

#### Cambridge, Massachusetts

## Design Review Application - Parcel I Retail



Presented by:

DW NP Property, LLC c/o DivcoWest Real Estate Investments 200 State Street, 12<sup>th</sup> Floor Boston, MA 02109



*Prepared by:* 

**Beals and Thomas, Inc.** Reservoir Corporate Center 144 Turnpike Road Southborough, MA 01772

*In collaboration with:* 

Prellwitz Chilinski Associates Michael Van Valkenburgh Associates, Inc. Galluccio & Watson, LLP Goulston & Storrs PC

Submitted in Compliance with the City of Cambridge Zoning Ordinance and M.G.L. c.40A

March 14, 2018



Southborough, MA 01772-2104

T 508.366.0560 F 508.366.4391 www.bealsandthomas.com Regional Office: Plymouth, MA

March 14, 2018

Mr. H. Theodore Cohen, Chair Cambridge Planning Board 344 Broadway Cambridge, MA 02139

Via: Hand Delivery

Reference: Cambridge Crossing Parcel I Retail Design Review Application

PB #179

Cambridge, Massachusetts B+T Project No. 2084.56

Dear Chairman Cohen and Members of the Board:

On behalf of the Applicant, DW NP Property, LLC (an affiliate of DivcoWest), Beals and Thomas, Inc., respectfully submits this Design Review Application for Parcel I Retail (the Site), which is part of the larger Cambridge Crossing (formerly known as NorthPoint) development. The proposed development on Parcel I Retail is two retail buildings containing a total of approximately 6,771 sf of Gross Floor Area (GFA). Parcel I Retail is located entirely within Cambridge.

As a result of comments received from the Community Development Department (CDD) subsequent to our initial submission on March 1, 2018, the enclosed application has been revised to include the following information:

- Minor architectural changes including the reduction of building height and shade trellis detailing;
- A statistical Summary of the residential and affordable dwelling units constructed, in conformance with the requirements of Condition 19.d. of Special Permit #179; and
- Wind study.

As shown on the master plan included as part of this Application, the Site is bounded by Parcel I Residential to the north, Parcel I open space to the west, Northpoint Boulevard to the south, and the North First Street to the east.

The Site is currently undeveloped vacant land. Parcel I is one of twenty (20) building parcels in the Cambridge Crossing mixed-use development. To date, condominium buildings on Lot S and Lot T, a rental residential building on Lot N, North Point Common, Child Street Park and related infrastructure and other public amenities (including the Brian P. Murphy Memorial Staircase) have been constructed at Cambridge Crossing. In addition, Parcel JK has obtained Design Review approval in Cambridge and Somerville, and building permit applications have been procured in both cities. The Parcel JK building is currently under construction. The surrounding roadway

Mr. H. Theodore Cohen, Chair Cambridge Planning Board March 14, 2018 Page 2

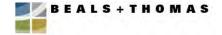
network was approved by the Planning Board on September 2, 2016, as part of Major Amendment #6, and is currently under construction.

The Parcel I Retail buildings contain approximately 6,771 sf of GFA in total. The eastern building is proposed to have  $\pm 4,388$  sf of GFA, with the western building containing  $\pm 2,383$  sf of GFA. The buildings are proposed to be, generally,  $\pm 16$  feet in height, with the roof of the eastern building sloped to a height of  $\pm 21$  feet at the highest point. A total of 73 short-term bicycle parking spaces will be provided on-site, which includes those located as part of Parcel I Residential, Parcel I Retail, and Parcel I Open Space.

In addition, the Applicant intends to subdivide the Parcel in the manner depicted on the enclosed Draft Subdivision Plan prepared by Beals & Thomas, Inc., dated December 21, 2016, and last updated February 23, 2018, to create three (3) separate parcels within what is now Parcel I: Parcel I-1, I-2, and I-3. The final subdivision plan will be submitted at a later date for approval and endorsement by the Planning Board.

As part of this application, we have included fifteen (15) copies, as well as a flash drive containing an electronic version, of the following materials for review by the Cambridge Planning Board:

- Site Plans;
- Floor Plans and Building Sections;
- Architectural Elevations;
- A Zoning Compliance Summary;
- LEED/Green Building Compliance Summary;
- Shadow Study;
- Wind Study;
- Acoustical Report and Noise Mitigation Narrative;
- Preliminary Signage Plan;
- Compliance Checklist Zoning Ordinance and NorthPoint Design Guidelines;
- Materials showing the cross-sections of abutting streets;
- Subdivision Plan, previously approved by the Cambridge Planning Board; and
- Draft Subdivision Plan.



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There are no changes proposed to the approved uses on the Site nor are there any changes to the layout of roads serving the Site from that shown on the approved 40-scale Roadway Network Schematic Plan.

The Cambridge Crossing team is excited to meet with the Planning Board to review and discuss the evolution of design of the proposed project. Thank you for your consideration of the enclosed.

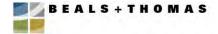
Very truly yours,

BEALS AND THOMAS, INC.

John P. Gelcich, AICP Senior Planner

Enclosures

JPG/mac/208456PT002B



#### **CAMBRIDGE CROSSING**

### **DEVELOPMENT STATUS TABLE**

### Phase 1a

Building	Use(s)	Approved GFA per Special Permit Appendix I	GFA approved in thru Design Review	Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)				
N	Residential	394,000	394,0001	Construction Completed. Occupied.				
IN.	Retail	8,600	8,600	Construction Completed. Occupied.				
S	Residential	112,398	112,398	Construction Completed. Occupied.				
T	Residential	242,194	242,194	Construction Completed. Occupied.				
JK	Office/Laboratory	370,000 Total	351,192	Under construction.				
	Retail	TBD	14,700	Under construction.				
W	Retail	18,000	16,337	Design Review Complete.				
Q1	Retail	17,675 <sup>2</sup>	17,675	Minor Amendment Approved for GFA Increase. Revised Design Review to be submitted.				
L	Residential	286,000 Total		Special Permit approval. Design Review timing TBD.				
L	Retail	TBD (Allowed)		Special Permit approval. Design Review timing TBD.				
M	Residential	208,400 Total		Special Permit approval. Design Review timing TBD.				
M	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.				
Ţ	Residential	390,000 Total		Special Permit approval. Design Review timing TBD.				
Ι	Retail	TBD		Special Permit approval. Design Review timing TBD.				

 ${1\atop \ \ \, } \ Development\ of\ Parcels\ N,\ S\ and\ T\ was\ completed\ before\ issuance\ of\ Major\ Amendment\ No.\ 6,\ and,\ therefore,\ the\ revision\ of\ Appendix\ I.\ As\ a\ result,\ Appendix\ I\ reflects\ the\ as-built\ GFA\ of\ each\ of\ N,\ S\ and\ T.$ 

<sup>2</sup> Increased by Amendment No. 7 (Minor) from 14,000 square feet of GFA to 17,675 square feet of GFA.

### Phase 1b

Building	Use(s)	Approved GFA per Special Permit Appendix I	GFA approved in thru Design Review	Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)
G	Office/Laboratory	410,000	451,000	Special Permit approval. Design Review Submitted. Design Review completed in Boston.
Н	Office/Laboratory	375,000	347,600	Special Permit approval. Design Review Submitted. Design Review completed in Boston.
EF	Office/Laboratory	400,000 Total	410,590	Special Permit approval. Design Review submitted in Somerville.
EF	Retail	TBD		Special Permit approval. Design Review submitted in Somerville.
С	Mixed-Use	348,000		Special Permit approval. Design Review timing TBD.
U	Office/Laboratory	320,000		Special Permit approval. Design Review timing TBD.

### Phase 2

Building	Use(s)	Approved GFA per Special Permit Appendix I	GFA approved in thru Design Review	Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)
A	Residential	175,000		Special Permit approval. Design Review timing TBD.
В	Residential	373,000 Total		Special Permit approval. Design Review timing TBD.
Б	Retail	TBD (Allowed)		Special Permit approval. Design Review timing TBD.
D	Mixed Use	340,000		Special Permit approval. Design Review timing TBD.
02	Office/Laboratory	147,387 Total		Special Permit approval. Design Review timing TBD.
Q2	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.
D	Mixed Use	148,945 Total		Special Permit approval. Design Review timing TBD.
R	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.
V	Residential	199,855 Total		Special Permit approval. Design Review timing TBD.
V	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.

#### Special Permit #179, Condition 19.d.

#### **Statistical Summary of Dwelling Units Constructed**

Parcel	Total Residential Units	Approved GFA	Use(s)	All Residential Units								
				Studio		1 Bedroom		2 Bedroom		3 Bedroom		
				No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	
N	355	402,600	Residential Retail	74	501	180	732	85	1,030	16	1,392	
S	99	112,398	Residential	0		94	921	5	1,285	0		
T	230	242,194	Residential	40	663	138	878	51	1,044	1	1,923	
JK		365,892	Office/Laboratory Retail	1	1	1	1				1	

Parcel	Affordable Residential Units	Approved GFA	Use(s)	Affordable Residential Units <sup>1</sup>								
				Studio		1 Bedroom		2 Bedroom		3 Bedroom		
				No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	
N	41	402,600	Residential Retail	8	516	21	734	10	1,062	2	1,407	
S	12	112,398	Residential	1	-	11	887	1	1,179			
T	26	242,194	Residential	4	678	15	834	6	999	1	1,839	
JK		365,892	Office/Laboratory Retail									

Issued: March 14, 2018

<sup>1</sup> This chart assumes that these residential properties and affordable units are in compliance with the associated affordable housing covenants on record at the Middlesex County Registry of Deeds (Parcel N: Book 61574 Page 442; Parcel S: Book 45918 Page 224; Parcel T: Book 46408 Page 98). Additional information regarding these properties is available from the Housing Department at CDD.

