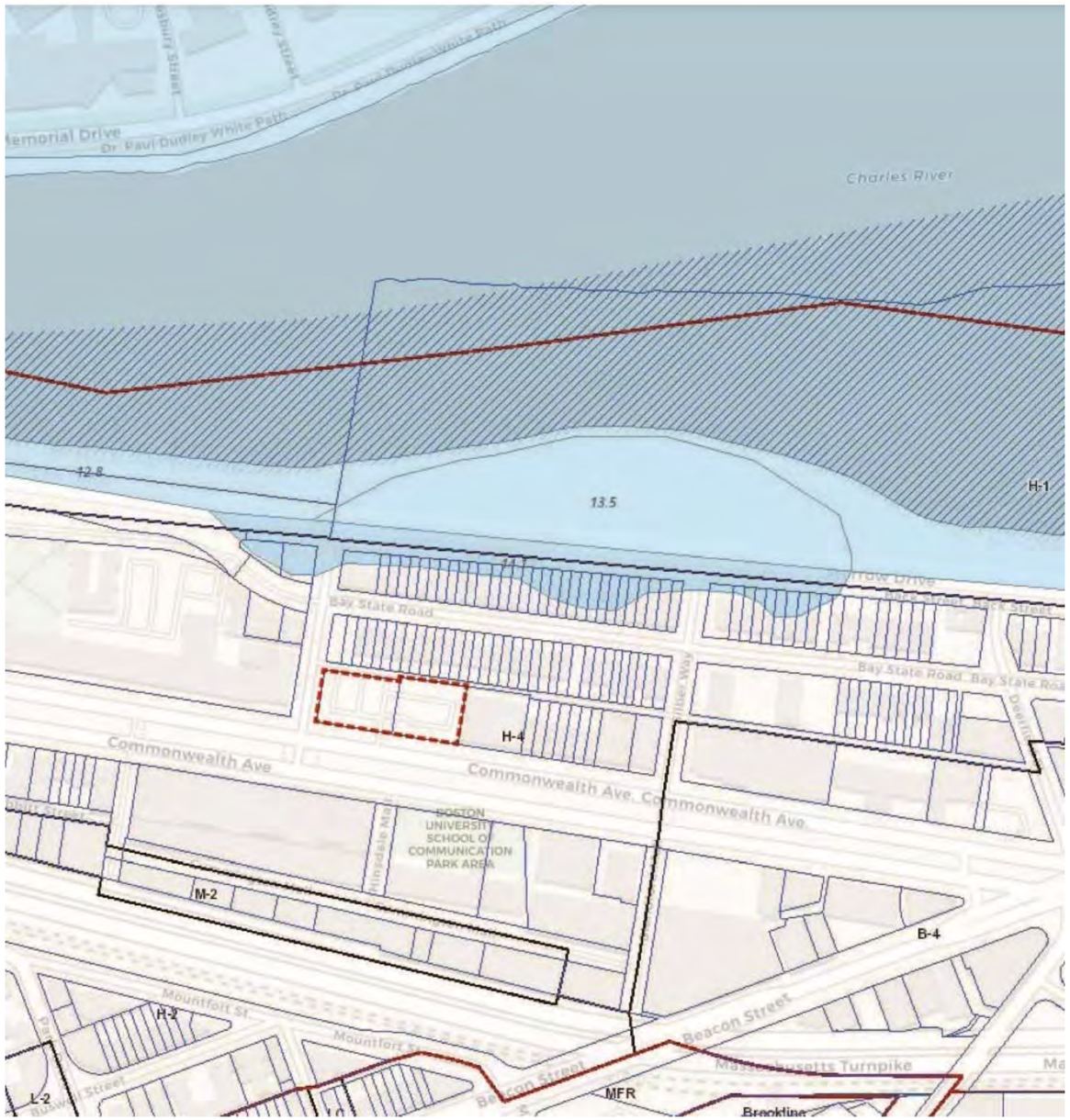
View of Open Space/Grove

Sustainability

Sustainability Measures

- Consistency with University's 2017 Climate Action Plan
- Meets Goals for Sea Level Rise with Ground Floor Elevation 21.25'
- Target LEED Platinum
- Renewable and Alternative Energy Sources
  - Energy Credits from S. Dakota Wind Farm (Power Purchase Agreement)
  - Geothermal wells
  - Campus PV initiative
- Triple Glazing with Minimal Perimeter Radiation
- Cutting Edge Building Shading Systems
- Groundwater Recharge Systems

Climate Resiliency – Boston Zoning Map



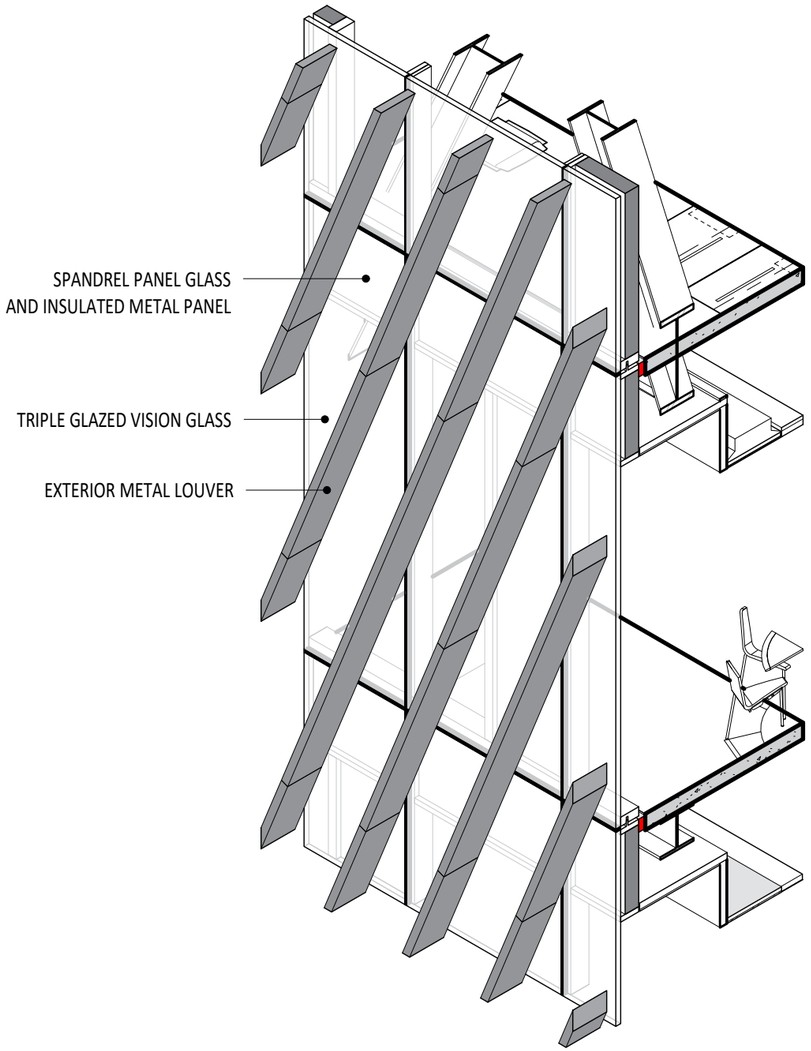
Data Sciences Center Ground Floor	21.25'
MIT Design Elevation	20.8'
BU Design Flood Elevation (TBC)	20.0'
BPDA Design Flood Elevation	16.1'
FEMA Base Flood Elevation	10.46'

