



# NORTHEASTERN UNIVERSITY

## Boston Campus

# Institutional Master Plan

Submitted to  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

Prepared by  
Northeastern University  
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Submitted on  
**June 14, 2013**  
**(Revised November 20, 2013)**





# Northeastern

**Submitted June 14, 2013  
(Revised November 20, 2013)**

Mr. Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Square  
Boston, Mass 02201

Attn: Mr. Gerald Autler  
Senior Project Manager/Planner

**Re: Revised Northeastern University Institutional Master Plan**

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Dear Director Meade,

On behalf of Northeastern University, I am pleased to transmit Northeastern's Revised Institutional Master Plan for 2013-2023, reflecting changes requested by the Boston Redevelopment Authority ("BRA"), Northeastern Community Task Force, and interested residents and parties over the course of the public reviews of the IMP, which was originally submitted to the BRA on June 14, 2013. The IMP also reflects changes described in the BRA Board Memo on the Northeastern IMP, dated November 14, 2013.

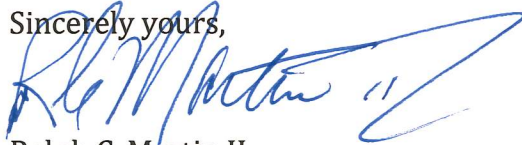
The Northeastern's current IMP, dated February 22, 2000, was approved by the Mayor on July 13, 2000, and was amended and renewed over the last 12 years. In late 2011, Northeastern began its planning process to prepare a new IMP. During the past almost two years this process has included extensive information-gathering sessions with faculty, staff and students, neighborhood-focused meetings, briefings for elected officials and other key stakeholders, and many individual discussions with the 18-member Northeastern Community Task Force.

Mr. Peter Meade, Director  
Boston Redevelopment Authority  
November 20, 2013  
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Over this period, Northeastern has strived to develop its plans with a high level of community engagement, and has welcomed participation with the Task Force and BRA to consider IMP opportunities that serve the mutual interests of the community and the university. Some of these opportunities are expected to develop into sustainable partnerships in Boston neighborhoods. Northeastern will also utilize its strengths as a teaching and research institution in the creation of new community benefit initiatives, many of which are described in this IMP.

We look forward to continuing our work with the BRA, other city agencies and elected and appointed officials, and our neighbors, and we appreciate the professionalism, dedication and time your staff has devoted to the IMP engagement process. We are also deeply appreciative of the time, effort and thoughtfulness the Community Task Force and other interested community members devoted to working with us to create this IMP.

Sincerely yours,



Ralph C. Martin II  
Senior Vice President and General Counsel

Attachment: Northeastern University, Boston Campus, Institutional Master Plan, Submitted June 14, 2013 **(Revised November 20, 2013)**

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<b>Appendix E</b>	<b>Additional Historic Resources</b>
<b>Appendix F</b>	<b>Institutional Partnership Template</b>
<b>Appendix G</b>	<b>Public Notice of the IMP</b>
<b>Appendix H</b>	<b>Off-Campus Student Housing Market Impact Study</b>
<b>Appendix I</b>	<b>Boston Redevelopment Authority Board Memorandum on Northeastern University’s IMP, November 14, 2013</b>

## 1.0 INTRODUCTION

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### 1.1 Background/Overview

Northeastern University (University) is submitting this Institutional Master Plan (IMP) to the Boston Redevelopment Authority (BRA) pursuant to Section 80D – Institutional Master Plan Review of the Boston Zoning Code (Code) for the institutional master plan area identified in **Figure 1-1**. On December 21, 2012, the University submitted an Institutional Master Plan Project Notification Form (IMPNF) to the BRA, which commenced a community review process through the Northeastern Community Task Force (CTF). The 18-member group was appointed by the City of Boston to assist the University and BRA in the development of Northeastern’s Institutional Master Plan which has been meeting since spring 2012.

The goals of the University, as expressed in this IMP, are to ensure that:

- Academic facilities are of a caliber and size to advance the University’s instructional and research programs;
- Student activities and residential life facilities draw more students onto campus for living and campus involvement;
- Campus aesthetics, especially community-facing edges and gateways, are greatly enhanced; and
- Mutual interests of the Community and the University are served through a sustainable community engagement strategy that produces mutually beneficial economic, programmatic and recreational enhancements in Boston neighborhoods with which the University interacts.

In late 2011, the University began its planning process to prepare this new IMP for the 10 years between 2013 and 2023. The University’s current IMP, dated February 22, 2000, was approved by the Mayor on July 13, 2000. It has been amended and renewed through December 2012, as described below.

The University has engaged a process that has included extensive information-gathering sessions with faculty, staff and students, neighborhood meetings, and with the CTF.

Northeastern has strived to develop its plans with a high level of community engagement, and has welcomed participating with the CTF and the BRA for more than a year to consider master plan opportunities that serve the mutual interests of the community and the University. Some of these opportunities are expected to develop into sustainable partnerships with the Community. The University also expects to utilize its strengths as a teaching and research institution in implementing new community benefit initiatives, many of which will accompany its proposed institutional projects. These benefits are outlined in **Chapter 12**.

### 1.2 History and Enrollment

Founded in 1898, Northeastern had a long history as a commuter school, attracting and serving a large student body of regional residents or those who temporarily relocated to the Boston area during their college years.



**NORTHEASTERN UNIVERSITY**  
**Boston Campus**  
**Institutional Master Plan**



Because students traveled to and from campus outside class time, there was little call for on-campus student amenities of the sort found at a residential campus, and small demand for residence halls.

Since the early 1990s, and more intensively over the last decade, the University has developed a national and even global reputation for research and academic rigor. From a one-time high of 20,000 undergraduates, mostly commuters, the University now has approximately 15,000 undergraduates, of whom more than 2,000 per semester have lived outside Boston, a trend that has held steady for several years. Graduate student enrollment, including all full- and part-time students in graduate and law programs, at the Boston, Charlotte and Seattle campuses and online, was approximately 11,500 in the 2012- 2013 academic year, and is projected to increase by 10% by 2021; the bulk of the increase is expected to come in online programs and at remote campuses in other cities, as the University's global reputation for research and knowledge creation rises.

### **1.3 Master Plan Progress**

#### **1.3.1 Housing**

Over the prior 10-12 year IMP period, the University has worked toward housing a higher proportion of its undergraduate students on its Boston campus. The prior IMP authorized completion of three additional dormitories (West Village Residence Halls B, C and E) as well as the Davenport Commons housing development, and identified two other potential future residential building sites. The University completed these residential/dormitory projects ahead of the schedule contemplated in the prior IMP. Northeastern subsequently amended its prior IMP on five occasions to incorporate additional student housing projects (West Village Residence Halls F, G and H, International Village residence hall on Parcel 18 West, 10 Coventry Street, and the GrandMarc residence hall (under construction) along with the purchase of the YMCA's Hastings Wing). Together, these projects exceeded the expectations established in the 2000 IMP, and will have added 5,039 on-campus student beds once GrandMarc is completed in 2014.

When GrandMarc opens, the total of university-controlled beds exceeds 8,500 in addition to the approximately 500 beds in master leases. This is greater than the number of beds proposed in the prior IMP. When accounting for students out of the area on co-op and those who reside outside Boston, that inventory will accommodate approximately 67% of the undergraduate student body seeking housing in Boston – a dramatic increase from the small percentage on campus just 12 years ago. In addition, currently all freshman and sophomores not commuting from homes in the Boston area are required to live on campus when not away at co-op, with the intent of creating a positive, safe common experience at the start of their academic career and reducing the number of underclassmen living in the surrounding neighborhoods.

Northeastern is committed to meeting the housing demand for its undergraduates who seek housing as well as to develop amenities to make the campus more attractive to the student community. These amenities, which include introduction of more versatile apartment style units attractive to older students, will not only help to market campus beds but will also attract off-campus students to the campus for more hours each day thereby reducing neighborhood impact.

Northeastern also recognizes that with advancements in online education, and with its remote campuses relying heavily on this approach, there will be a long-term impact on the total undergraduate bed count that may further reduce students living off-campus in the surrounding neighborhoods. Northeastern's level of undergraduate housing has been based on the traditional residential model, amplified by the requirement that all freshman and sophomores reside on campus. Moving forward, the University will continue to support a residential model in concert with a deep commitment to a global experiential model of education that encourages the undergraduate population to explore learning and work opportunities beyond Greater Boston. Northeastern will also need to adapt to market forces related to rising tuition, online education, and the threat of reduced federal financial aid – all of which pose challenges to the traditional residential model of education.

### **1.3.2 Academic, Student Life and Athletic Facilities**

The prior IMP recommended the addition of substantial residential space on campus as well as, in the 2006 Third Amendment, with more than 700,000 square feet of needed academic, research and administrative space. Significant progress was made on residential housing but on no other institutional priorities. In addition, there is a need to increase campus student life amenities including athletic facilities as a part of a concerted University effort to improve the campus experience for Northeastern students.

The IMP builds upon that need for significant new academic, student life and athletics facilities, while still proposing continued residential growth. A focus on new and expanded academic and research facilities is a reflection of decades of academic program growth, continuous faculty additions, research expansion and the University's long-range academic vision.

### **1.3.3 Renovation of Existing Campus Buildings**

While the University has had a successful trajectory of its academic reputation and achievements, it has also retained a significant stock of older academic facilities, many of which are not well suited to contemporary research and instruction.

## **1.4 Proposed IMP Projects**

This IMP sets forth the future needs of the University, which will be addressed with eleven new IMP projects during the ten-year term of the proposed master plan, with specific project sites to be refined and finalized during the IMP period. The University is focused on initially completing a proposed Interdisciplinary Science and Engineering Building (ISEB) IMP project as well as completing the 720-bed GrandMarc residence hall project before commencing additional projects.

## **1.5 Organization of the IMP**

This IMP is organized into fourteen chapters in accordance with the Scoping Determination issued by the BRA on April 5, 2013 (see **Appendix A**), as follows:

- *Chapter 1* is the introduction and overview;



- *Chapter 2* describes Northeastern’s Mission and Goals;
- *Chapter 3* lists existing Northeastern properties and uses, and Existing Development Impact Project payments;
- *Chapter 4* describes detailed progress since the 2000 IMP and Institutional Demographics;
- *Chapter 5* discusses the job training analysis;
- *Chapter 6* discusses the University’s planning and urban design framework;
- *Chapter 7* presents the proposed IMP development program;
- *Chapter 8* discusses the University’s Student Housing Plan;
- *Chapter 9* discusses the University’s transportation and parking program;
- *Chapter 10* presents the University’s infrastructure system;
- *Chapter 11* discusses the University’s environmental sustainability and its historic resources;
- *Chapter 12* outlines the proposed community/public benefits program;
- *Chapter 13* discusses the University’s Payments in Lieu of Taxes (PILOT) and real estate tax payments; and
- *Chapter 14* details responses to agency and community comments on the IMPNF.

## **1.6 Institutional Master Plan Chronology**

Over the prior institutional master plan period, the University completed a host of significant projects to the campus as outlined in the original IMP and the five amendments to the original IMP. The original IMP was approved by the Boston Redevelopment Authority (BRA) on June 6, 2000 and by the Boston Zoning Commission (BZC) on June 28, 2000 and became effective on July 13, 2000. The IMP was amended by the: (i) First Amendment, dated September 12, 2001, and effective December 27, 2001; (ii) Second Amendment, dated June 3, 2004, and effective September 9, 2004; (iii) Third Amendment, dated December 21, 2006, and effective February 2, 2007; (iv) Fourth Amendment, dated November 10, 2010, revised December 10, 2010, and effective December 14, 2010; and (v) Fifth Amendment, dated February 25, 2011 and effective May 6, 2011. In addition, on November 10, 2010, Northeastern submitted to the BRA, by a separate Institutional Master Plan Notification Form, an application for renewal and extension of the amended IMP until December 31, 2012, which was approved by the BRA on December 14, 2010.

The following sections outline the detail history of the University’s IMP process during the prior institutional master plan period.

### **1.6.1 Prior Master Plan**

Northeastern filed its proposed Institutional Master Plan (Prior IMP) with the BRA on February 22, 2000. The BRA approved the original IMP on June 6, 2000. The Boston Zoning Commission (Zoning Commission) approved the original IMP on June 28, 2000, and it was made effective with the signature of the Mayor on July 13, 2000.

### **1.6.2 IMP Amendment No. 1**

The First Amendment to the IMP was approved by the BRA and the Boston Zoning Commission in 2001 for Buildings G and H, adding 530 beds to the campus.

### **1.6.3 IMP Amendment No. 2**

In 2004, the BRA and the Boston Zoning Commission approved a Second Amendment to the IMP for the construction of West Campus Residence Hall F (adding 229 beds), classrooms, honors administration and the John D. O’Bryant African American Institute.

### **1.6.4 IMP Amendment No. 3**

The Third Amendment, approved by the BRA in 2006 and the Boston Zoning Commission in 2007, provided information on two new student residences proposed at that time on the current site of Cullinane Hall (288 St. Botolph Street) and on Parcel 18 West on Tremont Street to allow development of on-campus student housing and other university uses. (Cullinane Hall has since been proposed for academic uses with the approval of the nearby 720-bed GrandMarc residence hall referenced in the Fifth Amendment). In addition, the Third Amendment addressed the designated uses of five additional university-owned properties to meet anticipated future needs and to update the list of university-owned properties to include properties acquired since the adoption of the IMP or which were not included in the 2000 IMP. Under this Amendment, the University built International Village on Parcel 18 West, which added 1,200 beds, a dining hall, office space, classrooms and retail uses.

### **1.6.5 IMP Amendment No. 4**

The Fourth Amendment, approved by the BRA and the Boston Zoning Commission in 2011, permitted the University to lease the former Forsyth Dental Institute from the Museum of Fine Arts for office and research space, and permitted the University to extend its IMP through December 2012, thus allowing adequate time to initiate its new IMP.

### **1.6.6 IMP Amendment No. 5**

The Fifth Amendment, approved by the BRA in 2012, permitted the construction of GrandMarc at Northeastern residence hall on the former Huntington Avenue YMCA gymnasium site, which will open in 2014, adding 720 beds. GrandMarc is owned and is being constructed by a third-party developer. This Amendment also permitted the purchase of the Hastings Wing of the YMCA, making permanent and adding 88 beds formerly leased by the University to the total campus inventory.

## 1.7 Public Process and Coordination

In an effort to engage in a more collaborative and open process regarding the University's planning for physical development, the University, the City, the BRA and the University's neighbors from the Fenway, Roxbury, the South End and Mission Hill have joined in a Community Task Force public process.

To help guide the University in its current efforts, it has retained the architectural and planning firm of Chan Krieger NBBJ and an IMP permitting team coordinated by Mitchell L. Fischman Consulting LLC in partnership with Howard/Stein-Hudson Associates. The city-appointed members of the Community Task Force and the BRA initiated monthly task force meetings began in early 2012, and in early 2013 formed a subcommittee to advise on the university's housing impact study. The list of Task Force Members is presented in **Table 1-1** and a listing of community engagement meetings held to date on the IMP is presented in **Table 1-2**.

**Table 1-1. Northeastern University Community Task Force Members, 2013**

**Mission Hill**

Carmen Pola, Mission Hill Senior Legacy Project  
Patricia Flaherty, Mission Hill Neighborhood Housing Services  
Bruce Bickerstaff, The Roxbury Trust Fund  
Monica Castro, Sociedad Latina  
Jane D'Angelo, Mission Main

**Roxbury**

Matilda Drayton, Alice Heywood Taylor Homes  
Dorothea Jones, Roxbury Strategic Master Plan Oversight Committee  
Dolly Battle, Whittier Street Tenant Association  
Scotland Willis, Fort Hill  
Derek Lumpkins, Discover Roxbury  
Kyle Robidoux, Lower Roxbury  
William Dellea, United Neighbors of Lower Roxbury

**Fenway**

Joyce Foster, Fenway Community Development Corporation  
Cindy Brophy, Gainsborough Neighborhood Association  
Jane Hartmann, Symphony United Neighbors  
Matthew Brooks, Fenway Civic Association  
Karen E. Kidd, New England Conservatory

**South End**

John Morse, St. Botolph Neighborhood Association

**Housing Impact Study Subcommittee**

Dolly Battle  
Matthew Brooks  
William Dellea  
Patricia Flaherty  
Joyce Foster  
Scotland Willis

**Table 1-2. Listing of Community Engagement Meetings, 2012-2013**

**2012**

April 23	Briefing meeting for Boston elected officials
April 25	Community Task Force meeting
May 22	Community Task Force bus tour of campus and meeting
June 21	Community Task Force meeting
July 19	Community Task Force meeting
August 9	Fenway Civic Association meeting
August 14	Fenway/South End community meeting
August 16	Community Task Force meeting
September 20	Community Task Force meeting
September 26	Mission Hill/Lower Roxbury community meeting
October 18	Community Task Force meeting
November 1	Lower Roxbury/South End community meeting
November 13	Mission Hill community meeting
December 20	Community Task Force meeting

**2013**

January 28	Community Task Force meeting
February 12	Community Task Force meeting
March 28	Community Task Force meeting
April 10	Housing Impact Study Subcommittee meeting
April 24	Roxbury Community Meeting
May 21	Community Task Force meeting
June 5	Housing Impact Study Subcommittee meeting
June 11	Community Task Force meeting

## 1.8 Institutional Master Plan Team

Northeastern’s Institutional Master Planning Team includes the following individuals and organizations:

**Table 1-3. Northeastern University – IMP Project Team**

<p>Project Proponent:</p>	<p><b>Northeastern University</b>            360 Huntington Avenue            Boston, MA 02115            Tel: 617-373-2000</p> <p>Ralph Martin II, Senior Vice President and General Counsel            Steven Kadish, Senior Vice President and Chief Operating Officer            Nancy May, Vice President of Facilities            Robert Gittens, Vice President of Public Affairs            John Tobin, Vice President of City and Community Affairs            Kathy Spiegelman, Vice President and Chief of Campus Planning            James Cahill, Associate Vice President of Facilities            Lawrence Brophy, University Planner            James Chiavelli, Director of Solutions Planning</p>
<p>Environmental and            IMP Permitting Consultant:</p>	<p><b>Mitchell L. Fischman Consulting LLC</b>            41 Brush Hill Road            Newton, MA 02461            Tel : 781-760-1726</p> <p>Mitchell Fischman, <a href="mailto:mitch.fischman@tetrattech.com">mitch.fischman@tetrattech.com</a>            Margit Liander, <a href="mailto:liander.margit@gmail.com">liander.margit@gmail.com</a></p>

<p>Urban Design / Master Planning Consultant:</p>	<p><b>NBBJ</b>  One Beacon Street  Suite 5200  Boston, MA 02108</p> <p>Alex Krieger  Tel: 617-378-4800  <a href="mailto:akreiger@nbbj.com">akreiger@nbbj.com</a></p> <p>Patrick Tedesco, AIA Principal  Tel: 617-378-4800  <a href="mailto:ptedesco@nbbj.com">ptedesco@nbbj.com</a></p> <p>Nicholas Hornig, RIBA  Tel: 617-378-4800  <a href="mailto:nhornig@nbbj.com">nhornig@nbbj.com</a></p>
<p>Development Advisor:</p>	<p><b>Christopher Gordon</b>  Tel: 617-312-4265  <a href="mailto:cgordon@dirigogroup.net">cgordon@dirigogroup.net</a></p>
<p>Transportation Planner/Engineer:</p>	<p><b>Howard/Stein-Hudson Associates, Inc.</b>  38 Chauncy Street, 9<sup>th</sup> Floor  Boston, MA 02111  Tel: 617-482-7080 Fax: 617- 482-7417</p> <p>Joseph SanClemente, P.E., AICP, <a href="mailto:js@hshassoc.com">js@hshassoc.com</a>  Guy D. Busa, Jr., <a href="mailto:gbusa@hshassoc.com">gbusa@hshassoc.com</a></p>
<p>Civil Engineer:</p>	<p><b>Howard/Stein-Hudson Associates, Inc.</b>  38 Chauncy Street, 9<sup>th</sup> Floor  Boston, MA 02111  Tel: 617- 482-7080 Fax: 617- 482-7417</p> <p>Richard Latini, P.E., <a href="mailto:rlatini@hshassoc.com">rlatini@hshassoc.com</a></p>

<p>Historic Resources:</p>	<p><b>Tremont Preservation Services</b>  374 Congress Street, Suite 301  Boston, MA 02210  Tel: 617-482-0910</p> <p>Leslie Donovan <a href="mailto:donovanl@erols.com">donovanl@erols.com</a></p>
<p>Other Consultants:</p>	<p><b>Transsolar Inc.</b>  134 Spring Street, Suite 601  USA - New York, NY, 10012  Tel: 212-219-2255</p> <p>Erik Olsen, PE <a href="mailto:olsen@transsolar.com">olsen@transsolar.com</a>  Linda Lam <a href="mailto:lam@transsolar.com">lam@transsolar.com</a></p> <p><b>Dober Lidsky Mathey, Inc</b>  385 Concord Avenue, Suite 201  Belmont, Massachusetts 02478-3096  Tel: 617-489-1162</p> <p>Arthur Lidsky (<a href="mailto:alidsky@dlimplanners.com">alidsky@dlimplanners.com</a>)</p> <p><b>Byrne McKinney &amp; Associates, Inc.</b>  607 Boylston Street, Suite 603  Boston, MA 021116-3611  Tel: 617-578-9777</p> <p>Pamela McKinney, MAI, CRE, Principal  <a href="mailto:byrnemckinney@byrnemckinney.com">byrnemckinney@byrnemckinney.com</a></p>



## **2.0 NORTHEASTERN UNIVERSITY'S MISSION AND GOALS**

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### **2.1 Mission and Objectives**

Northeastern is a global, academic research university. Grounded in its signature cooperative education program, Northeastern today provides unprecedented experiential learning opportunities around the world. The university's rapidly growing research enterprise is strategically aligned with three national and global imperatives: health, security, and sustainability.

The University offers students opportunities for professional work, research, service, and global learning in the United States and 90 other countries. Northeastern offers a comprehensive range of undergraduate and graduate programs leading to degrees through the doctorate in nine schools and colleges. It is the purpose of the IMP to provide an organizational framework for creating a physical plant and infrastructure that strengthen and celebrate the University's mission.

### **2.2 Major Programs and Initiatives**

Northeastern's undergraduate colleges, myriad graduate programs, and part-time divisions offer bachelor's, master's, professional and doctoral degrees in a wide variety of academic disciplines and professional areas. The emphasis of the undergraduate and graduate programs is an approach that places the subject of study within a broader interdisciplinary perspective.

#### **Colleges & Schools**

- Bouvé College of Health Sciences
  - School of Nursing
  - School of Pharmacy
- College of Arts, Media and Design
  - School of Architecture
  - School of Journalism
- College of Computer and Information Science
- College of Engineering
- College of Professional Studies
- College of Science
- College of Social Sciences & Humanities
  - School of Criminology and Criminal Justice
  - School of Public Policy and Urban Affairs
- D'Amore-McKim School of Business
  - School of Technological Entrepreneurship
- School of Law

The future trends leading to program shifts are analyzed and presented in this IMP.

### **2.3 Existing Context**

Northeastern's campus is adjacent to the Fenway, Mission Hill, South End and Lower Roxbury neighborhoods of Boston and has a variety of residential, commercial and institutional neighbors. The

university and surrounding neighborhoods are connected through the activities of many students and faculty of Northeastern, who contribute greatly to the community. Within these diverse neighborhoods are wide arrays of land uses, including institutional, high- and medium-density residential, commercial and recreational uses.

Northeastern resides in Boston and is subject to city plans and policies. Current plans and policies that affect the university's planning framework include the Urban Ring project, the Roxbury Master Plan, the Melnea Cass Boulevard redevelopment project, the New England Conservatory and Wentworth Institute of Technology IMPs, and the ongoing Community Task Force planning process.

These above planning projects promote the need for transit-oriented development at transit nodes. University students and faculty rely on public transportation, and thus any development will continue to focus on the benefits of public transportation to serve the future needs of the University. For example, the International Village development (Parcel 18 West) is a high-density mixed-used student residence development adjacent to the Ruggles MBTA Station. The 720-bed GrandMarc residence hall, under construction, on a portion of the former YMCA site, also meets many of these transit-oriented goals. The University continues to work with the MBTA to advance its proposed mass transit platform upgrade at Ruggles Station. The University also continues to work with the CTF, and is committed to continuing the CTF process.

## **2.4 Relationship to IMP Projects**

Northeastern's Long Range Plan (the "Plan") to implement its institutional goals advances a new model for excellence in higher education, based on leadership in global experiential education and use-inspired research. The Plan covers four primary areas of focus — education, research, faculty, and the student experience — and is grounded in the Northeastern values of innovation and connection to the world. Projects proposed in this IMP are representative of the physical articulation of those goals – providing cutting-edge research and teaching facilities and enhancing the experience of students at an urban residential campus.

## **2.5 Relationship to Major National and Global Trends**

U.S. higher education has entered a period of swift, profound and often disruptive change, to which institutions must respond nimbly to maintain their reputation for excellence. This IMP proposes projects that will advance use-inspired research and teaching focused in the critical fields of health, security and sustainability, responsive to the needs of a national and global population that is aging, facing environmental challenges and the conflicts that arise in a multipolar world. At the same time, the proposed projects allow Northeastern the flexibility to respond to shifts such as the growth of distance learning for both undergraduate and graduate education.

### 3.0 EXISTING PROPERTIES AND USES

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#### 3.1 Owned and Leased Properties

Northeastern has presented an updated inventory of existing University properties and facilities located on its Main Boston campus (See **Appendix B. Northeastern University-Facilities Data Matrix, October 1, 2012, Figure 3-1. Northeastern University Student Residence Locations and **Figure 3-2. Northeastern University Detailed Campus Land Use**).**

The inventory contained in **Appendix B** includes location (address), age, year acquired by the University, gross square footage, number of floors, type of construction, and existing uses. The proposed actions (rehabilitation, demolition / replacement, or change of use) for these buildings during the IMP period is discussed as part of IMP project presentations in **Chapter 7**.

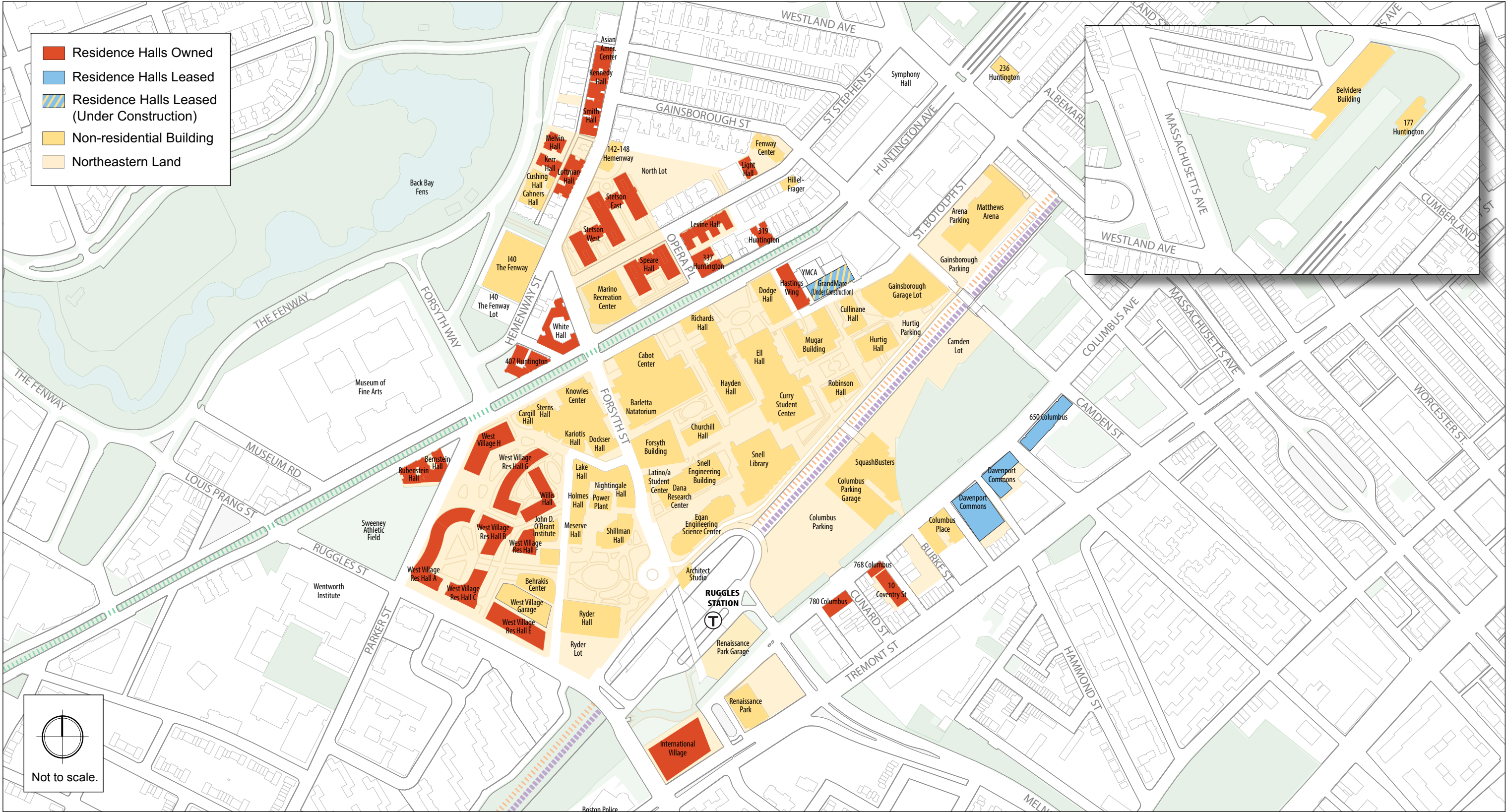
The University owns or leases approximately 105 buildings within the City of Boston totaling approximately 7.35 million square feet. The land area associated with Northeastern buildings is approximately 67 acres.

#### 3.2 Master Leased Property Program

The following properties described in **Table 3-1**, in which the University is leasing at least one unit, are included in the Master Lease Property Program (MLPP). (Please note that addresses and numbers of beds are subject to change during the fall of each year).

**Table 3-1. Northeastern University’s Master Leased Property Program, 2012-2013**

Address	Number of Units	Number of Beds
650 Columbus Avenue (Douglass Park)	57	201
331 Huntington Avenue (graduate students only)	15	27
335 Huntington Avenue (graduate students only)	15	25
97 St. Stephen Street	19	54
109 St. Stephen Street	12	24
115 St. Stephen Street	33	68
132 Hemenway Street	4	12
136 Hemenway Street	5	10
165 Hemenway Street	9	22
171 Hemenway Street	9	22
204 Hemenway Street	16	46
<b>Total</b>	<b>194</b>	<b>511</b>



**Figure 3-1.**  
**Northeastern University Student Residence Locations**



Existing Campus Land Use



Proposed Campus Land Use

<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Student Athletics	<span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Administration
<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Student Library	<span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Research
<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Student Residential Accomodation	<span style="display:inline-block; width:15px; height:15px; background-color:grey; border:1px solid black;"></span> Parking Garage
<span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span> Student Life	<span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Adjacent Institutional Expansion
<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Academic Facilities	<span style="display:inline-block; width:15px; height:15px; border:2px dashed red;"></span> IMP Building Proposal Site

**Key**

**IMP sites**

1	Columbus Lot
2	North Lot
3	Matthews Arena Addition
4	Ryder Hall
5	Burstein Rubenstein
6	Cargill
7	Cabot Site
8	Forsyth Hall
9	New Science Quad
10	Gainsborough Garage Site
11	Burke Street

Figure 3-2.  
**Northeastern University Detailed Campus Land Use**

### **3.3 Existing Development Impact Project (Linkage) Payments**

Northeastern currently makes Development Impact Project (DIP) payments to the City of Boston of \$1,140,172.90 pursuant to its linkage agreements with the City on the following properties:

- Behrakis Health Sciences Center - \$70,978.46
- West Village Residence G and Computer Science Building with West Village Residence H - \$524,406.26
- Residence Hall I - \$53,380.00
- Dockser Hall Renovation - \$209,671.27
- Matthews Arena - \$240,720.00
- GrandMarc at Northeastern Residence Hall - \$41,017.00

### **3.4 Compliance with Boston Zoning Code**

#### **3.4.1 Current Northeastern Zoning**

Northeastern's current leased and owned facilities are located within a large area on both sides of the MBTA/ AMTRAK/ Commuter Rail tracks generally bounded by Ruggles and Gainsborough Streets, and both sides of Huntington and Columbus Avenue. The campus area north of the tracks is within the Fenway Neighborhood District (Article 66); a small area of the campus north of Parker Street is within the Mission Hill Neighborhood District (Article 59); and the campus area south of the tracks is within the Roxbury Neighborhood District (Article 50).

In the Fenway Neighborhood District, Northeastern's facilities and land fall within an Institutional Subdistrict (IS), an Institutional Master Plan Overlay District and the Groundwater Protection District. In the Mission Hill Neighborhood District, Northeastern's Burstein Rubenstein parcels fall within an Institutional Subdistrict and within an Institutional Master Plan Area. In the Roxbury Neighborhood District, Northeastern's facilities and land fall within the Greater Roxbury Economic Development Area (EDA) and Institutional Master Plan Area.

#### **3.4.2 Future Zoning Controls**

Future projects will be developed in accordance with the IMP and will be located within Institutional Master Plan Overlay Area or Districts in the Mission Hill, Fenway or Roxbury Neighborhood Districts. Accordingly, provided that these future IMP projects receive Certifications of Consistency with the IMP and a Certifications of Compliance under Large or Small Project Review, as may be necessary, these projects will be "deemed to be in compliance with the use, dimensional, parking and loading requirements of the underlying zoning (including special purpose overlay districts established pursuant to Section 3-1A), notwithstanding any provision of the underlying zoning to the contrary, and without the requirement of further Zoning Relief" (Zoning Code, §80D-11).

### **3.5 Other Regulatory Review and Approvals**

#### **3.5.1 Groundwater Conservation Overlay District**

Only the Northeastern IMP area north of the MBTA/ AMTRAK rails are located within the Groundwater Conservation Overlay District and, but for that area's inclusion in the Northeastern IMP Area, would require conditional use permits under Article 32. Northeastern will obtain written determination from the Boston Water and Sewer Commission as to whether said standards are met and will provide a copy of this letter to the BRA and the Boston Groundwater Trust prior to issuance of a Certificate of Consistency for any IMP project within the Groundwater jurisdiction area. It is expected that Northeastern will not be required to obtain a Groundwater Conservation Overlay District conditional permit from the Board of Appeal for any proposed IMP project.

#### **3.5.2 MEPA Review**

If required, Northeastern will file an Environmental Notification Form (ENF) with the Executive Office of Energy and Environmental Affairs, Massachusetts Environmental Policy Act (MEPA) office.

#### **3.5.3 Massachusetts Historical Commission Review**

If a proposed IMP project requires review of the Massachusetts Historical Commission (MHC), a Project Notification Form will be filed with MHC, or if an ENF is required to be filed, it will be reviewed by MHC.

## 4.0 PROGRESS ON 2000 IMP AND INSTITUTIONAL DEMOGRAPHICS

### 4.1 Introduction

The University's goal in its 2000 IMP, as amended, was to provide high-quality university housing for at least 6,500 undergraduate students by 2010. This goal was met in 2004, and the University continued to increase its student housing options with Building F and International Village. Since 1999, the University has added more than 5,000 beds to its housing supply and now houses approximately 8,500 undergraduate students, including those housed through its Master Leased Property Program (MLPP). As previously discussed, with the opening of the 720-bed GrandMarc, approximately 67% of the University's undergraduate students who seek housing in Boston can be accommodated in University-controlled housing. University space added since the beginning of the prior IMP is outlined in **Table 4-1** below.

**Table 4-1. Northeastern Building Activity During the Prior IMP Period**

<b><u>Residence Halls and Dormitories Built/Acquired</u></b>			
	<b><u>Size (GSF)</u></b>	<b><u>Beds</u></b>	<b><u>Date</u></b>
West Village A	216,712	599	1999
West Village B	90,039	225	2000
West Village C	92,569	236	2000
780 Columbus Avenue	40,273	117	2001
Davenport A	122,719	383	2001
Davenport B	76,325	227	2001
West Village E (Behrakis)	129,963	295	2002
West Village G	133,981	325	2004
West Village H	161,268	219	2004
10 Coventry Street	69,739	154	2004
West Village F	142,371	251	2006
International Village	459,753	1,200	2009
Hastings	81,833	88	2012
GrandMarc (Under Construction)	198,000	720	2014
<b>Total</b>	<b>2,015,545</b>	<b>5,039</b>	
<b><u>Office Space/Recreational/Parking</u></b>			
Behrakis	123,122		
International Village Office	35,615		
Badger & Rosen Squashbusters Center	38,498		
West Village Garage	102,743		
<b>Total</b>	<b>299,978</b>		
<b><u>Additional Leased Space</u></b>			
Christian Science Church	85,911		
140 The Fenway	99,698		
236 Huntington Ave.	5,000		
<b>Total</b>	<b>190,609</b>		
<b>Grand Total</b>	<b>2,506,132 GSF</b>	<b>5,039 Beds</b>	



## 4.2 Student Population

During the 1980s Northeastern University enrolled approximately 20,000 full-time undergraduates. Since then it has significantly reduced student population, concomitant with its rise as an internationally known research institution.

Since 2009, undergraduate enrollment has fluctuated semester by semester between 14,200 and 15,500, with a freshman class of less than 2,900 students each year during that period; for the 2012-2013 academic year, approximately 2,600 students have matriculated. With increasing out-of-area cooperative education placements driven by student demand and the institution's global reach, a growing demand for online and distance learning, and increased opportunities for study abroad and similar experiential education programs outside Massachusetts, the University continuously reassesses its level of local undergraduate population.

Graduate student enrollment, including all full- and part-time students in graduate and law programs, on campus and online, was approximately 11,500 in the 2012-2013 academic year, and is projected to increase by 10% by 2021, as the University's global reputation for research and knowledge creation rises. The greater part of the increased graduate population is expected to come through online or hybrid learning programs, such as programs through the University's satellite campuses in Seattle, Washington, Charlotte, N.C., and proposed future locations outside Massachusetts. There will be a rise in the number of doctoral students along with the university's research reputation and enhanced facilities.

Neighborhood concerns about quality of life issues could be addressed in part by these demographic shifts –a student population more heavily weighted toward graduate students, with expanded on-campus housing, a smaller undergraduate population and additional student housing during the course of the IMP.

## 4.3 Student Housing and Conduct

### 4.3.1 Student Housing and Residence Locations

With the opening of the GrandMarc residence hall, approved in the Fifth IMP Amendment, during the 2014-2015 academic year, the University will have sufficient beds for 67% of all undergraduates seeking housing within the city of Boston. Further, as of the 2012-2013 academic year, consistent with a commitment made to the community during the prior IMP process, the University has required all freshmen and sophomores to live in campus housing, a significant and distinctive initiative by the University. Please see **Figure 3-1** which illustrates Northeastern University student residence locations.

Under the most recent IMP with completion of its five amendments, the University will have added over 5,000 beds to the existing 3,500, bringing the total number of on-campus beds to 8,500; as noted, there are also approximately 500 beds leased under the MLPP, which the University believes is an effective tool for managing an off-campus population while remaining flexible to shifts in student population.

To attract more students to on-campus housing, the university must develop more student experience facilities on the main campus, hand in hand with enhanced marketing efforts, drawing on best practices at comparable institutions in Boston and elsewhere. With the nearly exclusive focus during

the prior IMP on building beds, Northeastern has created residence halls but must significantly enhance students' on-campus experience. The current IMP includes more recreational, athletic, studio, meeting and practice/rehearsal space.

The University also intends to pursue discussions with neighbors, city officials and the Boston Redevelopment Authority to maintain the MLPP in some form, under which the university maintains properties and supervises students living in private housing.

Northeastern is also actively seeking opportunities for graduate student housing to enhance recruitment and retention, especially at the doctoral level, although no sites or partnerships have been identified at this time.

#### **4.3.2 Conduct**

The University takes the conduct of its students seriously. Expectations for conduct are clearly spelled out in the Student Code of Conduct: "The Code of Conduct applies to all registered undergraduate and graduate, full- and part-time students as well as continuing education students enrolled at Northeastern University. Student behavior occurring off campus that is in violation of the Code, local, state or federal laws and could adversely affect the educational mission of the University or its relationship with the surrounding community may subject students to discipline pursuant to the Code of Conduct."

Students must sign an online confirmation acknowledging that they must comply with the Code of Conduct and that they agree with the pledge before registering for classes each year.

The University's Office of Student Conduct and Conflict Resolution (OSCCR) addresses violations of the Student Code of Conduct. In the most recent information available, in the 2011-2012 academic year, 2,159 students faced disciplinary proceedings for incidents on and off campus, and the university issued more than 3,300 sanctions (some of those found responsible are issued more than one sanction), ranging from expulsion to warnings, and including sanctioned service in neighborhoods, fines, and mandatory attendance at seminars on the impacts of disruptive parties. The university makes public student disciplinary statistics for several years at [www.northeastern.edu / osccr /disciplinarystats /index.html](http://www.northeastern.edu/osccr/disciplinarystats/index.html).

In an effort to further educate students about their responsibilities as representatives of the University, and citizens of Boston, Northeastern implements extensive outreach programs. These include student and parent orientation sessions focused on the University's expectations around behavior with presentations by neighbors and police, letters to students and parents on appropriate behavior and the Code of Conduct, and Residential Life meetings with students on expectations.

The Office of Residential Life has oversight of those students who live in University-controlled housing. Oversight is managed in the form of full-time staff, residence directors, resident assistants and community receptionists. All residence halls are monitored with front-door security. In addition, Northeastern University Public Safety assigns officers to particular buildings as part of the University community policing program.

All students living in University controlled housing sign a Residence Hall/Dining Hall License Agreement which makes clear that “All students must conduct themselves in a manner consistent with the University's expectations, as stated in A Guide to Residence Hall Living, the Student Handbook and the Residence Hall and Dining License Agreement and any and all other applicable school policies, procedures, rules and regulations.”

The Office of Residential Life works with the Office of Student Conduct and Conflict Resolution when violations of the Code of Conduct and/or the License Agreement occur.

For off-campus behavior concerns, the University works closely with the Boston Police Department in Areas B-2 and D-4. This relationship includes paying for Boston police detail officers focused on student behavior. In addition, Office of City and Community Affairs staff work with police in Boston neighborhoods on weekend and holiday nights to monitor and report on behavioral issues; Boston police have authority to enforce relevant laws and ordinances, including use of arrests and summonses. The office also works closely with local elected officials, neighbors and other institutions to collectively find ways to curb inappropriate student behavior and increase positive student involvement in the community.

NU PLEDGE, developed during the prior IMP, brings together all relevant University departments to coordinate response to off-campus student behavior issues and to expedite Northeastern’s response. In addition, University staff joins the biweekly Mission Hill Problem Property Task Force meetings, as well as neighborhood Crime Watch meetings and other community meetings, to share information and responses to off-campus incidents in the neighborhoods. The Office of Off-Campus Student Services, through its Student Ambassadors program, organizes neighborhood cleanups and fosters a sense of responsibility among off-campus resident students.

#### **4.4 Academic Facilities**

Consistent with best practices and University needs, the University undertakes regular maintenance and upgrade programs of its owned and leased properties, in addition to responding to emergency or unforeseen capital needs. **Table 4-2** below lists major renovation projects carried out by the University over the last 10-12 years which reflects the University’s commitment to maintain its facilities as well as adapt them to changing academic and program needs. **Appendix B** lists the uses and square footages of Northeastern’s properties.

**Table 4-2. Listing of Northeastern University Renovation Projects, 2000- 2012**

<b>Location</b>	<b>Date Renovated</b>
Architecture Studios	2000
335A Huntington	2000
34 Beacon St.	2000
780 Columbus	2001
Cullinane Hall	2004, 2012
Hayden Hall	2004
Cahners Hall	2004
Stetson West	2004
Speare Hall	2004
Forsyth	2005
Belvidere	2005
Columbus Place	2006, 2011
Veterans Memorial	2006
Squash Busters	2006
Smith Hall	2007
Kerr Hall	2007
Fenway Center	2007, 2012
Dockser Hall	2008
St. Stephen St. Bldgs.	2008
142- 148 Hemenway	2008
Boston YMCA	2009, 2012
Blackman	2009
Matthews Arena	2009
Richards Hall	2009
337 Columbus	2010
White Hall	2010
Behrakis Hall	2011
140 The Fenway	2011
Art & Arch Space	2000, 2012
Building "F"	2012
Speare Hall	2012
Curry Student Center	2012
Mugar Hall	2012

Source: Information taken from Facilities Matrix and issued Certifications of Consistency

## **5.0 JOB TRAINING ANALYSIS**

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### **5.1 Workforce Development**

Northeastern cooperates with workforce development and job training programs provided through the Mayor’s Office of Jobs and Community Services (OJCS) to train workers, and will continue to do so during the term of this IMP. During the public review process for this IMP, the University has met with OJCS to discuss future areas and modes of cooperation. Further, the University will continue to build relationships with community organizations to enhance local hiring in line with “walk to work” initiatives, as also described in the BRA Board Memorandum on Northeastern’s IMP, dated November 14, 2013, contained in **Appendix I**.

### **5.2 Employment in Proposed Projects**

The proposed IMP Projects will result in direct economic benefits to Boston, including construction jobs and permanent jobs as new buildings come online, third party vendors and entities develop commercial relationships with Northeastern University, purchasing in the community increases by those added employees, and enhancements to adjacent neighborhoods spur other commercial opportunities.

### **5.3 Future Employment**

The University will continue to work with community organizations to enhance local training and hiring for construction, staff and contracted positions, in line with initiatives described under the community/public benefits section in **Chapter 12**, and in the BRA Board Memorandum on Northeastern’s IMP, dated November 14, 2013, contained in **Appendix I**.

### **5.4 Future Economic Development Goals and Strategies**

The University is working with the City and the community on developing future economic development goals and strategies for its campus and surrounding neighborhoods, which are presented in **Chapter 12**, and in the BRA Board Memorandum on Northeastern’s IMP, dated November 14, 2013, contained in **Appendix I**.

### **5.5 Economic Development**

#### **5.5.1 *Northeastern Faculty and Staff***

As of fall 2012, the University employed 3,922 faculty and staff, not counting students and temporary workers, of whom 3,409 were full-time and 503 part-time. Of those, 314 faculty and 589 staff reside in the city of Boston— approximately 24% of the University’s workforce.

Future growth of the workforce will be responsive to the needs of the institution, as driven by research and academic priorities and market forces. The Interdisciplinary Science and Engineering Building will significantly enhance the university’s recruitment of research faculty and technical staff,

for example, and each new building requires appropriate staff. Based on industry-wide best practices and comparative projections, the University is projecting employee expansion of approximately 10% over the duration of the IMP.

### **5.5.2 Contract Procurement**

Northeastern has long-term contracts with eight Greater Boston vendors who provide employees in such areas as dining services, maintenance, parking management and security. These vendors currently collectively report 1,003 employees assigned to Northeastern's campus, of whom 340 full-time and 152 part-time workers reside in the city of Boston — approximately 49% of the workforce.

## 6.0 PLANNING AND URBAN DESIGN FRAMEWORK

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### 6.1 Introduction

Northeastern's campus is located at the intersection of the Fenway, Mission Hill, South End and Roxbury neighborhoods of Boston, and is surrounded by a wide variety of institutional, residential and commercial neighbors. The University's staff and students contribute greatly to the cultural, economic and social life of the surrounding community (see **Figure 6-1**). The proposed developments laid out in the IMP should not be seen only as improvements to the built environment for this academic institution alone; but as part of a much wider vision to better integrate the campus within the surrounding community through improving public spaces that link these neighborhoods and proposals for welcoming buildings that will better address the streets, and contribute more positively to the life of the city.

Northeastern's Boston campus consists of approximately 67 acres, occupying 105 buildings and enrolling approximately 15,000 undergraduates and more than 11,000 graduate students. During the past decade and since the beginning of the prior IMP, the Northeastern campus has undergone a major physical transformation as the West Campus emerged as a vibrant mixed-use campus centered on the landscaped Centennial quad. The development of the West Campus from what had been predominately surface parking lots and fragmented industrial properties, transformed the experience and perception of Northeastern's campus environment as well as its contributions to Huntington Avenue and Forsyth, Ruggles and Parker Streets. With the completion of International Village, major improvements to Tremont Street were also completed along with a prominent terminus to the recent infill development along Columbus Avenue on the south side of the MBTA Orange Line tracks.

These improvements, under the guidance of the prior IMP, have propelled Northeastern's transformation from a predominantly commuter to a residential campus, while contributing to an equally successful transformation of several important Boston streets and neighborhood intersections. The product of the prior IMP is a vibrant urban campus with open edges in rich dialogue with its abutting urban context.

The current IMP, while shifting the focus to priorities for academic, research and student experience space, will continue to nurture Northeastern's relationship with its urban context. The proposed campus development will focus on underutilized parcels and facilities, improvements to the major corridors of Huntington and Columbus Avenues with improved connections to knit together the campus and neighborhoods on both sides of the rail corridors. These urban design initiatives will carefully balance the projected needs of the University over the next decade and beyond, with the goals of improving the campus edges as well as the vitality and stability of the surrounding neighborhoods. As a campus that seeks to be integrated with its urban context, Northeastern's IMP will be governed by an urban design framework that will guide campus growth, continue the physical improvement of the campus environment, seek to improve the student experience on campus and establish a rationale for improving the University's relationship with its immediate surroundings and neighborhoods. This can be achieved by a series of integrated building, landscape and infrastructure solutions. New facilities will accommodate growth and improve the student experience; public realm improvements will foster social interaction and provide much needed open space; transportation improvements will contribute to a sense

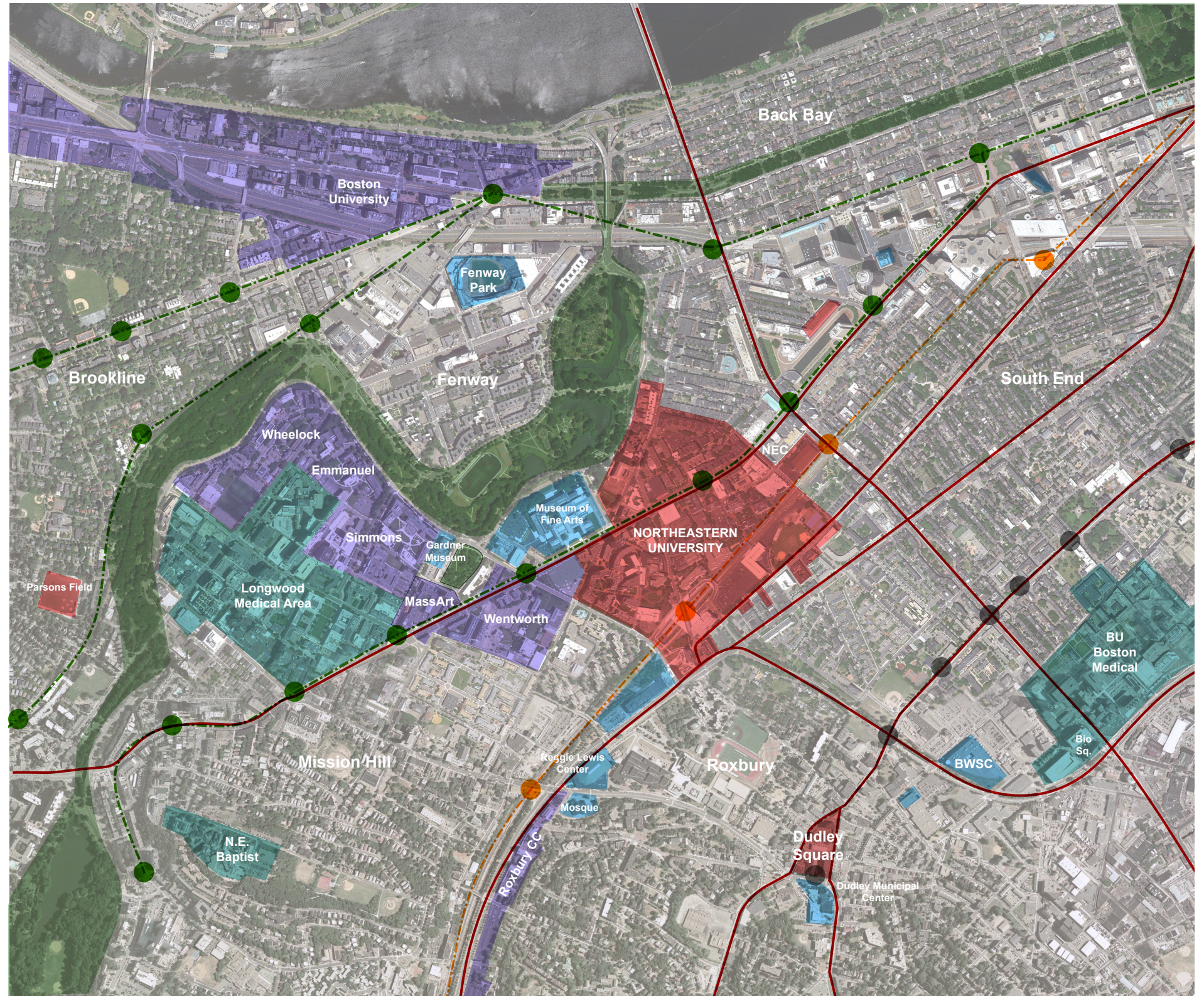


Figure 6-1.  
The Campus within Boston



of cohesion on the campus and to a healthy pedestrian environment; and infrastructure initiatives will improve storm water performance. All of these initiatives will contribute to the goal of continuing the transformation of the Northeastern campus as a vibrant urban campus, thoughtfully integrated into its surrounding communities.

## **6.2 A History of Northeastern’s Built Environment**

### **6.2.1 An Urban Campus 1890 to 1938**

When Northeastern was founded in 1898, the school offered classes in the YMCA on Huntington Avenue and later from Cullinane Hall on St. Botolph Street (built in 1911 and acquired by Northeastern in 1930 (see **Figure 6-2**). The older industrial character of what is today the campus south of Huntington Avenue provided the University with opportunities to gradually acquire older buildings built mostly in the first two decades of the 20th century. As a result, the Northeastern today does have a modest legacy of older, re-purposed and renovated industrial buildings that add to the mixed stylistic, urban character of the campus. Cullinane is still in service as an administration building and the Forsyth Building (built in 1926, acquired in 1949) serves as classrooms and student health services today. The largest collection of repurposed industrial buildings is the United Realty complex, formerly the United Drug Complex, which was built in phases between 1893 and 1913 and acquired by Northeastern in 1961. This large brick and timber frame building fronting on Forsyth and Leon Streets serves a variety of academic and research uses. The complex also contains the University’s central steam plant within its core. The facility, along with Ryder Hall on the opposite side of Centennial Quad (built in 1913, acquired in 1976), presents significant challenges to serving contemporary academic uses, but does contribute to the diversity of the West Village architectural character by providing some traditional industrial urban fabric along an important campus and city corridor.

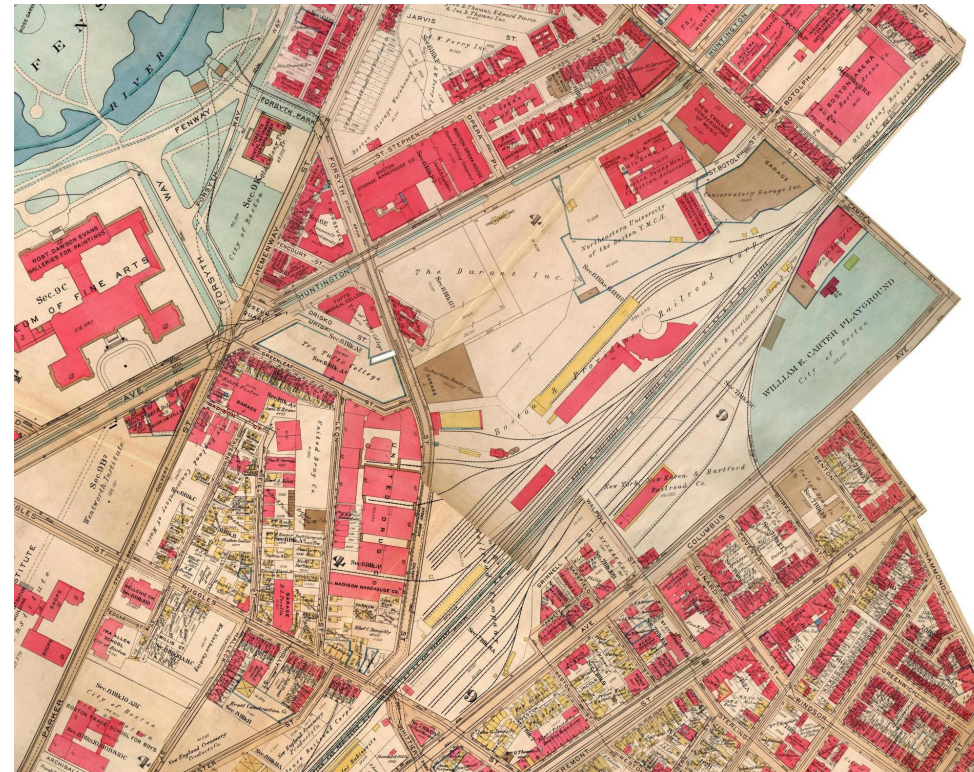
Another significant Northeastern building from the early 20th century is the Matthews Arena, formerly the Boston Arena, which serves as the University’s basketball, hockey and convocation facility. Matthews (built in 1906 and acquired by Northeastern in 1980) lacks any distinct architectural character on the exterior with the exception of a fragment of the ornate terra cotta entrance arch preserved on the building’s main entrance from St. Botolph Street. Despite the lack of notable exterior elements, the scale and intimacy of the interior space with its slender trusses and balcony seating, is a distinct reflection of its age and history as the world’s oldest indoor hockey rink.

Northeastern has also acquired and renovated a number of row houses and apartment buildings, built between the 1890’s and 1920’s, within the East Fenway neighborhood. The University values the traditional scale and fabric of these residential buildings and has served as a steward of the historic character of this important Boston neighborhood. In Roxbury, older residential and industrial fabric on the south side of Columbus Avenue, are also part of the inventory of older Northeastern facilities. The character of Columbus Avenue has been improved through NU’s renovation of these buildings from the 1920’s, augmented by the newer infill housing that has



1890

Prior to Northeastern's origins in the late 1890's, the area of today's campus contained mostly industrial uses as well Boston's two oldest professional baseball parks abutting the rail yards for the New York-New Haven line. With the exception of the YMCA and some commercial buildings east of Gainsborough, there were very little built Huntington Avenue uses, although the future site of the MFA had been assembled. On Columbus Avenue, the site of the Carter Playground had been established as a City of Boston public park.



1931

By the 1930's, just prior to construction of Northeastern's first built facility, the area had seen significant commercial and industrial growth with the ballparks demolished and the rail uses expanded. Huntington Avenue had also been developed with much of the historic mixed-use fabric that exists today filled in. The United Realty complex and what is now Ryder Hall were also built along the west edge of Forsyth Street as well as the MFA and the former Forsyth Institute (140 The Fenway).



1938

This 1938 map shows the first phase of the original Northeastern academic quadrangle with Richards Hall sited perpendicular to Huntington Avenue.

been built along Columbus in the past decade. The Fenway and Roxbury buildings contribute to the variety and richness of Northeastern's urban campus context and identity. The master plan proposes to further enhance this character by improving the quality of the campus edges that abut these historic neighborhoods, and to enhance the public connections from the historic fabric through the campus.

### **6.2.2 1938-1979: Establishing the Modern Northeastern**

The architectural history of the built Northeastern campus begins with the pervasive white glazed brick modern buildings, which were the predominant style of almost every facility built by the University from 1938 through the end of the 1970's (see **Figure 6-3**). For most of its history, Northeastern's campus character was identified by the consistency and predominance of this singular architectural expression. Well over a dozen academic, athletic and residential buildings were constructed in the signature Northeastern style characterized by a crisp, late modern style of glazed brick piers, flat roofs, and vertical windows which was repeated for almost all campus development over four decades. The design standard of this era was established by through the original campus competition entry produced by Shepley Bulfinch Architects, which proposed the three academic buildings organized around what is now known as the Krentzman Quadrangle (see **Figure 6-4**). This initial campus master plan, which introduces a Bauhaus inspired rigor to the industrial urban fabric, established the signature Northeastern presence along Huntington Avenue beginning with Richards Hall (1938), Ell Hall (1947) and Dodge Hall (1952). The Cabot Center was built in 1952, further establishing the campus frontage along Huntington.

With the exception of the original Krentzman Quad buildings, and the collection of residential buildings on the north side of Huntington Avenue built in the 1960's, the majority of the white glazed brick campus buildings are somewhat repetitive, non-descript, and were not sited as part of a planned ensemble of buildings and open space. Consequently, many of the original Northeastern buildings, while part of the signature architectural style of the campus, are not necessarily distinct or memorable. The facilities buildings built in the 1960's and 1970's do not have the same façade depth and detail as the steel sash windows gave way to aluminum frames, which consequently appear flatter and less distinct than the first generation of buildings around the Krentzman Quad. Several of the original campus buildings are also characterized by small, inefficient footprints and present significant challenges to renovation and repurposing to satisfy contemporary academic needs.



1969



1995

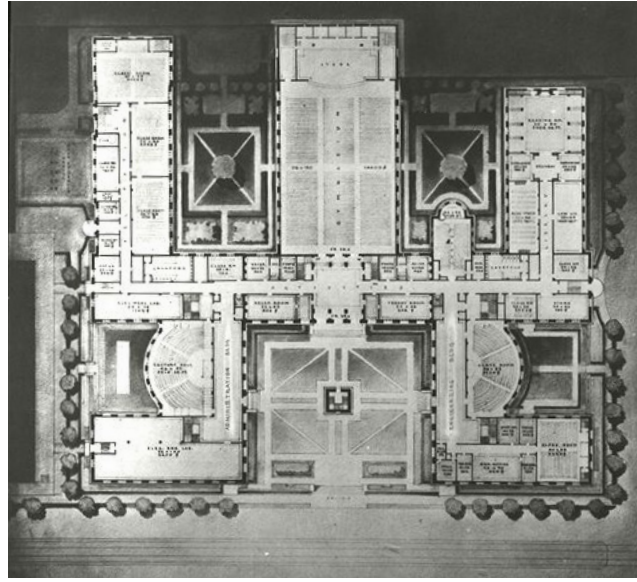


2012

By the late 1960's, the majority of Northeastern's white, glazed brick campus had been completed. While the rail line remained active, the yards and much of the related industrial uses had been demolished for surface lots that served Northeastern at the height of its commuter campus era. The freshman residence halls had just been completed on the north side of Huntington Avenue.

By the 1990's the introduction of the MBTA Orange Line had opened up the potential for Northeastern's campus growth to the west and south. The redevelopment of surface lots began in the 1970's and 1980's as the original campus extended south to the tracks. The Ruggles station connector (1985) provided an important link across the tracks connecting Roxbury to the campus across the tracks. The Egan and Shilman academic buildings were built as part of the eventual re-centering of the campus around the Ruggles station and on the west side of Forsyth, the United Realty complex and Ryder Hall had been acquired and repurposed for academic and facilities uses.

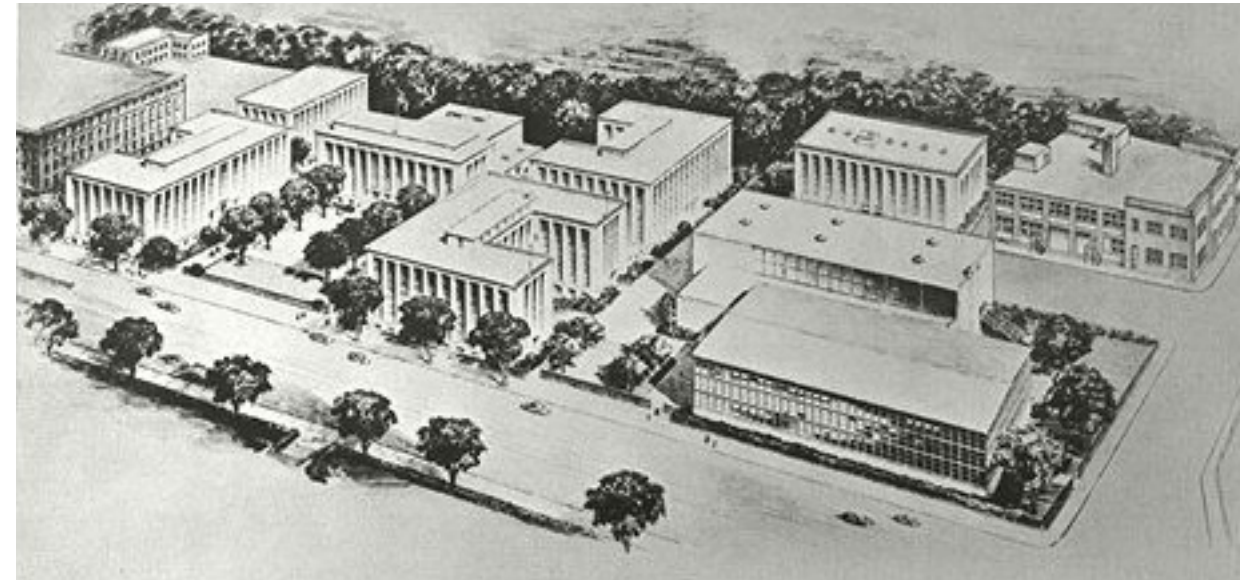
By 2012, through the previous Institutional Master Plan, Northeastern's transformation from a commuter campus to an undergraduate residential environment had been realized through the development of the West Village, Columbus Avenue infill and International Village.



Shepley Bulfinch's 1934 Beaux-Arts competition plan



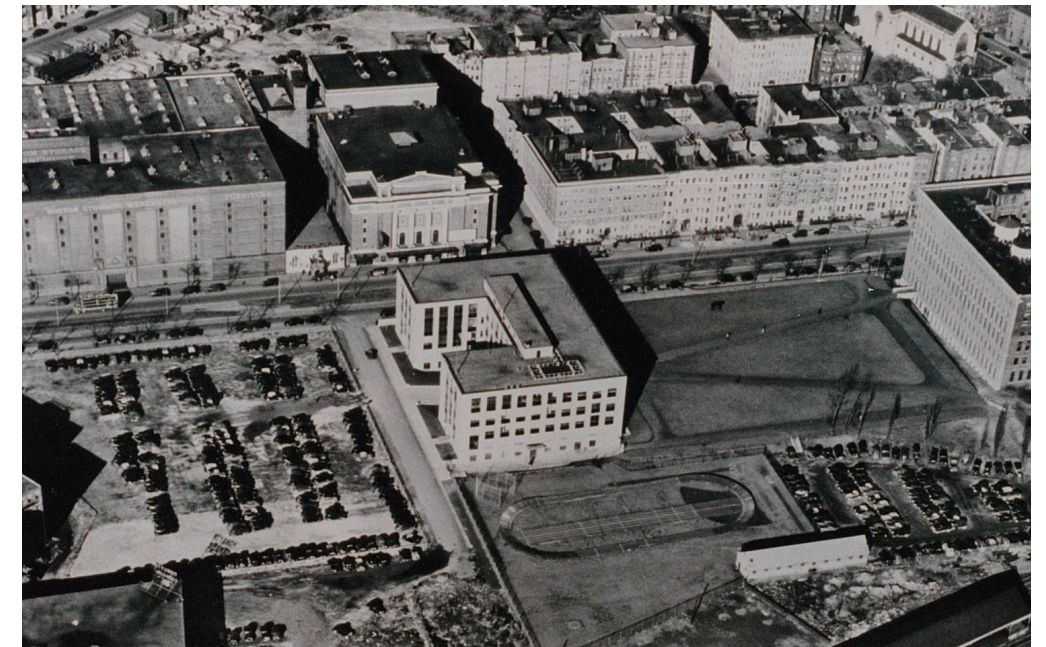
Shepley Bulfinch's original 1934 Huntington Ave elevation



Shepley Bulfinch's aerial perspective from the north west above Huntington Ave, Cabot Sports Center to the right



Shepley Bulfinch's Huntington Ave elevation showing a more modest proposal for Richards, Eil and Dodge Halls



The first completed building, Richards Hall, was dedicated in 1938

### 6.3 1980-1995: An Aesthetic and Campus Transition

In 1982, two small buildings in the Law School precinct (Cargill and Kariotis) were constructed as the first departure from the 1938 guidelines established by the Shepley Bullfinch master plan. Cargill Hall introduced slate tile and Kariotis featured red brick, albeit both buildings are considered insignificant and are burdened by unsuccessful building footprints (see **Figure 6-3**). More ambitiously, beginning in the mid-1980's with the Snell Engineering Center and the Snell Library designed by the Architect's Collaborative, the core campus architecture began migrating away from the white glazed brick buildings that dominated more than four decades of growth.

The introduction of white pre-cast concrete in these buildings can be seen as consistent with the campus palette in color if not material. The Snell Engineering building can be seen as a literal transition as it maintains panels of white glazed brick within a pre-cast frame. The Library, built entirely in pre-cast, also challenges the simple form and massing of the earlier buildings by introducing saw tooth bays and outdoor space beneath cantilevered overhangs that remains part of an important campus pedestrian path today. The two Snell buildings were followed by the construction of Shillman Hall (1995) and Egan Hall (1996) that continued the gradual evolution of a more diverse campus aesthetic. Egan was designed with the white pre-cast aesthetic introduced a decade earlier, but also incorporated some post-modern elements such as stylized columns and a curved apse space at the west end of the building. Shillman Hall introduced red brick elements and curved glass curtain wall into a pre-cast framework.

The other significant building from this era was the Marino Center (1996), which also contributed to the diversification of the campus architecture as well as a new, prominent public presence on Huntington Avenue. The building incorporates pre-cast and cast stone masonry units and a large expanse of glass curtain wall fronting the street. The building not only announced a very public departure from the original Northeastern aesthetic, it also presented a much more active and transparent face that reinforced the importance of Northeastern's Huntington Avenue presence on both sides of the avenue.

With the construction of Egan, Shillman and Marino, Northeastern had completed the transition to a more diverse architectural palette, although through a relatively conservative architectural language. Likewise, the Egan and Shillman buildings represented a new shift in campus growth to the west and recognized the future importance of Forsyth Street and the new Ruggles Station completed in the mid-1980s. By the end of the 1990s, with two new academic buildings fronting on the Ruggles / Forsyth circle and a major new student recreation center on Huntington, Northeastern was poised to continue the campus transformation through the redevelopment of the expansive surface parking lots and the industrial fabric between Ruggles and Forsyth Streets.

### **6.3.1 1999 to 2012: The West Village and a Campus Transformation**

The next phase of campus development which was reflected on the prior IMP, which resulted in the construction of over two million gross square feet of new facilities and over 5,000 student beds, was the most ambitious period of growth in the University's history (see **Figure 6-3**). The decade long build out of the West Village created a collection of residential buildings centered on a series of landscaped quadrangles including the large, oval Centennial Quad. The West Village represents the first collection of planned buildings that define an open space since the Krentzman Quad developed over the 1940s and 1950s and the Science Quad was built out in the 1960s. The West Village buildings, designed primarily by William Rawn Associates, further contributed to the diversity of campus architectural style.

West Village A, B and C buildings, fronting Parker and Ruggles Streets, introduced a new vocabulary of a striped brick masonry pattern punctuated by large, open portals leading to a centralized open space. The scale, prominence and strength of this architectural language established a striking departure from the simplicity and relatively modest scale of Northeastern's traditionally understated architecture. The strong identity of West Village contributed to a successful rebranding of the University and as it transitioned from a commuter campus toward a residential campus.

The subsequent phases of the West Village introduced an even more diverse palette of architectural materials including the rusticated, cream colored cast masonry units of West Village F and the elegant, curved glass curtain wall of the Behrakis Health Science Center (2002) – the only new academic facility built by Northeastern in almost two decades. The completion of Behrakis marked the trend toward taller campus buildings, which continued through the later phases of West Village with the completion of West Village H (2004). West Village H introduced a distinctly different contemporary architectural character with its pristine glazed curtain wall façade prominently fronting on Huntington Avenue, and the glazed fin façade of the podium marching along Parker Street.

The introduction of the high-rise scale to the Northeastern campus continued south of the MBTA tracks with the completion of International Village in 2009. The pre-cast and curtain wall building utilizes planes of color and playful window composition to create a strong, contemporary expression and a prominent visual icon at the convergence of Columbus Avenue and Tremont Street. The design of the GrandMarc residential tower behind the Huntington Avenue YMCA also utilizes a diverse palette of pre-cast concrete panels, metal panels and a dynamic pattern of fenestration fronted by the historic YMCA façade on Huntington – a symbolic convergence of Northeastern's contemporary campus character with its origins in the historic Boston fabric.

The development of the Northeastern campus, from the collection of early century re-purposed industrial buildings, to the mid to late 20th century campus to today, has resulted in a diverse and eclectic environment that is befitting of the campus' urban context and its embedment in the city fabric. Yet within this varied architectural character there are still strong "districts" or

“precincts” of distinct and consistent character. The evidence of the campus evolution, through the legibility of the distinct periods of growth and adaptation, is one of the strengths of the campus and an expression of its urban legacy (see **Figure 6-5**).

### **6.3.2 The Master Plan Principles for Architectural Design**

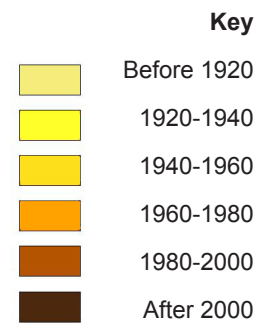
The diversity of buildings from Northeastern’s distinct periods of growth, complemented by the late 19th and early 20th century older buildings acquired and repurposed by the University, has created an evolving and vibrant campus environment. The master plan proposes to nurture and refine this vibrancy through future phases of development. The architectural character of the proposed master plan campus buildings will further contribute to the diversity and richness of the campus not by emulating or replicating existing styles. Rather the new facilities will be governed by their own expression of contemporary and distinct architecture. As Northeastern evolves as a research university, the campus architecture will aspire to express contemporary and creative designs of enduring quality and character. The architecture of the current master plan will also be an expression of sustainability and high performance systems that are principals of the master plan.

While new buildings will vary stylistically from previous architectural styles, the consistent theme that will tie new designs to the existing campus will be the fact that they are buildings that make a place, define and reinforce campus pedestrian circulation and contribute to the public realm of the campus and the neighborhoods (see **Figure 6-6**). The Columbus Lot development (a portion of which will be the site of the ISEB) introduces organic formal gestures intended to be distinguished from the generally rectilinear pattern of the original campus. These proposed bold forms also define an elegant and episodic sequence of open spaces that link the campus and the communities on both sides of the MBTA tracks. The unique character of new precincts should not be seen as a deviation from earlier styles, but as a continuation of a layered and rich campus built on architectural variety and a carefully cultivated network of landscaped pedestrian spaces.

## **6.4 Planning and Urban Design Goals**

Aerial photographs of the Northeastern campus taken as recently as a decade ago, show a campus pockmarked with surface parking lots, vacant parcels and fragmented, poorly defined common spaces. Since then, the campus has rapidly developed in a manner that has improved not only the University’s physical context, but also its urban environment. The University has developed a series of pleasant public spaces, resulting in a cohesive campus environment and a dramatically improved on-campus experience. The elimination of surface parking lots and focus on a walkable campus continue to be priorities of the university as it seeks to infill its campus in strategic locations.





1 Matthews Arena, opened in 1910



2 Forsyth Hall, acquired in 1963



3 Eli Hall, dedicated 1958



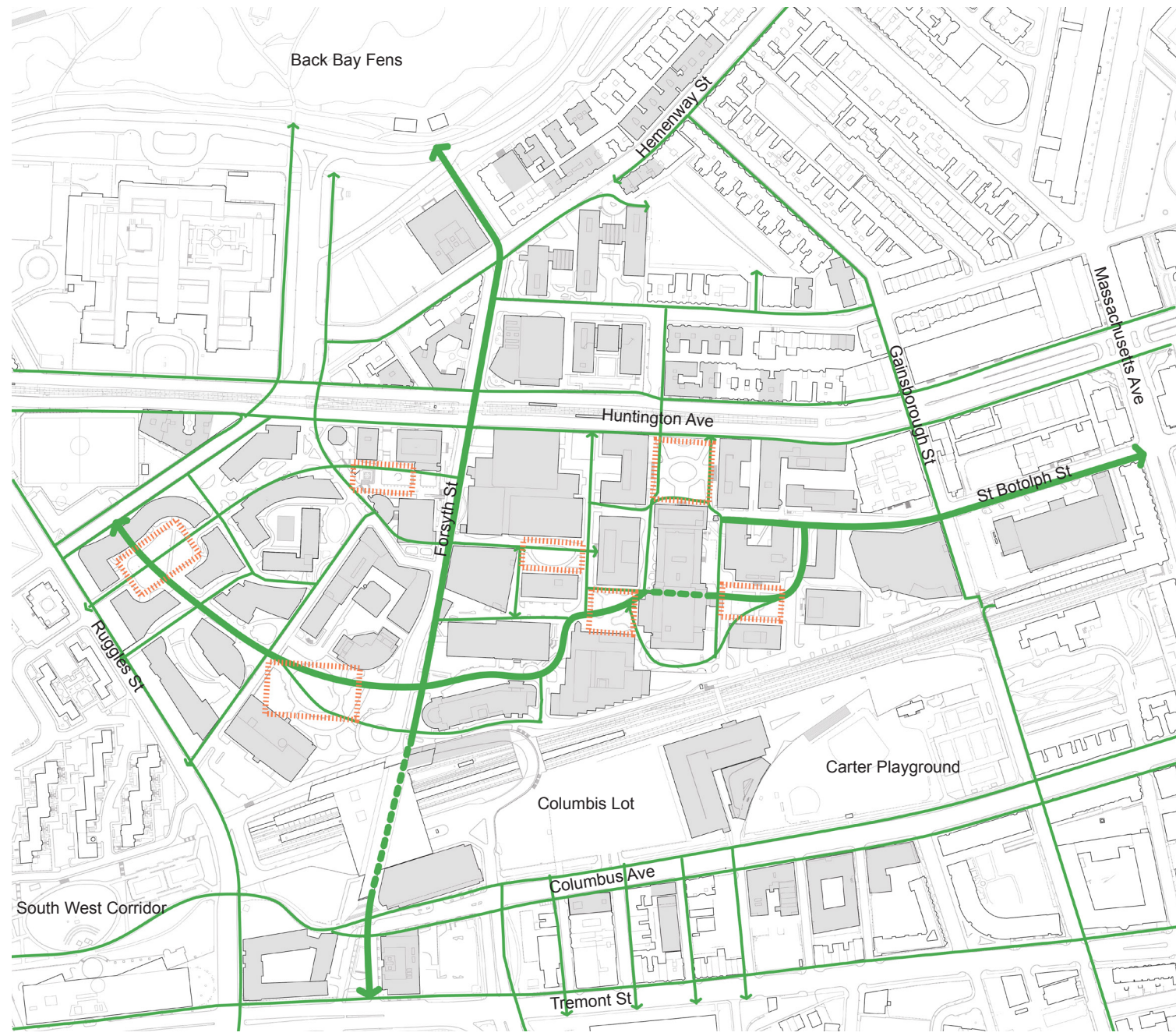
4 Speare Hall, dedicated 1964



5 Snell Library, opened 1991

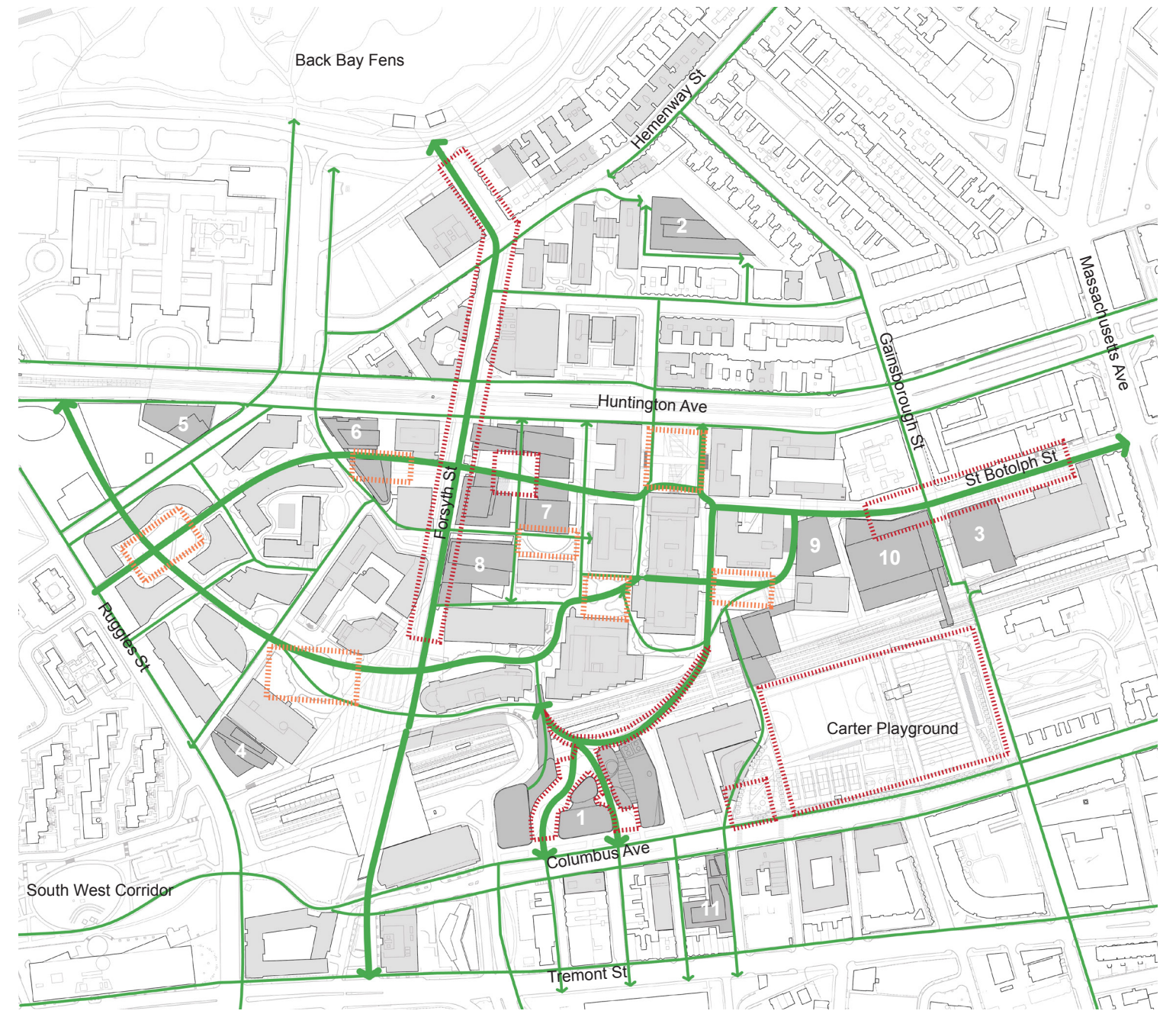


6 West Village, dedicated in 2004



Existing significant public spaces as they relate to existing campus pedestrian routes

- Primary pedestrian route
- - - - - Secondary pedestrian route
- - - - - Existing public space
- - - - - Proposed public space



Proposed significant public spaces as they relate to proposed campus pedestrian routes

**Key**

**IMP sites**

- 1 Columbus Lot
- 2 North Lot
- 3 Matthews Arena Addition
- 4 Ryder Hall
- 5 Burstein Rubenstein
- 6 Cargill
- 7 Cabot Site
- 8 Forsyth Hall
- 9 New Science Quad
- 10 Gainsborough Garage Site
- 11 Burke Street

Figure 6-6.  
**Existing and Proposed Public Space Network**

The following goals remain as guiding principles of the IMP:

- Enhance the physical environment, and both the campus aesthetics and experience;
- Design an open campus that engages with its nearby neighborhoods;
- Create vitality at the core and the edges;
- Plan for multi-use buildings to create an integrated, mixed-use urban campus;
- Realize growth potential and improved connections across the MBTA tracks; and
- Ensure a sustainable and innovative campus for the 21<sup>st</sup> Century.