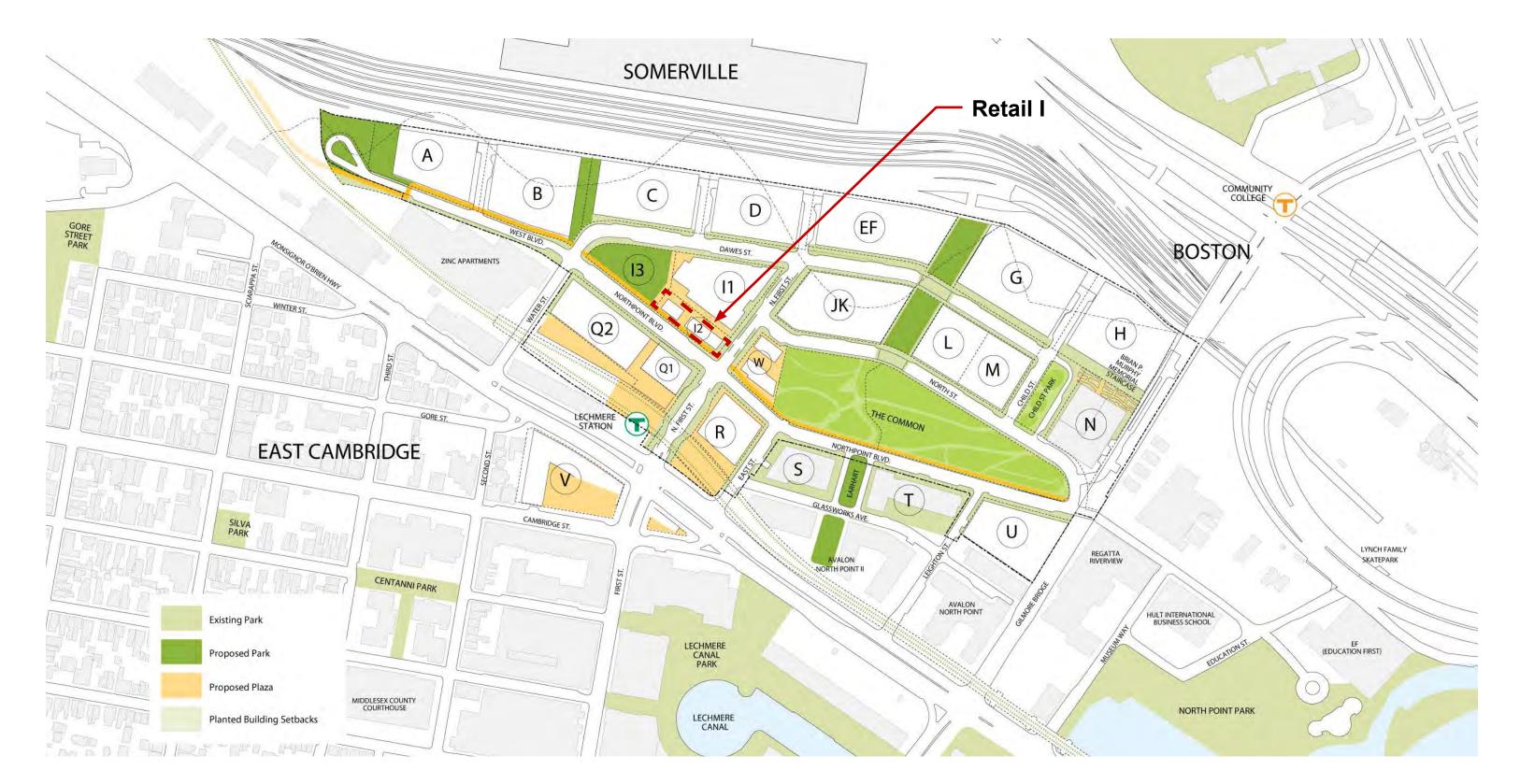






MICHAEL VAN VALKENBURGH ASSOCIATES INC **CAMBRIDGE CROSSING - Parcel I Retail** 

Cambridge, MA



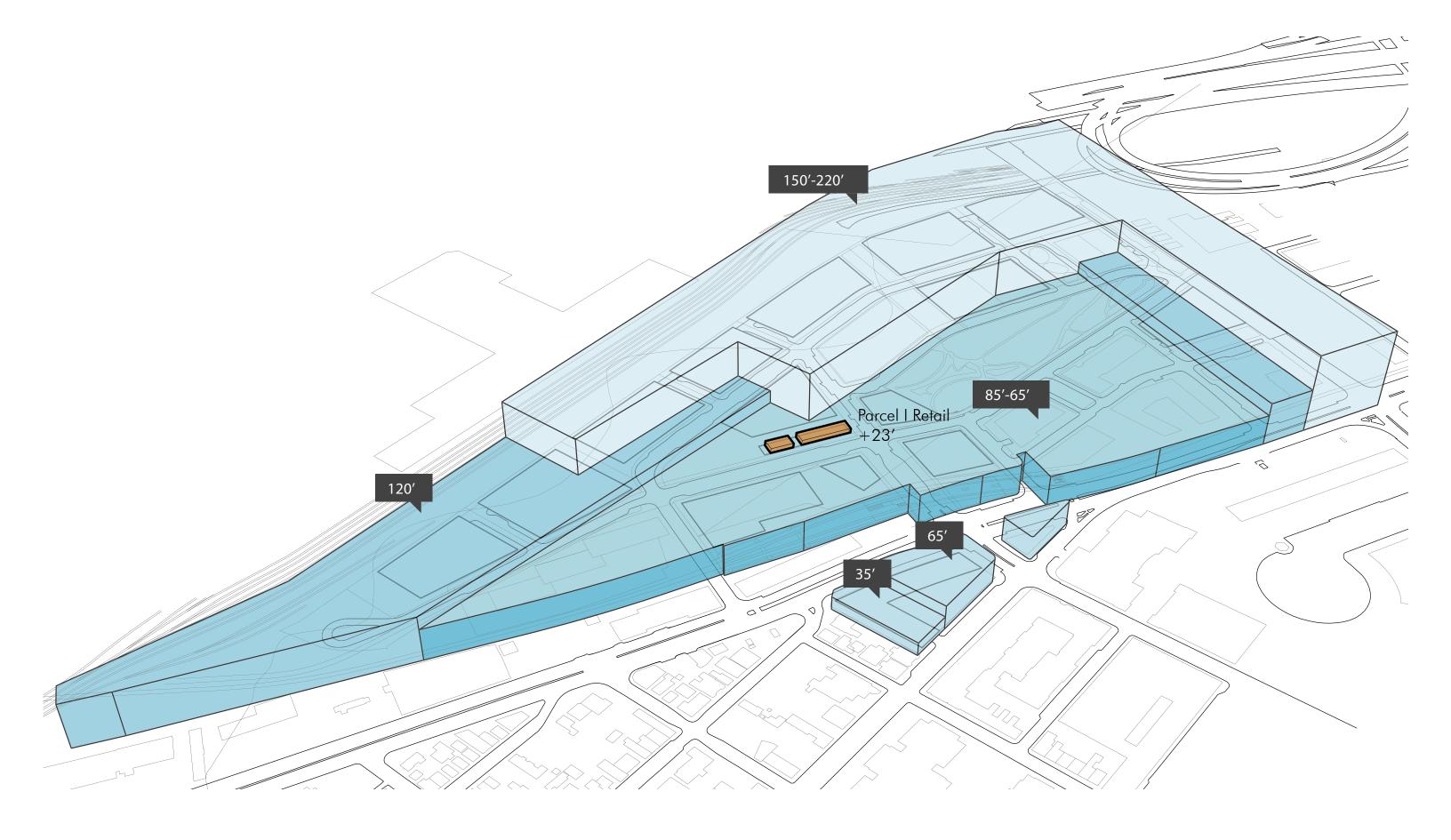


















Pavilion in a Park: Madison Park, New York



Pavilions in a Park: Hurbanové, Slovakia



Pavilions in a park and plaza: Boston Harbor Islands Pavilion



Building orientation and landscaping create an extension of the park across the site





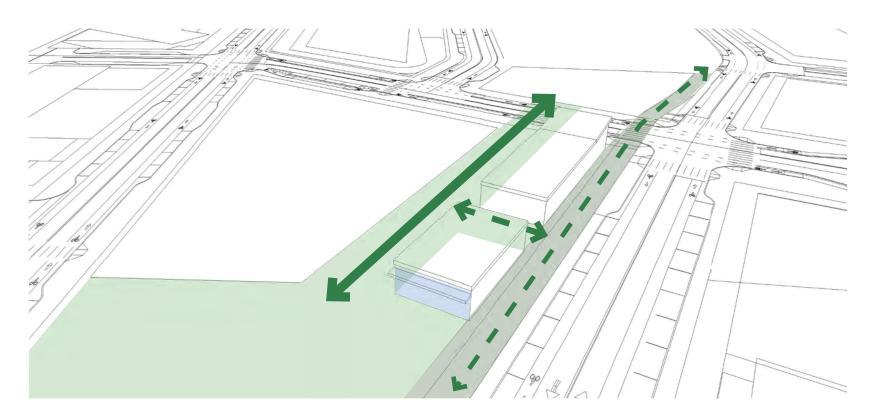
Varying building height establishes human scale: Assembly Row, Somerville MA



Narrow transparent building floats in the landscape: Bergen Fish Market, Norway



Height and transparency creates visual connection to surrounding: Mosaic District, Arlington, VA



Transparent east and west facades, along with building orientation, allow for visual and physical connection to the plaza and surrounding parks





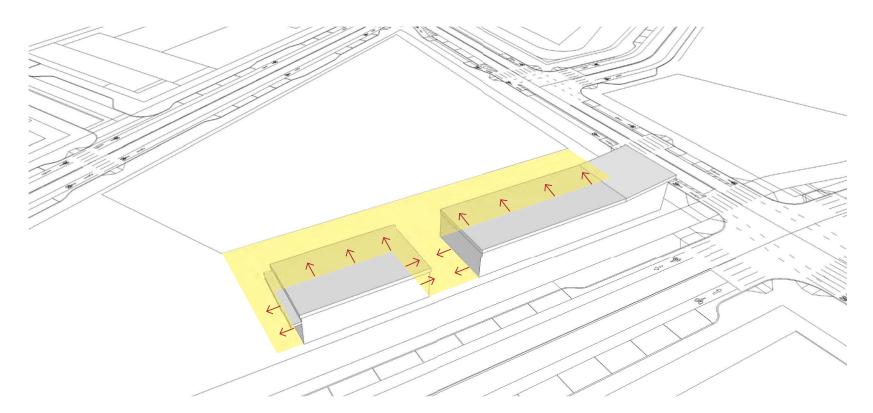
Kiosk and outdoor space bleed: Assembly Row, Somerville, MA



Change in building scale with active space between: Faneuil Hall, Boston

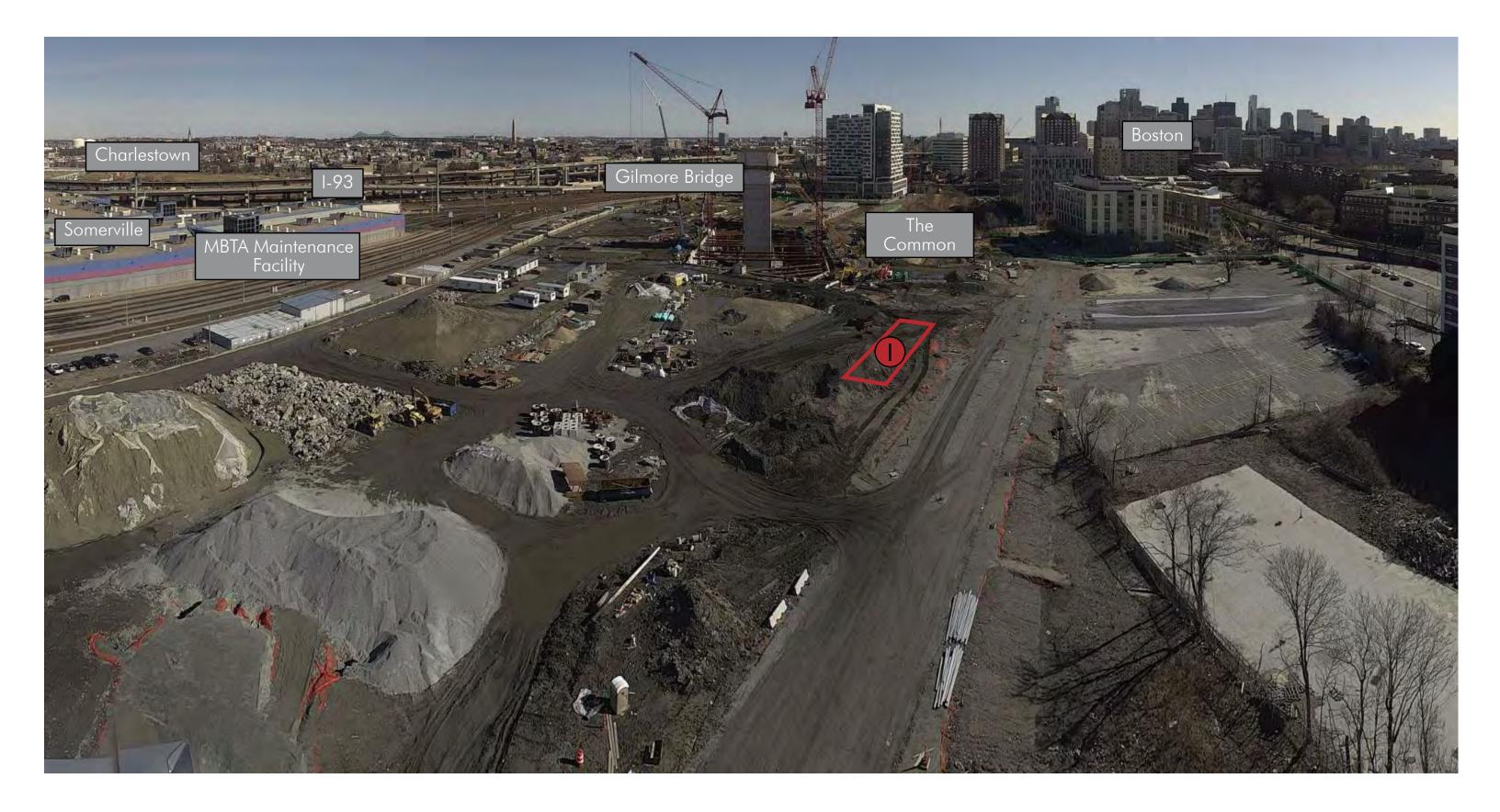


Buildings create an intimate, active space between: Rue Ortolan, Paris, France



Flexible retail space activates the plaza. Continuation of retail plaza through parcel I creates visual and physical connection through the site





Cambridge Crossing Property Line







Rendered image is intended for building design review. Landscaping and entourage in this view are for illustrative purposes only.