*all elevations shown relative to Boston City Base

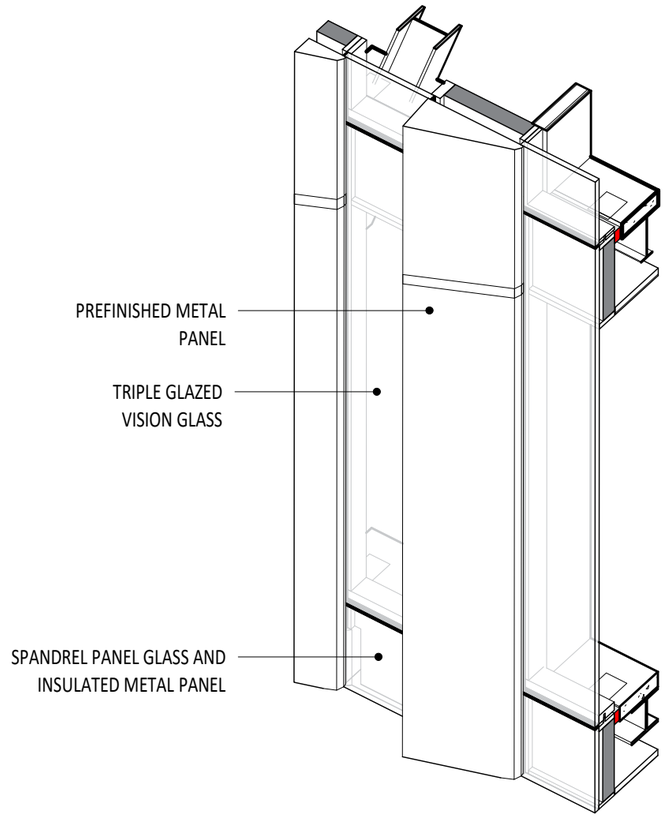
Data Sciences Center,
665 Commonwealth Avenue is not within a FEMA SFHA or a BPDA SLR-FHA

SFHA = Special Flood Hazard Area
SLR-FHA = Sea Level Rise Flood Hazard Area

Solar Shading
Diagonal Louvered Facade



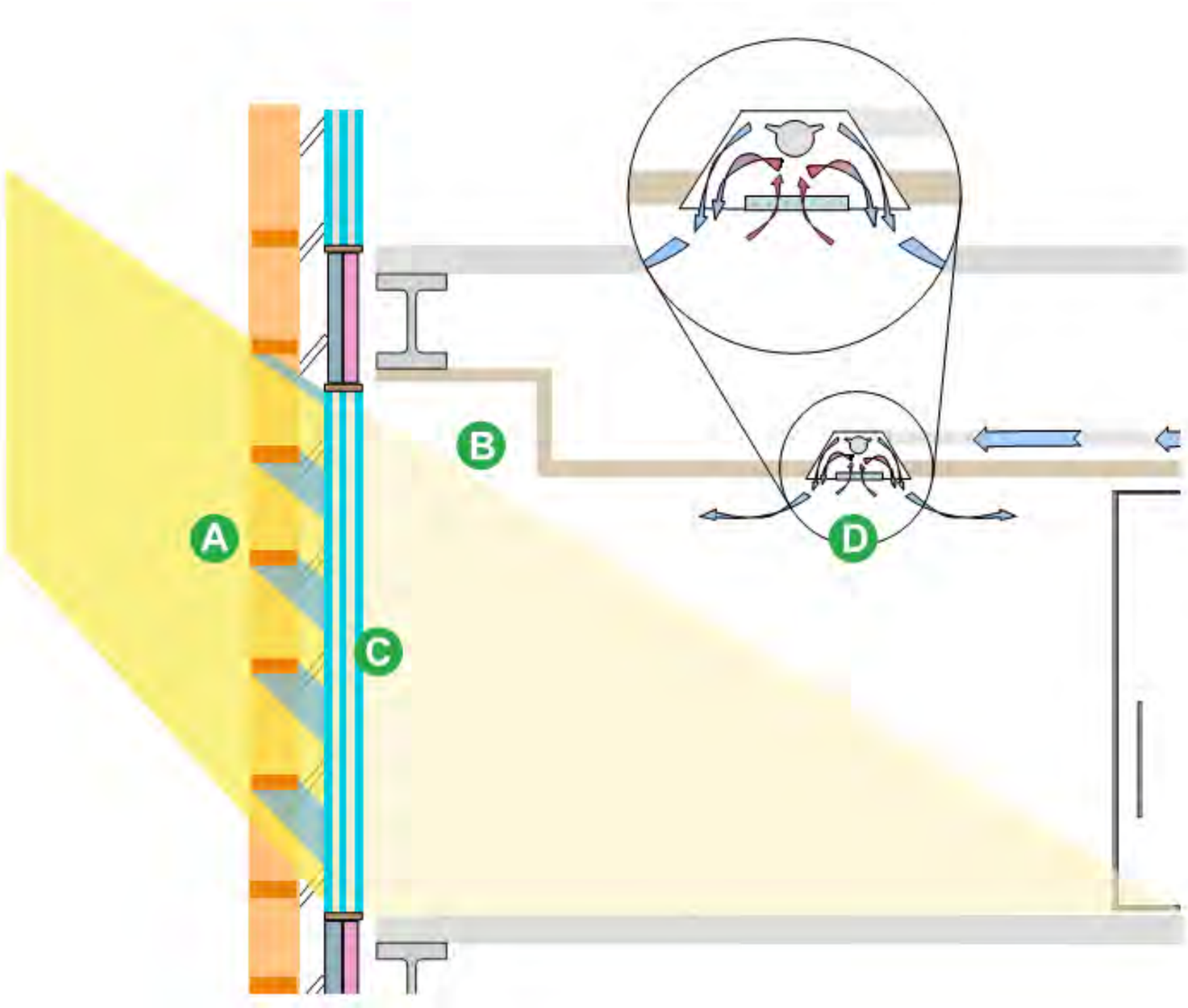
A diagonal louver in front of 60% glazing is used in the deeper floorplate zones to cut out solar gain and drive daylight deep into the plan