#### **6.4.1 Campus Growth**

While the prior IMP and its amendments led to the addition of substantial residential space on campus and little academic facility growth, the current IMP reveals a significant need for new academic space in addition to student life and athletics, while still proposing continued residential growth. A focus on new and expanded academic facilities is a reflection of decades of academic program growth, continuous faculty additions, research expansion and the University's long-range academic vision. While the University is on a rising trajectory of academic reputation and achievements, it has also retained a significant stock of older academic facilities, many of which are not well suited to contemporary research and instruction. In addition to priorities for academic space, the current IMP focuses on increasing campus student life amenities as a part of a concerted University effort to improve the campus experience for students living in Northeastern housing and to convince more students to choose on-campus housing, thereby reducing off-campus student apartments in nearby Boston neighborhoods.

#### **6.4.2 Campus Facilities**

Northeastern's focus on new residential buildings in the prior IMP and its amendments, which included the construction of West Village and International Village, show a commitment to providing an on-campus housing alternative for undergraduates and graduates. This commitment has continued with the addition of the GrandMarc residences, which will add 720 beds by 2014.

The focus now in the early years of the IMP will be to improve existing facilities and construct new buildings for academic, research, student life and athletic uses. Infill sites along Columbus Avenue, the Matthews Arena parking lot and the North Lot will provide space for new facilities to be built that satisfy demands for new research space, improved athletics and new general academic space, respectively. The creation of general purpose academic space will also provide much needed swing space to enable renovations of existing facilities. The IMP outlines a number of other specific projects that ultimately respond to growing or future needs for the long-term development of the University.

#### **6.4.3 Athletics**

Student athletic and recreation space on campus is currently very limited. As the University proposes new athletic and recreation facilities, the intention is to improve student life experience

on campus and provide access to such facilities for all students, as well as community members. Limiting students' campus experience can also influence the University's recruitment capabilities for an increasing number of students who are seeking on campus facilities for general varsity athletics, recreation, club and intramural activities.

The following are the on-campus facility needs of the Department of Athletics & Recreation:

- Development of a multi-purpose recreation field for both varsity and club or intramural sports;
- Development of a basketball and volleyball practice facility (gym, training facilities, team offices, locker rooms); and
- Adding rowing tank and crew team training facilities.

#### **6.4.4 Student Life**

Northeastern's educational model, centered on experiential learning and community service, lends itself to an environment for a student experience that is global in reach while forming a strong sense of local community. This experience is characterized by independence, a comfort level with an urban environment, and a cultural competence developed through substantive academic and experiential activities.

The following areas of focus for an improved student experience as outlined in the proposed IMP vision statement are highlighted below:

- A vibrant urban campus integrated into the City;
- High- quality living and student dining environments;
- Space for student experience including cultural facilities, social space, student club and event space; and
- Gathering space and venues for University and community events, including athletics and recreation.

Northeastern's urban presence in Boston is a fundamental part of a Northeastern student's experience. While Northeastern does have the good fortune of being located in such a vibrant city, it nonetheless needs to provide the same student life facilities that any competitive university offers. This strategy improves the University's recruitment capabilities while attracting and retaining students to on-campus housing. While buildings such as the Marino and Curry Centers offer amenities and social outlets for students, overall the campus student life facilities are not sufficient to support the substantial growth of students living on-campus.

As Northeastern continues to respond to neighborhood pressure to house even more of its student population on campus, it must improve its ability to market on-campus housing by investing in student life facilities. This investment is required to support the considerable existing on-campus population housed in Northeastern residence halls, and to increase the attraction of staying on

campus for upper classmen. This strategy is also seen as a key to giving off-campus students more opportunities for social and cultural activities on the Northeastern campus.

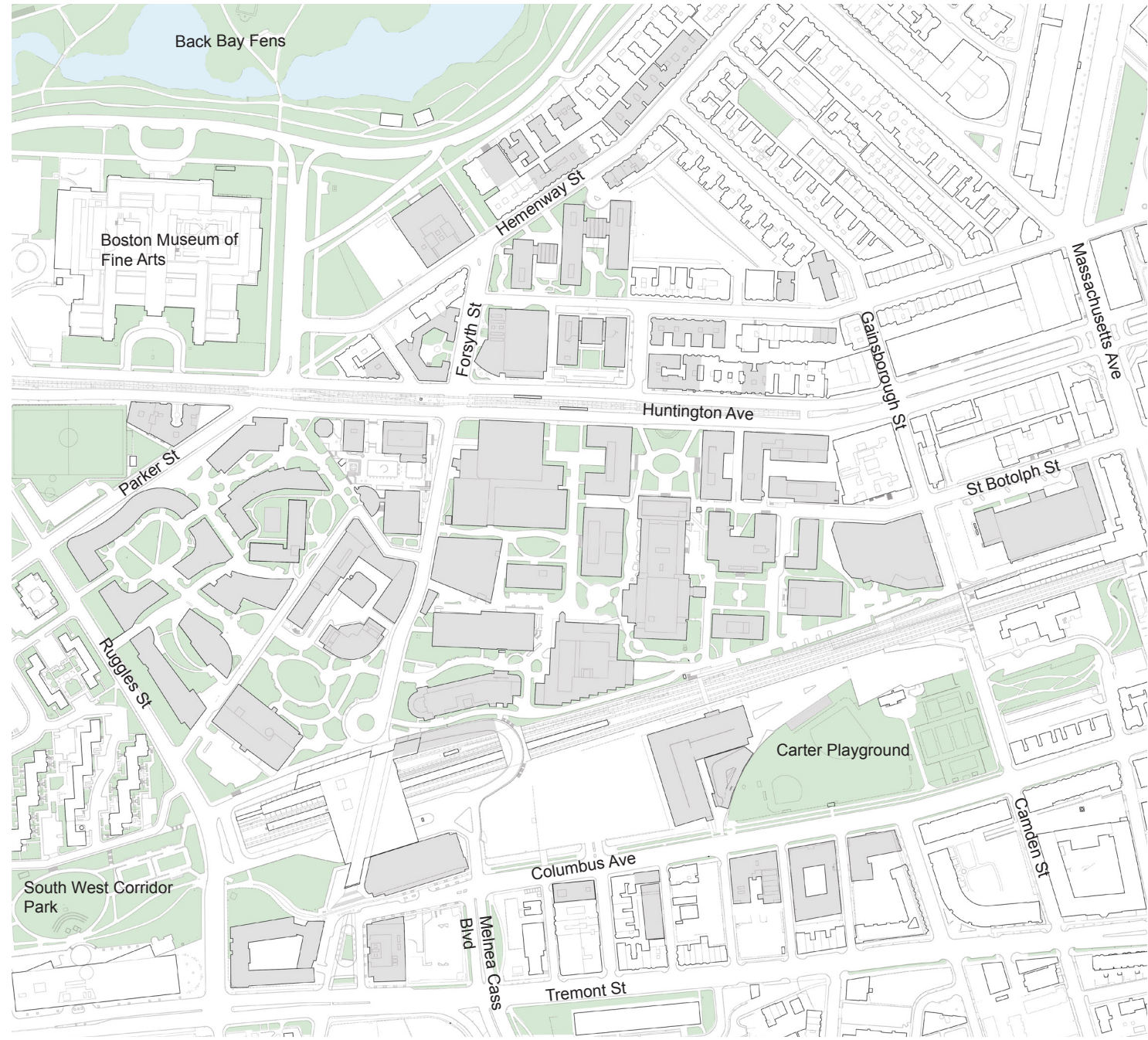
Guiding principles for student life on campus include:

- Distribute student social and study space / emphasis on the complete student experience: Providing students with flexible environments is important. New academic facilities must include social space, breakout spaces or lounges for student collaboration and study space to support current learning models.
- Increase athletic presence and opportunities: New athletic facilities for collegiate and intramural sports are needed on campus. The presence of competitive athletics is often a fundamental part of a student's college experience and facilities for recreational or intramural sports are equally as necessary to providing a rich campus environment.
- Continue the transformation toward a residential campus: New models of student residences provide amenities and living arrangements that previous models lack, such as apartment style suites that offer a more independent style of living for students and a competitive alternative to off campus housing.
- Enhance on-campus student experience: Cultural facilities for performances, rehearsals and exhibitions for student work as well as visiting artists and performers; space for the University's many student clubs, organizations and general function and meeting space.

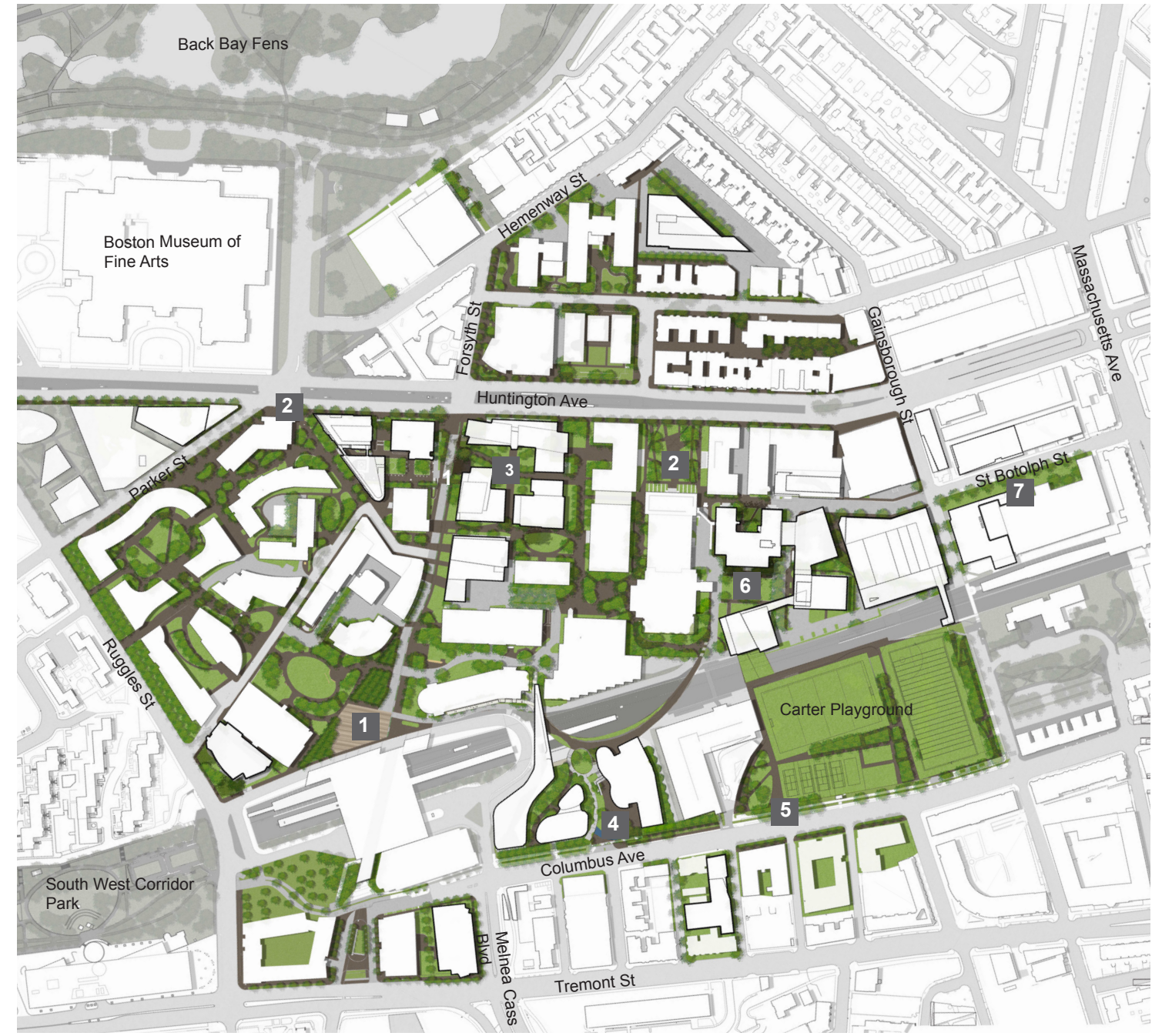
#### **6.4.5 Open Space Improvements**

Dramatic improvements have been made to the campus landscape, open space and public realm at Northeastern University over the past 10-12 years. A concerted effort to improve the appearance of the campus' internal circulation and pedestrian paths is ongoing with an emphasis on further limiting on-campus vehicular access (see **Figure 6-7**).

There remain improvements to be made, much of which stem from the relationship between the campus and the immediate context. Public ways such as Huntington and Columbus Avenues and Forsyth Street could be addressed to improve the treatment of their streetscapes and their relationship between the University and the public street. These redefined spaces could provide improved settings for both special events and daily, active use and circulation. The proposed redevelopment of the Columbus Avenue surface parking lot will not only provide open space and improve the campus' frontage along Columbus Avenue, it could also facilitate improved connections across the Orange Line tracks linking the Southwest Corridor Park and the Fenway.



Existing landscaping



Proposed landscaping

- 1 Forsyth Street
- 2 Huntington Avenue/ Krentzman Quadrangle
- 3 Cabot Redevelopment
- 4 Columbus Quad
- 5 Columbus Avenue/ Southwest Corridor Park
- 6 Science Quad
- 7 St Botolph/ Gainsborough Street

Figure 6-7.  
**Existing and Proposed Open Spaces**

The IMP emphasizes a sustainable approach to all public realm improvements, whether to public rights of way or within the campus itself. These principles are seen as an extension of Northeastern’s deep commitment to sustainability and environmental stewardship. This can be achieved through green infrastructure, which emphasizes storm water improvements such as bio-swales, permeable pavers, tree trenches, rain gardens and sub-surface storage, all of which can reduce the rate of storm water run-off and improve the appearance of the campus. Examples of these initiatives include the application of bio swales or cisterns along Forsyth Street or Columbus Avenue streetscape improvements.

### Key Public Realm Objectives

- Continue to express the mission and aspirations of Northeastern University;
- Build on the successes of the campus landscape;
- Maximize the potential of the campus landscape and open space infrastructure at all scales;
- Acknowledge the practical realities of campus functions while exploring new ideas; and
- Improve pedestrian connections through the campus and across the tracks.

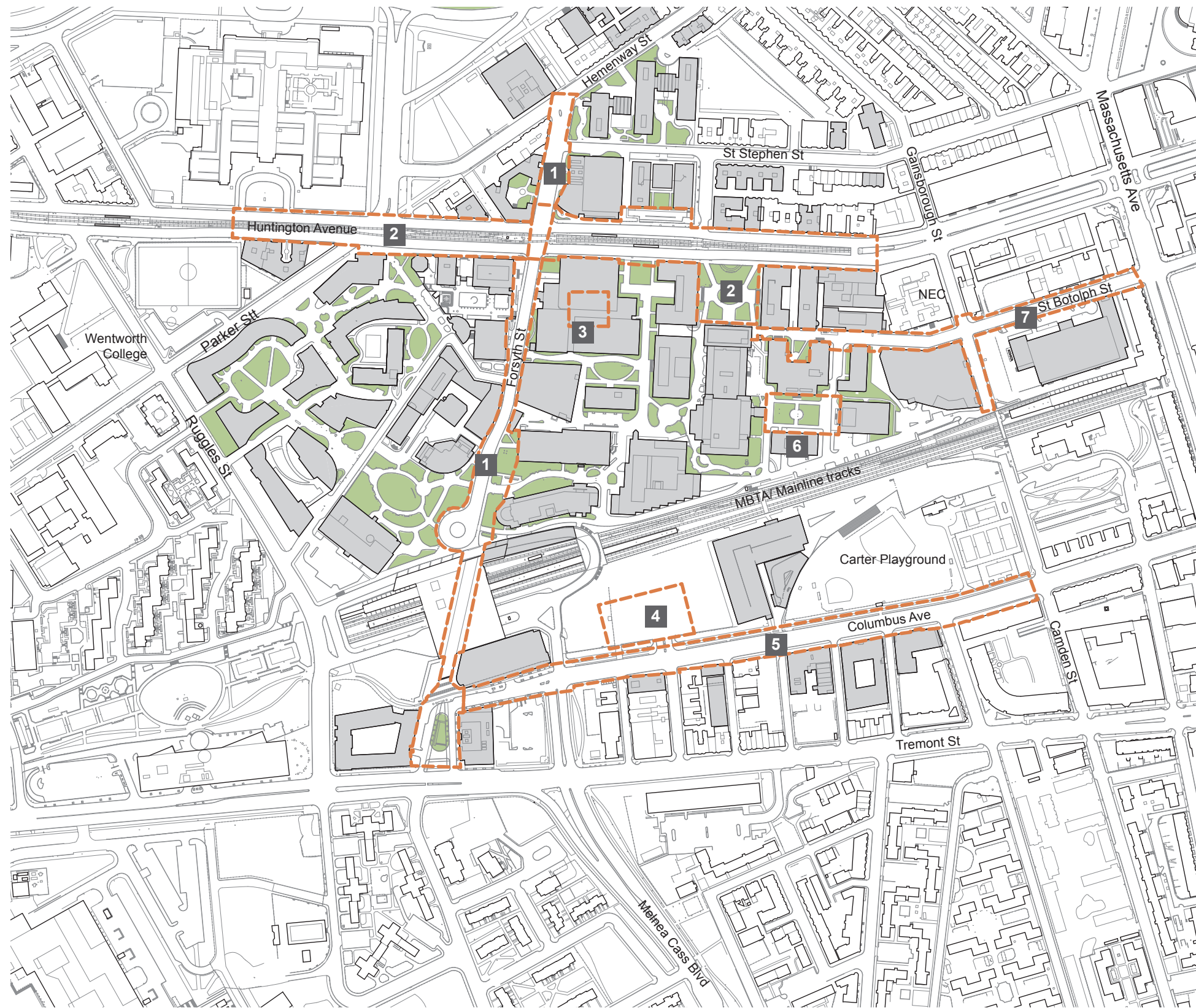
### Proposed Public Realm Improvements (see **Figure 6-8**)

#### *Forsyth Street Improvements*

Currently, Forsyth Street separates the Northeastern campus into east and west sectors. The University’s proposals for this primary campus corridor would stitch the campus together by limiting vehicular traffic, and emphasizing more pedestrian activity and student interaction. Forsyth Street improvements include new lighting, site furniture, hardscape surfaces, vegetation, gathering spaces, and programs to activate this space as an important campus pedestrian corridor while still enabling the important transportation functions of the street. Forsyth Street could be developed as an environmental corridor allowing improved connection through Northeastern University between the Southwest Corridor Park and the Emerald Necklace. The legacy of Stony Brook would be served by developing a stormwater management system, which captures water and irrigates the landscape through a series of bio-swales, rain gardens and cisterns. These improvements to Forsyth Street would also further emphasize the Ruggles MBTA station concourse as an important piece of transportation infrastructure as well as a prominent campus connector.

#### *Huntington Avenue / Krentzman Quadrangle Improvements*

The Huntington Avenue streetscape offers the University excellent visibility, and several proposed redevelopment sites in the IMP offer opportunities to improve Northeastern’s contributions to the street and its branding as the Avenue of the Arts. Krentzman Quadrangle is the historic, and iconic, front door of the University. A new design for this space would open



**Key**

-  Public realm improvements
- 1 Forsyth Street
- 2 Huntington Avenue/ Krentzman Quadrangle
- 3 Cabot Redevelopment
- 4 Columbus Quad
- 5 Columbus Avenue/ Southwest Corridor Park
- 6 Science Quad
- 7 St Botolph/ Gainsborough Streets

Map not to scale



the quad to Huntington Avenue, invite the public into the University, and create a multi-purpose open space. The trees running along the MBTA Green Line tracks could be supplemented by tree infill and other vegetation, and by improvements to soil infrastructure. Connections between the Core Campus and University buildings north of Huntington Avenue could be strengthened by redesigned pedestrian crossings.

### *Cabot Redevelopment Improvements*

A significant opportunity to improve Huntington Avenue lies in the redevelopment of the Cabot site as a mixed-use precinct with a transparent and public face to the street. The IMP proposes an integrated architectural and landscape design that would provide new Huntington Avenue and Forsyth Street frontages as well as internal campus connections and open space. The IMP proposes an emphasis on the street frontage with the potential for cultural and performance program space to serve as a new campus portal and a significant contribution to the Avenue of the Arts. The site offers the opportunity for a large, prominent mixed-use urban development incorporating a flexible landscape environment, which serves a variety of activities, functional requirements, and sustainable principles. Potential uses for the site include academic space, student experience space, rehearsal, performance and event venues and residential space.

### *Columbus Lot Improvements*

The Columbus Lot project provides an opportunity to create an open space along Columbus Avenue, which can serve as an amenity for the both the University and the broader community. It would provide a large multi-purpose space for a variety of events, and create a visual identity point for the University along the south edge of campus. This space has the potential to be highly used by students, and designed for a high level of biodiversity and sustainability. The potential for the lot as Northeastern's largest future academic precinct is recognized through the integration of significant open space and the introduction of critical elevated track crossings to improve public connections and to integrate the campus and community on both sides of the MBTA rail corridor.

### *Columbus Avenue / Southwest Corridor Park Improvements*

The existing infrastructure of Columbus Avenue and Southwest Corridor Park provides a significant open space framework that could be improved. The mature linden trees lining the street could be supplemented with additional infill trees. The landscape could be updated by improvements to both hard and soft ground plane surfaces, with new lighting and other park furniture and amenities. This parkway should serve multiple modes of transportation (i.e. walking, bicycling, etc.), and it could integrate into the adjacent spaces. Improvements to this space would serve to improve the condition, visibility and connectivity of what is perhaps the weakest link in one of Boston's most important public open space corridors.

### *Science Quad Improvements*

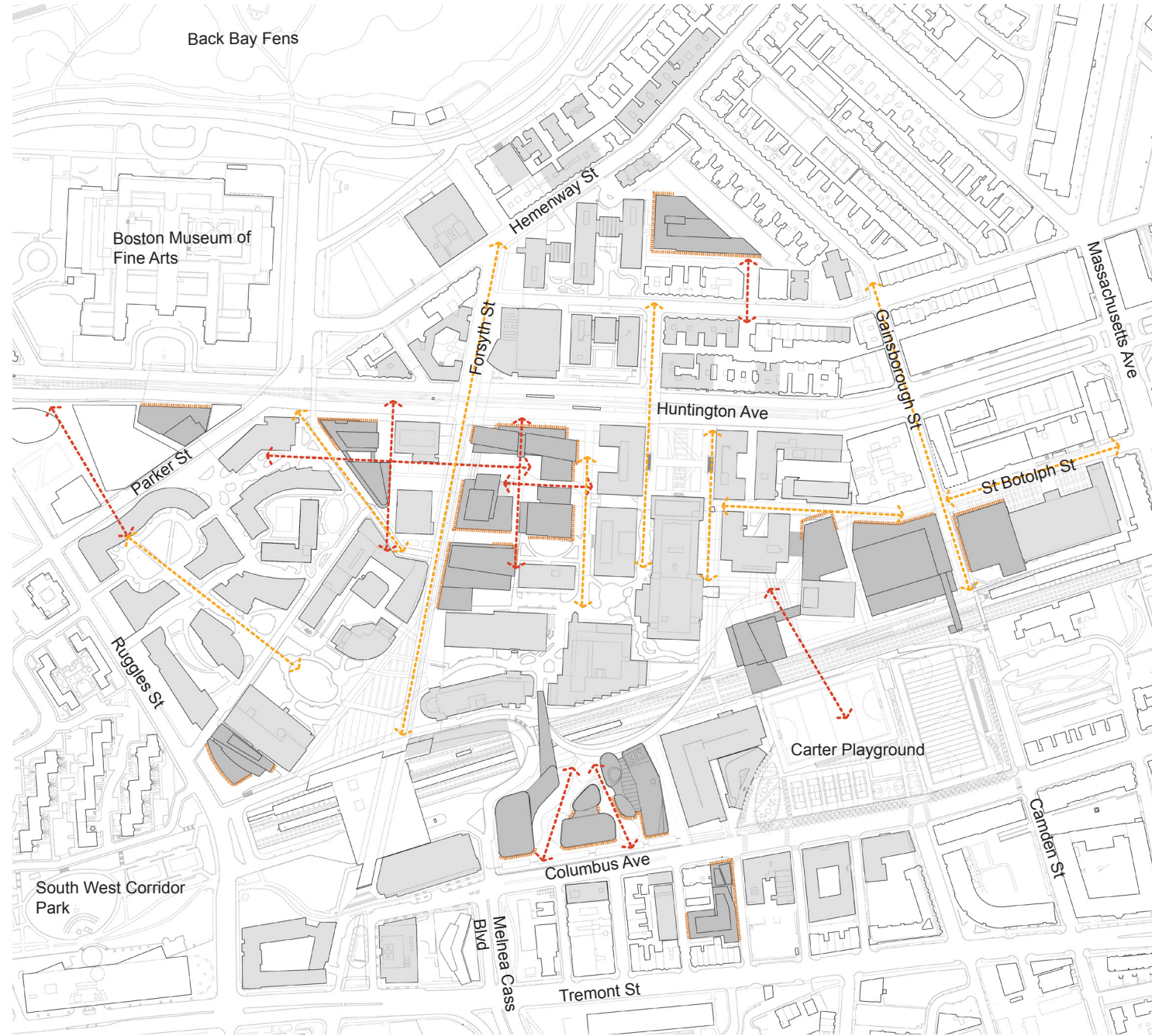
The landscape framework for the IMP identifies the potential for a stronger series of pedestrian pathways, or “threads,” which would connect the campus together in the east-west direction. The existing Science Quad is an important node along one of these pedestrian routes. This is a space that serves a circulation function both for pedestrians and for vehicles, as it provides a service access point for the Curry Student Center. This quad has the potential to serve multiple purposes on the Northeastern campus including the possibility of acting as an outdoor classroom extension of the science programs at the University.

### *St. Botolph / Gainsborough Street Improvements*

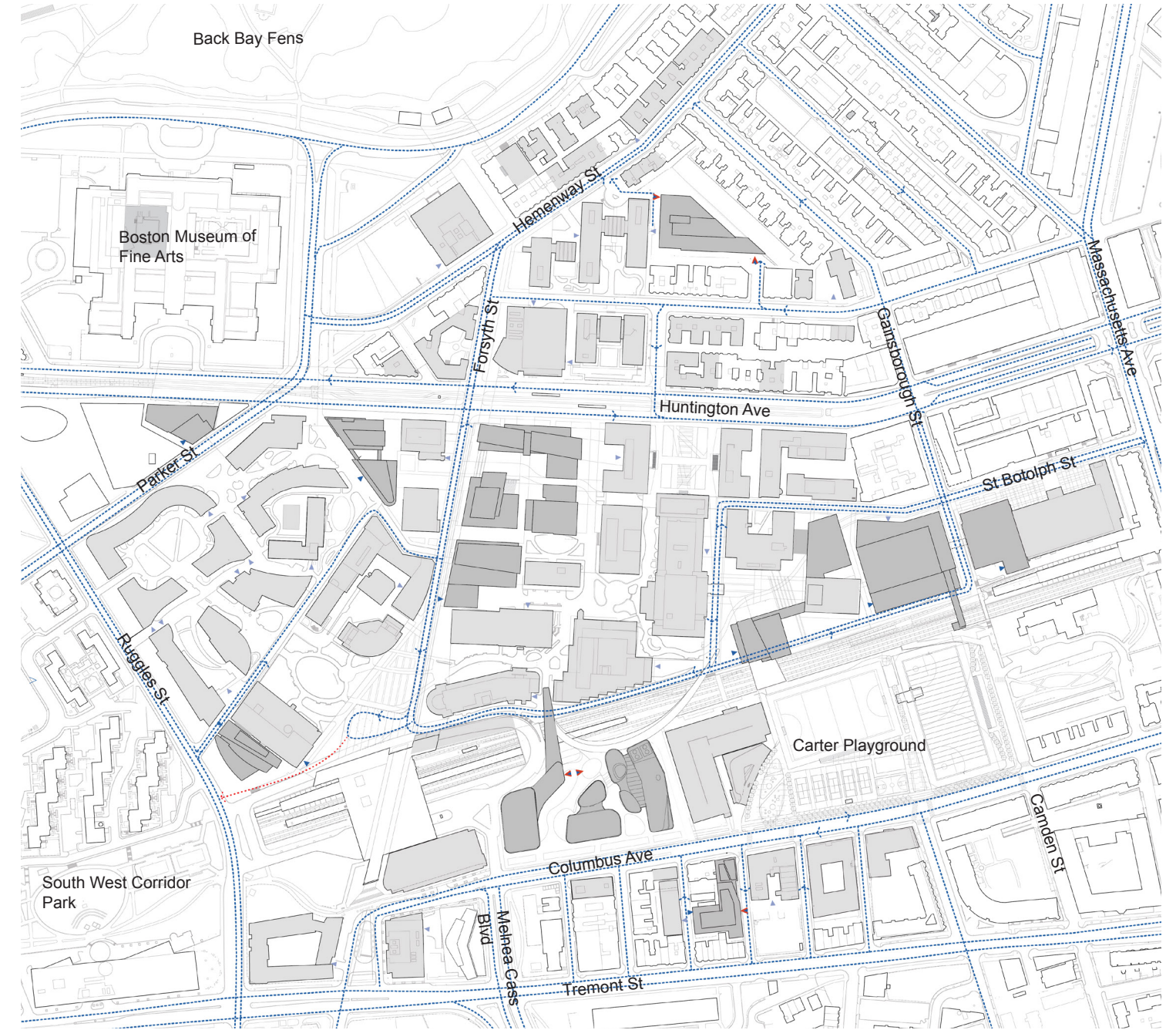
St. Botolph Street is a key connection between the internal east-west campus pathway and the Boston city fabric beyond. At the present time, this public street serves primarily as a service corridor, but the GrandMarc residence hall under construction, as well as the New England Conservatory’s proposed development and street improvements, will transform the character of both St. Botolph and Gainsborough Streets and strengthen the importance of their intersection. The IMP proposals to expand the Matthews Arena and eventually redevelop the Gainsborough Garage as an athletic facility underscore the importance of public realm improvements in this area of campus. Both streets must remain as important components of the campus and public vehicular circulation, but can also be re-imagined as pedestrian environments and vibrant urban corridors, better connected to both the neighborhood context and the campus open space network.

## **6.4.6 View Corridors, Pedestrian Circulation and Transportation Infrastructure**

Northeastern’s campus is well connected to its surrounding context; however, internal circulation is at time confusing and complex to navigate. The campus ultimately acts as a superblock and vehicular access through it is almost entirely limited. The presence of the MBTA tracks is one of the most significant obstacles to this movement, but east-west vehicular movement through the campus is also limited by the service frontage road running along the north side of the tracks connecting Forsyth and Gainsborough Streets. Despite limited vehicular access, all campus buildings are served by loading and emergency vehicle access and improving vehicular movement through the campus is not paramount master plan priority in the interest of maintaining a pedestrian-oriented campus. An equal, if not greater concern, is the persistent disruption to pedestrian circulation throughout campus. The rectilinear organization of many college campuses with formal quads and ceremonial pathways does not exist at Northeastern. The pedestrian paths through campus can often lack clarity, and are at times disrupted by dead zones, such as loading areas or bus circulation. Creating a more legible campus through improvements to existing landscape spaces, the creation of new open spaces and a logical continuation of the existing campus sequence of landscape are goals of the master plan and would also open up new view corridors both through the campus as well as from the major Huntington and Columbus Avenue edges (see **Figure 6-9**).



- Proposed view corridor
- Existing view corridor



- Existing vehicle route
- Proposed vehicle connection to Ruggles St.

Figure 6-9  
**Street level campus transparency, vehicle routes**

The following improvements could help improve circulation within and through the campus while also giving the campus a sense of order.

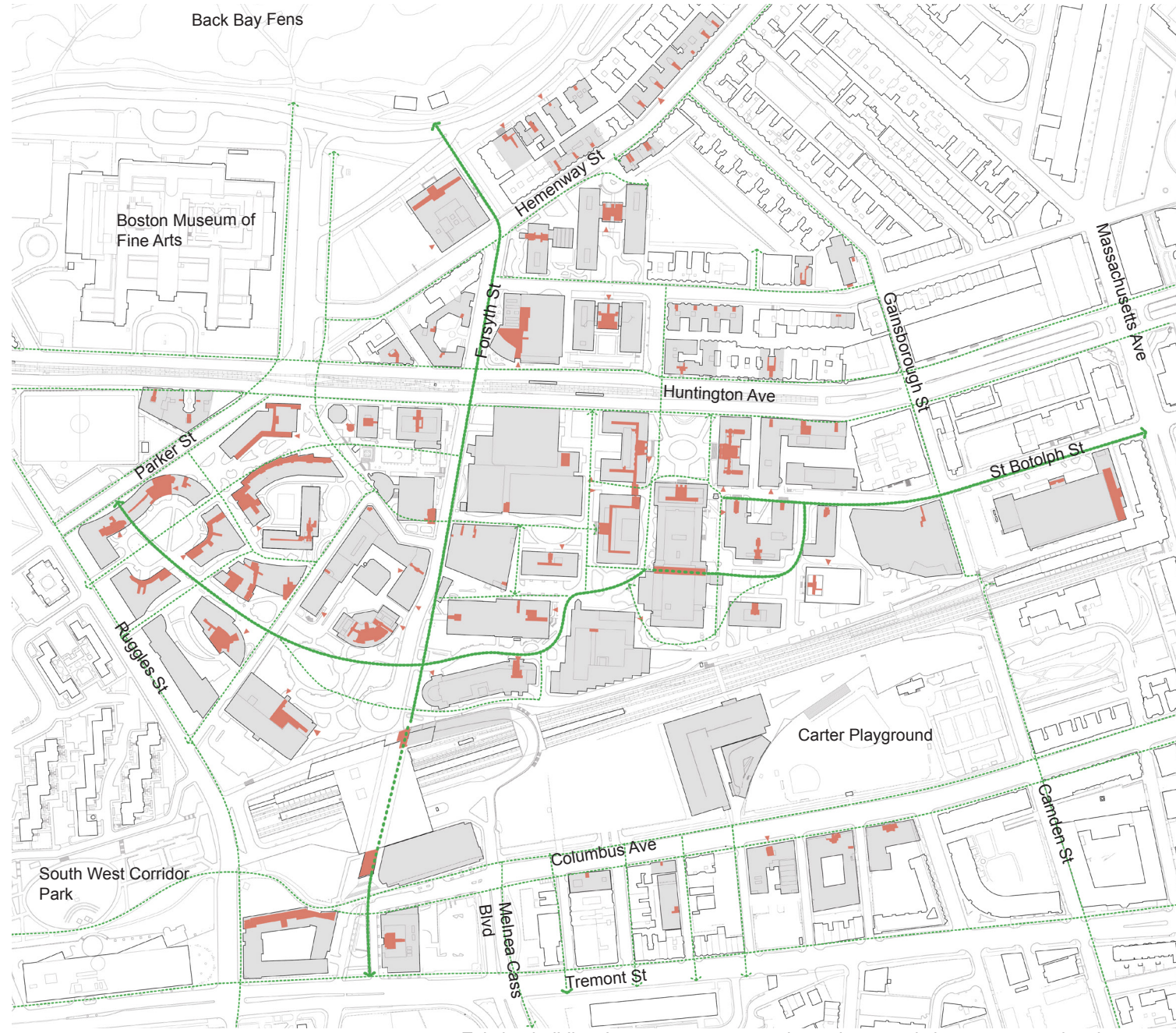
### Pedestrian Circulation Improvements / Campus Context and Public Rights-of-Way

As noted, the current campus has inadequate east-west pedestrian links, which are discontinuous and generally allow movement only through the middle of the campus. New pedestrian pathways need to be introduced closer to Huntington Avenue to better connect the proposed Columbus Lot development with the main campus between Huntington Avenue and the MBTA tracks (see **Figure 6-10**).

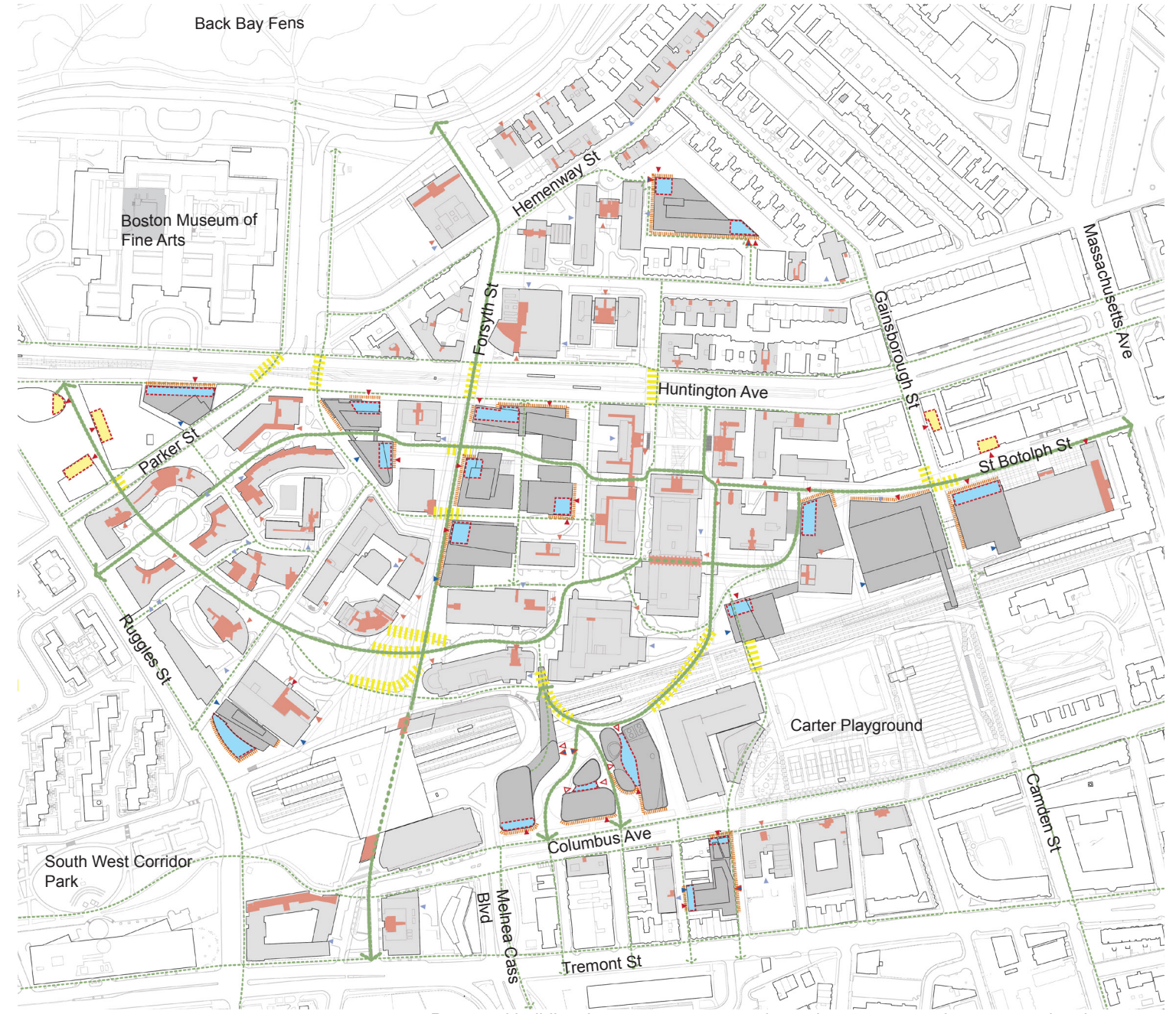
Northeastern's front door has historically been along Huntington Avenue, which continues to be the public face of the University. However, several other public realm edges to the campus also have the potential to become new gateways or edges to the campus as well as opportunities for improved neighborhood connections

- *Huntington Avenue:* Huntington Avenue has served as the historic public face of the University and for the most part continues to serve that role. The original Northeastern buildings, the Krentzman Quad and the recent Marino Center all function to anchor this part of Huntington Avenue as an important part of the Northeastern campus experience (see **Figures 6-11 and 6-12**).

The IMP proposes improvements to the pedestrian condition along Huntington Avenue and a continuation of improvements and maintenance that the University has contributed to over the decades. The continuous blank street-wall presented by the Cabot Athletic Center, creates an unpleasant pedestrian experience along significant stretches of the south side of Huntington Avenue. The IMP proposes to address this condition in the long term by a proposed redevelopment of the site with more public uses and active, transparent facades along the street. The Huntington Avenue face of the campus will also be improved by the redevelopment of Cargill, Stearns, Burstein and Rubenstein Halls also adding to more activity and vibrancy along this "Avenue of the Arts". The master plan also proposes improved street crossings between the north and south side of Huntington Avenue to increase real and perceived pedestrian safety. An improved street crossing at Forsyth Street could provide a needed link for the proposed improvements along Forsyth Street, stretching from Ruggles Station to Hemenway Street that will serve to establish a strong connection between the campus and the Back Bay / Fens.



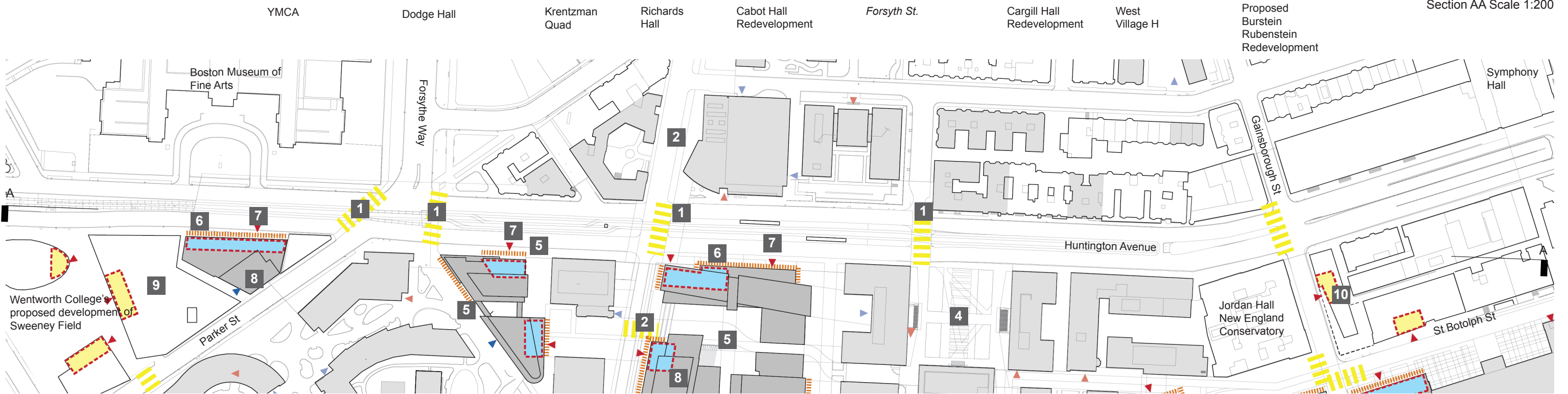
Existing buildings' entrance spaces as they relate to existing campus pedestrian routes



Proposed buildings' entrance spaces as they relate to proposed campus pedestrian routes

- Primary pedestrian route
- - - - - Secondary pedestrian route
- Existing buildings' entrance spaces
- Proposed buildings' entrance spaces
- Proposed NEC/Wentworth buildings' entrance spaces
- ▶ Existing accessible entrance
- ▶ Proposed accessible entrance
- ▷ Proposed secondary entrance

Figure 6-10.  
**Pedestrian Circulation as relating to building entrances**



- ▬▬▬▬ Active building facades
- ▬▬▬▬ Upgraded Pedestrian Crossing
  - ▶ Existing accessible Entrance
  - ▶ Proposed Accessible Entrance
  - ▶ Proposed Loading Bay
- Proposed buildings' entrance spaces
- Proposed NEC/Wentworth buildings' entrance spaces

- IMP Proposed Improvements**
- 1 Improved Pedestrian Crossings.
  - 2 Extending Forsyth St Landscaping improvements to both north and south sides of Huntington Ave.
  - 3 Continuous building line set back to allow for wider sidewalk.
  - 4 Krentzman Quad re-landscaped to provide a more generous and open entrance to the Campus.
  - 5 New view lines into the center of the campus- increases perceived visual 'porosity' of the campus.
  - 6 Active street frontages.
  - 7 New entrances face on to Huntington Ave, rather than to the side streets.
  - 8 Taller buildings are located where possible away from the sidewalk.

- Adjacent Institutional Context**
- 9 Wentworth College to replace Sweeney Field with new research, retail and office space.
  - 10 New England Conservatory development

Streetscape Plan: Huntington Ave scale 1:200

Figure 6-11.  
**Huntington Avenue**



Existing view along Huntington Ave looking east from from the intersection with Forsyth St



Conceptual perspective view along Huntington Ave looking east from from the intersection with Forsyth St



Existing view along Huntington Ave looking east from from the intersection with Forsythe Way



Conceptual perspective view along Huntington Ave looking east from from the intersection with Forsythe Way

**Figure 6-12**  
**Huntington Avenue Perspectives**

These new proposals discussed will attempt to improve the public presence of the campus as it addresses the street and at the same time improve the pedestrian experience for residents of the wider community as well as for students and faculty. This will be achieved through:

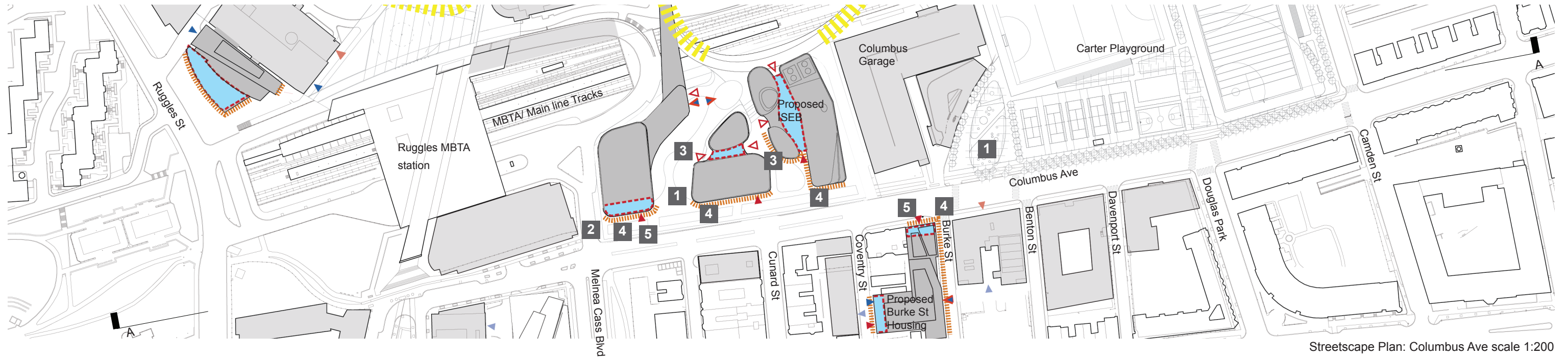
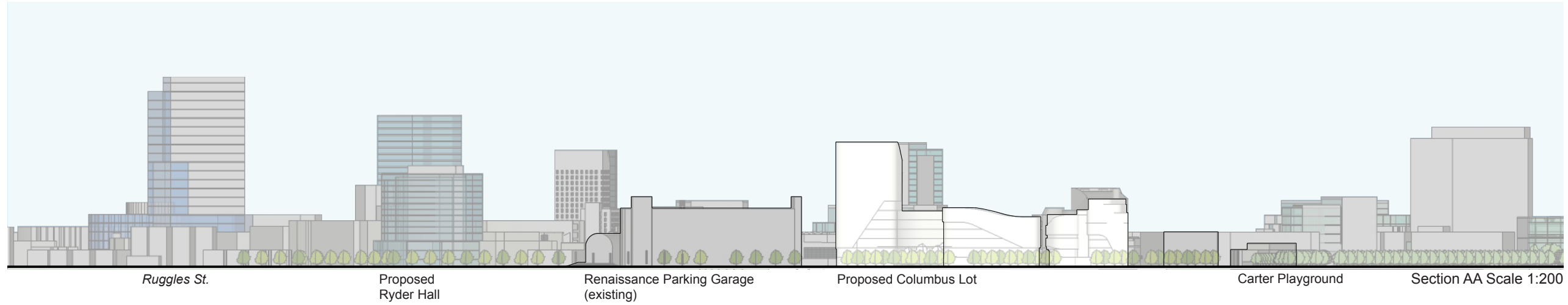
1. Setting back the new buildings farther from the curb to create wider sidewalks;
  2. Ensuring that principle building entrances address the avenue;
  3. Breaking down the mass of the buildings to increase the frequency of views deep into the campus;
  4. Providing active publicly accessible uses at street level that will animate the streetscape, provide more “eyes on the street” and add to the presence of campus life on the street; building on the success of such projects as the Marino Center to the north side of the street; and
  5. Improving the Krentzman Quad landscape to provide a more accessible and useful “front door” to the campus, that may be used for formal and informal university functions; and providing a more welcoming face to the public realm.
- *Columbus Avenue*: In recent years the perceived boundary of Northeastern’s campus has gradually moved south across the MBTA tracks to Columbus Avenue and Tremont Street. With the additions of International Village, Davenport Commons and Columbus Place, what was once seen as the backdoor of Northeastern’s campus is becoming an important gateway to the University (see **Figure 6-13**).

Development opportunities on the Columbus Lot, community supported improvements to Carter Playground (discussed as a community/public benefit in **Chapter 12**) and potential improvements to the MBTA’s Ruggles Station will provide a stronger sense of entry and edge to the University as well as considerable improvements to Columbus Avenue as an important neighborhood corridor. Pedestrian improvements along Columbus Avenue are essential to this transformation, as are improvements to pedestrian and bicycle circulation for the Southwest Corridor trail.

Northeastern’s proposed buildings will contribute to the growing identity of this street by:

1. Providing active ground floor uses that will animate the street and present the internal life of the campus to the public realm;
2. Locating principle building entrances on the street;
3. Improving lighting, planting and pedestrian crossings across Columbus Avenue better integrating the Southwest Corridor Park cycle and pedestrian paths with local needs and activities; and





Streetscape Plan: Columbus Ave scale 1:200

- Active building facades
- Upgraded Pedestrian Crossing
- Existing accessible Entrance
- Proposed Accessible Entrance
- Proposed Loading Bay
- Proposed buildings' entrance spaces

- IMP Proposed Improvements**
- 1 Extending ISEB Landcaping improvements to the north side of Columbus Ave, improving the South West Corridor Park
  - 2 Continuous building line set back to allow for wider sidewalk.
  - 3 New view lines into the center of the block- increases perceived visual 'porosity' of the campus.
  - 4 Active street frontages.
  - 5 New entrances face on to Columbus Avenue

Increasing the prominence of pedestrian foot traffic along Columbus Avenue by providing publicly accessible open space on the redeveloped Columbus surface lot and facilitating new pedestrian and bicycle crossing over the MBTA tracks.

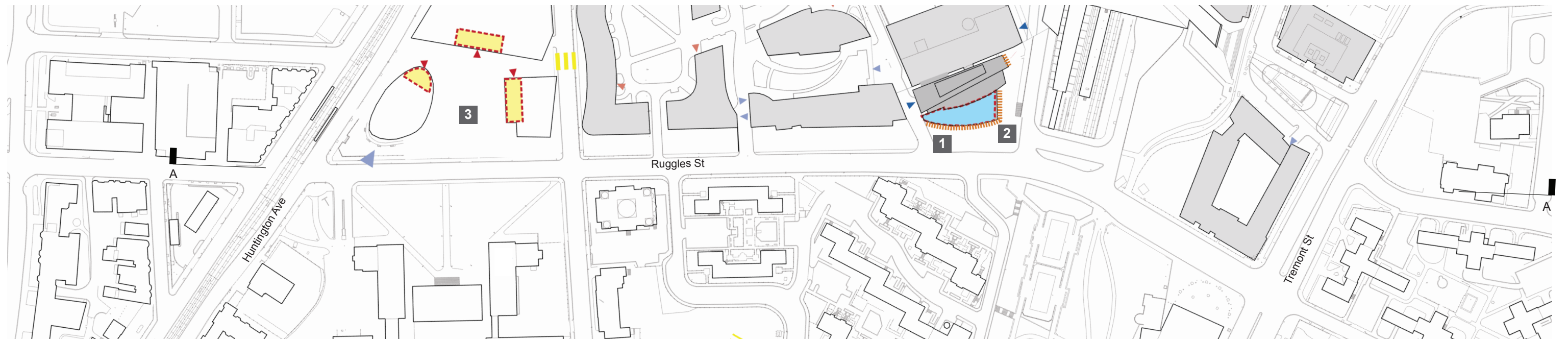
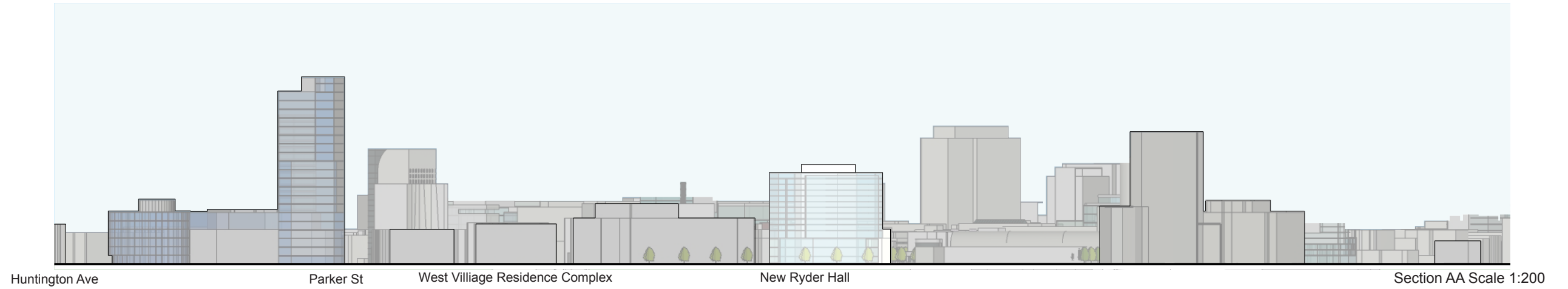
*Ruggles Street:* The IMP proposes construction of a new building at the corner of Ruggles and Leon Streets as an addition to Ryder Hall (see **Figure 6-14**). By replacing an existing parking lot, this proposal will also be a continuation of the massing and setback established by the West Village buildings that front onto this street. The Ryder addition will create a gateway building to the university demarcating the campus from the southwest where Ruggles crosses the Southwest corridor. The proposed building will be set back from the street respecting the easement for the Urban Ring, which crosses the site. As an interim condition, the existing line of planting that currently extends along the easement, to the west of West Village Buildings C and E will be extended south in front of the proposed Ryder addition. The master plan anticipates that the lower stories of the building will provide greater transparency to allow for more ‘eyes on the street’ and to visually activate the Ruggles corridor,

This proposed building, together with the Wentworth College’s development proposals to the northern end of the street, set to re-establish Ruggles Street as a more inviting, walkable urban corridor linking Roxbury to the Fens.

- *St. Botolph Street / Gainsborough Street:* St. Botolph Street is an important east west connector between the Northeastern campus, Massachusetts Avenue and a central spine running through the South End. However, with its current frontages and uses, it does not reflect its potential importance as a gateway or entrance to the University (see **Figures 6-15** and **6-16**). It currently serves as the backdoor to New England Conservatory (“NEC”) and as a service drive for Northeastern, in addition to providing access to parking in the Gainsborough parking deck. Future improvements along St Botolph Street could focus on improving the pedestrian condition of the street with the addition to Matthews Arena, a new NEC building and the construction of the GrandMarc residence hall. St Botolph Street will ultimately serve as a primary pedestrian connection to Massachusetts Avenue and through the university itself.

The projects set out in the IMP will serve to improve the pedestrian experience of this street by providing active uses at ground floor level that will add to eyes on the street and bring the internal life of the buildings further into the public realm.

Principle entrances and transparent frontage to the Matthews Arena Addition, the proposed Gainsborough Athletic facility and the redeveloped Cullinane site will be located along St. Botolph which, together with the New England Conservatory’s proposals, will create a dynamic and welcoming streetscape.

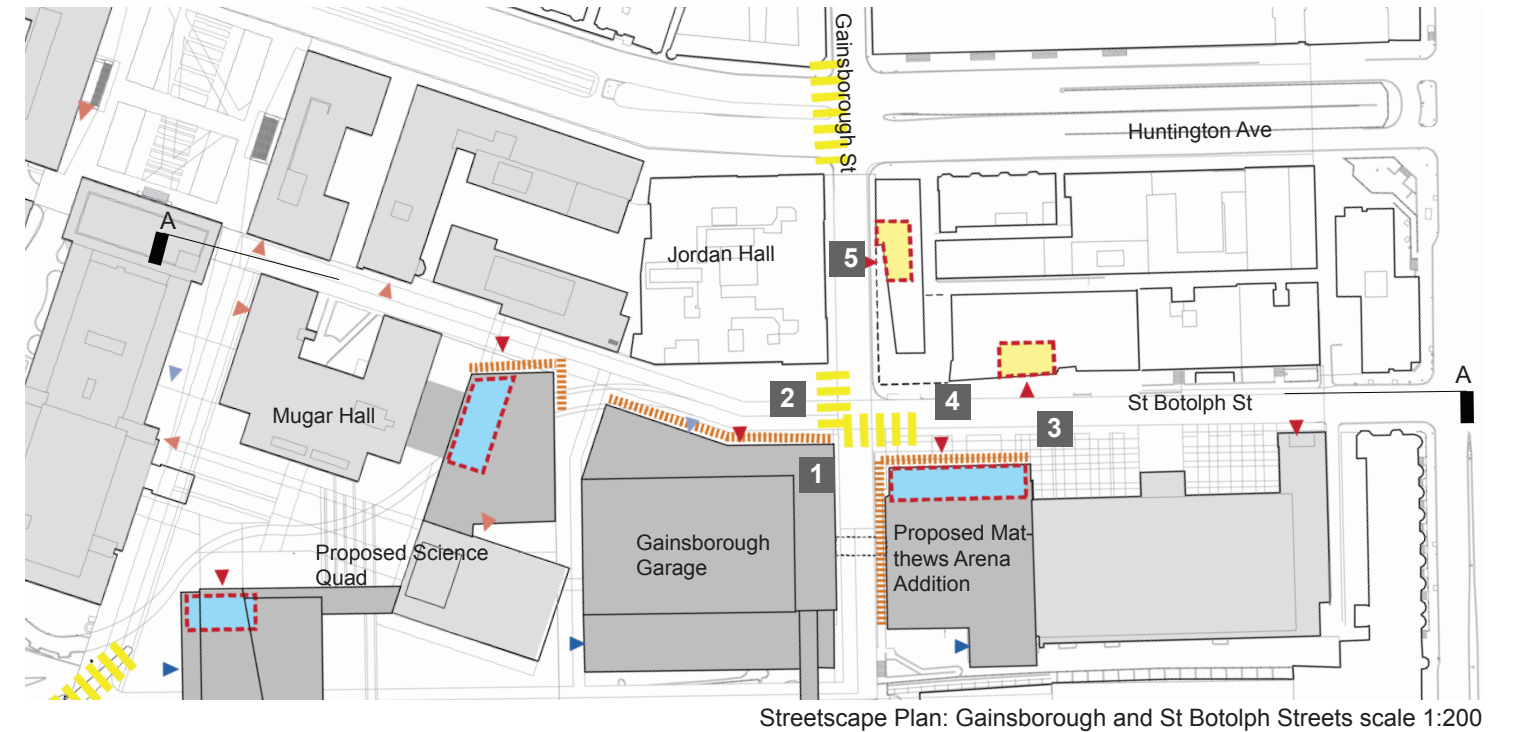
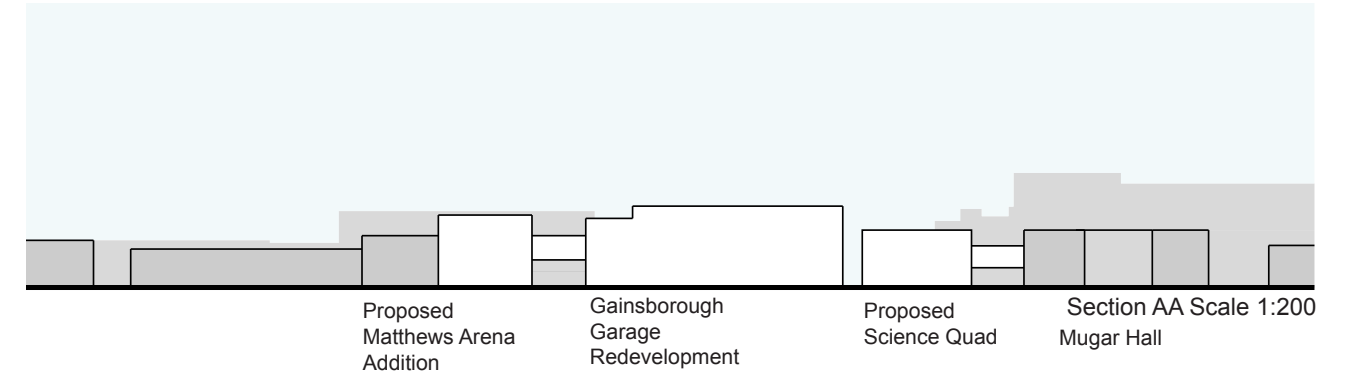


Streetscape Plan: Ruggles St scale 1:200

- Active building facades
- Upgraded Pedestrian Crossing
- Existing accessible Entrance
- Proposed Accessible Entrance
- Proposed Loading Bay
- Proposed buildings' entrance spaces
- Proposed Wentworth buildings' entrance spaces

**IMP Proposed Improvements**  
 1 Active street frontages.  
 2 Easement for the Urban Ring preserved to the west of Ryder Lot.

**Institutional Context**  
 3 Wentworth Proposals



- ⋯ Active building facades
- ||||| Upgraded Pedestrian Crossing
- ▶ Existing accessible Entrance
- ▶ Proposed Accessible Entrance
- ▶ Proposed Loading Bay
- ▭ Proposed buildings' entrance spaces
- ▭ Proposed NEC buildings' entrance spaces

**IMP Proposed Improvements**

- 1 Improved Pedestrian Crossings.
- 2 Extending St Botolph St Landscaping improvements to both east and west sides of Gainsborough St
- 3 Active street frontages.
- 4 New entrances face onto St Botolph Street.

**Adjacent Institutional Context**

- 6 Proposed New England Conservatory development

**Figure 6-15.**  
**Gainsborough and St Botolph Streets**



View of Matthews Arena Addition, looking east along St Botolph St

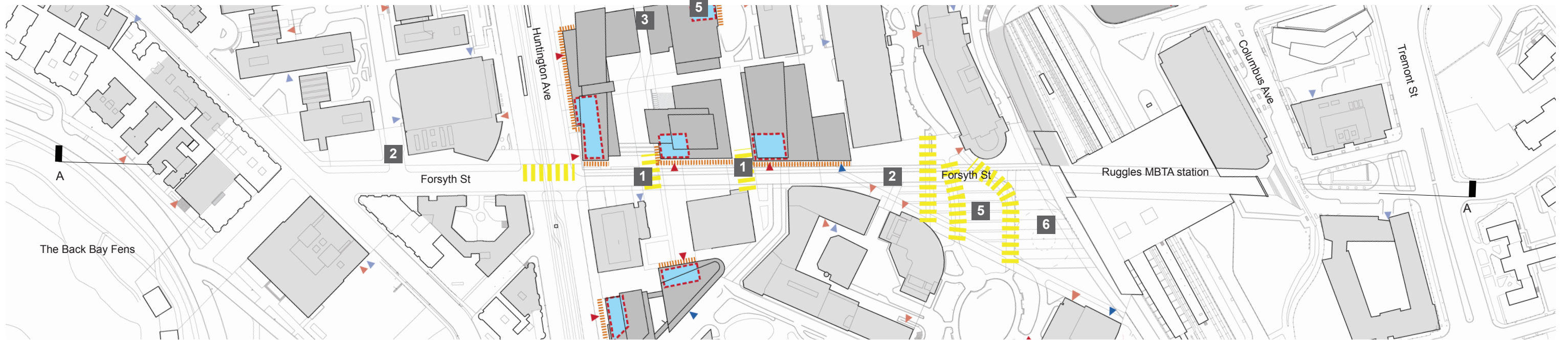
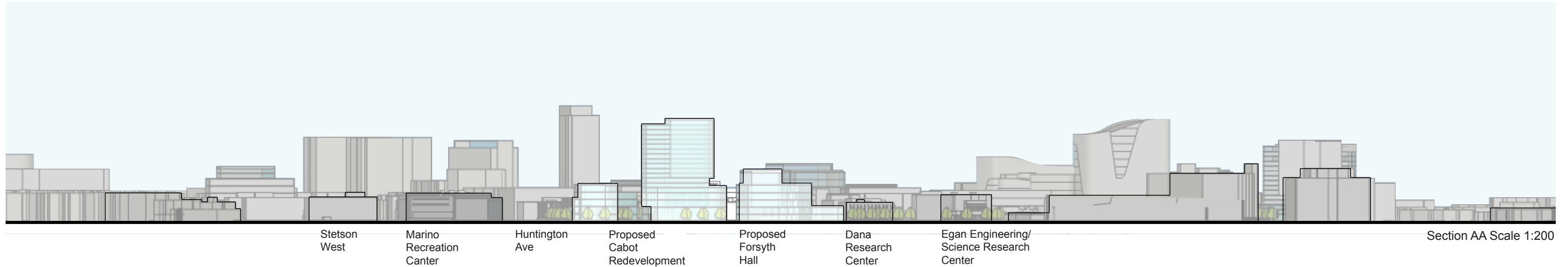


View of proposed NEC redevelopment, looking north from the intersection of Gainsborough and St Botolph Streets

Delivery and service access routes will be preserved and the current loading bay location south of the intersection on the west side of the Matthews arena will be maintained to minimize conflict between the anticipated increase in the number of pedestrians in this area and the adjacent buildings' service needs.

*Forsyth Street:* One of the most divisive elements to the continuity of pedestrian experience at Northeastern is the presence of Forsyth Street in the heart of campus. As the West Village expanded Northeastern's presence to the West, Forsyth, historically an industrial corridor, became a central north-south spine bisecting the campus and culminating at the Ruggles MBTA Station. With the important pedestrian and inter-modal shuttle traffic utilizing the street, and the high volumes of east-west foot traffic traversing the campus, the master plan proposes improvements that reflect the importance of Forsyth and the need for improving the co-existence of pedestrians and vehicles. (see **Figure 6-17**). While passenger vehicle movement is limited, presence of bus and service traffic idling along Forsyth Street detracts from a truly pedestrian environment and interrupts pedestrian circulation. Improvements along Forsyth Street should create a strong pedestrian spine from Ruggles station to Huntington Avenue and beyond, provide bicycle connections and improve safety through traffic calming devices. A more prominent streetscape design for Forsyth will also underscore the importance of the corridor as a key link between Roxbury and the Fenway neighborhoods and the Southwest corridor park with the Emerald Necklace.

- The IMP proposes buildings and landscaping improvements along this key route which will make it a more walkable and inviting environment for the whole community by:
  - Extending landscaping improvements to both the north and south sides of Huntington Avenue;
  - Improving pedestrian crossings across Huntington Avenue itself;
  - Locating principle entrances to new buildings on the street itself; with active uses located on the ground floor level to provide a more animated, welcoming pedestrian experience;
  - Increasing building setbacks for the proposed developments on the east side of the street;
  - Reducing building massing to allow for view corridors to the east and west of the campus, to provide greater clarity of the relative disposition of buildings within the campus; and
  - Removing the existing podium that currently creates an inaccessible obstacle between Forsyth and Greenleaf Streets; and creating a series of at grade, accessible courts that compliment this new pedestrian precinct.



Streetscape Plan: Forsyth St scale 1:200

- Active building facades
- Upgraded Pedestrian Crossing
- Existing accessible Entrance
- Proposed Accessible Entrance
- Proposed Loading Bay
- Proposed buildings' entrance spaces

**IMP Proposed Improvements**

- 1 Improved pedestrian crossings; parking removed,
- 2 Forsyth St landscaping improvements to both North and South sides of Huntington Ave.
- 3 Improved view corridors, east and west across Forsyth Street
- 4 Active street frontages, with new entrances on to the street
- 5 Extended green space at Centennial Quad
- 6 New station forecourt

### *Internal-Campus Connections*

Northeastern's campus has developed gradually and sequentially over the past seven decades in response to constrained urban context. The campus does not have the direct, rectilinear pedestrian connections or large central quadrangles common to many college campuses. Instead, there is a somewhat circuitous pedestrian network through Northeastern's campus featuring a series of open spaces loosely connected by landscaped pedestrian paths. Great attention and care has been taken to make these connections logical, legible and as pleasing as possible resulting in a pleasant and at times bucolic character for an urban campus. Despite these over the past decade or more, there remain some gaps in continuity and several moments on the campus where pedestrians are confronted by inaccessible building entrances, surface parking lots, loading areas and service drives. The master plan landscape strategy proposes several improvements to campus connectivity, circulation and open space as a primary initiative. North-south connections through existing quads could be strengthened and Forsyth Street could become a central spine for pedestrian circulation. East-west pedestrian paths also suffer from poor and indirect circulation patterns, which will be addressed by improvements to St. Botolph Street, the Science Quad, the proposed (bridge) crossings for the proposed ISEB, as well as new proposed open spaces within the existing Cabot and Cargill sites. These improvements to the east-west pedestrian circulation through landscape treatment and signage will result in a more integrated, continuous and legible sequence of open space - through the campus as well as to the neighboring communities.

### *New and Improved Rail Crossings:*

The MBTA Orange Line currently bisects the Northeastern campus, creating what are two distinct halves to the campus. The existing crossings are few in number, undistinguished and far apart - up to 1000 feet apart at points. Despite the condition and inconvenience of the existing crossings, they are well utilized and an important part of the campus and city circulation. The MBTA Ruggles Station crossing is the most prominent, public and heavily trafficked, while the bridge at the easternmost end of the MBTA bus platform leading down to the Columbus lot is well used for commuter parking access. The Columbus Parking Deck is also accessed frequently by students and staffing heading to Columbus Avenue residential and administrative functions. The bridge at Gainsborough Camden Street, which also serves as an end of platform exit from the Massachusetts Avenue station, is also used although with less frequency than those to the west..

The master plan proposes future crossing improvements to narrow that gap between existing bridges including two new crossings and an elevated promenade at the Columbus Lot Interdisciplinary Science and Engineering Building (ISEB) complex. This prominent crossing will be sloped for accessibility and bike access and will strategically land at the Science Quad and at the Egan Engineering building along an important east-west connector linking to Forsyth Street.



*Bicycle Improvements (Bicycle Infrastructure and Amenities):*

Improvements to bicycle infrastructure in and around the Northeastern campus have paralleled the major improvements to bike access and safety that have taken place throughout the city in recent years. A large student population is often a captive audience with respect to identifying areas for bicycle infrastructure improvements. Bike lanes along Huntington, Columbus and Forsyth have been painted, but more improvements are necessary. The City of Boston has outlined plans for connections to be established between Fenway and Melnea Cass Boulevard, which would run through the Northeastern campus. Improvements are also recommended for the Southwest Corridor Trail along Columbus Ave. A redesign of Forsyth Street with a shared bike lane emphasizing a more pedestrian environment, as well as the proposed ramped bike access over the MBTA tracks as part of the proposed ISEB development are examples of the master plan proposals to increase the bike network around and through the campus.

## 7.0 IMP DEVELOPMENT PROGRAM

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### 7.1 Introduction

This IMP seeks to accommodate over 2,000,000 gsf of academic and student life facility growth, including athletic facilities and additional housing, on the existing Northeastern campus and as such requires a strategy that builds on available sites and provides swing space for displaced uses while demolition and construction take place. This will involve a combination of leased and owned swing space as described in the IMP Development Program. Although the specific timeframe for many of the master plan projects is as yet not specified, this plan seeks to give the City and the community an indication of the drivers of growth and the physical solutions for growth on the campus. For some of the larger developments being considered on more prominent sites, where feasible, because of economic and other considerations, the University will seek co-developers and other third parties to participate in the design, construction, and management of selective IMP projects.

To satisfy this scale of needed facilities, while remaining within the confines of the existing campus, the IMP proposes to increase the built density through the re-purposing of under-utilized areas such as parking lots, and replacing low-rise, aging buildings, with taller, more economically and environmentally efficient construction. The University also concurs with the goal of creating roughly 1,000 new undergraduate beds during the term of the IMP, and the creation of 600 beds in the first five years, as more fully described in the BRA Board Memorandum on Northeastern's IMP, dated November 14, 2013, and contained in **Appendix I**.

### 7.2 Campus Precinct Descriptions

The proposed IMP projects are described below through a series of campus precincts recognizing the relationship between the interventions and the existing campus patterns of development and open space. While each of these precincts is geographically distinct, each district, and indeed each project, endeavors to improve the campus legibility as a series of interconnected spaces and buildings. In many cases, each precinct has its own distinct architectural character, mix of uses and public spaces, or is delineated by its relationship to the public realm. The IMP proposes that each new development within a given precinct will positively contribute to the physical setting of the existing neighboring context, enhance the existing streetscape, infrastructure and pedestrian environment. The proposals will allow for greater pedestrian accessibility throughout the campus while overcoming the campus 'super-block' condition to the surrounding neighborhoods on both sides of the tracks.

Each master plan proposal is to be considered within the broader context of the campus and the abutting neighborhoods with the campus systems of pedestrian routes, their related improved street crossings, vehicular/ delivery and trash collection routes all considered as part of this wider network (see **Appendix Figure C-1**).

### **7.2.1 Core Campus Precinct**

The proposed master plan development in the **Core Campus Precinct** (see **Appendix Figure C-2 to C-5**) presents significant opportunities to improve the public realm of two important city streets: Huntington Avenue and Forsyth Street. The redevelopment of the Science Quad, enabled by the demolition of Cullinane Hall will allow for the creation of new frontage on St. Botolph Street across the street from the new GrandMarc housing (now under construction).

All of the proposed Core Campus projects are enabled by the phased demolition of three existing facilities: Forsyth Building, Cabot Athletic Center and Cullinane Hall. Forsyth (built in 1926 and acquired by NU in 1949) and Cullinane (built in 1911 and acquired by NU in 1930) were both originally industrial buildings that have been repurposed by the university multiple times. While they have served the Northeastern well, they are not particularly well suited to contemporary academic uses and both are only two stories in height. The Cabot Center and Barletta Natatorium, built by Northeastern in 1954, has also served the University's athletic and recreation needs for over a half century, but is challenged by its age and condition. The building also does not help activate the public realm with its considerable length of blank façade along Huntington. While the age of the Cabot Center contributes to the decision to redevelop the site, the principal driver of its redevelopment is the prominent public nature of the site and the opportunity that a mixed-use facility provides for Huntington Avenue and the public face of the University.

The proposed redevelopment of the Forsyth building for academic and/or housing use will provide much needed space in the core of the campus, adjacent to the College of Engineering facilities. The master plan proposes active, transparent uses along the Forsyth Street frontage and recognizes the redevelopment of the Forsyth Building as a centerpiece to the overall master plan initiative of improving the pedestrian environment and character of an important north-south axis. The adjacent, mixed-use development proposed on the Cabot site also proposes to introduce active, transparent, public uses along the east side of Forsyth Street as well as along the Huntington Avenue frontage.

The master plan identifies opportunities for academic space, residential space and cultural uses such as performing and visual arts facilities and venues on the Cabot site, recognizing the goal of Northeastern contributing to the Avenue of the Arts. The plan envisions a series of buildings on that define an internal open space quad/courtyard that will also be accessible and visible from Huntington Avenue and Forsyth Streets – a transformation from the large, single use footprint of the existing Cabot Center. This open space and the proposed pedestrian corridors linking it are seen as an important part of the overall sequence of campus open space and provide an important east-west connection parallel along the northern edge of the campus across Forsyth Street. The transparency and public nature of the Huntington façade, and the connection through to the center of the campus, also provide another important north-south link contributing to the overall porosity of the campus and the increasing emphasis on movements across the tracks toward Columbus Avenue.

The redevelopment of the Cullinane site anticipates the opportunity for a new science building, potentially connected to both Mugar and Hurtig – both existing science facilities. A building on this site will enable better utilization and renovations of the existing, older facilities. This proposal anticipates improvements to the existing science quadrangle landscape in order to foster better through-campus connections linking the proposed pedestrian track crossings spanning the MBTA Orange Line, Commuter Rail and Mainline AMTRAK through the Science Quad to St. Botolph Street. The Cullinane redevelopment will also provide opportunities for increased and improved frontages along St. Botolph.

The final component to the Core Campus precinct is the demolition of Robinson Hall to accommodate an additional science building, also potentially linked to Hurtig Hall. The demolition of Robinson (built by NU in 1965) will allow for a new facility in place of one of the smallest and least efficient academic buildings on the campus. While Robinson is a product of the original white glazed brick campus aesthetic, it does not participate in an iconic ensemble as do the original Krentzman Quad buildings and occupies a much less visible sector of the campus abutting the service road. This proposal also anticipates potentially extending over the existing service road enabling a future decked crossing over the MBTA rail corridor to Carter Playground.

### **7.2.2 South Campus Precinct**

The Master Plan proposes completing the ongoing transformation and revitalization of Columbus Avenue in the **South Campus Precinct** (see **Appendix Figures C-6 to C-9**) that began during the prior IMP. The gradual infill housing strategies along the south side of the street will continue with the proposed mixed use residential infill project on the Burke Street lot. The project envisions non-residential ground floor uses including the potential for conference space, alumni space, retail or other public uses. This project will contribute to the pattern of residential infill that Northeastern has undertaken in recent years, anchored by International Village at the termination of Columbus Avenue.

On the north side of Columbus, Northeastern's proposed renovation and expansion of the Carter Playground will have a significant and positive influence on the Columbus Avenue corridor and the South Campus precinct. The project will provide much improved field space with greater flexibility and potential for utilization, as well as improvements to Columbus Avenue and Southwest Corridor Park streetscape. The combination of Northeastern's Camden lot with the City's property will extend the use of the fields to the edge of the MBTA rail corridor, encouraging future additional crossings over the tracks from the north side of the campus. These future improvements include a potential new and/or improved MBTA crossing at Camden Street and the west end of the Mass. Ave. station platform.

The master plan redevelopment of the Columbus parking lot represents a significant opportunity to complete the Columbus Avenue face of the campus and to shift the future balance of campus activity and presence to the Roxbury side of the southwest corridor. The master plan proposes a blend of active and transparent building frontages along Columbus Avenue as well as open spaces that gesture toward the public street, not unlike the Krentzman Quad does to Huntington Avenue.

These open spaces contribute to the overall ensemble of buildings within the precinct, but also participate in the sequence of open spaces that lead one through the space toward the proposed elevated crossings and over the tracks. The gradual transition to the elevated “arc” crossing of the tracks will enable pedestrians and bicycles to gracefully navigate the considerable physical and visual barrier presented by the rail by providing an important connection between the Southwest Corridor Park and the Emerald Necklace to the north. The public accessibility and porosity of the Columbus lot master plan represent a significant improvement to the physical condition of the South Campus precinct and establishes important connections between the campus and neighborhoods on either side of the tracks. The master plan satisfies Northeastern’s considerable need for new academic and research space while introducing an important open space sequence that will provide significant public open space linking to the existing overall campus network and the proposed open space improvements north of the tracks.