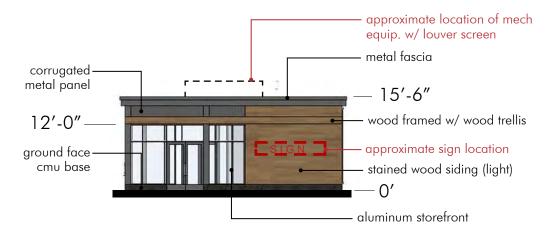
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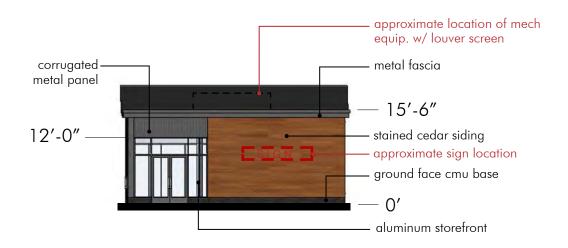


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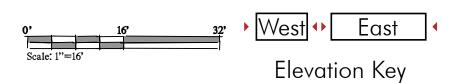


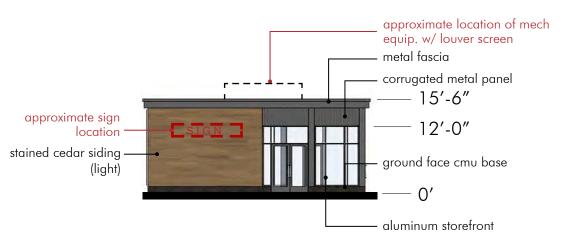


West Building - West Elevation

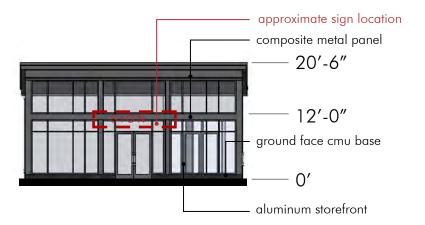


East Building - West Elevation





West Building - East Elevation



East Building - East Elevation



aluminum storefront system



stained cedar siding (light)



stained cedar siding



orrugated meta panel



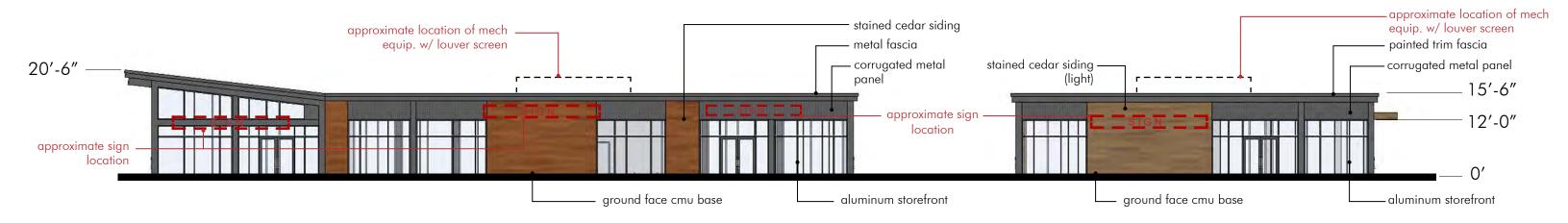
composite metal panel

SIGNAGE - Article 7.16.22: Total of all signs shall not exceed 1sf per linear foot of sign frontage. (Building I West = 192 sf max, Building I East = 332sf max)

Projecting Signs: 13 sf max, 1 per establishment

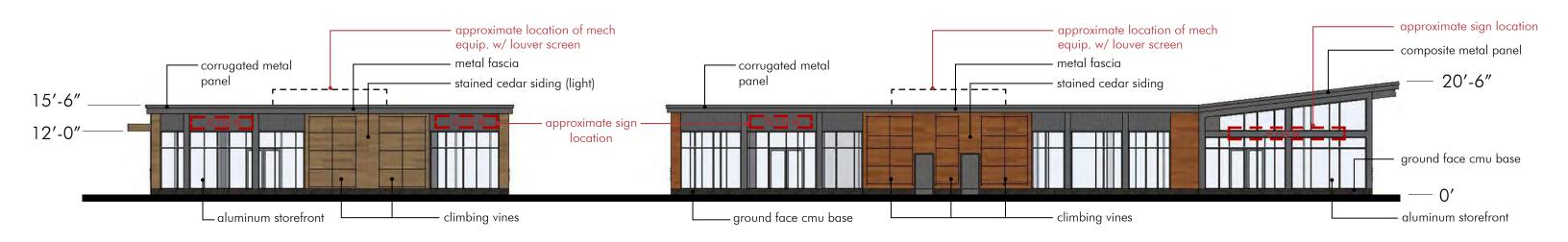
Wall Sign: 60sf max or 1sf per foot of frontage





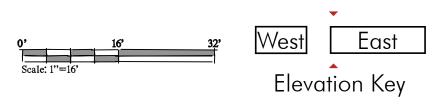
East Building - North Elevation

West Building - North Elevation

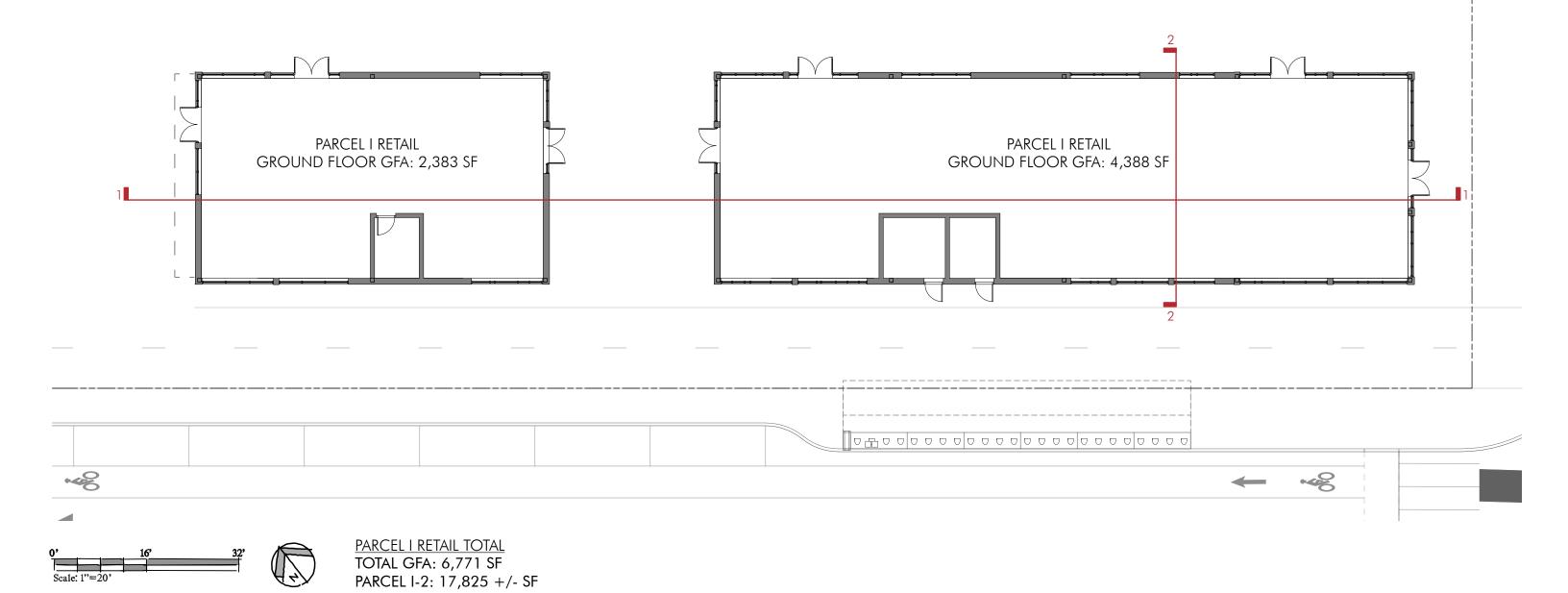


West Building - South Elevation

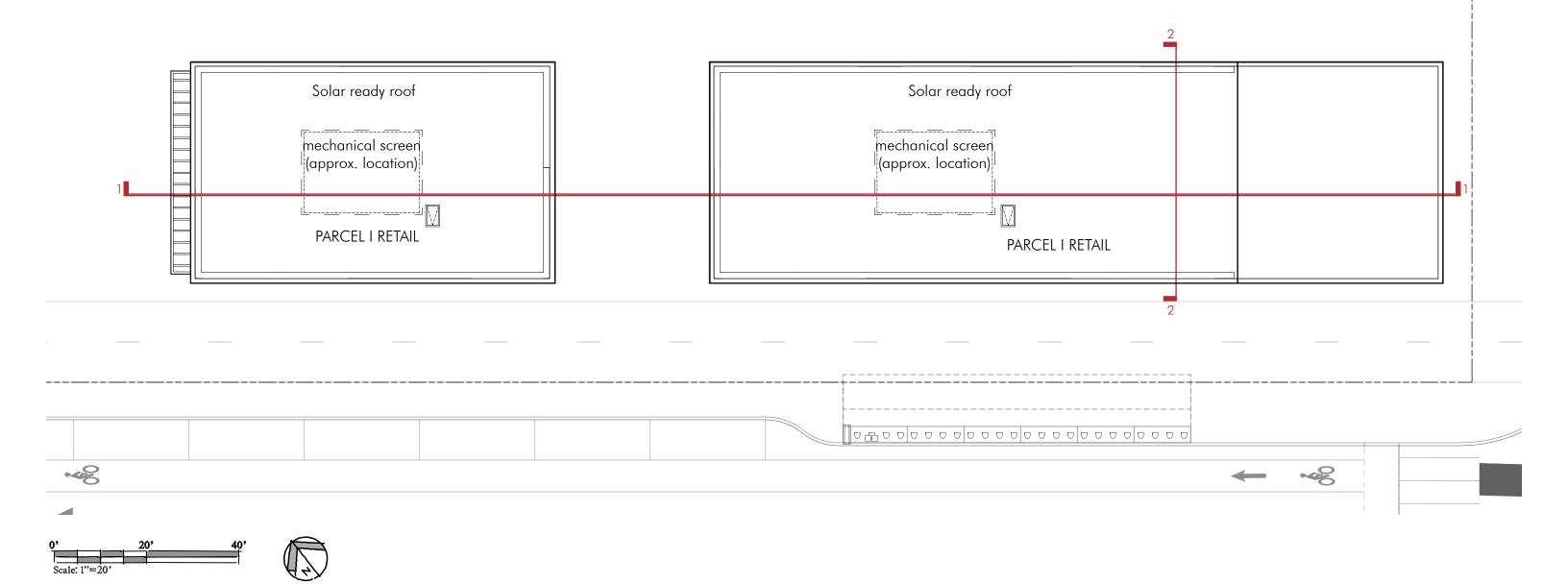
East Building - South Elevation



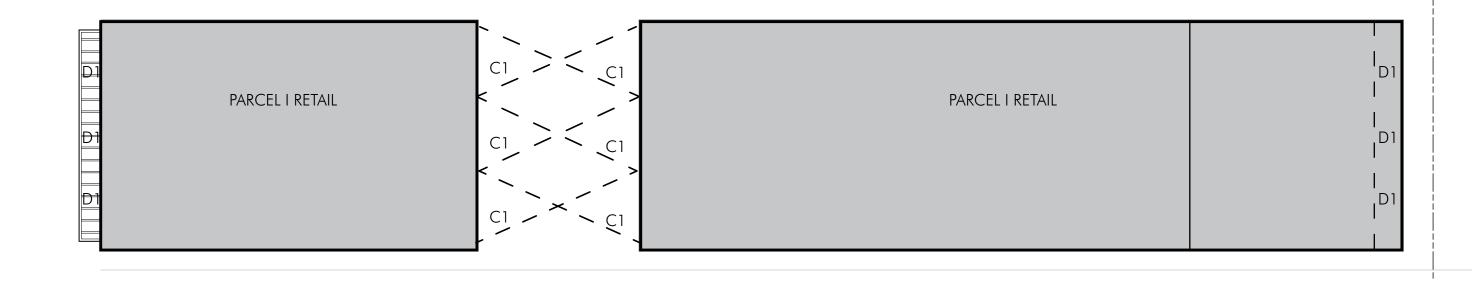












All site lighting for Parcel I is being designed to minimize light pollution and light trespass.

Exterior building lighting is mainly focused on the plaza area, with the primary concern of pedestrian safety.

EXTERIOR LIGHTING FIXTURE KEY

C = CATENARY LIGHT

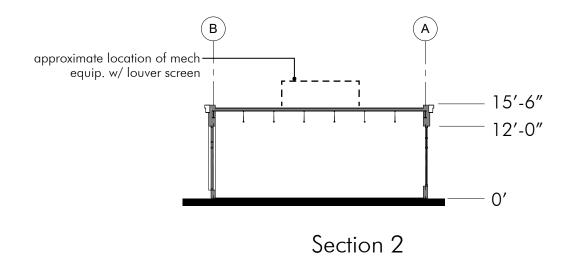
D = DOWNLIGHT

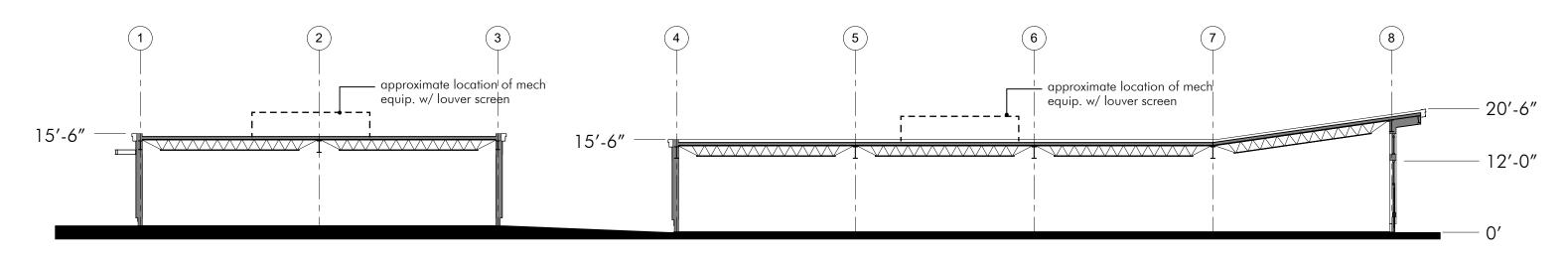
**Building Mounted Exterior Lighting** 

C1 - Suspended dimmable festoon LED lighting with frosted globe lens between east and west retail buildings