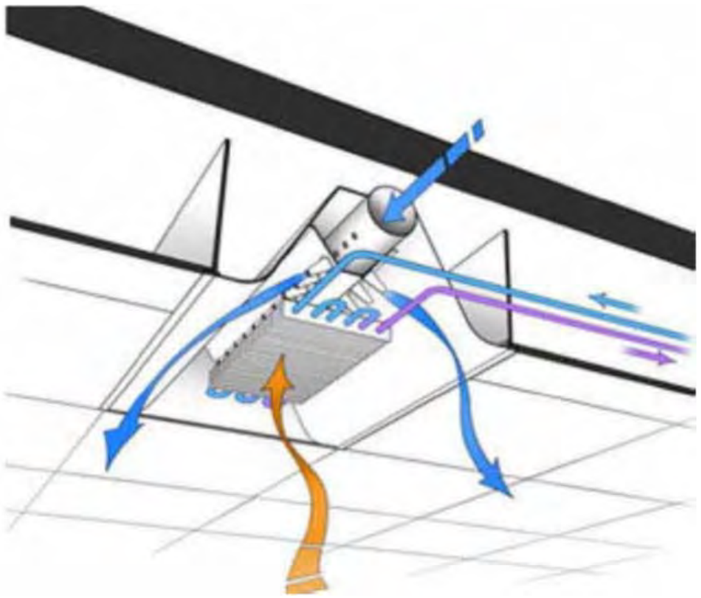


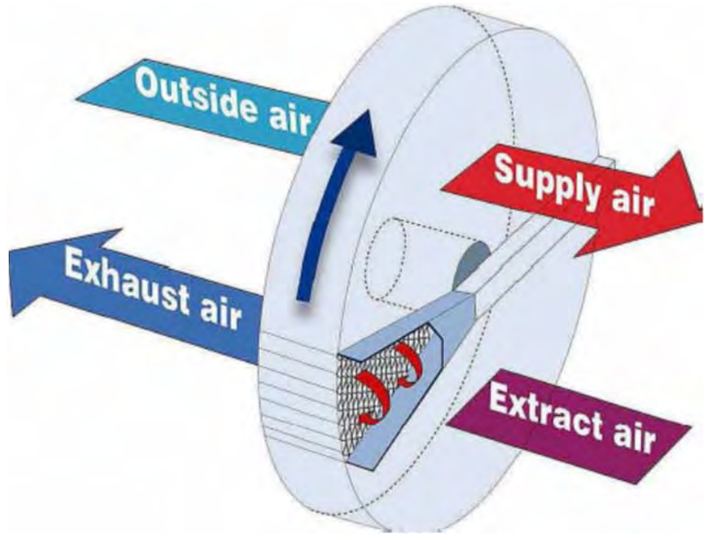
Solar Shading
Sawtooth Facade

A vertical sawtooth with 50% glazing is used on the shallow single bay floor plate zones where daylight does not need to penetrate as deep into the floor.

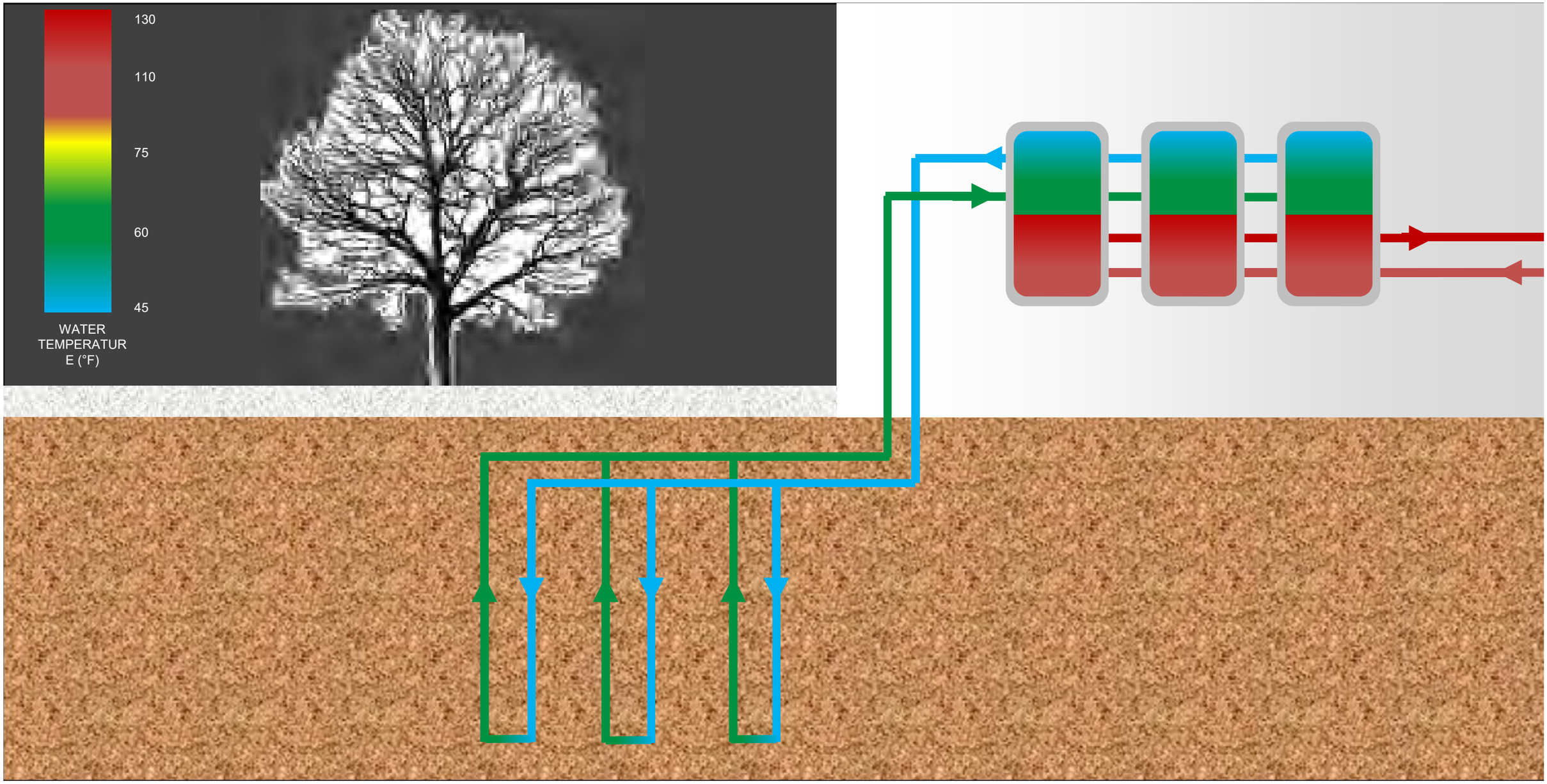
High Performance Envelope and High Efficiency Heating and Cooling







Ground-Source for Cooling and Heating (Closed Loop)



Transportation

Charles River Campus TDM – Robust and Successful

Incentives

- Ride Matching
- Carpool Parking
- Discounted and Pre-Tax MBTA Passes
- MBTA Parking Pre-Tax Benefit
- Bike Commuter Reimbursement
- BLUEbike Discount
- Market-rate Parking Discourages Unnecessary Trips

Additional Features

- Boston University Shuttle (BUS)
- Bicycle Facilities and Storage
- Bicycle Safety Programs
- Guaranteed Ride Home
- Zipcar

Multi-Modal Accessibility

Bus Stop
BU Shuttle Stop
Green Line Stop
Commuter Rail Station
Zipcar Location
BLUEBikes Locations
Green Line
MBTA Bus Route
BU Shuttle Route