### **7.2.3 West Campus Precinct**

The **West Campus Precinct** (see **Appendix Figures C-10 to C-14**) consists of three distinct, yet important proposals, all of which occupy prominent frontages on the campus public edges. Each one is also indicative of the scarcity of developable land on the Northeastern campus and proposes the kind of surgical, infill developments required to meet the University’s needs.

The redevelopment of Burstein and Rubenstein proposes to replace 1920’s housing stock with a high-rise residential tower sitting above an academic podium base – a similar model to the West Village H tower at the intersection on the opposite side of Parker Street. The project offers an opportunity to continue the creation of a more transparent, active street frontage along Huntington Avenue and also anticipates complimenting the proposed research campus planned by Wentworth on Sweeney Field. The location of housing density on this site is a logical continuation of the growth of the West Village over the past decade and the precedent of student residential towers along Huntington Avenue in both directions. The massing of the site proposes to create a slender tower footprint, pulled back from Huntington with a street level podium consistent with the institutional scale and height elsewhere along the corridor. The project is also sited in such a way as to potentially share loading access and service with the Wentworth Sweeney Field proposal.

The other prominent Huntington Avenue site in the West Precinct is enabled by the assembly of three small, inefficient and undistinguished campus buildings: Cargill Hall, a small egress head house from a below grade law school lecture hall built in 1982; Stearns Hall, a small, inefficient administration building built in 1976; and Kariotis, an unsuccessful classroom building built in 1982. This collection of buildings is arranged around an inaccessible, elevated plaza that is unpleasant and rarely used. By combining these three sites, and linking the development below grade to the existing law school buildings, Dockser and Knowles, a more useful and prominent academic development opportunity is achieved. This project also enables an at-grade pedestrian connection replacing the elevated plaza and allowing internal campus connections between the core campus and West Village as well as campus access from Huntington Avenue. Like the proposed Cabot Center redevelopment, the Cargill-Stearns redevelopment presents an opportunity

for Huntington Avenue frontage for cultural, retail and/or other public uses. This project will advance the overall master plan principal of creating a more vibrant, transparent public face to the Northeastern campus.

The West Precinct also envisions the opportunity to complete the West Village by proposing a residential tower on the Ryder Hall surface lot just north of where Ruggles Street crosses the Orange Line. The proposed footprint respects the setback easement for the future Urban Ring transit line and aligns with the Ruggles setback of the existing West Village housing. This residential tower has the potential to create an elegant and complimentary vertical element to West Village H across the West precinct, and International Village across the Southwest Corridor Park. Impacts to the functionality and indoor quality of Ryder Hall need to be carefully measured, and development of the Ryder lot will likely trigger full renovation of the existing academic building or, potentially, complete redevelopment. While not a prominent commercial location, the ground floor uses of the Ryder Lot development do offer the potential for public uses and active transparency at the ground level. The prominence of this location is reinforced by the crossing of the South West Corridor Park to the south as it reengages with the decked park to the west.

#### **7.2.4 North Campus Precinct**

The **North Campus Precinct** (see **Appendix Figures C-15 to C-18**) consists of a single proposed project on the existing North surface parking lot. The master plan anticipates a general purpose academic and classroom building that will serve as swing space to enable renovation and redevelopment of existing academic buildings such as Forsyth, Ryder, and the United Realty complex. Given the fact that the parcel is embedded within a mid-block condition and does not have direct street frontage, the urban design principles governing the plan are to mitigate the impacts on the abutting residential properties through massing, setbacks and landscape buffers.

Access to the North Lot is challenging but the master plan proposes to utilize the 2 existing vehicular and pedestrian access points from the south on St. Stephen Street, and from the west through the drop off in front of the Stetson East residence hall accessed from Hemenway Street. Both of these access drives can offer vehicular entry and exit from the site, as they currently do for the surface parking lot. Loading would occur off of the Hemenway Street access drive, adjacent to Stetson Hall and service vehicles would not circulate through the site behind the St. Stephen Street residential buildings. Further utilization and connections are also possible through a potential physical link to the existing Stetson Hall, although the new North Lot development would not contain residential or student life uses.

The edges of the north lot site that abut residential properties on St. Stephen and Gainsborough streets will both be treated as a landscaped buffer between the North Lot building and the rear yards of the properties. A grade change between the proposed building and the Gainsborough Street properties will remain. The facades of the building will be designed to be respectful of the interior lot condition so as to minimize impacts on residential properties. The uses proposed for the building are intentionally low impact relative to student activities as well as vehicular and foot

traffic. Student centered uses such as dining, residential uses, student center space, outdoor recreation space and performance venues are not proposed for this site. Foot traffic will be limited to the two access points from St. Stephen and Hemenway streets.

The massing of the proposed North Lot development is intended to be respectful of the scale of the abutting properties and proposes upper story setbacks along the rear of the St. Stephen's street properties. The existing setback and grade change along the Gainsborough Street properties creates an adequate buffer zone along the northeast façade. However the proposed massing also includes an upper story setback behind the abutting Hemenway Street properties owned by Northeastern. The building's façade design will employ scaling devices that respect the abutting properties and will limit the use of large expanses of glazing so as to minimize impacts at night. The more public nature of the building entrances will relate to the two access points from St. Stephen Street and Hemenway so that the building does present some modest visibility from the street, however the overall design is intended to be otherwise understated and respectful of the residential context.

Other public realm improvements within the North Campus Precinct include a proposed narrowing of Forsyth Street north of Huntington by eliminating a lane of on-street parking adjacent to the side of the Marino Center. The associated streetscape improvements along this block will be an important extension of the proposed Forsyth Street improvements south of Huntington to Ruggles Station. The continuation of the Forsyth pedestrian improvements north of Huntington become an important link to the existing pedestrian path adjacent to the 140 The Fenway building, connecting the Northeastern campus to the Emerald Necklace. At a broader neighborhood scale, this connection is seen as an important piece of the master plan goal of linking the Fenway and the Southwest Corridor Park south of the tracks.

### **7.2.5 East Campus Precinct**

The **East Campus Precinct** (see **Appendix Figures C-19 to C-22**) consists of two proposed projects that will contribute to the re-centering of Northeastern Athletics along the St. Botolph-Gainsborough Street corridors. This shift will create a strong adjacency between varsity athletic facilities and the Matthews Arena while creating an addition to the arena that will provide program space and infrastructure to improve the utilization, performance and functionality of the century old facility. The creation of the Matthews addition and a new athletic facility on the Gainsborough garage site will also provide Northeastern with much needed contemporary athletic facilities. This proposal will also further enable the redevelopment of the prominent Huntington Avenue site of the existing Cabot Center – at the core of the campus and its interface with the community and the city.

While the shift of athletics to the east will allow improvements to the core, the master plan proposal for Gainsborough – St. Botolph will also contribute to a transformation of this part of the city which has long seemed unfriendly to pedestrians. The two projects will replace a surface parking lot at Matthews and the Gainsborough structured parking facility, a converter industrial building. In conjunction with the New England Conservatory of Music project, the Northeastern

Master Plan proposes to create active, vibrant and transparent street frontages along St. Botolph and Gainsborough Streets, with an emphasis on the importance of the intersection. Open, public lobbies for both facilities, student activity space including potential café's or other retail uses are envisioned. Upper floors will also provide opportunities for transparency and vibrancy through potential visual connections to athletic and recreation spaces.

With the redevelopment of the Gainsborough Garage for an athletic facility, the master plan recognizes that the site must continue to serve the critical parking and loading functions that it does today given the importance of the location for parking events for Matthews, Jordan Hall and Symphony Hall. The proposal includes replacing all of the existing structured spaces, partially below grade and partially above grade, in a structured garage that is part of the proposed athletic facility abutting the tracks to the south. Access to this parking will continue to occur on Gainsborough as it does today, as would access to the campus service road running parallel to the tracks. Likewise, service access to the Arena must also remain off of Gainsborough Street beneath the proposed Matthews addition.

Consequently, while the Gainsborough-St. Botolph intersection will be a transformed public and pedestrian friendly environment, it must also continue to accommodate a significant parking and service access as it does today. Therefore, traffic calming and pedestrian safety design measures, as proposed by the NEC development project, will be incorporated into the public realm improvements associated with the East Campus Precinct. The master plan also anticipates improvements to the open space within the Arena setback along St. Botolph Street currently occupied by surface parking. These improvements are part of an overall master plan initiative that recognizes the future prominence and increased activity that will occur along the St. Botolph corridor, beginning with the GrandMarc project and the increased student presence it will bring.

The master plan also proposes a potential future enclosed pedestrian bridge connecting the Matthews Arena addition and the proposed athletic facility across Gainsborough Street. While this connection will greatly improve the functionality of both athletic facilities and the arena, the bridge, as an elegantly detailed and distinct architectural element, can also serve as an urban design feature for the precinct. With the recognition that Gainsborough Street south of St. Botolph must function as an important pedestrian corridor as well as an active parking and service access street, the bridge can act as a gateway element, creating a “portal” as the street transitions from a pedestrian zone of activity, to more of a service orientation toward the tracks. The bridge is proposed to be set back from the intersection and at an elevation high enough above the street to sufficiently frame the prominent corner and to help contribute to the sense of an “urban room” and the prominence of the intersection.

### **7.3 Detailed Project Descriptions – Proposed IMP Projects**

The following proposed IMP projects reflect Northeastern's need to grow, with an emphasis on academic, research and student-life facilities. A shortage of available land requires the University to invest strategically in the existing campus footprint, including redevelopment of underutilized sites and facilities



such as surface lots, repurposing of facilities not originally intended for academic use, and selectively demolishing and replacing facilities that have lower density and smaller footprints.

Where land does exist on campus, the development of new facilities will provide necessary swing space to further enable needed renovations to older academic facilities. There are many challenges for institutions of higher education as the needs for teaching and learning, particularly in the area of problem based learning, team based learning and inter-disciplinary research, are changing rapidly. The projects in the IMP reflect the program aspirations at Northeastern but the actual timing for most of them is not entirely predictable. It is important that the IMP lay out a plan for the future while acknowledging the desire to remain nimble in response to shifts in pedagogy, research funding and priorities, resources and market forces.

While the exact timing and sequence of the IMP projects are not known, each project is considered as a potential stand-alone development governed by the master planning principles of addressing the campus edges and the relationship to its neighbors; providing campus and community open space improvements; improving connections through the campus including across the MBTA rail corridor and reinforcing existing campus academic precincts while still promoting mixed-use development.

In addition, the proposed IMP projects, through siting, uses and landscape improvements, emphasize Northeastern's contribution to the public realm including Huntington Avenue, Columbus Avenue, Forsyth Street and the Gainsborough Street and St. Botolph Street intersection. The IMP projects are also massed and sited to consider height, wind and shadow impacts in its relationship to the broader community and campus network of open space.

The following paragraphs present projects that are being considered as a part of the IMP (see **Figure 7-1**).



Illustrative Plan Not to Scale

### Illustrative Plan

#### IMP Proposed Projects

- A Ryder Hall Addition and Redevelopment
- B Cargil , Stearns, Kariotis Hall Replacement
- C Forsyth Replacement
- D Cabot Mixed Use Development
- E North Lot Academic Building
- F Columbus Lot ISEB and New Quad
- G New Science Buildings and Quad
- H New Athletic and Recreation Building on Gainsborough Garage Site
- I Matthews Arena Addition
- J Burstein-Rubenstein Redevelopment
- K Burke Street Lot Mixed Use Development

#### Area of Interest

- L Renaissance Lot: Hotel/ Conference Center

#### Community/ Public Benefits Focus

- M Carter Playground

- Existing Northeastern Buildings
- Proposed Master Plan Buildings
- Proposed Landscape Improvements

Figure 7-1.  
**Illustrative Plan**

### **7.3.1 Columbus Lot (South Campus)**

The 2.7 acre surface parking lot located at 795 Columbus Avenue between the Renaissance Park Parking Garage and the Columbus Parking Garage, south of the MBTA tracks and on the north side of Columbus Avenue, is one of the last large potential development sites in the South Campus Precinct. Redevelopment of this parking lot provides an opportunity to strengthen Columbus Avenue as a main campus corridor and continues the improvements to and investment in Lower Roxbury that began during the prior IMP as the Northeastern gradually shifted its center to the south and across the MBTA/AMTRAK rails.

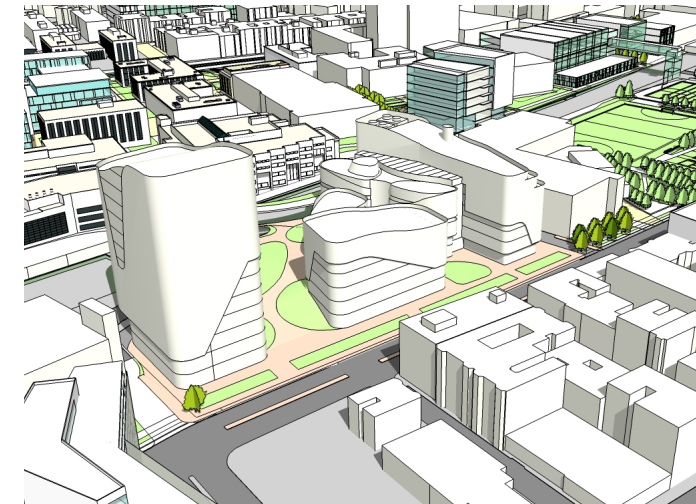
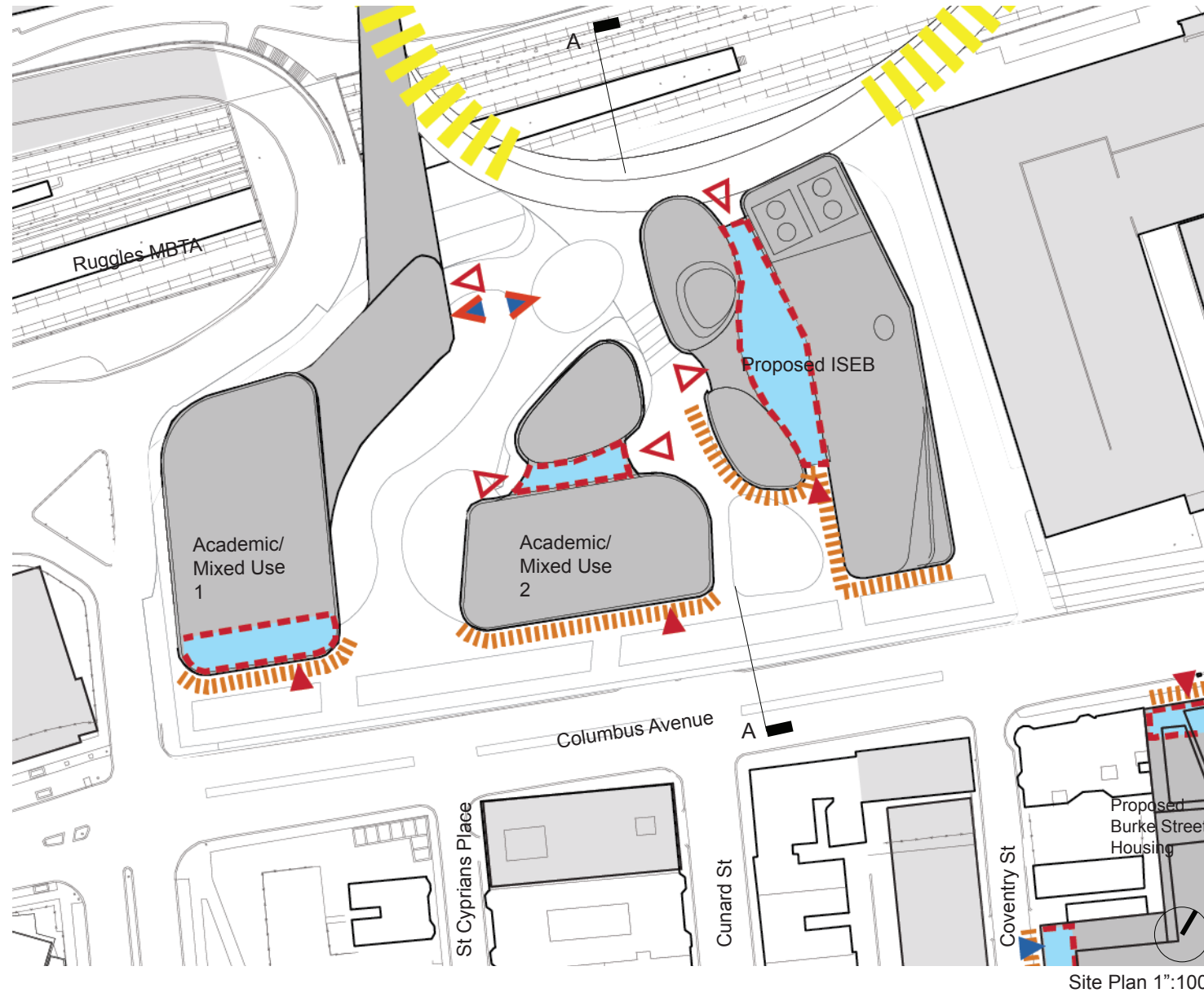
#### **Urban Design and Open Space Principles**

An increased University presence on Columbus Avenue creates an opportunity to improve pedestrian connections, open space and streetscape amenities including the extension of the Southwest Corridor's pedestrian and bike access shared with the surrounding community. The open space being considered for the Interdisciplinary Science and Engineering Building (ISEB) is a distinct and inviting open space front door to the campus from Columbus Avenue, which will also draw both pedestrians and cyclists over the tracks through a new pedestrian bridge connection landing at either edge of the Core Campus.

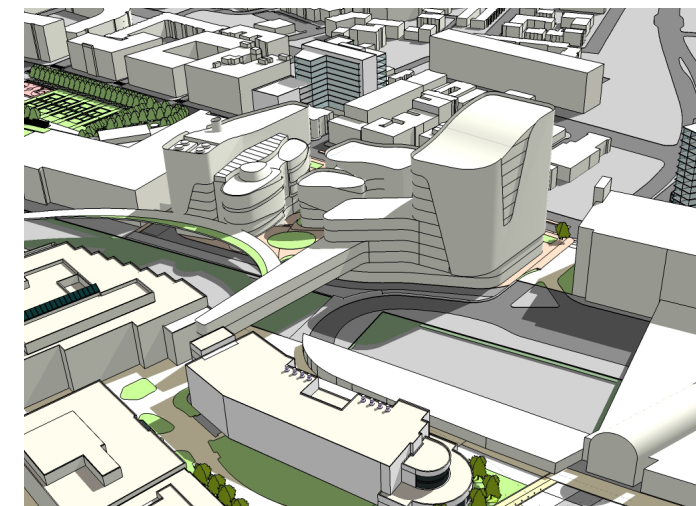
#### **Building Program**

The proposed ISEB project will be submitted to the BRA in accordance with Article 80B Large Project Review requirements as the initial IMP project. Other development on Columbus Lot, which may not take place for several years, could ultimately consist of up to four buildings (with open space and underground parking) would provide academic and research space for science, health sciences, engineering and cross-disciplinary research and teaching (See **Figure 7-2**). Additional contemplated uses on the Columbus Lot include classrooms, studios, and academic department/college space, which will also accommodate student experience and event space. The general program concept for ISEB consists of research and office space for new faculty hires, interdisciplinary clusters / collaborative space, specialized teaching labs, classrooms, and student space with up to approximately 220,000 GSF of floor area.

Later projects on Columbus Lot may provide opportunities for development partnerships to facilitate Northeastern's academic program growth. Timing will depend on resources and pace of hiring.



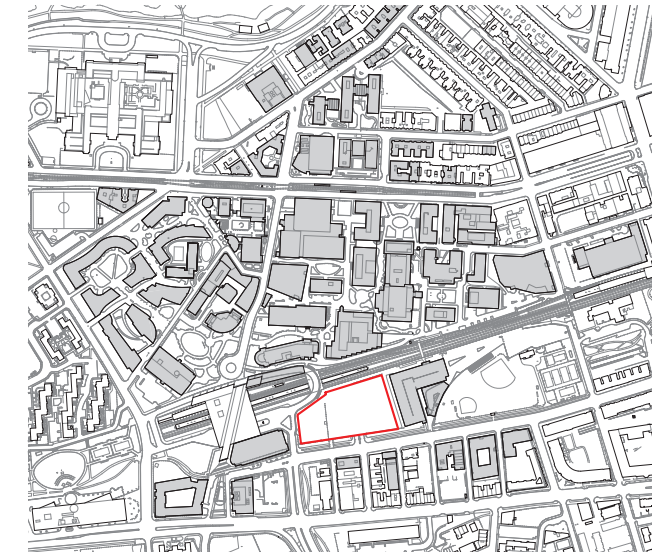
Conceptual perspective view of ISEB and other potential developments from the southwest



Conceptual perspective view of ISEB and other potential developments from the northwest



Conceptual perspective view of ISEB and other potential developments from the southeast



Location plan

**Data**

Location: 795 Columbus Avenue  
 Site Size: 2.7 Acres  
 Existing Use: Surface Parking Lot  
 Proposed Uses: Interdisciplinary Sciences and Engineering, Academic, Student Life, ISEB, Commercial, Parking

**ISEB**

Proposed Height: 6 Stories  
 Development Size: 220,000 +/-GSF

**Academic/ Mixed Use 1**

Proposed Height: 8 to 14 Stories  
 Development Size: 240,000 to 270,000 +/-GSF

**Academic/ Mixed Use 2**

Proposed Height: 5 to 7 Stories  
 Development Size: 150,000 to 160,000 +/-GSF  
 Total Development Size: 550,000 to 650,000 +/-GSF

**Key**

- Active ground floor street frontage
- Existing loading bay
- Proposed loading bay
- Existing accessible entrance
- Proposed accessible entrance
- Proposed entrance to structured parking
- Publicly accessible building entrance spaces

Figure 7-2.  
**Columbus Lot**

**Location:** **795 Columbus Avenue (South Campus)**

Site Size: 2.7 Acres  
Existing Use: Surface Parking Lot (482 Spaces)  
Proposed Uses: Interdisciplinary Sciences and Engineering Building (ISEB)/  
Academic /Student Life / Retail / Commercial/ Parking  
Proposed Height: 6 to14 Stories  
Parking: No parking with the ISEB project; Additional parking to replace  
existing parking is expected to be constructed with other  
projects to be developed in later years on the site.  
Total Development Size: 550,000 to 650,000 GSF  
Estimated FAR: 4.5 to 5.5  
Current Zoning: Roxbury Neighborhood District, Institutional Master Plan  
Area/Greater Roxbury EDA/PDA Permitted

**ISEB**

Proposed Height: 6 Stories  
Development Size: 220,000 +/-GSF  
Est. Construction Cost: \$150 to \$175 million  
Est. DIP Payments: \$850,000 Housing; \$175,000 Jobs  
Est. Timetable: 2014 Commencement; 2016 Completion

**Academic/Mixed Use I**

Proposed Height: 8 to14 Stories  
Development Size: 240,000 to 270,000 GSF  
Est. Construction Cost: \$150 to \$180 million  
Est. DIP Payments: \$1,750,000 Housing; \$350,000 Jobs  
Est. Timetable: In order for later projects on Columbus Lot to be developed,  
the ISEB project would require completion, which is estimated  
within 2-3 years of the IMP approval, and other development is  
dependent on academic priorities and available resources.

**Academic/Mixed Use II**

Proposed Height: 5 to 7 Stories  
Development Size: 150,000 to 160,000 GSF  
Est. Construction Cost: \$100- to \$125 million  
Est. DIP Payments: \$1 million Housing; \$225,000 Jobs  
Est. Timetable: Similar timetable to Academic/Mixed Use I

### **7.3.2 North Lot (North Campus)**

The existing 1.9-acre North Lot is owned by Northeastern and located within a triangular area bounded by Gainsborough, St. Stephen, and Hemenway Streets is occupied by a surface parking lot. The North Lot proposal could provide 150,000 to 250,000 GSF of general academic uses that would provide required transitional or “swing-space” accommodating other displaced academic uses during their renovation or reconstruction during the IMP, as well as, ultimately, permanent academic space in this location (See **Figure 7-3**).

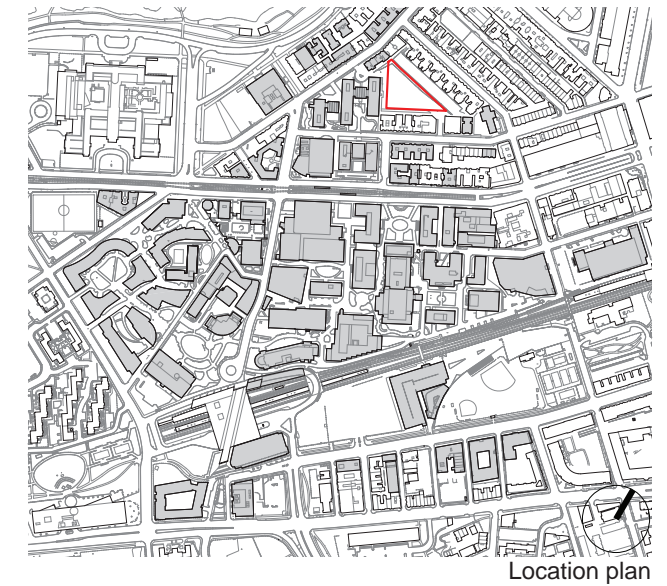
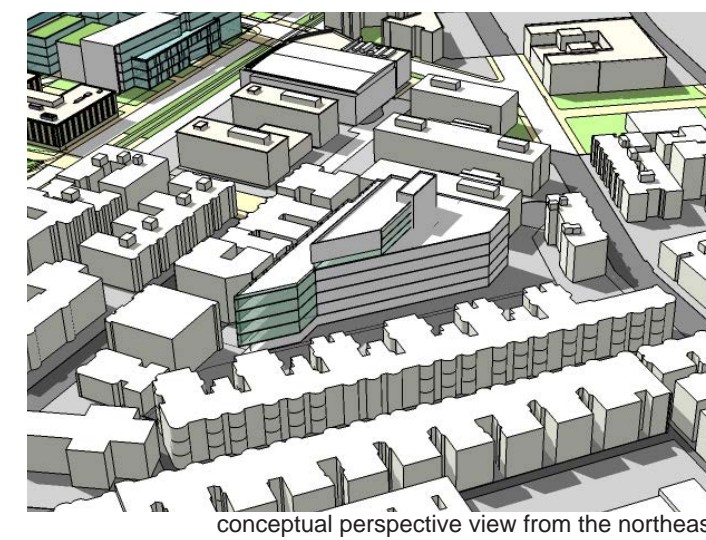
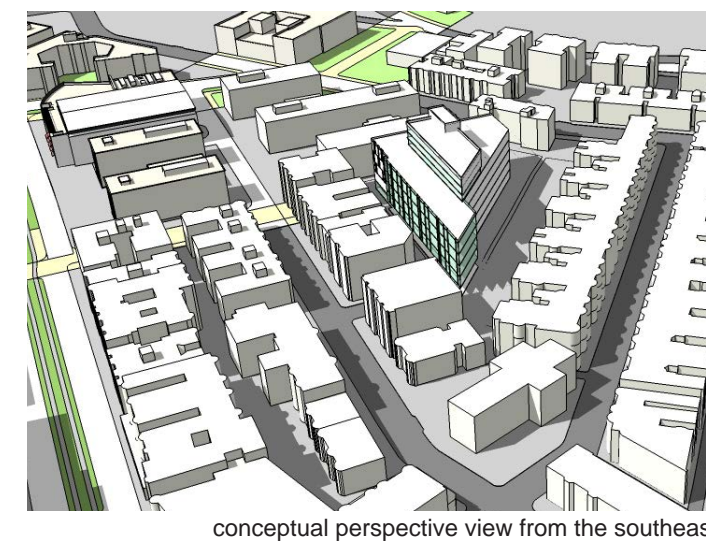
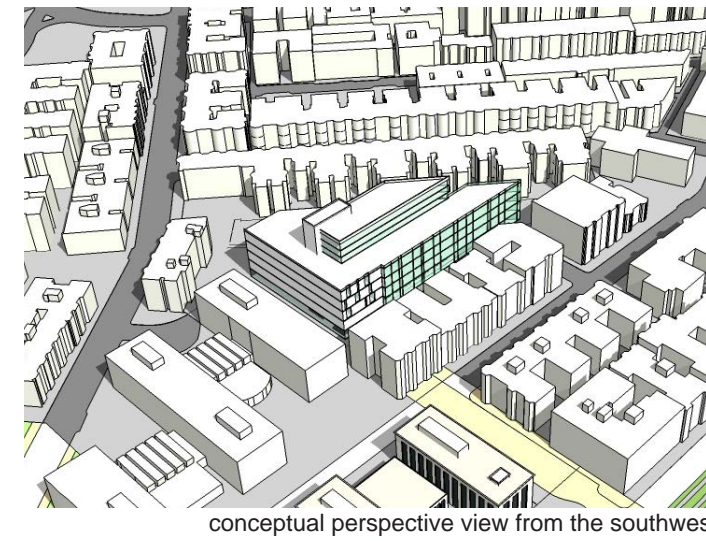
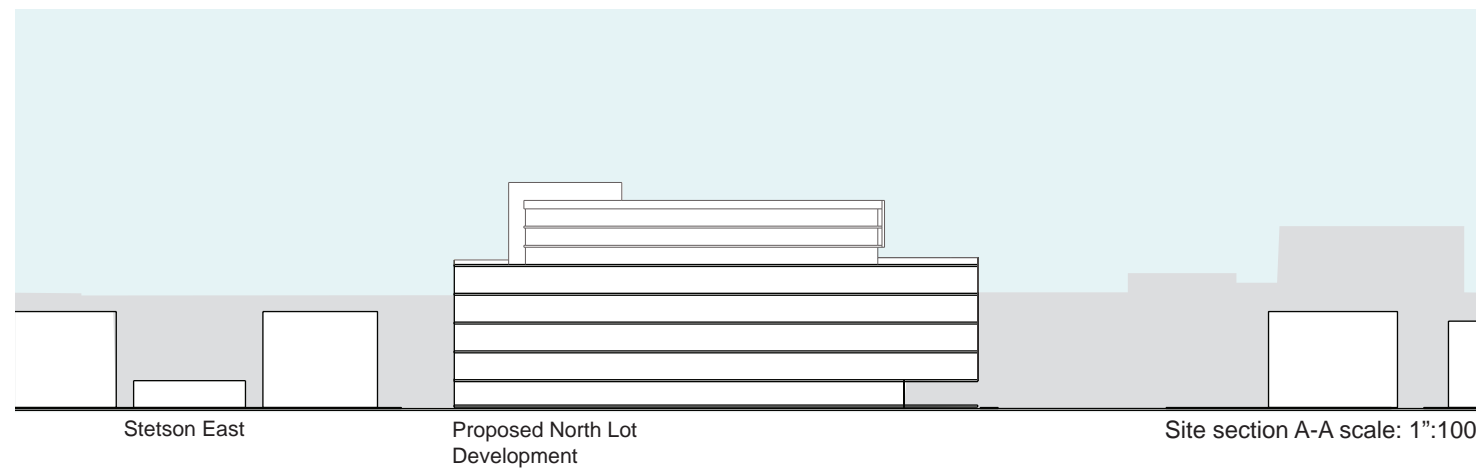
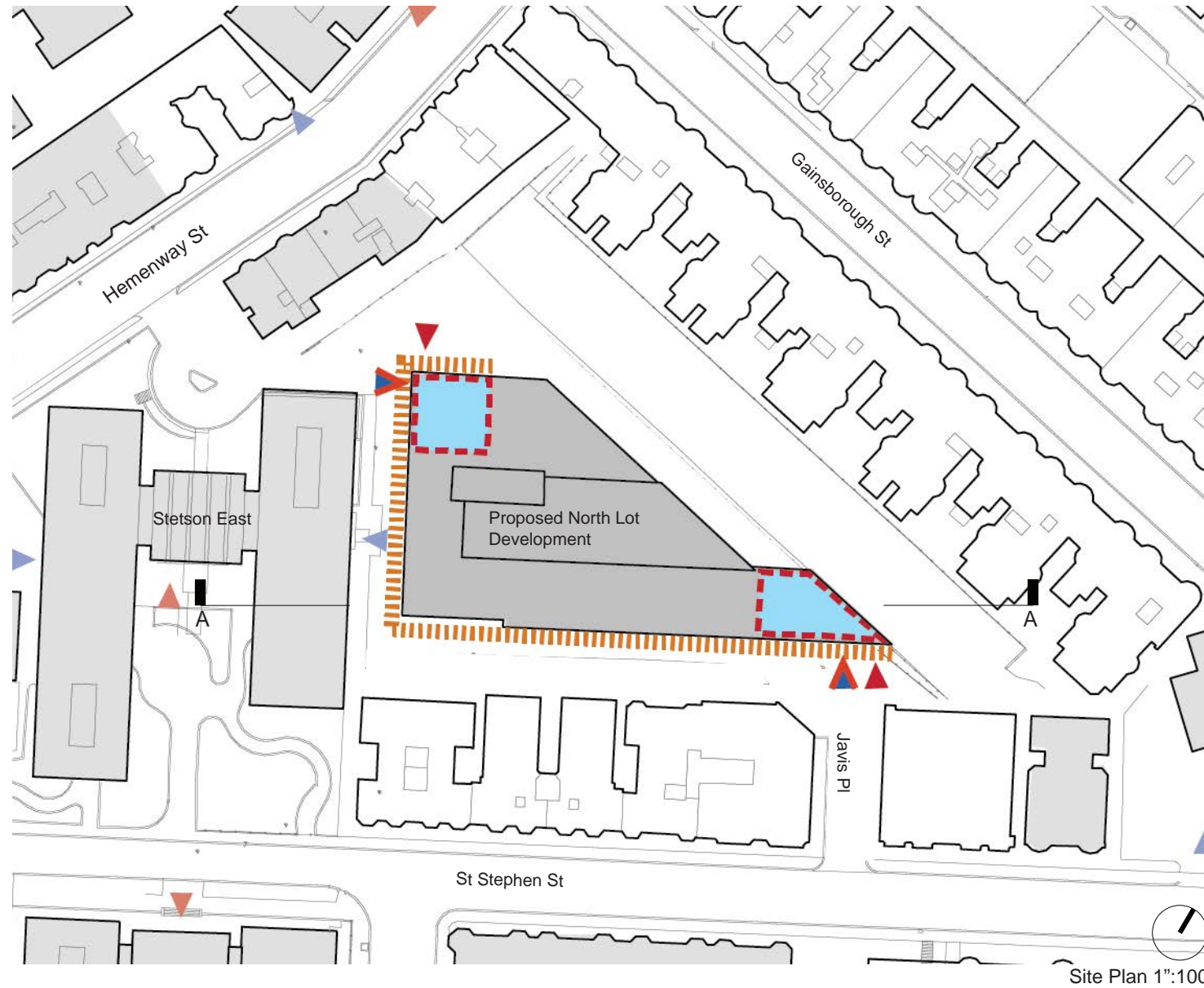
#### Urban Design and Open Space Principles

The concept for the massing of the North Lot building would be configured to optimize the utility of the site, and at the same time provide buffers that respond to the height of the adjacent buildings. The new building will be set within a landscaped environment (see **Figure 7-3a**).

The building’s principle entrances and publically accessible ground floor spaces will be located to address and be visible from St Stephen and Hemenway Streets. The positioning of the proposed building will allow for pedestrian circulation around to the south and west edges of the site and provide improved access to the adjacent Stetson East building. The IMP also proposes a planted ‘buffer’ of trees to provide some screening between the new buildings south and north-east elevations and the rear of the adjacent properties. Despite no direct frontage on public streets, the North Lot proposal considers improved pedestrian access and through connections linking St. Stephen and Hemenway Streets to the development and through the site.

#### Building Program

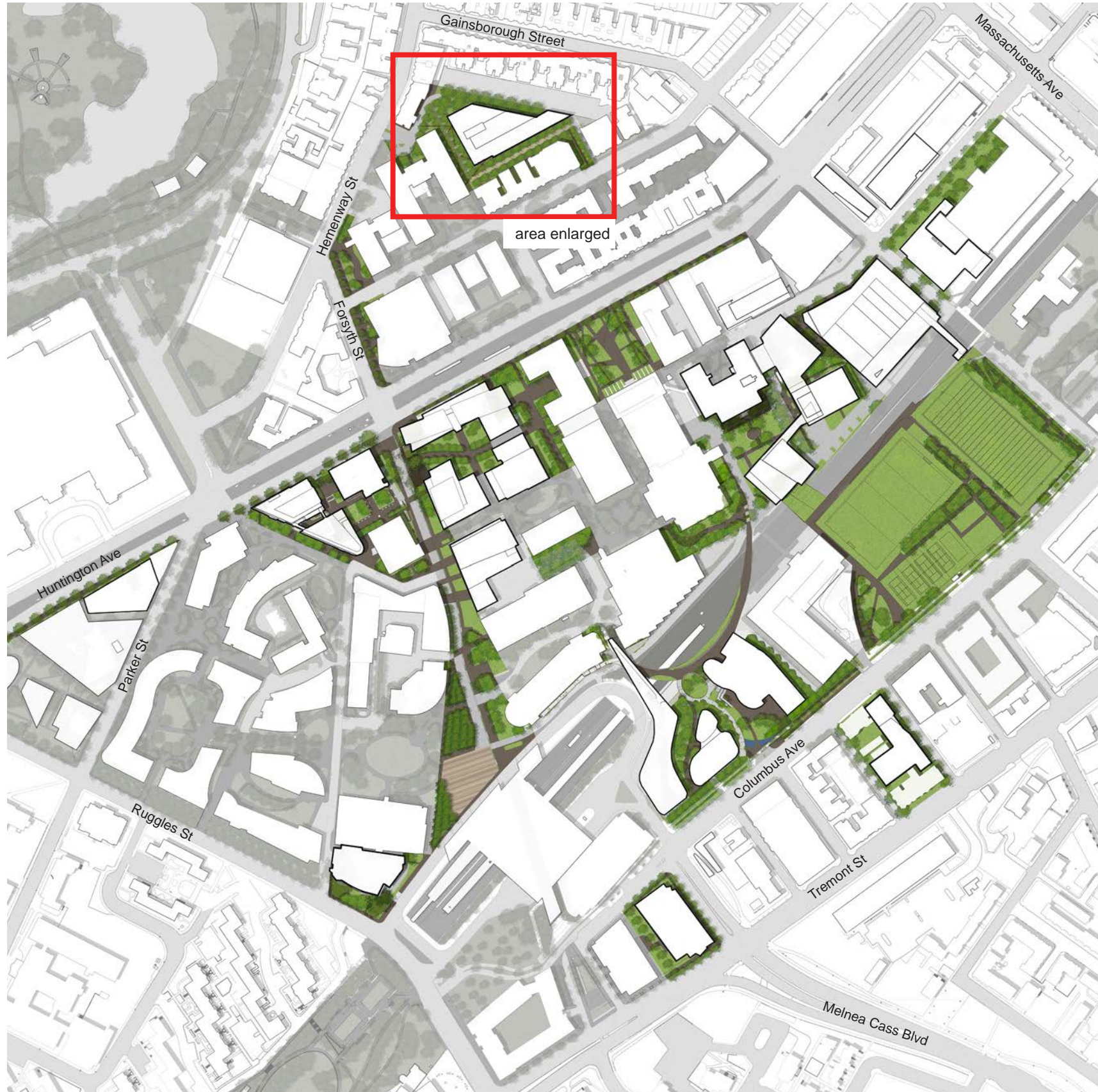
The University proposes to use the North Lot for an academic/ multi-use facility that could include classrooms/ lecture halls, offices, laboratories, cultural space, meeting rooms and some parking. Most of the existing parking would be relocated to other University owned parcels. Consistent with agreements made during the prior IMP process and with the University’s understanding of neighborhood sentiment, the University does not propose housing for North Lot. Access to North Lot will occur through the Jarvis Place access off St. Stephen Street, which provides access to the parking lot currently, or off Hemenway Street through the Stetson East access drive.



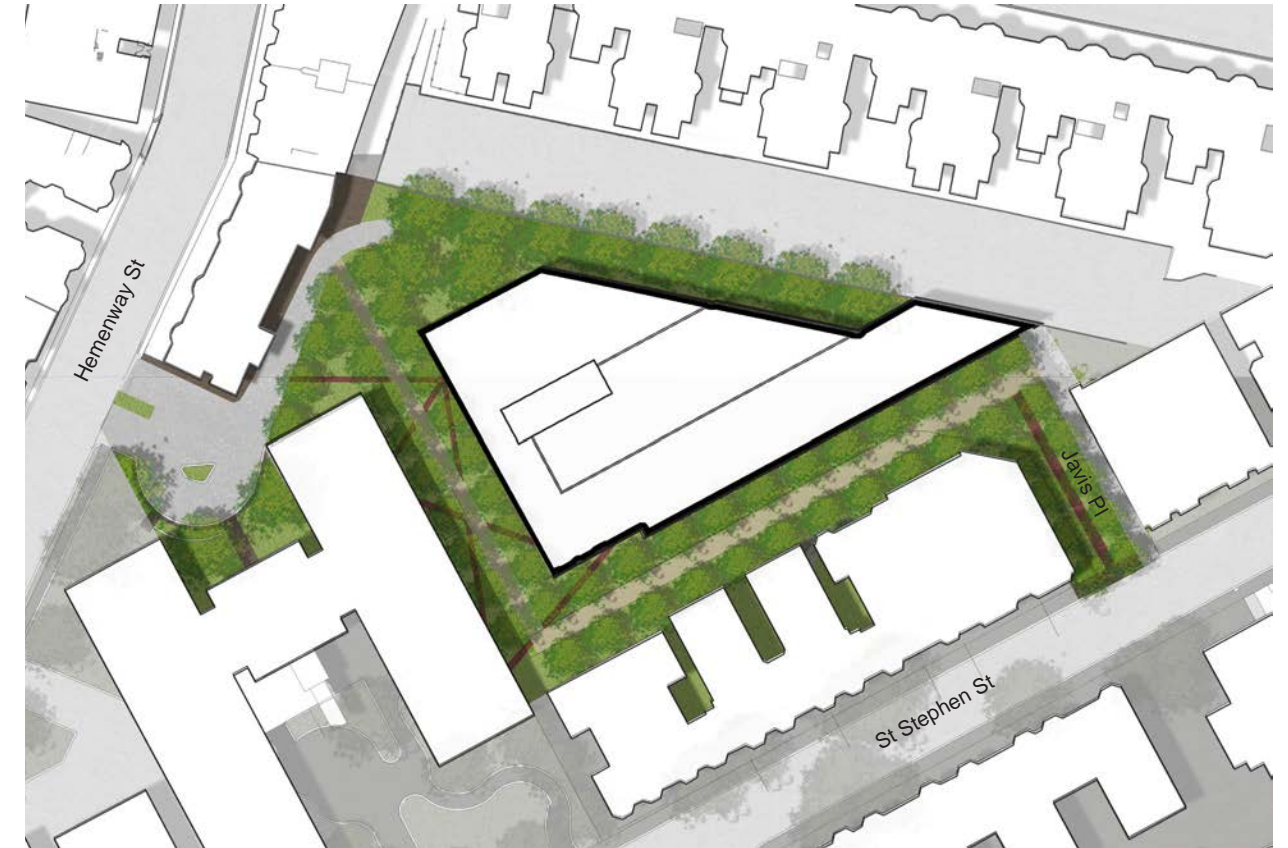
**Data**  
 Location: North Lot  
 Site size: 1.95 acres  
 Existing use: Surface parking lot  
 Proposed use: Academic  
 Proposed number of stories: 6  
 Proposed Size: 150,000-220,000 GSF

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces

Figure 7-3.  
**Revised North Lot**



Illustrative plan of proposed landscape improvements to be completed as part of the IMP



North Lot site plan detail

**Revised North Lot Landscaping**

The site is currently used as a parking lot and will be transformed by this development into an integral part of the Northeastern Campus.

The new building will be set within a landscaped environment:

- A planted buffer will be established between the new building and the rear of the surrounding residential buildings. This will serve to mitigate the change in scale between the new and old and provide some privacy between educational and residential uses.
- A landscaped walkway will run to the south and west of the new building to establish a connection between Hemenway Street to the north and St Stephen Place to the south of the site.
- Pathways will connect entrances to the new development with Stetson East, the adjacent residential hall.



<b><u>Location:</u></b>	<b><u>North Lot (North Campus)</u></b>
Site Size:	1.95 Acres
Existing Use:	Surface Parking Lot (145 Spaces)
Proposed Use:	Academic
Development Size:	150,000 to 250,000 GSF
Proposed Height:	6 Stories
Parking:	Parking Demand will be accommodated by existing or new parking within other IMP proposed projects or potentially below grade parking to replace all or a portion of the existing surface spaces.
Current Zoning:	Fenway Neigh. District, IMP Overlay District / IS
Estimated FAR:	1.75 to 3.0
Est. Construction Cost:	\$80 to \$100 million
Est. DIP Payments:	\$360,000 Housing; \$75,000 Jobs
Est. Timetable:	North Lot construction is proposed to provide swing space to enable the redevelopment or renovation of Ryder Hall, Robinson, Cullinane or Forsyth. It is estimated to be completed during the second half of the institutional master plan period and dependent on academic priorities and available resources.

### **7.3.3 Matthews Arena Addition (East Campus)**

The Matthews Arena surface parking lot at 238-262 St. Botolph Street, on the west side of the Matthews Arena, could provide space for future expansion for athletic training and practice facilities, athletic team offices and flexible, social space for student life improvements. Some of the current training facilities located in the Cabot Center could be transferred and expanded to this site including practice and training facilities for rowing and basketball. Existing surface parking would be accommodated within the Gainsborough Garage.

#### **Urban Design and Open Space Principles**

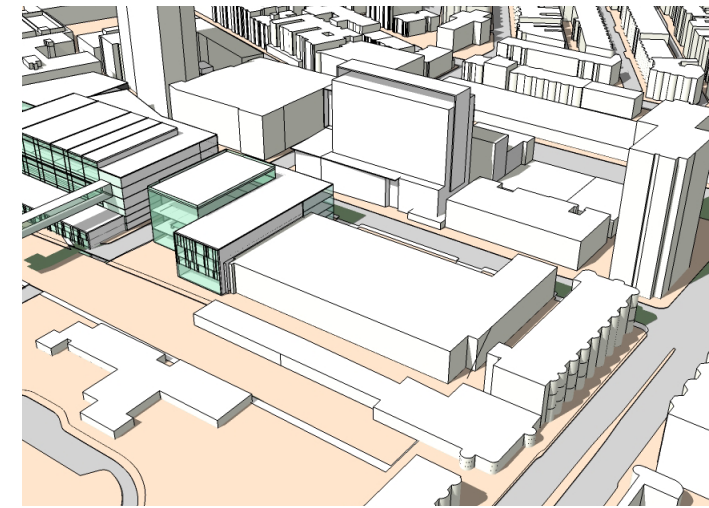
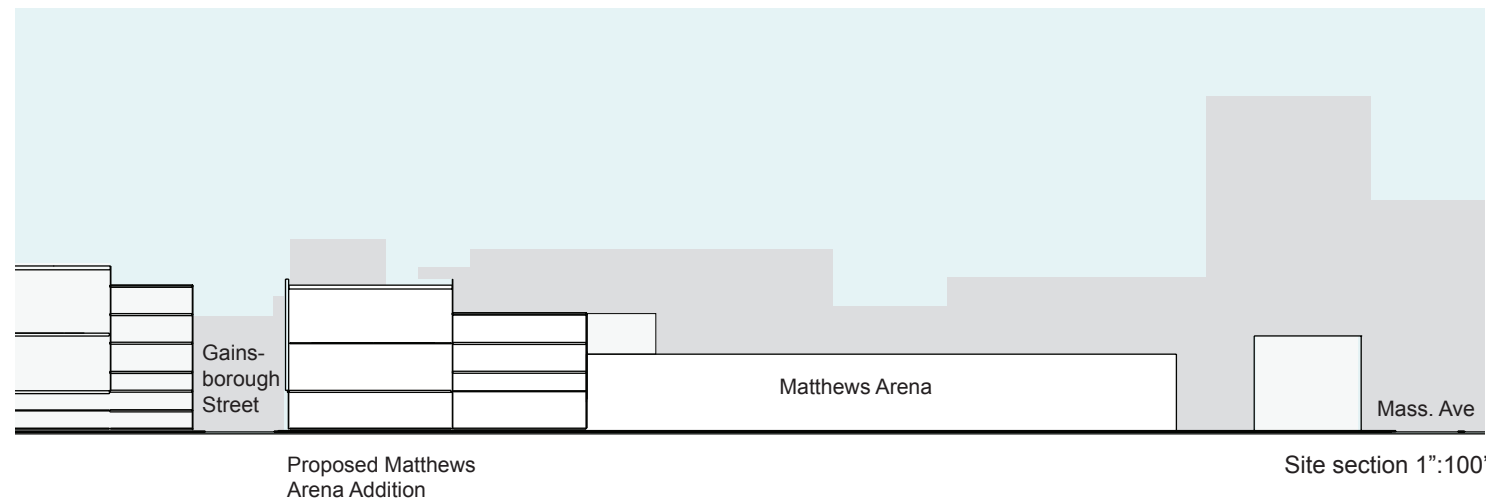
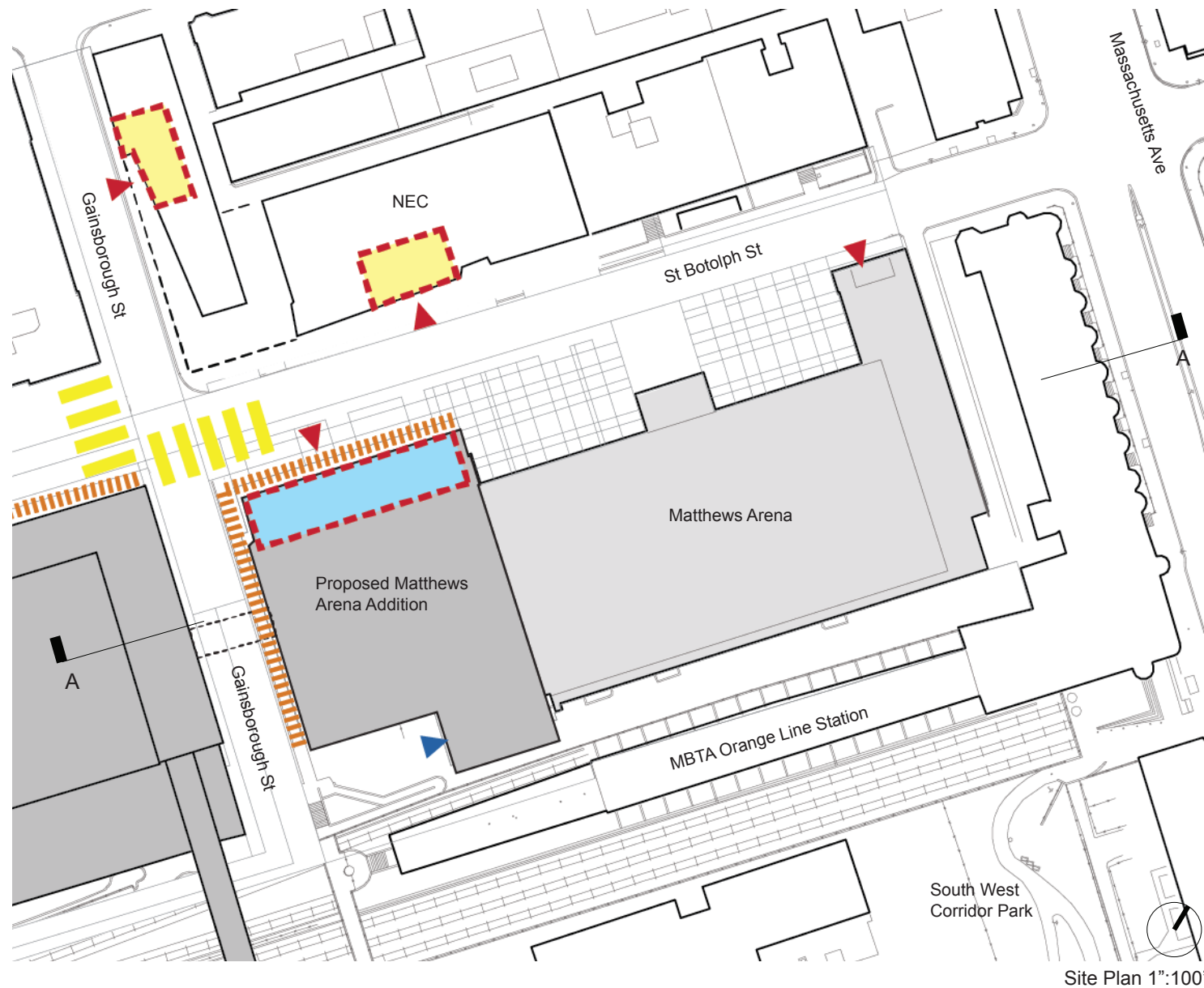
A Matthews Arena Addition would contribute to the St. Botolph Street and Gainsborough Street improvements by coordinating streetscape improvements with similar initiatives across the street at the New England Conservatory of Music (NEC). The ground floor levels of this addition will be highly glazed to allow for greater transparency and activation of the street; the principle entrance will be located on to St Botolph Street, opposite a key NEC entrance; together these

entrances will animate the public realm with increased pedestrian activity throughout the day and reinforce St Botolph Street as an important gateway to the campus and to the many university and community public events held at Matthews Arena.

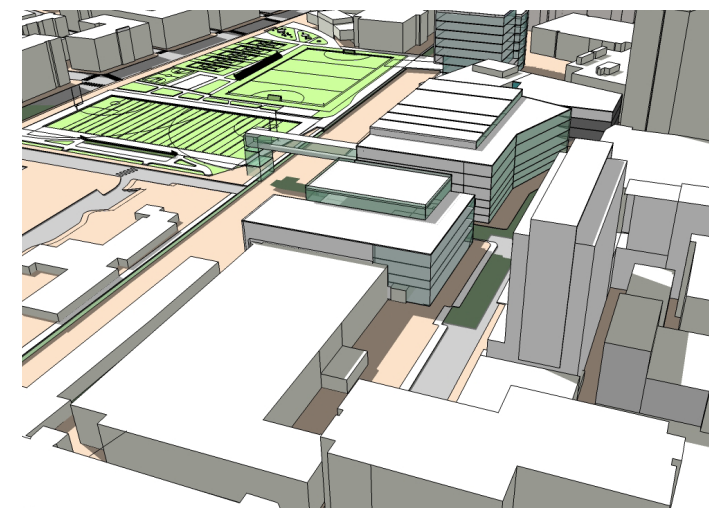
**Building Program**

The building program for the Matthews Arena addition could include basketball courts for practice, a smaller-capacity competition gym, training space, locker rooms and lounge space and other multi-purpose function space for student activities and events (see **Figure 7-4**). The proposed addition could also play a role in improving the utilization and functionality of the Matthews Arena by providing much needed facilities for media, concessions, storage, gathering space and general support for the century old facility. The utilization of the Matthews Addition and the arena itself would also be greatly improved by creating a physical link to the future athletic and recreation facility proposed in the IMP through a proposed pedestrian bridge across Gainsborough Street.

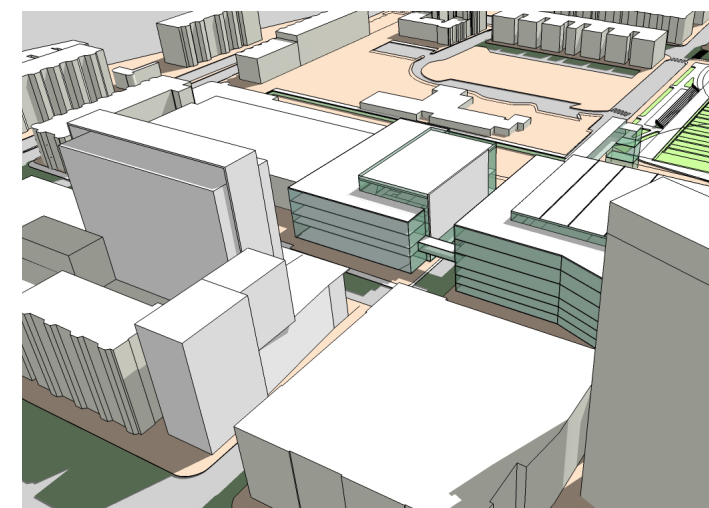
<b><u>Location:</u></b>	<b><u>238 - 262 St. Botolph Street (East Campus)</u></b>
Site Size:	Approximately 0.7 Acres
Existing Use:	Surface Parking (55 Spaces)
Proposed Uses:	Athletic Facilities / Event /Student Life
Proposed Height:	3 to 5 Stories
Development Size:	110,000 to 120,000 GSF
Parking:	Parking Demand will be accommodated from existing or new parking within proposed IMP projects.
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Estimated FAR:	3.5 to 4.0
Estimated Project Cost:	\$80 million to \$100 million
Estimated DIP Payments:	\$800,000 Housing;\$160,000 Jobs
Estimated Timetable:	Matthews Arena Addition represents a significant opportunity to meet student life and athletic needs and provides some relocation space for Cabot and is therefore currently under review for potential development during the first 5 years of the IMP period.



conceptual perspective view from the southeast

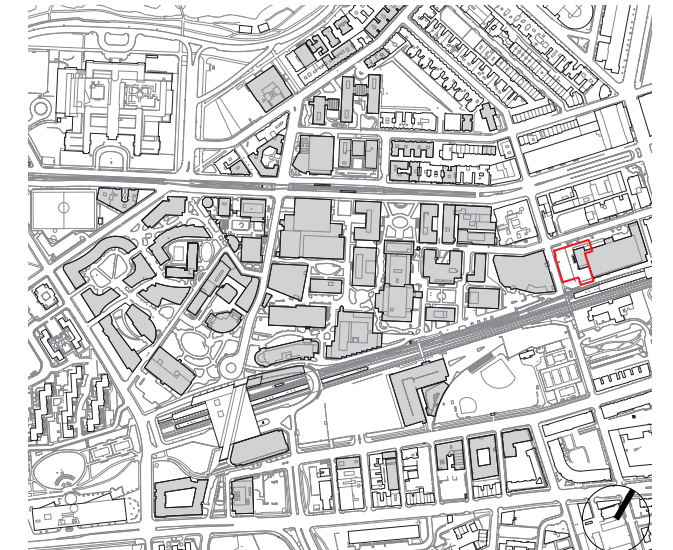


conceptual perspective view from the northeast



conceptual perspective view from the northwest

### East Campus: MattheWs Arena Addition



Location plan

#### Data

Location: 238-262 St. Botolph Street  
 Site Size: 0.7 acres  
 Existing Use: Surface parking lot  
 Proposed Use: Athletic Facilities/Event/ Student Life  
 Proposed number of stories: 3-5  
 Proposed Size: 110,000- 120,000 GSF

#### Key

- Active ground floor street frontage
- Existing loading bay
- Proposed loading bay
- Existing accessible entrance
- Proposed accessible entrance
- Proposed entrance to structured parking
- Publicly accessible building entrance spaces
- NEC proposed entrance spaces
- Upgraded pedestrian crossings

Figure 7-4.  
**MattheWs Arena Addition**

### **7.3.4 Ryder Lot Development (West Campus)**

A new addition to the existing Ryder Hall on the Ryder Lot at 66 Leon Street presents an opportunity to provide Northeastern University with 150,000 to 200,000 GSF of academic and residential space. There are two options under discussion. Option 1 would introduce an 8 - 12 story residential tower with up to 300 beds resting on a three-story podium building, replacing an existing parking lot (see **Figure 7-5**). This stacking model is similar to the West Village H development on Huntington Avenue. A second IMP approach (Option 2) would also include a gut renovation or possibly full redevelopment on Ryder Hall for academic reuse in a lower 6-8 stories structure along with the Ryder Lot Development proposal (see **Figure 7-6**).

#### **Urban Design and Open Space Principles**

The combined Ryder Lot and Ryder Hall proposal would provide an opportunity for the University to complete the urban fabric along Ruggles Street and create a formal “gateway” building at the southwest corner of the campus. The new building proposed on the existing parking lot would be set back from the curb edge to continue and complete the building line established by the existing West Village buildings, respecting the Urban Ring easement that crosses the site.

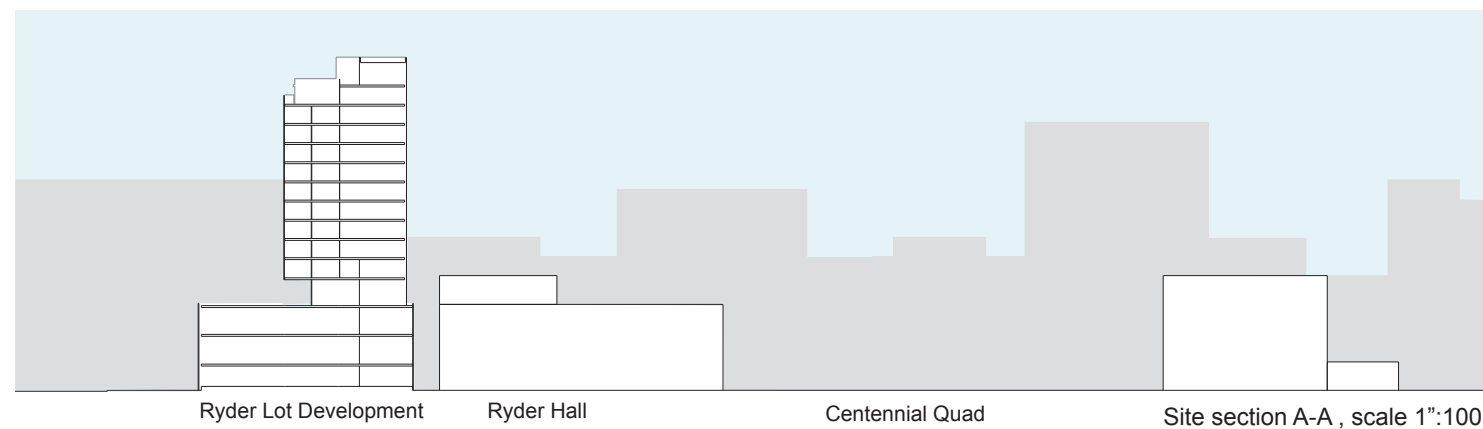
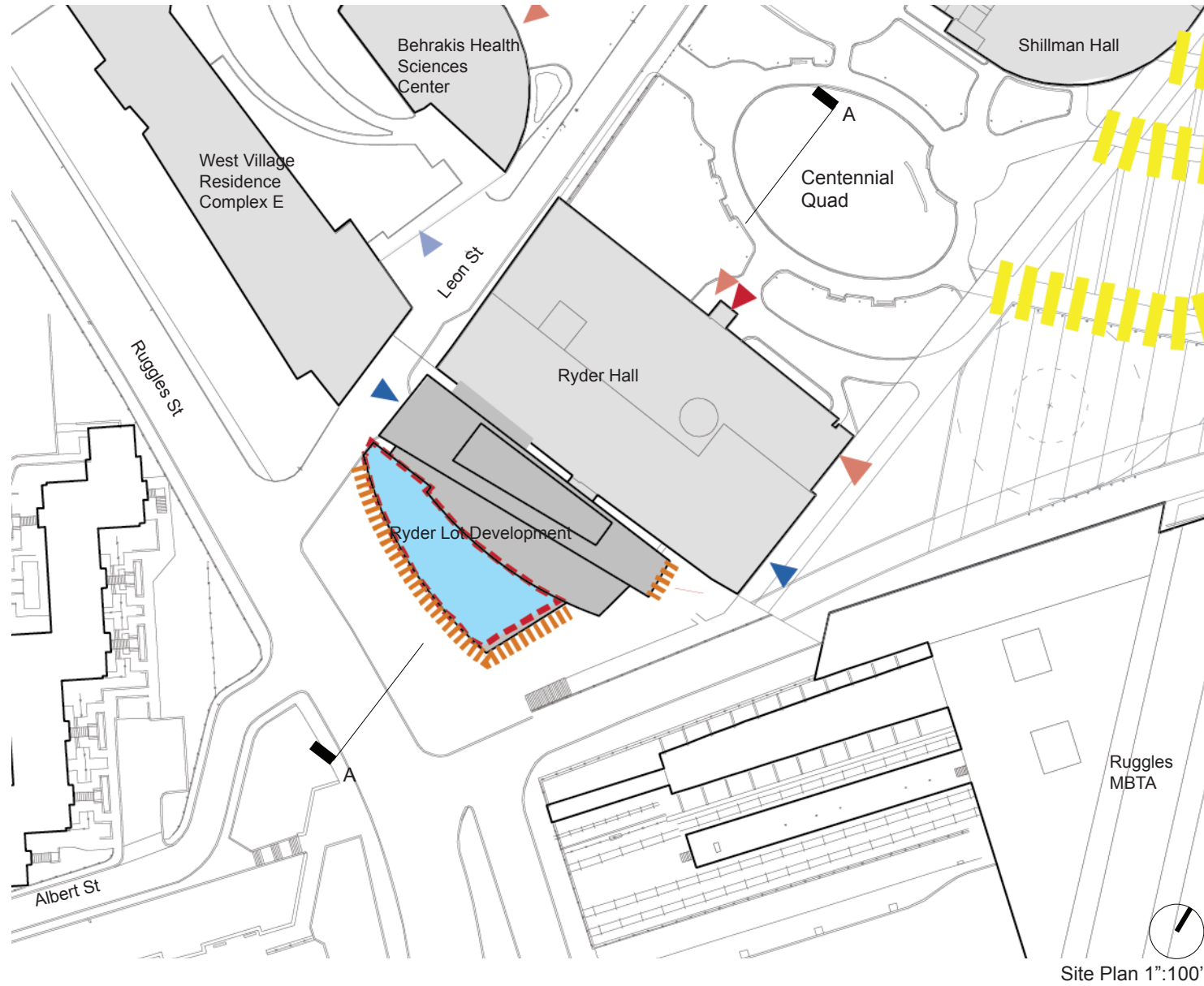
The proposed massing incorporates a curved façade and setbacks reducing the apparent bulk of the building and mitigating the impact of the height of the building on the existing residential buildings across Ruggles Street. More publicly accessible uses would be located at the ground floor level to provide opportunities for greater building transparency - that would increase the sense of activity on the street.

#### **Building Program**

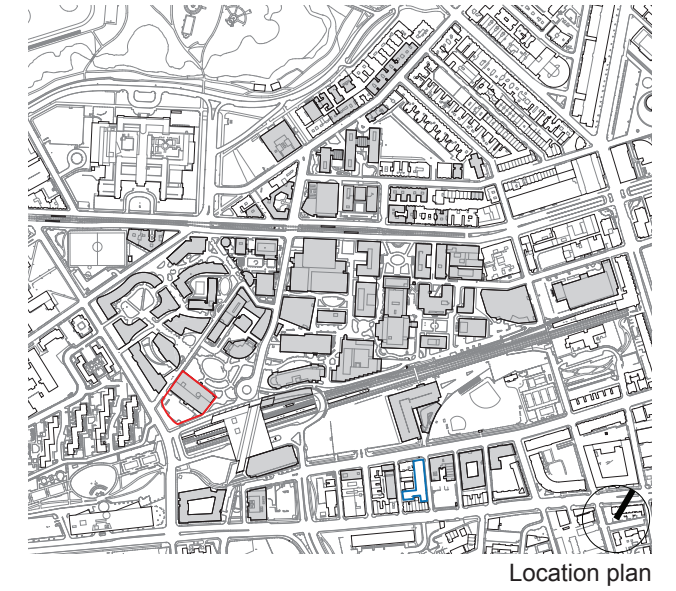
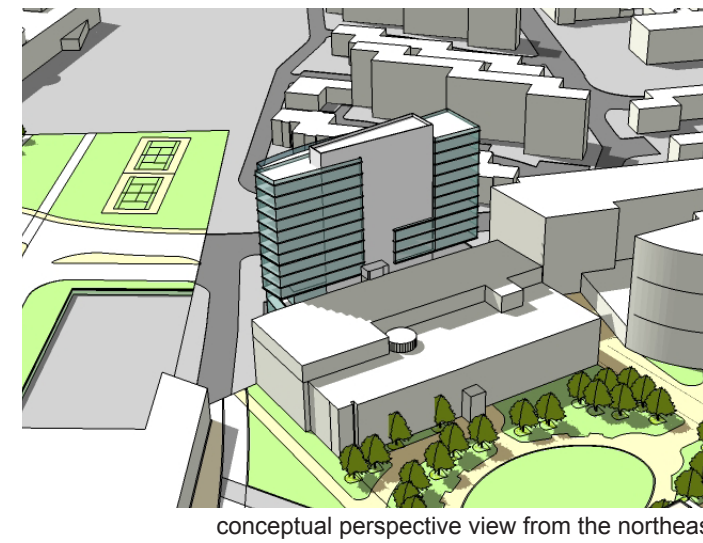
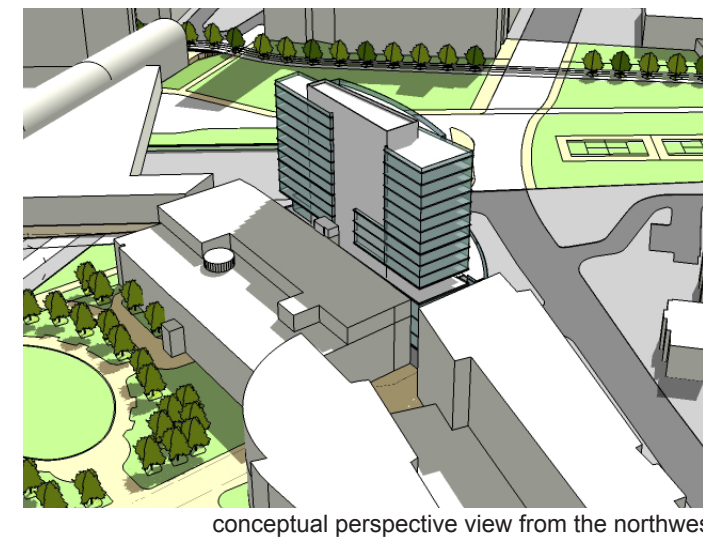
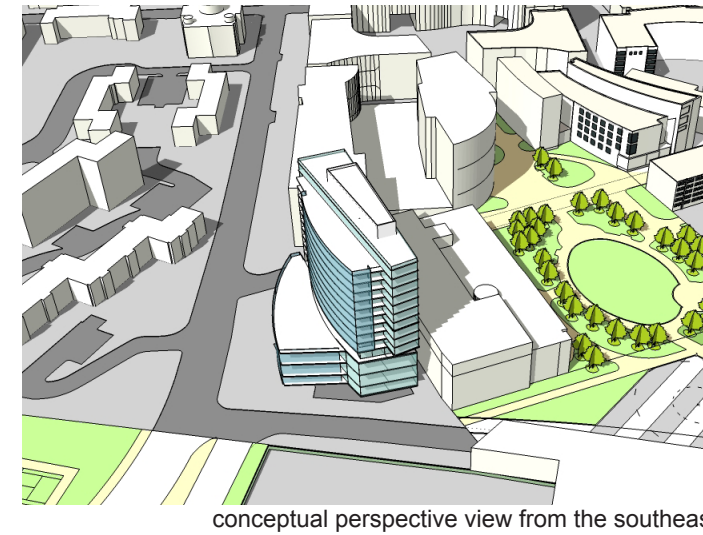
The proposed building program is outlined in the following charts.

<b><u>Location:</u></b>	<b><u>66 Leon St - Option 1</u></b>
Existing Use:	Surface Parking Lot (45 Spaces)
Proposed Uses:	Academic / Residential
Proposed Height:	8 to 12 Stories
Development Size:	150,000 to 200,000 GSF
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	Parking Demand will be accommodated by existing or new parking within proposed IMP projects or potentially below grade parking to replace all or a portion of the existing surface spaces.
Estimated FAR:	8.5 to 10.5
Estimated Project Cost:	\$70 million to \$100 million
Estimated DIP Payments:	\$550,000 Housing; \$100,000 Jobs
Estimated Timetable:	In order for Ryder to be redeveloped, North Lot construction will be required to commence initially as swing space; therefore it is estimated to be completed in the second half of the institutional master plan period and dependent on available resources.

<b><u>Location:</u></b>	<b><u>66 Leon St - Option 2</u></b>
Site Size:	0.4 Acres
Existing Use:	Ryder Hall
Proposed Use:	Academic
Proposed Height:	6 to 8 stories Ryder Hall
Development Size:	300,000 to 400,000 GSF (includes Option 1)
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	Same as For Option 1
Estimated FAR:	4.5 to 6.0 (Ryder Hall)
Estimated Project Cost:	Same as For Option 1
Estimated DIP Payments:	Same as For Option 1
Estimated Timetable:	Same as For Option 1



**West Campus: Ryder Lot Development (Option 1)**

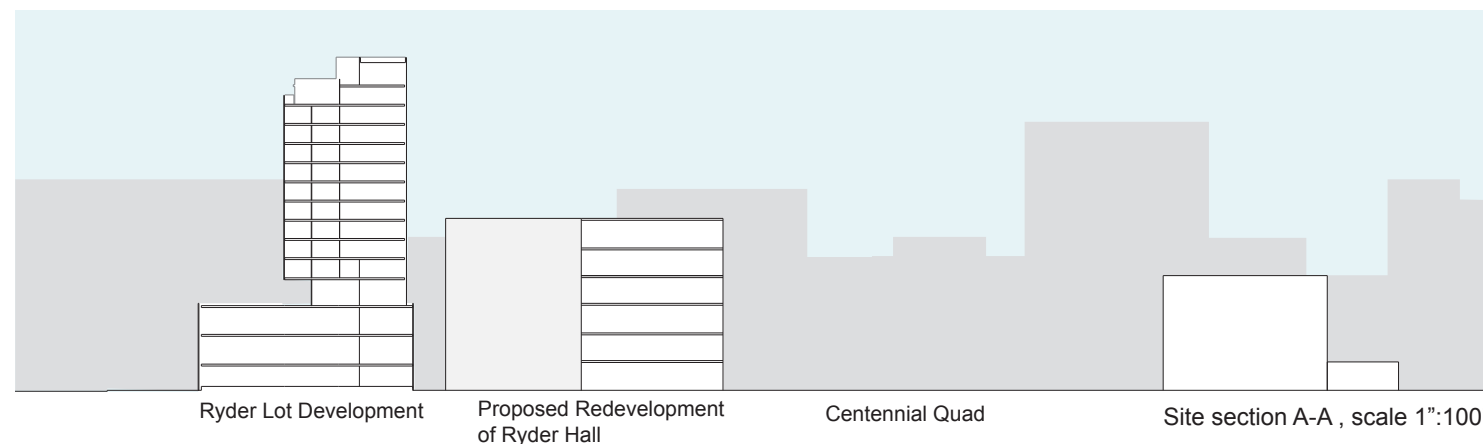
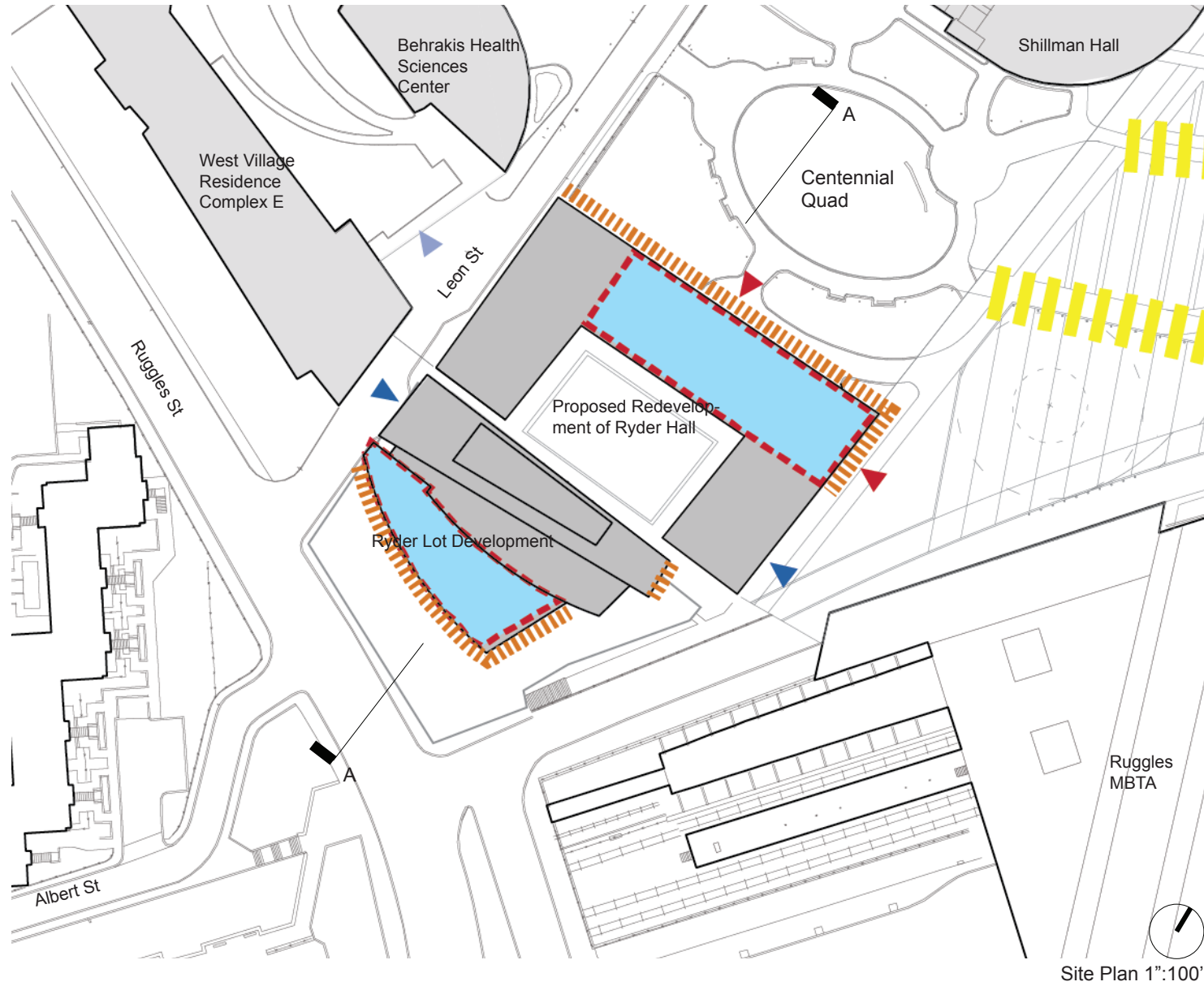


**Data**

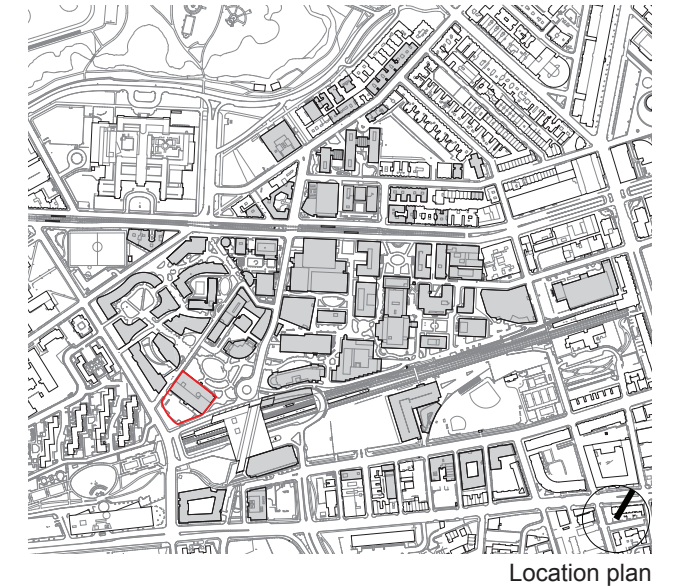
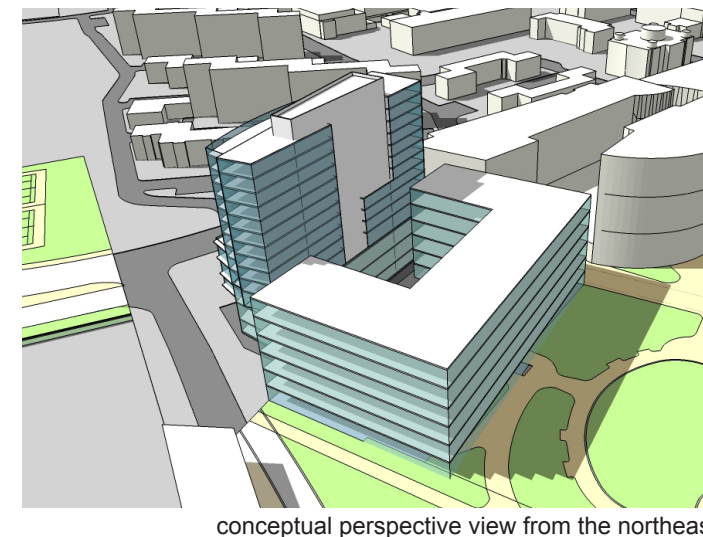
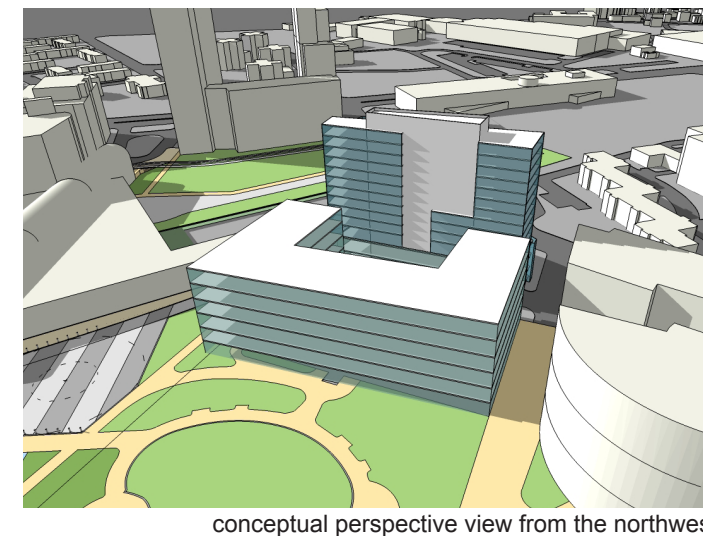
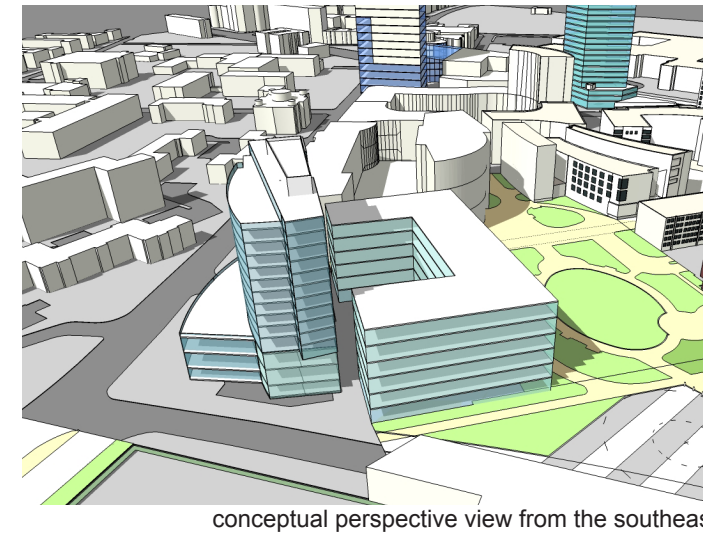
Location:	66 Leon St (Ryder Lot)
Existing Use:	Surface Parking Lot
Proposed Uses:	Academic / Residential
Proposed Height:	8 to 12 Stories
Development Size:	150,000 to 200,000 GSF

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

**Figure 7-5.**  
**Ryder Lot (Option 1)**



**West Campus: Ryder Lot Development (Option 2)**



**Data**

Location:	66 Leon St (Ryder Lot)
Site Size:	0.4 Acres
Existing Use:	Ryder Hall
Proposed Uses:	Academic
Proposed Height:	6 to 8 Stories
Development Size:	150,000 to 200,000 GSF

Total Development Size 300,000 to 400,000 GSF (including Ryder Lot Development)

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

**Figure 7-6.**  
**Ryder Hall and Lot (Option 2)**

### **7.3.5 Burstein Rubenstein Redevelopment (West Campus)**

Northeastern currently owns two residential buildings at 458-464 Huntington Avenue, Burstein and Rubenstein, across from the Museum of Fine Arts and adjacent to Punter's Pub at the corner of Huntington Avenue and Parker Street (see **Figure 7-7**). These 1920s buildings are not suited to contemporary dormitory standards and, in time, could be replaced with new apartment or dormitory style student housing, academic and commercial uses. Replacement housing could yield an additional 160 beds, but requires adequate height to achieve a net yield as well as replacing the existing 227 beds. The Burstein Rubenstein redevelopment has also been identified as a possible candidate for a development partnership between the University and another party or parties.