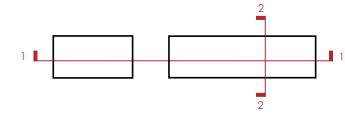
D1 - LED downlight with medium beam distribution mounted at exterior overhangs



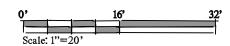




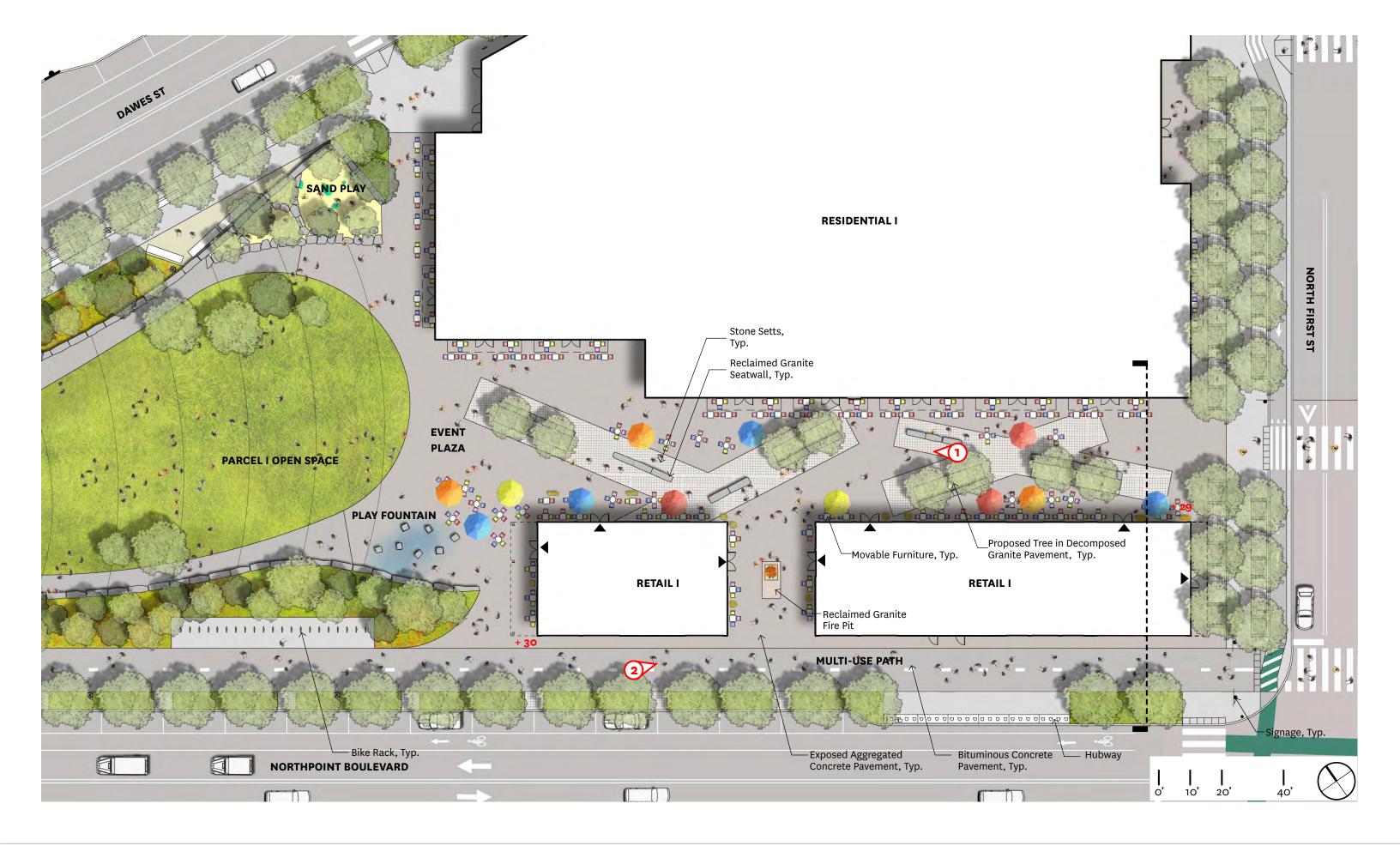
Section 1



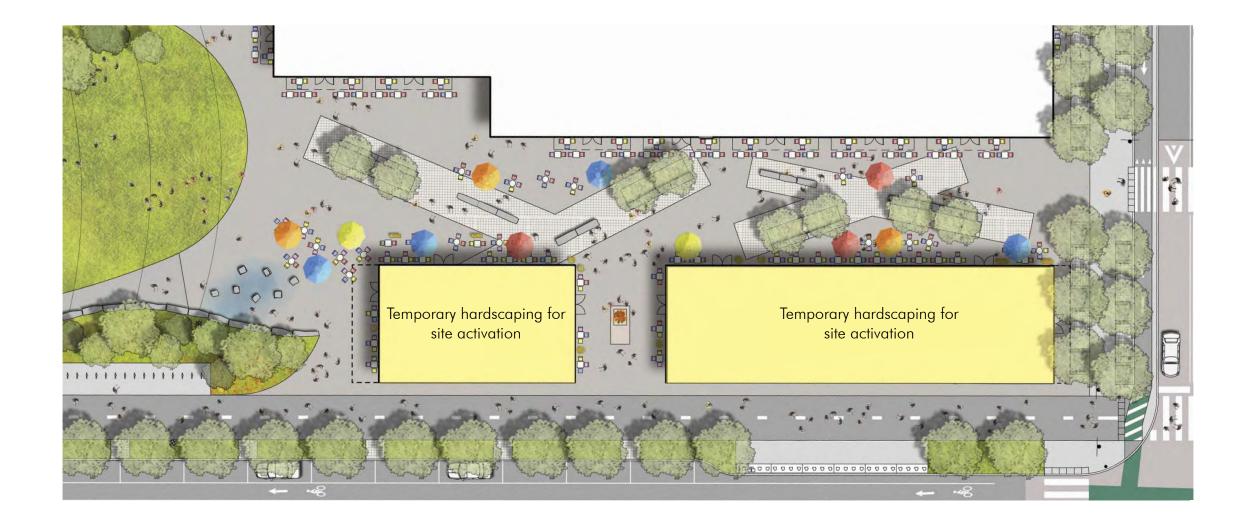
Section Key





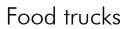






# Examples of Temporary Activation







Outdoor reading nook & book share

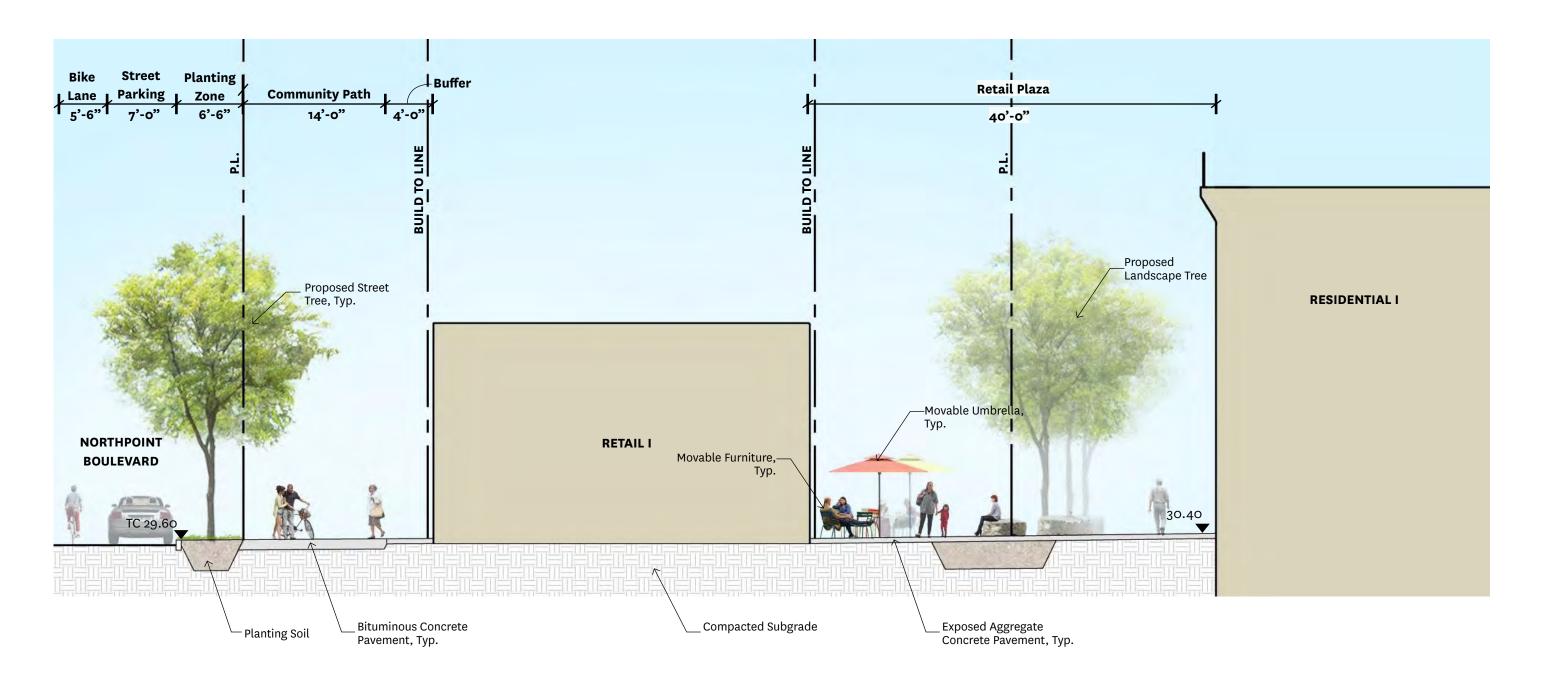


Outdoor games and activities















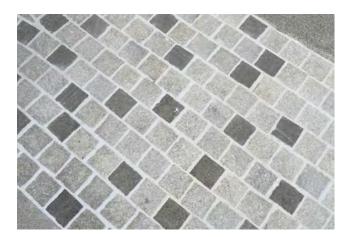
Rendered image is intended for landscape and plaza design review. As a result of the proposed landscape density, views of the building design may be obscured.





Rendered image is intended for landscape and plaza design review. As a result of the proposed landscape density, views of the building design may be obscured.





Stone Setts Pavement



**Exposed Aggregate Concrete Pavement** 



**Decomposed Granite Pavement** 



Concrete Pavement



Reclaimed Granite Block Seatwalls



Planter, Clustered



Planter, Linear



Bike Rack



Trash Receptacle



Bench



Backless Bench



Movable Tables and Chairs



Movable Umbrella





Platanus x acerifolia
London Plane Tree "Bloodgood"



Acer x freemanii 'Autumn Blaze' Freeman Maple



Gleditsia triacanthos var. inermis Honey Locust "Skyline"



*Gymnocladus dioicus* 'Espresso' Espresso Coffee Tree

All street trees are included in the City of Cambridge recommended species list.