Green Line B Branch

3 stops within a ¼ mile radius, runs every 6 mins

Bus Routes 57/57A

Every 10-16 mins

Free BU Shuttle Service (BUS)

Every 10 mins with late night service 7 days/week

Bicycle sharing services:

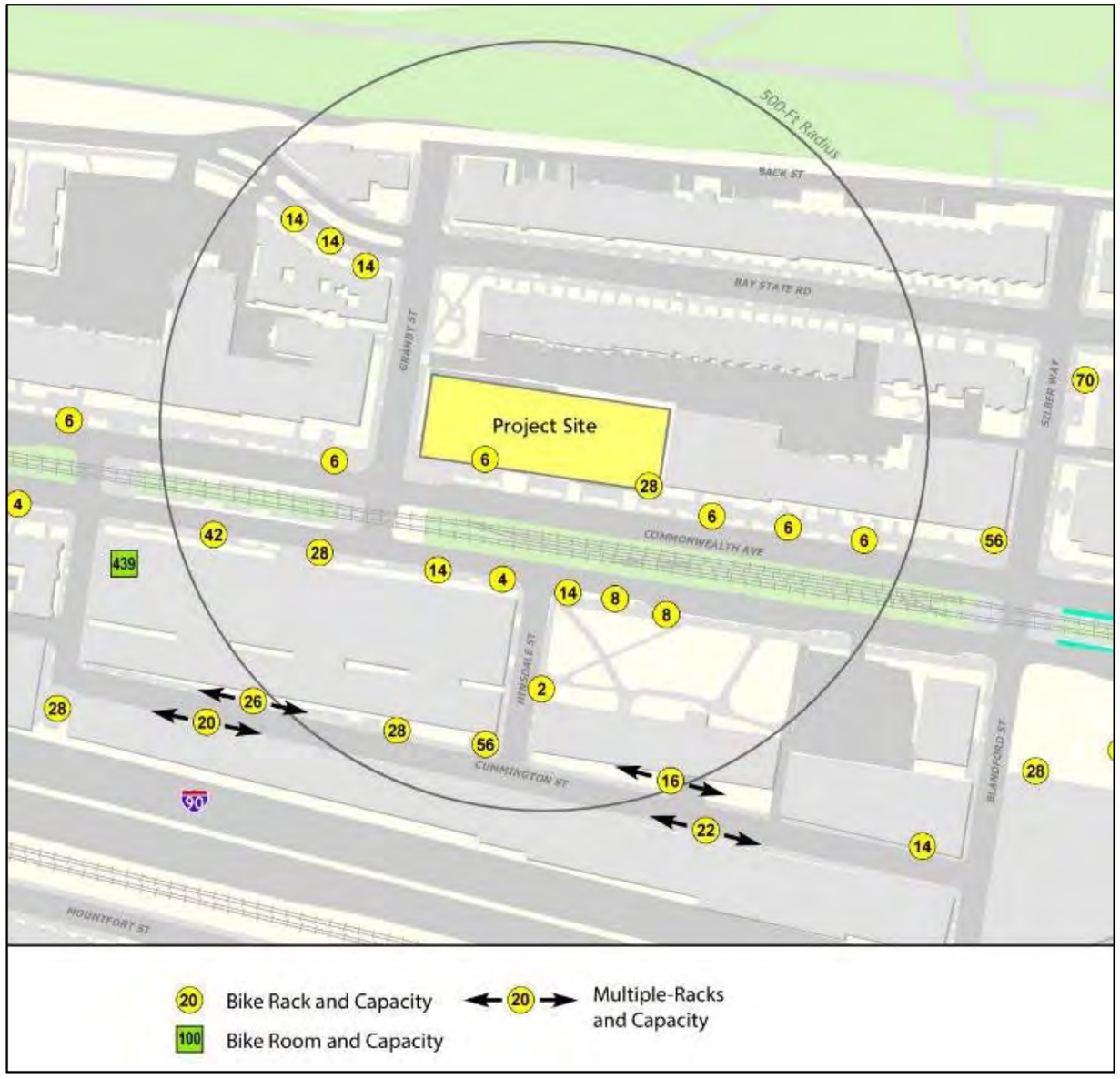
4 BLUEbike stations near the site

Framingham/Worcester Line

Yawkey Station

Plus route **CT2/47** and **Kenmore Square Transit Hub** just over ¼ mile to the west and east, respectively