#### **Urban Design and Landscape Principles**

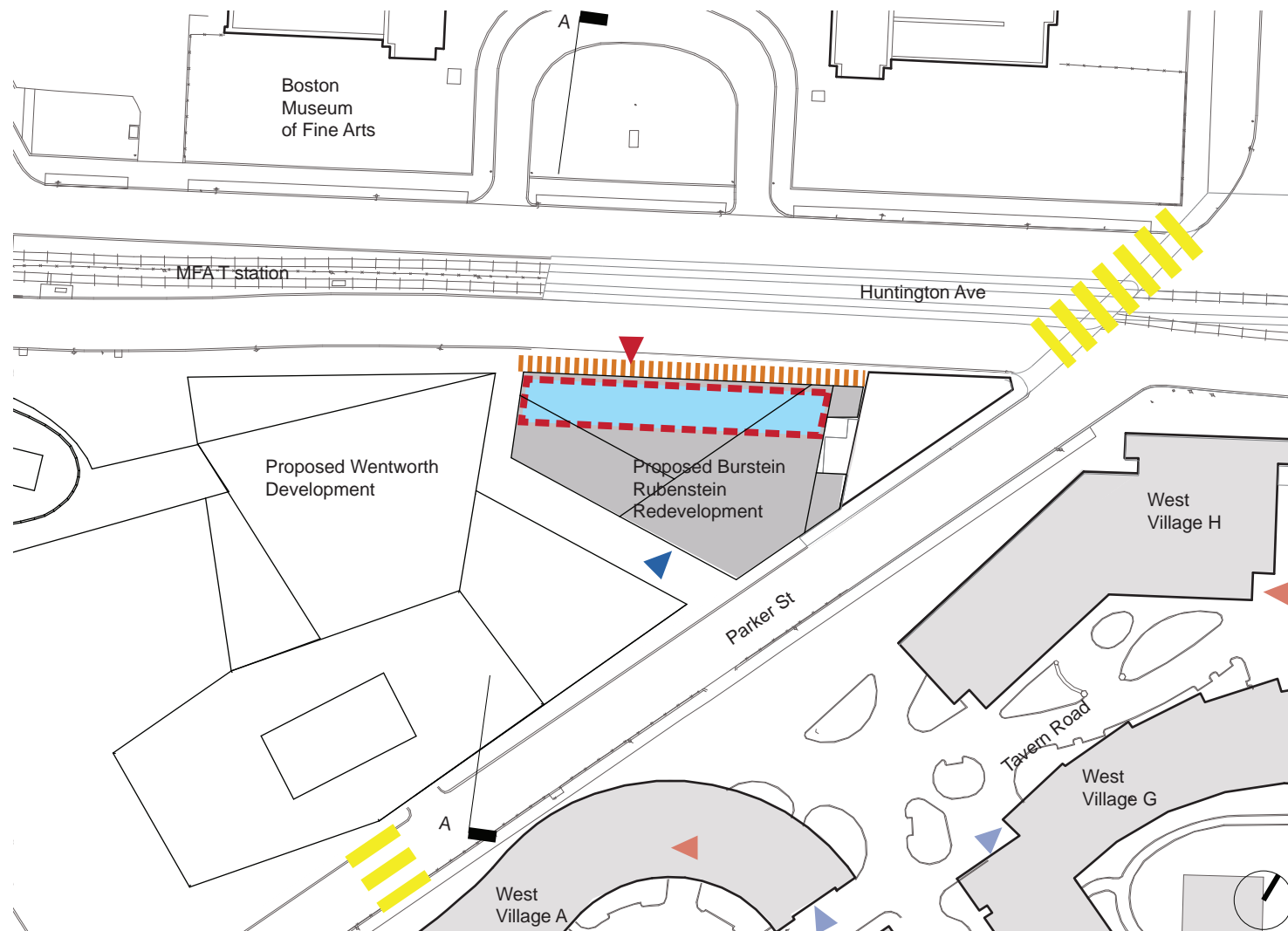
This proposed height of this redevelopment project is consistent with the recent and proposed student housing built along the Huntington Avenue corridor including West Village H, the Massachusetts College of Art housing and the GrandMarc project which is under construction. The proposed residential tower would be set back from Huntington and sit upon a four-story podium block of academic, commercial or cultural uses. The podium set back from Huntington Avenue matches the existing set back of West Village H and the proposed Wentworth Development to its west, to provide a more generous sidewalk.

The primary pedestrian entrance and ground floor public spaces will be oriented towards Huntington Avenue to continue the more active street frontages proposed by this IMP for the replacement for Cabot and Cargill Halls to the east. The tower itself, which has been reduced in height in response to the Article 80 public review process, is rotated to address Parker Street and at the same time to present a more dynamic elevation and slender profile to the of the Museum of Fine Arts facade across the street. The proposed building should also be seen within the wider context of Wentworth's adjacent proposed Sweeney Field redevelopment and the emergence of the institutional height, density and distinctive contemporary design expression along Huntington Avenue.

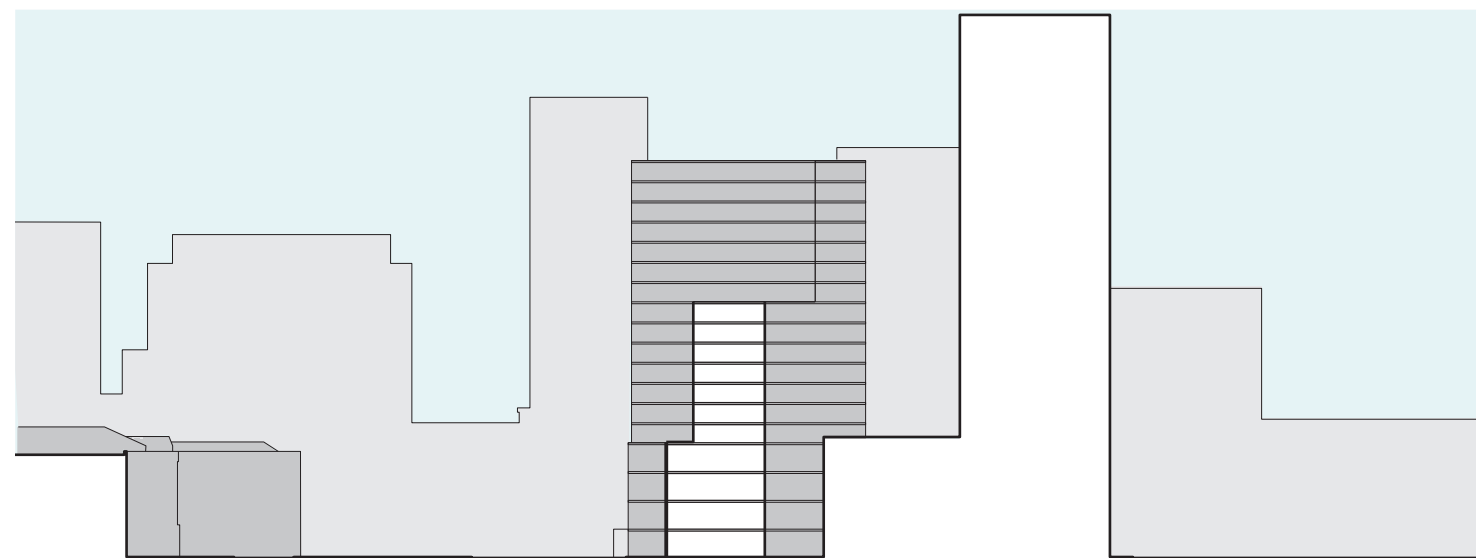
#### **Building Program**

As described, this replacement housing proposal could yield an additional approximately 160 beds to the University's on campus housing supply as well as up to 25,000 GSF of academic, cultural or commercial use.





Site Plan 1":100'



Boston Museum of Fine Arts      Huntington Ave      Proposed Burstein Rubenstein Redevelopment      Proposed Wentworth Development      Parker St      Site section A-A 1":100'



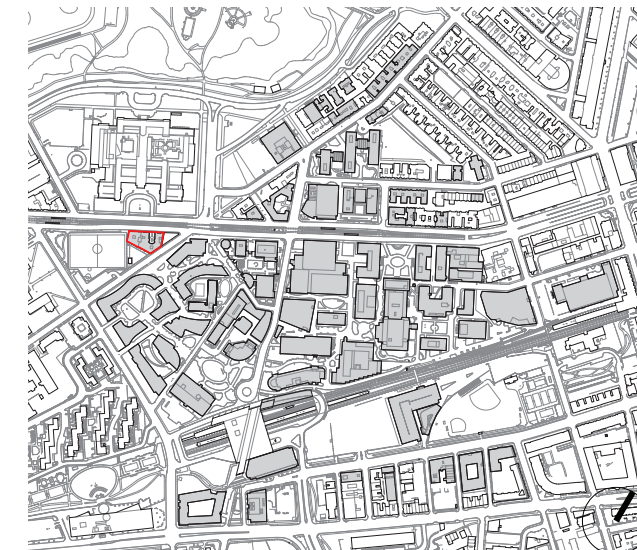
conceptual perspective view from the northwest



conceptual perspective view from the northeast



conceptual perspective view from the east



Location plan

<b>Data</b>	
Location:	458 / 464 Huntington Ave
Site Size:	0.45 Acres
Existing Use:	Residential
Proposed Uses:	Residential / Academic / Commercial
Proposed Height:	18
Development Size:	190,000 to 200,000 GSF
Total number of beds:	377 (at 350 SF/bed)
Net new beds:	150

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

<b><u>Location:</u></b>	<b><u>458 / 464 Huntington Avenue</u></b>
Site Size:	0.45 Acres
Existing Use:	Residential (227 Units in both buildings)
Proposed Uses:	Residential / Academic / Commercial
Proposed Height:	18 Stories
Development Size:	125,000 to 150,000 GSF
Current Zoning:	M.H. Neighborhood District, I Subdistrict, IMP Area
Parking:	Parking demand will be accommodated by existing or new parking within proposed IMP projects.
Estimated FAR:	6.5 to 7.5
Estimated Project Cost:	\$95 to \$115 million
Estimated DIP Payments:	Not expected to be required.
Estimated Timetable:	In order for Burstein Rubinstein to be redeveloped, replacement housing for the existing housing would have to be phased in with new housing.

**7.3.6 Cargill Hall (West Campus)**

The concept for the Cargill Hall site at 45 Forsyth St. / 420 Huntington Ave. / 55 Forsyth Street provides Northeastern University with an opportunity to consolidate the land area occupied by the existing Cargill Hall, Stearns Center and the Kariotis classroom building to create a new 140,000 to 150,000 GSF academic facility in two 6-8 story buildings with options being considered for an additional 51,000 GSF (approximately 140 beds), increasing the total development size to 190,000 to 200,000 GSF (see **Figures 7-8, 7-8A, 7-8B**).

This redevelopment concept would also allow for the demolition of the existing podium level and second floor entrances into the Knowles Center and Dockser Hall of the Law School. This building configuration would provide pedestrian access between Forsyth Street and the West Village and at-grade accessible entrances to these buildings that would eliminate the inaccessible and unwelcoming elevated plaza that connects the existing buildings in this precinct.

**Urban Design and Open Space Principles**

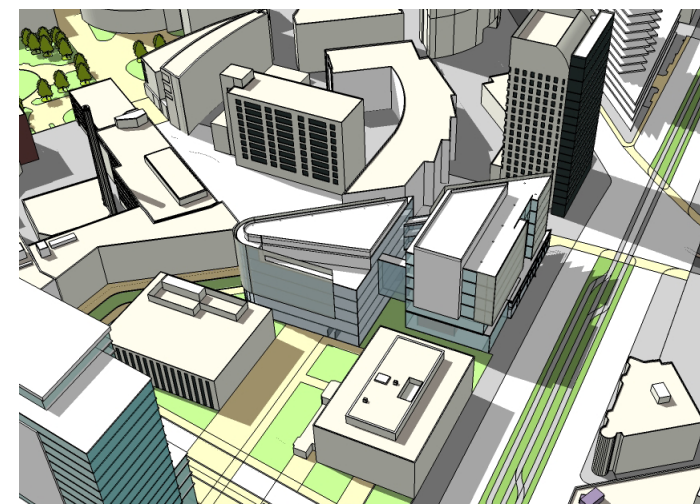
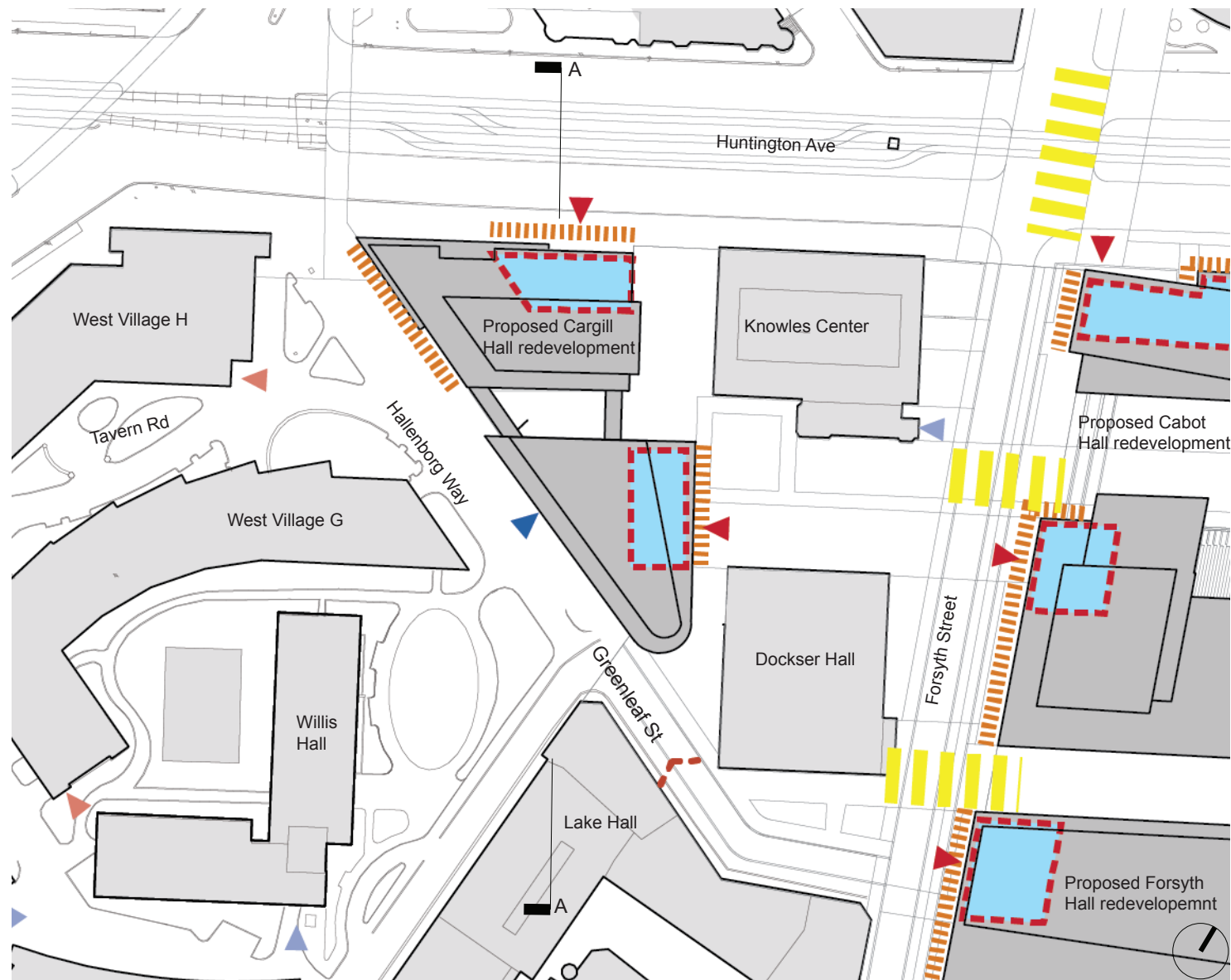
The concept for the buildings’ massing would create a building consistent with the civic scale of Huntington Avenue with transparent facades and entrances onto this street to introduce greater vitality to this part of the Avenue. The IMP proposal also removes the existing high-level entrance plinth, which currently creates an inaccessible obstacle to east-west pedestrian flow in this part of the campus. This existing plinth would be replaced with a series of at-grade public

spaces that allow for accessible movement from the proposed Cabot redevelopment through to Tavern Road and the West Village – an important element in the proposed connectivity of campus open spaces.

**Building Program**

A new 140,000 to 150,000 GSF academic facility would be constructed.

<b><u>Location:</u></b>	<b><u>45 Forsyth St. / 420 Huntington Ave. / 55 Forsyth St.</u></b>
Site Size:	0.73 acres
Existing Use:	Academic
Proposed Use:	Academic / Cultural
Proposed Height:	Two 6 to 8 Story Buildings
Development Size:	140,000 to 150,000 GSF
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	Parking Demand will be accommodated by existing or new parking within proposed IMP projects
Estimated FAR:	4.5 to 4.75
Estimated Project Cost:	\$100 - \$120 million
Estimated DIP Payments:	\$1 million Housing; \$200,000 Jobs
Estimated Timetable:	In order for Cargill Hall to be redeveloped, swing space would be required in other on-campus academic facilities, which is estimated to be completed in the second half of the IMP period and dependent on available resources.



conceptual perspective view from the northeast



Location plan



conceptual perspective view from the northwest

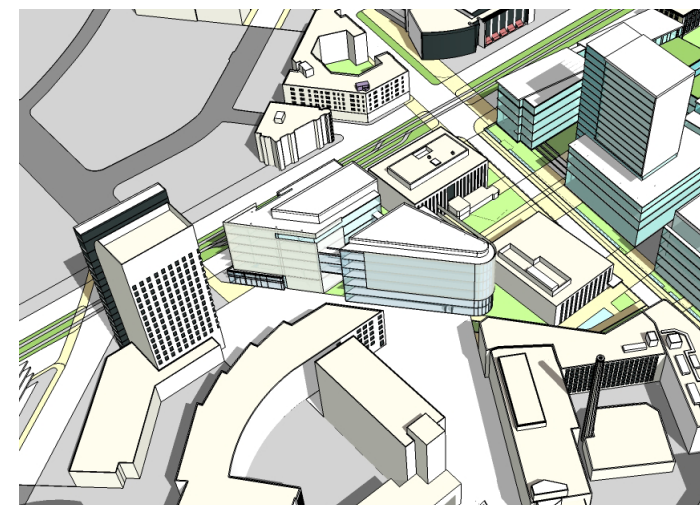
**Data**

Location:	45 Forsyth St. / 420 Huntington Ave. / 55 Forsyth St.
Site Size:	0.73 acres
Existing Use:	Academic
Proposed Use:	Academic
Proposed Height:	Two 6 to 8 Story Buildings
Development Size:	140,000 to 150,000 GSF

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

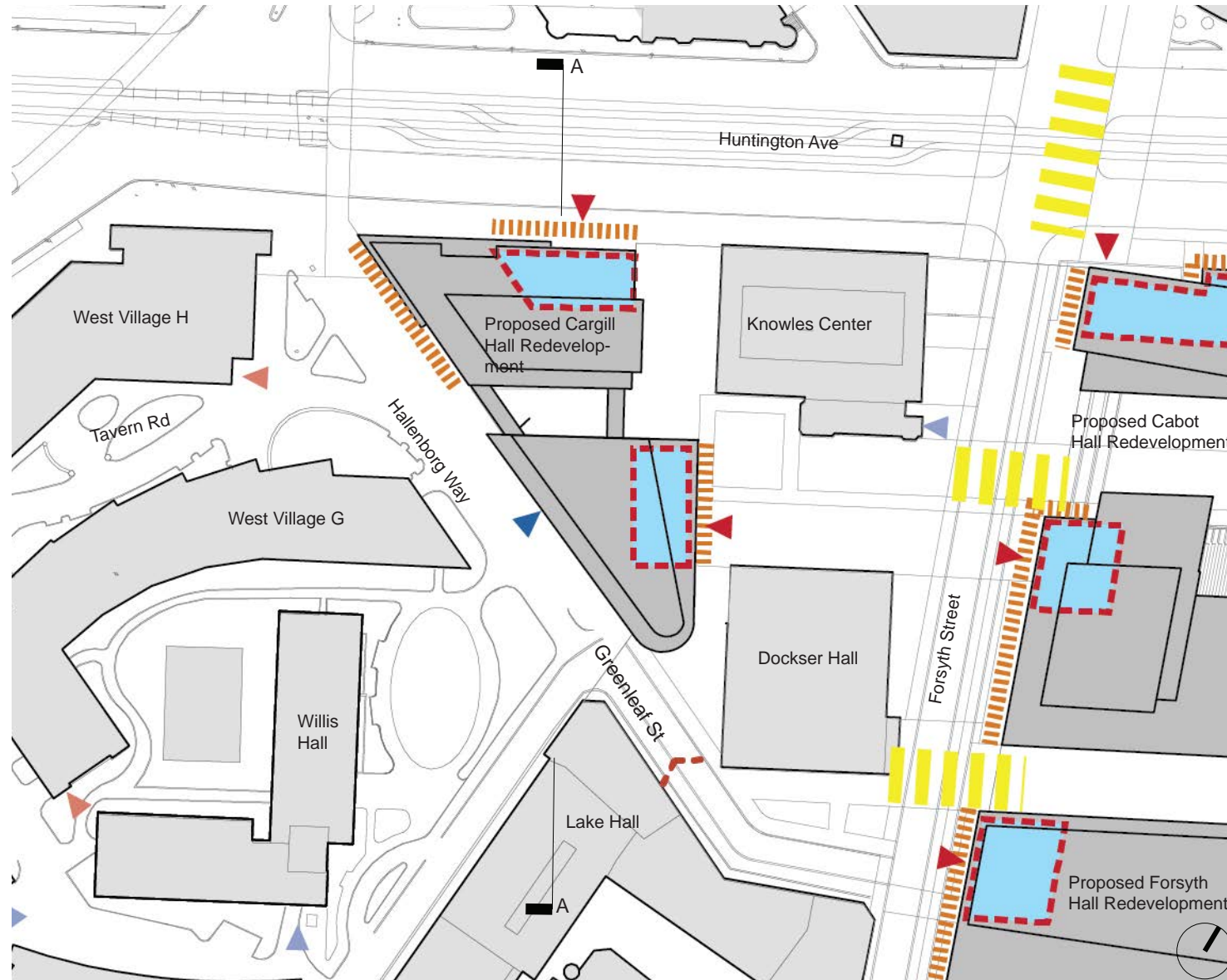


Lake Hall Proposed Cargill redevelopment Huntington Ave Site section, scale 1":100'



conceptual perspective view from the southwest

Figure 7-8.  
**Cargill Hall**



Site Plan 1"=100'



Lake Hall Proposed Cargill Redevelopment Huntington Ave Site section, scale 1"=100'



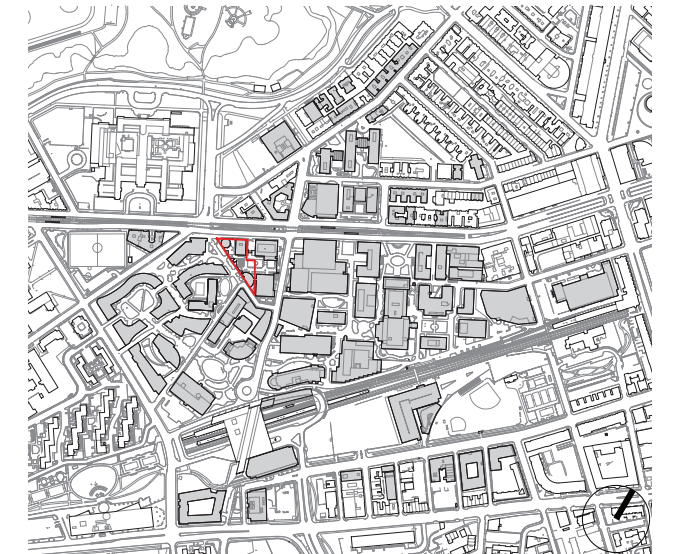
conceptual perspective view from the northeast, with housing on the Cargill site



conceptual perspective view from the northwest, with housing on the Cargill site



conceptual perspective view from the southwest, with housing on the Cargill site

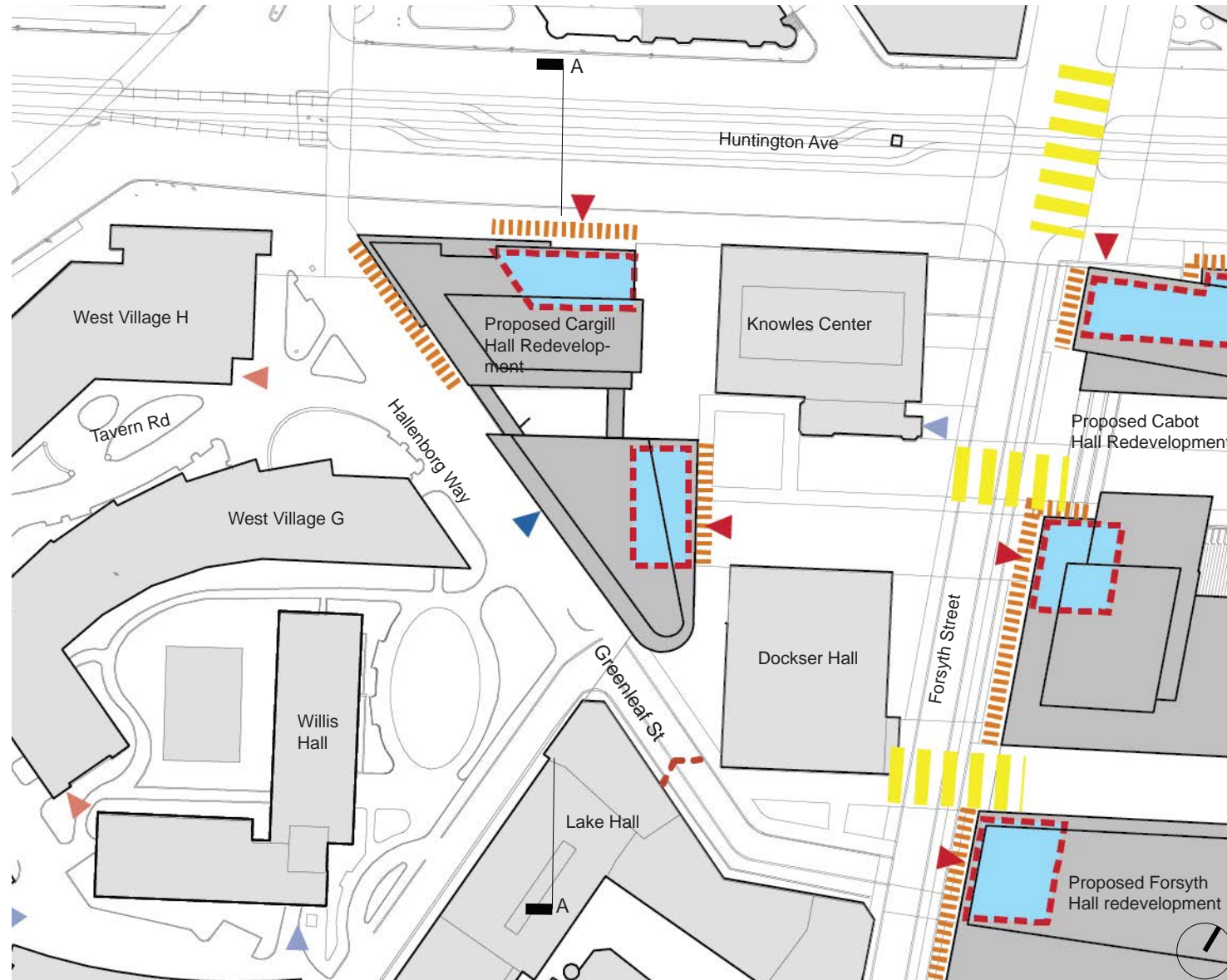


Location plan

<b>Data</b>	
Location:	45 Forsyth St. / 420 Huntington Ave. / 55 Forsyth St.
Site Size:	0.73 acres
Existing Use:	Academic
Proposed Use:	Academic and Residential
Proposed Heights:	
Cargill (north)	12 to 14 stories
Cargill (south)	6 to 8 Stories
Development Size:	190,000 to 200,000 GSF (including 51,000 GSF residential use)
Total number of beds:	150 (at 350 SF/bed)

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

Figure 7-8a.  
**Cargill Hall Option 1**



Site Plan 1":100'



Lake Hall Proposed Cargill Redevelopment Huntington Ave Site section, scale 1":100'



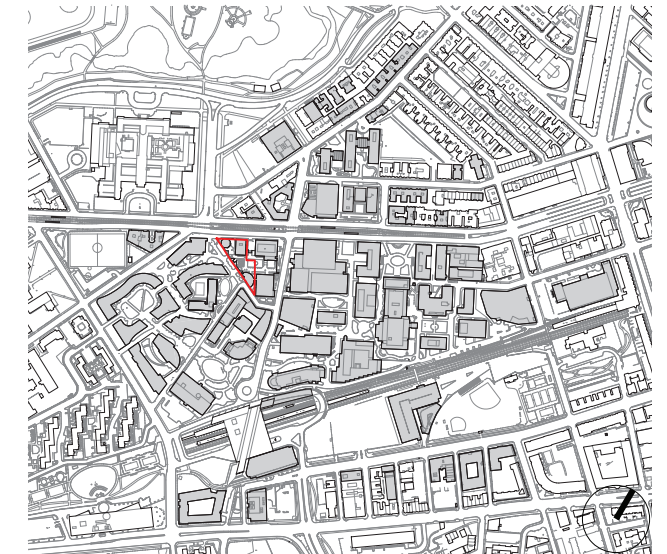
conceptual perspective view from the northeast, with housing on Kariotis site



conceptual perspective view from the northwest, with housing on Kariotis site



conceptual perspective view from the southwest, with housing on Kariotis site



Location plan

<b>Data</b>	
Location:	45 Forsyth St. / 420 Huntington Ave. / 55 Forsyth St.
Site Size:	0.73 acres
Existing Use:	Academic
Proposed Use:	Academic and Residential
Proposed Heights:	
Cargill (north)	6 to 8 stories
Cargill (south)	14 to 16 stories
Development Size:	190,000 to 200,000 GSF (including 51,000 GSF residential use)
Total number of beds:	150 (at 350 SF/ bed)

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings

Figure 7-8b.  
**Cargill Hall Option 2**

### **7.3.7 Cabot Hall Redevelopment (Core Campus)**

Cabot Hall and Barletta Natatorium sit on a 2.25 acre site at 400-402 Huntington Avenue housing Northeastern's primary home to varsity athletic and student recreation facilities. The building presents a mostly opaque street frontage with no entrances and little contribution to the life of the streets around the site. The IMP proposal is for 400,000 - 500,000 GSF of new mixed-use academic, research, classroom, cultural, student experience venue, gallery, commercial/retail and potentially residential space would open up the internal life of the buildings to the surrounding streets and add to the vibrancy and activity along Huntington Avenue (see **Figure 7-9**).

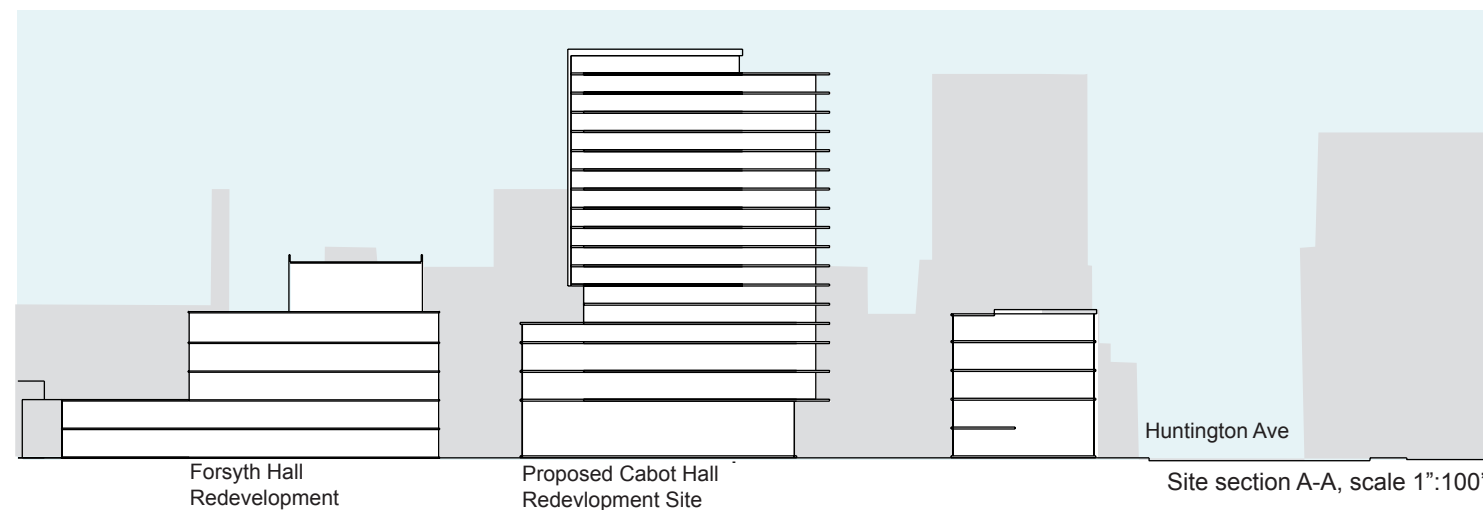
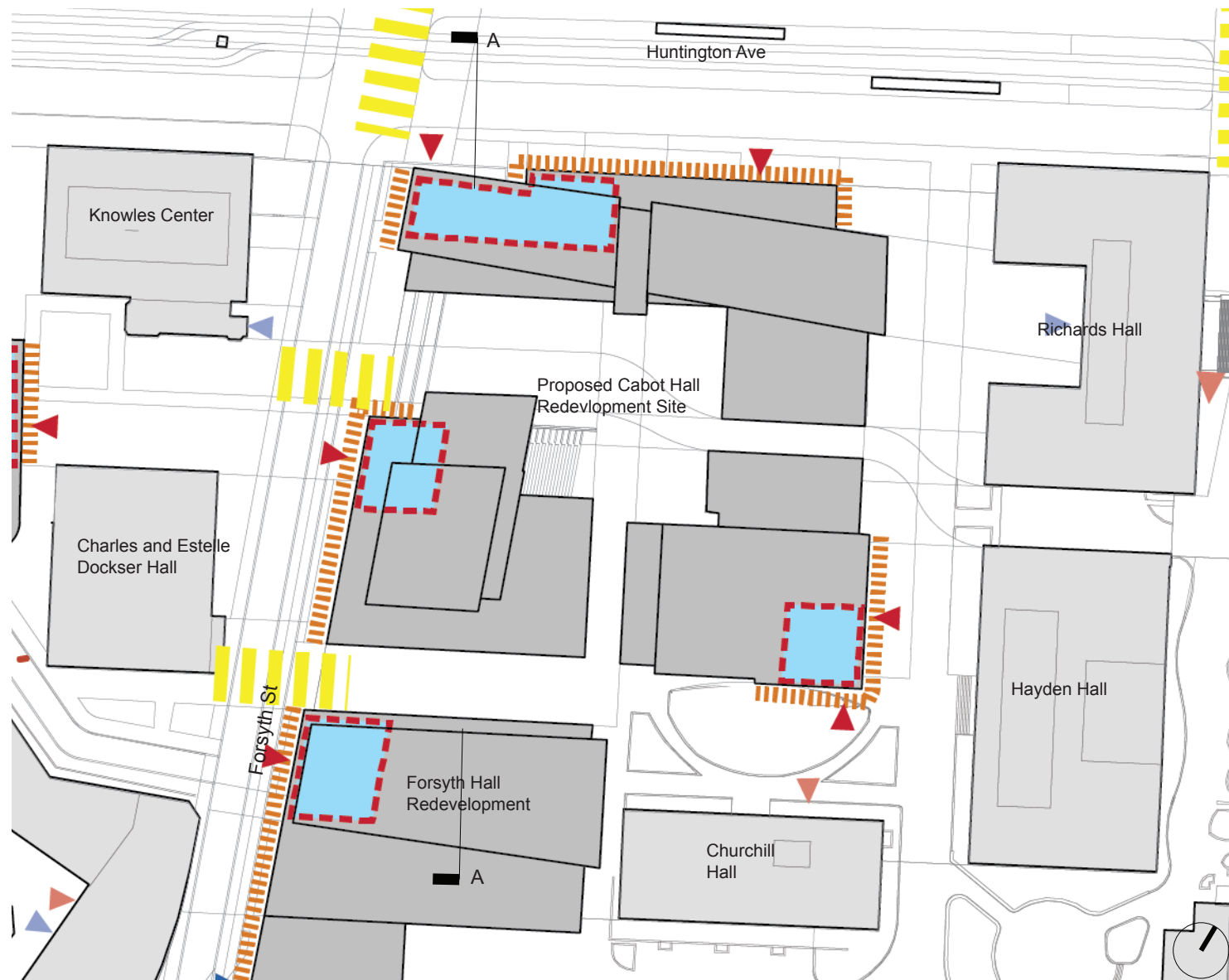
An alternative configuration to the Cabot Gym redevelopment would allow for increasing the area available for a generous public space that would complement the nearby, and more public, Krenzmann Quad (see **Figure 7-9a** for illustration of this alternative configuration).

The development concept could include three to five discrete buildings, potentially arranged around a shared, open courtyard or an enclosed atrium. The possible massing provides for the tallest building to be located to the southeast corner of the site, to reduce the impact of height on Huntington Avenue. The courtyard/atrium could provide a tempered micro-climate to mitigate seasonal extremes though shade and wind reduction. This site may also present the potential for development by the University with a private developer.

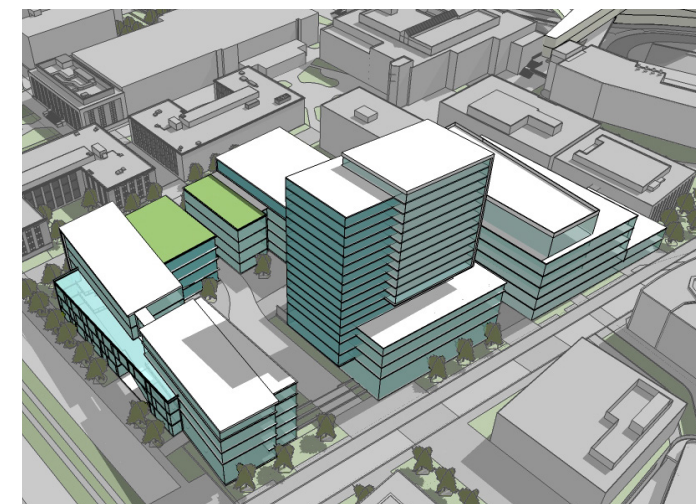
#### **Urban Design and Open Space Principles**

The proposal's massing provides a street-level courtyard accessed through the Huntington Avenue entrance and connecting the proposed pedestrian route that will traverse the campus from east to west along the north side of the Huntington Avenue campus. This northern sequence of open spaces completes a continuous loop established by the existing sequence of spaces linking the southern edge of the campus. The courtyard will be accessible through openings in the massing, from the north, south, east and west. These openings allow for new view corridors through this space from and to Huntington Ave, Forsyth Street and the pathway which runs to the west of Richard's Hall and the north of Churchill Hall. These view corridors will increase campus legibility for pedestrians, allowing for better sense of orientation within the broader urban network of buildings and places. An alternative massing strategy would forgo the internal courtyard for an expanded adjacent quad to the south of the existing Cabot. In either alternative, the Huntington façade would provide transparency and public access from Huntington through to the internal campus open space network.

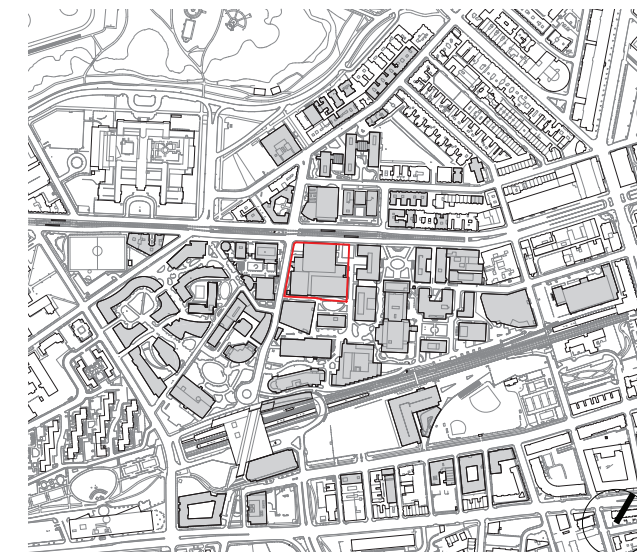
The primary building entrances and public spaces will be located on the external perimeter of the block, addressing the surrounding streets, in so doing, providing a more active and inviting streetscape.



**Core Campus: Cabot Hall Redevelopment**



conceptual perspective view from the northwest



Location plan



conceptual perspective view from the southeast

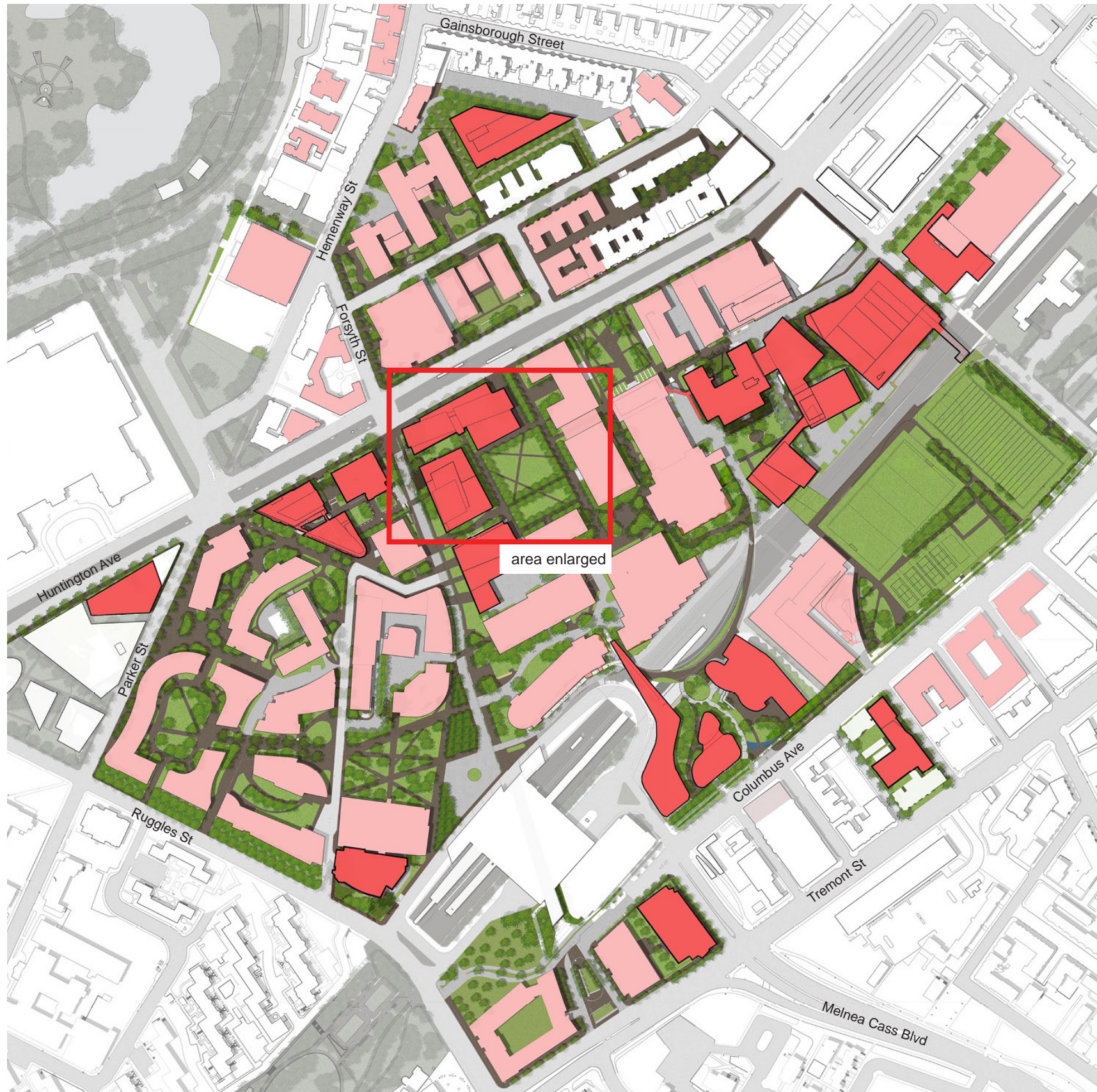


conceptual perspective view from the northeast

<b>Data</b>	
Location:	400-402 Huntington Avenue
Site Size:	2.25 Acres
Existing Uses:	Student Athletics / Recreation
Proposed Uses:	Academic / Student Life / Cultural/ Parking/ Commercial
Proposed Height:	10 to 15 Stories
Development Size:	400,000 to 500,000 GSF

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings





Illustrative plan showing an alternative configuration for Cabot Hall. The buildings proposed as part of the IMP are shown in red.



Cabot Hall Redevelopment Alternative Scheme

**Cabot Hall Redevelopment**

The reconfigured alternative proposes to combine a new urban space with the existing quad in front of Churchill Hall and Hayden Hall.

This could be achieved by reconfiguring the building massing away from the internal courtyard scheme alternative.

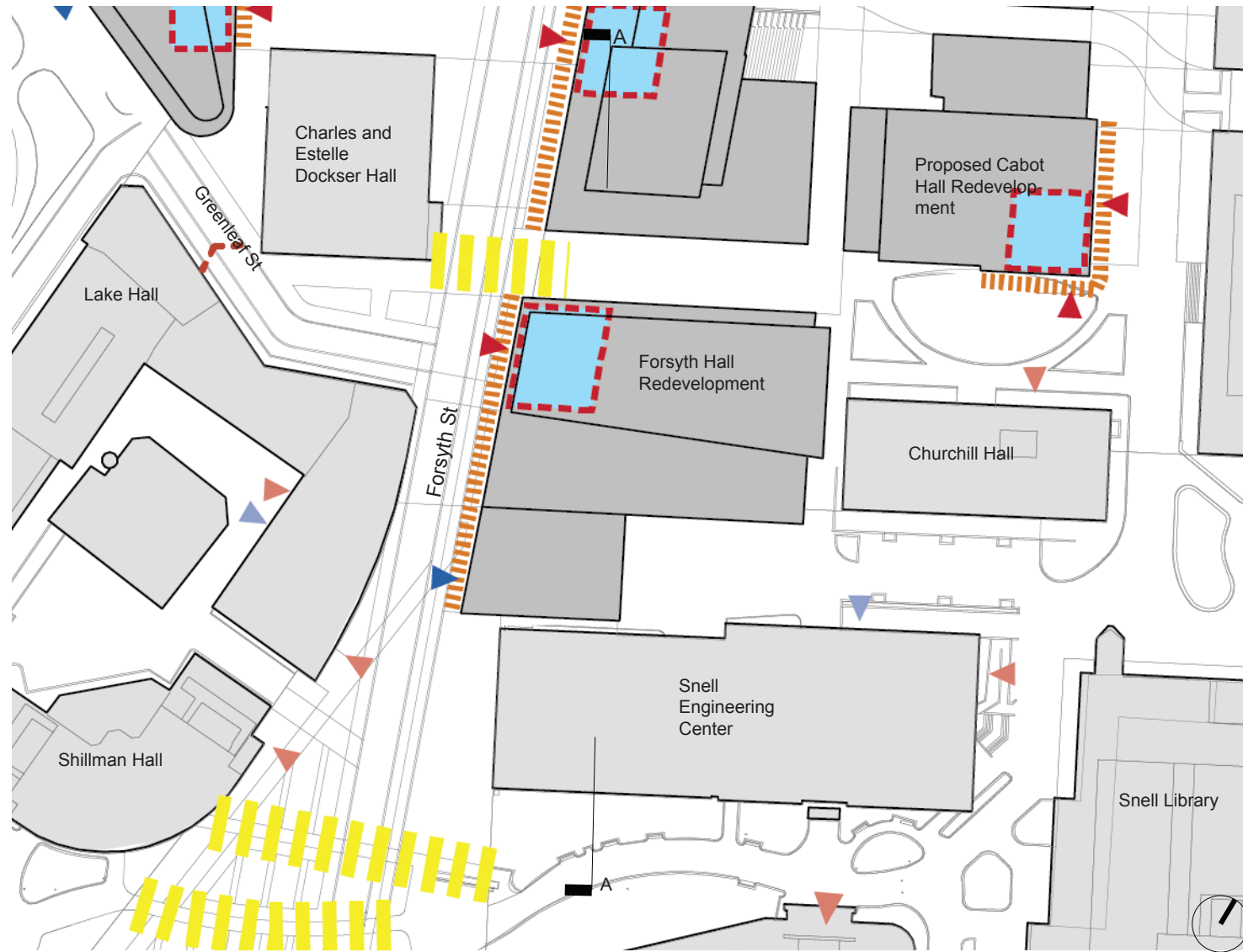
## Building Program

The IMP proposal is for 400,000 - 500,000 GSF of new mixed-use academic, research, classroom, cultural, student experience venue, gallery, commercial/retail and potentially residential space. Cabot Hall Redevelopment presents Northeastern with opportunities for performing and/or visual arts uses to contribute to the “Avenue of the Arts”.

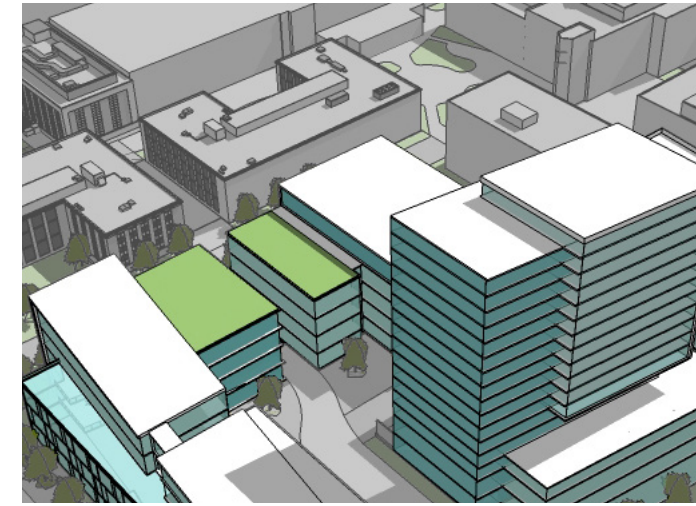
<b><u>Location:</u></b>	<b><u>400-402 Huntington Avenue</u></b>
Site Size:	2.25 Acres
Existing Uses:	Student Athletics / Recreation
Proposed Uses:	Academic / Student Life /Cultural/Commercial/Residential
Proposed Height:	10 to15 Stories
Development Size:	400,000 to 500,000 GSF
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	Parking Demand will be accommodated by existing or new parking within IMP proposed projects
Estimated FAR:	4.0 – 5.0
Estimated Project Cost:	\$300 - \$400 million
Estimated DIP Payments:	\$2.75 million Housing; \$575,000 Jobs
Estimated Timetable:	In order for the Cabot site to be redeveloped, the Gainsborough Garage site would have to be redeveloped as a new athletic and recreation facility to accommodate the existing Cabot athletic uses, which is estimated in the second half of the IMP period depending on available resources.

### **7.3.8 Forsyth Hall Redevelopment (Core Campus)**

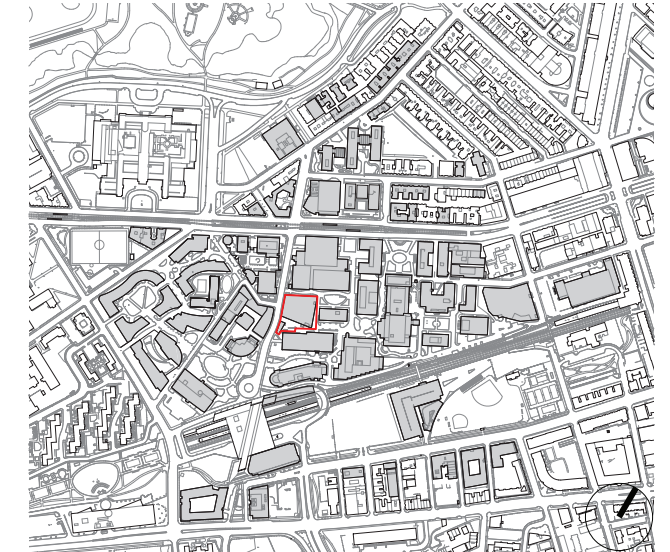
This Forsyth Hall site at 70 Forsyth Street is currently occupied by a two-story converted warehouse building housing classrooms and student health services. Recognizing the site as under-utilized and not suitable for contemporary academic use, the IMP concept proposes to replace the existing facility with a 140,000 to 150,000 GSF, or an 8 to 12-story academic building, with frontage on Forsyth Street (see **Figure 7-10**). The site has the potential to be redeveloped in conjunction with the adjacent Cabot Hall Redevelopment proposal.



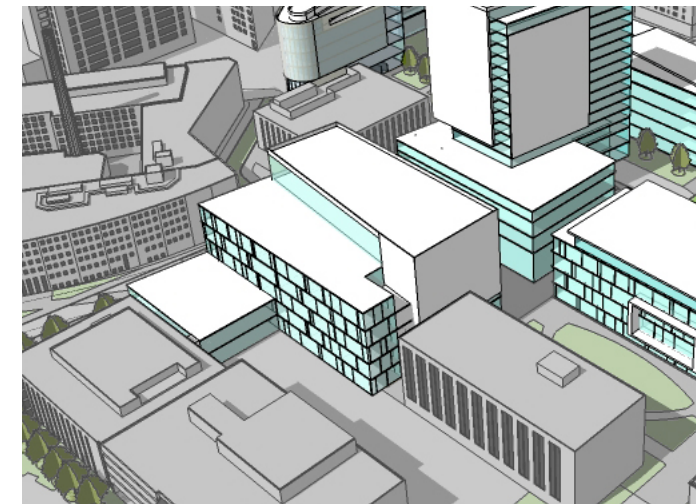
Site Plan 1":100'



conceptual perspective view from the northwest



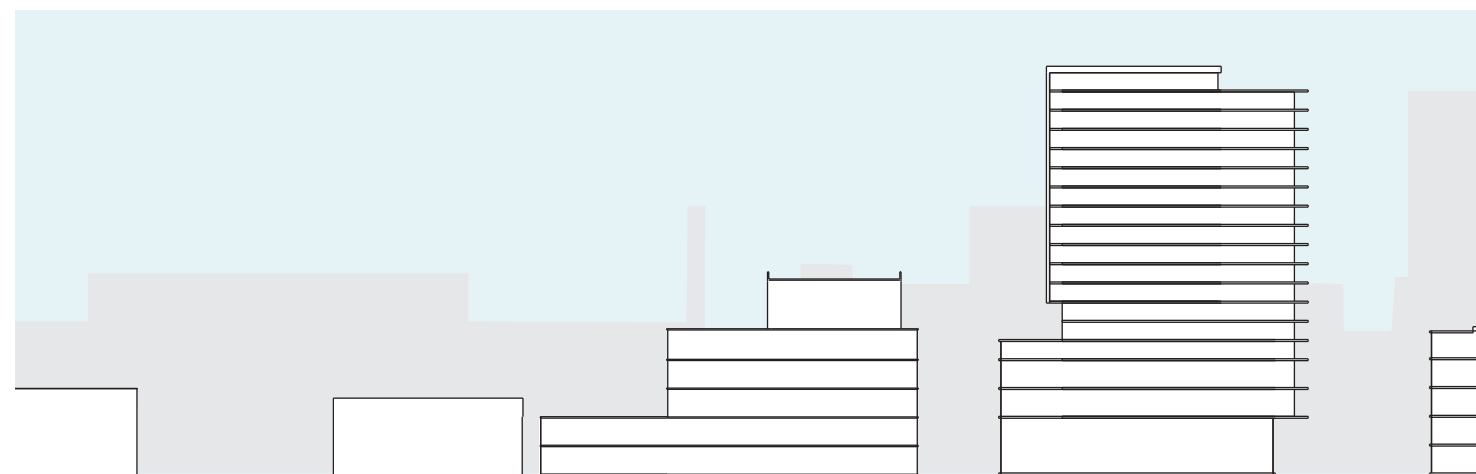
Location plan



conceptual perspective view from the southeast

<b>Data</b>	
Location:	70 Forsyth Street
Site Size:	0.75 Acres
Existing Use:	Northeastern University faculty building
Proposed Use:	Academic
Proposed Height:	8 to 12 Stories
Development Size:	140,000 to 150,000 GSF

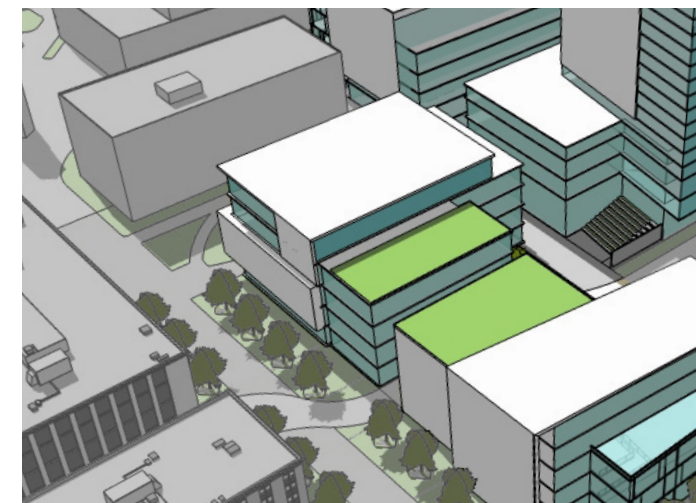
- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publicly accessible building entrance spaces
  - Upgraded pedestrian crossings



Dana Research Center

Proposed Forsyth Hall Redevelopment

Site section A-A scale 1":100'



conceptual perspective view from the northeast

### Urban Design and Open Space Principles

Ground-level transparency into the proposed building would enliven the public realm as well as east-west campus circulation, encouraging pedestrian activity and greater activity along Forsyth Street. The proposed building's massing will step to the north to compliment the proposed residential tower that is part of the Cabot redevelopment. If developed in conjunction with Cabot, the site may also accommodate a housing tower with expanded academic uses on the Cabot footprint. The primary entrances to this building will be located on Forsyth Street, bringing increased pedestrian use to this street. Servicing will also be from Forsyth Street and may be combined with service loading for the adjacent Egan building. The site development also allows the potential to expand the below grade service tunnel connecting to Egan.

### Building Program

The proposed program would replace the existing facility with 140,000 to 150,000 GSF of academic space.

<b><u>Location:</u></b>	<b><u>70 Forsyth Street (Core Campus)</u></b>
Site Size:	0.75 Acres
Existing Use:	Northeastern University faculty building
Proposed Use:	Academic
Proposed Height:	8 to 12 Stories
Development Size:	140,000 to 150,000 GSF
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District IS
Parking:	Parking Demand will be accommodated by existing or new parking within proposed IMP projects
Estimated FAR:	4.5 to 4.75
Estimated Project Cost:	\$100 - \$120 million
Estimated DIP Payments:	\$1 million Housing; \$200,000 Jobs
Estimated Timetable:	In order for the Forsythe Building to be redeveloped, swing space would be required in other on-campus academic facilities; therefore it is estimated to be completed in the second half of the IMP period.

### **7.3.9 Science Quad Redevelopment (East Campus)**

There are at least two potential concepts for combining new and renovated facilities that surround the existing science quad at 330/334/336 Huntington Avenue and 288 St. Botolph Street. The IMP explores the potential to redevelop the smaller, inefficient footprints of Robinson and Cullinane Halls, as well as the potential to combine the larger Hurtig Hall site with a portion of the Cullinane site. The two IMP scenarios presented (Options 1 and 2) anticipate the renovation of Mugar Hall and recommend a physical connection between Mugar and the new facilities

through elevated bridges to better facilitate utilization, efficiency and academic collaboration (see **Figures 7-11 and 7-12**).

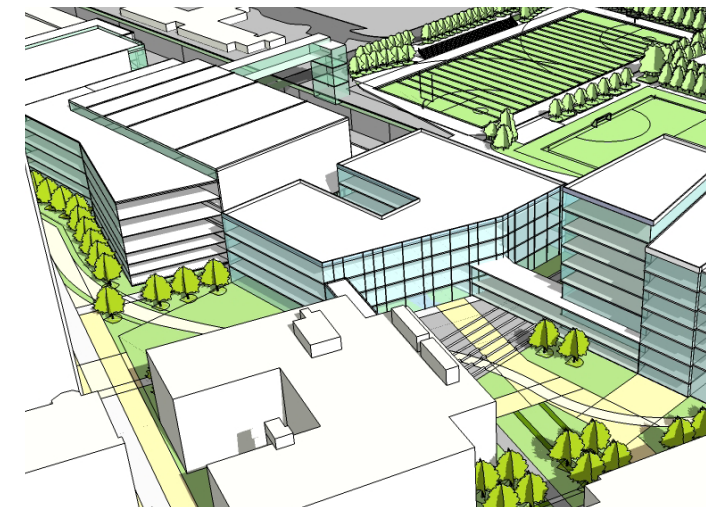
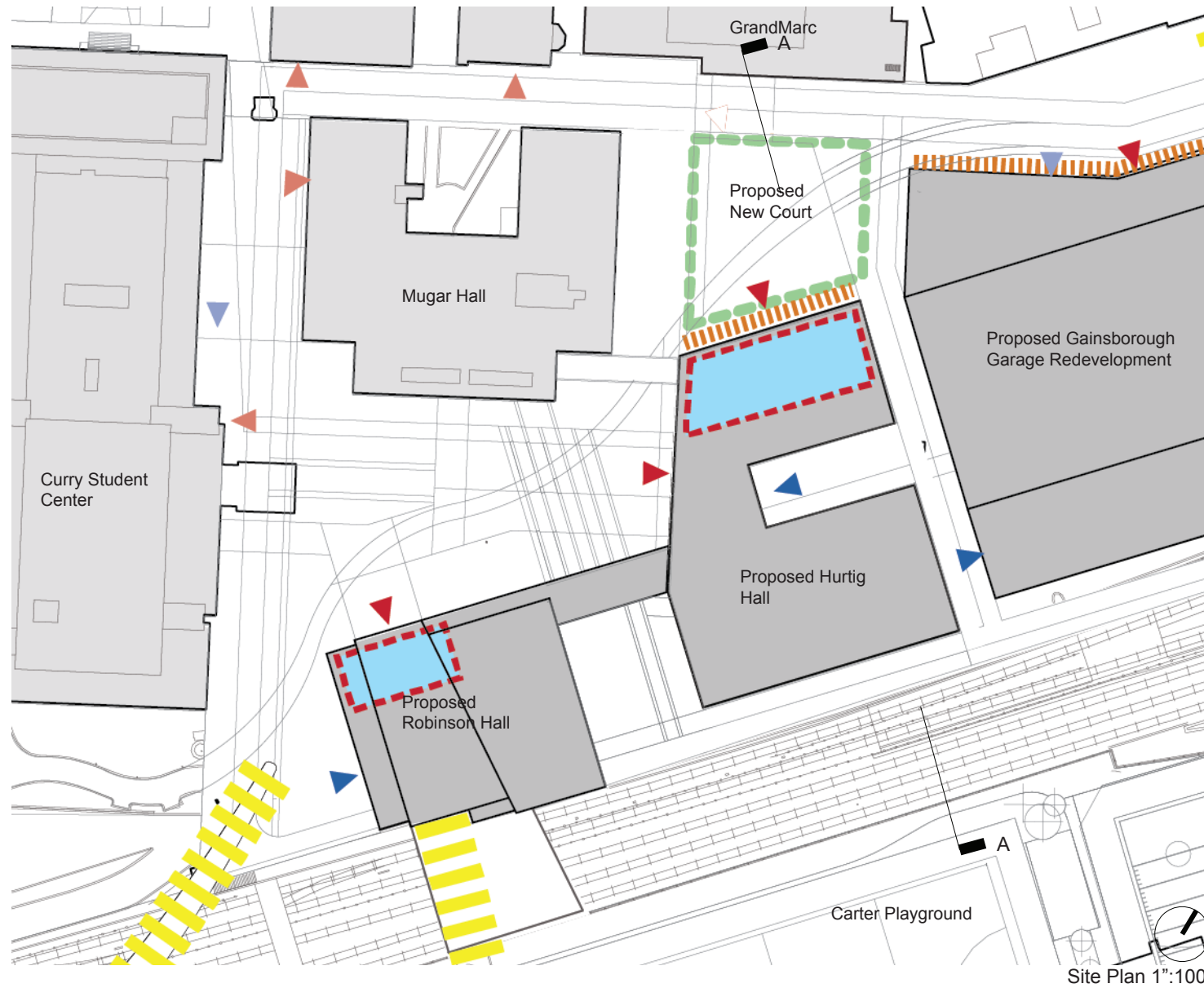
### Urban Design and Open Space Principles

Either of the development approaches would greatly improve the quality of the existing science quad through improved open space and circulation strategies tied to the overall campus strategy of improved connectivity. The new buildings' massing would be oriented around the improved science quad, and create a series of facilities connected via high-level walkways to optimize inter-departmental relationships. In the second option proposed (**Figure 7-12**), Robinson Hall is replaced with a new single building. This alternative proposal provides the opportunity for a more generous public space to the south of the GrandMarc tower. Primary entrances would be located adjacent to this space, which would be activated by the increased pedestrian activity. The redevelopment of Robinson also presents the potential for an additional elevated crossing or decked open space spanning across the MBTA tracks and linking to the improved Carter Playground space on what is currently the Camden parking lot.

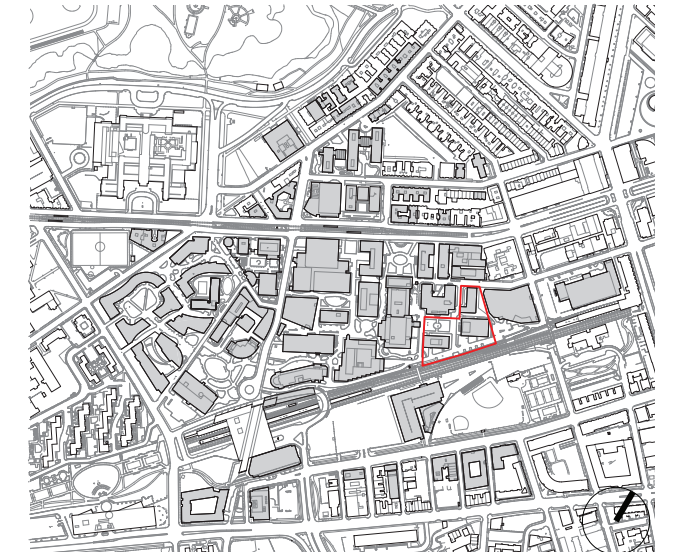
### Building Program

The IMP proposes much needed academic space suitable for contemporary research activities to relieve the pressures of retrofitting new labs in older facilities such as Mugar. The proposed new research and teaching facilities could potentially occupy a 7 to 10 story building, taking advantage of additional height along the service road parallel to the MBTA tracks and possibly building out over the vehicular path of the service drive which will remain active at grade.

<b><u>Location:</u></b>	<b><u>330/334/336 Huntington Avenue and 288 St Botolph Street (East Campus)</u></b>
Site Size:	1.88 Acres
Existing Uses:	Academic (Sciences) / Facilities
Proposed Use:	Academic (Sciences)
Proposed Height:	Option 1: 7 to 10 Stories; Option 2: 4-5 Stories
Development Size:	Options 1 and 2: 60,000 to 120,000 GSF
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	Parking Demand will be accommodated by existing or new parking within other IMP proposed projects
Estimated FAR:	0.75 to 1.5
Estimated Project Cost:	\$150 to \$250 million
Estimated DIP Payments:	\$450,000 Housing; \$85,000 Jobs
Estimated Timetable:	In order for the New Science Quad to be redeveloped, at a minimum swing space would be required in other on-campus academic facilities; it is therefore estimated to be completed in the second half of the IMP period.



conceptual perspective view from the southwest



Location plan



conceptual perspective view from the northeast

**Data**

Location: 330/334/336  
Huntington Avenue  
and 288 St Botolph St

Site Size: 1.88 Acres

Existing Uses: Academic (Sciences) /  
Facilities

Proposed Use: Academic (Sciences)

Proposed Height: 4 to 5 Stories

Development Size: 100,000 to 120,000 GSF

**Key**

- Active ground floor street frontage
- Existing loading bay
- Proposed loading bay
- Existing accessible entrance
- Proposed accessible entrance
- Proposed entrance to structured parking
- Publicly accessible building entrance spaces
- Upgraded pedestrian crossings



conceptual perspective view from the west

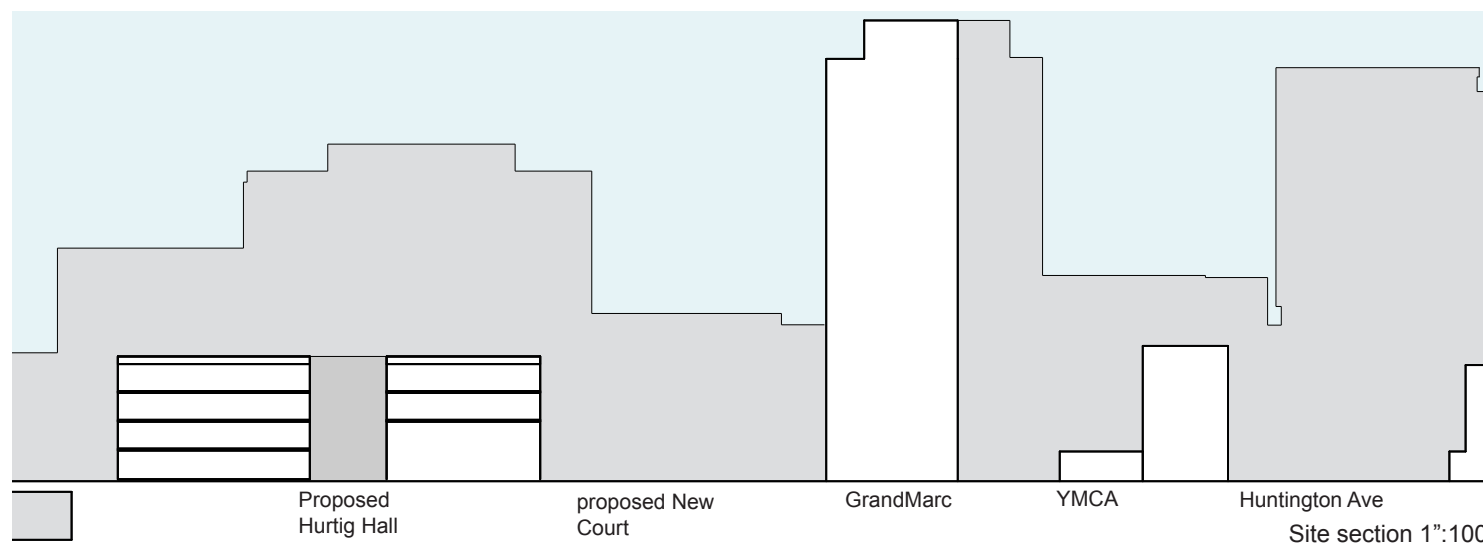
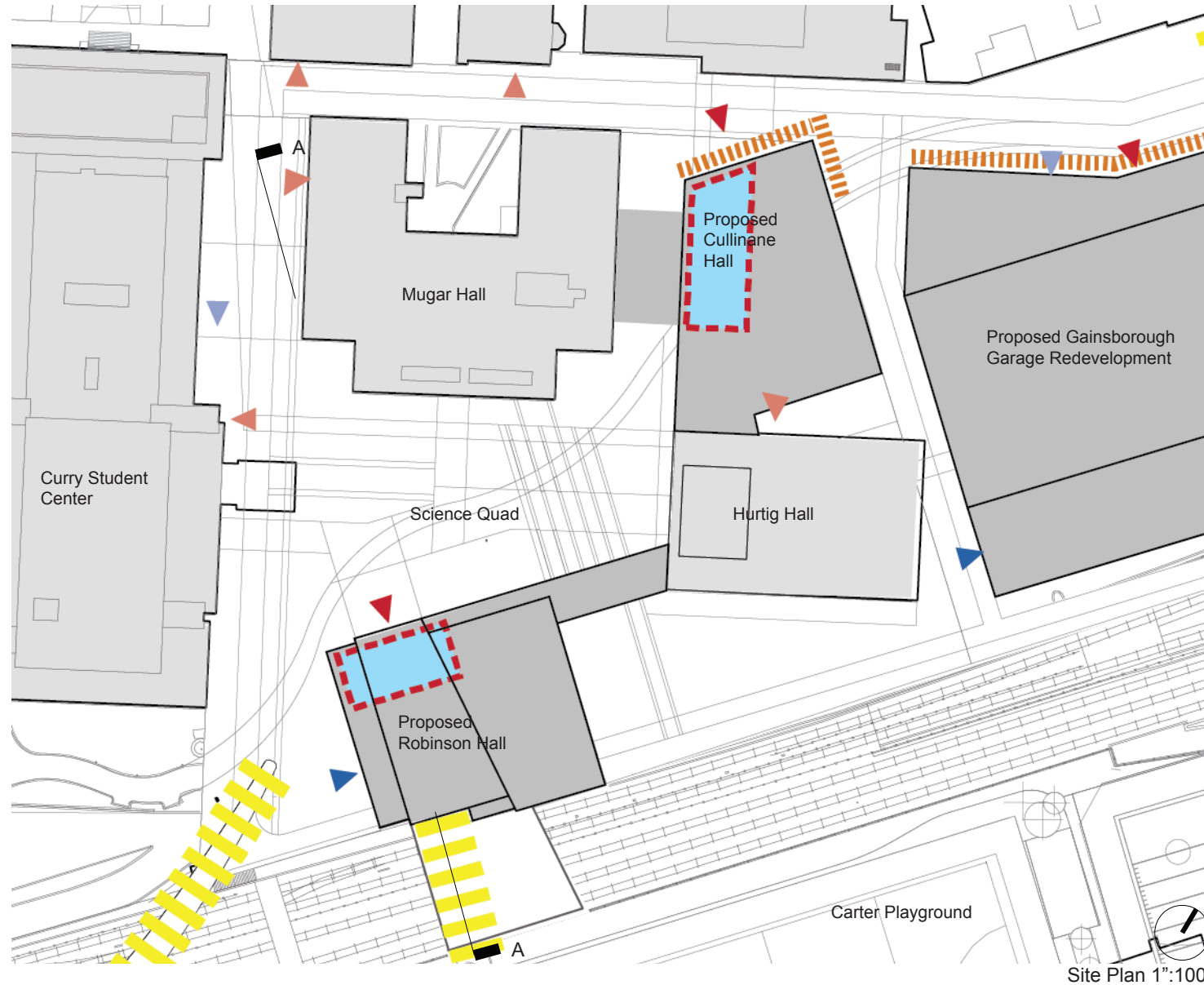
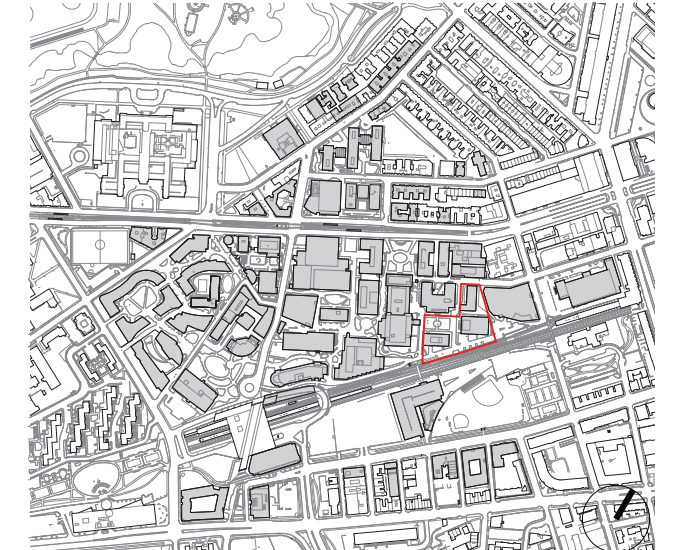


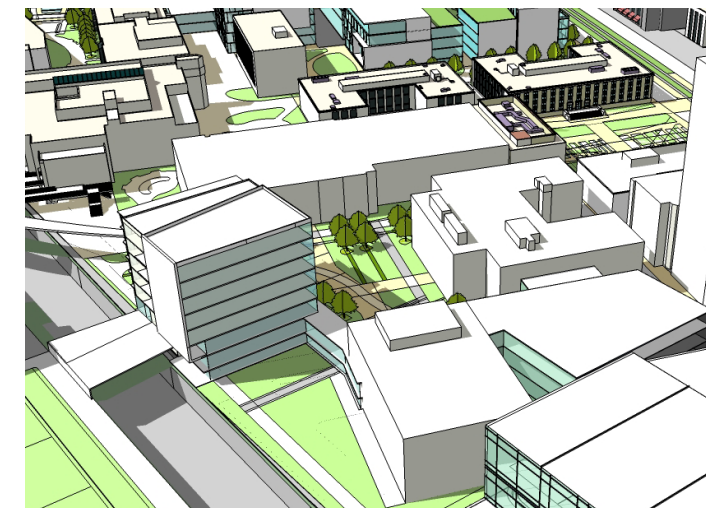
Figure 7-11.  
**Science Quad Redevelopment (Option 1)**



conceptual perspective view from the southeast



Location plan



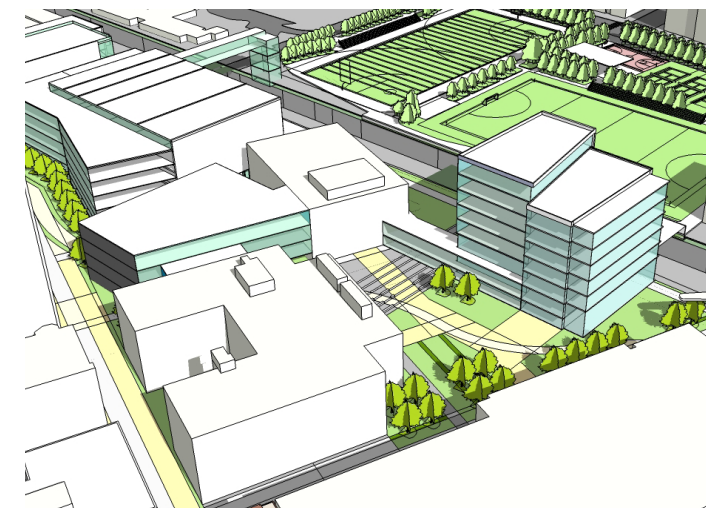
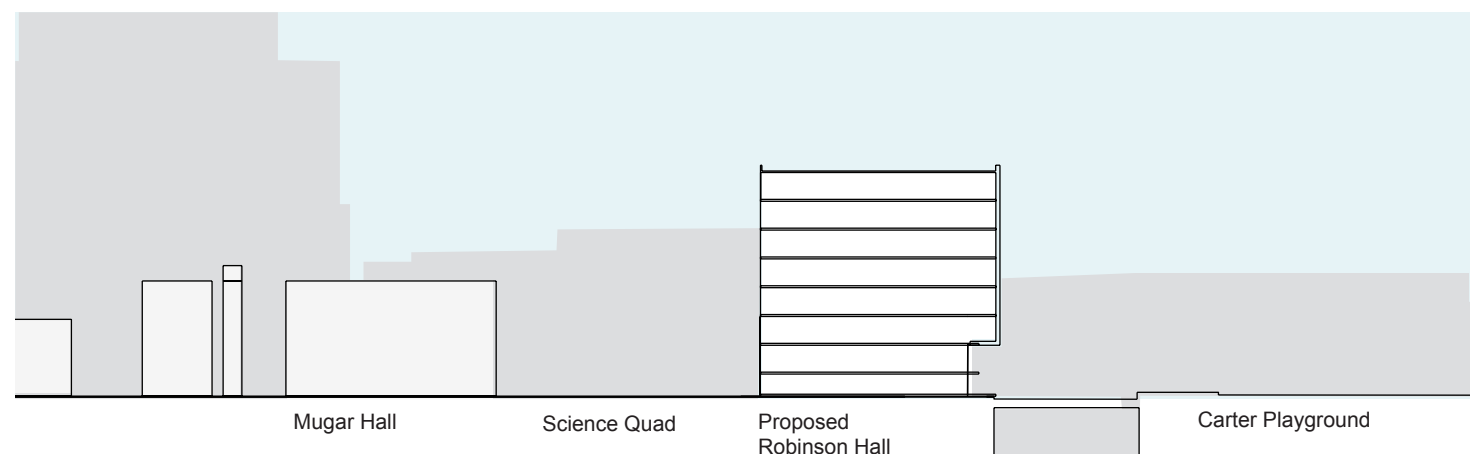
conceptual perspective view from the north

**Data**

Location: 330/334/336  
 Huntington Avenue  
 and 288 St Botolph St  
 Site Size: 1.88 Acres  
 Existing Uses: Academic (Sciences) /  
 Facilities  
 Proposed Use: Academic (Sciences)  
 Proposed Height: 7 to 10 Stories  
 Development Size: 60,000 to 100,000 GSF

**Key**

- Active ground floor street frontage
- Existing loading bay
- Proposed loading bay
- Existing accessible entrance
- Proposed accessible entrance
- Proposed entrance to structured parking
- Publicly accessible building entrance spaces
- Upgraded pedestrian crossings



conceptual perspective view from the northwest

**Figure 7-12.**  
**Science Quad Redevelopment (Option 2)**

### **7.3.10 Gainsborough Garage Redevelopment (East Campus)**

This IMP concept for the Gainsborough Garage is to replace the aging parking garage at 10 Gainsborough Street with a state-of-the-art student recreation and athletic facility directly across the street from the Mathews Arena and its proposed addition. The program approach would complement the athletic uses at Matthews and would also include space in a 6-9 story building for student life activities, meetings, venues and social space. As a replacement building for the existing Cabot Hall and Barletta Natatorium, the project will enable the future redevelopment of the prominent Huntington Avenue site currently occupied by Cabot. The Master Plan contemplates a potential bridge crossing connecting to Matthews to improve utilization, connectivity and efficiency for the Arena as well as improving the efficiency and challenges presented by the complexities of the Gainsborough garage site and programs (see **Figure 7-13**).