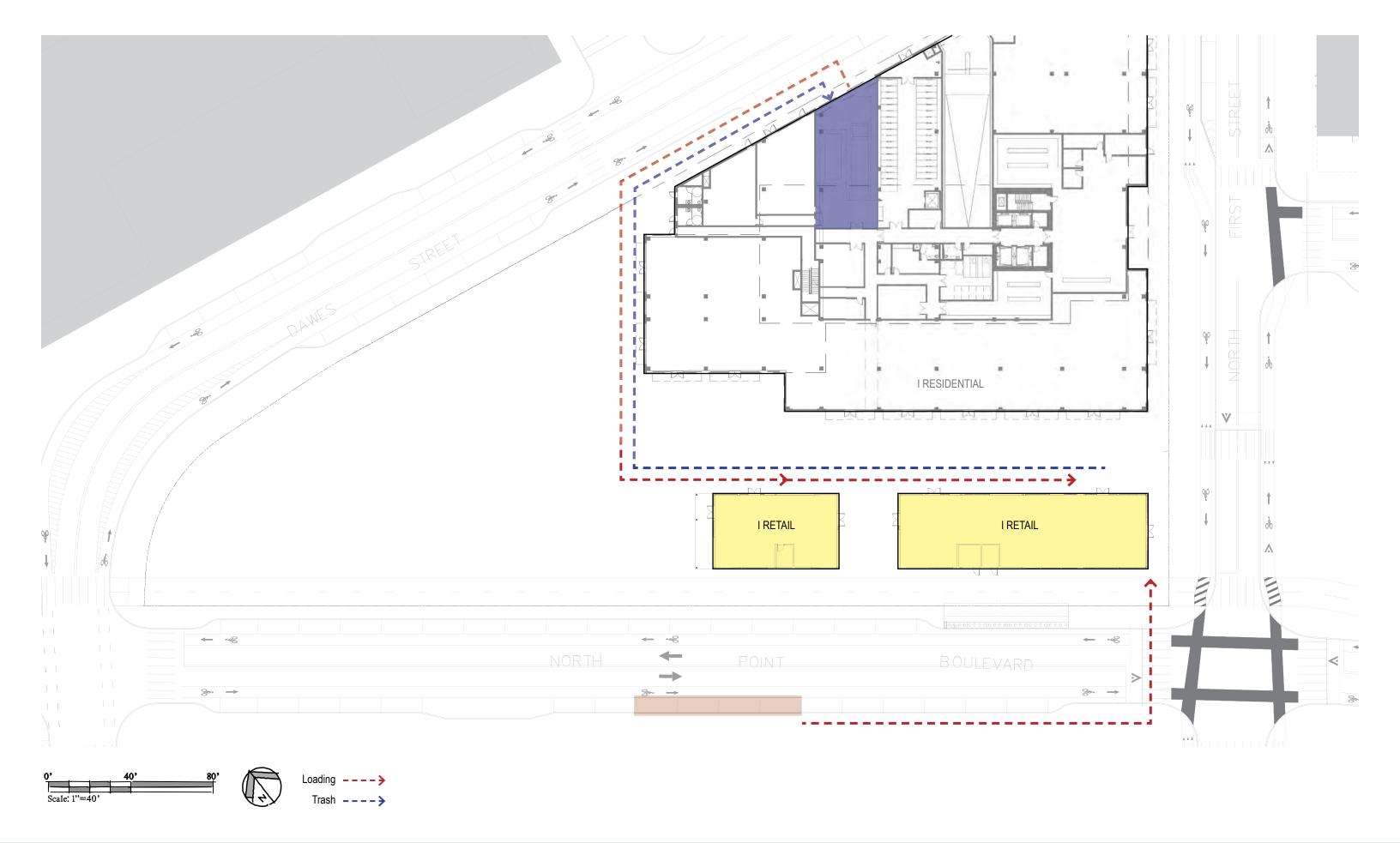


Quercus bicolor Swamp White Oak

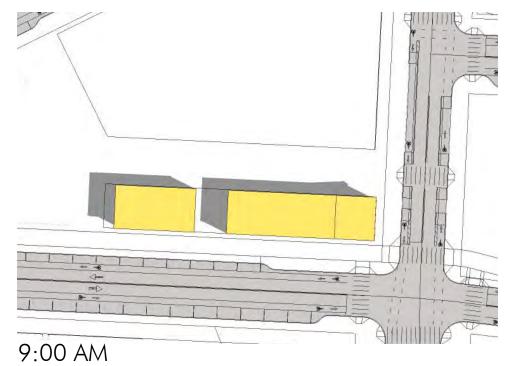


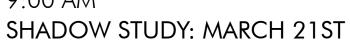
Styphnolobium japonicum Scholar Tree

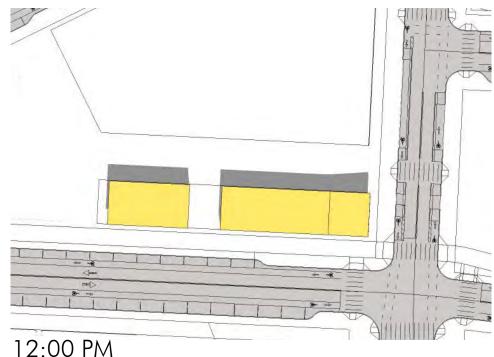


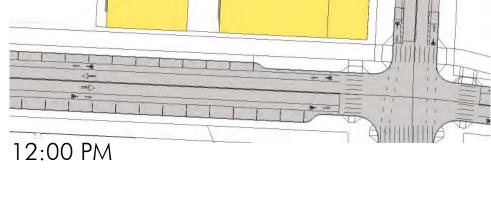


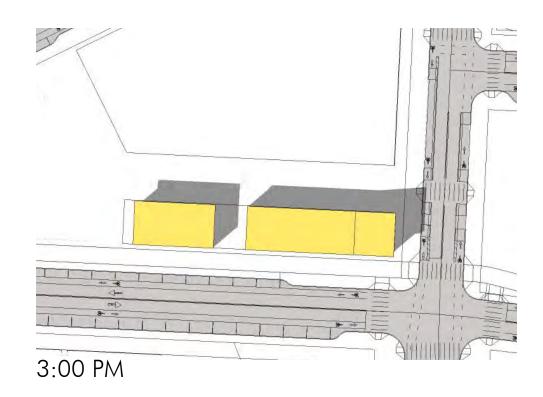


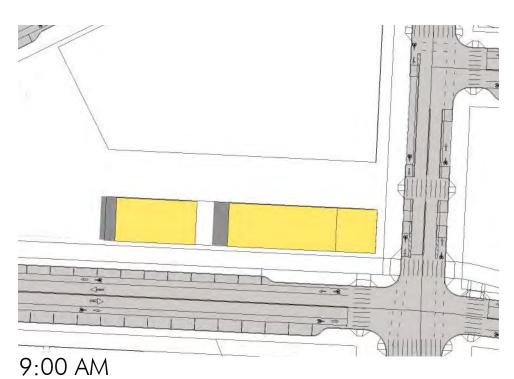




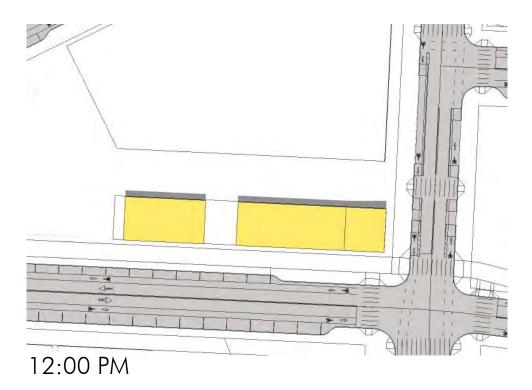


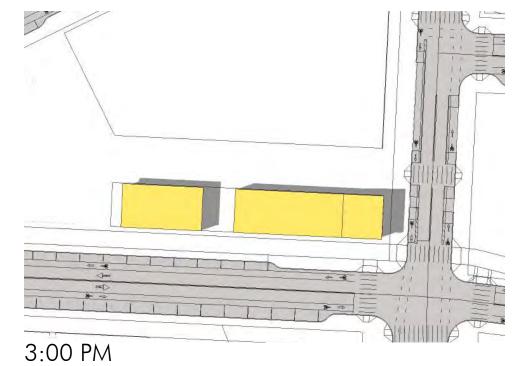






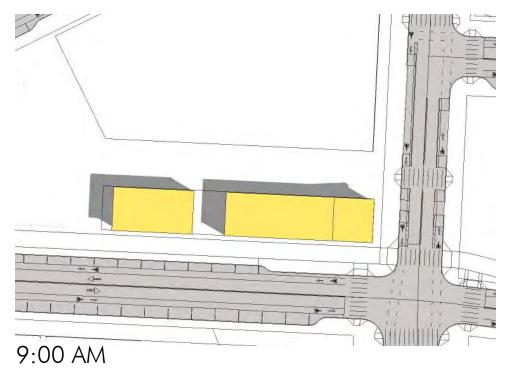
SHADOW STUDY: JUNE 21ST



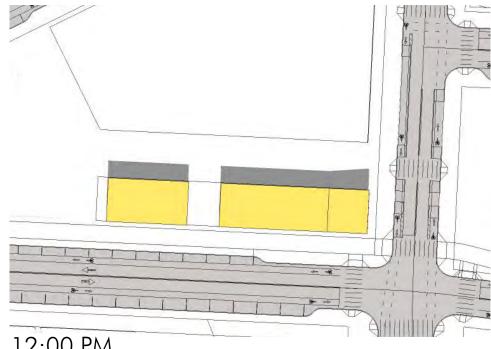


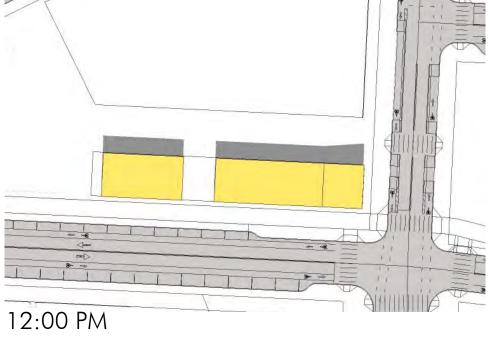


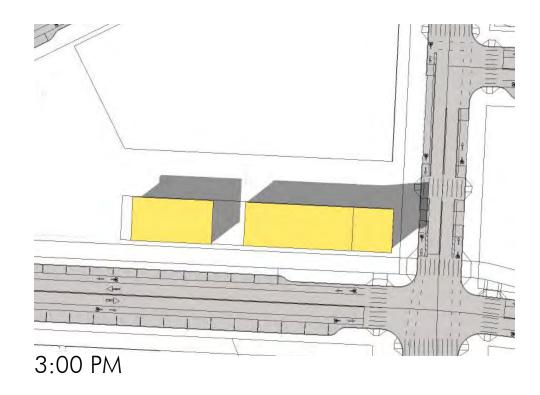


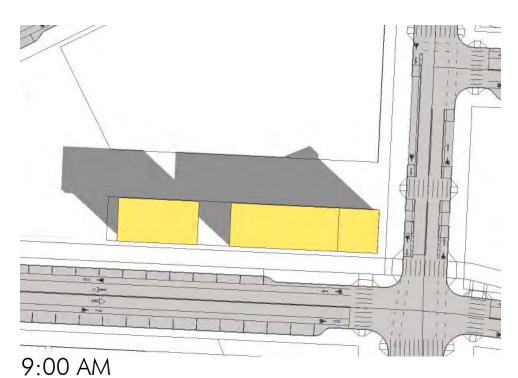


SHADOW STUDY: SEPTEMBER 21ST

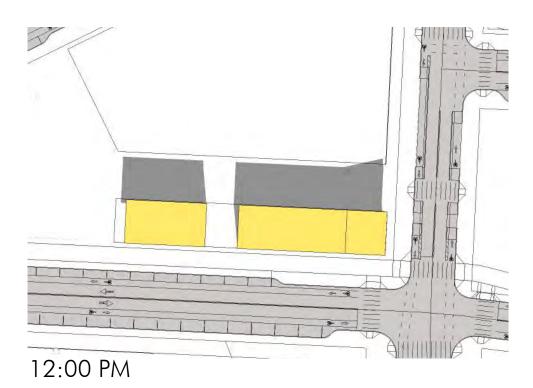


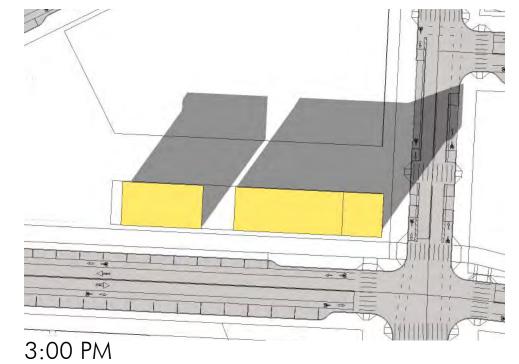






SHADOW STUDY: DECEMBER 21ST













Ap<sup>+</sup>iŰk, ξ 17

a<sup>+</sup>k Ecΰpse, AIA, LEED AP gg1 Hampshi<sup>+</sup>e St<sup>+</sup>eet Camb<sup>+</sup>id e, A g1!"

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### **MassDEP Noise Regulation**

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### **Cambridge Noise Control Ordinance**

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### Table of Zoning District Noise Standards (maximum octave band sound pressure levels).

Octave Band center Frequency Measurement	Residential Area		Residential in Industrial		Commercial Area	Industry Area
(Hz)	Daytime	Other	Daytime	Other	Anytime	Anytime
31.5	76	68	79	72	79	83
63	75	67	78	71	78	82
125	69	61	73	65	73	77
250	62	52	68	57	68	73
500	56	46	62	51	62	67
1,000	50	40	56	45	56	61
2,000	45	33	51	39	51	57
4,000	40	28	47	34	47	53
8,000	38	26	44	32	44	50
Single Number						
Equivalent (dB(A))	60 dBA	50 dBA	65 dBA	55 dBA	65 dBA	70 dBA

327 F BOSTON POST ROAD, SUDBURY, MA 01776-3027 | 978.443,7871 www.cavtocci.com



CAMBRIDGE CROSSING - Parcel I Retail Acoustical Study

Pa

**Noise at Nearby Receptors** 

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# LEED v4 for BD+C: Core and Shell

Project Checklist

1		Credit	Integrative Process	1

19	0	1	Loca	ocation and Transportation					
X	Х	X	Credit	LEED for Neighborhood Development Location	20				
2			Credit	Sensitive Land Protection	2				
3			Credit	High Priority Site	3				
6			Credit	Surrounding Density and Diverse Uses	6				
6			Credit	Access to Quality Transit	6				
1			Credit	Bicycle Facilities	1				
1			Credit	Reduced Parking Footprint	1				
		1	Credit	Green Vehicles	1				

4	4	3	Sust	Sustainable Sites				
Υ			Prereq	Construction Activity Pollution Prevention	Required			
1	Cre		Credit	Site Assessment	1			
		2	Credit	Site Development - Protect or Restore Habitat	2			
	1		Credit	Open Space	1			
	2	1	Credit	Rainwater Management	3			
2			Credit	Heat Island Reduction	2			
	1		Credit	Light Pollution Reduction	1			
1			Credit	Tenant Design and Construction Guidelines	1			