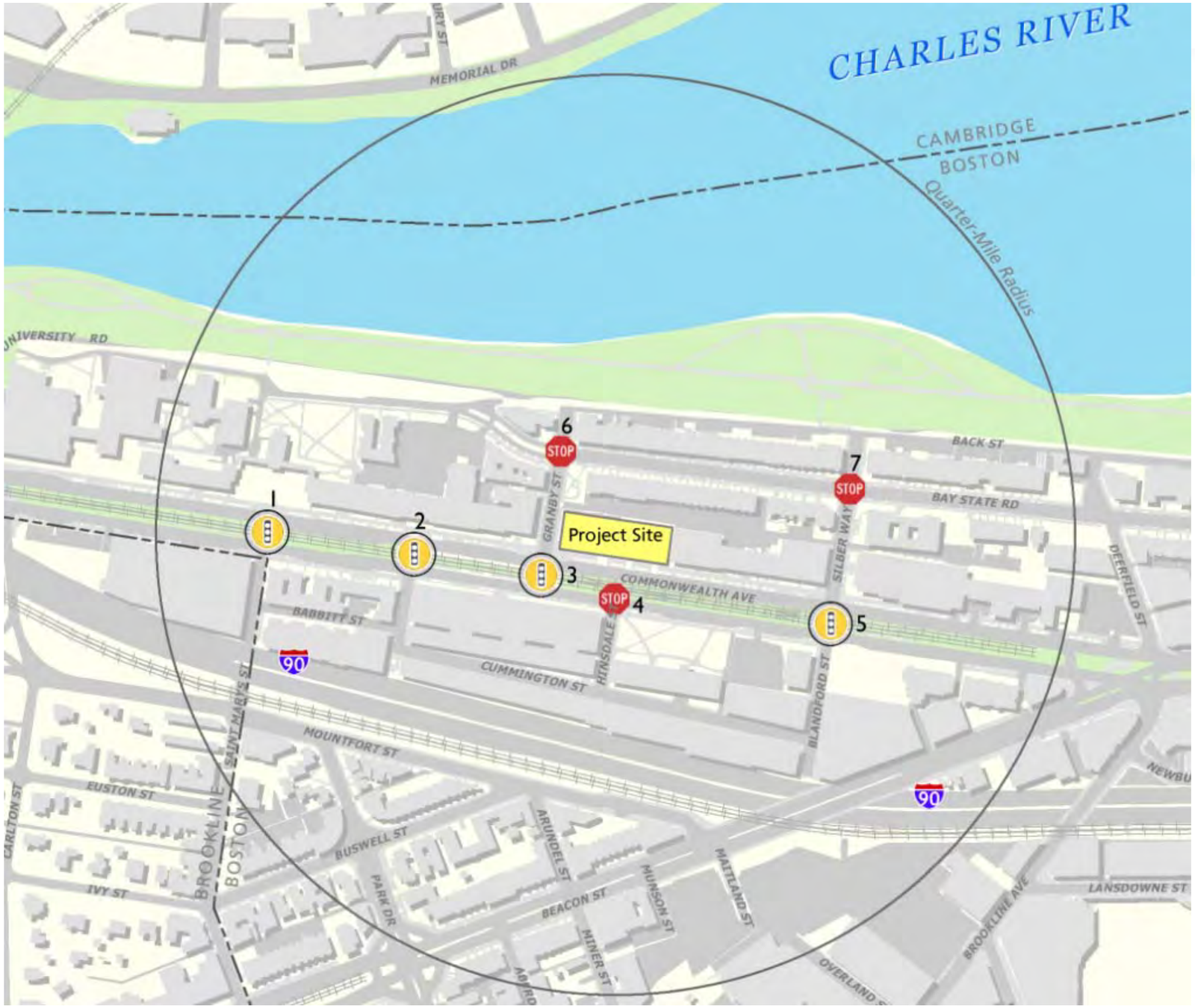
Existing Bicycle Facilities



Bicycle racks and storage rooms available near the Project Site:

- Several on-street bicycle racks within a 500-foot radius with a total storage capacity of approx. 330 bikes
- Painted bike lanes along both sides of Commonwealth Avenue
- Bicycle storage rooms

Existing Traffic Study Network

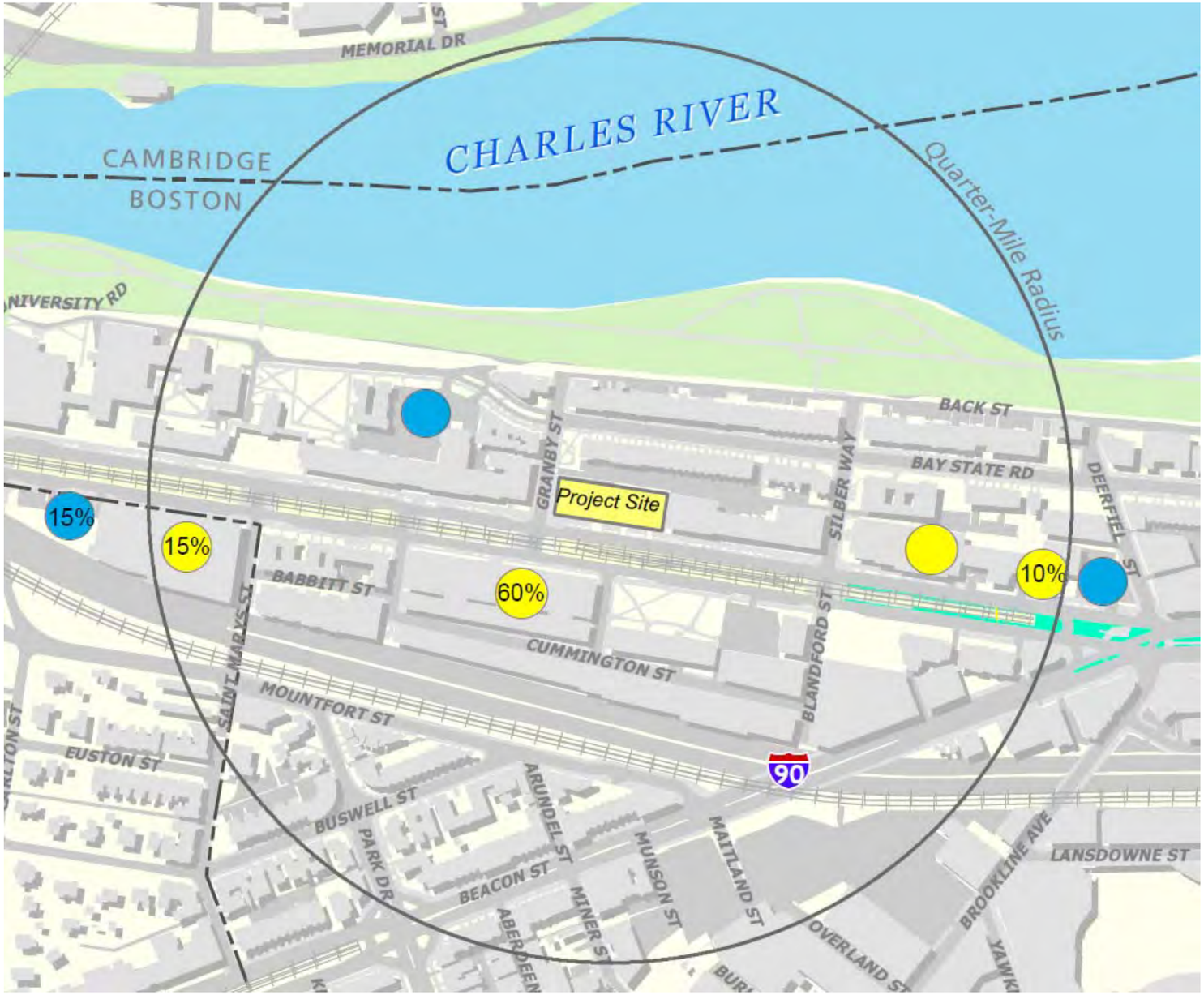


Signalized Intersection

Unsignalized Intersection

1 Commonwealth Ave/St Marys St
2 Commonwealth Ave/Cummington Mall
3 Commonwealth Ave/Granby St
4 Commonwealth Ave/Hinsdale Mall
5 Commonwealth Ave/Silber Way/Blandford Mall
6 Granby St/Bay State Rd
7 Silber Way/Bay State Rd

Trip Distribution to/from Parking



Conservative Traffic Analysis Assumptions

- All trips sent to lots with capacity at or within a ¼ mile of Site
- Trips sent through turning movements

Garage Surface

Parking Overview

Parking Removed

- 126 off-street spaces (Granby Visitor Lot)
- 35 reserved off-street University permit spaces (private laneway north of Site)
- 21 on-street metered spaces along Granby Street

Total Parking Utilization (2018)