#### **Urban Design and Open Space Principles**

The siting of this new facility could also incorporate replacement parking for approximately 300 vehicles in the existing garage. By placing the parking structure partially below grade and up against the MBTA and service corridor, the proposed new street frontage of the athletic facility would contribute to the transformation of the St. Botolph/Gainsborough Street corridors as an important piece of the neighborhood and campus public realm. The project proposes to coordinate with New England Conservatory's plans for both streets and, together with the Matthews Addition, represents the completion of the transformation of an area that is today perceived as service oriented and void of active, street level uses. Other related urban design and open space initiatives include the potential for an improved MBTA crossing at the end of Gainsborough Street and a new entrance at the end of the Orange Line Massachusetts Avenue station, which currently serves as an exit only. Another potential improvement to the Massachusetts Avenue MBTA station egress at Gainsborough will include installation of card access entry to the station.

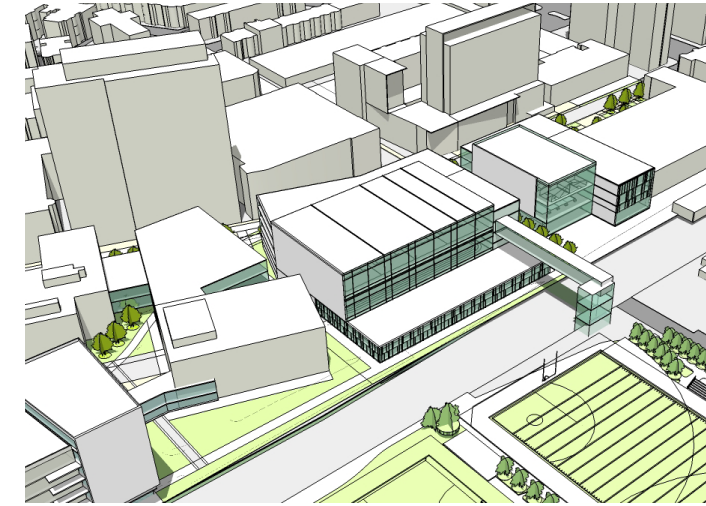
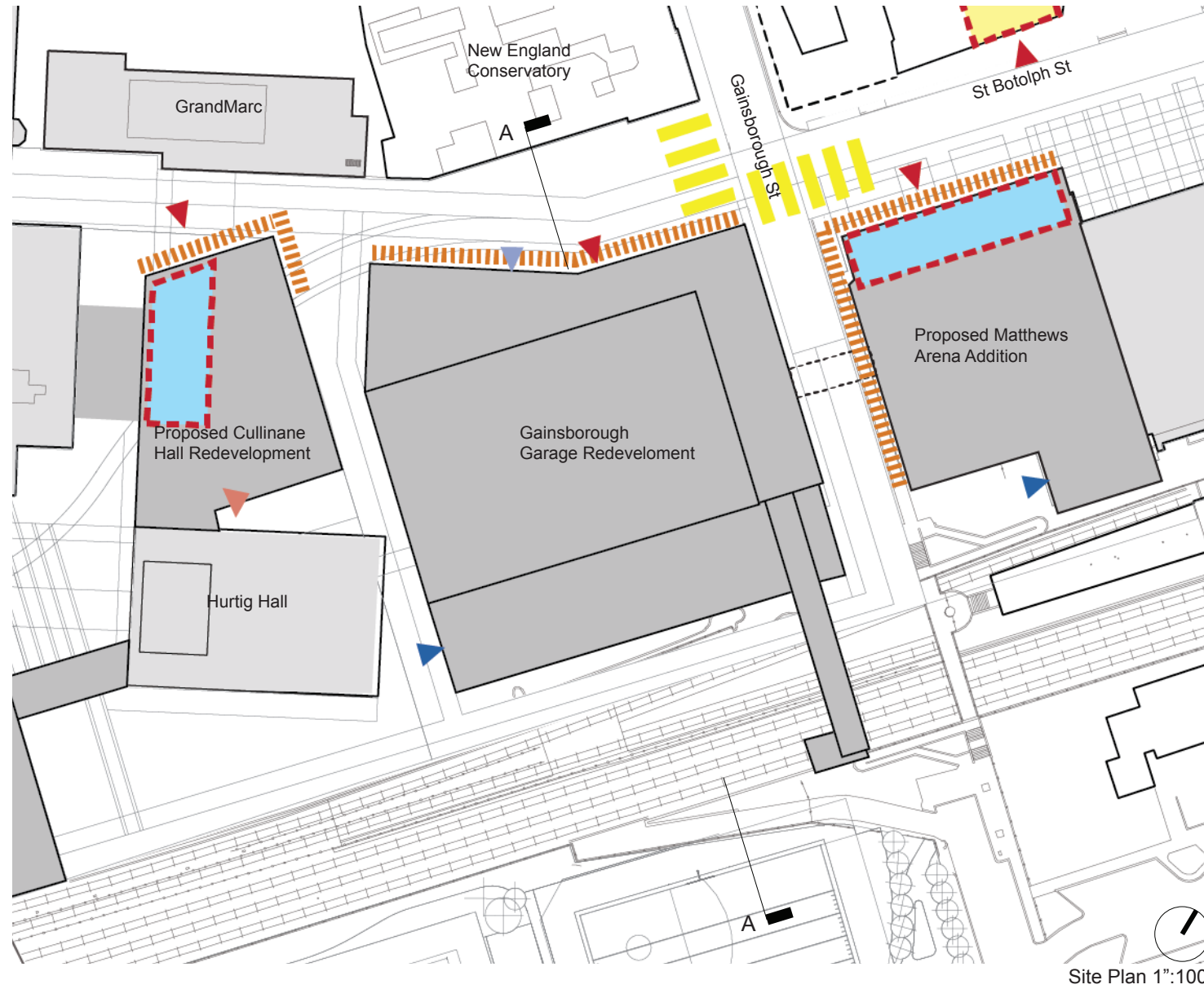
Improving the crossing and MBTA entrance at this location will further advance the IMP goal of knitting together the campus and community on either side of the rail corridor.

#### **Building Program**

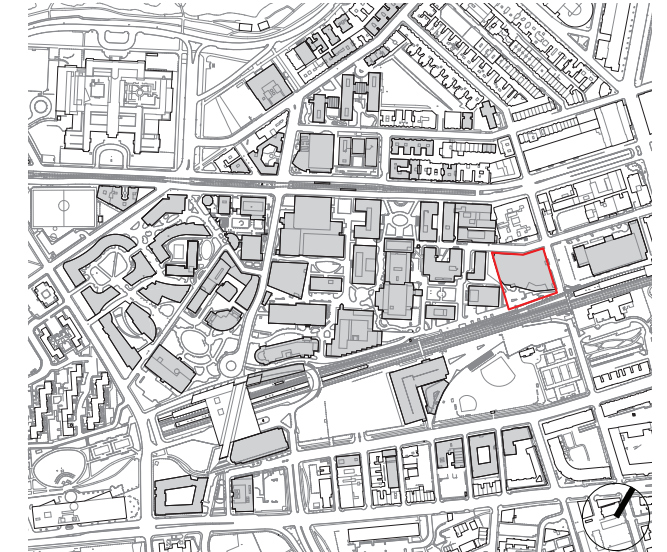
The IMP program for the Gainsborough Garage Redevelopment includes space in a 6 to 9 story building for athletics, recreation, student life activities, meetings, venues and social space, and including structured parking to replace existing parking spaces in the garage.



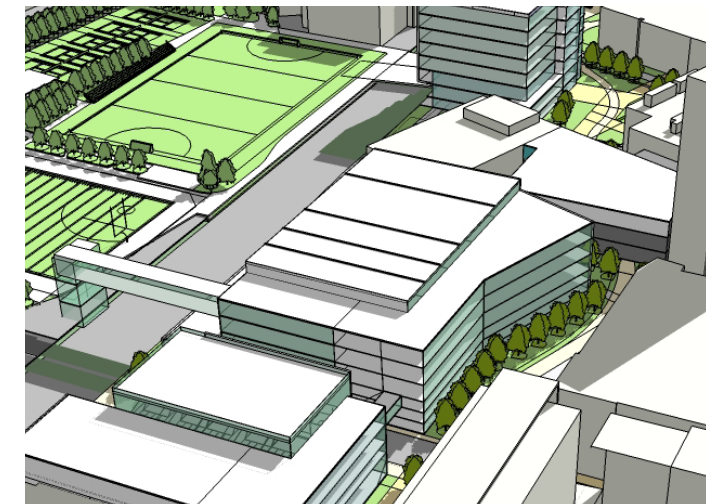
<b><u>Location:</u></b>	<b><u>10 Gainsborough Street (East Campus)</u></b>
Site Size:	1.47 Acres
Existing Uses:	Parking / Facilities (314 Spaces)
Proposed Uses:	Mixed-Use (Student Life/Parking/ Athletics)
Proposed Height:	6 to 9 Stories
Development Size:	200,000 to 240,000 GSF including structured parking for approximately 300 replacement spaces.
Current Zoning:	Fenway Neighborhood District, Institutional Master Plan Overlay District/IS
Parking:	At a minimum, existing parking will be accommodated in the new replacement facility.
Estimated FAR:	3.0 to 4.0
Estimated Project Cost:	\$150 to \$180 million
Estimated DIP Payments:	\$1.5 million Housing; \$300,000 Jobs
Estimated Timetable:	In order for the Gainsborough Garage to be redeveloped, at a minimum new parking would be required in other on-campus facilities, which is estimated to be completed in the second half of the IMP period.



conceptual perspective view from the southwest



Location plan



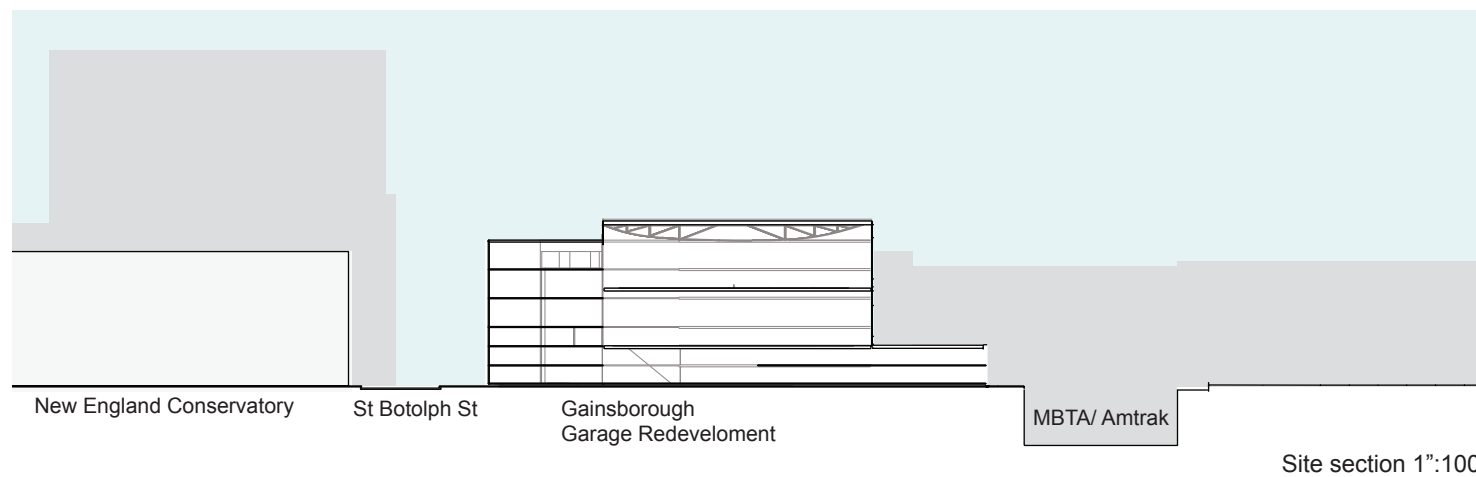
conceptual perspective view from the northeast



conceptual perspective view from the southeast

<b>Data</b>	
Location:	10 Gainsborough Street
Site Size:	1.47 Acres
Existing Uses:	Parking / Facilities
Proposed Uses:	Mixed-Use (Student Life, Parking, Athletics)
Proposed Height:	6 to 9 Stories
Development Size:	200,00 to 240,000 GSF including structured parking for approx. 300 vehicles

- Key**
- Active ground floor street frontage
  - Existing loading bay
  - Proposed loading bay
  - Existing accessible entrance
  - Proposed accessible entrance
  - Proposed entrance to structured parking
  - Publically accessible building entrance spaces
  - NEC's proposed entrance spaces
  - Upgraded pedestrian crossings



**7.3.11 Burke Street Housing (South Campus)**

The Burke Street lot at 10 Burke Street comprises approximately 0.50 of an acre of developable land with frontage on Columbus Avenue and Burke and Coventry Streets and stretches almost from Columbus to Tremont Street. It is being considered in the IMP for additional housing in a mixed-use facility (see **Figure 7-14**).

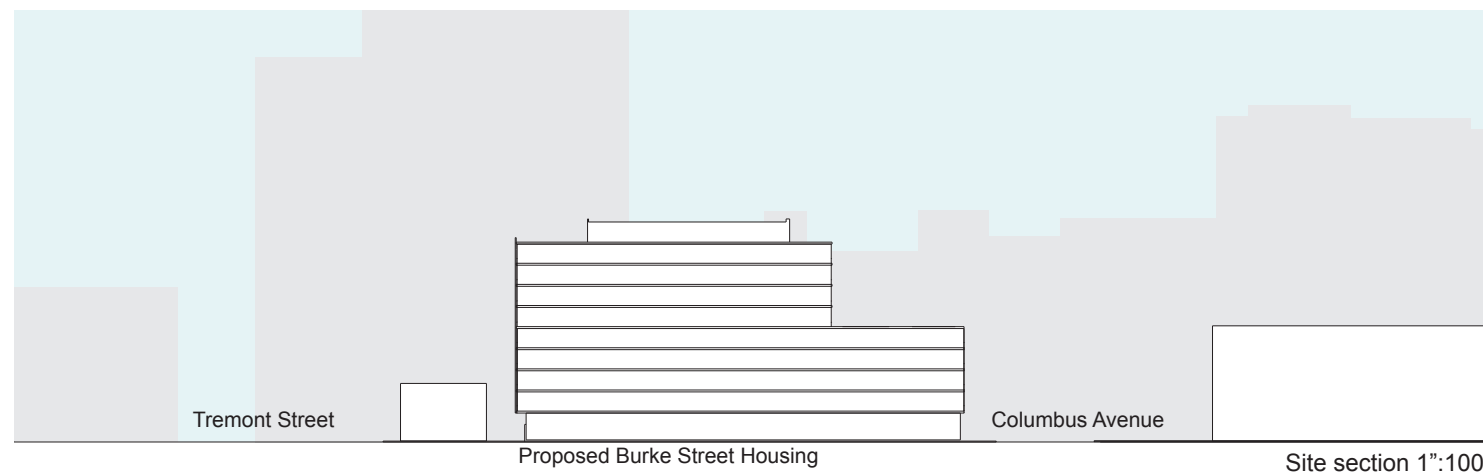
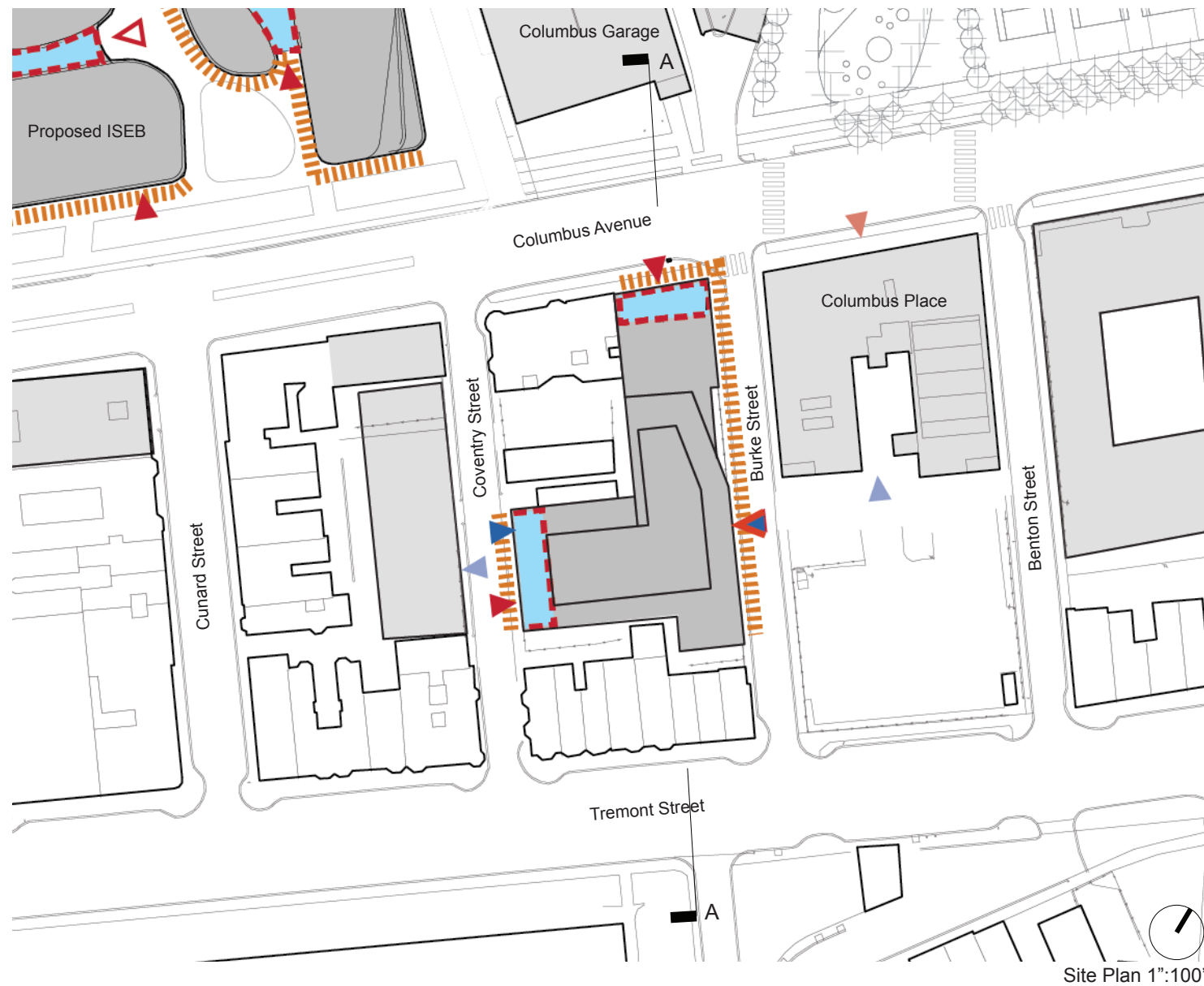
Urban Design and Open Space Principles

The streets surrounding the Burke Street Housing proposal will benefit from landscape initiatives associated with the project, including sidewalk improvements and tree-planting and will be activated by increased pedestrian use through the location of principle entrances on Coventry, Burke Streets as well as Columbus Avenue. It is also proposed that the ground floor level will contain more publically accessible spaces, which through glazed facades will provide greater animation to the streetscape.

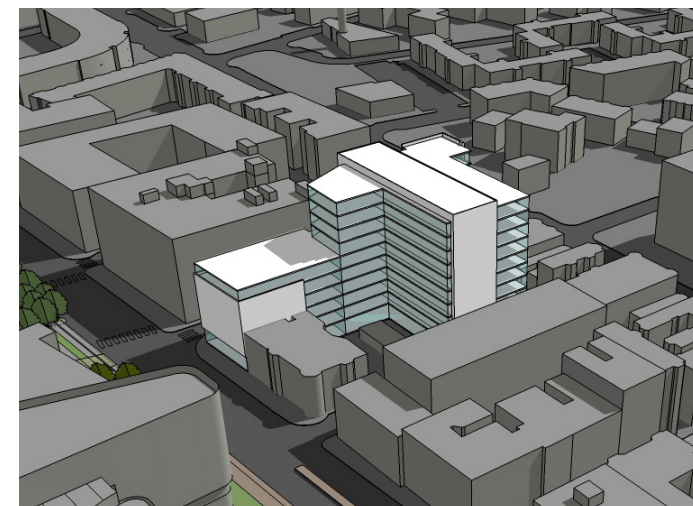
Building Program

Building and massing concept studies being reviewed for the Burke Street Housing anticipate a mixed-use facility accommodating student residences and administrative uses above meeting spaces, student life spaces and potentially retail. The proposed student residences will maintain the surrounding usage with an apartment-style configuration accommodating 350 to 600 beds with approximately 175,000 to 200,000 square feet of gross floor area and an approximate height of 10-stories.

<b><u>Location:</u></b>	<b><u>10 Burke Street (South Campus)</u></b>
Site Size:	0.5 Acres
Existing Uses:	Parking (58 Spaces)
Proposed Uses:	Mixed Use / Office and Residential (350 - 600 beds)
Proposed Height:	10 Stories
Development Size:	175,000 to 200,000 GSF
Current Zoning:	Roxbury Neighborhood District, Institutional Master Plan Area/Greater Roxbury EDA
Parking:	There is a structured parking provision for being considered for 50-100 spaces to replace the existing surface spaces.
Estimated FAR:	8.0 to 9.0
Estimated Project Cost:	Greater than \$125 million
Estimated DIP Payments:	Not Required for Housing; GSF for DIP uses not known at this time
Estimated Timetable:	This site is one of several that could be considered for initiating construction of additional student housing during the first five years of the IMP.



**South Campus: Burke Street Housing**



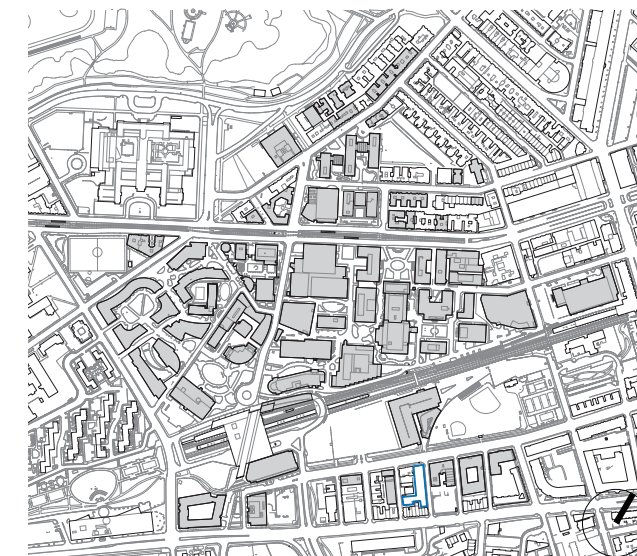
conceptual perspective view from the northwest



conceptual perspective view from the southeast



conceptual perspective view from the northeast



Location plan

<b>Data</b>	
Location:	10 Burke Street
Site Size:	0.5 Acres
Existing Uses:	Parking
Proposed Uses:	Mixed Use/ Office and Residential
Proposed Height:	10 Stories
Development Size:	175,000- 200,000 GSF
Current Zoning:	IS
Number of Beds:	350-600
Structured Parking provision:	50-100 spaces

<b>Key</b>	
	Active ground floor street frontage
	Existing loading bay
	Proposed loading bay
	Existing accessible entrance
	Proposed accessible entrance
	Proposed entrance to structured parking
	Publicly accessible building entrance spaces

**Figure 7-14.**  
**Burke Street Housing**

## **7.4 Possible Housing Sites**

To reiterate what is discussed in prior sections, the University has several housing sites under study for the possible addition of beds to its overall housing supply. The timing of development of any of these sites will depend in part on the availability of funding resources and other logistical considerations as described below. Nevertheless, the University also concurs with the goal of creating approximately 1,000 new undergraduate beds during the term of the IMP, and the creation of 600 beds in the first five years as more fully described in the BRA Board Memorandum on the Northeastern IMP, dated November 14, 2013, contained in **Appendix I**.

The intent of the master plan housing strategy is to allow for maximum flexibility and to identify the most logical sites to continue existing patterns of student housing density of the campus. The IMP does not propose to pursue all of the options outlined below but, in the interest of flexibility and feasibility, has identified several options that can contribute to the master plan goal of providing additional on-campus student residences. In addition, a mixed residence hall and academic option is being reviewed for Cargill Hall (with approximately 140 beds).

### **7.4.1 *Burstein and Rubinstein***

While the existing 1920s buildings are not suited to contemporary residence hall standards, they could, in time, be replaced with new housing, academic and ground floor commercial uses. The replacement housing could yield an additional approximately 160 beds, but would require taking approximately 225 student beds off-line during construction.

### **7.4.2 *Ryder Hall / Ryder Lot***

A new addition on the Ryder Lot and potential replacement of Ryder Hall could provide Northeastern University with up to 400,000 GSF of academic and residential space. The residential use could include up to approximately 300 beds and would require relocation of existing academic, research and office uses currently in Ryder Hall for the duration of construction.

### **7.4.3 *Burke Street Parking Lot***

Student residences in an apartment-style configuration on the site could accommodate 350-600 beds and would require loss of surface parking to develop this mixed use housing site within the IMP time period. Student housing on this site is seen as consistent with the surrounding uses along the south side of Columbus Avenue.

#### **7.4.4 Cabot and Forsyth**

Approximately 300 beds within a mixed academic, research, student life and residence hall complex at this site would require construction of a new athletic facility on the Gainsborough Garage site to enable the relocation of the existing Cabot uses.

### **7.5 General Areas of Additional Interest in the IMP**

Northeastern's planning process has identified potential areas near the campus that it considers areas of interest for potential future partnerships for development or tenancy. These areas do not currently constitute proposed projects but which reflect considerations for growth options in the interest of maximum flexibility. Many of these areas are the result of private owners and interested parties approaching Northeastern with opportunities. While all of the specific master plan proposals are within Northeastern owned properties, the IMP does identify other potential areas of interest as follow:

Northeastern has an interest in continuing to strengthen its presence on, and to improve, the Huntington Avenue Corridor along both sides of its core campus within walking distance of the campus, including through additional leasing and co-development. Consistent with Northeastern's presence at 177 Huntington Avenue, we intend to explore opportunities to locate important office and other non-residential uses within the Christian Science complex. These contemplated uses would be consistent with other uses within the complex.

Northeastern also intends to explore leasing upper level space at 271 Huntington Avenue for classroom or office use. A possible lease arrangement with the owners of 177 Huntington Avenue at the same time as 271 Huntington Avenue could provide swing space for Northeastern academic/classroom and administrative uses as other campus uses are being built out or could provide new space to address Northeastern's academic and administrative requirements for the IMP.

Similarly, Northeastern has an interest in continuing to build a positive presence along Tremont Street on the southerly edge of its campus, particularly between Camden and Ruggles Streets.

During the term of the IMP, Northeastern proposes to continue to pursue leasing and other co-development opportunities in these areas of interest that may not require further IMP, or Article 80 Small Project or Large Project Reviews.

#### **7.5.1 Additional Building Renovation and Maintenance Projects**

Northeastern's existing facilities are of various ages and diverse conditions, and the needs of faculty & staff change over time. During the IMP duration, it is anticipated that the University will undertake relocations within and renovations to its facilities, and perform regular renewal and maintenance of its campus assets that do not require IMP or Large Project review. This ongoing renovation and renewal is critical to meeting the University's educational and administrative needs as they evolve, and responsibly maintaining facility assets.

Northeastern currently contemplates the following renovations:

	<b>Gross SF</b>	<b>FAR GROSS SF</b>
<b>Renaissance Park</b>	82,000	73,800
<b>United Reality Complex</b>	226,852	204,167
<b>177 Huntington Avenue</b>	94,517	85,065
<b>Cushing Hall</b>	25,902	23,312
<b>Cullinane Hall</b>	28,043	25,239
<b>Hastings Building</b>	81,833	73,650
<b>Architecture Studios</b>	21,054	18,949
	<b>560,201</b>	<b>504,181</b>
<b>Unspecified Academic &amp; Administrative (20% of remaining)</b>	530,000	477,000
<b>Unspecified Residential (20% of buildings older than 15 yrs)</b>	210,000	189,000
<b>Unspecified Athletic &amp; Recreation (20% of MA, MC &amp; SB)</b>	60,000	54,000
	<b>800,000</b>	<b>720,000</b>
<b>Total:</b>	<b>1,360,201</b>	<b>1,224,181</b>

### **7.5.2 Christian Science Center (CSC)**

Northeastern University currently leases approximately 85,911 gross square feet of space on Belvidere Street from the Christian Science Church (CSC). Northeastern will look at any opportunities that may arise at CSC to expand its office use and the potential consideration of classrooms in the future. Northeastern also currently rents 88,000 GSF for the Information Services Group at 177 Huntington Avenue. Northeastern will consider additional square footage in this building that could include classroom space as University swing space and building vacancies align.

### **7.5.3 Parcel 18 East**

Parcel 18 East is located at the southwest corner of the intersection of Columbus Avenue and Melnea Cass Boulevard. This parcel is approximately a half an acre and is intended for a hotel to provide neighborhood employment opportunities. This parcel is within a Planned Development Area (PDA) zoning designation within the Roxbury Neighborhood District and is owned by Northeastern University.

### **7.5.4 Hastings Building**

As part of the purchase by Northeastern University of the Hastings Building of the Huntington Avenue YMCA, the transaction mandated the Medeiros Transitional Housing Program be retained on the site unless a suitable facility can be located to house the 67 beds within the Fenway neighborhood. If Northeastern identifies a suitable facility for relocation, the Hastings Wing would then be considered for a modernization/redevelopment that enhances and supports the University's needs. In addition to student housing, the University may also consider locating other uses that enhance the campus presence and uses on Huntington Avenue.

### **7.5.5 Fenway Center**

The Fenway Center is located at 77 St. Stephen Street and is used as a performance space, classroom and event space. The potential to expand the existing building into the adjacent Northeastern University parking lot would allow for an upgrade to the building, including expanded handicapped access, and facility support spaces. The building is also considered a potential renovation project.

### **7.5.6 140 The Fenway**

Northeastern has an existing long-term lease with the Museum of Fine Arts for academic and research space at 140 The Fenway with the possibility of extension during the IMP period.



## 7.6 Campus Context

This University's IMP will also address the need for continued improvements to the campus landscape and circulation systems. The landscape and urban design framework proposes to improve east-west connections across the campus, north-south links between Columbus and Huntington Avenues, Roxbury and the Fenway, and to provide space that is better suited for recreational activity and outdoor gatherings. The new and improved landscape spaces could also serve as an environment more responsive to stormwater mitigation and advance Northeastern's commitment to reducing impacts on infrastructure and the urban watershed. Thus, the IMP strategies include creating a high performance landscape that is an expression of environmental stewardship while providing a series of pleasant, welcoming spaces that allows for increased interaction with the local community and serves as a suitable setting for an educational institution in the 21st century.

## 7.7 Sustainability

Northeastern University is deeply committed to becoming a greener institution. In 2007, the University became a founding member of the [American College & University Presidents Climate Commitment](#), a nationwide initiative to reduce greenhouse gas emissions among institutions of higher learning. In 2010, Northeastern officially adopted a climate action strategy called "[Sustainable Action Plan: Roadmap towards Carbon Neutrality](#)." Later that year, the Sustainable Endowments Institute, one of the most rigorous assessors of sustainability practices on college campuses, awarded Northeastern one of the highest ratings in North America on its [2011 College Sustainability Report Card](#)—an A-, which is the highest of any Boston-based university. In 2011, Northeastern was named the greenest university or college in the United States, and second greenest in the world, by the University of Indonesia's Greenmetric Ranking of World Universities. In 2012, Northeastern was named the second greenest university or college in the United States, and fourth greenest in the world, by the University of Indonesia's Greenmetric Ranking of World Universities.

Northeastern shares the City of Boston's strong commitment to the principles of sustainable development and aims to incorporate a wide variety of sustainable initiatives in all its projects. Northeastern will work with the Boston Redevelopment Authority and the City of Boston Environment Department to develop, set, and achieve ambitious Environmental Sustainability goals as determined in the Institutional Master Plan, in the design of the Proposed Projects, comply with the City's Green Building Zoning Article 37, collaborate with the Boston Groundwater Trust, and implement the BRA's Groundwater Conservation Overlay District Article 32. The University endeavors to reduce the level of solid waste generated in construction and daily operations through waste minimization, reuse of materials, and recycling wherever possible. Northeastern University considers sustainability to be an ongoing process that harnesses the unique talents of students, faculty, staff, and the Northeastern community to develop technological, economic, and environmentally responsible policies and innovations that will balance the needs of the present without sacrificing the needs of future generations.

The University is actively involved in investigating and implementing environmentally responsible initiatives. The University continues to research and implement sustainable technologies and practices

such as energy use and efficiency; building re-commissioning; transportation management; sustainable sites and design; recycling and solid waste programs; and stormwater management.

The University will continue assessing its options and defining assertive and responsible actions to speed its progress towards environmentally friendly policies, systems and facilities. Sustainable development will factor into all University decisions and plans.

Sustainability will be integrated throughout the planning process for the Northeastern Campus, through the following means:

#### Green Building Design: Climate Resilience, Life-Cycle Flexibility, Environmental Mitigation: New Building

*Massing:* the Institutional Master Plan team has been working with the sustainability consultant Transsolar to establish guidelines to mitigate over-shadowing of existing buildings, and to minimize solar gain caused by isolation at low angles on the east and west elevations. Passive solar strategies including orientation, siting and building massing are proposed to minimize energy consumption and improve occupant comfort.

*Building Longevity:* Construction materials and generous floor to ceiling heights will provide buildings that are durable and reusable for many subsequent generations of use, and that will accommodate future updates in building service technology.

#### Daylighting

The proposed buildings will maximize the potential for natural day-lighting by providing, where possible, buildings with narrower floor plates. This will serve to reduce the need for artificial lighting.

#### Urban Planning Principles: Smart Growth

This compact master plan replaces existing parking lots and parcels that are currently underutilized by low-rise building, with taller, denser academic and residential uses. This increased intensification of use of the existing campus site promotes walking and increased use of public transportation, and at the same time increases construction and service-distribution efficiency.

#### Water Systems

Where possible, rainwater harvesting will be utilized to ensure that non-potable water will be provided by natural systems. Green roofs, groundwater recharge systems and bio swales will act to mitigate the effect of stormwater runoff.

#### Green Roofs

Green roofs will serve to mitigate the "heat island effect" caused by exposed heat-absorbent surfaces during the summer months and to slow rainwater runoff during rain events, thereby

reducing the impact of the buildings on the surrounding micro-climate and water drainage infrastructure. Green roofs improve the insulation characteristics of buildings' roofs, decreasing requirements for mechanical heating and cooling within. They also provide additional habitats for the local ecosystem and will contribute to the landscape architects' vision of bringing the natural environment of the Fens into the campus.

## **7.8 Northeastern Sustainability Achievements**

Sustainability is at the heart of Northeastern's planned physical development as well its educational mission. The University has achieved the highest award by the Green Metric Ranking of World University's as being the number one university in the United States. The University also demonstrates its commitment to sustainability through a number of initiatives: January 2010 completion of the University's Sustainable Action Plan, "Roadmap Towards Carbon Neutrality"; representation and active participation on the Boston Green Ribbon Commission; being a founding signatory of the American College and University Presidents' Climate Commitment (ACUPCC); and several greenhouse gas inventories going back to 1990 that are regularly updated. Northeastern made the Princeton Review's "Green Rating Honor Roll" in 2009, 2010, 2011, and 2012.

As part of its ACUPCC commitment, Northeastern has adopted and implemented two policies. The first is a green building policy stating that all building renovations greater than 50,000 square feet and all new buildings are to be certifiable at or comparable to the Silver level under the USGBC LEED® rating system. Additionally, Northeastern University values sustainability and environmental stewardship and considers both the economic and environmental costs and benefits associated with any sustainable strategy. The second policy specifies that all new equipment and products be ENERGY STAR® qualified, or be highly efficient equipment when ENERGY STAR® ratings for equipment are not yet available. All computer equipment purchases as well as appliances including air conditioners, washing machines and refrigerators are ENERGY STAR® qualified. Northeastern was honored with the 2011 Green Business Award by Boston's Mayor Thomas Menino and was the only higher-education institution that year to be recognized for its multi-dimensional sustainability strategy and leadership in green initiatives.

## **7.9 Green Infrastructure at Northeastern**

Two buildings on Northeastern's main campus have achieved LEED Gold certification: [Dockser Hall](#) and [International Village](#), which together represent nearly 540,000 square feet of building space. Dockser Hall was a complete renovation project that allowed for expansion of the School of Law. International Village, a 21-story mixed-use residence hall/office building and home to [Northeastern's Honors Program](#) first-year Living Learning Community, opened in September 2009 and features the first college/university dining room in the United States to earn both the 3-star certified Green Restaurant® distinction and LEED Gold status. For overall campus sustainability efforts, Northeastern was selected for inclusion in *The Princeton Review's Guide to 322 Green Colleges: 2012 Edition*, and for the 4<sup>th</sup> year in a row was also named to The Princeton Review's "Green Honor Roll," as one of 21 institutions to earn the highest possible "Green Rating" score of 99 for 2013.

## 7.10 Recycling

Northeastern recycles more than 255 tons of paper, 295 tons of corrugated cardboard, 71 tons of bottles and cans, and 58 tons of computers and electronics each year. Nearly 38 percent of its waste is recycled. Recycling bins are located throughout the campus to encourage members of the Northeastern community to recycle. The University even recycles many of the [canvas banners](#) that appear around campus, turning them into useful items that are given to students and alumni.

## 7.11 Dining

[Northeastern's Dining Services](#) is a forerunner in sustainable practices.

Northeastern has two certified “green” restaurants on the Northeastern campus; 700 tons of food waste is collected annually for organic composting.

Partnerships include Red’s Best, an operations management company that works exclusively with local fishermen to bring seafood fresh from the New England coast; Southeastern Massachusetts Agricultural Partnership, dedicated to preserving and expanding access to local food and sustainable farming through research and education; and Northeast Family Farms, which provides all-natural ground beef from cattle that are locally pasture-raised on family-owned farms using sustainable, humane practices.

Through waste reduction, energy- and water-efficient equipment, compostable disposables, cage-free local produce without antibiotics or added hormones, and fair trade products, Dining Services has helped the university garner an impressive roster of sustainability accolades.

## 7.12 Transportation

The University has acquired 31 electric vehicles for use on campus by facilities personnel, which now makes up approximately 20% of the campus fleet. Employees and off-campus students are encouraged to use public transportation to travel to and from campus, specifically through participation in the Green Streets Initiative’s Walk/Ride Days. Passengers riding the MBTA commuter rail are encouraged to purchase their tickets before boarding, to avoid on-board fees (\$3) and expedite service.

*WalkingWorks at Northeastern*—a physical-activity group—also encourages walking, including the “Walking and Talking” program that connects faculty and staff with University leaders.

Bicycle racks are located throughout campus and bicycle storage was included in the plans for International Village. The University has also partnered with the City of Boston by sponsoring a bike station in the North Lot as part of the [New Balance Hubway bike-share system](#).

In recognition of these efforts, Northeastern received a Pinnacle Award at the 2012 Massachusetts Excellence in Commuter Options (ECO) Awards.

## 7.13 Landscaping

The University strives to provide a landscape environment that is attractive to prospective students, aesthetically pleasing for the University community, cost-effective, and environmentally sound for both

the campus and neighboring communities. In fall 2009, for example, Northeastern retrofitted more than a dozen trees lining the sidewalks of a main campus thoroughfare with [permeable asphalt bases](#) to help mitigate stormwater runoff.

#### **7.14 Energy Conservation**

Northeastern uses low-flow water fixtures; compact fluorescent bulbs; occupancy sensors for both lighting and HVAC control; demand-control ventilation; variable frequency drives and high-performance lighting systems; has reduced its overall consumption of oil, gas and electricity; and burns primarily natural gas in the central heating plant. At the end of 2008, Northeastern [upgraded nearly 70,000 light fixtures](#) — with more sustainable alternatives campus-wide, reducing the University's carbon emissions by an estimated 686 tons per year and saving Northeastern about 10,000,000 kWh over the course of the six-year life expectancy of the lamps.

#### **7.15 Green Purchasing**

The [Purchasing Department](#) selects goods and services that provide the best value to the University while protecting the environment for future generations. For example, since 2005 all cleaning products purchased by facilities for campus use are [Green Seal certified](#); most recently, the bookstore began offering sustainable sugarcane copy paper for printing. Purchasing deliberations consider issues such as energy efficiency, raw materials utilized, manufacturing processes, and the lawful disposition of obsolete equipment.

## **8.0 STUDENT HOUSING PLAN**

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### **8.1 Enrollment and Student Housing Projections**

Northeastern has committed to an undergraduate population of approximately 15,000 students and intends to maintain that population size during the course of this IMP. Graduate student enrollment, including all full- and part-time students in graduate and law programs, on campus and online, was 11,500 for the 2012-2013 academic year, and is projected to increase by 10% by 2021; the bulk of the increase is expected to come in online programs and at satellite campuses in other cities.

### **8.2 Housing Occupancy**

As of spring 2013, Northeastern housed 7,955 undergraduates and 87 graduate or law students in campus-controlled housing, of which approximately 500 were part of the Master-Leased Property Program. Another 2,324 undergraduates and 5,528 graduate or law students reported residency outside the city of Boston. The number of undergraduates choosing to reside outside of Boston each year has ranged between 2,200 and 2,800 for the past decade.

### **8.3 Type of Occupancy: University Controlled vs. Master Leased Housing**

As noted above, Northeastern housed 7,955 undergraduates and 87 graduate or law students in campus-controlled housing, of whom approximately 500 were housed under the Master-Leased Property Program (MLPP). The MLPP provides flexibility to respond to, for example, student demand and residence hall maintenance exigencies, and imposes the same university oversight and disciplinary regime as in residence halls.

### **8.4 Housing Requirements**

All undergraduate students are eligible to enter the spring housing lottery for university-controlled housing. The university requires all freshmen and sophomores to live in residence halls.

### **8.5 Housing Placement**

Northeastern offers student housing at a variety of price points, and assigns housing by lottery as described at <http://www.northeastern.edu/housing/upperclass/selection.html>. Affinity and other specialty housing, including gender-neutral housing, has been created in response to expressed student demand.

### **8.6 Housing Plans**

Northeastern proposes 1,000 new student beds in this IMP, with 600 of these beds in the first five years of the IMP, and has identified several potential sites to create housing, as part of mixed-use projects on university-owned property; in addition the University is open to discussions with private developers to create housing opportunities, and has begun exploration of opportunities. The University will finalize

housing plans in consultation with the BRA and the Community Task Force. The creation of 1,000 beds would meet the city's goal of housing 75% of undergraduates who seek housing in Boston.

### **8.7 Impacts of Student Housing Demand**

The University, in consultation with the BRA, has commissioned a study looking at student impact on neighborhood housing markets over the past decades. The results of this study being completed by Byrne McKinney & Associates will inform discussions with the BRA and the Community Task Force on housing strategies for the IMP, and will be filed as a supplementary document during the IMP public review and comment period. The outline of the analysis and the boundaries of the study area were presented at a CTF meeting on May 21, 2013 and have been further developed in CTF committee meetings.

### **8.8 Plan for Mitigating Housing Impacts**

In addition to plans to create more student beds, the University continues to work with neighborhood organizations and individuals to manage student behavior off campus and respond to neighborhood concerns, and has convened a multi-departmental working group focused on this topic.

Because the prior IMP focused on student housing almost to the exclusion of other University needs, this IMP includes on-campus amenities such as student activities, practice and recreation space that will have the dual purpose of attracting more students to campus housing and keeping more students on campus for their recreational needs.

## **9.0 TRANSPORTATION AND PARKING**

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### **9.1 Introduction**

This chapter provides an overview of the transportation conditions on the Northeastern University Campus including key changes since the 2000 IMP; ongoing and planned transportation initiatives; and the relative impacts associated with the new IMP projects. This information is intended to assist the community and City agencies in analyzing the impacts of transportation issues related to traffic, parking, transit, short-term construction period impacts, and pedestrian and bicycle conditions within and around the Campus. In developing this study, the team has consulted with the Boston Transportation Department and the Boston Redevelopment Authority, and reviewed community and stakeholder comments. The sections that follow reflect attention to the issues and concerns raised by the community and City agencies.

### **9.2 Transportation Context**

#### **9.2.1 Location**

The Northeastern University Campus is generally bounded by The Fenway to the north, Tremont Street to the south, Massachusetts Avenue to the east, and Ruggles Street to the west. The Campus's urban location with respect to public transit, the downtown core, bicycle facilities, public parks, local area institutions and businesses facilitate trips by non-auto modes such as walking, biking, and public transit. The Campus is well served by two rapid transit lines, commuter rail, and 15 Massachusetts Bay Transportation Authority (MBTA) bus routes as well as three MASCO shuttle bus routes. The University is conveniently located adjacent to the Southwest Corridor Bike Path, the Fenway Bicycle Path that runs along the Emerald Necklace, and the South Bay Harbor Trail.

#### **9.2.2 Campus Growth and Change**

In just the past 10 to 15 years, the University and its Campus have undergone a significant transformation. Once predominantly a commuter school, with a one-time high of 20,000 undergraduate students, mostly regional commuters, the University now has approximately 15,000 undergraduates, mostly non-commuters, as it continues to focus on academic excellence. The University also added more than 2.3 million square feet of new construction on-campus since 1999, predominantly residence halls accommodating over 5,000 new beds. These projects have allowed the University to require all incoming freshman to live on campus for their first two years. A third-party developer is currently constructing the GrandMarc at Northeastern residence hall with 720 beds on St. Botolph Street.

Much of the new construction on campus has replaced surface parking, vacant parcels, and/or poorly maintained common space and allowed the University to dramatically improve the campus landscape and pedestrian connections. However, this growth has also resulted in substantial



changes in how the campus functions – most notably leading to a significant reduction in external auto trips as enrollment has decreased over the long-term, as the University continues to focus on academic excellence, and more students are now living on campus. Meanwhile, much of the growth has occurred in the western and southern portions of campus, which have substantially increased pedestrian demand across Forsyth Street and over the Southwest Corridor tracks. These changes combined with the substantial increase in students living on-campus have intensified the need for the University to continue improving pedestrian and bicycle accommodations on campus.

### 9.2.3 Transportation Demand Management

The University has made a strong commitment and continues to make improvements to transportation demand management (TDM) initiatives to help reduce single-occupant auto trips to and from its campus and to promote non-auto alternatives. As a result, since the 2000 IMP, drive-alone commuter trips to and from campus have declined substantially – from 27% to just 11% for students and from 49% to only 28% for employees, as shown in **Table 9-1**, below, based on the 2012 Rideshare Survey.

**Table 9-1. Mode Use Comparison: 1998-2012**

Mode	Student		Faculty/Staff	
	1998 <sup>1</sup>	2012 <sup>2</sup>	1998 <sup>1</sup>	2012 <sup>2</sup>
<b>Drive Alone</b>	27%	6%	49%	29%
<b>Carpool</b>	4%	1%	9%	4%
<b>Transit</b>	46%	32%	36%	54%
<b>Walk/Bike</b>	23%	61%	6%	10%
<b>Other</b>	0%	0%	0%	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

1. Northeastern University Institutional Master Plan, 2000.
2. Northeastern University 2012 DEP Rideshare Survey.

### 9.2.4 Transportation Goals

As part of the new IMP, the University is pursuing the following transportation-related goals:

- To continue its efforts in reducing single-occupant vehicle trips commuting to and from the campus;
- To limit automobile access in order to maintain a pedestrian-oriented campus;
- To further reinforce improve north-south pedestrian connections across campus between Columbus Avenue, Huntington Avenue, and the Fenway and east-west connections across Forsyth Street via improved landscaping and wayfinding, as well as the reduction of surface parking.

- To provide new and improved pedestrian and bicycle crossings of the Orange Line tracks that bisect the campus in the vicinity of the proposed Columbus Lot Interdisciplinary Science and Engineering Building (ISEB), as well as potential renovations to the existing crossings at Ruggles Station, Columbus Lot, the Columbus Avenue garage, and the Camden Street crossing. Long-term planning efforts may also consider the potential/feasibility of providing limited access for public safety vehicles over the Southwest Corridor tracks.
- To improve the public realm both within the campus and along public rights-of-way that form gateways and edges to the campus; and
- To dramatically improve accommodations for bicycle storage on campus to reduce vandalism and theft, help meet demand in heavily used areas, provide additional covered storage and to improve campus aesthetics, as well as to improve connections to existing and planned bicycle facilities on external Boston streets, the Fenway, and the Southwest Corridor park.

### **9.3 Study Methodology**

The IMP transportation study has been conducted according to standard procedures recommended by the City of Boston and the Boston Redevelopment Authority under Article 80 and specific requirements outlined in the scoping determination. The study included the following major elements:

- An inventory of existing (2013) conditions including roadways, sidewalks, traffic control, on- and off-street parking, pedestrian activity, bicycle accommodations, public transportation, and service/loading;
- An analysis of long-term (2023) No-Build conditions that includes an assessment of impacts related to projected development and infrastructure projects in the area expected by that date; and
- An analysis of 2023 Build conditions that assesses the No-Build condition plus impacts generated by Northeastern University IMP projects.

These elements are described in the sections below.

### **9.4 Existing Transportation Conditions**

#### **9.4.1 Roadway Network**

The roadway system surrounding Northeastern serves two principal functions. First, the major arterial streets are part of Boston’s citywide roadway network and carry a significant volume of traffic through the area. Second, these roadways provide access to the University, nearby institutions and surrounding neighborhoods.

The University is bordered by four major arterial roadways: Massachusetts Avenue, Tremont Street, Ruggles Street, and the Fenway. The portion of the campus north of the Orange Line is divided by Huntington Avenue between Massachusetts Avenue and Ruggles Street; the portion of

the campus south of the Orange Line is divided by Columbus Avenue between Massachusetts Avenue and Melnea Cass Boulevard. Melnea Cass Boulevard, which ends at Tremont Street, provides access between the campus and I-93. Vehicular access between the two parts of the campus north and south of the Orange Line is provided only via Massachusetts Avenue or Ruggles Street.

The major internal campus street is ***Forsyth Street***, a Boston-owned public way, which runs north-south from Hemenway Street to Ruggles Station, where it ends in a cul-de-sac. Forsyth Street serves many users. It is heavily travelled by pedestrians, both to and from Ruggles Station and at 9 pedestrian crosswalks, particularly during class change times. The street carries one lane of traffic in each direction, and is the key access route for all service, loading, bus transportation, and construction activities, providing access to the major service roadway along the Orange Line tracks, and three other service roads between buildings. On-street parking is metered parking is provided on both sides for the roadway between Hemenway Street and Huntington Avenue and is generally well utilized throughout the day. South of Huntington Avenue, on-street parking is prohibited; however, field observations indicate that motorists often park on both sides of the roadway, particularly near the entrance to Ruggles Street.

The cul-de-sac at Ruggles Station also accommodates many pedestrians, plus pick-up and drop-off activity for the station, including passenger vehicles, LMA shuttle buses, and Northeastern University chartered buses. A farmers' market takes place in season on Centennial Commons; however, vendors and/or patrons are often observed parked within the cul-de-sac.

***St. Botolph Street*** runs east-west from Harcourt Street to the campus, where it continues as a pedestrian path and also provides access to the service roadway along the Orange Line tracks. It is one of only four streets in the area that intersects directly with Massachusetts Avenue. It also provides access to the Gainsborough Garage, the new GrandMarc residence hall and Matthews Arena.

***Leon Street*** runs north-south from Greenleaf Street to Ruggles Street. Leon Street is a one-way, one lane southbound street, which provides access to the West Village Garage and Ryder Lot at its southern end. South of the garage, two-way travel is permitted. Parking is not allowed on either side of Leon Street; however, there is a driveway with access to Willis Hall on the west side of the roadway as well as a driveway with access to Shillman lot on the east side of the roadway. There are two speed bumps on Leon Street as well as a raised crossing between Northeastern University's West Village and Centennial Quad. While vehicular Traffic is very low at Leon Street, pedestrian volumes are high, particularly at the raised crossing.

***Greenleaf Street*** runs one-way westbound from Forsyth Street to Leon Street. There is no parking or driveway access on Greenleaf Street, and vehicular traffic is very low. Pedestrian traffic is significant, however, as Greenleaf Street is used a major connection to West Village. Greenleaf Street turns into Leon Street as the roadway turns south.

A detailed description of other roadways providing access to the Northeastern University campus, including academic buildings, residence halls, on-street parking, and public and private off-street parking areas, is provided in **Appendix D**.

#### **9.4.2 Study Area Intersections**

The IMP covers a study area including the main campus and a surrounding network of 30 intersections, including the following locations:

##### Signalized Intersections:

1. Huntington Avenue/Gainsborough Street
2. Huntington Avenue/Opera Place
3. Huntington Avenue/Forsyth Street
4. Huntington Avenue/Parker Street/Forsyth Way
5. Huntington Avenue/Louis Prang Street/Ruggles Street
6. Ruggles Street/Parker Street
7. Ruggles Street/Leon Street
8. Ruggles Street/MBTA Exit
9. Ruggles Street/Tremont Street/Whittier Street
10. Ruggles Street/Tremont Street/Columbus Avenue
11. Tremont Street/Melnea Cass Boulevard
12. Melnea Cass Boulevard/Columbus Avenue/MBTA Ruggles Station Driveway
13. Tremont Street/Massachusetts Avenue
14. Massachusetts Avenue/Columbus Avenue
15. Massachusetts Avenue/St. Botolph Street
16. Massachusetts Avenue/Huntington Avenue
17. Massachusetts Avenue/Westland Avenue/St. Stephens Street/Private Drive
18. Westland Avenue/Hemenway Street

##### Unsignalized Intersections:

1. Gainsborough Street/St. Stephen Street
2. Gainsborough Street/Hemenway Street
3. Hemenway Street/Forsyth Street
4. Hemenway Street/Forsyth Way

5. Forsyth Street/Greenleaf Street/World Series Way
6. Ruggles Street/Field Street
7. Ruggles Street/Albert Street
8. Ruggles Street/MBTA Entrance
9. Columbus Avenue/Cunard Street
10. Columbus Avenue/Burke Street/Columbus Garage Driveway
11. Columbus Avenue/Camden Street
12. Gainsborough Street/St. Botolph Street

Detailed descriptions of study area intersections are included in **Appendix D**.

### **9.4.3 Existing Traffic Volumes**

Intersection counts were collected for the same peak periods between September and November, 2012, except Columbus Avenue/Burke Street/Columbus Garage Driveway, which was conducted on April 10, 2013 due construction at this location at the end of 2012. Most of the traffic volumes during 2012 were collected while all surrounding institutions were in session and the Boston Red Sox were hosting a game. The 2012 and 2013 data were supplemented with 2010 and 2011 data obtained from the following surrounding projects:

- Traffic counts performed for the New England Conservatory IMP-DPIR on October 19, 2011;
- Traffic counts performed for the Melnea Cass Boulevard Redesign Project performed on September 21, 2011;
- Traffic counts commissioned by the BTD for Huntington Avenue Re-Timing project performed on May 10, 2011;
- Traffic counts performed for the 41 Westland Project Notification Form on September 21, 2010; and
- Traffic counts performed for Boston Bicycle Network Plan: Massachusetts Avenue on June 8, 2010.

In each of these data collection efforts, the peak period vehicle turning movement, bicycle, and pedestrian volumes were collected from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m.

Based on the vehicle counts, the weekday morning and evening peak hours were identified as 7:45 to 8:45 a.m. and 4:30 to 5:30 p.m., respectively. The a.m. and p.m. peak period counts are summarized in **Figure 9-1** and **Figure 9-2**.

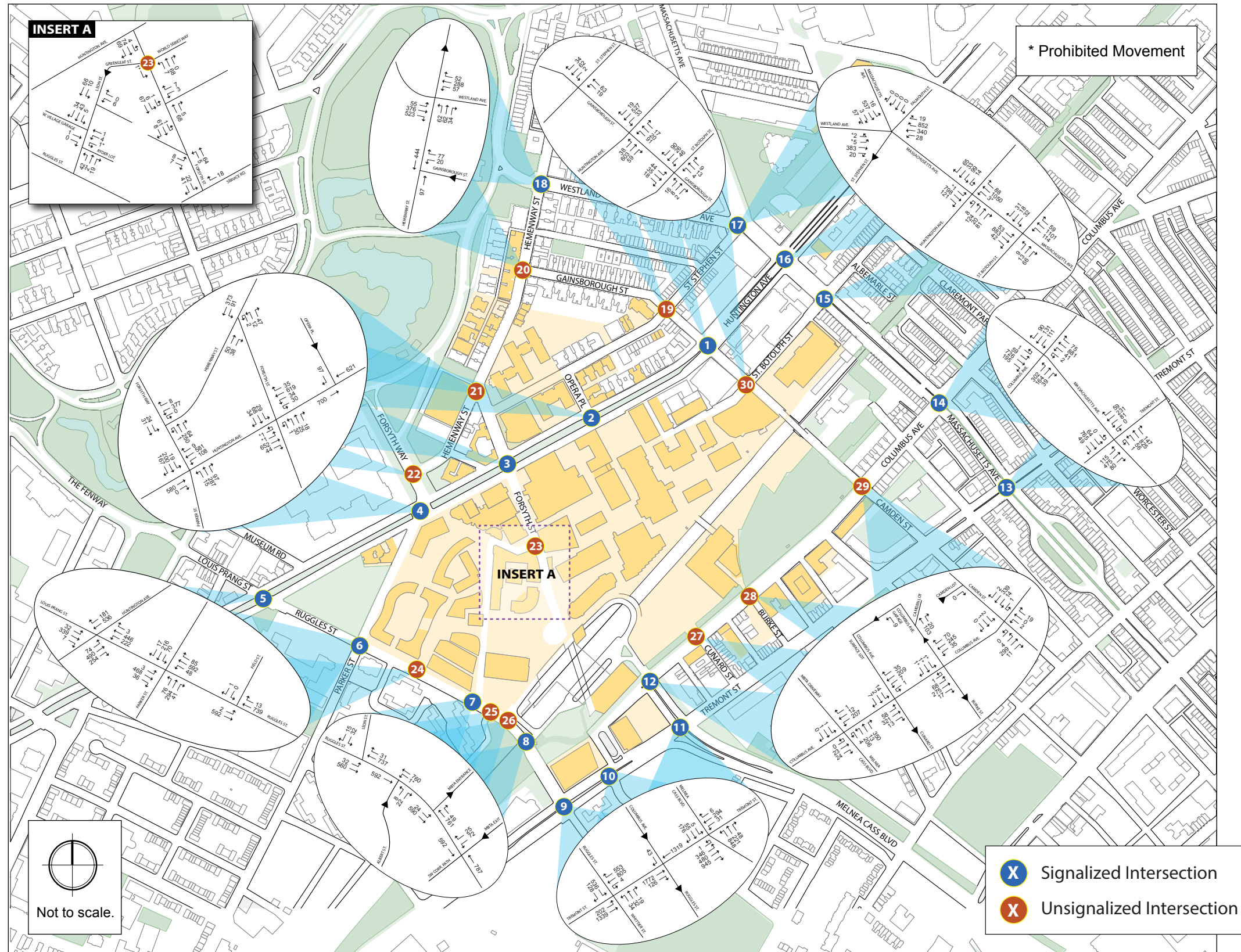


Figure 9-1.  
**Existing Conditions (2013) Traffic Volumes,**  
**a.m. Peak Hour (7:45-8:45 a.m.)**

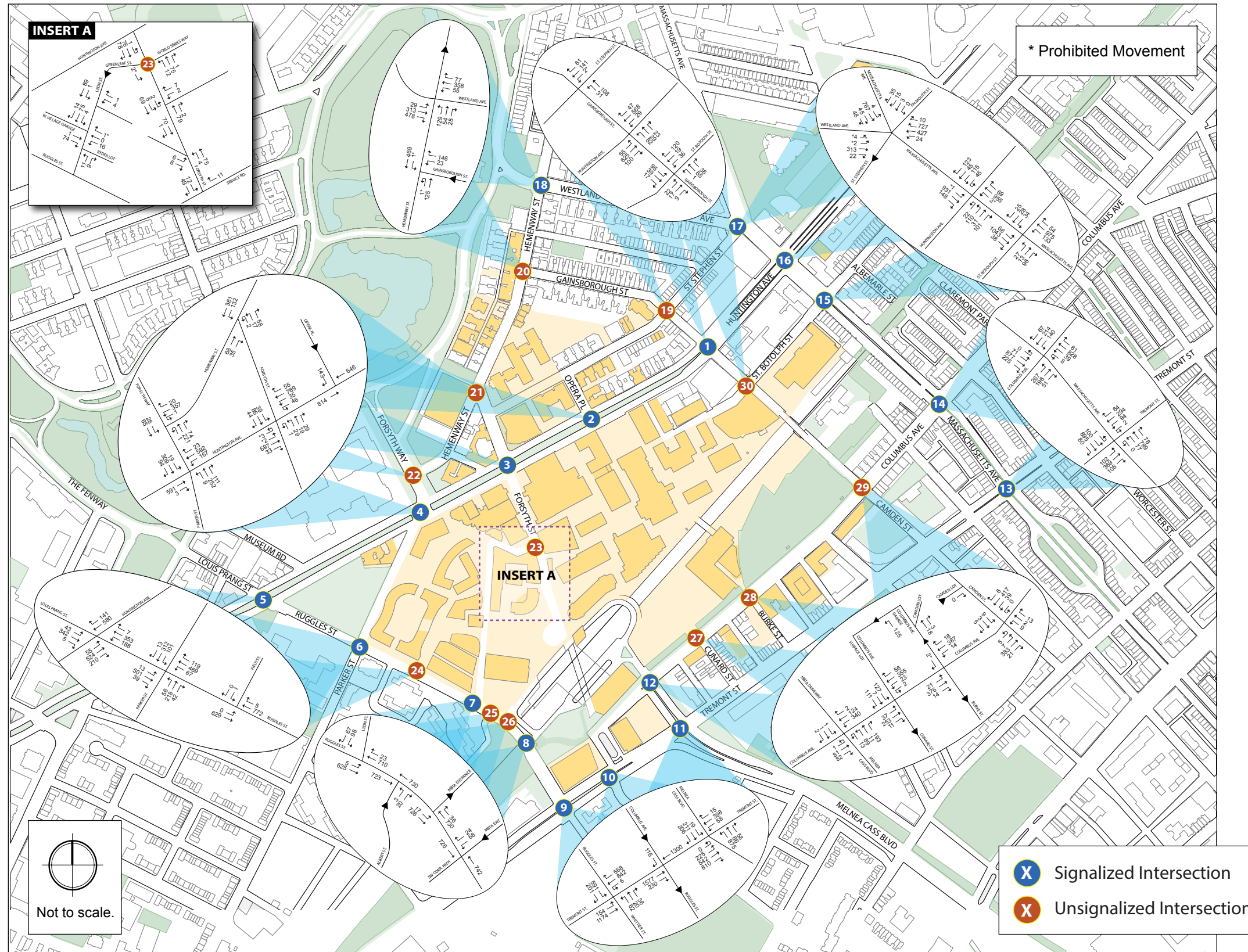


Figure 9-2.  
**Existing Conditions (2013) Traffic Volumes,**  
**p.m. Peak Hour (4:30-5:30 p.m.)**

#### **9.4.4 Existing Traffic Operations**

Traffic operations under existing conditions were analyzed at all study area intersections. Existing traffic operations are summarized in **Table 9-22** and **Table 9-23** in Section 9.4.16. The detailed traffic operation Existing tables are located in **Appendix D**.

#### **9.4.5 Public Transportation**

Use of public transportation as a means of commuting is critical to the sustainability of Northeastern University's Campus. Northeastern has excellent transit access, given its location adjacent to 15 MBTA bus routes, four MASCO shuttle bus routes, MBTA Green Line Heath/Lechmere E Branch on Huntington Avenue to the north, the Orange Line and commuter rail service at Ruggles Station to the south and Orange Line service at Massachusetts Avenue Station to the east. Ruggles is a major transportation center housing rapid transit, bus and commuter rail service. The public transportation system serving the area around Northeastern University is shown in **Figure 9-3** and described below.

##### **MBTA Orange Line**

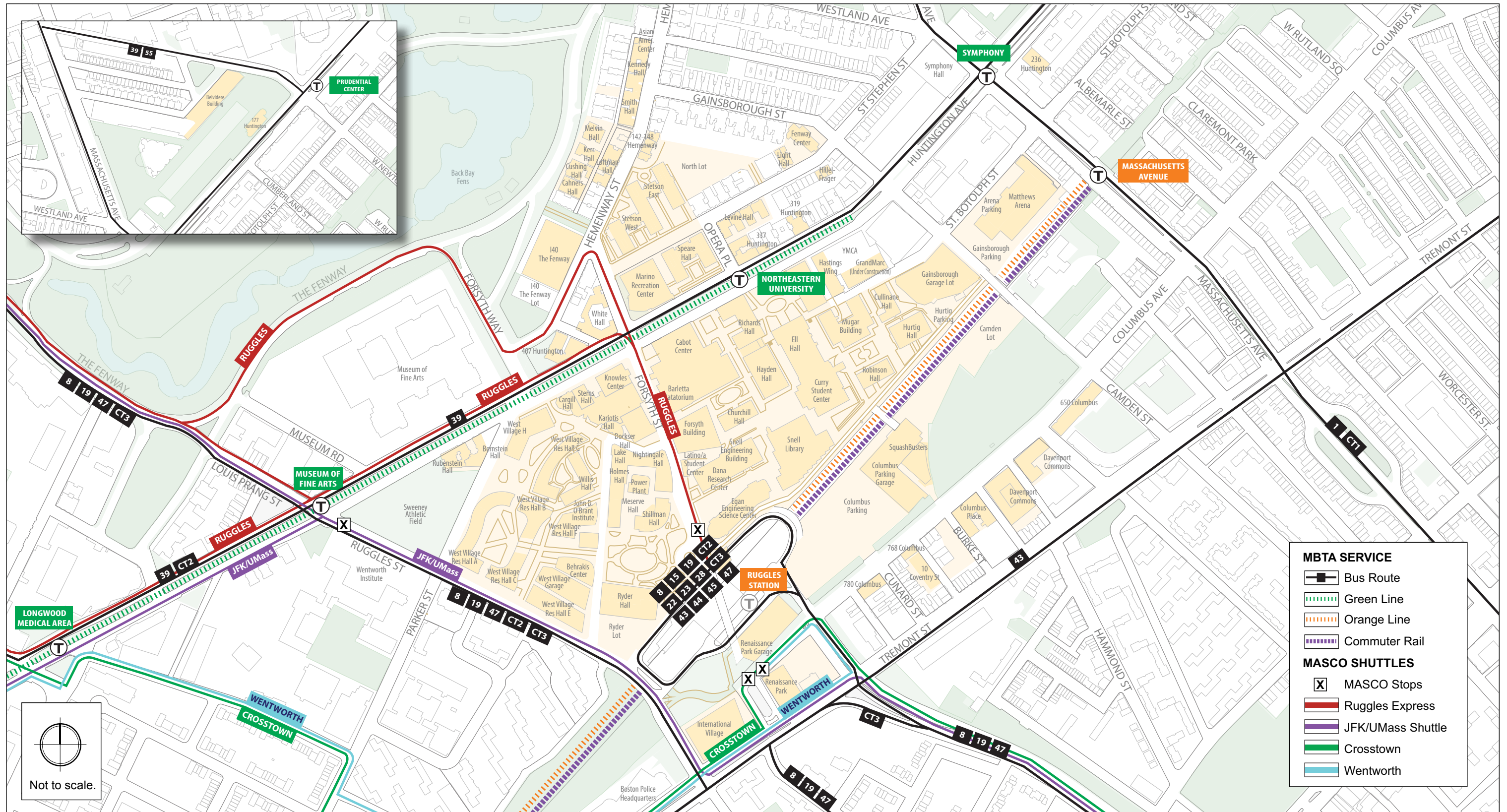
The MBTA's Orange Line subway provides service from Forest Hills Station in Jamaica Plain, Boston through downtown Boston to Oak Grove Station in Malden, Massachusetts. The Orange Line provides inbound and outbound service approximately every five minutes Monday through Friday and every ten minutes on Saturday and Sunday. Within the campus there are two stations used by the Northeastern community: Ruggles Station, in the south campus at the corner of Ruggles and Tremont Streets and Massachusetts Avenue Station east of the campus on Massachusetts Avenue between Columbus Avenue and St. Botolph Street. A secondary egress from Massachusetts Avenue station is provided on the Camden footbridge that is convenient for those coming to the campus, but riders cannot enter the station from this location.

The most recent MBTA published passenger count data available for the Orange Line service, compiled by the Central Transportation Planning Staff (CTPS), is available in the MBTA's Ridership and Service Statistics, 13th Edition, 2010 (the "Blue Book"). The data (primarily from 2009) indicate that the Orange/e Line serves approximately 141,000 passengers per day.

##### **MBTA Green Line**

The MBTA Green Line E Branch provides trolley service between Heath and Lechmere stations. The E Branch operates on five-minute headways in the morning and afternoon peak periods and on eight to ten minute headways during off-peak periods. Convenient to the campus are three inbound and outbound MBTA Green Line E Branch stops on Huntington Avenue: Symphony, Northeastern, and Museum of Fine Arts.





The 2010 MBTA Blue Book data indicate that the Green Line E Branch serves approximately 19,000 passengers per day. In the campus area, the Green Line station boarding was among of the highest along the E Branch, with Longwood Medical station having the most boardings (approximately 3,800 per day).

Green and Orange Line service characteristics and boardings are summarized in **Table 9-2**.

**Table 9-2. Rapid Transit Service within the Study Area**

<b>Line/Station</b>	<b>Weekday Peak Headway (minutes)</b>	<b>Weekday Station Entries</b>
<b>Green</b>		
Museum of Fine Arte	5	1,676
Northeastern University	5	3,007
Symphony	5	1,993
<b>Orange</b>		
Ruggles	4/5	8,378
Massachusetts Avenue	4/5	5,248

Source: MBTA Ridership and Service Statistics, Blue Book 13<sup>th</sup> Edition 2010

### MBTA Bus Service

The Northeastern Campus is located within convenient walking distance to 15 MBTA bus routes:

- #1 Harvard Holyoke Gate to Dudley Station via Massachusetts Avenue
- #8 Harbor Point/UMASS Kenmore Sta. via B.U. Medical Center & Dudley Station
- #15 Kane Sq. or Fields Corner Sta. Ruggles Sta. via Uphams Corner
- #19 Fields Corner Sta. Kenmore or Ruggles Sta. via Grove Hall & Dudley Station
- #22 Ashmont Sta. Ruggles Sta. via Talbot Ave. & Jackson Sq.
- #23 Ashmont Sta. Ruggles Sta. via Washington St.
- #28 Mattapan Sta. Ruggles Sta. via Dudley Station.
- #39 Forest Hills Sta. Back Bay Sta. via Huntington Ave.
- #43 Ruggles Sta. Park & Tremont Streets via Tremont St.
- #44 Jackson Sq. Sta. Ruggles Sta. via Seaver St. & Humboldt Ave.
- #45 Franklin Park Zoo Ruggles Sta. via Blue Hills Ave.
- #47 Central Sq. Cambridge Broadway Sta. via B.U. Medical Center, Dudley Station. & Longwood Medical Area

- CT1 Central Square, Cambridge Boston University Medical Center/Boston Medical Center via MIT
- CT2 Sullivan Sta. Ruggles Sta. via Kendall/MIT
- CT3 Beth Israel Deaconess Medical Center Andrew Sta. via B.U. Medical Center

The primary MBTA bus route serving the Northeastern campus is the #39 Bus, which provides service between Forest Hills Station and Back Bay Station via Huntington Avenue. The buses operate on six-minute headways in the morning and afternoon peak periods and on 13-minute headways during off-peak periods. At Ruggles Station, passengers can access 18 MBTA bus routes, three MASCO shuttle bus routes and the commuter rail.

Also convenient to the campus is the frequently used #1 route (Harvard/Holyoke Gate to Dudley Sta. via Massachusetts Avenue). Bus routes with peak period headways and 2009 ridership are shown in **Table 9-3**.

**Table 9-3. MBTA Bus Service within the Study Area**

<b>Bus Route</b>	<b>Weekday Period</b>	<b>Headway<sup>1</sup> (minutes)</b>	<b>Weekday Total Boarding<sup>2</sup></b>
<b>1</b>	Morning Peak	8-10	12,325
	Evening Peak	8-10	
<b>8</b>	Morning Peak	14	3,217
	Evening Peak	25	
<b>15</b>	Morning Peak	6	6,951
	Evening Peak	9	
<b>19</b>	Morning Peak	14	3,376
	Evening Peak	14	
<b>22</b>	Morning Peak	7-8	7,047
	Evening Peak	10	
<b>23</b>	Morning Peak	5-6	11,142
	Evening Peak	8	
<b>28</b>	Morning Peak	10	10,607
	Evening Peak	10	
<b>39</b>	Morning Peak	6	14,405
	Evening Peak	10	
<b>43</b>	Morning Peak	12-13	2,217
	Evening Peak	12	
<b>44</b>	Morning Peak	12-13	3,791
	Evening Peak	12	
<b>45</b>	Morning Peak	10	3,600
	Evening Peak	12-14	
<b>47</b>	Morning Peak	8-10	4,341
	Evening Peak	20	
<b>CT1</b>	Morning Peak	20	2,014
	Evening Peak	20	
<b>CT2</b>	Morning Peak	20	1,253
	Evening Peak	25	
<b>CT3</b>	Morning Peak	20	1,086
	Evening Peak	25	

1. www.mbta.com, May 2012.

2. MBTA Ridership and Service Statistics, Blue Book 13<sup>th</sup> Edition 2010

**MASCO Shuttle Buses**

Medical Academic and Scientific Community Organization, Inc. (MASCO) is a non-profit organization dedicated to enhancing Boston’s Longwood Medical and Academic area (LMA) with nearly 11,000 riders each day over ten different routes by using a fleet of 41 vehicles. MASCO along with Paul Revere transportation help transport people to and around the LMA area via shuttle services from public transit stops and off-site parking facilities. Four types of shuttle services are available: Commuter Shuttles, The M2 Cambridge Shuttle, MASCO’s Park-and-Ride Shuttle Program and Inter-office Shuttles. Of these, four services go near the Northeastern campus:

- The Ruggles Express provides service between the Ruggles MBTA station and the LMA. The cost is absorbed by MASCO member institutions and riders are not charged a fee. The shuttle consists of a five bus fleet and takes approximately 13 minutes to complete a roundtrip back to Ruggles Station. This shuttle runs in the a.m. from 5:30 a.m. until 10:00 a.m. with peak headways of under five minutes between 6:30 a.m. and 9:30 a.m. and in the p.m. from 2:30 p.m. until 8:45 p.m. with peak headways of under five minutes between 4:00 p.m. and 6:00 p.m. The Northeastern community has access to this service for trips to the LMA.

The remaining three area services do not really serve Northeastern directly, but do help to reduce auto trips within the overall area.

- The JFK/UMass shuttle provides peak period service between the LMA and JFK/UMass MBTA Station. As the cost of this service is absorbed by MASCO member institutions, riders are not charged a fee. The JFK/UMass shuttle stops at Ruggles Street between Huntington Avenue and Parker Street and runs 6:00 a.m. to 10 a.m. and from 3:00 p.m. until 9:30 p.m., with no service between 10:00 a.m. and 3:00 p.m.
- The Mission Hill (Wentworth) shuttle serves people who park at the Wentworth lots in Mission Hill. The cost of operating this shuttle is incorporated into the parking rate. The Wentworth route stops on the south side of Ruggles Station between 2:30 p.m. until 9:15 p.m.
- The Crosstown shuttle serves individuals who park at the Crosstown Garage at the corner of Massachusetts Avenue and Melnea Cass Boulevard near the Central Artery. The cost of this service is incorporated into the parking rate. Between 10:00 a.m. and 2:30 p.m., when the Ruggles Express does not run, the Crosstown shuttle stops at the south side of Ruggles Station on Columbus Avenue.

### MBTA Commuter Rail

Three MBTA commuter rail lines run through Ruggles Station: the Providence/Stoughton line, the Franklin line, and the Needham line. These trains provide access from Boston to the southern and southwestern regions of Massachusetts and Rhode Island.

The Needham Line has twelve inbound trains and twelve outbound trains that stop at Ruggles Station. Inbound trains run between 6:41 a.m. and 10:39 p.m. Outbound trains run between 12:08 p.m. to 10:38 p.m.

The Franklin Line has seven inbound trains and fifteen outbound trains that stop at Ruggles Station. Inbound trains run between 7:00 a.m. and 12:57 p.m. Outbound trains run between 12:53 p.m. to 11:58 p.m.

During the weekday, the Providence/Stoughton Lines has ten inbound trains and 25 outbound trains that stop at Ruggles Station. Inbound trains run between 6:11 a.m. and 2:29 p.m. Outbound trains run between 6:28 AM to 12:07 a.m.

During some train services, passengers riding the MBTA commuter train on Track 2 have to get off at Back Bay Station and use the Orange Line to access Ruggles Station. For this reason, the Ruggles Station Platform Project will construct a new high-level platform on Track 2, which will allow passengers to access Ruggles Station without having to bypass it.

Commuter rail boardings are summarized in **Table 9-4**.

**Table 9-4. Commuter Rail Service within the Study Area**

Rail Line	Inbound Weekday Trips/day			Inbound Boardings
	a.m. Peak	p.m. Peak	Total	
Needham	5	5	32	3,414
Franklin	7	6	37	7,043
Providence	8	5	34	10,111
Stoughton	4	4	34	1,608

Source: MBTA Ridership and Service Statistics, Blue Book 13<sup>th</sup> Edition 2010. Inbound weekday trips.

#### 9.4.6 Pedestrians

The Northeastern campus is made up of a series of open spaces connected by indirect pedestrian ways that have been fit in over time around campus buildings and some remaining surface parking lots. Gateways to the campus and connections to surrounding neighborhoods are found along Huntington Avenue, Forsyth Street, Ruggles Street, Leon Street, St. Botolph Street, Parker Street, Hemenway Street, St. Stephen Street, Camden Street, and Columbus Avenue.