5	0	6	Wate	Nater Efficiency					
Υ			Prereq	Outdoor Water Use Reduction	Required				
Υ			Prereq	Indoor Water Use Reduction	Required				
Υ			Prereq	Building-Level Water Metering	Required				
1		1	Credit	Outdoor Water Use Reduction	2				
3		3	Credit	Indoor Water Use Reduction	6				
		2	Credit	Cooling Tower Water Use	2				
1			Credit	Water Metering	1				

8	0	25	Ene	rgy and Atmosphere	33
Υ			Prereq	Fundamental Commissioning and Verification	Required
Υ			Prereq	Minimum Energy Performance	Required
Υ			Prereq	Building-Level Energy Metering	Required
Υ			Prereq	Fundamental Refrigerant Management	Required
5		1	Credit	Enhanced Commissioning	6
		18	Credit	Optimize Energy Performance	18
1			Credit	Advanced Energy Metering	1
		2	Credit	Demand Response	2
		3	Credit	Renewable Energy Production	3
		1	Credit	Enhanced Refrigerant Management	1
2			Credit	Green Power and Carbon Offsets	2

Project Name: NorthPoint Parcel 'I'

Date: November 8, 2017

7	0	7	Materi	ials and Resources	14
Υ			Prereq St	torage and Collection of Recyclables	Required
Υ			Prereq Co	onstruction and Demolition Waste Management Planning	Required
3		3	Credit Bu	uilding Life-Cycle Impact Reduction	6
1		1	Credit	uilding Product Disclosure and Optimization - Environmental roduct Declarations	2
		2	Credit	uilding Product Disclosure and Optimization - Sourcing of Raw laterials	2
1		1	Credit Bu	uilding Product Disclosure and Optimization - Material Ingredients	2
2			Credit Co	onstruction and Demolition Waste Management	2

5	0	5	Indoor Environmental Quality	10
Υ			Prereq Minimum Indoor Air Quality Performance	Required
Υ	1		Prereq Environmental Tobacco Smoke Control	Required
2			Credit Enhanced Indoor Air Quality Strategies	2
1		2	Credit Low-Emitting Materials	3
1			Credit Construction Indoor Air Quality Management Plan	1
		3	Credit Daylight	3
1			Credit Quality Views	1

4	0	2	nnovation		
3		2	Credit Innovation	5	
1			Credit LEED Accredited Professional	1	

2	1	1	Regional Priority	4
1			Credit Regional Priority: High Priority Site	1
	1		Credit Regional Priority: Rainwater management (2 pt threshold)	1
		1	Credit Regional Priority: Optimize Energy (8 pt threshold)	1
1			Credit Regional Priority:Building Life Cycle Impact Reduction	1

55	5	50	<b>TOTALS</b>	Possible Points:	110

Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: {







Sustainable Design Consulting

# Cambridge Crossing Parcel I Retail

Transitioning to Net Zero

The small core and shell retail project located on Parcel I at Cambridge Crossing presents a challenge for achieving net-zero energy. The proposed design reflects new construction being built to the best of currently available technology and efficiency given market and program restraints. The design team continues to evaluate opportunities to reduce energy consumption and greenhouse gas emissions.

The team has brainstormed pathways for potential emissions reductions, including analyzing various building envelope properties, lighting and HVAC systems, future greening of the grid, and what it would take to fully electrify the buildings.

Additional energy savings are likely to be seen in advancement of building controls and active personalization of the interior environment. New technologies have the opportunity to be tested and incorporated as tenant turnover happens over the life of the building bringing spaces up to the most current integrated systems.

The biggest reduction-potential in energy consumption and greenhouse gas emissions for a core and shell retail building will likely be in the glazing, lighting and HVAC performance. In this case, the team predicts a significant reduction in building emissions is possible. Fit out program and technology is determined by the tenant that occupies the space.

The team discussed where it sees energy supply and decarbonization in the future, particularly with improvements from the grid electricity sources. The makeup of the Massachusetts energy grid is anticipated to shift more towards renewable energy sources in the coming decades. Thus, the electricity component consumed by the project under the current design could see an improvement in emissions factors over the years, and a correlating reduction the overall emissions from operation of the building.

The project mechanical equipment has the ability to be transitioned to all-electric systems in the future.





Page	Section	Requirements	Compliance	Check
	13.73 Use Regulations	Any use permitted in Article 16 but subject only to the requirements and limitations of this section 13.70.	Potential Uses: Retail, Eating and Drinking Establishments with and without Liquor, Consumer Service Establishments	<b>√</b>
	13.73.1 Special Provisions Related to Permitted Retail Uses	Individual cannot exceed 10,000 gross square feet; no off street parking, Planning Board may approve 1 space per 2,000 sf gross floor area	No Proposed Uses over 10,000sf	<b>√</b>
	13.74.1 Allowed FAR	Allowed FAR = 2.4	Proposed GSF = 6,750; Proposed FAR = 0.40	<b>✓</b>
	13.74.4 Other Dimensional Requirements	No specified minimum lot size, width, or yards	N/A	
	13.74.31 Portions of Buildings Limited to Sixty-five Feet	Buildings within 50 feet of public open space, max height = 65 feet	Proposed Building Height = 22'-6"	<b>✓</b>
	13.76 Parking and Loading, see Article 6.83 Loading Facility Category C	First Bay Required at 10,000gsf	N/A	<b>✓</b>
	13.76 Parking and Loading	Bike Parking: Retail - Long Term .1 per 1,000sf, Short Term 1 per 1,000sf / Restaurant - Long Term .2 per 1,000sf, Short Term 1 per 1,000sf	Proposed Bike Parking: Short Term = 7, Long Term = 1	<b>✓</b>
	13.76 Parking and Loading	No accessory parking required	Proposed Parking = none	<b>✓</b>

Zoning Map: NP/PUD6 according to Northpoint Business, Office, and Residential District. See Article 13 for PUD-6 Regulations



Page	Section	Guideline Description	Compliance	Check
ΰk	3.9 Parcel I Retail	Activate NorthPoint Common	Retail uses and transparent facades activate the public realm.  Parcel I Retail and Parcel I Residential form an active, intimate retail plaza between buildings.	<b>√</b>
ŰŔ	3.9 Parcel I Retail	Establish human scale and balance the scale of ad%cent buildings	One story buildings with horizontal breaks in facades establish human scale	<b>✓</b>
Űκ	3.9 Parcel I Retail	Enhance East-West Connectivity between NorthPoint Common and Water Street Park	A continuous open space retail plaza enhances East-West Connectivity	<b>✓</b>
ŰŔ	3.9 Parcel I Retail	Have a visual presence from First Street and Water Street Park	Change in roof height on First Street and overhangs with transparent facades create a visual presence from First Street and Parcel I Open Space	<b>√</b>
ŰŔ	3.9 Parcel I Retail	Maintain North-South connections from Northpoint Boulevard to the Retail Plaza	An open air break in the building plus transparent facades maintain North-South connections	<b>✓</b>
ÚŔ	3.9 Parcel I Retail	Follow MultiUse Path guidelines	Setbacks and entries follow Multi-Use Path guidelines	<b>✓</b>
ŰŔ	3.9 Parcel I Retail	Create transparency to enable views through retail buildings	Transparent facades and a shallow footprint enable views through retail buildings	<b>√</b>
ŰŔ	3.9 Parcel I Retail	Engage Water Street Park and Retail Plaza with as much ground floor retail frontage as possible	Retail frontage on all sides engages Parcel I Open Space and Retail Plaza	<b>✓</b>
ŰŔ	3.9 Parcel I Retail	Create restaurant seating at second floor terraces (encouraged)	Buildings are one story and do not contain second floor terraces	<b>√</b>
ΰk	3.9 Parcel I Retail	Use the orientation and exposure to sun and minimize shadows on parks and surrounding buildings	Buildings are one story to maximize exposure to sun and minimize shadows on parks and surrounding buildings	<b>√</b>





Page	Section	Guideline Description	Compliance	Check
39	3.1 Open spaces	All open spaces will be open to the public and designed to encourage public use. Open spaces including NorthPoint Common will be designed to support, enhance, and balance the commercial and residential development at NorthPoint.	The Retail I Plaza is open to the public and designed to encourage public use. The plaza supports the surrounding retail uses in the pavilions and on the ground floor of residential Building I.	<b>√</b>
39	3.1 Open spaces	The provision of open spaces of diverse size and use is encouraged to enhance the public environment at NorthPoint. All open spaces at NorthPoint shall be designed to be public in nature, creating an open environment that the public can easily identify that is welcoming for everyone's use.	The Plaza is one of the most urban spaces at the center of Cambridge Crossing. It is highly visible, with an open civic character, a robust paved surface, canopy trees to provide shade and a combination of fixed and moveable furniture.	<b>√</b>
39	3.1 Open spaces	The provision of an interconnected series of open spaces is encouraged to provide connections both to neighborhoods and within NorthPoint so as to promote pedestrian movement.	The Plaza provides a central pedestrian connection between the Common and First Street to the east, Park I to the west and the Community Path to the south.	<b>√</b>
39	3.1 Open spaces	Open spaces shall be visible and accessible from public streets.	Direct sightlines and multiple points of access are provided from First Street, NorthPoint Boulevard and adjacent open spaces.	<b>√</b>
39	3.1.1 Open space programming	Plaza: Cafes, Retail, Markets, Public Events, Seating, Water Features, Gathering, People Watching.	The Plaza and the Common will accommodate retail spaces, sitting and gathering areas for larger formal and informal events for a variety of users.	<b>✓</b>
42	3.1.3 Plazas	The Retail Square will be the heart of NorthPoint, and should be designed to become a vibrant public gathering place, where open space, retail activities, and public events come together. The Retail Square is the point at which the First Street corridor and the east-west open space spine and Community Path cross each other, and clear pedestrian connections and lines of sight should be encouraged to facilitate pedestrian movement between the two. The retail Pavilions should be configured to promote activation of the public plaza and park spaces through restaurant and cafe terraces, and activity areas. Tree and built shade structures are encouraged to create a strong green connection, and a comfortable microclimate during the summer months. Great care should be taken in the design of plazas and paths to minimize the potential for unsafe conflicts between vehicles, pedestrians and cyclists.	The Retail Plaza is a vibrant gathering place, with accessible connections from all sides. The design encourages free pedestrian flow from the streets to the plaza with strong connections to the Common and the First Street corridor. The retail pavilions and the plaza promote active public use through their flexible design and shade provided by architectural canopies, trees and moveable shade structures.	
52	3.2.3 NorthPoint Boulevard	Street trees will be planted on both sides of the street where possible, and the design of the Community Path should be handled as a part of the street and sidewalk section of NorthPoint Boulevard, and should meet the standards required for buffers and signage.	The Retail Building, landcape elements and signage are 4' from the edge of the Community Path, providing the required buffer.	<b>√</b>





### SIGNAGE CRITERIA

See building elevations for extent of allowable signage. All tenant signage is subject to review and approval by the City of Cambridge.

### **GUIDING PRINCIPLES**

These criteria provide guidelines for the design of tenant signage to ensure high standards of design quality that enhances the Northpoint neighborhood and conveys the Tenant's identity. Tenants are encouraged to use high quality materials and lighting in creative ways that enliven the streetscape. Individual brand identity, colors, and logos are encouraged. All tenant designs must be submitted for review by DivcoWest, their retail master plan architect, and the base building architect, in conformance with applicable requirements.

### PREFERRED SIGNAGE TYPES AND AREAS



**Wall Signs:** 1 sf per linear foot of tenant frontage, 60 sf maximum. 20 feet maximum height above grade, provided it is below the sill line of the second floor windows or the lowest point of the roof, whichever is less.



**Awning Signs:** Graphics are encouraged on tenant installed canopies. All graphics must comply with City of Cambridge area requirements.



**Projecting Signs:** 6 sf maximum area per side; 1 sign allowed per ground floor establishment; 1 sign allowed at a public building entrance not serving a ground floor establishment.



**Window Graphics** are considered Wall Signs per Cambridge Zoning Ordinance.

# SIGNAGE ILLUMINATION Preferred:



**Preferred: Halo-illumination:** individual reverse channel letters with lighting concealed inside the letter, casting light behind the letter against an opaque sign panel of wall surface.

NOTE: All tenant signage is subject to review and approval by the City of Cambridge.



**Preferred: Exterior gooseneck-type lighting** of individual lettering. Continuous strip lighting is not allowed.



**Preferred: Internally illuminated individual transluscent letters** with opaque sides. Lighting to be mounted inside each individual letter. See Zoning Article 7 for additional requirements.

### INTRODUCTION

Tenant design guidelines are intended to encourage a high level of design and placemaking for the neighborhood and maximize visibility and identity for tenants. All tenant designs must be submitted for review by DivcoWest, their retail master plan architect, and the base building architect, in conformance with applicable requirements.

### STOREFRONT AND SURROUND

Tenants are encouraged to design and construct a creative storefront and surround in accordance with their individual brand identity. The specific limits of design work will be indicated in each tenant's Lease.

### **AWNINGS**

Awnings and canopies are strongly encouraged by all tenants to provide character and variety to the streetscape, increase indentity of retailers, and cover pedestrians from inclement weather.