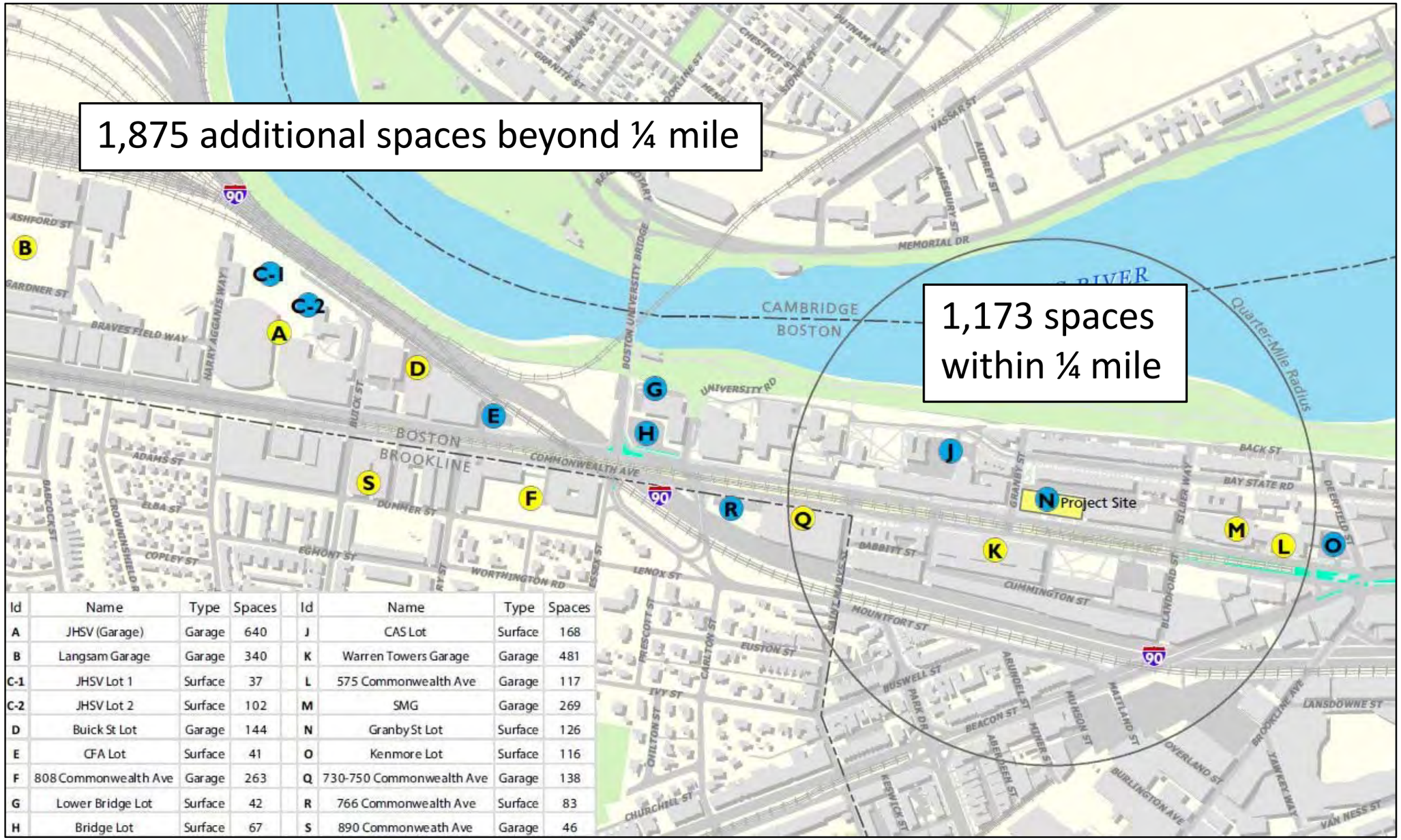
CRC Campus off-street, general-use parking is 21% available at peak.

- West Campus – 30% available (466 spaces)
- Central Campus – 15% available (169 spaces)
- South/East Campus – 9% available (58 spaces)

Parking Demand Declining

- 10% reduction on CRC Campus from 2016-2018
- Achieved through a robust TDM program

Existing Off-Street Parking Facilities



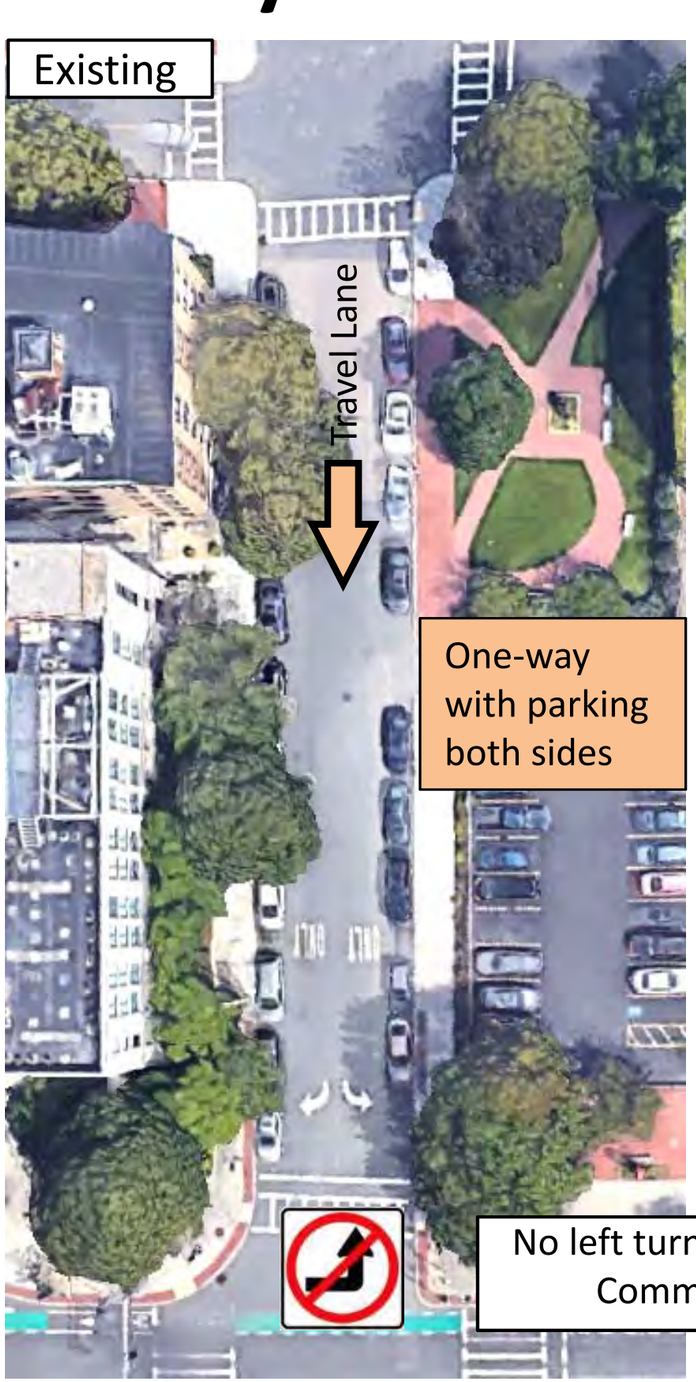
Id	Name	Type	Spaces	Id	Name	Type	Spaces
A	JHSV (Garage)	Garage	640	J	CAS Lot	Surface	168
B	Langsam Garage	Garage	340	K	Warren Towers Garage	Garage	481
C-1	JHSV Lot 1	Surface	37	L	575 Commonwealth Ave	Garage	117
C-2	JHSV Lot 2	Surface	102	M	SMG	Garage	269
D	Buick St Lot	Garage	144	N	Granby St Lot	Surface	126
E	CFA Lot	Surface	41	O	Kenmore Lot	Surface	116
F	808 Commonwealth Ave	Garage	263	Q	730-750 Commonwealth Ave	Garage	138
G	Lower Bridge Lot	Surface	42	R	766 Commonwealth Ave	Surface	83
H	Bridge Lot	Surface	67	S	890 Commonwealth Ave	Garage	46