Much of the new construction on campus has replaced surface parking, vacant parcels, and/or poorly maintained common space and allowed the University to dramatically improve the campus landscape and pedestrian connections. Much of the growth has occurred in the western and southern portions of campus, which have substantially increased pedestrian demand across Forsyth Street and over the Southwest Corridor tracks. These changes, combined with the substantial increase in students living on-campus, have intensified the need for the University to continue improving pedestrian and bicycle accommodations on campus. Pedestrian circulation has been improved over the last IMP term through new paths created in association with the West Village Residence Halls, International Village, and Renaissance.

Pedestrian activity on the campus and at study area intersections was documented in conjunction with the intersection traffic counts conducted between September 2012 to November 2012, to document pedestrian volumes at the major intersections, pedestrian crossings of Huntington Avenue, and the pedestrian overpasses across the MBTA Orange Line tracks. The a.m. and p.m.

peak hour pedestrian counts are shown in **Figure 9-4**. As part of the field inventory, major flow patterns through the campus were identified, as shown in **Figure 9-5**.

Typical of universities, most on-campus pedestrian activity occurs before and after scheduled classes, with defined peak periods that represent the peak class load times between the hours of 9:00 a.m. and 3:00 p.m. Major generators include the campus dormitories, the MBTA Green Line stops on Huntington Avenue, Ruggles Station, Curry Student Center, Menino Recreation Center, Matthews Arena during events, and the campus garages and parking lots on Columbus Avenue, Gainsborough Street and Leon Street.

In an effort to help strengthen Northeastern's commitment to a safer and more walkable campus, vehicular traffic restrictions were implemented in 2012. These restrictions include prohibited zones for general traffic and time based travel restrictions in an effort to reduce service vehicle-pedestrian conflicts during peak class times.

As noted above, IMP transportation goals include improvements to the north-south and east-west pedestrian connections across campus. These issues are discussed below.

### Forsyth Street

- Forsyth Street, a public roadway, serves as one of the heaviest pedestrian desire lines within the campus itself, providing connections between Northeastern's residential and academic buildings, Ruggles Station on the Orange Line, and the Museum of Fine Arts and Northeastern Stations on the Green Line. Pedestrian activity both along and across the street has only intensified with the addition of more than 4,300 beds on-campus since 1999 (excluding GrandMarc).
- Vehicle traffic is unrestricted on the roadway and due to substantial pedestrian traffic, speed and bus traffic/idling does not interfere with pedestrian movement along and across the street. Forsyth Street also serves as a primary access point for on-campus loading, service, and construction vehicles (e.g. GrandMarc steel deliveries on tractor trailers), Longwood Medical Academic (LMA) shuttle buses, University related bus transportation, farmer market events, private shuttle buses, and pick-up/drop-off activity.
- Crosswalks are scattered along the street with association to walking areas, creating pedestrian non-compliance. There are 9 striped crosswalks in the 1,000 foot roadway length, approximately 1 crosswalk per 110 feet. On October 17, 2012 pedestrian counts were performed and heavy pedestrian volumes were observed during class-change periods. During these ten-minute periods, pedestrians often elect to walk in the roadway because the sidewalks are too narrow to accommodate the high pedestrian demand. At these times, Forsyth Street effectively acts as a pedestrian way. Pedestrians constantly stream across crosswalks, or cross the street at unspecified locations.

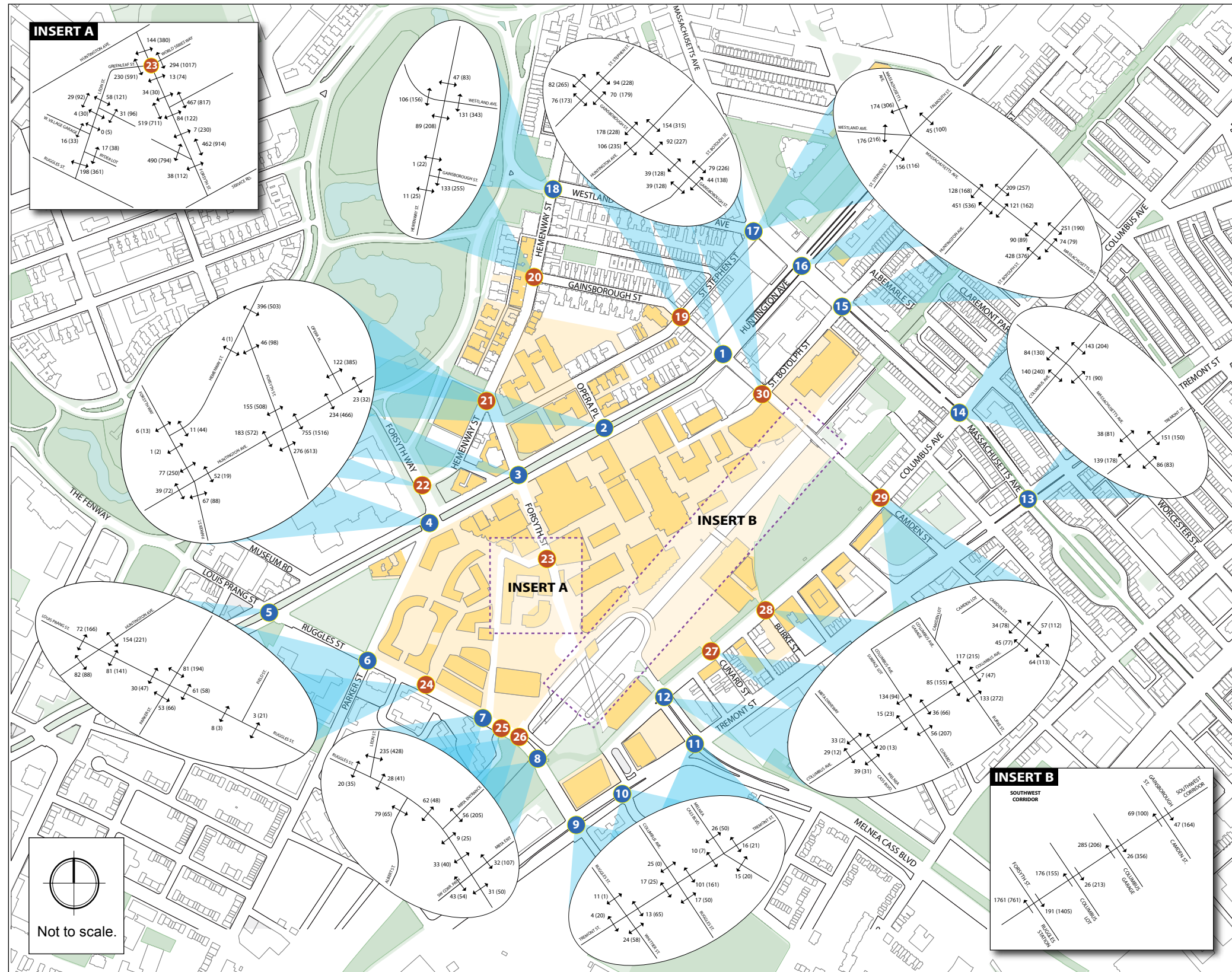


Figure 9-4.  
**Existing Conditions (2013) Pedestrian Volumes,  
 a.m. and p.m. Peak Hours**





- At the cul-de-sac, pedestrians often walk randomly across the paved area rather than following the sidewalk around it. Approximately 500 and 1,000 pedestrians walk north to south along Forsyth Street in the a.m. and p.m. peak hours, respectively. The crosswalk just north of the cul-de-sac has especially heavy pedestrian traffic. Vehicles entering/exiting the cul-de-sac or the service road have to consistently stop in the street to let the pedestrian stream cross during class change times and other peak periods. Meanwhile, large trucks and buses often have difficulty navigating through the cul-de-sac due to constrained geometry combined with the presence of other vehicles parked in front of Ruggles Station.

### North-South Connections

Pedestrian movements to the heart of the campus from the north or south are impeded by two major barriers – Huntington Avenue and the MBTA Orange Line tracks.

- The major crossing on Huntington Avenue occurs at Forsyth Street with secondary crossings at Opera Place and Gainsborough Street. Pedestrian crossings are generated both by the Green Line and by campus uses north of Huntington Avenue such as the well-used Marino Recreation Center, the former Forsyth Dental Building at 140 The Fenway now owned by the University, and student residences and dining facilities including White Hall, Speare Hall, and Stetson Hall. Comparisons of pedestrian traffic from the previous 2000 IMP to the current counts are summarized in **Table 9-5**. These pedestrian numbers are conservative as most student activity occurs continuously throughout the day, not only during peak hours.

**Table 9-5. Pedestrian Volume Trends - Huntington Avenue Crossings**

Location	Pedestrian Crossings per Hour		% Change 2000 to 2013
	2000 <sup>1</sup>	2013	
<b>Huntington Avenue/Gainsborough Street</b>			
a.m. Peak Hour	329	260	(21%)
p.m. Peak Hour	757	550	(27%)
<b>Huntington Avenue/Opera Place</b>			
a.m. Peak Hour	772	257	(67%)
p.m. Peak Hour	881	498	(43%)
<b>Huntington Avenue/Forsyth Street</b>			
a.m. Peak Hour	777	938	21%
p.m. Peak Hour	938	2,088	123%

<sup>1</sup> Source: Northeastern University IMP, February 22, 2000

As shown above, pedestrian crossings decreased from volumes in 2000 at the intersections of Huntington Avenue at Gainsborough Street and Opera Place, but remain still remain substantial with between 260 to 550 pedestrian crossings per hour. Meanwhile, at Forsyth Street, pedestrian crossing volumes increased during both peak periods, particularly in the p.m. peak hour with more than 2,000 pedestrian crossings. Field observations by HSH at the Forsyth Street intersection indicate that pedestrians generally do not wait for the walk signal indication before crossing.

- There are four current crossings of the Orange Line tracks south of the campus at Ruggles Station, the Columbus Parking Area, the Columbus Avenue Parking Garage and the Camden Parking Area. **Table 9-6** summarizes the comparison of pedestrians crossing the Orange Line overpasses. These pedestrian numbers are conservative as most student activity occurs continuously throughout the day, and not only during peak hours. Volumes crossing at Ruggles Station, the busiest location, increased dramatically from 2000 to 2013 in the a.m. and p.m. peak hours by 114% and 132% respectively. Camden Crossing volumes increased in both the a.m. and p.m. peak hours, with Columbus Parking Area only increasing during the p.m. peak. Columbus Parking Garage crossing volumes decreased during both peak hours, but still remains substantial.

**Table 9-6. Pedestrian Volume Trends – Southwest Corridor Tracks**

Location	Pedestrian Crossings per Hour		% Change 2000 to 2013
	2000 <sup>1</sup>	2013	
<b>Ruggles Station Crossing</b>			
a.m. Peak Hour	913	1,952	114%
p.m. Peak Hour	935	2,166	132%
<b>Columbus Parking Area Crossing</b>			
a.m. Peak Hour	349	202	(42%)
p.m. Peak Hour	286	368	29%
<b>Columbus Avenue Parking Garage Crossing</b>			
a.m. Peak Hour	568	311	(45%)
p.m. Peak Hour	735	562	(24%)
<b>Camden Parking Area Crossing</b>			
a.m. Peak Hour	94	116	23%
p.m. Peak Hour	159	264	66%

<sup>1</sup> Source: Northeastern University IMP, February 22, 2000

**East-West Connections**

As shown in **Figure 9-5**, the primary pedestrian pathway within the campus starts at Centennial Common, crosses Forsyth Street at Veteran’s Memorial going towards the Snell Library, passing Curry Student Center then heads north towards Krentzman quadrangle and Opera Place. While the heart of the campus is generally auto-free, crossing Forsyth Street can be an obstacle although most vehicles yield to pedestrians due to the high pedestrian demand and overcrowded sidewalks with pedestrians spilling into the roadway. Major crossings of Forsyth Street occur at World Series Way/Greenleaf Street and next to the Veteran’s Memorial, with secondary crossings at Latino/a Student Culture Center and the cul-de-sac.

St. Botolph Street provides access from the campus to Massachusetts Avenue and the MBTA Orange Line station and bus routes. Although pedestrian volumes are not significant, the street serves more as a service drive and back door to the campus than a major pedestrian gateway. Northeastern is making significant improvements to St. Botolph Street in association with the GrandMarc project, which will improve pedestrian conditions.

## Matthews Arena/Jordan Hall Events

Matthews Arena has a reported capacity of 4,666 for ice hockey games; 6,000 for basketball games; and 6,300 for concerts. The arena can also accommodate banquets, with a capacity of 1,500, and receptions, with a capacity of 2,000. The arena is also used for varsity and club team practices and intramural sports. Men's basketball and men's ice hockey games are the most frequent large-crowd events; a Saturday evening men's ice hockey game between Northeastern and Boston College drew an over-capacity 4,746 visitors on October 13, 2012, and a Wednesday evening men's basketball game between Northeastern and George Mason drew 3,463 visitors on February 20, 2013. Actual attendance at ice hockey and basketball games varies, often depending on the day of the week, opponent, and school schedule (e.g. winter/spring break). Ice hockey games are typically on Friday and Saturday evenings between 7:00 p.m. and 9:30 p.m., while basketball games may play on weekday evenings, weekend afternoons, or Saturday evenings. The ice hockey schedule generally begins in the middle of October and ends at the beginning of March. Concerts at Matthews Arena are infrequent, though typically the annual Springfest concert, which is held on a Saturday evening in April, will sell out.

Jordan Hall, with a total capacity of 1,051, is generally used for nightly events. Concerts and recitals are typically held nightly at Jordan Hall and generally begin at 7:00 p.m. except on Friday and Saturday evenings, when they generally begin at 8:00 p.m. These events are typically free-of-charge except on Friday or Saturday evenings, though this may vary depending on the exact date and event.

HSH observed pedestrian, traffic, and parking conditions before and after a men's basketball game on Friday, November 9, 2012 and a men's hockey game on Saturday, November 10, 2012. The attendance at the games was 3,242 and 2,198, respectively.

Pedestrian activity was light until shortly before the 7:00 p.m. game time. Pedestrians arrived primarily from Gainsborough Street/Huntington Avenue, though attendees did arrive from Massachusetts Avenue, from the Camden pedestrian bridge over the train tracks, or from the Northeastern campus (via St. Botolph Street). Almost all students accessed the arena using the main entrance; an alternate entrance is located on the side of the arena, accessible from the Gainsborough Lot, which was used sparingly.

After the games ended at approximately 9:00 p.m., attendees exited the arena primarily from the main entrance, though many attendees used the exit-only doors along the front of the arena. Most fans left the area using Gainsborough Street; about half used the pedestrian bridge towards Columbus Avenue, and a significant portion walked toward Huntington Avenue. A small portion of the crowd (approximately 10%) walked along St. Botolph Street toward Northeastern, and a small number of people walked toward Massachusetts Avenue.

The first attendees to exit the arena after the games generally stayed on the sidewalk; however, once the sidewalks got too crowded, pedestrians walked in the roadway on St. Botolph Street. This blocked vehicle traffic, which moved very slowly.

Overall, there was very little vehicle traffic in the area. On-street parking on St. Botolph Street and Gainsborough Street was 100% occupied before each game. Some live double parking, presumably for pick-up/drop-off activity, was observed before the game. Vehicles generally yielded to the high volume of pedestrian traffic crossing St. Botolph Street in front of the arena after the games. Vehicle traffic was highest about 10 minutes after games ended, as motorists exited parking areas.

On the evenings when the area was observed, events also took place at Jordan Hall. On Friday, November 9, 2012, a show called “Rapt in Shadows” began at 8:00 p.m. On Saturday, November 10, 2012, a show called “The Midsummer Marriage” began at 7:30 p.m. Most pedestrian and vehicle traffic in the area within a half-hour of game time seemed to be related to Matthews Arena and not Jordan Hall. There was very little activity near Jordan Hall after the games were over, indicating that the events on those nights ended significantly earlier or later than the sporting events at Matthews Arena did.

On Friday, November 9, school buses were observed parked on Gainsborough Street outside of Jordan Hall; buses were not observed on Saturday, November 10.

#### **9.4.7 Bicycles**

In recent years, bicycle use has increased dramatically on the Northeastern University Campus and throughout the City of Boston. According to data from Northeastern’s 2012 *Massachusetts Department of Environmental Protection (DEP) Rideshare Survey*, approximately 9 percent of all students, staff, and employees commute by bicycle on a typical day. Given Northeastern’s urban location and compact campus, most students living off-campus tend to reside within walking distance to the campus or have relatively easy access via transit. Bicycle mode share for students living off-campus is typically higher than those living on-campus, as on-campus students are within easy walking distance to various academic buildings, residence halls, dining facilities, and other amenities on campus. Cyclists also use the campus and the surrounding roadways to access the Southwest Corridor bicycle trail connecting to Back Bay and Downtown Boston.

##### **Bicycle Routes**

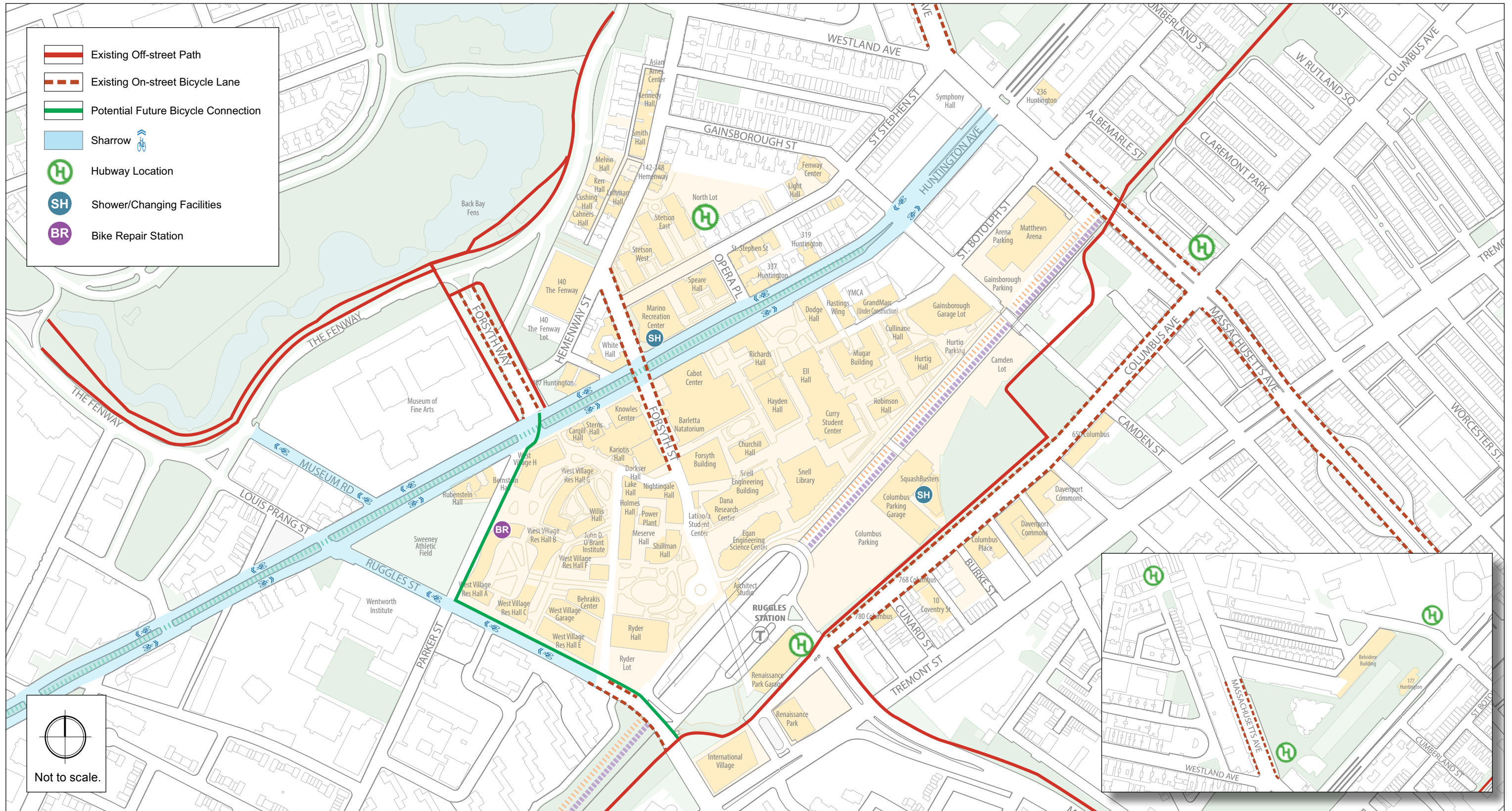
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In the immediate vicinity of the campus, the City has recently added bicycle lanes along portions of Columbus Avenue, Massachusetts Avenue, and Forsyth Street and “share the road” symbols

along Huntington Avenue, Ruggles Street, and Museum Road. The City has also recently added bicycle boxes at the intersection of Huntington Avenue and Forsyth Street.

According to the *2010 Bike Routes of Boston Map*, published by the City of Boston, Huntington and Massachusetts Avenues are classified as “advanced,” suitable for experienced and traffic-confident cyclists. Parker Street, Ruggles Street, Columbus Avenue, St. Botolph Street and Tremont Street are classified as “intermediate,” suitable for riders with some on-road experience. Westland Avenue, Hemenway Street, Forsyth Way, Symphony Road and portions of Gainsborough Street are classified as “beginner,” suitable for all types of bicyclists.

**Figure 9-6** shows major bicycle routes to and through the campus and potential future connections. The a.m. and p.m. bicycle counts, conducted in association with the traffic and pedestrian counts, are shown in **Figure 9-7** and **Figure 9-8**, respectively.





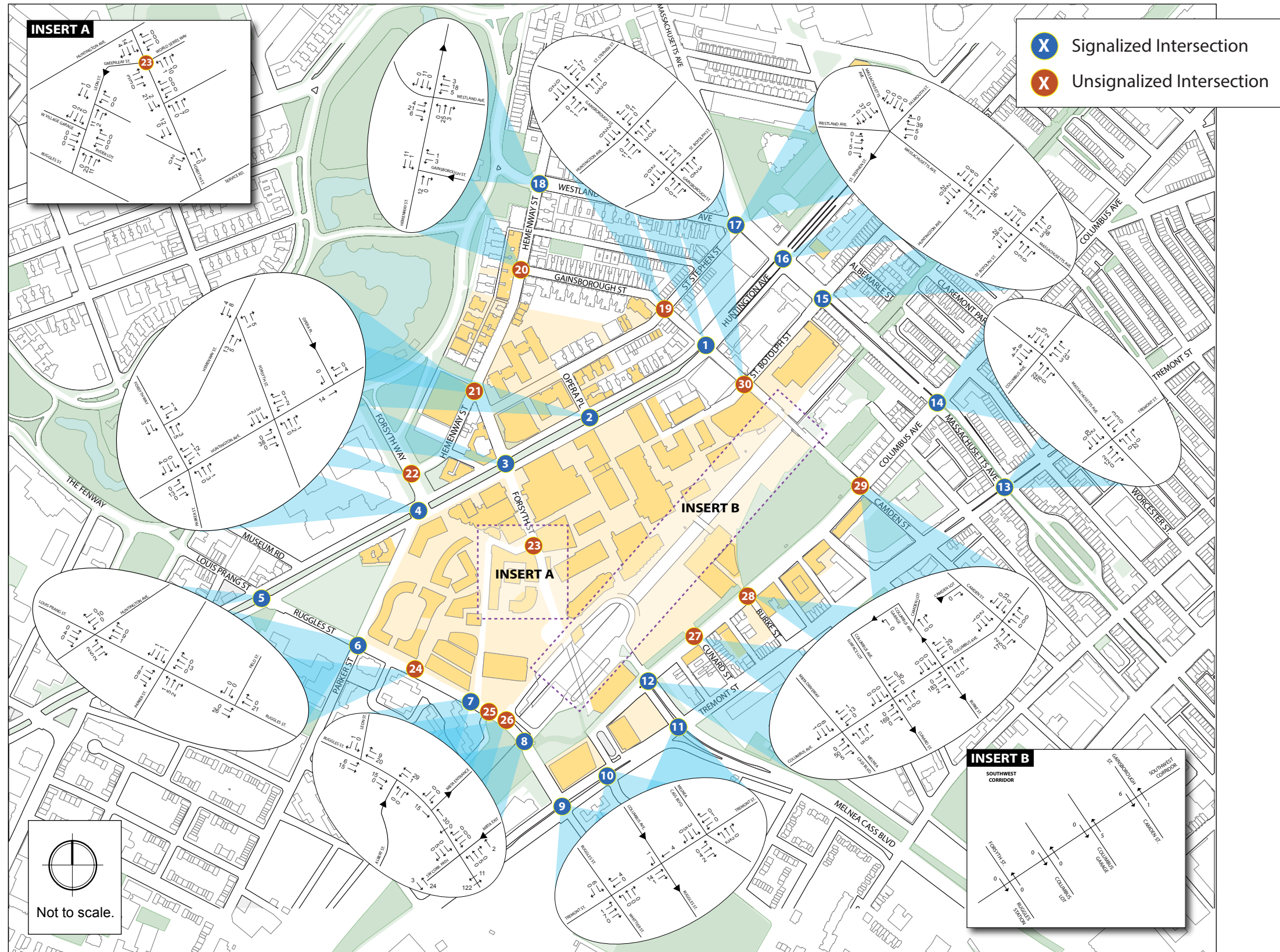


Figure 9-7.  
 Existing Conditions (2013) Bicycle Volumes,  
 a.m. Peak Hour

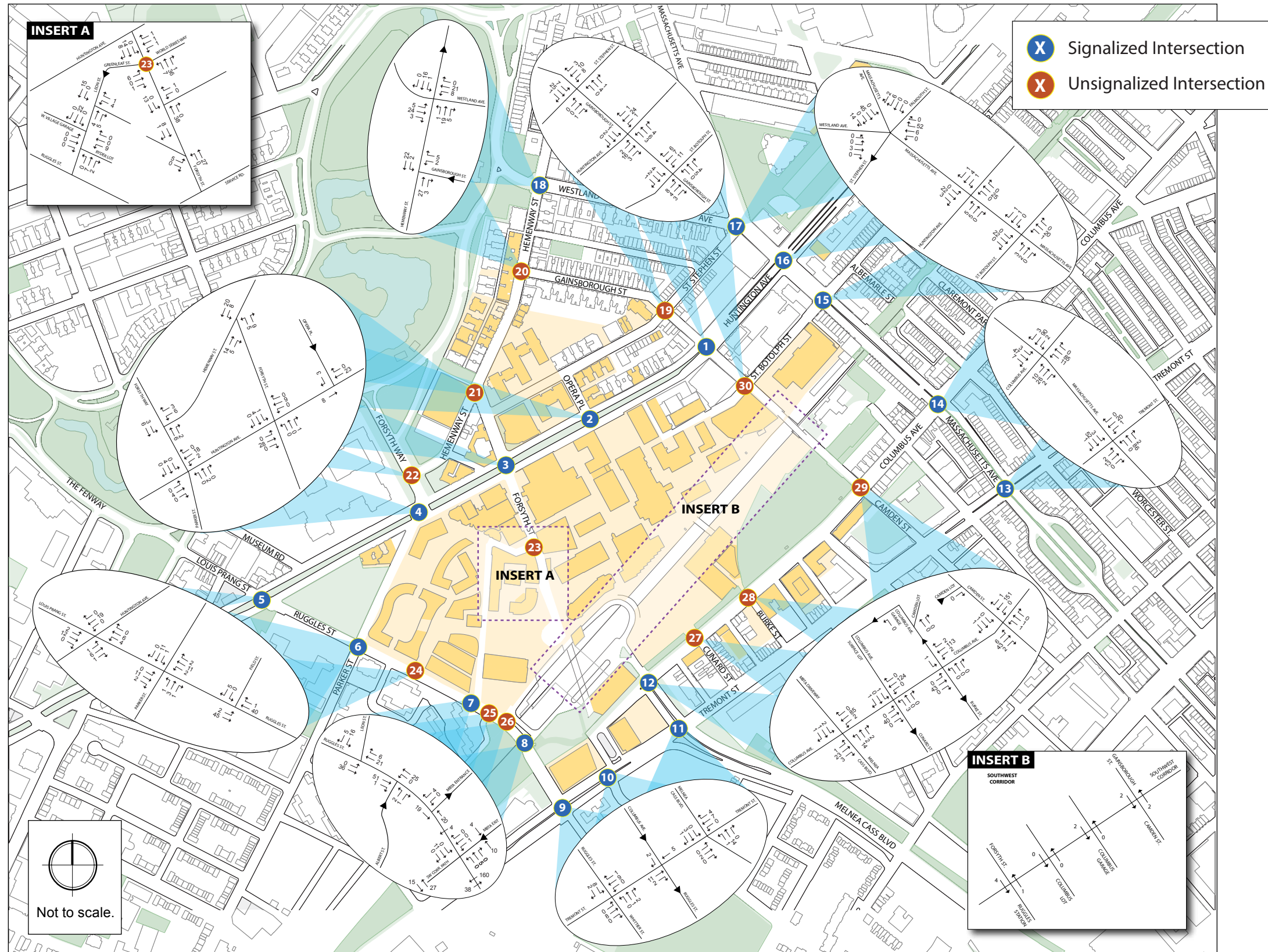


Figure 9-8.  
**Existing Conditions (2013) Bicycle Volumes,**  
**p.m. Peak Hour**

### Bicycle Storage and Demand

Northeastern is continually evaluating on-campus bicycle usage and storage and actively adds bicycle racks and/or relocates existing racks to meet changing demand patterns as bicycle demand continues to evolve. The University has significantly increased on-campus bicycle storage from only 141 bicycles at 8 locations in 2000 to approximately 780 bicycles at nearly 40 locations throughout the campus today. On-campus bicycle storage will be a key focus of the IMP.

The GrandMarc residence hall Project, which is currently under construction, will provide the campus's first dedicated bike room within a residence hall facility. The new bike room will provide secure covered bicycle storage for approximately 80 bicycles. In addition, the Project will provide outdoor bicycle storage for approximately 20 bicycles, bringing the total on campus storage up to approximately 880 bicycles.

**Table 9-7** and **Figure 9-9** show bicycle racks on campus, both covered and uncovered, and locations where bikes are parked without formal bike racks. Approximately one-half of the bicycle racks are covered. The designated bicycle parking is well used during peak periods; bicycles were also observed chained to poles, etc. in the most heavily used areas. Five different types of bicycle storage racks can be found on campus as shown in **Figure 9-10**.

**Table 9-7. Area-wide Bicycle Rack Inventory**

<b>Location</b>	<b>Type<sup>1</sup></b>	<b>Quantity<sub>2</sub></b>	<b>Capacity<sub>3</sub></b>	<b>Covered</b>	<b>Demand<sup>2</sup></b>	<b>% Occupied</b>
North Lot	4	4	24	No	11	46%
407 Huntington Avenue	3	4	8	No	1	13%
Marino Recreation Center	1	2	12	No	7	58%
	3	6	12	No	8	67%
Stetson West	2	3	9	No	4	44%
337 Huntington Avenue	3	2	4	No	2	50%
319 Huntington Avenue	1	2	12	No	5	42%
	3	1	2	No	1	50%
YMCA (front)	3	1	2	No	2	100%
	4	1	8	No	4	50%
YMCA (back)	4	1	0	No	*	-
Mugar Building	1	2	12	No	10	83%
Richards Hall	1	1	6	No	3	50%
Cabot Center	1	3	18	No	5	28%
Hayden Hall	1	5	30	No	7	23%
Churchill Hall	1	6	36	No	16	44%
Snell Engineering Center	4	1	6	Yes	2	33%
Snell Library-Covered	1	10	60	Yes	45	75%
	2	15	45	Yes	37	82%
Snell Library-Uncovered	2	7	21	No	19	90%
Dockers Hall	2	4	12	No	9	75%
Stearns Center	4	3	18	No	7	39%

**Table 9-7. Area-wide Bicycle Rack Inventory (continued)**

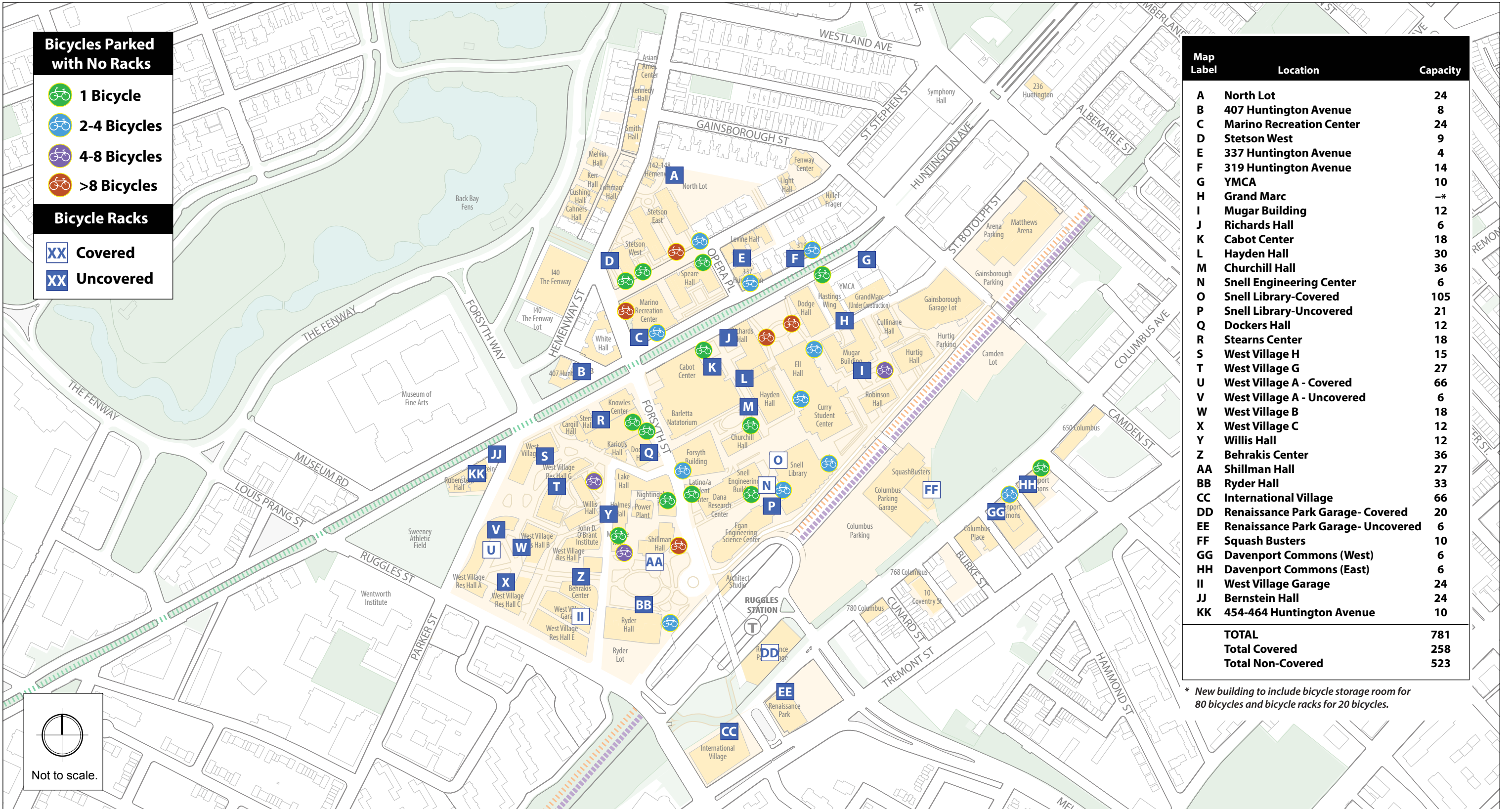
Location	Type <sup>1</sup>	Quantity <sup>2</sup>	Capacity <sup>3</sup>	Covered	Demand <sup>2</sup>	% Occupied
West Village H	2	5	15	No	5	33%
West Village G	2	9	27	No	11	41%
West Village A	2	22	66	Yes	33	50%
	1	1	6	No	0	0%
West Village B	2	6	18	No	5	28%
West Village C	2	4	12	No	10	83%
Willis Hall	2	4	12	No	12	100%
Behrakis Center	2	12	36	No	28	78%
Shillman Hall	2	9	27	Yes	28	104%
Ryder Hall	2	11	33	No	36	109%
International Village	2	22	66	No	39	59%
Renaissance Park Garage	3	10	20	Yes	13	65%
	1	1	6	No	1	17%
Squash Busters	5	5	10	Yes	7	70%
Davenport Commons (West)	1	1	6	No	3	50%
Davenport Commons (East)		1	0	No	6	100%
West Village Garage	1	4	24	Yes	1	4%
Bernstein Hall	1	4	24	No	11	46%
454-464 Huntington Avenue	3	5	10	No	1	10%
<b>TOTAL</b>		<b>220</b>	<b>775</b>		<b>455</b>	
<b>Total Covered</b>			<b>258</b>		<b>166</b>	
<b>Total Non-Covered</b>			<b>517</b>		<b>289</b>	

<sup>1</sup> Figures 9-9 and 9-10 show the bicycle storage capacity and rack types.

<sup>2</sup> Field observations by Howard/Stein-Hudson Associates, Inc. on 09/26/2012 and 09/27/2012.

<sup>3</sup> Bicycle rack capacity is estimated.

<sup>4</sup> Under construction at the time of observations. GrandMarc to include bike storage room for 80 bikes and outdoor racks for 20 bikes.





Rack Types	Capacity (Estimated)
1	6
2	3
3	2
4	Varies
5	2

### Bicycle Repair Station

In January 2013, the University’s Student Government Association’s (SGA) Renewable Energy Initiatives Board purchased a self-service bike repair stand. Located near the north tower of West Village A, it accommodates one bicycle at a time and offers every-day fix-it bicycle tools along with an air pump. A quick response code (QR) is located on the front of the four foot tall stand and allows smartphone users to access maintenance instructions. The SGA is exploring the potential for additional units at other locations of the campus.



*“Josh Plave, a member of the Student Government Association’s Renewable Energy Initiatives Board, uses the newly installed bike repair station outside of West Village A. Photo by Brooks Canaday.” from news @ Northeastern January 18, 2013 article by Greg St. Martin titled “Bike repairs made easy”.*

### Hubway Bike Share

In 2011, the University partnered with the City of Boston on the New Balance Hubway Bikeshare program. Hubway is a bicycle sharing system in Metro Boston, which offers 100 stations and 1,000 bicycles in Boston, Brookline, Cambridge, and Somerville. As shown in **Figure 9-6** and summarized in **Table 9-8**, Hubway currently has five locations with a combined total of 83 bicycles within a quarter mile walking distance of campus.

**Table 9-8. Existing Hubway Locations**

<b>Location</b>	<b>Number of Bicycles<sup>2</sup></b>
North Parking Lot <sup>1</sup>	14
Christian Science Plaza	18
Ruggles Station/Columbus Avenue	15
Prudential Center/Belvidere Street	25
Columbus Avenue/Massachusetts Avenue	11
<b>Total Bicycles</b>	<b>83</b>

1. Hubway bike station at North Lot is sponsored by Northeastern University.

2. Source: www.hubway.com, April 2013.



#### **9.4.8 Campus Parking Supply and Demand**

Northeastern University currently owns and operates 4 parking garages and 13 surface parking lots on campus with a combined capacity of approximately 3,728 parking spaces. Parking is available for a combination of faculty, staff, students, visitors, and the general public. The Northeastern parking supply is summarized in **Table 9-9** and illustrated in **Figure 9-11**.

**Table 9-9. Northeastern University Parking Supply**

Map Label	Parking Facility	User	Supply (spaces)
<i>Garages</i>			
<b>A</b>	Columbus Parking Garage <sup>1</sup>	Faculty/Staff decal, Student decal	995
<b>B</b>	Gainsborough Garage <sup>2</sup>	General Public, Faculty/Staff decal, Event	314
<b>C</b>	Renaissance Garage <sup>3</sup>	General Public, Faculty/Staff decal, Overnight Student decal, Snow Emergency	930 <sup>3</sup>
<b>D</b>	West Village Garage <sup>4</sup>	Faculty/Staff decal, Day/Evening Student decal, Admissions	264
<b>Subtotal Garages</b>			<b>2,503</b>
<i>Surface Lots</i>			
<b>E</b>	140 The Fenway	Faculty/Staff decal	31
<b>F</b>	Arena Parking Lot <sup>5</sup>	Faculty/Staff decal	22
<b>G</b>	Burke Street Lot (Columbus Place) <sup>5</sup>	Faculty/Staff decal	58
<b>H</b>	Camden Parking Lot <sup>1</sup>	Faculty/Staff decal, Student Decal	230
<b>I</b>	Churchill Hall	Restricted	11
<b>J</b>	Columbus Surface Parking Area <sup>6</sup>	Faculty/Staff decal, Students decal	482
<b>K</b>	Gainsborough Lot	General Public, Event	33
<b>L</b>	Hurtig/YMCA <sup>5</sup>	Faculty/Staff decal, Restricted	74
<b>M</b>	Latino/a Student Center	Restricted	8
<b>N</b>	North Lot <sup>6</sup>	Faculty/Staff decal, Student decal	145
<b>O</b>	Renaissance Park Lot <sup>7</sup>	Monthly Card Holders	75 <sup>7</sup>
<b>P</b>	Ryder Lot <sup>8</sup>	Faculty/Staff decal, Vendor decals	45
<b>Q</b>	Shillman Hall	Restricted	11
<b>Subtotal Lots</b>			<b>1,225</b>
<b>Total</b>			<b>3,728</b>

<sup>1</sup> 5:30 a.m. – 11 p.m., Monday – Friday. Overnight parking in Columbus Garage only during snow emergencies.

<sup>2</sup> 24 hours, 7 days a week for hourly rate. Faculty/staff permits allowed between 4:00 a.m. – 1:00 a.m.

<sup>3</sup> 24 hours, 7 days a week for hourly rate. Closed to NU day permits holders from 5 a.m. – 5 p.m. Mon.–Fri. Weekend rate from 6 p.m. Fri. until 12a.m.-Mon. Accommodates parking for Children’s Hospital (500 permits), Beth Israel (25 permits), and NU Vans (58 nested spaces).

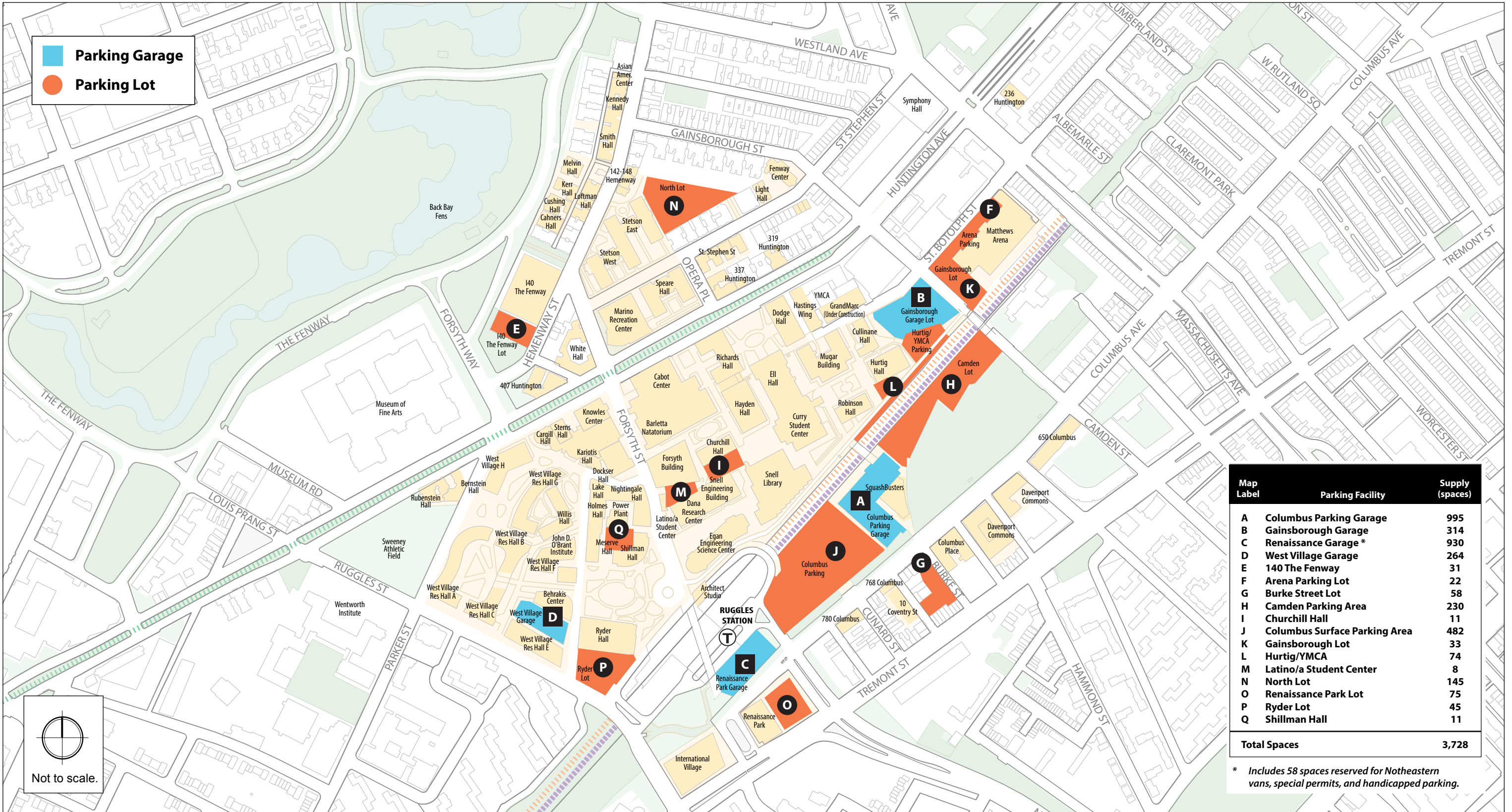
<sup>4</sup> 5:30 a.m. – 11 p.m., Monday – Friday and 8:00 a.m. - 5 p.m. Saturday. No overnight parking.

<sup>5</sup> 48 spaces are dedicated to YMCA during the day and the remaining 26 are available to YMCA after 5 p.m. No overnight parking.

<sup>6</sup> 5:30 a.m.- 2 a.m. Monday – Sunday and with Overnight Parking Decal 2 a.m.- 5:30 a.m. Monday – Sunday

<sup>7</sup> Lot is used exclusively by Beth Israel monthly card holders (about 75 permits).

<sup>8</sup> 5:30a.m.- 11 p.m. Monday – Sunday.



### Student, Staff, and Faculty Parking

Northeastern students, staff, and faculty who wish to park on-campus may either pay hourly or apply for a parking permit from the University Parking Office. Permits are generally sold on a first-come, first-serve basis and are available by the year (annual only available for faculty/staff), semester, or quarter for the day, evening, or overnight. Day permits are valid from 5:30 a.m. until 2:00 a.m., while overnight permits provide 24/7 parking. Evening permits are valid from 2:30 p.m. until 11:00 a.m. Monday through Friday and from 7:00 a.m. until 7:00 p.m. on Saturday. Part-time students, faculty, and alumni may purchase an evening parking permit. Permits are also available for motorcycles. **Table 9-10** summarizes the fees for various permits available from the University Parking Office.

**Table 9-10. Parking Permit Types and Fees (2012-2013)**

<b>Population</b>	<b>Permit Type</b>	<b>Fee</b>
<b>Student</b>	Semester	\$355
	Quarter	\$180
	Overnight Semester	\$830
	Overnight Quarter	\$410
<b>Faculty/Staff</b>	Annual	\$1,070
	Annual Preferred	\$2,540
	Semester	\$565
	Quarter	\$285
	Belvidere Building & 177 Huntington Annual	\$1,995
	Overnight Annual	\$1,960
<b>Adjunct Faculty</b>	Annual	\$685
	Evening Annual	\$170
	Semester	\$400
	Quarter	\$200
<b>Alumni</b>	Evening Annual	\$170

Source: [www.northeastern.edu/parking/fees/](http://www.northeastern.edu/parking/fees/), 2012-2013 Parking Fees per Vehicle

As the University has substantially increased its residential population in recent years, it has taken measures to limit student parking supply and demand on-campus. Limited overnight parking is available for students living on or near the campus. Students may apply to Northeastern for an overnight parking space; however, preference is given to upper class students on co-op or clinical rotations. First-year students are not eligible to purchase an overnight parking permit. Upper class students in classes may be denied overnight parking due to limited availability. Resident students living within the University residence halls do not qualify for the City of Boston residential parking-permit program.

Several locations on campus have restricted parking spaces for various uses including special permits for faculty/staff, vendor staff (e.g., Rebecca’s Café), and outside leasing arrangements (e.g., YMCA).

During the 2011-2012 academic year, approximately 2,500 annual parking permits were issued to faculty/staff, students, contractors, and alumni (see **Table 9-11**). An additional 1,300 to 1,400 semester (and quarterly) permits were issued during the Fall and Spring semesters, while only approximately 700 permits were issued during each of the Summer semesters. Thus at any one time, there are as many as 3,900 vehicles (annual plus semester passes) eligible to park on-campus during any semester; however, not all of these vehicle are likely to be parked on-campus at any one time. This corresponds to approximately 1.04 permits per space on campus or approximately 1.24 permits per space when leased spaced are excluded; leased arrangements are detailed below.

**Table 9-11. Parking Permits Issued (2011-2012)**

Permit Type	Annual	Fall	Spring	Summer I	Summer II
<b>Day Decals</b>					
Faculty/Staff	1,283	42	34	18	30
Student <sup>1</sup>	0	797	796	344	305
Contractor	121	29	1	0	0
<b>Evening</b>					
Faculty/Staff	86	-	-	-	-
Student	997	-	-	-	-
Alumni	18	-	-	-	-
<b>Overnight</b>					
Faculty/Staff	11	0	0	0	0
Student <sup>1</sup>	0	476	529	354	396
<b>Total</b>	<b>2,516</b>	<b>1,344</b>	<b>1,360</b>	<b>716</b>	<b>731</b>

Source: Northeastern University Business Services Office, 2011-2012.

<sup>1</sup> Includes law school student day and overnight permits, which are issued on a quarterly basis.

In 2011, Northeastern had an overall enrollment of approximately 31,891 students (27,463 FTE), including all full-time/part-time undergraduate, graduate, non-degree students and approximately 3,922 full-time and part-time faculty/staff (see **Table 9-12**)<sup>1</sup>. When compared to the parking permit data, an average of approximately 0.07 permits per student and 0.36 permits per faculty/staff member were issued during the Fall and Spring semesters (annual plus semester permits). These ratios are consistent with Northeastern University’s Department of

<sup>1</sup> Northeastern Fact Book, Office of Institutional Research, 2012-2013.

Environmental Protection Agency (DEP) Rideshare Survey results for 2012 that reported 7.4% of students and 33.5% of staff/employees commute by automobile.

**Table 9-12. Parking Permit Ratio**

Category	Total	Permits	Ratio
<b>Students</b>	<b>31,066<sup>1</sup></b>	<b>2,270<sup>2</sup></b>	<b>0.07</b>
University controlled housing	8,475	476	0.06
Off-campus Housing	22,591	1,794	0.08
<b>Faculty/Staff</b>	<b>3,922<sup>3</sup></b>	<b>1,422<sup>2</sup></b>	<b>0.36</b>
University controlled housing	28	11	0.39
Off-campus Housing	3,894	1,411	0.36

<sup>1</sup> Northeastern Fact Book, Office of Institutional Research, 2012-2013. Includes all full-time, part-time, undergraduate, graduate, and degree/non-degree students (27,463 FTE).

<sup>2</sup> Northeastern Business Services Office permit data 2011-2012. Total of day, evening, and night permits issued during the 2011-2012 academic years and the 2011 fall semester.

<sup>3</sup> Northeastern University as of November 11, 2012. Excludes CPS part-time faculty.

### Visitor and Guest Parking

Visitor and guest parking are available in either the Renaissance or Gainsborough Garage, where parking is charged at an hourly rate. **Table 9-13** summarizes the costs per hour to park at either garage. Students, faculty, and staff may also purchase discount coupon books that allow parking for up to 24 hours in the garages including overnight parking. Early bird, event and monthly parking discounts are also offered at both locations. Complimentary parking is made available in the West Village Parking Garage for those visiting the Admissions Visitor Center.

**Table 9-13. Renaissance Park and Gainsborough Garage Public Parking Fees**

Time (hours)	Cost
0-1	\$8
1-3	\$10
3-8	\$18
8-12	\$20
12-24	\$28
Discount Coupons	Single - \$10 Sheet of 10 - \$80

Source: [www.northeastern.edu/parking/fees/](http://www.northeastern.edu/parking/fees/), 2012-2013 Parking Fees per Vehicle. Purchased at Student Financial Services, 354 Richards Hall.

## Snow Emergencies

During snow emergencies, vehicles with overnight permits are prohibited from parking in any surface lot and are required to move their vehicles to the Renaissance Park Garage. The University has also made the Columbus Garage and the Columbus Lot available during the day to students, faculty, or staffs who do not have permits during times of snow-related MBTA service disruptions.

Northeastern provides discounted parking during snow emergencies for City of Boston residents with a valid Boston resident parking sticker. Vehicles displaying a Back Bay, Fenway- Kenmore, or South End resident sticker may park at the Renaissance Park Garage and those with a Fenway- Kenmore or Back Bay resident sticker may park at the Gainsborough Garage.

## Matthews Arena/Jordan Hall Events

Visitors to Matthews Arena and Jordan Hall may park in several nearby parking areas with a combined capacity of 577 spaces, including:

- The Gainsborough Garage, located on the southwest corner of the intersection of Gainsborough Street/St. Botolph Street, has a capacity of 314 vehicles.
- The Camden Lot, located at Camden Street off Columbus Avenue and accessible to Gainsborough Street using a pedestrian bridge over the railroad tracks, has a capacity of 230 vehicles. Websites for Matthews Arena and Jordan Hall direct visitors to park in the Camden Lot for events, free of charge.
- The Gainsborough Lot, located adjacent to Matthews Arena on the southeast corner of St. Botolph Street/Gainsborough Street, has a capacity of 33 vehicles. However, field observations indicate that team buses often park at the Gainsborough Lot, and events are sometimes held in tents within the lot, which may reduce or eliminate its parking capacity.

Parking lot occupancy counts were conducted at these three parking facilities on weekdays between Friday, November 9, 2012 and Friday, November 16, 2012. At these locations, parking occupancy tended to decrease steadily between 2:00 and 6:00 p.m. On November 9, 2012, a men's basketball game between Northeastern University and Boston University took place between 7:00 and 9:00 p.m., and a show began at 8:00 p.m. at Jordan Hall. Parking occupancy at Camden Lot increased from 29 vehicles, or 13% occupancy, at 6:00 p.m. to 87 vehicles, or 38% at 8:00 p.m. before dropping to 10 vehicles, or 4%, at 10:00 p.m. Even at 8:00 p.m., when both events were underway, the occupancy at Camden Lot reached only 38% of capacity, despite being free of charge at that time. Occupancy at the Gainsborough Garage increased from 153 or 49% occupancy, at 6:00 p.m. to 173, or 55%, at 8:00 p.m. before decreasing to 93, or 30%, at 10:00 p.m. Occupancy at the Gainsborough Parking Lot increased from 16 vehicles, or 48% occupancy to 32 vehicles, or 97% between 6:00-8:00 p.m. before reducing to one vehicle, or 3%, at 10:00 p.m.



On Friday, November 16, 2012, a women's hockey game between Northeastern University and Boston College took place at Matthews Arena at 7:00 p.m., and a show began at 8:00 p.m. at Jordan Hall. Attendance at the women's hockey game was 307, only 9% of the attendance at the men's basketball game between Northeastern University and Boston University on Friday, November 9. Parking occupancy at the Camden Lot decreased from 45, or 20%, at 6:00 p.m. to 20, or 9%, at 8:00 p.m. At 10:00 p.m., occupancy dropped to eight vehicles, or 3%. At the Gainsborough Garage, parking occupancy increased from 150, or 48%, at 6:00 p.m. to 207, or 66%, at 8:00 p.m. Occupancy decreased to 113, or 36%, at 10:00 p.m. At the Gainsborough Lot, occupancy increased from 9, or 27%, at 6:00 p.m. to 33, or 100%, at 8:00 p.m. The lot was empty at 10:00 p.m.

From Monday, November 12, 2012 through Thursday, November 15, 2012, events were held at Jordan Hall at 7:00 p.m. or at 8:00 p.m. Occupancy rates at the Camden Lot generally decreased somewhat between 6:00 p.m. and 8:00 p.m. Occupancies at the Gainsborough Garage tended to stay level or decrease slightly between 6:00 p.m. and 8:00 p.m. Occupancies at the Gainsborough Lot tended to increase between 6:00 p.m. and 8:00 p.m. before sharply decreasing at 10:00 p.m.

This data indicates that visitors to Jordan Hall tend to park at the Gainsborough Garage and Gainsborough Lot, while visitors to Matthews Arena are more likely to use Camden Lot in addition to the Gainsborough Garage and Gainsborough Lot. It should be noted that attendance at Jordan Hall shows may vary from performance to performance, and that the analysis does not take into consideration other events that may have taken place at Northeastern, NEC, or elsewhere, which may have impacted parking occupancy.

### Special Event, Student Move-in, and Other Parking Activity

The Northeastern parking supply is actively managed to accommodate special events, move-in/move-out, and other parking needs. Parking for special events on-campus typically occurs in the Columbus Garage, although parking arrangements are also often made at several of the surface lots on campus for small events with limited outside attendance. Temporary parking passes are emailed to event attendees and then displayed on the vehicle's dashboard.

During student move-in, the University assigns students to one of four parking locations (to check-in and park), including Columbus Garage or Surface Lot, North Lot, and the West Village E Garage. Check-in is scheduled and based on residence hall location.

Other parking activity includes the following:

- The Gainsborough Garage is a key parking facility for major events at Matthews Arena as well as for events at nearby Jordan Hall and Symphony Hall.
- The Columbus Garage generally remains closed on the weekends unless needed for a large special event such as open house or parent's weekend.
- For commencement ceremonies at Matthews Arena, complimentary parking is provided, where available, at the Camden Parking Area, Columbus Surface Parking Area, Columbus Parking Garage, and West Village Garage.

- The Gainsborough Lot has been closed at times to accommodate commencement.

### Leased Parking Arrangements

Northeastern currently leases approximately 674 parking spaces on-campus to outside users, including Children’s Hospital, Beth Israel, YMCA, and other users. These long-term leases generally pay a premium over the rates charged to Northeastern students, faculty, and staff.

Children’s Hospital is the largest lessee on-campus with approximately 500 parking permits in the Renaissance Garage. Employees then use the Medical Academic and Scientific Community Organization, Inc. (MASCO) shuttle bus to access Children’s Hospital in the Longwood Medical Area. Since hospital employees generally work one of 3 shifts throughout the day, only a portion of these permit holders are parked in the garage at any one time.

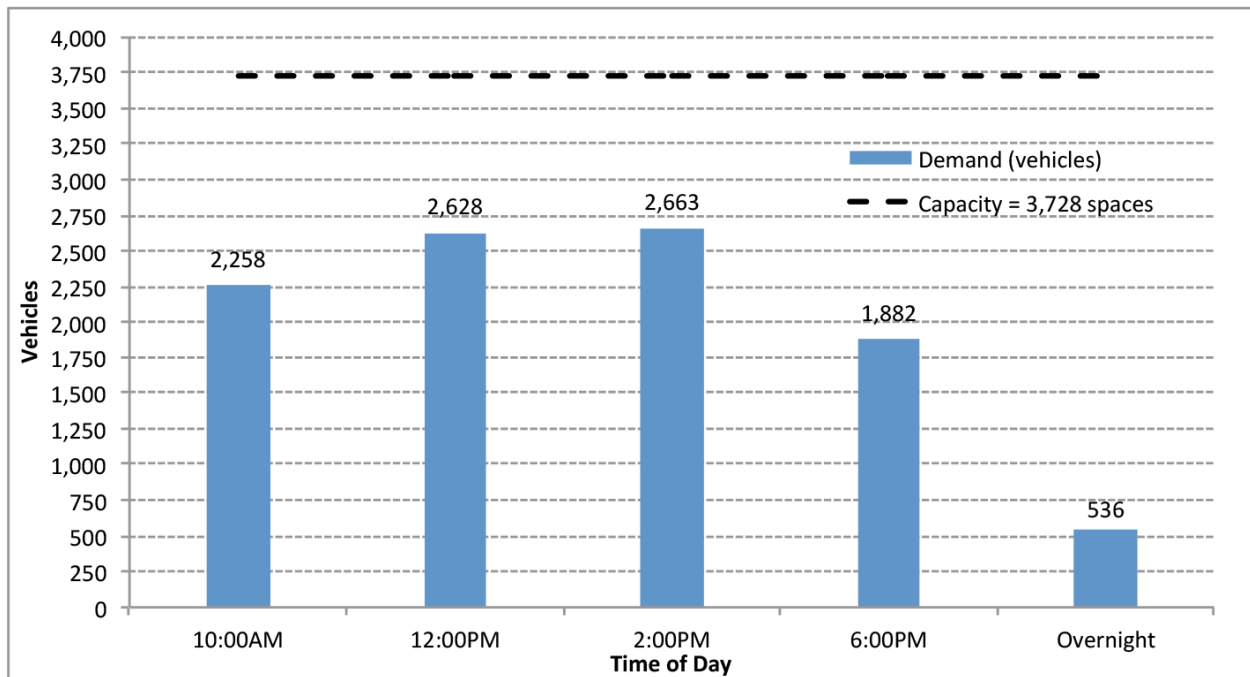
Beth Israel leases space within the Renaissance Building, with approximately 100 parking permits on the Northeastern Campus. The 75-space Renaissance Park Lot is used exclusively by Beth Israel; the remaining permit holders park in the Renaissance Garage.

The YMCA also currently has an agreement to use up to 74 surface parking spaces behind Hurting Hall and the Gainsborough Garage.

### Existing Parking Demand

The study team evaluated parking demand at the Northeastern University Boston campus using data provided by the University’s Business Services office, field observations by Howard/Stein Hudson Associates, Inc. in September and November 2012, and automated traffic recorder (ATR) data collected in September 2012. The resulting campus-wide parking utilization is illustrated in **Figure 9-12**. The average weekday parking demand by location is summarized in **Table 9-14**.

**Figure 9-12. Average Weekday Parking Occupancy by Time of Day**



As shown in **Figure 9-12**, the campus parking supply reaches peak occupancy of 2,663 vehicles (or 71%) from about 12 noon to 2 p.m. on a typical weekday – leaving a surplus of approximately 1,065 spaces campus-wide. By 6:00 p.m., only one-half of the on-campus parking supply is used (1882 spaces or 50%). Overnight demand is only approximately 536 vehicles or 14% of overall supply.

As shown in **Table 9-14**, the Gainsborough, Renaissance, and West Village garages are all well utilized during the day, reaching or exceeding 85% occupancy. Meanwhile the Columbus Garage is less than 50% occupied throughout the day; and is closed overnight. The Columbus Surface Parking Lot, 140 The Fenway Lot, Gainsborough Lot, and the North Lot are all well utilized throughout the day.

**Table 9-14. Average Weekday Parking Demand by Location**

Parking Area	Supply (Spaces)	Demand (Occupied Spaces) <sup>1</sup>				
		10:00 a.m.	12:00 p.m.	2:00 p.m.	6:00 p.m.	Overnight <sup>2</sup>
Columbus Parking Garage	995	326	468	465	350	- <sup>5</sup>
Gainsborough Garage	314	286	281	293	139	44
Renaissance Garage <sup>4</sup>	930	770	882	861	502	183
West Village Garage	264	211	222	225	157	- <sup>5</sup>
140 The Fenway	31	34	35	28	11	2
Arena Parking Lot	22	2 <sup>6</sup>	2 <sup>6</sup>	2 <sup>6</sup>	2 <sup>6</sup>	2 <sup>6</sup>
Burke Street Lot (Columbus Place)	58	47	44	47	29	14
Camden Parking Area	230	21	33	31	20	- <sup>5</sup>
Churchill Hall	11	6	6	7	2	0
Columbus Surface Parking	482	270	362	411	450	147
Gainsborough Lot	33	31	30	25	15	- <sup>5</sup>
Hurtig	74	39	48	53	24	4
Latino/a Student Center	8	6	5	6	1	0
North Lot <sup>3</sup>	145	135	130	127	140	131
Renaissance Parking Lot	75	28	34	35	7	1
Ryder Lot	45	40	37	40	32	8
Shillman Hall	11	6	9	7	1	0
<b>Total</b>	<b>3,728</b>	<b>2,258</b>	<b>2,628</b>	<b>2,663</b>	<b>1,882</b>	<b>536</b>
<b>Percent Utilization</b>	<b>-</b>	<b>61%</b>	<b>70%</b>	<b>71%</b>	<b>50%</b>	<b>14%</b>

Grey cell shading indicates parking lot/garage is >= 85% occupied.

<sup>1</sup> Demand counts collected by HSH and other data provided by Northeastern on 11/14/2012.

<sup>2</sup> Overnight counts based on data provided by Northeastern and observations by HSH between 12 midnight and 1 AM on 11/14/2012.

<sup>3</sup> ATR data, 09/26/2012.

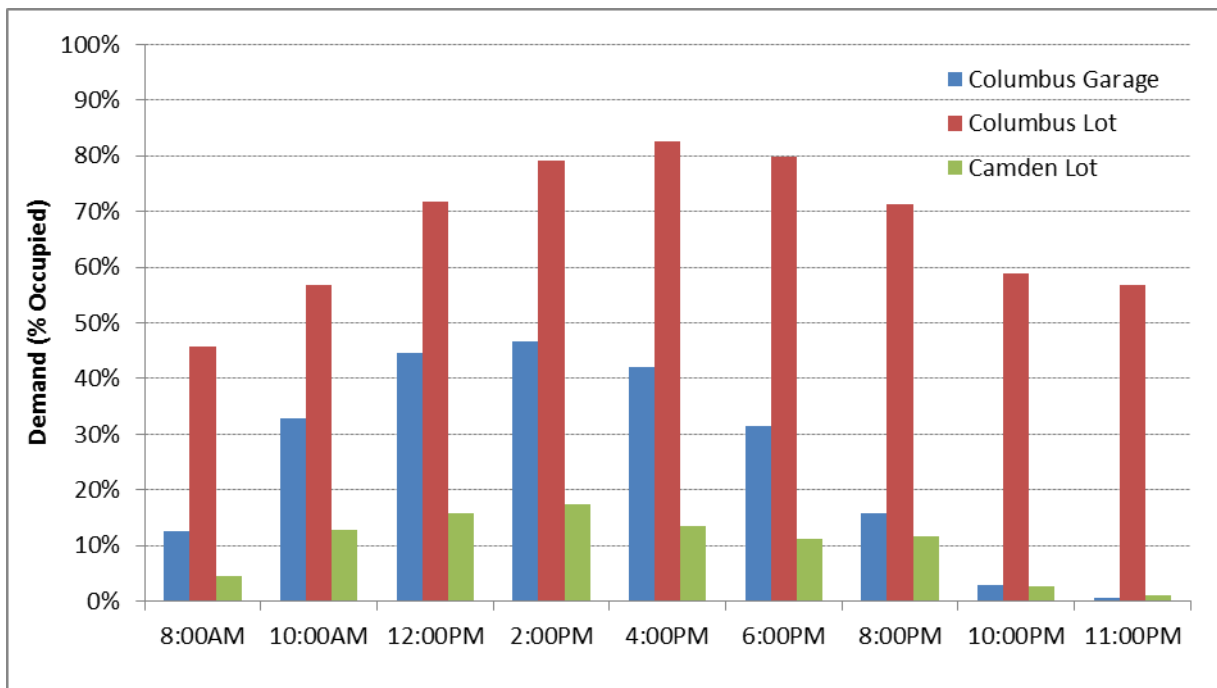
<sup>4</sup> Includes 58 nested spaces for Northeastern vans/special permits/H.C. parking; 75% occupancy assumed in nested area throughout the day.

<sup>5</sup> Closed and no car counts performed.

<sup>6</sup> Parking area closed due to construction.

**Figure 9-13** compares parking average weekday parking utilization at the Columbus Lot, Columbus Garage, and Camden Lot, which are in the same general location on-campus and share access driveways. According to Northeastern Parking staff, students/faculty/staff general prefer to park in the Columbus Lot since it is easier/faster to access a parking space when compared to using the ramp system and stairs/elevator in the Columbus Garage. It may also be a preference in terms of perceived safety/security.

**Figure 9-13. Columbus Lot-Columbus Garage-Camden Lot: Average Weekday Utilization**



### Student Car Restrictions

As the University has substantially increased its residential population in recent years, it has taken measures to limit student parking demand on-campus. Extremely limited overnight parking is available for students living on or near the campus. Students may apply to Northeastern for an overnight parking space; however, preference is given to upper class students on co-op or clinical rotations; first-year students are not eligible to purchase an overnight parking permit. Upper class students in classes may be denied overnight parking due to limited availability. Students living within the University residence halls do not qualify for the City of Boston residential parking-permit program. In addition, overnight parking in a garage off-campus is expensive. Together, the pedestrian-oriented nature of students, the close availability of transit, and the high cost of overnight parking discourage vehicle ownership among students.

## On-Street Parking Supply

**Table 9-15** presents the summary of parking spaces along the roadways surrounding the campus. This data was collected in September, 2012 by Howard/Stein-Hudson Associates, Inc. As shown, there are a total of 1,273 parking spaces available within a quarter-mile of the campus. Of the total, 416 spaces are designated as residential and 322 are metered parking.

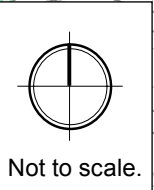
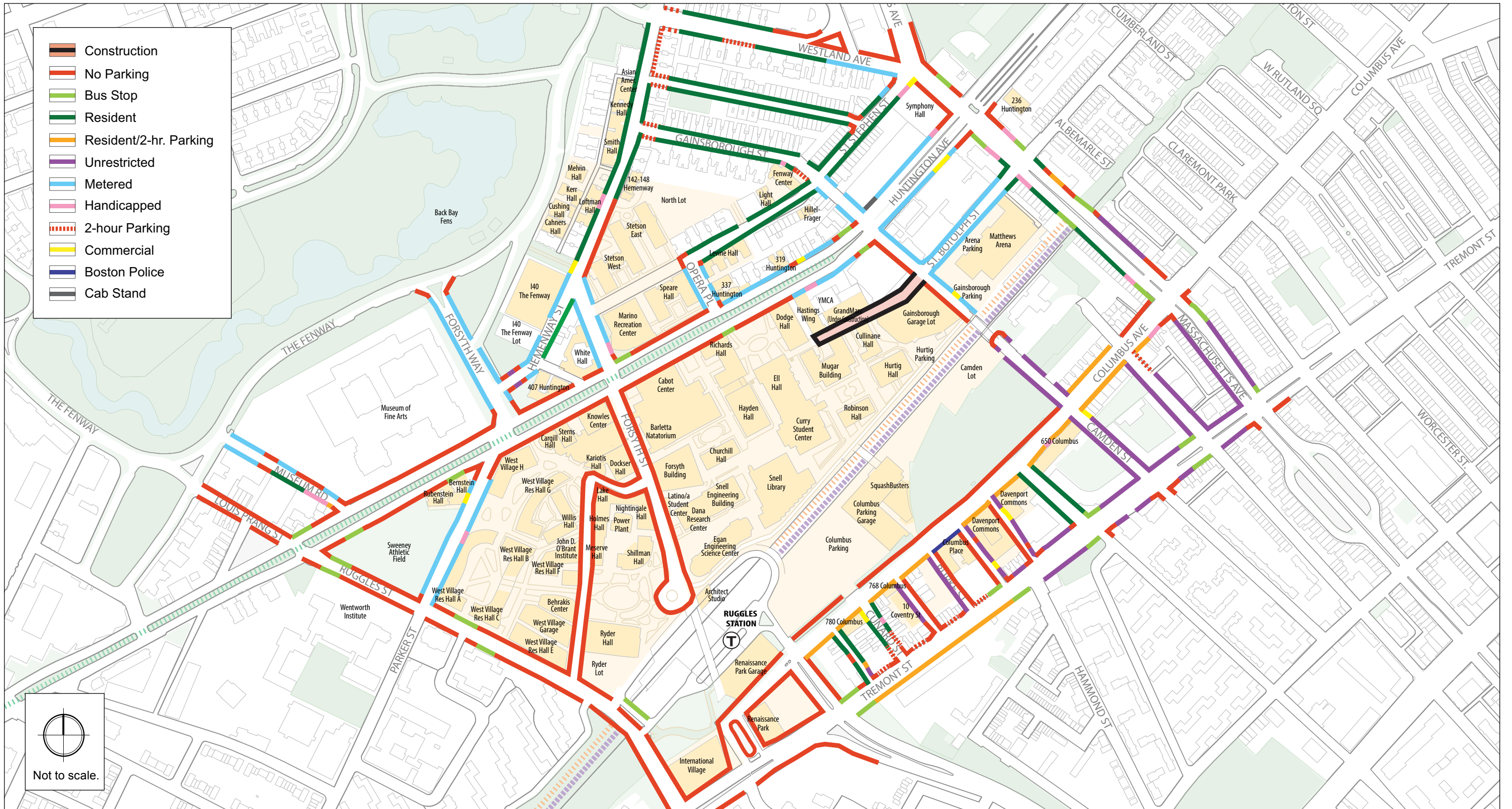
**Table 9-15. On-Street Parking Space Summary**

Street	Type of Parking Space						Total
	Residential	Metered	Unrestricted	Residential/ 2 hour	2 hour	Other	
Huntington Avenue	0	62	0	0	0	10	72
Gainsborough Street	59	33	0	0	16	3	111
Opera Place	0	13	0	0	0	0	13
Forsyth Street	0	26	0	0	0	2	28
Parker Street	0	50	0	0	0	3	53
Forsyth Way	0	35	0	0	0	0	35
Louis Prang Street	0	0	0	0	0	0	0
Ruggles Street	0	0	0	0	0	0	0
Leon Street	0	0	0	0	0	0	0
Tremont Street	0	0	62	25	22	3	112
Columbus Avenue	0	0	0	121	7	27	155
Melnea Cass Boulevard	0	0	0	0	0	0	0
Massachusetts Avenue	25	0	37	12	0	9	83
St. Botolph Street	8	38	0	0	0	0	46
Westland Avenue	51	10	0	0	16	0	77
St. Stephen Street	90	4	0	0	0	6	100
Hemenway Street	105	25	2	0	11	3	146
Greenleaf Street	0	0	0	0	0	0	0
Cunard Street	15	0	0	0	6	2	23
Burke Street	0	0	12	0	0	0	12
Camden Street	0	0	66	0	0	2	68
Museum Road	6	26	0	0	0	4	36
Douglas Park	30	0	0	0	0	0	30
Davenport Street	0	0	12	0	0	3	15
Benton Street	0	0	12	0	0	2	14
Coventry Street	0	0	12	0	0	0	12
St. Cyprians Place	27	0	2	3	0	0	32
<b>Total</b>	<b>416</b>	<b>322</b>	<b>217</b>	<b>161</b>	<b>78</b>	<b>79</b>	<b>1,273</b>

Source: Field Observations, HSH, September 2012.

**Figure 9-14** illustrates the City of Boston on-street parking regulations within one-quarter mile of the campus.

As shown, parking in the quarter-mile surrounding the campus can be thought of in two large segments. The largest segment encompasses Huntington Avenue, Ruggles Street and Massachusetts Avenue, although most parking is prohibited in this segment due to bus stop locations and general restrictions. The other segment is the local roadways located north of Huntington Avenue, which are primarily composed of residential permit and metered parking.





### 9.4.9 Car Sharing

Increasingly popular car-sharing services provide easy access to vehicular transportation for urban residents who do not own cars. The local car sharing provider – Zipcar – offers short-term rental service for members. Vehicles are rented on an hourly and per-mile basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location.

In 2011, the University began using Hertz On Demand as a provider for shared cars on Campus, which currently has eight on-demand vehicles in four different locations throughout the Campus. Hertz on-demand allows students with a Northeastern identification card ages 18 years or older to participate. Hertz On Demand is a car-sharing service, which was launched in December 2008 with over 500 locations and 700 vehicles. Hertz On Demand offers self-service hourly or daily car rentals to its members. The nearby Zipcar and Hertz On Demand services provide an important transportation option and reduce the need for private vehicle ownership. As shown in **Figure 9-15** and summarized in **Tables 9-16**, Zipcar already has 8 locations with a combined total of 48 vehicles and Hertz On Demand offers four locations with a combined total of 7 vehicles within the study area.

**Table 9-16. Shared Car Summary**

Location	Number of Vehicles
<b>Zipcar<sup>1</sup></b>	
Gainsborough Street	15
Museum of Art	2
Harriett Tubman House	5
Huntington Avenue/Cumberland	4
Edgerly Road/Church Park Apts.	4
Hilton Back Bay	2
Belvidere St/Prudential Center Garage	15
235 West Newton Street	1
<b>Total Zipcar</b>	<b>48</b>
<b>Hertz On Demand<sup>2</sup></b>	
North Lot [97 St. Stephen Street]	1
Matthew's Arena [262 St. Botolph St]	1
Columbus Surface Lot [795 Columbus Ave]	3
Ryder Lot [66 Leon St]	2
<b>Total Hertz</b>	<b>7</b>

<sup>1</sup> Zipcar.com, April 2013

<sup>2</sup> Hertzondemand.com April 2013

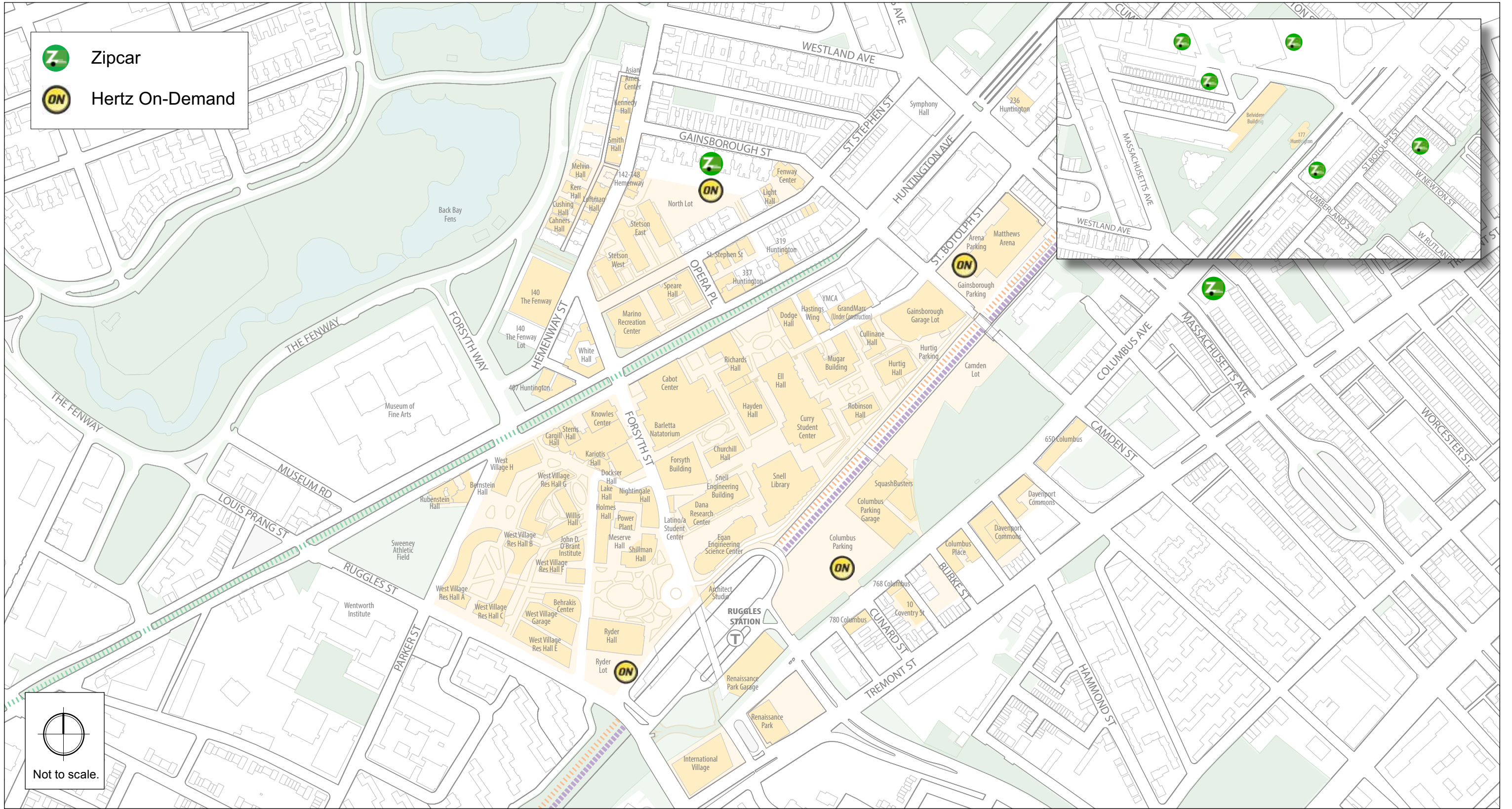


Figure 9-15.  
Shared Car Locations

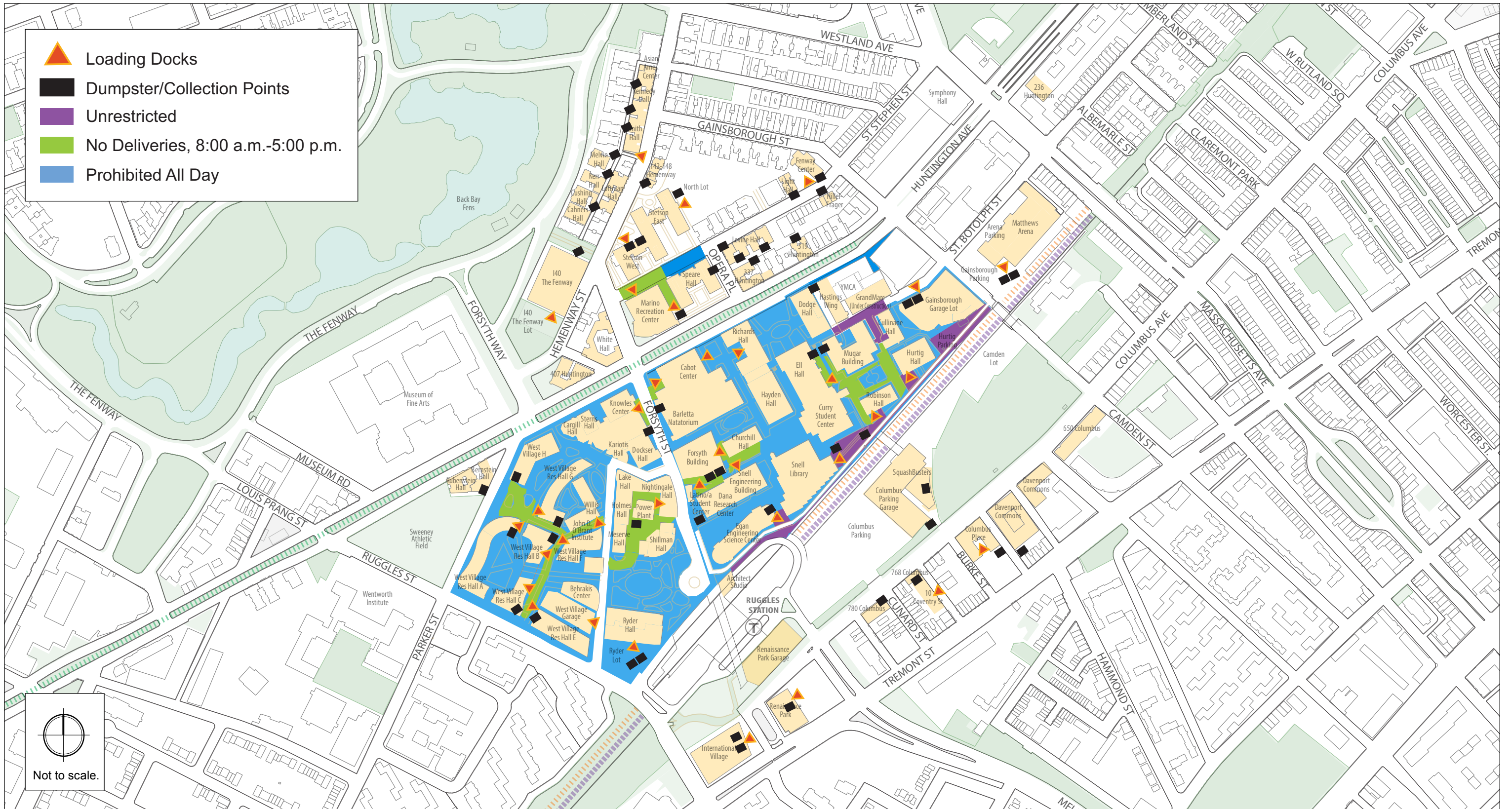
#### **9.4.10 Loading, Service and Emergency Access**

The University's Transportation, Receiving and Warehousing Department is responsible for administering the campus's central receiving and distribution system, which is run from a central warehouse in Jamaica Plain. The department receives vendor deliveries, stores equipment or materials as necessary, and completes the deliveries to on-campus locations, as well as completing internal deliveries from one campus location to another. Most buildings on campus also receive regular deliveries of mail, supplies and food, some of which, such as those by courier or express delivery, occur within the public way.