### **DISPLAY ZONE**

The first six feet of a retail tenant's space shall be a display zone with creative displays that showcase their brand identity. Merchandising racks and fixtures are not permitted within the display zone. Lighting that highlights the displays shall be provided within the zone. Lighting shall be on a timeclock and must be illuminated during hours determined by the landlord.





Storefront and surround materials should be high quality, low maintenance, and durable. Storefronts should maximize the amount of clear glazing and display space. Storefront glazing should have a minimum 6" high durable/impact resistant base. Recessed entries are encouraged.



Awnings should not extend below 9'-0" above the sidewalk and should project a minimum of 3'-0" and a maximum of 5'-0" from the building face. Tenant identity color and graphics are encouraged. Awning material may be fabric, metal or glass. Awnings should not have vertical sides.





Well-designed and detailed storefronts and surrounds are encouraged.



Tenants in multi-story buildings must incorporate ventilation louvers into their storefront design.



Awnings and canopies add to tenant identity and create protection for pedestrians and diners.



A display zone showcases tenant's identity and enlivens the streetscape.

NOTE: All tenant signage is subject to review and approval by the City of Cambridge.



# PRELIMINARY RESULTS



# NORTHPOINT - PARCEL I

CAMBRIDGE, MA

### **PEDESTRIAN WIND STUDY**

RWDI #1603151 March 5, 2018

### **SUBMITTED TO**

### **Devanshi Purohit**

Senior Associate Senior Urban Designer Devanshi Purohit purohit@cbtarchitects.com

### **CBT Architects**

110 Canal Street, Boston MA 02114 617 646 5132

### **SUBMITTED BY**

### Priya Patel, B.Eng.

Technical Coordinator Priya.Patel@rwdi.com

### Jordan Gilmour, P.Eng.

Senior Project Manager / Principal Jordan.Gilmour@rwdi.com

### **RWDI**

600 Southgate Drive, Guelph, Canada, N1G 4P6 T: 519.823.1311 F: 519.823.1316 RWDI#1603151 March 5. 2018



### **SUMMARY**

The following document provides the preliminary results for the Pedestrian Wind Study conducted for the proposed Northpoint – Parcel I (Project) located in Cambridge, Massachusetts. The project site, photographs of the wind tunnel study model and the wind statistics recorded at the Boston Logan International Airport used in the study are shown in **Images 1, 2,** and **3,** respectively. The RWDI Pedestrian Wind Criteria, which deal with both pedestrian safety and comfort as they relate to wind force, are also described to assist with the interpretation of the results presented.

The predicted wind comfort and safety conditions pertaining to the site configuration assessed are graphically depicted on a site plan in **Figures 1 through 3**. These conditions and the associated wind speeds are presented in **Table 1**. The following configuration was tested:

- Future Configuration: Parcel I in the presence of existing and future surrounding buildings, including existing and future landscaping

While referring to the RWDI Pedestrian Wind Criteria description that follows, we encourage the design team to review the results and assess them against the intended pedestrian usage at specific locations. If there are locations where improved conditions are desired, the RWDI team is prepared to discuss and suggest conceptual wind control strategies. Additional commentary regarding background on wind flow patterns, wind comfort levels, and any further recommendations for wind control measures to help moderate wind activity in areas of high wind activity will be presented within the final report. Prior to issuing the report, we suggest that we have a teleconference to go over the results and discuss the types/locations/feasibilities of possible wind control measures.





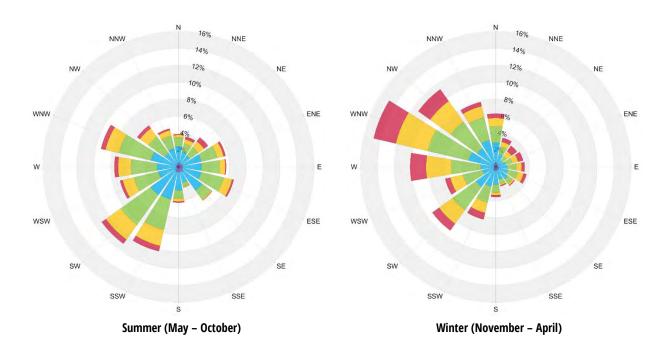
Image 1: Site plan – Aerial view of site and surroundings (courtesy of Google™ Earth)



Image 2: Wind tunnel study model - proposed configuration

### RWDI#1603151 March 5, 2018





	Wind Speed	Probal	oility (%)
	(km/h)	Summer	Winter
	Calm	2.5	2.1
	1-5	7.5	5.6
	6-10	35.3	27.0
	11-15	34.8	31.7
	16-20	15.1	20.9
	>20	4.8	12.6

Image 3: Directional distribution of winds approaching Boston Logan International Airport from 1987 to 2017

RWDI#1603151 March 5, 2018



## RWDI PEDESTRIAN WIND CRITERIA

The RWDI pedestrian wind criteria are used in the current study. These criteria have been developed by RWDI through research and consulting practice since 1974. They have also been widely accepted by municipal authorities as well as by the building design and city planning community.

### **RWDI Pedestrian Wind Criteria**

Comfort Category	GEM Speed (mph)	Description
Sitting	<u>≤</u> 6	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	<u>≤</u> 8	Gentle breezes suitable for main building entrances, bus stops, and other places where pedestrians may linger
Strolling	<u>&lt;</u> 10	Moderate winds that would be appropriate for window shopping and strolling along a downtown street, plaza or park
Walking	<u>&lt;</u> 12	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 12	Strong winds of this magnitude are considered a nuisance for all pedestrian activities, and wind mitigation is typically recommended

### Notes:

- (1) Gust Equivalent Mean (GEM) Speed = max (mean speed, gust speed/1.85); and;
- (2) GEM speeds listed above based on a seasonal exceedance of 20% of the time between 6:00 and 23:00.

Safety Criterion	Gust Speed (mph)	Description
Exceeded	> 56	Excessive gust speeds that can adversely affect a pedestrian's balance and footing. Wind mitigation is typically required.

### Notes:

Based on an annual exceedance of 9 hours or 0.1% of the time for 24 hours a day.

A few additional comments are provided below to further explain the wind criteria and their applications.

- Both mean and gust speeds can affect pedestrian comfort and their combined effect is typically quantified by a Gust Equivalent Mean (GEM) speed, with a gust factor of 1.85.
- Instead of standard four seasons, two periods of summer (May to October) and winter (November to April) are adopted in the wind analysis, because in a cold climate such as that found in Cambridge, there are distinct differences in pedestrian outdoor behaviors between these two time periods.

# PEDESTRIAN WIND STUDY NORTHPOINT - PARCEL I

### RWDI#1603151 March 5. 2018



- Nightly hours between midnight and 5 o'clock in the morning are excluded from the wind analysis for comfort since limited usage of outdoor spaces is anticipated, while wind safety analysis is conducted for a 24-hour period.
- A 20% exceedance is used in these criteria to determine the comfort category, which suggests that wind speeds would be comfortable for the corresponding activity at least 80% of the time or four out of five days.
- Only gust wind speeds need to be considered in the wind safety criterion. These are usually rare events, but deserve special attention in city planning and building design due to their potential safety impact on pedestrians.

These criteria for wind forces represent average wind tolerance. They are sometimes subjective and regional differences in wind climate and thermal conditions as well as variations in age, health, clothing, etc. can also affect people's perception of the wind climate. Comparisons of wind speeds for different building configurations are the most objective way in assessing local pedestrian wind conditions.







Pedestrian Wind Comfort Conditions
Proposed Configuration
Summer (May to October, 6:00 to 23:00)

North	Drawn by: ck		Figure:	1
$\mathcal{V}$	Approx. Scale:		1"=80	,
3151	Date Revised:		Mar. 5. 2	01

Project #1603151 Date Revised: Mar. 5, 2018



Pedestrian Wind Comfort Conditions
Proposed Configuration
Winter (November to April, 6:00 to 23:00)

Drawn by: Approx. Scale: Project #1603151 | Date Revised: Mar. 5, 2018



Northpoint - Parcel I - Cambridge, MA



True North Approx. Scale: Project #1603151 | Date Revised: Mar. 5, 2018



Northpoint - Parcel I - Cambridge, MA



# **TABLES**



**Table 1: Pedestrian Wind Comfort and Safety Conditions** 

			Wind	Comfort		\	Wind Safety
Location	Configuration		Summer		Winter	1	Annual
Location	Comgaration	Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
1	Proposed	8	Standing	10	Strolling	39	Pass
2	Proposed	7	Standing	8	Standing	35	Pass
3	Proposed	6	Sitting	6	Sitting	25	Pass
4	Proposed	7	Standing	7	Standing	32	Pass
5	Proposed	9	Strolling	10	Strolling	44	Pass
6	Proposed	9	Strolling	10	Strolling	42	Pass
7	Proposed	7	Standing	8	Standing	35	Pass
8	Proposed	6	Sitting	7	Standing	33	Pass
9	Proposed	10	Strolling	11	Walking	45	Pass
10	Proposed	9	Strolling	12	Walking	45	Pass
11	Proposed	10	Strolling	12	Walking	43	Pass
12	Proposed	7	Standing	9	Strolling	35	Pass
13	Proposed	6	Sitting	8	Standing	30	Pass
14	Proposed	6	Sitting	7	Standing	28	Pass
15	Proposed	9	Strolling	11	Walking	41	Pass
16	Proposed	7	Standing	7	Standing	33	Pass
17	Proposed	8	Standing	8	Standing	39	Pass
18	Proposed	8	Standing	10	Strolling	35	Pass
19	Proposed	7	Standing	9	Strolling	34	Pass
20	Proposed	7	Standing	8	Standing	34	Pass
21	Proposed	9	Strolling	10	Strolling	43	Pass
22	Proposed	8	Standing	9	Strolling	44	Pass
23	Proposed	7	Standing	8	Standing	34	Pass

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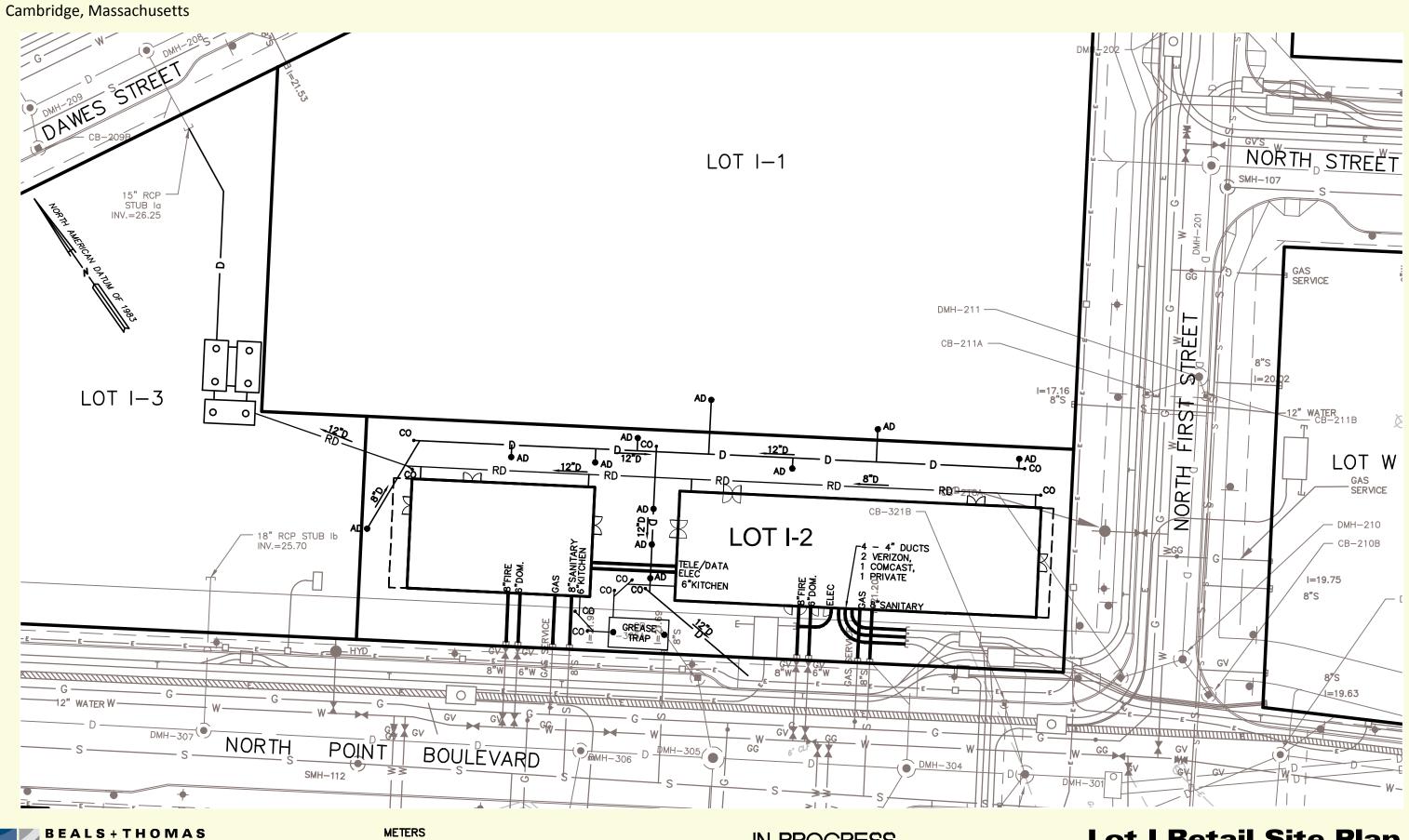
**Table 1: Pedestrian Wind Comfort and Safety Conditions** 