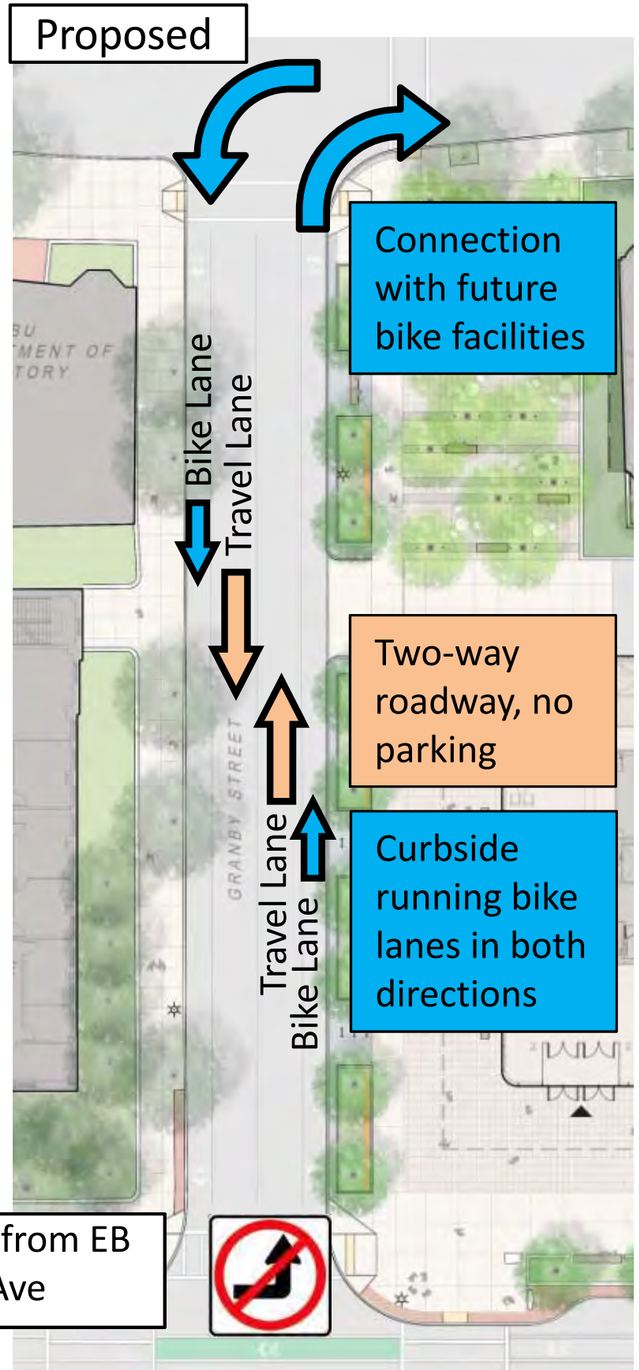
Granby Street Conversion

<u>Key Changes / Benefits</u>

- Complements recent and planned ped/bike improvements on Bay State Rd
- Discourages vehicular cut-through traffic on Bay State Rd
- Improved connectivity for bicycle and vehicle network
- No signal timing changes required

Granby Street Conversion





Features/Improvements

- Bike lanes in both directions
- Two-way roadway
- Completes bike network between planned Bay State Road facility and existing Comm Ave bike lanes.
- Improved vehicular access/circulation
- No eastbound left turns from Commonwealth Avenue

TNC Pick-up/Drop-off Curb Concept

A Transportation Network Company (TNC) provides rideshare services

<u>Key Needs & Benefits for TNC Pick-up/Drop-off Curb</u>

- Addresses growing City-wide issue of TNC-related traffic impacts

- Provides a designated pick-up/drop-off on Commonwealth Avenue, in the most desirable location for visitors of DSC and Sargent College

- Serves both TNC and personal vehicle rideshares (no commercial loading)

- Routes bicycles behind high turnover curbside area

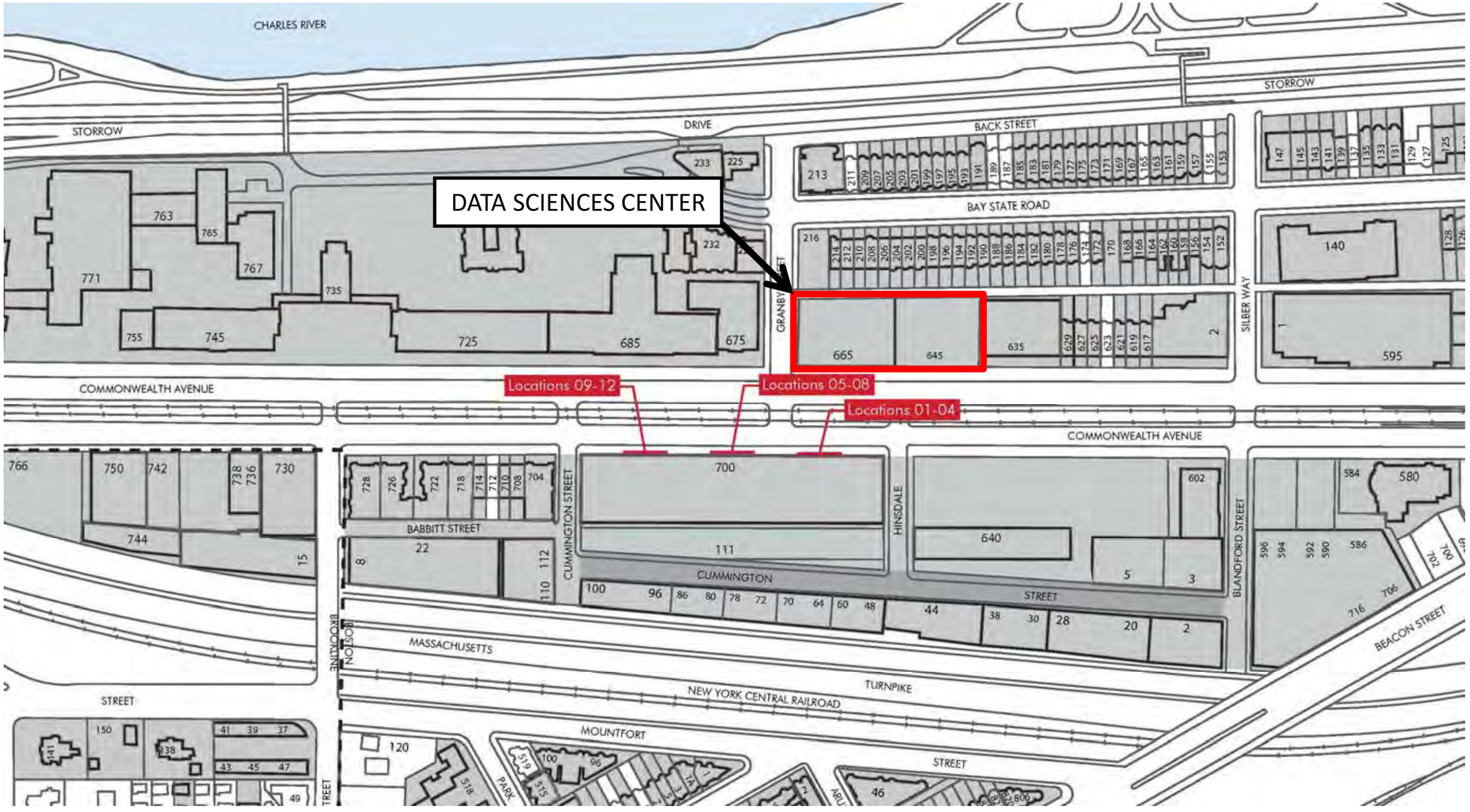
- Pick-up/drop-off will be prohibited along Granby Street