Campus loading docks and access restrictions are shown in **Figure 9-16**. As shown, besides the main service road along the Orange Line tracks, several other routes within the campus are used by vehicles servicing buildings. To help reduce conflicts with pedestrians on campus, loading access has been prohibited all day at certain locations, and between 8:00 a.m. and 5:00 p.m. at others. Trash and recycling are picked up on two routes through campus; one route is served at 6:30 a.m. and the second at 10:30 a.m.

To the extent possible, all deliveries and pickups are coordinated to minimize impacts to the community. In particular, as the dorm beds on campus have increased, Northeastern coordinates student move-in days with the Boston Transportation Department, neighborhood residents and other affected parties in order to minimize traffic disruption.

Emergency access to the campus is provided by the city street network, principally the arterial streets of Massachusetts Avenue, Huntington Avenue, Ruggles Street and Columbus Avenue. Access into the campus is provided by local streets and a network of service roadways and pathways throughout the campus.



#### **9.4.11 Transportation Demand Management**

The University has made a strong commitment and continues to make improvements to transportation demand management (TDM) initiatives to help reduce single-occupant auto commuting to and from its campus and to promote non-auto alternatives. Notably, since the 2000 IMP, drive alone commuter trips to/from the campus have declined substantially – from 27% to only 11% for students and from 49% to only 28% for employees. In 2012, Northeastern received the Massachusetts Excellence in Commuter Options (ECO) Pinnacle Award for the on-going efforts in incorporating sustainable transportation on Campus.

Northeastern University provides a number of transportation demand management (TDM) programs to reduce single-occupant automobile use and parking by students, faculty and staff, and to help improve the environment of the campus, as described below:

- On-Site sale of MBTA passes. The University currently provides MBTA pass sales on-campus through the Husky Card office. In addition, MBTA maps and schedules are posted at a number of different locations around campus.
- MBTA Semester Pass Program. The University participates in the MBTA's Semester Pass Program. This program allows students to receive a discount on transit passes for the semester when purchased in advance.
- Providing Pre-tax purchase of MBTA passes for employees. The University allows MBTA passes to be purchased by employees by means of a pre-tax payroll deduction for up to \$125 per month. This effectively reduces the employee cost of purchasing passes.
- Negotiation with Bus Providers. The University is actively involved with the MBTA, BTD and the BRA, as well as adjacent institutions of higher learning and other government agencies to enhance access, as well as the aesthetics of the public transit facilities located adjacent to campus.
- Ruggles Station. Northeastern University continues to negotiate with the MBTA to adopt the Ruggles Station on the Orange Line, where maintenance and cleaning operations of the public access areas of the station would be done by Northeastern. This effort will provide opportunities for partnership between the University and the MBTA to enhance the overall commuting experience at the station while the MBTA allocated limited resources to other critical transit needs.
- Posting of Bus Schedules. Information on the MBTA including maps, fares, schedules, updates and recommended routes to campus are available at various websites and information centers on campus.
- Bicycling Incentives. Northeastern supports bicycling to campus with sponsorship of the Hubway bike sharing system, discussed elsewhere in this document. NUPD's new voluntary bicycle registration program is available to any faculty, staff or student for \$5.

NUPD records the information and provides a sticker. In January 2013, the University's Student Government Association's (SGA) Renewable Energy Initiatives Board purchased and installed a self-service bike repair stand at West Village for use by the entire Northeastern community. The Northeastern bookstore offers an automatic 20% on the U-type locks that it sells, and Northeastern secured a 15% discount on bike safety and security gear at a nearby bicycle shop. Bicycle racks are available throughout campus, and secure bicycle storage space is provided on the ground level of the Renaissance Park Garage. Showers and lockers for cyclists are available at two athletic centers on the campus.

- Off-Campus Student Services Office. The University operates a Commuter Referral Office providing commuting students information on commuting (bus and train schedules and carpooling information).
- Alternative Work Week during Summer Months. When classes are not in session, Northeastern offers a four day/forty hour work week (8:00 a.m. through 5:30 p.m., Monday through Thursday). This reduced work week eliminates one day of commuting per week per employee, reducing the demand the University places on the regional transportation system.
- Limited Overnight Parking for Campus Residents. The University's parking policies permit overnight parking for students only under limited conditions relating to cooperative work assignments, medical reasons, family obligations, and other exceptional circumstances. By far, the most common reason for providing overnight parking to students is cooperative education work assignments. Students with a cooperative education job located beyond reasonable MBTA service are permitted to park on campus on a semester basis.
- Sponsorship of the Fenway Alliance. Northeastern University has been instrumental in supporting the Fenway Alliance as a consortium for planning in the area. The Alliance serves as a forum for the institutions centered in the Fenway Cultural District to coordinate on transportation and parking issues in addition to other concerns of a district-wide nature.
- Linking the Corridors. The Emerald Necklace/Southwest Corridor Connector. Over a period of years, Northeastern has worked to promote the proposed bicycle and pedestrian connection between the Back Bay Fens and the Southwest Corridor Park. Working in partnership, the Boston Parks and Recreation Department and Northeastern are seeking to develop a bicycle/pedestrian connection linking the Back Bay Fens to the Southwest Corridor Park by way of public roads within and adjacent to the University.
- Ride-matching Program. Northeastern participates in the MassRides program. Faculty, staff and students who are interested in carpooling or vanpooling are matched through a Northeastern University website to MassRides. Posters and literature promoting MassRides have been distributed campus-wide. The Office of Environmental Health and

Safety maintains information and links to MassRides on their website. Information is also available at the Off Campus Student Services office located at the Curry Student Center and the Human Resources Management Office at 250 Columbus Place.

- Guaranteed Ride Home. Northeastern continues to promote the Guaranteed Ride Home program offered through MassRides.
- Preferential Parking for Carpools and Vanpools. Up to four preferred parking spaces have been provided in the Gainsborough Garage first floor for faculty and staff with daytime decals who travel with at least three total occupants.
- Carpooling Incentives. The University provides other periodic incentives to encourage carpooling by students, faculty and staff.
- Car Sharing. As noted elsewhere, Northeastern has two car sharing services available on or near the Boston Campus – 48 assigned ZipCar spaces and 7 Hertz On Demand spaces. Several University departments have Zipcar accounts.
- Electric Vehicles. The University has acquired 31 several small electric vehicles for use on campus by facilities personnel, which now make up approximately 20% of the campus fleet.
- Walking. Northeastern provides many facilities that encourage people to walk before, during and after work hours, including restaurants and other dining facilities, recreation centers, banking services, counseling services, a notary public, a library and the bookstore. Walking Works at Northeastern, a physical activity group, encourages walking, including the “walking and talking” program that connects faculty and staff with University leaders.

#### **9.4.12 Move-In/Move-Out Traffic Management Procedures**

In the 2000 IMP, Northeastern University Institutional Master Plan the University agreed to produce Move-In/Move-Out Plans for each academic year. Since then, Northeastern has filed a Plan with the Boston Transportation Department (BTD) as required in the Transportation Access Plan Agreement (TAPA). Northeastern also files a Move-Out Plan with BTD annually. The Move-Out Plan is usually a less formalized document since that process is more gradual, taking place over a longer time-frame.

The elements of the Move-In plan include:

- Attending community meetings to create support for the move-in plan.
- Notifying neighbors about the move-in process and arranging parking for neighbors in Camden Lot and Gainsborough garages for the weekend.
- Avoiding moving students into the Fenway area on September 1st due to expected congestion.
- Working with the neighborhoods on August 31 and September 1.

- Assisting coordination of trash removal and police presence.
- Reaching out to neighboring businesses and institutions (i.e., the Symphony, Wentworth) in early May and early June to notify them of the University’s move-in plans.
- Coordinating with the Mayors' Office and various city agencies with regard to move-in schedule, plan and coordination.
- Spreading move-in over five days to ease congestion and improve service.
- Easing the move-in process for parents and students by providing moving support (professional movers and moving carts) at targeted locations and increasing campus volunteers.
- Expanding curb-side check-in at White Hall, Willis Hall, and West Village H.
- Confirming parking plans with the City and nearby neighborhoods to assist with smooth curbside check-ins.

Northeastern also monitors major events and construction activities in the area that might impact moving procedures.

#### **9.4.13 Ongoing Transportation Initiatives**

The University has been actively engaged with various City and State agencies on a number of initiatives to improve transportation conditions in and around the campus, as follow:

- Ruggles Station Commuter Rail Platform Extension Project –in early 2013, the MBTA is in the preliminary design phase for the proposed construction of a new 800-foot long commuter rail platform on Track 2. To support this effort, the MBTA anticipates using its “taking” authority under eminent domain laws to convert some portion of Northeastern University land within the Columbus Lot. Discussions are currently under way to determine how the MBTA and Northeastern University might support their respective plans within this locus: the new platform would enable commuter rail passengers to disembark on Track 2 and avoid the extra travel and transfer at Back Bay Station to get back to Ruggles; however, Northeastern University intends to use the entirety of the Columbus lots for academic and related purposes.
- Ruggles Station Partnership Program: Northeastern University is coordinating with the MTBA on possible partnership opportunities to improve Ruggles Station, which serves as a key pedestrian and transit connection to the Northeastern campus and the surrounding community.
- Southwest Corridor–Fenway Bicycle Path Connection: Northeastern continues to work with the City on evaluating alternatives for providing a connection between the Southwest Corridor Bicycle Path and the Fenway Bicycle Path along the Emerald Necklace. The City recently engaged a consultant to evaluate alternatives and the project is currently in the conceptual design phase. As currently envisioned, this important



connection would provide designated bicycle accommodations along Ruggles Street, Parker Street and Forsyth Way.

- Southwest Corridor/Ruggles Station/International Village: The University has been in discussions with the City, Department of Conservation and Recreation (DCR), and the MBTA regarding possible improvements to this area to reduce pedestrian–cyclist conflicts through a combination of pavement marking, signage, traffic calming, and/or other geometric modifications; landscape and other aesthetic improvements; and increased pest control.
- Massachusetts Avenue Station: The University has been in on-going discussions with the MBTA regarding the feasibility of installing an entrance to the Massachusetts Avenue MBTA Station via the Gainsborough Street/Camden Street footbridge; currently passengers may only exit from this location.
- St. Botolph Street/Gainsborough Street Reconstruction Project: In early 2013, the City of Boston is in the preliminary design phase for this project that would include traffic, parking, and pedestrian improvements/modifications along St. Botolph Street between Massachusetts Avenue and Gainsborough Street, and along Gainsborough Street between St. Botolph Street and Huntington Avenue. The project is planned to be funded through the 2013 Transportation Improvement Program for the Boston Metropolitan Planning Organization. Northeastern is committed to working with the City on this project and is currently evaluating pedestrian and traffic needs during events at Matthews Arena as input for the design.

The Boston Transportation Department (BTD) is also actively monitoring and improving traffic conditions along roadways adjacent to the campus. On-going efforts include signal timing optimization along the Huntington Avenue, Massachusetts Avenue, and Melnea Cass Boulevard corridors. In addition, the City of Boston is currently in the preliminary design phase of the Melnea Cass Boulevard Redesign Project, which is evaluating the potential for a dedicated bus way and improved bicycle and pedestrian accommodations.

The City of Boston and the Massachusetts Department of Transportation (MassDOT) are also evaluating improvement to Massachusetts Avenue between Westland Avenue and Huntington Avenue that will improve pedestrian access around the Symphony area and include improvements to traffic signal operation, traffic circulation, bicycle accommodations, sidewalks, landscaping, crosswalks, and other streetscape improvements. Construction of the Symphony Area Streetscape Project, which will improve the pedestrian environment for all residents and visitors in the area, is anticipated to begin in spring 2013.

## 9.5 Future Transportation Conditions

### 9.5.1 Introduction

Future conditions to the design year 2023 were analyzed under two conditions:

- A No-Build scenario analyzes the transportation system serving the campus without any of the new projects proposed under the IMP. The No-Build volumes include both generalized background traffic growth and specific growth estimated for planned and permitted projects near the campus.
- The Build scenario analyzes the impacts of projected student and faculty growth and projects proposed as part of the Master Plan. The resulting traffic is added to the No-Build traffic to obtain Build conditions.

The analyses for each of these conditions are presented in the sections below.

### 9.5.2 2023 No-Build Conditions

No-Build conditions are typically projected on the basis of planned transportation infrastructure improvements and traffic volume changes that would occur in the event that Master Plan projects are not implemented. Infrastructure improvements include roadway, public transportation, pedestrian and bicycle improvements. Traffic volume changes are based on two factors: an annual growth rate and growth associated with specific developments near the campus.

#### Transportation Infrastructure Improvements

The following public infrastructure projects are planned to be implemented within the ten year time frame of the IMP.

- ***Massachusetts Avenue Improvement Program.*** In early 2013, the City of Boston is nearing the end of construction on a \$14.5 million improvement program for Massachusetts Avenue from 150 feet south of Albany Street to 100 feet north of St. Botolph Street. The project includes repaving the roadway and fully modernizing all traffic signal equipment and interconnecting it with the City's traffic management center via a new fiber optic connection. Left turn bays have been installed at certain intersections to reduce congestion and improve traffic safety. New curbing, sidewalks, street lighting and trash receptacles are being installed and landscaping enhanced with trees and shrubbery. A critical element of the plan is bike accommodations in the corridor. In early 2013, signal timings along the corridor are still being adjusted by BTM and are thus not reflected in the No-Build and Build traffic analyses, although the new geometry, now in place, has been incorporated.
- ***Melnea Cass Boulevard Improvement Project.*** The Boston Transportation Department is working with the Roxbury community to redesign Melnea Cass Boulevard with the goal of making it a neighborhood friendly corridor. The scope includes the development of

roadway and streetscape designs that create a pedestrian friendly environment, ensure efficient traffic flow, accommodate transit vehicles and bicycles and promote economic development. The redesign plans will include dedicated bus lanes that can accommodate existing transit and future BRT service.

The design is progressing in collaboration with the Roxbury and other surrounding communities and with all relevant city and state agencies, neighborhood groups and corridor abutters. The BTD, as lead agency on the project, aims to incorporate the city's new "Complete Streets" strategy as well as the goals of the Roxbury Strategic Master Plan (RSMP) and the state-devised Urban Ring project. The Complete Streets approach focuses on the needs of pedestrians, bicyclists and transit users as well as drivers, and on environmentally sustainable design.

Because a design option has not yet been finalized, the existing geometry and signal timing were used as inputs to the No-Build and Build traffic analyses.

- ***St. Botolph Street/Gainsborough Street Reconstruction Project.*** The City of Boston is currently in the preliminary design phase for this project that would include traffic, parking, and pedestrian improvements/modifications along St. Botolph Street between Massachusetts Avenue and Gainsborough Street, and along Gainsborough Street between St. Botolph Street and Huntington Avenue. The project is planned to be funded through the 2013 Transportation Improvement Program for the Boston Metropolitan Planning Organization. Northeastern is committed to working with the City on this project and is currently evaluating pedestrian and traffic needs during events at Matthews Arena as input for the design.

### Background Traffic Growth

A comparison of area traffic volumes over the past ten years revealed flat or negative traffic growth near the campus. **Table 9-17** compares total vehicles entering several key gateway intersections to the campus between 2000 and 2013.

**Table 9-17. Traffic Volume Trends**

Location	Traffic Volume per Hour (total entering)		% Change 2000 to 2013
	2000 <sup>1</sup>	2013	
<b>Huntington Avenue/Gainsborough Street</b>			
a.m. Peak Hour	1,760	1,407	(20%)
p.m. Peak Hour	2,090	1,558	(25%)
<b>Huntington Avenue/Forsyth Street</b>			
a.m. Peak Hour	1,925	1,621	(16%)
p.m. Peak Hour	2,375	1,888	(21%)
<b>Parker Street/Ruggles Street</b>			
a.m. Peak Hour	2,240	1,946	(13%)
p.m. Peak Hour	2,550	1,950	(24%)
<b>Leon Street/Ruggles Street</b>			
a.m. Peak Hour	1,675	1,407	(16%)
p.m. Peak Hour	2,055	1,528	(26%)
<b>Columbus Avenue/Melnea Cass Boulevard</b>			
a.m. Peak Hour	995	842	(15%)
p.m. Peak Hour	1,042	940	(10%)
<b>Columbus Avenue/Massachusetts Avenue</b>			
a.m. Peak Hour	3,180	2,817	(11%)
p.m. Peak Hour	3,790	3,064	(19%)

<sup>1</sup> Source: Northeastern University IMP, February 22, 2000

However, a review of specific projects in a wide area encompassing parts of Back Bay, the South End, Lower Roxbury, the West Fenway residential area, and the Longwood Medical and Academic Area led to the conclusion that together, their impacts would be appropriately covered by a background growth factor of 0.5% per year to 2023. These project impacts were not itemized specifically due to distance from the campus, scale of the project, timing, lack of specific volumes or findings of acceptable LOS under build conditions in impact studies conducted for the projects. Projects covered by the background growth rate include:

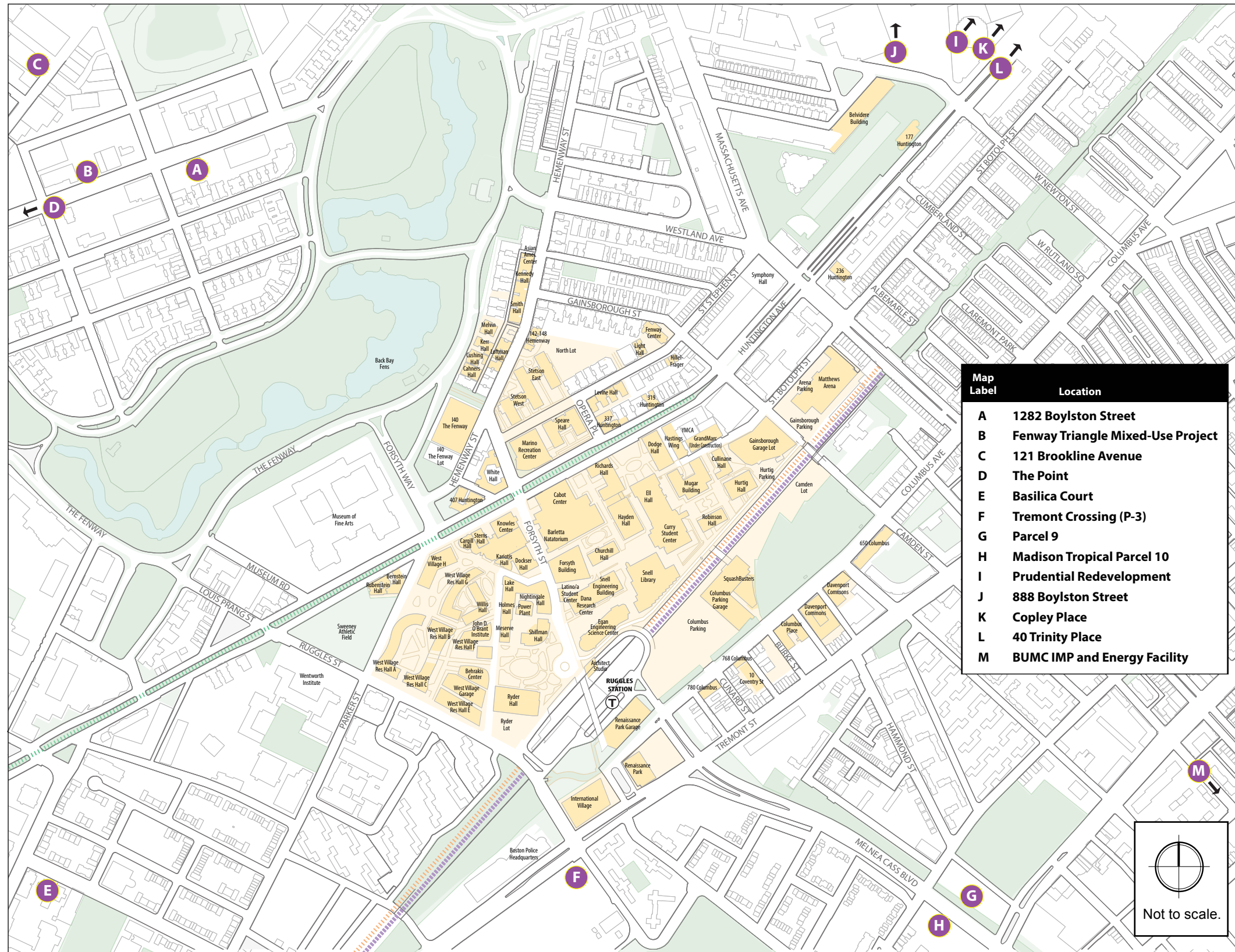
- 16-20 Peterborough Street, 20 residential units and 12 parking spaces;
- Simmons College Institutional Master Plan Notification Form;
- Wentworth Institute of Technology Institutional Master Plan;
- Roxbury Crossing Senior Building, 40 senior units;
- 1004-1012 Tremont Street, 2,000 gsf retail, 7 residential units, 6 parking spaces;

- Alexandra Hotel rehabilitation;
- 35 Northampton Street, 11 HP and 245 affordable units;
- New England Conservatory Residence Hall – 252 beds;
- 199 West Brookline Street, 9 units, 21 parking spaces
- Christian Science Plaza PDA;
- 41 Westland Avenue – 48 residential units and 31 parking spaces
- 44 Burbank Street – 45 residential units;
- Boston Conservatory;
- 1085 Boylston Street;
- Christian Science Plaza PDA Master Plan;
- Berklee College Institutional Master Plan;
- John Hancock Tower: restaurant, retail space and parking;
- Longwood Center – 350,000 gsf building including research lab, office, and clinical uses with ground floor retail/restaurant space and 290 parking spaces; and
- Brigham and Women’s Hospital IMP/Massachusetts Mental Health Center building project.

### Project-Specific Traffic Growth

Traffic volumes from the following projects, shown in **Figure 9-17**, were specifically assigned to study area intersections

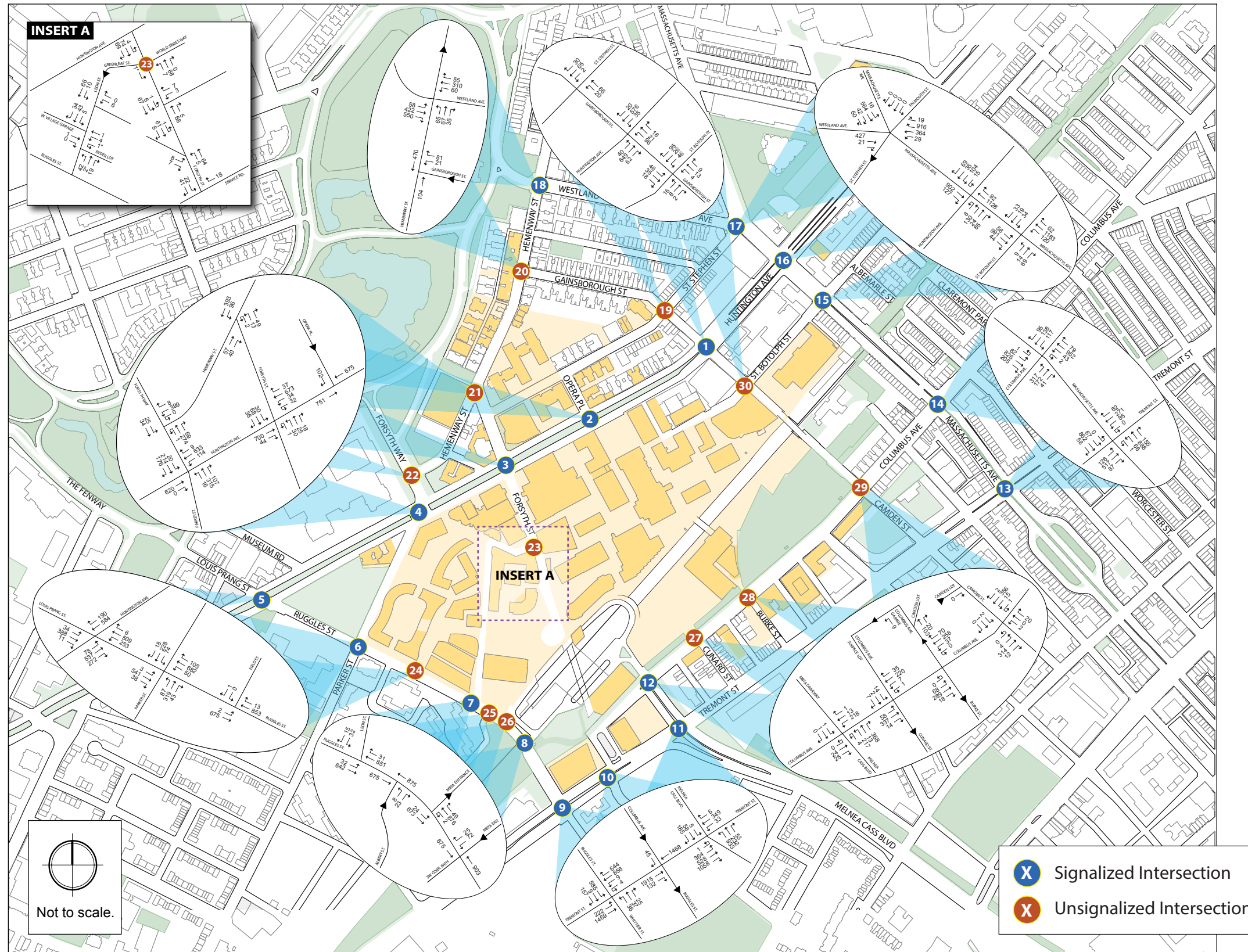
- 1282 Boylston Street (McDonald’s) – 322 residential units, 15,000sf of ground floor retail space and 295 parking spaces;
- Fenway Triangle Mixed-Use Project – 700,000 gsf project, including 290 residential units, office and retail space and 575 parking spaces
- 121 Brookline Avenue – 117,000 gsf, six-story hotel;
- The Point – a 22-story building with 33,000 SF of commercial space and 320 residential units;
- Basilica Court – Demolition of St. Alphonsus Hall and convent and the renovation of the former Mission School for the provision of 229 residential units in three buildings;
- Tremont Crossing (P-3) – 550,000 gsf of retail space, 200,000 gsf of office space, 240 residential units, 58,000 gsf of cultural space and 1,700 parking spaces;
- Parcel 9 – 145 hotel rooms, 50 housing units, and 7,935 gsf of ground-floor retail space, with approximately 118 parking spaces and covered secure storage for 70 bicycles;



- Madison Tropical Parcel 10 – a 40,000 SF supermarket (Tropical Foods), 54,000 SF office/retail building and the rehabilitation of a 44,000 SF existing structure for the provision of residential units and retail space;
- Prudential Redevelopment – Boylston Street Office - Exeter Residences: 30-story, 242,000sf residential development with 188 units and 52 affordable units spread across 4 sites;
- 888 Boylston Street – 19-story office building;
- Copley Place – 54,000 gsf addition to Neiman Marcus store; 60,000sf addition of retail/restaurant space; 660,000sf residential tower;
- 40 Trinity Place – a 33-story building with 220 hotel rooms, 142 residential units, ground floor retail space and 100 parking spaces; and
- BUMC IMP and Energy Facility – BUMC submitted a new 10-year IMP and PNF for a new 48,000 SF Energy Facility. There are two other projects listed in the IMP including an administrative/clinical building and a new inpatient building.

### 2023 No-Build Traffic Volumes

The lists of development projects near Northeastern University presented above are believed to represent all of the major, active proposals for development in the area at the time this IMP was prepared. With the 0.5% annual growth rate for general traffic increases, the LOS analysis was conducted using the methodology described for the Existing Conditions, and the traffic associated with specific developments, the No-Build traffic conditions represent a conservative estimate of future traffic volumes for the 2023 horizon year. No-Build 2023 volumes are shown in **Figure 9-18** and **Figure 9-19**.



X Signalized Intersection  
X Unsignalized Intersection

Figure 9-18.  
**No-Build Conditions (2023) Traffic Volumes,  
a.m. Peak Hour**



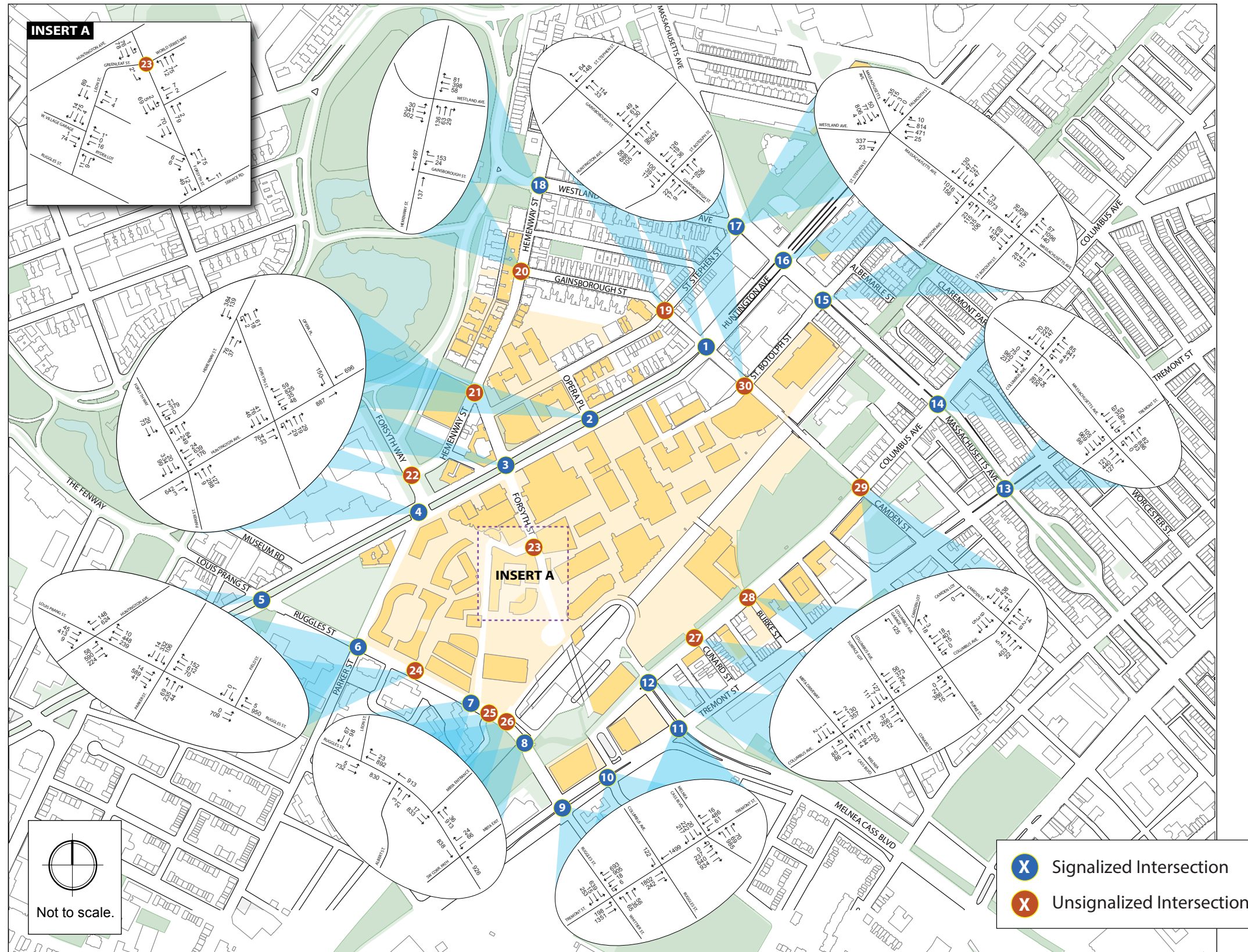


Figure 9-19.  
**No-Build Conditions (2023) Traffic Volumes,**  
**p.m. Peak Hour**

### 2023 No-Build Traffic Operations

Traffic operations under No-Build conditions were analyzed at all study area intersections. No-Build 2023 operations are summarized in **Table 9-23** and **Table 9-24** in **Section 9.5.3**. A detailed summary of traffic operations for the 2023 No-Build Condition is provided in **Appendix D**.

### **9.5.3 2023 Build Conditions**

Build Conditions represent a future condition that includes the developments associated with the Northeastern University Master Plan. Build conditions are summarized for the same 2023 horizon year.

#### Master Plan Ten-Year Development Program

As detailed in **Chapter 7** and shown in **Figure 7-1**, the University is proposing to construct 11 new academic and residential projects as part of the new IMP, as described below:

- Columbus Lot – As currently envisioned, it is anticipated that the Interdisciplinary Science and Engineering Building (ISEB) on Columbus Lot will consist of an approximately 220,000 gross square foot (GSF). This new building will displace approximately 282 existing surface parking spaces and incorporate up to two new pedestrian connections over the Southwest Corridor tracks, linking the north and south campuses. Later the Columbus Lot could incorporate up to 460,000 additional GSF. After the remaining 200 surface parking spaces in the Lot are removed to make way for the later phases of construction, it is anticipated that all 200 spaces would be replaced in kind within a below-grade parking structure.
- North Lot – This 145-space student parking lot is proposed to be redeveloped primarily for 150,000 to 250,000 GSF of general academic “swing-space”;
- Matthews Arena Addition – This project involves redevelopment of the 33-space Gainsborough Lot for an approximately 110,000 to 120,000 GSF addition to the existing arena building;
- Ryder Hall – An addition to this existing building will add 150,000 to 200,000 GSF of academic and residential space, displacing 45 existing surface parking spaces.
- Burstein Rubenstein – Two existing residential buildings at 458/464 Huntington Avenue could in time be replaced with new housing, academic and ground floor retail uses, incorporating 200-250 beds.
- Cargill Hall – Consolidation of sites occupied by Cargill Hall, Stearns Center and the Kariotis classroom building will enable creation of a new 140,000 to 150,000 GSF academic facility in two new buildings.

- Cabot Site – Several athletic buildings would be demolished to create a new 400,000 to 500,000 GSF mixed-use academic, research and student life facility in three to five buildings.
- Forsyth Hall – A warehouse building would be replaced with a 140,000 to 150,000 GSF academic building.
- New Science Quad – Robinson, Cullinane and Hurtig Halls at 330/334/336 Huntington Avenue and 288 St. Botolph Street could be replaced with a 60,000 to 100,000 GSF science complex.
- Gainsborough Garage – The aging Gainsborough Garage could be replaced with a state-of-the-art student recreation and athletic facility of 200,000 to 240,000 GSF that would likely include the replacement of approximately 300 parking spaces.
- Burke Street Parking Lot – This half-acre site, with 58 surface parking spaces, could be redeveloped to house a mixed-use facility accommodating office, retail, and potentially, student residences for 300-350 beds, with approximately 260,000 to 300,000 GSF and a height of 6-8 stories.

No additional parking is currently proposed for any of these projects.

#### Projected Growth in Enrollment, Faculty and Staff

The university currently has approximately 3,922 full-time and part-time benefits eligible employees. Based on industry-wide best practices and comparator projections, the university is assuming employee expansion of approximately 10 percent over the life of the IMP.

Since 2009, undergraduate enrolment has fluctuated by semester between 14,200 and 15,300, with a freshman class ranging in size between 2,600 and 2,900 each year during that period. With increasing out-of-area cooperative education placements, a growing demand for online and distance learning, and increased opportunities for study abroad and similar experiential education programs outside Massachusetts, the University continues to review its level of local undergraduate population; however, no significant change in undergraduate enrollment was assumed for purposes of this analysis.

Graduate student enrollment, including all full- and part-time students in graduate and law programs, at the Boston, Charlotte and Seattle campuses and online, was approximately 11,500 in the 2012- 2013 academic year. To provide a conservative estimate of graduate student growth for purposes of this analysis, it is estimated that graduate student growth may increase by as much as 10 percent; however the bulk of that growth would likely be in distance learning programs and at remote campuses.

The relatively small changes in student enrollment and staffing, combined with the plans to increase on-campus housing, by as much as 1,000 new beds, would result in only small changes to the overall campus trip generation.

## IMP Trip Generation

Trip generation estimates reflecting the proposed Master Plan development program have been developed based on projected changes in student enrollment and the number of employees at the university, using a variety of sources specific to the University, including 2012 DEP Rideshare survey data, parking occupancy counts, parking lot/garage driveway counts, and parking permit data.

Trip generation is estimated separately for (1) off-campus commuting students and faculty/staff and (2) on-campus student residents that will live in the new beds.

The projected 10% growth rate for faculty/staff and graduate students would yield a total of 392 new faculty/staff and 1,157 new graduate students and over the ten-year period of the IMP. Assuming that 1,000 new beds are created on campus to house most of the added students, new commuting trips would be generated by the 157 new graduate students and 392 new faculty/staff.

### Commuter Trip Generation: Students, Faculty and Staff

The number of trips for the 157 new commuting graduate students and 392 new faculty/staff were assigned by mode and then by peak hour, as discussed below.

#### *Commuter Mode Share*

In just the past 10 to 15 years, the University has undergone a number of changes that have impacted commuting behavior. Changes include, but are not limited to, reducing overall enrollment as the University continues to focus on academic excellence; the addition of approximately 5,000 new beds on-campus (including GrandMarc); increased bicycle use; increased out-of-area cooperative education placements; a growing demand for online and distance learning; and increased opportunities for study abroad and similar experiential education programs outside Massachusetts.

The 2012 DEP Rideshare Survey indicates trips made by automobile to/from campus (including single occupant cars and carpools) have declined dramatically since the 2000 IMP – from 31% to just 7% for students and from 58% to only 33% for faculty/staff, as shown in **Table 9-18**, below. Overall, as shown, drive trips accounted for only 14% of total commute trips to the campus in 2012.

**Table 9-18. Percentage of Trips by Commute Mode**

Percentage of Trips by Commute Mode			
Mode	Student Trips	Faculty/Staff Trips	Total Trips
Drive alone	6.1%	28.7%	12.1%
Carpool	1.0%	4.2%	1.8%
Public transportation	32.2%	53.3%	37.7%
Motorcycle	0.3%	0.6%	0.3%
Walk	49.4%	6.2%	38.0%
Bike	10.7%	4.1%	9.0%
Telecommute	0.0%	2.5%	0.7%
Flex-time	0.0%	0.3%	0.1%
Other	0.3%	0.1%	0.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: 2012 Rideshare Survey, Office of Institutional Research (OIR), Northeastern University

Also of note are the high proportion of walk trips for students – 49.4% -- and the high proportion of public transportation trips for faculty and staff – 53%. These two modes accounted for 75% of total campus commute trips. Bicycles accounted for 9% of overall commute trips.

These mode shares were applied to person trip estimates to obtain trips by vehicle, transit and walk/bike/other for use in the impact analyses.

#### *Vehicle Occupancy Rate*

Using 2012 DEP Rideshare data and a conservative assumption that each carpool accommodates two passengers yields a Vehicle Occupancy Rate (VOR) of 1.13 for students and 1.12 for faculty/staff.

#### *Resident Commuter Trip Generation*

The resulting commuter trip generation for the faculty/staff and students is summarized in **Table 9-19**.

**Table 9-19. Commuter Trip Generation**

<b>Period</b>	<b>Direction</b>	<b>Auto</b>	<b>Transit</b>	<b>Walk</b>	<b>Bike</b>
Daily	In	208	415	172	53
	Out	208	415	172	53
	Total	416	830	344	106
a.m. Peak Hour	In	32	59	17	6
	Out	2	6	5	1
	Total	34	65	22	7
p.m. Peak Hour	In	6	18	18	4
	Out	37	71	23	8
	Total	43	89	41	12

**Resident Student Trip Generation**

Typically, trip generation estimates for a Project are derived from Institute of Transportation Engineers’ (ITE) Trip Generation (9th edition, 2012) fitted curve equations and average trip rates for comparable land use codes. However, Trip Generation does not provide comparable data for estimating person trips generated by a university residence hall. Consistent with industry practice, the number of trips generated by the 1,000 new dormitory beds on or within walking distance of campus was based on survey data collected by the study team at local student residence halls and engineering judgment. The following outlines the person trip generation for the new resident students.

The number of trips generated by the additional 1,000 dormitory beds on or within walking distance of the campus was based on survey data collected by the study team at Suffolk University’s Nathan R. Miller Residence Hall (345 beds) located at 10 Somerset Street in downtown Boston on Tuesday, March 7, 2006 and keycard access data and sign-in data from the University’s West Village A North residence hall (412 beds) on Sunday, September 26, 2010 through Saturday October 2, 2010. These residence halls have no associated parking.

Based on the survey data, daily and peak-hour person trip rates per bed were developed as shown in **Appendix D**.

Based on the study team’s observations, each bed is estimated to generate 6.32 daily person trips (3.16 person trips entering and 3.16 person trips exiting). The total peak-hour trip generation per bed is estimated to be 0.31 person trips per bed in the a.m. peak hour, 0.50 person trips per bed during the mid-day peak hour, and 0.54 person trips in the p.m. peak. The data show that the fewest trips are generated during the a.m. peak hour, more during the mid-day peak hour, and the most during the p.m. peak hour.

As with trip generation rates, no standard mode share rates could be applied to the student residents. As part of the Suffolk University survey at the Nathan R. Miller Residence Hall, all vehicular pick-up/drop-off and loading/service activity were observed in detail for use in estimating daily and peak-hour walk/bike/transit and vehicle mode shares. Based on these

observations, 98% of daily trips are walk trips, transit trips, or bicycle trips. The remaining 2 percent of daily trips are made by vehicle.

The resulting resident student trip generation for the 1,000 new beds to be added over the course of the IMP is summarized in **Table 9-20**.

**Table 9-20. Resident Student Trip Generation**

Period	Direction	Auto	Transit/Walk/Bike <sup>1</sup>
Daily	In	53	3,097
	Out	53	3,097
	Total	106	6,194
a.m. Peak Hour	In	3	71
	Out	10	219
	Total	13	290
p.m. Peak Hour	In	2	272
	Out	2	257
	Total	4	530

1. Non-auto trips are predominantly internal walk and bike trips.

Summary of 2023 Trip Generation by Mode

The combined morning and evening peak hour trip generation by mode in 2023 for commuting students and faculty/staff and resident students is summarized in **Table 9-21**.

**Table 9-21. Summary of Trip Generation by Mode**

Type	a.m. Peak Hour		p.m. Peak Hour		Daily
	IN	OUT	IN	OUT	IN/OUT
<b>Vehicles</b>					
Commuter	31	2	6	37	416
Student Residents	3	10	2	2	106
<b>Subtotal</b>	<b>34</b>	<b>12</b>	<b>8</b>	<b>39</b>	<b>522</b>
<b>Transit</b>					
Commuter	59	6	18	71	830
Student Residents	24	75	94	86	2,787
<b>Subtotal</b>	<b>83</b>	<b>81</b>	<b>112</b>	<b>157</b>	<b>3,617</b>
<b>Walk/Bike</b>					
Commuter	23	7	23	30	450
Student Residents	47	144	178	165	3,407
<b>Subtotal</b>	<b>70</b>	<b>151</b>	<b>201</b>	<b>195</b>	<b>3,857</b>

On a daily basis, the IMP projects are expected to generate 522 new vehicle trips (261 trips in and 261 trips out). During the a.m. and p.m. peak hours, the IMP projects are expected to generate only 46 and 47 vehicle trips, respectively over the 10 year IMP term.

Overall, the IMP projects will have a negligible impact on area roadways during the peak hours. Locally, there may be some limited additional vehicle trips but in terms of overall campus-wide vehicle trip generation, the addition of student housing lowers demand significantly.

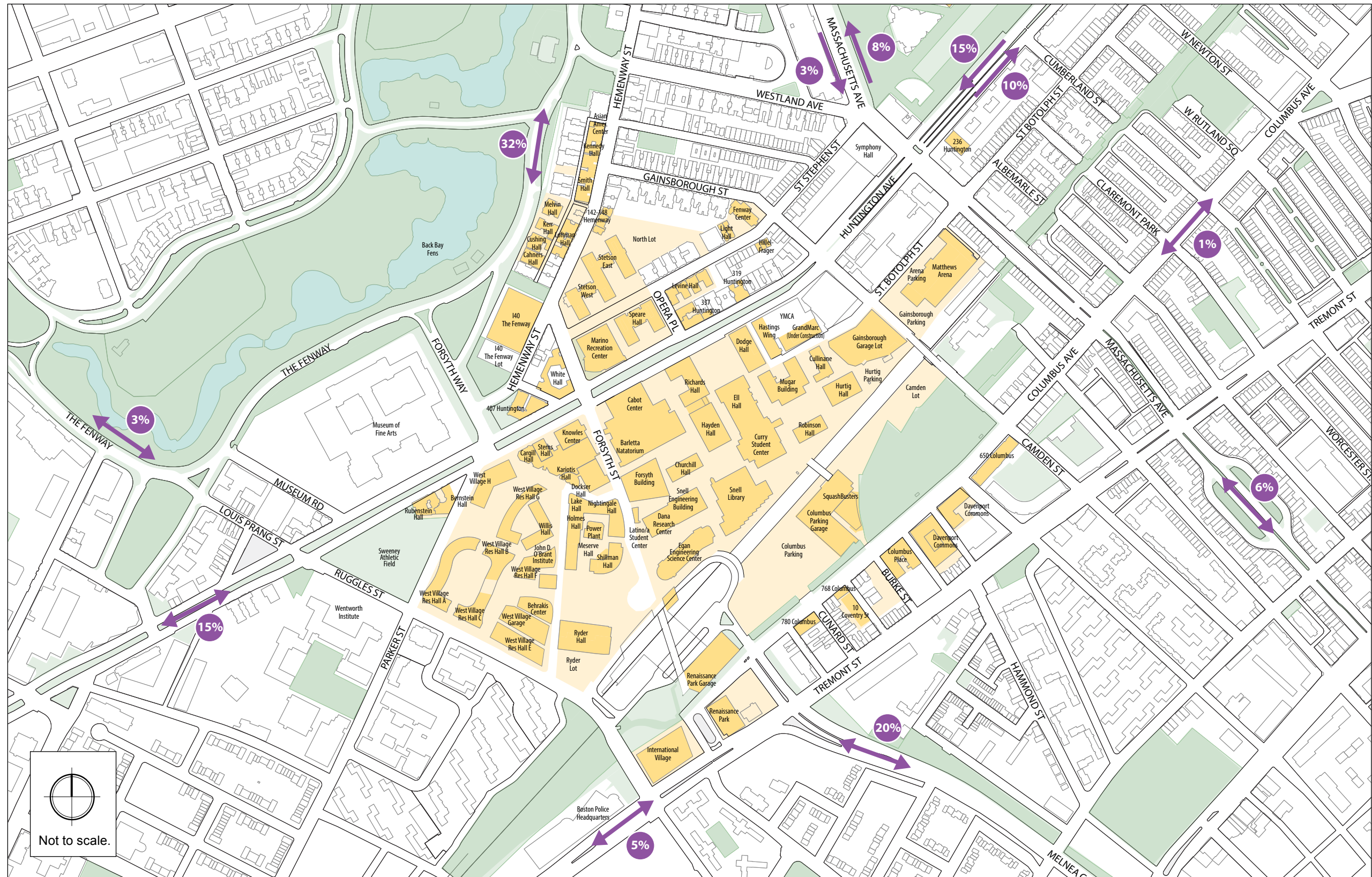
### Regional Trip Distribution

Vehicle trips approaching and leaving the campus were assigned to the following general travel routes and campus gateways:

- Westland Avenue at Hemenway Street – The intersection serves traffic coming off of Storrow Drive, vehicles coming from the major highways, I-93 southbound and the Concord Turnpike access Northeastern via Storrow Drive.
- Huntington Avenue at Massachusetts Avenue – This intersection serves traffic from the Massachusetts Turnpike and Downtown Boston.
- Huntington Avenue at Ruggles Street/Louis Prang Street – This intersection serves traffic from Route 9 and the Riverway.
- Massachusetts Avenue at Westland Avenue – This intersection serves traffic from Storrow Drive via Westland Avenue and Cambridge via Massachusetts Avenue.
- Melnea Cass Boulevard at Tremont Street – This intersection serves traffic from the Southeast Expressway and parts of South Boston such as Dorchester and Roxbury.
- Tremont Street at Ruggles Street – This intersection serves mainly local traffic from the southwest using Route 28 northbound.
- Fenway at Louis Prang Street – This intersection serves traffic from Allston, Brighton, Brookline and Cambridge.
- Massachusetts Avenue at Columbus Avenue – This intersection serves traffic from the Southeast Expressway via Massachusetts Avenue and parts of the South End

Using parking permit data mixed with zip code data provided by Northeastern, the study team distributed peak hour vehicle trips to and from each route. The resulting overall trip distribution for vehicle trips entering and exiting the campus is shown in **Figure 9-20**.





### Traffic Shifts due to Parking Consolidation

As noted above, the Master Plan projects will result in the elimination of 815 spaces in six surface parking lots (Burke Street Lot, North Lot, Ryder Lot, Camden Lot, Gainsborough Lot, and most of Columbus Lot), reducing the number of spaces in lots by about one-third, and necessitating relocation of these spaces to existing University garages. One of the Master Plan projects is the ISEB on Columbus Lot. As part of the ISEB project, more than half of the Columbus lot will be removed leaving 200 spaces. During stages 2 and 3 the parking will be reevaluated and if parking is necessary the 200 surface lot spaces will be replaced by a structured garage.

The shifts in traffic associated with this consolidation of parking are expected to affect traffic operations only at intersections immediately surrounding the campus borders, since they will not represent new trips to the area. The Columbus Avenue, Burke Street, and Camden lots are already located south of the MBTA tracks in the same general location as the garages that will receive the relocated spaces. Trips associated with the three lots in the northern part of the campus will now move south of the tracks once construction on the various buildings proceeds, reducing auto trips within the heart of the campus, in line with the overall transportation goal of making the campus more pedestrian-friendly. To reflect the impacts of the access changes and relocated trips, the two intersections of Columbus Avenue/St. Cyprian's Place and Columbus Avenue/Coventry Street were added to the Build 2023 study area.

### 2023 Build Conditions Traffic Volumes

To obtain Build volumes, trip generation estimates for the IMP projects and relocated trips resulting from parking space consolidation were added to the Morning and evening peak hour traffic volumes at study area intersections for 2023 Build conditions are shown in **Figure 9-21** and **Figure 9-22**

### 2023 Build Conditions Traffic Operations Analysis

Traffic operations under 2023 Build conditions were analyzed at all study area intersections. The results of the analysis are summarized in **Table 9-23** and **Table 9-24** for the a.m. and p.m. peak hours and compared the Existing and No-Build Conditions. The detailed traffic operations summary is provided in **Appendix D**.

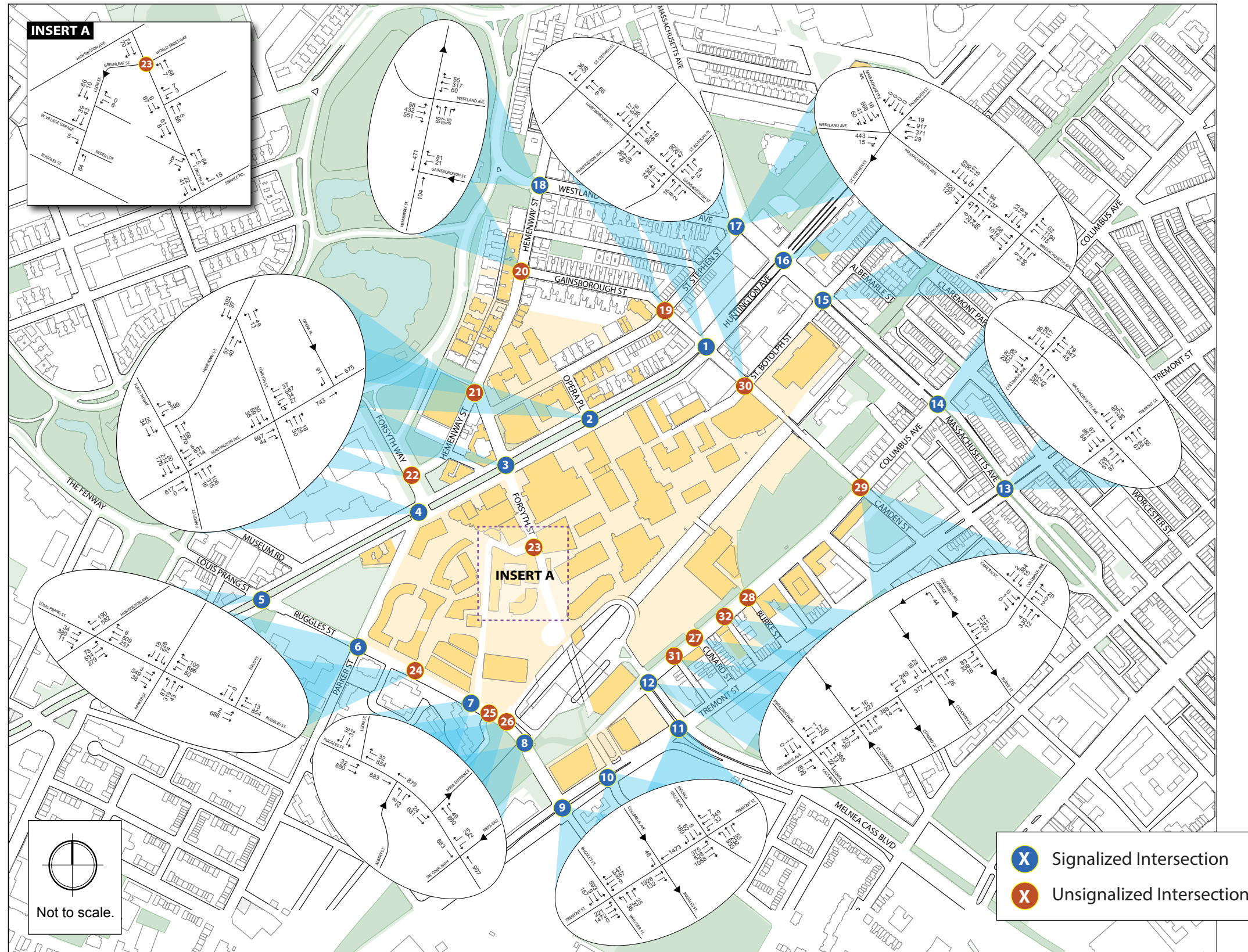


Figure 9-21.  
**Build Conditions (2023) Traffic Volumes,**  
**a.m. Peak Hour**

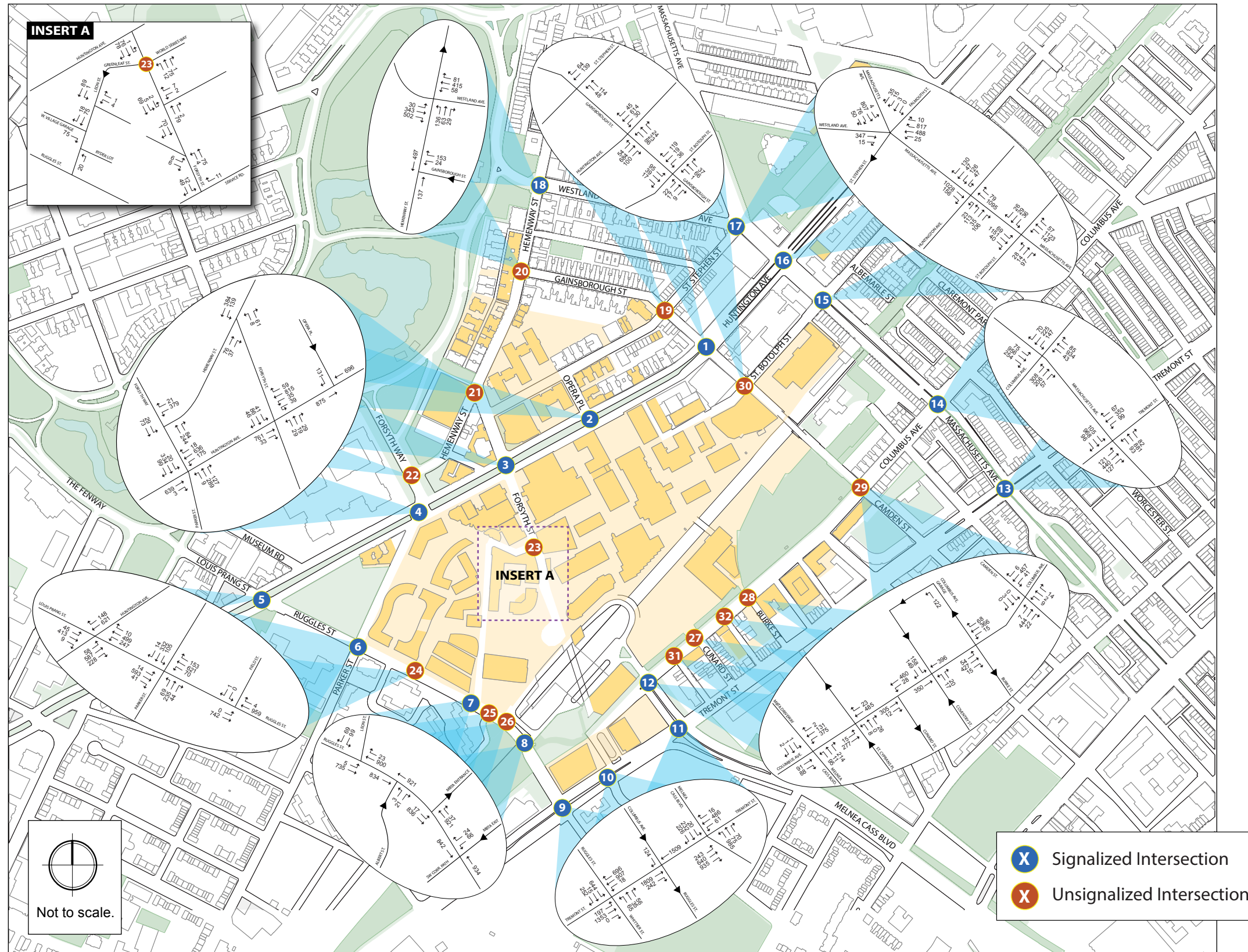


Figure 9-22.  
**Build Conditions (2023) Traffic Volumes,**  
**p.m. Peak Hour**

## Summary of Traffic Operations

Trafficware's Synchro 6 software was used to analyze delay and the existing Level of Service (LOS) at study area intersections. This tool is based on the methodology specified in the Transportation Research Board's 2000 Highway Capacity Manual (HCM). HCM methods analyze the capacity of an intersection by determining the LOS, delay (in seconds), volume-to-capacity (v/c) ratio, and 95th percentile queue length (in feet), based on the intersection geometry, traffic control, and available traffic data for each intersection.

The **v/c ratio** is a measure of congestion at an intersection approach. A v/c ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.

The **95th percentile queue** length, measured in feet, represents the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line during 5% of all signal cycles. The 95th percentile queue will not be seen during each cycle. The queue would be this long only 5% of the time and would typically not occur during off-peak hours.

Field observations were performed by Howard/Stein-Hudson (HSH) to establish intersection geometry (i.e., number of turning lanes, lane length, and lane width). Signal timing and phasing used in this analysis were obtained from BTM and through field observations conducted by HSH.

LOS designations, derived from the HCM, are based on average delay per vehicle for all vehicles entering an intersection. **Table 9-22** displays the intersection level of service criteria. LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst (unacceptable) condition, with significant traffic delay. LOS D or better is typically considered acceptable in an urban area. However, LOS E or F is often typical for a stop controlled minor street that intersects a major roadway.

**Table 9-22. Intersection Level of Service Criteria**

Average Stopped Delay (seconds/vehicle)		
	Signalized Intersection	Unsignalized Intersection
<b>A</b>	≤10	≤10
<b>B</b>	>10 and ≤20	>10 and ≤15
<b>C</b>	>20 and ≤35	>15 and ≤25
<b>D</b>	>35 and ≤55	>25 and ≤35
<b>E</b>	>55 and ≤80	>35 and ≤50
<b>F</b>	>80	>50

Source: Highway Capacity Manual, Transportation Research Board, 2000.

To evaluate existing intersection operations, the study team calibrated the level of service analysis based on field observations of actual queues and delays. Uncalibrated, the analysis can show exaggerated queues and delays.

The complete Existing, No-Build and IMP Build Conditions a.m. and p.m. intersection LOS, delay, v/c ratio, and 95th percentile queue length analysis results for the IMP projects are included in **Appendix D** along with the detailed Synchro reports.

Operations Summary Tables

**Table 9-23** and **Table 9-24** summarize intersection LOS and delay for the all the conditions.

**Table 9-23. Intersection Operations Summary: a.m. Peak Hour**

Intersection/Approach	2013 Existing Condition		2023 No-Build Condition		2023 Build Condition	
	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)
<i>Signalized Intersections</i>						
1. Huntington Avenue/Gainsborough Street	B	10.4	B	10.9	B	10.7
2. Huntington Avenue/Opera Place	B	11.3	B	11.8	B	12.0
3. Huntington Avenue/Forsyth Street	B	12.0	B	12.2	B	11.7
4. Huntington Avenue/Parker Street/Forsyth Way	C	26.2	C	26.7	C	26.8
5. Huntington Avenue/Louis Prang Street/ Ruggles Street	D	42.0	D	52.2	D	52.4
6. Ruggles Street/Parker Street	C	23.4	C	23.8	C	23.8
7. Ruggles Street/Leon Street	B	10.2	B	15.6	B	16.0
8. Ruggles Street/MBTA Exit	B	15.8	C	21.1	C	21.5
9. Ruggles Street/Tremont Street/ Whittier Street	D	36.9	D	36.9	D	37.1
10. Ruggles Street/Tremont Street/ Columbus Avenue	A	2.1	A	2.3	A	2.3
11. Tremont Street/Melnea Cass Boulevard	E	72.6	F	>80.0	F	>80.0
12. Melnea Cass Boulevard/Columbus Avenue/MBTA Ruggles Station Driveway	B	18.2	B	18.0	B	17.9
13. Tremont Street/Massachusetts Avenue	C	29.8	C	30.0	C	30.1
14. Massachusetts Avenue/ Columbus Avenue	D	36.5	D	35.1	D	37.2
15. Massachusetts Avenue/ St. Botolph Street	B	19.4	B	20.0	C	20.1
16. Massachusetts Avenue/ Huntington Avenue	C	34.8	D	36.1	D	40.0
17. Massachusetts Avenue/Westland Avenue/St. Stephens Street/Private Drive	D	51.1	F	>80.0	F	>80.0
18. Westland Avenue/Hemenway Street	C	22.2	C	22.6	C	22.4

Grey shading indicates intersection/approach operates below LOS D.

Critical Movements at Intersections	2013 Existing Condition		2023 No-Build Condition		2023 Build Condition	
	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)
<i>Unsignalized Intersections</i>						
<b>19. Gainsborough Street / St. Stephen Street</b> St. Stephen Street WB thru/right	- B	- 11.2	- B	- 10.7	- B	- 10.4
<b>20. Gainsborough Street / Hemenway Street</b> Gainsborough Street NB left/right	- C	- 15.2	- B	- 13.4	- B	- 13.5
<b>21. Hemenway Street/Forsyth Street</b> Hemenway Street WB left/thru	- C	- 16.1	- B	- 14.3	- B	- 8.6
<b>22. Hemenway Street/Forsyth Way</b> Hemenway Street WB left/right	- D	- 27.0	- E	- 36.4	- E	- 35.5
<b>23. Forsyth St/ Greenleaf St/ World Series Way</b>	-	-	-	-	-	-
<b>24. Ruggles Street/Field Street</b> Field Street WB left/right	- B	- 11.1	- B	- 11.8	- B	- 11.8
<b>25. Ruggles Street/ Albert Street</b> Albert Street EB left/right	- F	- >50.0	- F	- >50.0	- F	- >50.0
<b>26. Ruggles Street/ MBTA Entrance</b> Ruggles Street SB left/thru l thru	- A	- 4.7	- B	- 13.1	- B	- 13.7
<b>27. Columbus Avenue/Columbus Lot/Cunard St</b> Columbus Lot SB left/thru/right	- D	- 30.5	- C	- 23.8	- - <sup>1</sup>	- - <sup>1</sup>
<b>28. Columbus Ave/Burke St/Columbus Garage Dr</b>	-	-	-	-	-	-
<b>29. Columbus Avenue/Camden Street</b> Camden Street NB left/thru/right Camden Street SB left/thru/right	- B C	- 14.2 23.1	- B C	- 13.2 21.1	- B C	- 13.5 20.2
<b>30. Gainsborough Street / St. Botolph Street</b> St. Botolph Street WB left/thru/right Gainsborough Street SB left/thru/right	- A A	- 8.3 8.2	- A A	- 8.1 8.1	- A A	- 8.0 8.0
<b>31. Columbus Avenue/St. Cyprians Place</b> Columbus Avenue EB left/thru Columbus Avenue WB thru/right St. Cyprians Place NB left/thru/right	- - - -	- - - -	- - - -	- - - -	- A A B	- 0.7 0.0 12.4
<b>32. Columbus Avenue/Coventry Street</b> Columbus Avenue EB thru Columbus Avenue WB thru Coventry Street NB left/right Parking Lot SB left/right	- - - - -	- - - - -	- - - - -	- - - - -	- A A B B	- 0.0 0.0 12.0 14.3

Grey shading indicates/approach operates below LOS D.

<sup>1</sup> Driveway removed due to proposed building.

**Table 9-24. Intersection Operations Summary: p.m. Peak Hour**

Intersection/Approach	2013 Existing Condition		2023 No-Build Condition		2023 Build Condition	
	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)
<i>Signalized Intersections</i>						
1. Huntington Avenue/Gainsborough Street	B	12.7	B	12.8	B	12.4
2. Huntington Avenue/Opera Place	A	6.9	A	7.1	A	7.2
3. Huntington Avenue/Forsyth Street	B	14.7	B	16.1	B	15.5
4. Huntington Avenue/Parker Street/Forsyth Way	C	27.2	C	26.9	C	26.9
5. Huntington Avenue/Louis Prang Street/ Ruggles Street	C	31.7	D	42.9	D	43.0
6. Ruggles Street/Parker Street	E	59.2	F	>80.0	F	>80.0
7. Ruggles Street/Leon Street	A	9.7	B	18.4	B	19.3
8. Ruggles Street/MBTA Exit	B	14.2	B	17.6	B	18.1
9. Ruggles Street/Tremont Street/ Whittier Street	E	61.9	F	>80.0	F	>80.0
10. Ruggles Street/Tremont Street/ Columbus Avenue	A	7.6	B	10.2	B	10.4
11. Tremont Street/Melnea Cass Boulevard	E	78.7	F	>80.0	F	>80.0
12. Melnea Cass Boulevard/Columbus Avenue/MBTA Ruggles Station Driveway	C	22.3	C	22.4	C	21.6
13. Tremont Street/Massachusetts Avenue	C	27.1	C	30.1	C	30.1
14. Massachusetts Avenue/ Columbus Avenue	D	41.6	D	41.8	D	48.9
15. Massachusetts Avenue/ St. Botolph Street	B	19.1	C	21.7	C	22.8
16. Massachusetts Avenue/ Huntington Avenue	B	13.8	C	20.2	C	21.1
17. Massachusetts Avenue/Westland Avenue/St. Stephens Street/Private Drive	F	>80.0	F	>80.0	F	>80.0
18. Westland Avenue/Hemenway Street	C	23.4	B	13.0	B	13.5

Grey shading indicates intersection/approach operates below LOS D.



Critical Movements at Intersections	2013 Existing Condition		2023 No-Build Condition		2023 Build Condition	
	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)
<i>Unsignalized Intersections</i>						
<b>19. Gainsborough Street / St. Stephen Street</b> Gainsborough Street NB left/thru	- E	- 45.5	- D	- 32.2	- D	- 34.4
<b>20. Gainsborough Street / Hemenway Street</b> Gainsborough Street NB left/right	- C	- 24.4	- C	- 24.3	- C	- 24.3
<b>21. Hemenway Street/Forsyth Street</b> Hemenway Street WB left/thru	- C	- 16.1	- C	- 16.4	- C	- 16.4
<b>22. Hemenway Street/Forsyth Way</b> Hemenway Street WB left/right	- E	- 36.7	- F	- >50.0	- F	- >50.0
<b>23. Forsyth Street/ Greenleaf St/ World Series Way</b>	-	-	-	-	-	-
<b>24. Ruggles Street/Field Street</b> Field Street WB left/right	- F	- >50.0	- F	- >50.0	- F	- >50.0
<b>25. Ruggles Street/ Albert Street</b> Albert Street EB left/right	- F	- >50.0	- F	- >50.0	- F	- >50.0
<b>26. Ruggles Street/ MBTA Entrance</b> Ruggles Street SB left/thru   thru	- A	- 2.7	- D	- 26.6	- D	- 29.0
<b>27. Columbus Avenue/Columbus Lot/Cunard St</b> Columbus Lot SB left/thru/right	- F	- >50.0	- F	- >50.0	- - <sup>1</sup>	- - <sup>1</sup>
<b>28. Columbus Avenue/Burke Street/Columbus Garage Driveway</b>	-	-	-	-	-	-
<b>29. Columbus Avenue/Camden Street</b> Camden Street NB left/thru/right Camden Street SB left/thru/right	- C C	- 20.0 21.4	- C C	- 20.7 22.5	- C C	- 21.7 21.9
<b>30. Gainsborough Street / St. Botolph Street</b> St. Botolph Street WB left/thru/right Gainsborough Street NB left/thru/right	- A A	- 9.2 8.6	- A A	- 8.7 8.3	- A A	- 8.5 8.2
<b>31. Columbus Avenue/St. Cyprians Place</b> Columbus Avenue EB left/thru Columbus Avenue WB thru/right St. Cyprians Place NB left/thru/right	- - - -	- - - -	- - - -	- - - -	- A A B	- 0.5 0.0 12.6
<b>32. Columbus Avenue/Coventry Street</b> Columbus Avenue EB thru Columbus Avenue WB thru Coventry Street NB left/right Parking Lot SB left/right	- - - -	- - - -	- - - -	- - - -	- A A C F	- 0.0 0.0 19.6 >50.0

Grey shading indicates intersection/approach operates below LOS D.

<sup>1</sup> Driveway removed due to proposed building.

### 2013 Existing Conditions

In the a.m. peak hour under Existing Conditions, all signalized intersections operate at LOS D or better, with the exception of Tremont Street/Melnea Cass Boulevard which operates at an overall LOS E. For unsignalized locations, the only intersection with a movement operating at a LOS E or F is Ruggles Street/Albert Street, where the eastbound left/right approach on Albert Street operates at a LOS F; this level of operation is typical for a stop controlled side street approach intersecting a major arterial roadway.

In the p.m. peak hour, however, several signalized intersections operate at an overall LOS E or LOS F:

- Ruggles Street/Parker Street;
- Ruggles Street/Tremont Street/ Whittier Street;
- Tremont Street/Melnea Cass Boulevard; and
- Massachusetts Avenue/Westland Avenue/St. Stephens Street/Private Drive. Signal retiming as part of the Massachusetts Avenue Improvement Project has not yet been completed. Once the signal timing and phasing are optimized, this condition may improve.

For unsignalized locations, the intersections with a movement operating at a LOS E or LOS F are:

- Gainsborough Street/ St. Stephen Street, where the northbound Gainsborough Street left/through approach operates at a LOS E.
- Hemenway Street/ Forsyth Way, where the westbound Hemenway Street left/right approach operates at a LOS E.
- Ruggles Street/ Field Street, where the westbound Field Street left/right approach operates at a LOS F due to inadequate gaps.
- Ruggles Street/ Albert Street, where the eastbound Albert Street left/right approach operates at a LOS F, again due to inadequate gaps for the site street.
- Columbus Avenue/Columbus Lot/Cunard Street, where the Columbus Lot southbound left/through/right approach operates at a LOS F due to inadequate gaps for the parking lot traffic.

### 2023 No-Build Conditions

In the a.m. peak hour under 2023 No-Build conditions, all signalized intersections remain at the same LOS except Tremont Street/Melnea Cass Boulevard, which decreases from LOS E to LOS F given the growth in through traffic, and Massachusetts Avenue/Westland Avenue/St. Stephens Street/Private Drive, which decreases from LOS D to LOS F. Again, the signal optimization along Massachusetts Avenue is expected to improve this condition.

For unsignalized locations, only the Hemenway Street westbound left/right approach at the intersection with Forsyth Way decreases from LOS D to LOS E.

In the p.m. peak hour, operations at the three intersections operating at LOS E under existing conditions – Ruggles Street/Parker Street, Ruggles Street/Tremont Street/Whittier Street and Tremont Street/Melnea Cass Boulevard – decrease to LOS F.

For unsignalized locations, only the Hemenway Street westbound left/right approach at Forsyth Street degrades from LOS D degraded from LOS E to LOS F.

### 2023 Build Conditions

Under Build Conditions, analyses at all study area intersections during the a.m. and p.m. peak hours were repeated, along with two added Columbus Avenue intersections, in order to evaluate the changed driveway locations. Under Build conditions, overall LOS operations remain at acceptable levels or the same levels as under No-Build conditions for all the signalized and unsignalized intersection approaches. Operations at all approaches for the two new unsignalized intersections along Columbus Avenue also remain at acceptable levels of service with the redistributed garage volumes, with the exception of the Parking Lot southbound shared left-turn/right-turn approach at Columbus Avenue/Coventry Street during the evening peak hour only that will operate at LOS F. This level of operation is typical for a stop-controlled minor approach that intersects a major arterial roadway and is consistent with the current level of operation (LOS) at the existing Columbus Lot driveway approach.

### Future (2023) Parking Supply and Demand

As noted above, one of the major changes resulting from Master Plan projects will be the effects on campus parking, as there will be no new parking built in association with the proposed new buildings.

The University is proposing to construct several new academic and residential buildings as part of the new (10+ year) IMP. As currently envisioned, there are twelve (12) projects proposed (including Camden Lot) of which seven (7) would directly impact existing parking supply, reducing overall supply by more than 800 spaces, besides influencing demand. **Table 9-25** summarizes the proposed IMP projects, the impact on parking supply, and the resulting parking surplus at the time all projects were implemented. These projects are listed roughly in the order in which they may begin construction.

**Table 9-25. Future Parking Supply**

Scenario/Project	Supply (spaces)		Parking Surplus (spaces) <sup>1</sup>
	Net Change	Total	
<b>Existing Conditions (2012/2013)</b>	-	3,728	1,065
<b>Future Conditions (2013 – 2023+)</b>			
GrandMarc (currently under construction)	0	3,728	1,065
<b>IMP Projects</b>			
Columbus Lot ISEB	(282)	3,446	783
Carter Playground (Camden Lot Impact)	(230)	3,216	553
Burke Street Parking Lot	(58)	3,158	495
Columbus Lot Academic Mixed-Use I <sup>2</sup>	0	3,158	495
Columbus Lot Academic Mixed-Use II <sup>2</sup>	0	3,158	495
North Lot Academic Building	(145)	3,013	350
Matthews Arena Addition	(55)	2,958	295
Ryder Lot Residential and Academic Tower	(45)	2,913	250
Burnstein Rubenstein	0	2,913	250
Cargill Hall	0	2,913	250
Cabot Site	0	2,913	250
Forsyth Replacement	0	2,913	250
New Science Quad	0	2,913	250
Gainsborough Garage <sup>3</sup>	0	2,913	250
<b>TOTAL 2023 SUPPLY</b>	<b>(815)</b>	<b>2,913</b>	<b>-</b>

<sup>1</sup> Assumes no changes in demand associated with building projects. Weekday, mid-day peak demand remains constant at 2,663 vehicles.

<sup>2</sup> Assumes remaining spaces in Columbus Lot (approximately 200 spaces) is replaced by structured parking.

<sup>3</sup> Assumes 1:1 replacement of existing parking supply at Gainsborough Garage.

At this time it is anticipated that the projects would involve the redevelopment of a portion of the existing Columbus Lot for the new Interdisciplinary Science and Engineering Building (ISEB) and improvements to the Carter Playground. It is anticipated the new ISEB would displace approximately 282 surface parking spaces and that no new parking would be provided with the project. Vehicles that currently park in these spaces would in the future park in the Columbus Garage, which has adequate available supply to accommodate this demand. Later development on the remainder of Columbus Lot would likely displace the remaining 200 surface spaces and would potentially incorporate structured replacement parking, if deemed necessary to meet long-term needs. Northeastern is currently in discussions with the Boston Parks and Recreation Department about potential renovations to Carter Playground, including the expansion of the field into the Camden Parking Lot, which would result in the loss of approximately 230 surface parking spaces.

Other IMP Projects that would impact existing on-campus surface parking include:

- redevelopment of the 145-space North Lot, used primarily for overnight student parking and commuters from the north shore;
- redevelopment of the 33-space Gainsborough Lot and 22-space Arena Parking Lot for a Matthews Arena Addition and associated landscape improvements;
- redevelopment of the existing 45-space Ryder Hall surface parking lot that would accommodate an expansion of Ryder Hall;
- redevelopment of the aging Gainsborough Garage with a state-of-the-art student recreation and athletic facility that would likely include the 1:1 replacement of the existing 312 space parking garage; and
- redevelopment of the 58-space Burke Street lot into an office and/or residential building. When combined, all of the IMP projects would result in a net loss of 1,015 spaces, roughly equal to the current surplus.

Other potential projects/"areas of interest" that could affect parking supply/demand include:

- Christian Science Center – there is potential for other future leasing opportunities at Christian Science Center; however, but there are no specific plans at this time. Additional office space in the Christian Science Center may require off-site leases for parking.
- Parcel 18 East – redevelopment of this site into a hotel would result in the loss of 74 existing surface parking spaces currently under long-term agreement by Beth Israel. Parking for the hotel staff and guests would either need to be accommodated on-site or within one of Northeastern's garages. At that time, the lease for these spaces could either be allowed to expire or reassigned to the Renaissance Garage, or elsewhere.
- Hastings Wing of the YMCA – in the event that the 67-bed Medeiros Transitional Housing Program were to be relocated off-campus, the Hastings Wing could be considered for modernization/redevelopment to allow for addition of student housing or the relocation of other uses to enhance the campus presence and functioning of Huntington Avenue. Changes to parking demand would depend on how the space is re-used; however, it is unlikely that student housing or the relocation of other existing University uses would have a significant impact on parking demand.
- Fenway Center – potential for the expansion/renovation of the existing building, would/may displace the existing, adjacent small surface parking lot.