		Wind Comfort				Wind Safety	
Location	Configuration	Summer			Winter		Annual
Location	Comiguration	Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
24	Proposed	7	Standing	7	Standing	29	Pass
25	Proposed	8	Standing	9	Strolling	37	Pass
26	Proposed	8	Standing	8	Standing	37	Pass
27	Proposed	8	Standing	8	Standing	39	Pass
28	Proposed	7	Standing	8	Standing	30	Pass
29	Proposed	7	Standing	8	Standing	32	Pass
30	Proposed	6	Sitting	7	Standing	27	Pass
31	Proposed	6	Sitting	6	Sitting	24	Pass

Seasons		Hours	Co	mfort Speed (mph)	Safety Speed (mph)
Summer	May - October	6:00 - 23:00 for comfort	(20%	Seasonal Exceedance)	(0.1% Annual Exceedance)
Winter	November - April	0:00 - 23:00 for safety	≤ 6	Sitting	≤ 56 Pass
Configurati	ons		7 - 8	Standing	> 56 Exceeded
Proposed	Proposed With the proposed development and future surroundings			Strolling	
			11 - 12	Walking	
			> 12	Uncomfortable	

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# **NorthPoint**



Civil Engineers + Landscape Architects + Land Surveyors + Planners +

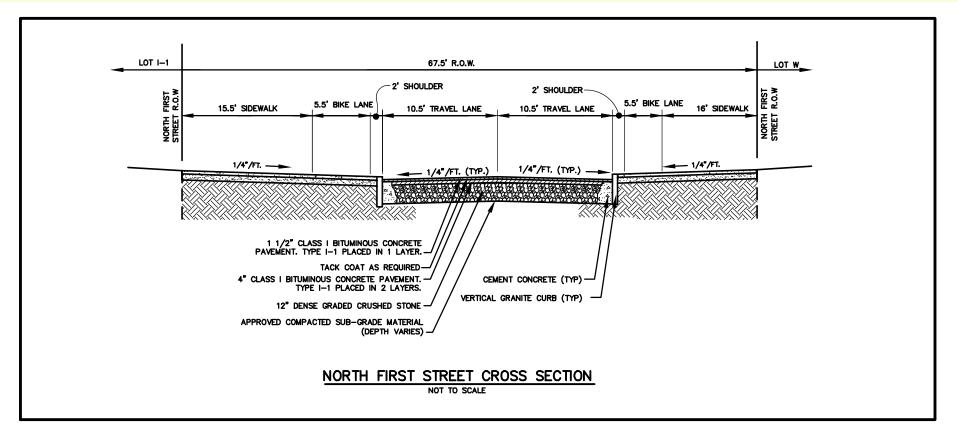
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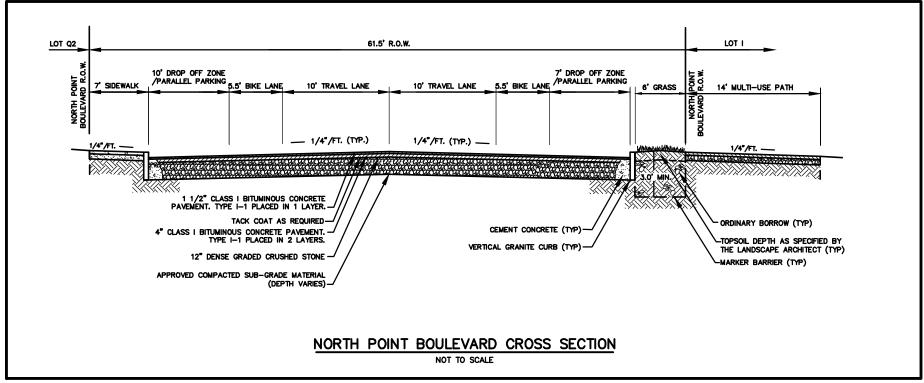
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FEET

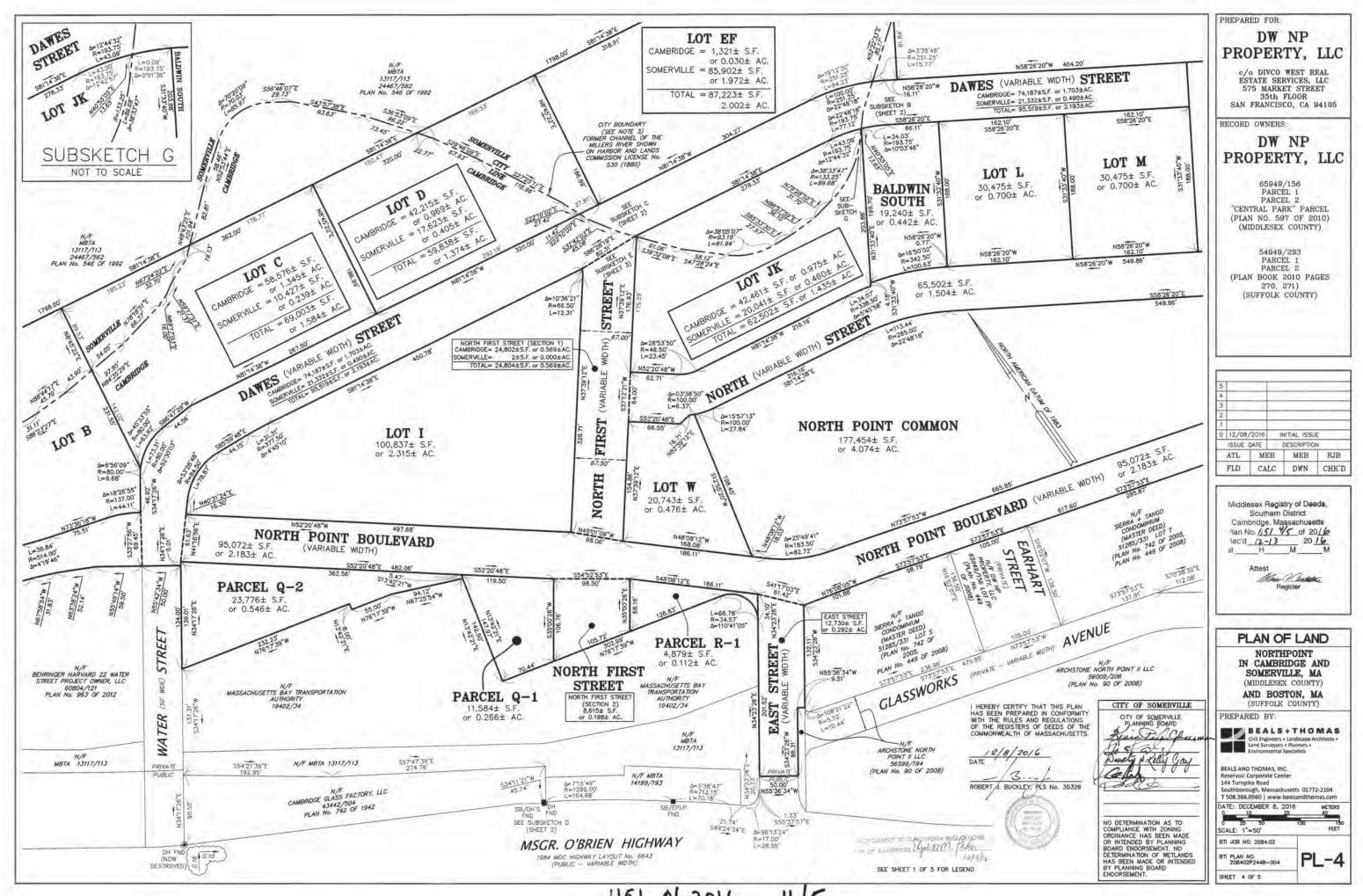
IN PROGRESS 2/15/18

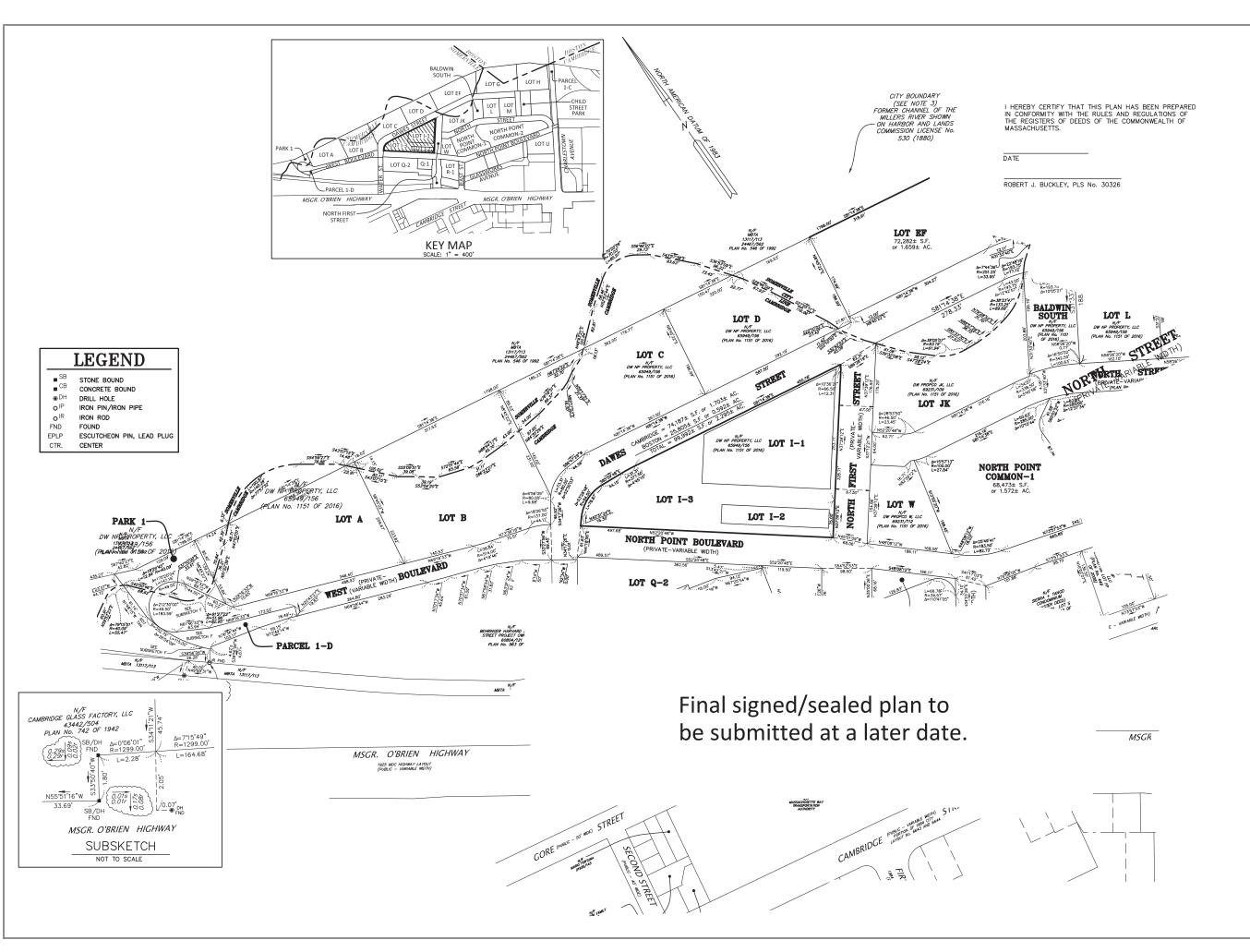
**Lot I Retail Site Plan** 

1









PREPARED FOR:

### DW NP PROPERTY, LLC

c/o DIVCO WEST REAL ESTATE INVESTMENTS 200 STATE STREET 12th FLOOR BOSTON, MA 02109

RECORD OWNERS:

### DW NP PROPERTY, LLC

65949/156 LOT I PLAN No. 1151 OF 2016

F	4						
Ŀ	3						
E	2						
	1	XX/XX/2018		REVISE ABUTTERS AND LOT I			
	0	12/21/	2016	INITIAL ISSUE			
		ISSUE [	DATE	DESCRIPTION			
Г	ATL MI		EΒ	MEB	RJB		
FLD CAI		LC	DWN	CHK'D			

IN PROGRESS 2/26/2018



CAMBRIDGE CROSSING

IN

CAMBRIDGE, MA (MIDDLESEX COUNTY)

PREPARED BY:



BEALS AND THOMAS, INC. Reservoir Corporate Center 144 Turnpike Road

144 Turnpike Road Southborough, Massachusetts 01772-2104 T 508.366.0560 | www.bealsandthomas.com

DATE: DECEMBER 21, 2016 METE
0 10 25 40
0 25 50 100
SCALE: 1"=50' FE

BTI JOB NO. 2084.02

BTI PLAN NO. 208402P304B-001

SHEET 1 OF 1