Warren Towers Digital Signage

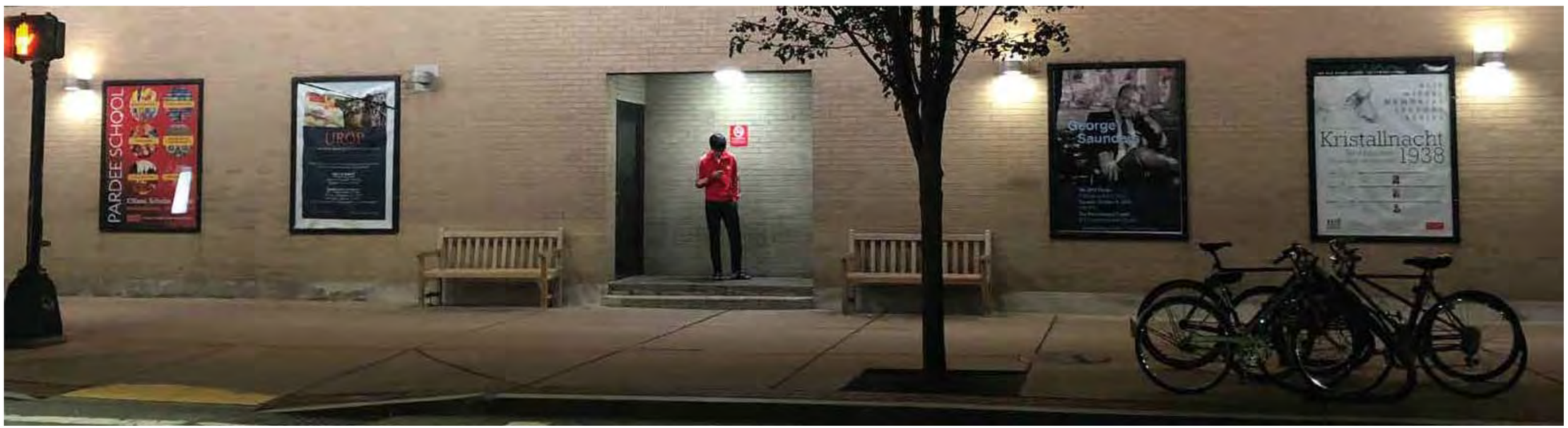
Warren Towers Digital Signage

- Boston University currently has poster cases at 700 Commonwealth Avenue to promote events and programming to the community. Paper posters:
  - Are costly for campus groups to produce;
  - Limit the number of groups the University can support at one time; and
  - Are outdated and inflexible.
- Replacing static cases with digital displays streamlines design and allows access to more student and University groups.
- Displays will promote events on-campus and other information specific to BU only; these will not be used for advertising.
- Benefits include cost-savings, improved sustainability through elimination of print production, and the ability to post new information more frequently.
- Size is a direct replacement of the current cases, with 12 monitors in total replacing the existing 12 cases measuring 6’ x 4’-6 ¾”.
- Goal is to make no changes to the façade of the building with this update.

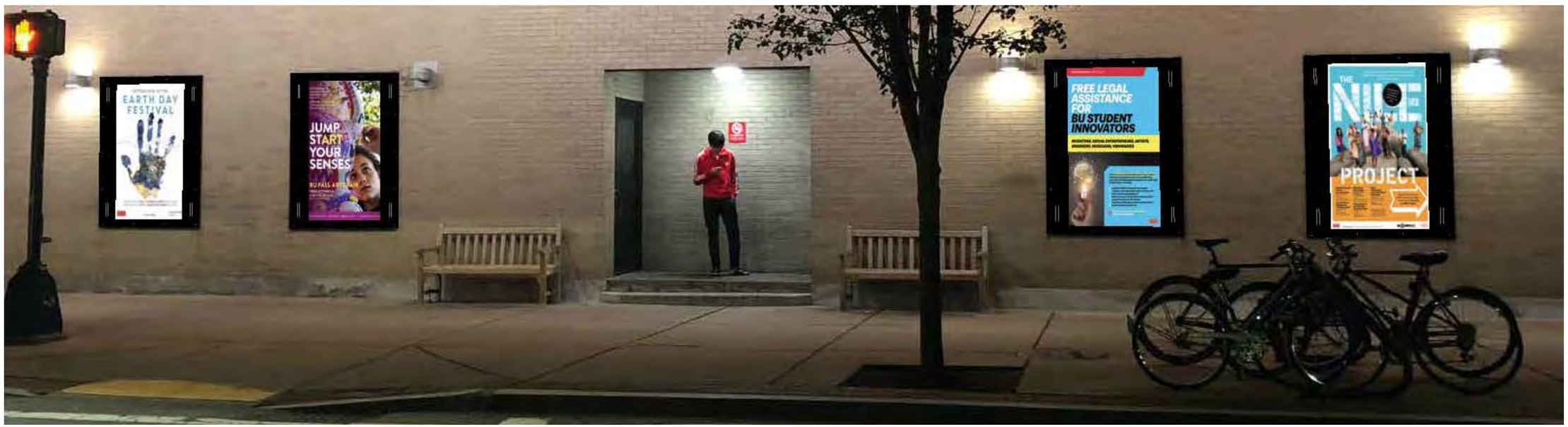
Sign Location Context Plan



Existing Conditions – Day and Night



Proposed Digital Displays – Day and Night



Proposed Digital Displays – Scale

Process and Timeline

Process and Timeline

- ✓ File PNF and IMPNF (October 1, 2018)
- ✓ File DPIR and IMP Amendment (April 30, 2019)
- ✓ Public Meeting (June 4, 2019) Task Force Meeting (June 6, 2019)
- DPIR Comment Period Ends (June 29, 2019)
- IMP Amendment Comment Period Ends (July 1, 2019)
- Boston Civic Design Commission Hearing (July 2, 2019)
- BPDA Board Vote on Project & Amendment (July 11, 2019)
- Final Adequacy Determination (August 12, 2019)
- Zoning Commission Approval IMP (August 14, 2019)
- Mayor's Signature (August 21, 2019)
- Start Construction (March 2020)