As discussed above, the University has undergone a number of changes in recent years that have impacted commuting behavior and parking demand. Changes include, but are not limited to, reducing overall enrollment as the University continues to focus on academic excellence; the addition of approximately 5,000 new beds on-campus (including GrandMarc); increased bicycle use; increased out-of-area cooperative education placements; a growing demand for online and

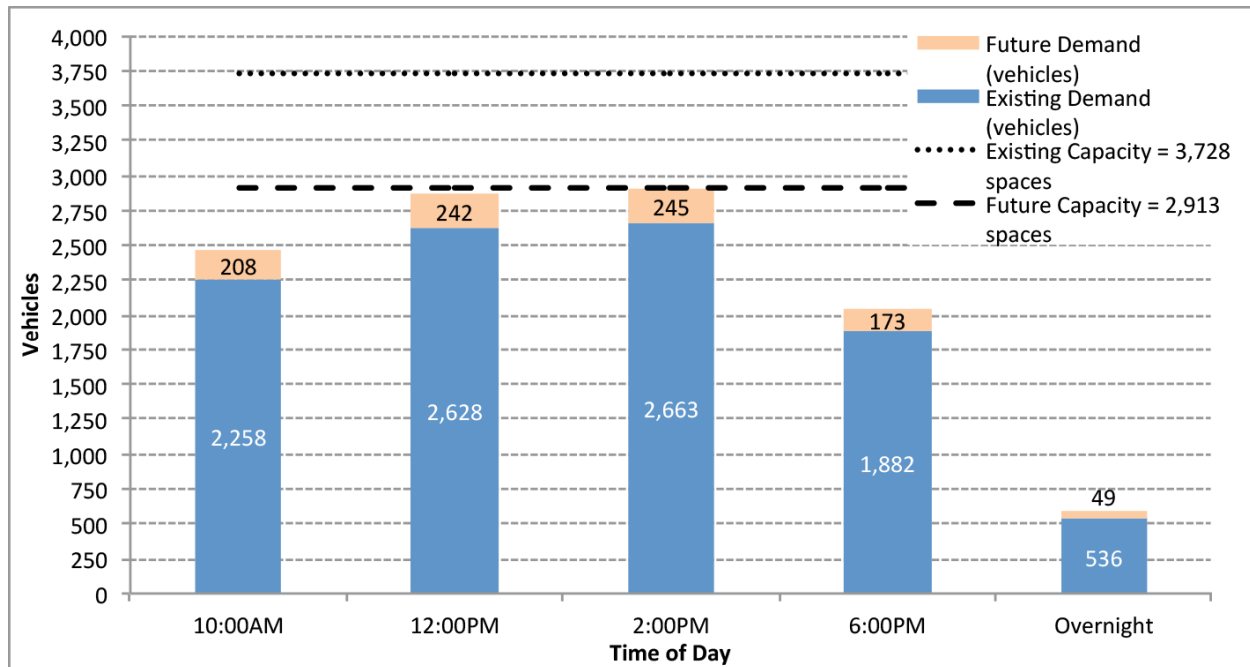
distance learning; and increased opportunities for study abroad and similar experiential education programs outside Massachusetts.

These changes have all reduced automobile use by faculty, staff and students, as well as parking demand on a per person basis. Since the 2000 IMP, Northeastern has added more than 2.3 million square feet of new construction but only added parking at a ratio of 0.32 parking spaces per 1,000 square feet, which has reduced the overall campus parking ratio from about 0.76 spaces per 1,000 square feet in 2000 to just 0.58 spaces per 1,000 square feet today. With an anticipated reduction of more than 800 spaces over the course of the IMP, the campus parking ratio will be reduced to about 0.33 spaces per 1,000.

Over the course of the new Master Plan, it is anticipated that Undergraduate student enrollment will remain consistent with its current levels. Meanwhile, based on industry-wide best practices and comparator projections, the university is assuming a conservative projection of staff/employee and graduate student growth of approximately 10 percent over the life of the IMP. However the bulk of the graduate student growth would likely be in distance learning programs and at remote campuses.

At current parking demand ratios, this will increase faculty/staff and graduate student parking demand by approximately 245 spaces during the mid-day peak period. With the reduced parking supply and the increased demand the overall weekday occupancy will be operating basically at capacity at 2:00 p.m. (see **Figure 9-23**).

**Figure 9-23 Future Parking Demand**



Public Transportation

The number of student transit trips to the campus has declined over the past ten years as the number of dormitory beds has increased. At the same time, the number of faculty/staff trips by transit has increased, so that transit accounts for 37.7% of total campus commute trips in 2013.

As shown above in **Table 9-21**, above, added peak hour transit trips are not expected to add significantly to peak loads on MBTA trains or buses.

Pedestrians

As noted above, walk trips to and within the campus have grown significantly due to the addition of so many beds in campus dormitories over the past ten years. New projects will focus on academic buildings, which will increase trips within the campus, but not external trips. However, redevelopment of parcels south of the MBTA tracks is expected to increase pedestrian travel north and south; this will be accommodated through construction of the new bridge (“the Arc”) across the tracks in the vicinity of the proposed Integrated Science Center building, as described in Chapter 7.2, *Detailed Project Descriptions – Proposed IMP Projects*.

Bicycles

As described under Existing Conditions above, cycling has been increasing on campus as the increasing number of resident students are restricted from owning automobiles and employee parking ratios go down. As discussed, the number of bicycles parked at various locations on campus greatly exceeds the number of bicycle slots provided in secure bike racks. Over the term

of the IMP, as each new building goes in, bike storage will be provided in line with BTB guidelines.

In addition to improving bicycle parking, Northeastern University, with help from Boston Bikes, will work to improve connection to the Southwest Corridor by exploring with BTB the creation of a cycle track along Columbus Avenue. The existing Southwest Corridor bike path is in poor condition, causing many riders to use the on-street bike lanes.

### Loading and Service

The Interdisciplinary Science and Engineering Center and all proposed new campus buildings will be served by off-street loading facilities. Potential loading areas for the IMP projects are illustrated in the Urban Design Graphics in Chapter 7 and Appendix C. The exact details of each loading area will be worked out as the buildings proceed through design.

These loading facilities will be generally used by single-unit trucks and vans dispatched from the University's central receiving area. They will operate according to existing Northeastern policies and procedures as described above under Existing Conditions.

### Transportation Demand Management

Northeastern University is committed to continuing its active Transportation Demand Management Program. It is expected that enhanced bicycle storage, expansion of car-sharing opportunities, provisions for alternative fuel vehicles, and continued attention to parking availability and pricing will be priority efforts over the term of the IMP. As the parking supply on campus is reduced due to new building projects, parking ratios for students and staff will decrease. This reduced availability typically leads to higher fees, and in itself acts as a demand management measure.

### Construction Period Impacts

As individual projects are developed, Northeastern University will develop detailed evaluations of potential short-term construction-related impacts. Working with the Boston Transportation Department (BTB), the University will specify construction vehicle traffic routing, worker parking, and pedestrian access around construction sites. A detailed Construction Management Plan will be developed and submitted to BTB for each project. It is anticipated that major routes such as Columbus Avenue and Ruggles Street will be the primary access routes for construction vehicles. Construction workers will be encouraged to use public transportation to access the campus. Contractors will be encouraged to provide incentives for transit use. The University will work with the Boston Police Department and BTB to ensure that on-street parking regulations in the area and in designated Residential Parking areas are enforced.



## 10.0 INFRASTRUCTURE SYSTEMS

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### 10.1 Introduction

This chapter provides an overview of the existing sanitary sewer, stormwater, water supply, natural gas, steam, electrical, and telecommunications systems serving the Northeastern University Campus and the relative impacts associated with the new IMP projects. The infrastructure evaluation is based on information from various utility companies and the Northeastern University Facilities Division.

### 10.2 Existing Utility Infrastructure

#### 10.2.1 Water and Sewer

The water supply for the campus is provided by the Boston Water & Sewer Commission's ("BWSC") Southern Low Service network via water mains in Huntington Avenue, Ruggles Street, Hemenway Street, and Columbus Avenue. The Southern High Service network water mains in Huntington Avenue and Tremont Street provide fire protection services for a couple campus buildings with the majority serviced by the Southern Low Service network. See **Figure 10-1** for the existing water supply system. The figure is based on plans and information obtained from BWSC and the Northeastern University Facilities Division.

Campus sanitary sewage is discharged into sewer mains maintained by BWSC in Ruggles Street, Parker Street, Huntington Avenue, Forsyth Street and Hemenway Street. Regional sewer service and treatment are provided by the Massachusetts Water Resources Authority with treatment at the Deer Island Treatment Plant.

The majority of the campus is serviced by separate sanitary sewers and storm drains. However, these systems discharge into combined sewers in Ruggles Street, Forsyth Street, Parker Streets, Gainsborough Street and Huntington Avenue. See **Figure 10-2** for the existing sanitary sewer and combined sewer system on campus. The figure is based on plans and information obtained from BWSC and the Northeastern University Facilities Division.

#### 10.2.2 Stormwater Drainage

As discussed in the Water and Sewer section, the majority of the campus buildings have separate sanitary sewers and storm drains. These systems ultimately discharge into the City's combined sewers. There three existing sites on campus with stormwater recharge systems, which decrease the amount of runoff discharging into the combined sewers and recharge the groundwater lessening the environmental impact of these developments. West Village F, Matthews Arena, and 142-148 Hemenway have underground storm water recharge systems. GrandMarc, currently under construction, has a proposed recharge system as well. International Village, a 21-story mixed-use residence hall/office building opened in 2009, achieved LEED Gold certification. The project features a green roof garden, which helps mitigate "the heat island effect" and also

reduces and slows stormwater runoff from the site. See **Figure 10-3** for the existing stormwater and combined sewer system on campus. The figure is based on plans and information obtained from BWSC and the Northeastern University Facilities Division.

### **10.2.3 Electrical Service**

The University is supplied electricity from NSTAR. Northeastern owns, operates, and maintains three sub-stations, which are fed from NSTAR's STA 350 at Colburn Street. Two of the customer stations, STA 452 and STA 573 may be near capacity. STA 452 is located in the basement of the Forsyth Building and feeds approximately 14 transformers. STA 573 is located at 480 Parker Street at West Village Residence Hall C and was built around 2000. The third station, STA 287 is located at 1155-1175 Tremont Street at the International Village and is less than 4-years old and has additional capacity. See **Figure 10-4** for the existing sub-station locations on campus. The figure is based on information obtained from the Northeastern University Facilities Division.

### **10.2.4 Steam**

Most of the buildings on campus are supplied with steam from either a central steam plant or from their own on-site boilers. The central steam plant is a low-pressure system (maximum operating pressure: 15 PSI). This plant generates a combined total of 5,100 boiler horsepower, or roughly 176,000 pounds of steam per hour. The primary fuel is natural gas via a dedicated medium pressure main from Ruggles Street. Low-sulfur, transportation grade fuel oil is the back-up fuel source from a 45,000 gallon on-site underground storage tank. The current steam demand upon the plant is 75,000 pounds per hour, leaving adequate spare capacity in the event that a boiler is out of service for repair. This plant presently serves approximately 37 buildings for heat and hot water. See **Figure 10-5** for the University's existing steam system. The figure is based on plans and information obtained from the Northeastern University Facilities Division.

### **10.2.5 Gas**

The University is supplied natural gas from National Grid. See Figure 10-6 for the existing natural gas lines on campus. The figure is based on plans and information obtained from National Grid and the Northeastern University Facilities Division.

### **10.2.6 Telecommunications**

Telecommunication services for the University are supplied by Verizon. The main communication duct banks serving the University are located in Huntington Avenue, Gainsborough Street, Parker Street, and Hemenway Street. The University has their own internal campus distribution system and provides internet, cable, and telephone services to all their buildings.

### **10.2.7 Chilled Water**

Currently, there is no chilled-water distribution on campus.

## **10.3 Impact of Future Projects on Utility Infrastructure**

Most campus areas north of the MBTA train tracks lie within the City's Groundwater Conservation District (GCOD), which requires recharge of stormwater runoff. Please refer to **Figure 10-3** for the location of the GCOD within the University. The campus is also within the Muddy River and Charles River Watersheds, which currently receive excessive nutrient loads. Of particular concern to the Boston Water and Sewer Commission is the removal of phosphorus from the storm drainage stream. This removal can be provided through engineered recharge systems, water treatment units and a variety of other best management practices.

Green infrastructure such as green roofs, bio-swales, rain gardens, porous pavements, and rainwater harvesting can help meet the requirements of the GCOD and BWSC while reducing the environmental impact of future development projects and restoring storm water's natural flow pattern by allowing water to permeate into the ground. The University will investigate the feasibility of incorporating green infrastructure practices into its future projects. For example, future street improvements offer an opportunity to incorporate stormwater management concepts such as rain gardens and bio-swales into the overall streetscape design while new buildings offer opportunities to install green roofs and rainwater harvesting, which can serve as an amenity and educational component for students. New open spaces and courtyards that provide recreational and social spaces also can include rain gardens, bio-swales and porous pavements for storm water mitigation.

### **10.3.1 Water and Sewer**

Future projects will require the installation of new water service connections to existing BWSC water mains to feed proposed projects. All proposed connections will require review by BWSC on a project-by-project basis. The University will continue to work with the Boston Water and Sewer Commission for future connections to provide sufficient capacity for future needs. Any deficiencies in service or capacity will be dealt with a project-by-project basis. The master plan sustainability initiatives include water use reduction measures proposed as part of sustainable campus guidelines. Where possible, rainwater harvesting will be utilized to reduce use of potable water. The use of low-flow showers and faucets will be investigated for future project. International Village, a LEED gold certified project was able to successfully incorporate low-flow showers and faucets into the design.

Sewer systems serving new buildings shall discharge into new sewer laterals that will connect to existing BWSC sewer mains. All proposed connections to the BWSC system shall be submitted for review on a project-by-project basis to ensure compliance with latest requirements and regulations. In addition to low-flow showers and faucets, the use of automatic sensor toilets and faucets will also be investigated for future projects to reduce water use and sanitary waste.

### **10.3.2 Stormwater Drainage**

Most campus areas north of the MBTA train tracks lie within the City's Groundwater Conservation District (GCOD. Article 32 of the Boston Zoning Code states that the purpose of the GCOD is to prevent the deterioration of and, where necessary, promote the restoration of, groundwater levels in the city of Boston.

For development projects within the District, 1-inch of rainfall across the impervious areas will be captured and infiltrated to recharge the groundwater system. Groundwater recharge can be achieved through several sustainable storm water management methods including rain gardens, porous pavement, bio-swales, and subsurface infiltration. Storm water runoff from rainfall events in excess of the 1 inch will be routed to existing storm sewer mains, in conjunction with the BWSC Master Plan for this area. All plans for connection to the existing BWSC system shall be reviewed for compliance with the latest regulations. It is also a common goal to separate combined sewer systems wherever possible.

Recent examples of projects where sustainable stormwater practices were implemented on campus include West Village F, Matthews Arena, 142-148 Hemenway, 129 Hemenway, Dockser Hall, and GrandMarc (under construction). All of these sites have underground storm water recharge systems. International Village features a green roof garden, which reduces and slows stormwater runoff from the site and high albedo (high solar reflectance index) roof surfaces on the high rise portions of the building and also helps mitigate "the heat island effect".

The IMP sustainability initiatives include innovative storm water management proposals and a significant reduction of impervious surface on the Northeastern campus proposed as part of sustainable campus guidelines. Through these measures, the University strives to maximize opportunities for sustainable storm water management practices to reduce storm water discharge from its campus sites into the storm sewer systems.

### **10.3.3 Electrical System**

Two of the University's sub-stations, STA 452 and STA 573, may be near capacity. STA 452 is at approximately 80% capacity. STA 573 has less load and there is potential for shifting building loads (i.e. Snell Library) from STA 452 to 573 to provide additional capacity on STA 452. STA 287, located at 1155-1175 Tremont Street at the International Village, is currently lightly loaded, however the proposed IMP sites are not in close enough proximity to benefit from its available capacity. NSTAR's STA 350, which feeds the University's substations, has capacity and can provide service for future development.

The University does not have the existing capability to provide service to the IMP site at the Columbus Lot. An existing NSTAR electrical duct bank travels through the site. A new substation by NSTAR could provide future service to the site.

Northeastern has adopted and implemented two policies that will have a direct impact on their future energy use. The first is the green building policy stating that all building renovations

greater than 50,000 square feet and all new buildings are to be certifiable at or comparable to the Silver level under the USGBC LEED rating system. The second policy states that all new equipment and products be ENERGY STAR qualified or be highly efficient equipment. Northeastern has also made a conscious effort to use compact fluorescent bulbs and reduce its overall consumption of oil, gas, and electricity.

#### **10.3.4 Steam**

The University's existing steam plant has the capacity to meet the heating demands of an additional one million square feet of development. A new low-pressure steam and condensate return system, installed in the Utility Corridor from the University's main steam plant, was engineered to supply the needs of proposed buildings. Individual steam supplies to buildings will connect to the corridor through existing steam manholes.

The University's existing steam infrastructure is located north of the MBTA train tracks and has excess capacity for the campus north of the tracks. The university buildings south of the tracks, such as those at International Village, are serviced by gas-fired boilers. It is anticipated that future buildings south of the track would be serviced the same way although the University may also explore extending the steam system across the MBTA property. Any extension of the steam system across the MBTA property would need to be done as a loop to ensure service reliability.

#### **10.3.5 Gas**

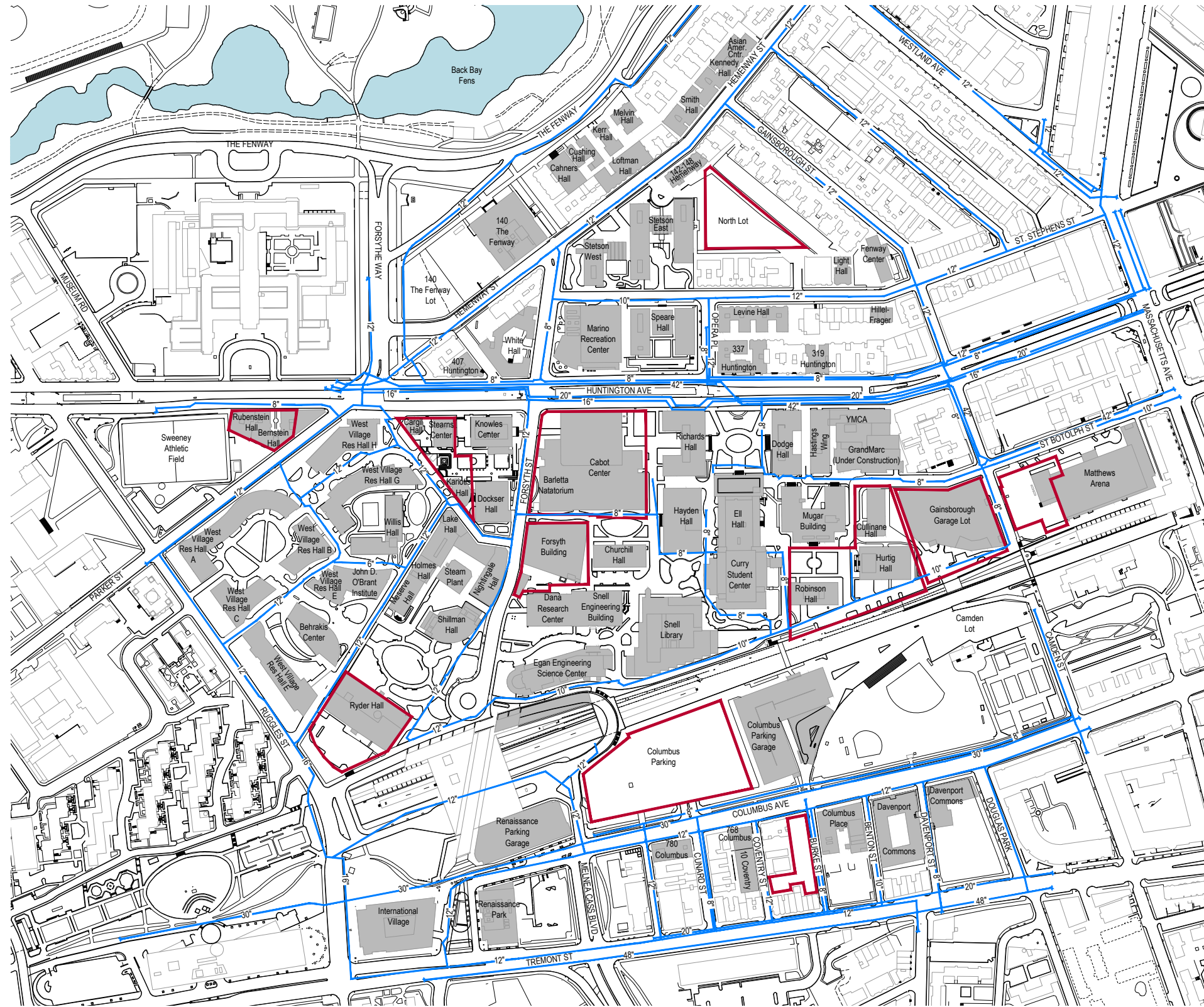
Proposed IMP projects may require the installation of new natural gas service connections. The University will work with National Grid to provide service to these buildings from existing gas mains.

#### **10.3.6 Telecommunications**

Verizon's main telecommunication duct banks serving the University are located in Huntington Avenue, Gainsborough Street, Parker Street, and Hemenway Street. The University has their own internal campus distribution system and provides internet, cable, and telephone services to all their buildings. The University will internally work to provide service for future IMP projects and work with Verizon as needed.

#### **10.3.7 Chilled Water**

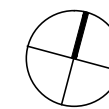
Currently, there is no chilled-water distribution on campus. However, the University's Office of Physical Plant is studying the feasibility of underground systems between select buildings where alternative energy sources exist. The objective of the department is to reduce energy consumption and enhance reliability. There is potential for a total energy plant at the IMP site at Columbus Lot. The plant could provide chilled water, gas, and electric for the on-site development based on information from the Northeastern Facilities Division.

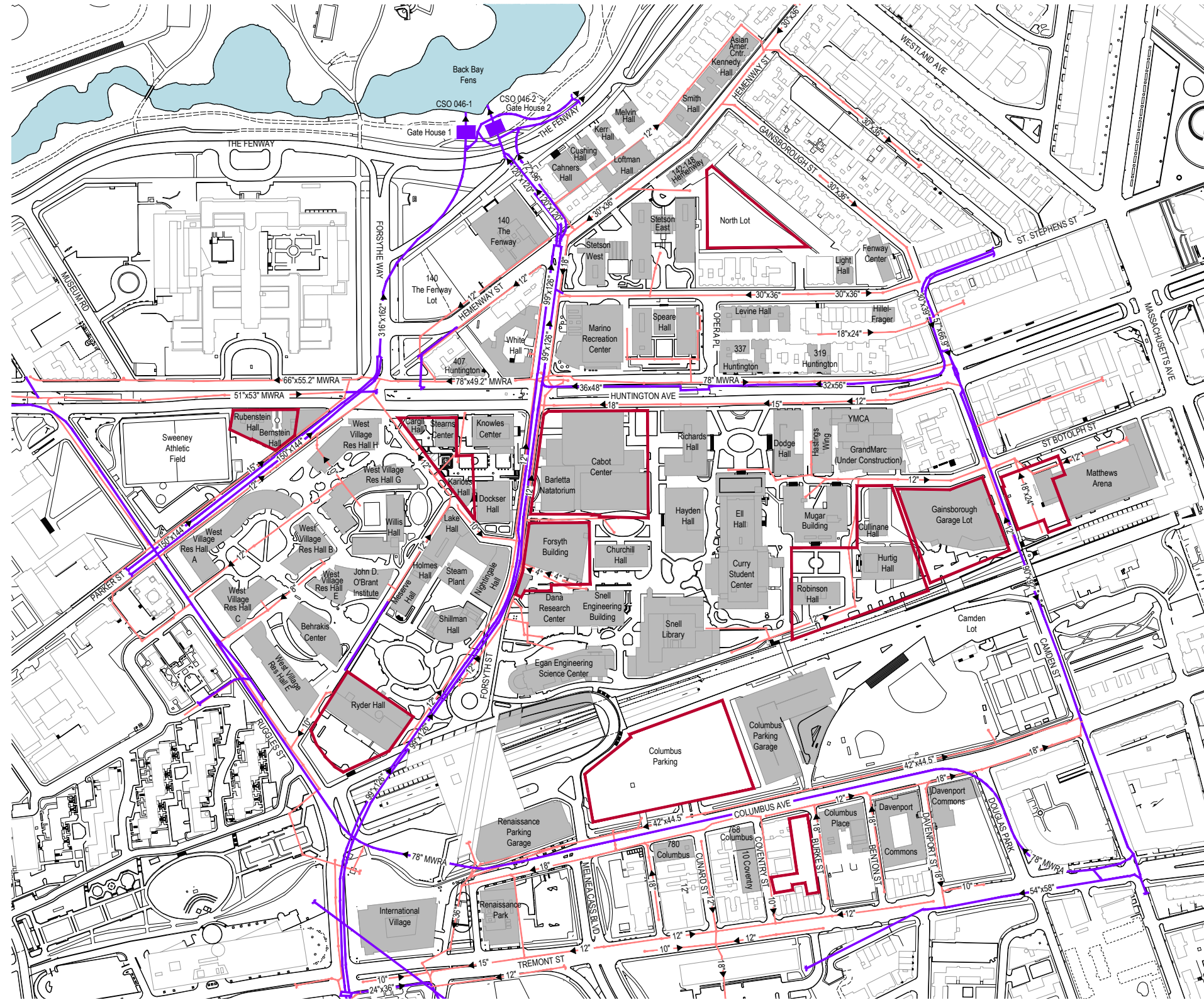


**Legend**

- 8" Existing water line
- Existing Northeastern buildings
- Proposed IMP projects

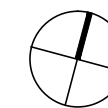
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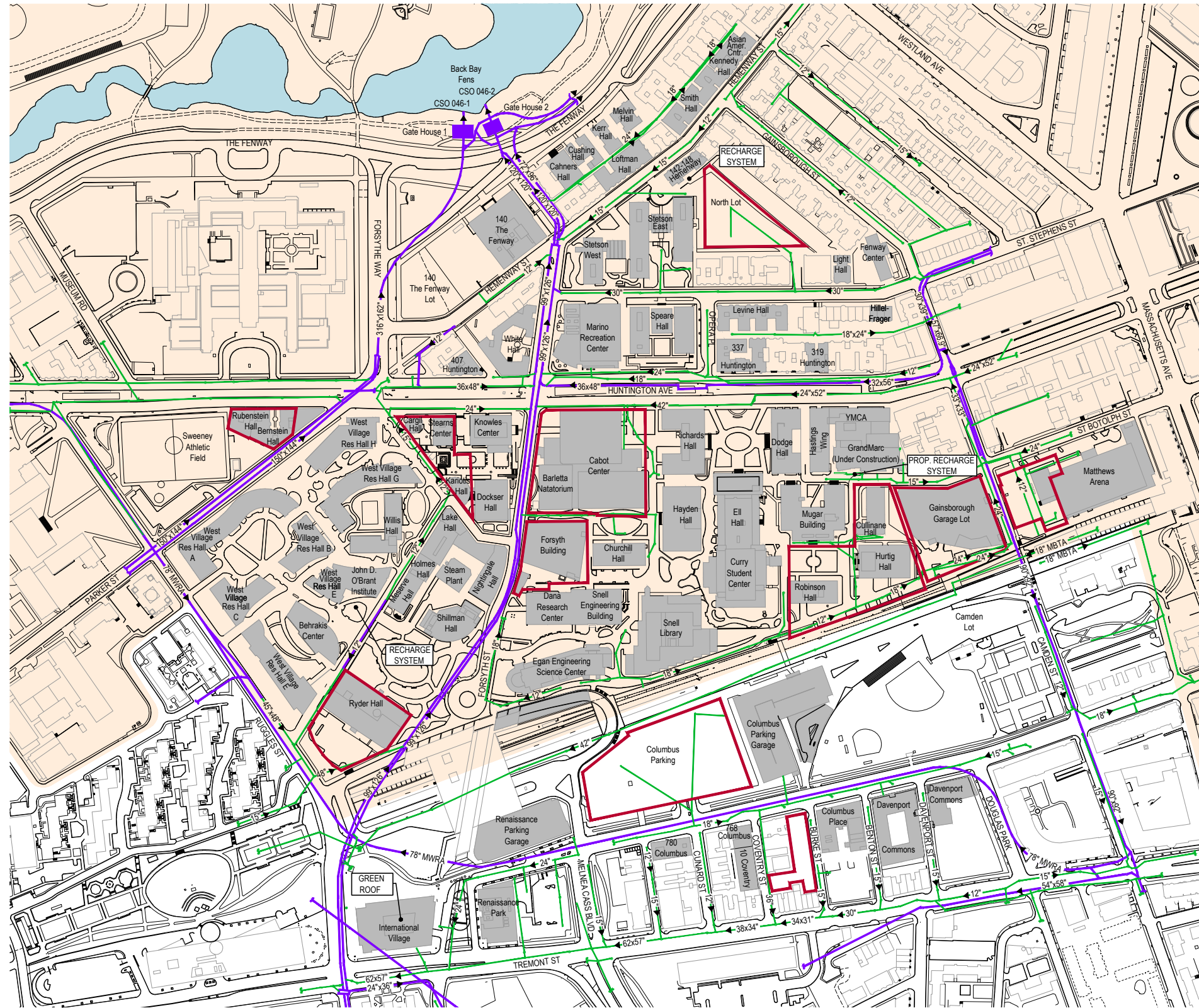




- Legend**
- 8" Existing sanitary sewer line
  - 36"x48" Existing combined sewer line
  - Existing Northeastern buildings
  - Proposed IMP projects

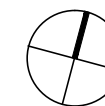
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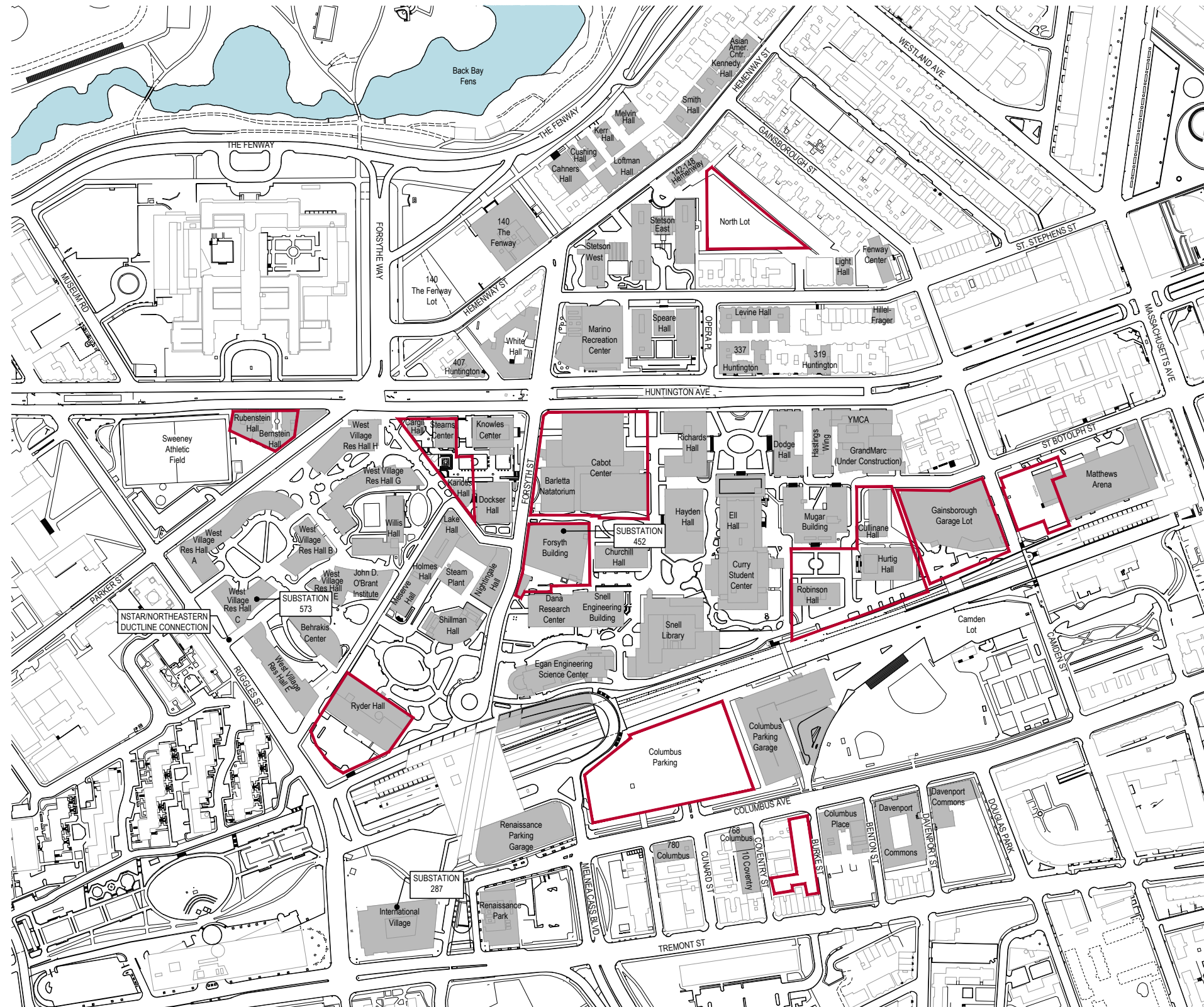


- Legend**
- 8" Existing storm sewer line
  - 36"x48" Existing combined sewer line
  - Groundwater conservation overlay district
  - Existing Northeastern buildings
  - Proposed IMP projects

Map not to scale



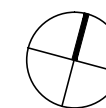


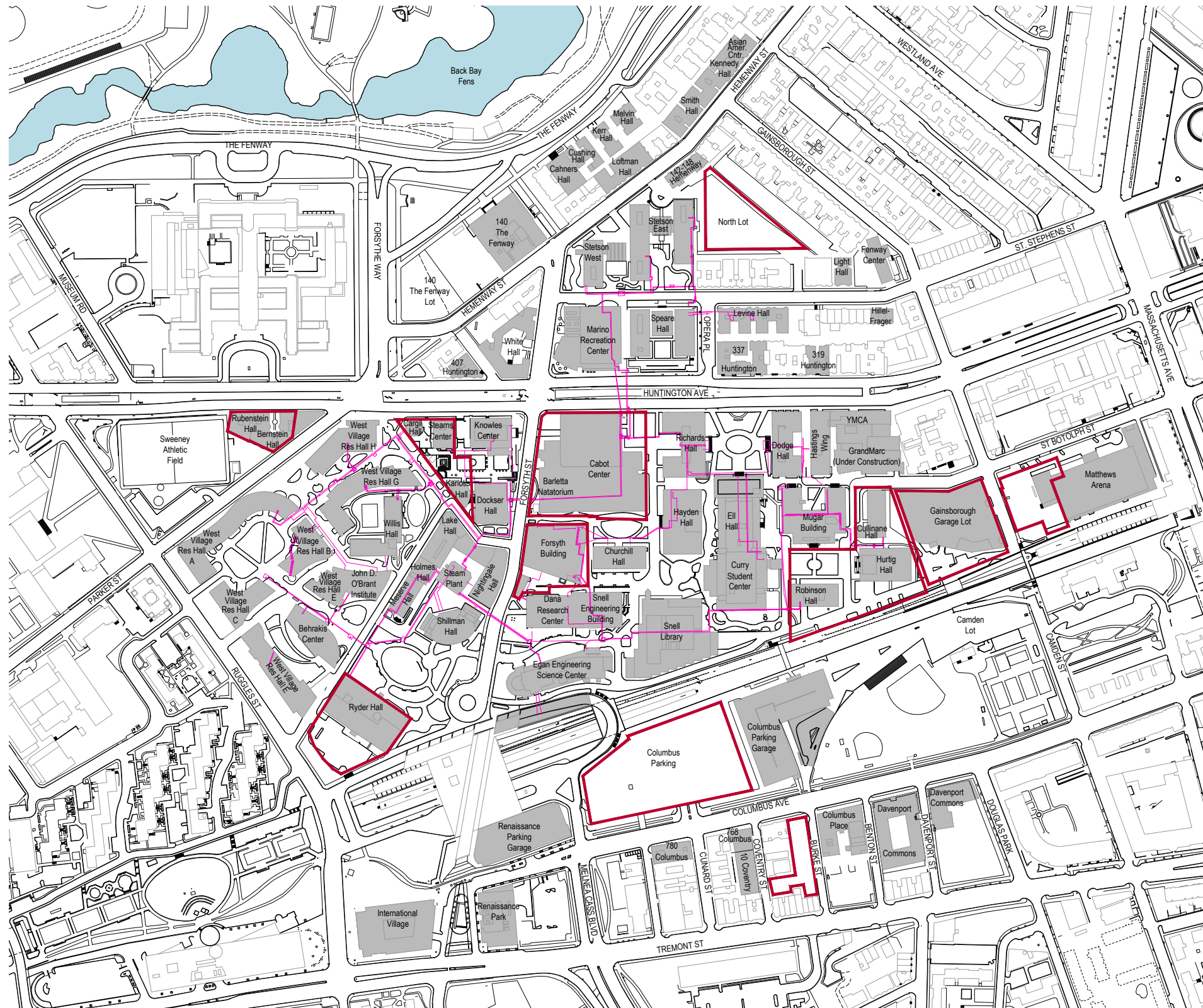


**Legend**




- Existing Northeastern buildings
- Proposed IMP projects

Map not to scale

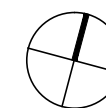


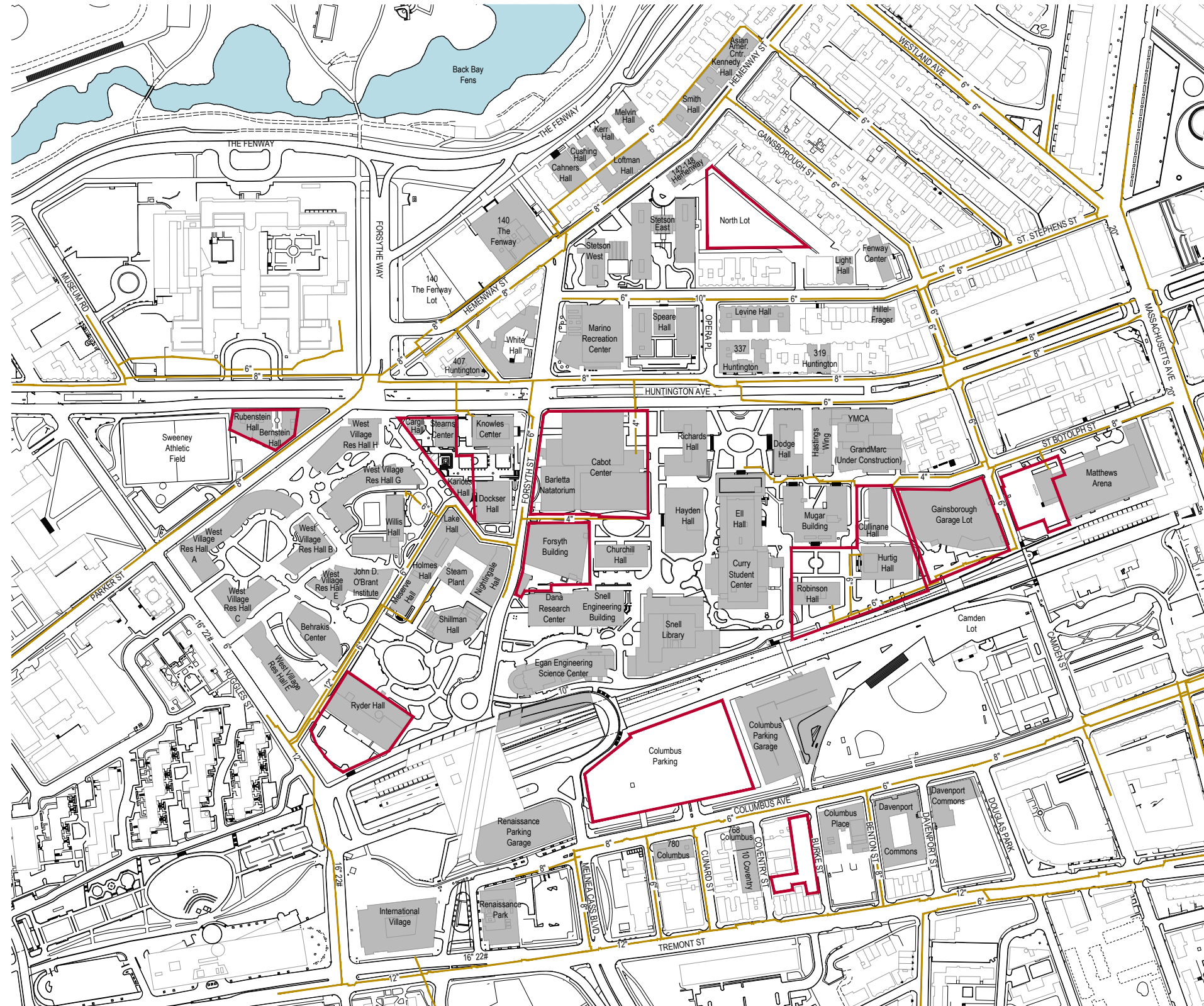


Legend

-  Existing steam line
-  Existing Northeastern buildings
-  Proposed IMP projects

Map not to scale

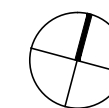




**Legend**

- Existing gas line
- Existing Northeastern buildings
- Proposed IMP projects

Map not to scale



## **11.0 ENVIRONMENTAL SUSTAINABILITY**

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### **11.1 Introduction**

Potential impacts from each of the IMP projects will be presented when the University has selected design teams and finalized a development program. For those projects in excess of 20,000 GSF, reviews will be undertaken in accordance with the requirements of Article 80 of the Zoning Code. It is expected that the initial project to be presented under Article 80 will be for the ISEB project on Columbus Lot (see **Chapter 7** for more detailed description of the proposed IMP projects).

The following sections discuss the impact areas to be more fully evaluated in subsequent impact filings with the BRA or other city and state agencies.

### **11.2 Wind**

It is expected that the BRA will review the proposals requiring city review and determine if wind analyses are required. The University will be sensitive in its proposed designs and building massing to ensure that the proposals do not create wind impacts at the pedestrian level that would lead to uncomfortable wind conditions for walking or sitting.

### **11.3 Shadow**

The University will take steps to ensure that taller buildings proposed minimize new shading on open spaces, sitting areas or pathways throughout the campus. Any new shadows are expected to be confined to properties already owned by the University. Architectural and massing design concepts will be presented that reduce potential shadow impacts.

### **11.4 Daylight**

The proposed IMP projects are not expected to significantly reduce daylight on any off-campus locations. Architectural and massing design concepts will be presented that reduce potential daylight impacts.

### **11.5 Solar Glare**

Materials to be used in construction of the new projects will be chosen to reduce the potential for solar glare.

### **11.6 Air Quality**

Because the structures to be built as part of the IMP are not expected to generate significant increase in vehicular traffic on the Northeastern Campus, it is unlikely that there will be impact on air quality in the area from new traffic. Air quality impacts from enclosed garages that may be constructed will be reviewed during the BRA's Article 80 review process.

## **11.7 Noise**

While it is expected that noise will occur during the construction of the IMP projects, construction noise levels will comply with applicable city of Boston and Commonwealth of Massachusetts noise regulations. During the operation of the completed projects, noise levels from HVAC and exhaust equipment will also comply with these standards. More detailed information will be presented in filings in accordance with Article 80 and other regulatory requirements.

## **11.8 Flood Hazard Zones/Wetlands**

The Northeastern campus is located primarily within Zone C, areas of minimal flooding with elevations above the 100-year flood benchmark, according to Federal Emergency Management Agency Flood Insurance Rate Map for the City of Boston. However, Northeastern has experienced some flooding in severe weather. The campus contains no wetlands, although portions of the campus bordering the Fens may be within protected areas.

## **11.9 Groundwater**

The Northeastern area north of the MBTA tracks are generally located within the Groundwater Conservation Overlay District, pursuant to Article 32 of the Boston Zoning Code. As appropriate, IMP project filings will include analysis of potential impacts on groundwater and mitigation will be proposed.

## **11.10 Solid and Hazardous Wastes**

As will be outlined in the Construction Management Plans for IMP projects requiring review under Article 80 and City of Boston requirements, appropriate measures will be taken to insure that any hazardous waste typically encountered from construction debris encountered in urban fill soils will be removed to the appropriate landfill site(s) or recycled, as required.

## **11.11 Wildlife Habitat**

Northeastern is not aware of any rare or endangered species or any ecologically significant plant community which may be affected by the IMP proposed projects.

## **11.12 Historic Resources**

There are a number of historic resources both individual buildings and historic districts surrounding Northeastern and within the campus which have been identified, listed and mapped in the Northeastern University Preservation Plan completed in 2005. The update to the 2005 Preservation Plan, included here in **Appendix E**, also contains survey forms (Form B) for ten additional historic buildings owned by Northeastern.

With this extensive inventory, the University is better able to evaluate impacts to historic resources and to consider plans to avoid, minimize or mitigate potential adverse impacts when undertaking a physical

project, whether an addition, new construction or renovation. The 2005 Preservation Plan also lists the reviews related to historic resources that may be relevant to a particular project, the agencies involved and the criteria that trigger such reviews. IMP project filings will take into account potential impacts to historic resources. **Table 11-1** is a list of the ten buildings that were surveyed in 2013 and **Figure 11-1** is a map showing the locations of the ten buildings on the Northeastern University campus.

**Table 11-1. 2013 Surveyed Historic Properties – Northeastern University**

<b>2013 Survey Bldg No.</b>	<b>Building Name</b>	<b>Address</b>		<b>Construction Date</b>	<b>Designation/ Recommendation</b>	<b>Northeastern Bldg. No.</b>
<b>Academic Buildings</b>						
41	Barletta Natatorium	400	Huntington Avenue	1968	Located within expanded Northeastern University complex	40
42	Dana Research Center	110	Forsyth Street	1966	Located within expanded Northeastern University complex	57
43	Dockser Hall	65	Forsyth Street	1968	Located within expanded Northeastern University complex	39
44	Hurtig Hall	334	Huntington Avenue	1968	Located within expanded Northeastern University complex	46
45	Knowles Center	416	Huntington Avenue	1961	Located within expanded Northeastern University complex	38
46	Robinson Hall	336	Huntington Avenue	1965	Located within expanded Northeastern University complex	49
<b>Residential Buildings</b>						
47	Speare Hall	10	Speare Place	1967	Located within expanded Northeastern University complex	16
48	Stetson East	11	Speare Place	1967	Located within expanded Northeastern University complex	14
49	Stetson West	10	Forsyth Street	1968	Located within expanded Northeastern University complex	15
<b>Garage</b>						
50	Gainsborough Garage	10	Gainsborough Street	1918	None	45





## **12.0 COMMUNITY / PUBLIC BENEFITS PROGRAM**

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### **12.1 Introduction**

The Community/Public Benefits Program described below were first presented in the IMP on June 14, 2013, and revised on October 4, 2013. The BRA Board Memorandum on the Northeastern IMP, dated November 14, 2013, as specifically referenced on Pages 4-7, and contained in **Appendix I**, provides an update on these IMP commitments, and supersedes or updates the Community/Public Benefit Program described in this section.

### **12.2 University Agreements**

Northeastern University has made a number of agreements with various city agencies and elected officials during the course of the past IMP as amended. The University is in substantial compliance with these agreements, the primary exception being its obligation to create a hotel or other large economic benefit on the remaining of Parcel 18, if economically feasible, at Tremont Street and Melnea Cass Boulevard, by prior agreement incorporated into the 2000 IMP. The University has identified a hotel chain and possible developer, and is actively working to move the project forward.

### **12.3 Cooperation Agreement Commitments**

In the 2007 Cooperation Agreement between the University and the BRA linked to the Third Amendment to the 2000 IMP, Northeastern agreed to provide a number of community benefits, chief of which was the establishment of the Youth Development Initiative Project, modeled on the former federal GEAR UP program. YDIP, which is further discussed in the next section, continues in existence. Other benefits touched on hiring procedures and economic benefits stemming from the construction of the International Village residence hall at Parcel 18.

### **12.4 Existing Community Benefits**

The University is committed to strengthening Boston's fabric in many ways, among them by helping grow the city's economy and putting our neighbors to work. In Fiscal 2012, the University's record was the following:

- More than one-quarter of Northeastern's benefits eligible employees live in Boston;
- More than 1,000 full- and part-time employees of dedicated vendor partners live in the Boston neighborhoods closest to the Northeastern campus; and
- Northeastern has spent more than \$50 million with vendors in the Boston neighborhoods surrounding campus, \$1.87 million of that with minority business enterprises.

A representative, but by no means comprehensive, sampling of benefits the University provides in Boston includes almost \$12 million in scholarships to Boston-native students, as well as:

- Foundation Year, an intensive first-college-year program for graduates of Boston high schools;
- StepUP, the mayor’s initiative pairing higher education with specific Boston public schools;
- Edward M. Kennedy Academy for Health Careers, a public charter school hosted by the University;
- Youth Development Initiative Project, providing tutoring and life-skills training for students and parents in public housing;
- Balfour Academy, an afterschool/summer tutoring program for Boston students;
- Summer youth jobs;
- Support for the Mayor’s Youth Council;
- Renovation/maintenance at McLaughlin Park, Carter Playground, Ramsay Park, Ramler Park, Dickson Park, Symphony Gardens and the Emerald Necklace;
- Upgrades at the Maurice Tobin Community Center and Lenox/Camden Program Office;
- Annual hosting of the Boston Public Schools Science Fair, Mayor’s Cup hockey tournament and Boston City League Basketball All-Star Games, and hosting and supporting the Boston Public Schools’ Parent University Program; and
- Healthy Kids Healthy Futures, which works with young children to curb obesity and promote exercise.

Northeastern has retained a consulting firm to survey and assess its full array of community-focused programs and services, of which there are more than 240, the majority of them created in response to expressed community needs and operated with community partners. A conservative estimate of the cost of these programs and services is approximately \$19.1 million annually.

## **12.5 Overview of Future Community Benefits**

Northeastern looks forward to working with the BRA, The Mayor’s Office, elected officials, CTF, and other interested parties to explore ways to improve future community benefits over the new master plan period as well as building on the current benefits provided by the University.

The overall guidelines that guide Northeastern in developing these community benefits include the following:

- The benefit serves the mutual interests of the community and University and can be recognized to be of benefit in the local community and beyond;
- The benefit leads to sustainable partnerships in the community designed to promote the development of thriving communities along Northeastern's institutional borders, especially in Roxbury;
- The benefit builds on existing programmatic strengths and core competencies of the university, or builds upon other strengths that can be leveraged or harnessed;

- The benefit strives for innovative ways to optimize resources that build a strong community and a strong university; and
- The benefit helps develop a robust community engagement or service strategy that is supported by the University’s student and academic interests.

Seven initiatives under discussion with city officials, the BRA and the CTF include:

1. Creating a fund to support economic development and neighborhood based businesses;
2. Initiation of a neighborhood opportunity center;
3. Creation of new public realm initiatives (as discussed in **Chapter 6**);
4. Partnering with Next Street Financial LLC to substantially increase the participation of minority and women owned businesses;
5. Working with the city to upgrade nearby Sgt. William E. Carter Playground;
6. Collaborating with the MBTA to improve passage over the Orange Line tracks and improve overall campus access; and
7. Implementing a schedule for activating new housing proposals to further reduce the presence of undergraduate students in adjoining neighborhoods.

The status of discussions on these initiatives is articulated in the following sections.

### **12.5.1 Initial Community Benefit Areas of Focus**

#### Overview

Discussions that have taken place thus far on community benefit areas of focus have been organized into the following categories: Procurement and Job Opportunities, Economic Development, Education, Housing, Joint Development Opportunities, Recreation and Cultural Opportunities; Community Partnerships; and Additional Opportunities such as improvements to pedestrian crossings over the MBTA Orange Line as a part of Northeastern’s initial master plan project for the Interdisciplinary Science and Engineering Building on the Columbus Lot.

### Procurement and Job Opportunities

Internal discussions aimed at creating increasing opportunities for local businesses to provide goods and services to Northeastern have already begun and the University will start to engage external community members. The University will pursue measures to increase local hiring and purchasing, developing metrics to measure progress during the IMP and beyond. The University will also work with appropriate city officials and local organizations to create outreach and training programs for both potential employees and local businesses, and will publicize its practices through citywide and local media.

### Economic Development

Several proposals related to economic development have been discussed at CTF meetings and have been the subject of discussions with community development organizations, including revolving loan fund alternatives for business entrepreneurship, microfinancing/microlending, and on-campus business siting. The University is working with Next Street Financial to more fully develop this proposal in cooperation with community representatives and elected officials.

### Capacity Building for Local Businesses

Northeastern is pursuing program ideas to link the business of the university, the students and faculty working on business development and innovation, and the needs for capacity building among small businesses in the local area. The University has retained Next Street Financial, LLC to align the University's procurement spend with area businesses that have both potential and actual capacity to become vendors to Northeastern. Also, under consideration is a new initiative to assist with loans for small businesses in the local community. A separate organization could manage the fund and provide business development mentoring and training to the loan recipients.

### On-Campus Business Siting

The University will work to identify a community-based business or businesses for an on-campus opportunity that would support campus needs. The type of business that we would target would likely be in the food-service business but Northeastern is amenable to considering other types of businesses as well.

### Education

A major focus of the University is to increase visibility and community access for University educational programs designed to share resources. Building on the precedent of an education portal, Northeastern has discussed with the City a proposal for a location providing an accessible physical presence convenient to the community for various community engagement programs. It could serve as a central location from which the University would be able to coordinate the community engagement programs, bringing together students, faculty and community partners in a more effective manner.

Such a neighborhood center could be launched with a number of existing Northeastern community engagement programs including the Center of Community Service, YDIP, and

possibly Balfour Academy. It could be located on or off-campus and specific locations would be explored during the IMP.

### Joint Development Opportunities

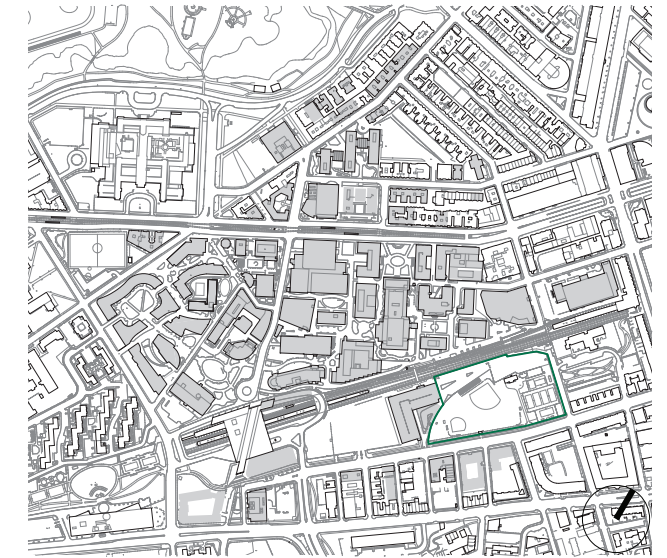
Northeastern is open to the possibilities for joint development to achieve the program space objectives outlined in this IMP.

### Recreation and Cultural Opportunities/Carter Playground

Northeastern would like to be an agent for improvement at Carter Playground and in so doing find ways for the University and community sports programs to both benefit from the improvements. This could mean engaging community youth in activities with Northeastern athletic teams in conjunction with Carter Playground use.

Northeastern University and the Boston Parks and Recreation Department are in discussions about renovations to Carter Playground. The historic playground at the intersection of Columbus Avenue and Cedar Street contains one multipurpose field, five tennis courts, a basketball court and a playground. Northeastern's need for recreational space on campus and the need for improvements to Carter Playground present an opportunity for a mutually beneficial renovation. Northeastern would replace the current program at the park (multi-purpose field, tennis courts, basketball court, and playground) and add an additional multipurpose field for University and public use.

The preliminary design concept (See **Figure 12-1. Carter Playground**), which places the tennis courts and playground along Columbus Avenue creates a more active street environment and improves visibility and safety for playground users. Also, the adjacency created between Squash Busters, the playground and the tennis courts – used by Tenacity, Boston's youth tennis program – creates a community environment geared towards serving Boston's youth population. The city and University will hold community meetings with neighborhood residents before any final design or program moves forward.



Location plan

**Data**

Location: 687 Columbus Avenue  
 Site Size: 285,600 sf (6.6 acres)  
 Existing Use: Athletic Facilities/ playground/ fields  
 Proposed Use: Athletic Facilities/ playground/ fields:  
 replacing existing facilities and adding a new multi-  
 purpose field

## **12.5.2 New Campus Public Realm Initiatives**

This IMP has made recommendations for a number of campus-wide landscape and open space improvement initiatives, some of which will have a direct impact on the public realm. They are areas that touch on Northeastern's boundaries, but may be within the public rights of way. Projects in these areas could prove to be mutually beneficial for both the University and the City through beautification and improved functionality as highlighted below and in **Figure 6-8. Public Realm Improvements.**

### Forsyth Street Improvements

Currently, Forsyth Street separates the Northeastern campus into east and west sectors. The University's proposals for this primary campus corridor would stitch the campus together by limiting vehicular traffic and emphasizing more pedestrian activity. This redesign may include new lighting, site furniture, hardscape surfaces, vegetation, gathering spaces, and programs to activate this space more fully.

### Huntington Avenue

There are improvements to the pedestrian condition along Huntington Avenue that need to be completed. A continuous street-wall condition exists along significant stretches of the south side of Huntington Avenue, creating an unpleasant pedestrian experience, street crossings between the north and south side of Huntington Avenue should be improved to increase real and perceived pedestrian safety.

### Columbus Avenue

The existing infrastructure of Columbus Avenue and Southwest Corridor Park provides a significant open space framework that could be improved. The landscape could be updated by improvements to both hard and soft ground plane surfaces, with new lighting, and other park furniture and amenities. This parkway could serve multiple modes of transportation (i.e. walking, bicycling, etc.), and it should integrate into the adjacent spaces.

### St. Botolph Street

Future improvements along St Botolph Street could focus on the pedestrian condition of the street in conjunction with the addition to Matthews Arena, an additional New England Conservatory building and the construction of the GrandMarc residence hall. St Botolph Street will ultimately serve as a primary pedestrian connection to Massachusetts Avenue and through the university itself.

### **12.5.3 Orange Line Pedestrian Crossings**

With the design for the first IMP project, the *Interdisciplinary Science and Engineering Building*, Northeastern is proposing a plan to improve the pedestrian crossings over the Orange Line tracks, which currently not only limits campus growth on Columbus Avenue but also obstruct the pedestrian connections for residents of Lower Roxbury to access cultural uses on Huntington Avenue and the regional resource of the Fens. Working with the City and the MBTA, Northeastern hopes to bring forward a concept that would make a unique contribution to enhancing these connections.

### **12.5.4 Public Transportation / Improvements**

Several conversations about MBTA infrastructure improvements and maintenance are currently underway. While they will likely not be concluded by the time of the filing of the IMP, the conversations have identified the opportunity for notable improvements for passage, access and comfort of passengers, residents and other travelers, for example:

- Northeastern has been asked by the MBTA to explore the feasibility of assuming management of the Orange Line's Ruggles Station, which would include oversight of all leases, maintenance and security. The MBTA would have responsibility for all fare collections and security past the turnstiles. The University has initiated a study to assess the options, costs and benefits, and
- Northeastern is cooperating with the MBTA on an engineering feasibility study, engineering study and geotechnical assessment of the strip of land eastward and parallel to the Orange Line on the southerly side of the right-of-way at Ruggles Station, stretching almost to the overpass at Northeastern's Columbus Garage, located across from 716 Columbus Avenue. This platform will take at least 80 feet by 12 feet of land on the northerly side of the university's surface parking lot. The concepts for Northeastern's contemplated Columbus Lot foresee over-the-track crossings that would provide access to the neighborhoods framed by Huntington Avenue and Columbus Avenue.

### **12.5.5 Neighborhood Council**

At the conclusion of the IMP review process, Northeastern will work with a representative council to address problems and future opportunities of cooperation with adjoining communities.



## 13.0 OTHER

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### 13.1 Property Taxes and PILOT Payments

The University pays more than \$2 million annually in property taxes to the City of Boston and nearly \$900,000 annually in PILOT, in addition to specific community programs and services and general economic benefits to the city because of the University's presence.

### 13.2 Institutional Partnership Template

Northeastern has completed the Institutional Partnership Template to facilitate collection of standardized data by the BRA (attached as **Appendix F**).

### 13.3 Public Notice

Northeastern has prepared and published a Public Notice of the submission of the IMP to the BRA as required by Section 80A-2 and 80D-5 (see **Appendix G**). The BRA has published this Notice in the *Boston Herald* on June 14, 2013, which is within five (5) days after the receipt of this IMP. Following publication of the Public Notice, Northeastern will submit to the BRA a copy of the published Notice together with the date of publication.

## **14.0 RESPONSE TO COMMENTS ON THE IMPNF**

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### **14.1 Introduction**

This chapter specifically addresses the individual comments within each comment letter received during the BRA comment period on the IMPNF. Each comment is numbered and summarized to correspond to the margin numbers assigned.

#### **BRA Scoping Determination on the IMPNF**

Boston Redevelopment Authority Scoping Determination for the Northeastern University IMPNF, April 23, 2013.

#### **Comments from Public Agencies and Elected Representatives**

1. Letter from City Councilor Michael Ross, and State Representatives Sanchez and Sonia Chang-Diaz, February 4, 2013.
2. Letter from Councilor Tito Jackson and State Representative Jeffrey Sanchez, February 4, 2013.
3. Letter from William R. Egan, Boston Public Works Department, January 2, 2013.
4. Letter from Ellen Lipsey, Executive Director, Boston Landmarks Commission, February 1, 2013.
5. Letter from Maura T. Zlody, Boston Environmental Department, February 27, 2013.
6. Letter from Charlotte Fleetwood, Transportation Planner, Boston Transportation Department, March 20, 2013.
7. Memorandum from David Grissino, Senior Architect/Urban Designer, Boston Redevelopment Authority, March 14, 2013.
8. Letter from Elliott Laffer, Executive Director, Boston Groundwater Trust, January 28, 2013
9. Letter from John P. Sullivan, P.E., Chief Engineer, Boston Water and Sewer Commission, January 25, 2013.

#### **Comments from Public: Individuals and Community Organizations**

10. Letter from Matthew A. Brooks, Fenway Civic Association, February 4, 2013, and February 5, 2013.
11. Letter from Barbara B. Simmons, President and the Board of Symphony United Neighbors, February 1, 2013.
12. Letter from Kyle Robidoux, Community Task Force Member, Lower Roxbury, February 4, 2013
13. Letter from Alison Pultinas, February 6, 2013.
14. Letter from Steve Wolf, Board President and Dharmena Downey, Executive Director, Fenway CDC, February 7, 2013.
15. Letter from Cynthia Brophy, February 4, 2013.

16. Letter from William Dellea, February 5, 2013.
17. Letter from Sociedad Latina, February 4, 2013.
18. Letter from David Wilhelmi, February 4, 2013.
19. Letter from Virginia Morse, January 23, 2013.
20. Letter from Diane Brown, December 31, 2012.
21. Letter from Timothy O'Brien, January 24, 2013.
22. Letter from Tony Woodcock, President, New England Conservatory, January 18, 2013.
23. Letter from Tony Woodcock, President, New England Conservatory, February 14, 2013.
24. Letter from James Hoffman, Executive Director and Patricia Flaherty, Senior Project Manager and Northeastern CTF Member, Mission Hill Neighborhood Services, February 5, 2013.
25. Letter from Jeffrey Brody, President, Gainsborough Neighborhood Association, February 1, 2013.

## 14.2 BRA Scoping Determination on the IMP

Boston Redevelopment Authority (BRA) Scoping Determination for the Northeastern University IMP, April 23, 2013.

Please see the BRA Scoping Determination requirement which is attached in **Appendix A**.

### 14.3 Comments from Public Agencies and Elected Representatives

1. **Letter from City Councilor Michael Ross, and State Representatives Sanchez and Sonia Chang-Diaz, February 4, 2013.**

Comments: Northeastern should not wind down its housing program. There is still a lack of on-campus housing. Instead of choosing to address the need for more housing, Northeastern has chosen to unfortunately walk away from it.

We urge Northeastern ...to bring about an immediate housing increase of 8%, or to a level of 75% of on-campus housed students, and within the balance of the Master Plan to increase the total on-campus housing to 80%.

Responses: Northeastern has made substantial progress on the goal of housing more students on campus, having spent more than \$750 million to create or purchase more than 5,000 student beds over the course of the last IMP, with another 720 beds under construction. The University has proposed a further 1,000 beds in this IMP, which would bring Northeastern to the city's stated goal of housing under university control of 75% of undergraduates seeking housing in the city of Boston.

Northeastern's student body does not grow every year. The University's undergraduate population has declined from a high of more than 19,000 in 1980 to approximately 15,000 for the past decade, occasionally falling below that level. In 2006 the University committed to an annual freshman class of approximately 2,800. For fall 2012 and 2013, the incoming class has been approximately 2,600.

According to documents filed in 1994 with the city and educational associations, 65% of Northeastern undergraduates lived "on campus or on housing adjacent to campus;" at the time, while the University controlled beds for only 26% of undergraduates. As of spring 2013, the University housed 62% of its Boston-resident population in University-controlled housing.

The University has in no way "chosen to walk away from" housing undergraduates, proposing another 1,000 undergraduate beds in this IMP and opening discussions about reframing its Master Lease Property Program to continue the successes of that program in managing student conduct.

While it continues to pursue housing opportunities, the University identified a need at that time for an additional 700,000 square feet of academic and research space as far back as the 2006 Third Amendment to the IMP. That amendment was supported by the Community Task Force and local elected officials; however, the University made almost no progress toward meeting that need, and the current IMP again proposes academic and research space, along with 1,000 additional student beds.

The University has begun a comprehensive neighborhood housing impact study and will share results with the Task Force and elected officials as the basis of future fact-based discussions about student residency. However, the assertion that Northeastern students account for 27% of all students living off campus in the city of Boston fails to take into account the absence of data from all public institutions of higher education, which are not required to report student residency

information under the municipal ordinance, as well as all students who attend non-Boston-based institutions.

2. **Letter from Councilor Tito Jackson and State Representative Jeffrey Sanchez, February 4, 2013.**

Comments: These representatives indicate that they are unable to support Northeastern's plans until a meaningful dialogue around creating opportunities for neighborhood Boston Public School (BPS) students has been established.

Responses: For the 2012-2013 academic year, Northeastern had 1,948 Boston-native students across all levels of the University receiving institutional financial support for their education, including 471 full-time undergraduates and 949 students in the College of Professional Studies. Boston is the city with the largest student representation within Northeastern's student body, and Boston-native undergraduates receive a highly disproportionate percentage of institutional aid at \$11,893,796 to finance their education.

Northeastern has the highest graduation rate for Boston Public Schools students among all institutions of higher education in the United States, at 89%.

Northeastern works closely with the Boston Public Schools and offers several programs solely for the benefit of BPS students and graduates, including but not limited to Foundation Year, Youth Development Initiative Project, Balfour Academy and work in the Boston Public Schools through the mayor's Step-UP initiative.

Foundation Year, an intensive first-year college experience with academics and mentoring, draws 45% of its student body from Roxbury/Dorchester/Mattapan and another 10% from Mission Hill/Jamaica Plan; 55% of students are African-American and 23% Hispanic. Now in its fourth year, the program has an 87% completion rate, with 40% transferring to Northeastern and 44% to other institutions.

3. **Letter from William R. Egan, Boston Public Works Department (PWD), January 2, 2013.**

Comments: Boston PWD has no specific comments at this time and request the Project proponent to follow PWD's Standard Policy and Procedures for the Construction of Article 80 Projects in the City.

Responses: Northeastern has worked successfully in the past with Boston PWD and will continue this relationship by compliance with its standard policy and procedures for construction under Article 80 and the policies of Boston PWD.

In general, the University intends to follow City of Boston Public Works Department's standards within the public way on future projects. Non-standard items will need to be approved by the appropriate City agencies.

4. **Letter from Ellen Lipsey, Executive Director, Boston Landmarks Commission, February 1, 2013.**

Comments: The Historic Resource section of the IMP should include a chart listing all resources...in addition, the Northeastern Preservation Plan, dated September 2005, should be updated as a part of the IMP.

Responses: The 2005 Preservation Plan has been updated and is included in **Section 11.12**. Table 11-1 provides an updated chart listing all resources in the National and State Registers of Historic Places as well as all resources in the Inventory of Historic and Archaeological Assets of the Commonwealth, “the state inventory, “ maintained by MHC—for all such properties within ¼ mile radius of all of the proposed (IMP) proposed project sites. **Figure 11-1** in **Chapter 11** presents the location of these historic resources, and **Appendix E** provides copies of the additional survey forms and an update on the 2005 Preservation Plan.

Northeastern will be in contact with BLC’s Elizabeth Stifel for any proposed projects that may fall under Article 85 of the Boston Zoning Code.

5. **Letter from Maura T. Zlody, Boston Environmental Department, February 27, 2013.**

Comments: There is a range of potential on-site alternative/renewable energy generation methods for individual projects as well as generation that can serve a single project. These are listed in the above letter.

Responses: The University is in agreement with the City’s Key Priorities and will strive to meet or exceed the priorities in the policies and procedures articulated in the IMP filing, as described below:

Energy Conservation

The installation of low-flow fixtures and compact fluorescent light bulbs has reduced Northeastern use of energy. Northeastern will fully describe in which it has achieved reductions in the IMP filing. Northeastern will also include a copy of Northeastern’s 2010 “Sustainable Action Plan: Roadmap towards Carbon Neutrality”.

LEED Platinum

Northeastern has aimed at the highest LEED Certification possible and will provide the required information for each Project as proposed in the IMP as well as aiming at the highest certification possible for buildings that do not trigger Article 37 of the Boston Zoning Code.

Water Conservation and Reuse

A portion of the Northeastern campus north of the MBTA and Mainline Tracks is in the Groundwater Conservation Overlay District (GCOD) and the Projects that fall in the zone will all comply with Article 32 of the Boston Zoning Code. Northeastern has been an active participant in Article 32 since its inception and will continue to fully comply with that Article. The University stays in contact with the Executive Director of the

Groundwater Trust and has reused rainwater as well as established creative uses and reuses of available water. All available methodologies will be employed to change behavioral responses. Reuse of water and detecting leaks will be employed.

#### Exemplary Green Performance

The University will include its commentary on implementing LEED for Existing Buildings: Operations and Maintenance in its IMP filing.

#### Climate Change Preparedness

Climate change is prominent in the University's event planning to conduct vulnerability assessments of asset locations for both IMP projects and the main campus itself.

Northeastern looks forward to partnering with the City of Boston to create a "greener institution" and will continue to do so as indicated in this IMP filing.

#### Transportation Demand Management

As part of the TDM mandated for Northeastern all of the following information will be included in the IMP filing.

- Number of Northeastern parking spaces leased to others or used by the general public,
- The number of parking spaces Northeastern leases from others and the end of the lease terms,
- Parking charges for students and staff,
- Incentives for car-sharing and vanpooling,
- The ways in which students and staff are encouraged to use transit, including transit pass subsidies and the amount of such subsidies,
- Eligibility for any demand management benefits (ex.. part time, full time and contract workers,
- Results of evaluation of bike rack locations and a detailed description of the TDM plan developed for the IMP term.

#### Operations and Maintenance

The University will review LEED EBOM and determine how it can be intergraded into a manual for students.



6. **Letter from Charlotte Fleetwood, Transportation Planner, Boston Transportation Department (BTD), March 20, 2013.**

Overall Comments: The BTD letter requests Northeastern University to agree to improve several connections in the vicinity of the campus as well to respond to several bike initiatives outlined by BTD including a Southwest Corridor- Fenway and Southwest Corridor- South Bay Harbor Trail bike connections, provide additional Hubway Stations, improved bike parking on campus. BTD also request that the MBTA Ruggles Station become a model “Mobility Hub” and continue working with the MBTA on the feasibility of an entrance to the Massachusetts Avenue MBTA Station from the Gainsborough Street/ Camden Street Footbridge. BTD emphasized making Forsyth Street a shared street, continuing coordination with the city on the St. Botolph Street/Gainsborough Street reconstruction project, improved rail crossings over the Orange Line and Commuted rail tracks, improved pedestrian circulation plan demonstrating improved north-south and east-west connections through the campus, and a campus bicycle access and parking plan. Please see **Chapter 9** for our responses to the BTD Letter.

6.1 BTD Comment 1: Work with Boston Bikes to explore the creation of a cycle track on Columbus Avenue.

Response: Columbus Avenue is currently provided with dual accommodations for bicycles, including on-street bicycle lanes in the eastbound and westbound direction of the roadway (generally serving more advanced cyclists) and the Southwest Corridor Bicycle Path along the north side of the roadway (owned by the Department of Conservation and Recreation (DCR)), which typically serves beginner and intermediate cyclists and other recreational users. Field observations by Howard/Stein-Hudson Associates, Inc. (HSH) indicate that most cyclists prefer to use the on-street bicycle lanes. Northeastern will continue to work with the City of Boston and the DCR on long-term planning efforts to improve bicycle conditions adjacent to the campus.

6.2 BTD Comment 2: Work with BTD Planning to create an improved connection between the Southwest Corridor and the South Bay Harbor Trail, in coordination with the Melnea Cass Boulevard redesign project.

Response: Northeastern will coordinate with the City on this connection as the Melnea Cass Boulevard Redesign Project advances.

6.3 BTD Comment 3: Continue working with BTD Planning on the Southwest Corridor-Fenway bicycle path connection, including an improved crossing at Huntington Avenue, and consider funding a portion or all of this connection.

Response: Northeastern will continue to work cooperatively with the City as it plans this important connection (see **Figure 9-6**), which is still in the conceptual design phase. As part of the Interdisciplinary Science and Engineering Building (ISEB), the Project

proposes to construct a new crossing of the Southwest Corridor rail line that is envisioned to provide an enhanced pedestrian and bicycle connection through the campus. This proposed connection would provide an additional opportunity for cyclists to cross the Campus.

- 6.4 BTD Comment 4: Provide additional Hubway Stations in and near the campus. Work with Boston Bikes to locate these additional stations.

Response: As detailed in **Section 9.4.7**, the University is well served by the Hubway Bikeshare program with six locations, having a combined total of 83 bicycles, within walking distance of the campus (about a half-mile). One of these stations is currently located on-campus within North Lot, sponsored by the University in partnership with the City of Boston in 2011. A second station was placed by the City of Boston near Ruggles Station, which is adjacent to International Village and the Renaissance Garage.

- 6.5 BTD Comment 5: Meet the City of Boston Bike Parking Guidelines, and seek innovative ways to meet demand for various types of bike parking on campus.

Response: As detailed in **Section 9.4.7**, the University is continually evaluating on-campus bicycle usage and storage and actively adds bicycle racks and/or relocates existing racks to meet changing demand patterns as bicycle usage in the City, and on-campus, continues to evolve. The University has substantially increased on-campus bicycle storage from just 141 bicycles at 8 locations in 2000 to approximately 780 bicycles at nearly 40 locations throughout the campus today. The GrandMarc at Northeastern Residence, which is currently under construction, will feature the University's first dedicated bicycle storage room for 80 bicycles as well as outdoor storage racks for 20 bicycles for visitors and guests, bringing the total on-campus bike storage up to 880.

The University is committed to meeting the City of Boston Bicycle Guidelines for each new building project and will continue to enhance bicycle storage campus-wide as proposed building and landscape improvement projects advance over the course of the IMP period.

- 6.6 BTD Comment 6: In partnership with the MBTA, seek improvements to Ruggles Station to create a "Mobility Hub". Provide information to support travel by foot, Hubway, and car share in addition to providing real-time information on transit alternatives.

Response: The University is currently coordinating with the MTBA on possible partnership opportunities to improve Ruggles Station, which serves as a key pedestrian and transit connection to the Northeastern campus and the surrounding community. Meanwhile, as part of this IMP, the University is conducting an internal evaluation of

potential campus-wide improvements to Wayfinding. The University will continue to work with the City and the MBTA to explore opportunities to integrate these initiatives in an effort to improve the availability of information regarding transportation choices on and around the campus.

- 6.7 BTD Comment 7: Continue discussions with the MBTA to explore the feasibility of installing an entrance to the Massachusetts Avenue MBTA station from the Gainsborough Street/Camden Street Footbridge.

Response: Northeastern will continue to work with the MBTA on exploring the potential for allowing transit users to enter Massachusetts Avenue Station from the Camden Footbridge.

- 6.8 BTD Comment 8: Continue working with BTM and the community on identifying improvements on Forsyth Street to enhance pedestrian connections, including the possibility of making this a “shared” street.

Response: As discussed and graphically presented in **Chapters 6 and 7** and in **Appendix C**, the University is exploring the potential for enhanced pedestrian accommodations and landscape treatments along Forsyth Street. This public roadway serves as a major gateway to the Campus, provides connection to Ruggles Station, and also serves as a key access corridor for the University’s service and loading needs. The University will continue to work with the City as it plans potential improvements to Forsyth Street as part of future IMP landscape initiatives and building projections along the corridor.

- 6.9 BTD Comment 9: Continue coordinating with the City on the St. Botolph Street/Gainsborough Street Reconstruction Project.

Response: The University will continue to coordinate with the City as it advances this reconstruction effort.

- 6.10 BTD Comment 10: Continue exploring new and improved rail crossings over the Orange Line and Commuter Rail tracks with the MBTA.

Response: As detailed and graphically presented in **Chapters 6 and 7** and in **Appendix C**, the University is exploring the potential for providing a new, enhanced crossing of the Southwest Corridor rail line. This connection will be explored in further detail as part of the Article 80 filing for the ISEB project. The University will continue to coordinate with the MBTA, the City, Amtrak, and the Massachusetts Bay Commuter Railroad (MBCR) on this effort.

- 6.11 BTD Comment 11: Provide a pedestrian circulation plan demonstrating improved north-south and east-west connections through the campus.

Response: The proposed pedestrian circulation plans are shown in **Figures 6-10, C-3, C-7, C-11, C-16, and C-20.**

- 6.12 BTD Comment 12: Provide a bicycle access and parking plan for the campus.

Response: The University is actively improving on-campus bicycle conditions and storage and will continue to do so as individual IMP building and landscape projects advance. The proposed crossing of the Southwest Corridor rail line is envisioned to enhance both pedestrian and cyclist connectivity for the University and the general public.

7. **Memorandum from David Grissino, Senior Architect/Urban Designer, Boston Redevelopment Authority, March 14, 2013.**

Please see letter attached for a listing of the BRA urban design requirements. Responses are generally contained in **Chapters 6** and **7**, and in **Appendix C**.

8. **Letter from Elliott Laffer, Executive Director, Boston Groundwater Trust, January 28, 2013.**

Comments: In general, the letter indicates that most of the campus is located within the Groundwater Conservation Overlay District (GCOD) and must meet the standards of Article 32 within this District.

Response: Northeastern University has been proactive in providing recharge of stormwater runoff as their own structures have been affected by the historic lowering of groundwater levels in the area. The University goal would be to recharge the equivalent of 1-inch over the impervious area of any new development if feasible whether or not that development lies within the GCOD. This aligns with the University's commitment in providing sustainable designs, efforts to improve the water quality of the Lower Charles River Basin, and new promulgated requirements of the Boston Water and Sewer Commission.

9. **Letter from John P. Sullivan, P.E., Chief Engineer, Boston Water and Sewer Commission, January 25, 2013.**

9.1 BWSC General Comment: Northeastern must submit General Service Applications and site plans to the Commission for each proposed project for review and approval. Any new or relocated water mains, sewers and storm drains must be designed and constructed at Northeastern's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, Northeastern, must submit a site plan to the Commission's Engineering Customer Service Department for review and approval when the design of any new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plans should include the locations of any new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations.

Response: A Site Plan will be submitted for water, sewer or storm drain work that could affect the Commission's system during the design development phase. An approved Site Plan is a prerequisite to filing a General Service Application, which will be submitted to the Commission for new construction, re-construction or abandonment of water, sanitary sewer or storm drain services.

- 9.2 BWSC General Comment: The design of any projects should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes green spaces, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at <http://bostoncompletestreets.org/>.

Response: The University will incorporate green infrastructure into street designs where feasible and provide an operation and maintenance plan that will assist in the long term functionality of the green infrastructure.

- 9.3 BWSC General Comment 3: Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.

Response: Abandoned services will be cut and capped at the main and a signed Termination Verification Approval Form will be obtained before demolition.

- 9.4 BWSC General Comment 4: The Department of Environmental Protection, in cooperation with the Massachusetts Water Resources Authority and its member communities, are implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/ inflow (I/I)) in the system. In this regard, DEP has been routinely requiring proponents proposing to add significant new wastewater flow to assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, DEP is typically using a minimum 4:1 ratio for I/I removal to new wastewater flow added. The Commission supports the DEP/MWRA policy, and will require Northeastern to develop a consistent inflow reduction plan.

Response: The University will comply with the DEP's requirements for sewer inflow/infiltration reduction.

- 9.5 BWSC General Comment 5: For any proposed masonry repair and cleaning, Northeastern will be required to obtain from the Boston Air Pollution Control Commission, a permit for Abrasive Blasting or Chemical Cleaning. In accordance with this permit, Northeastern will be required to provide a detailed description as to how chemical mist and run-off will be contained and either treated before discharge to the sewer or drainage system or

collected and disposed of lawfully off site. A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. Northeastern is advised that the Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system.

Response: The University will coordinate masonry repair with the Commission and the Boston Air Pollution Control Commission.

- 9.6 BWSC General Comment: Northeastern should be aware that the US Environmental Protection Agency issued a Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If the project involves any subsurface work and groundwater contaminated with petroleum products, for example, is encountered, Northeastern will be required to apply for a RGP to cover these discharges.

Response: The University appreciates the Commission's comment and will keep this in mind particularly where development will occur on former commercial and industrial sites.

- 9.7 BWSC General Comment 7: Many of the project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining stormwater and directing the stormwater to the groundwater table for recharge.

Response: The University intends to promote groundwater recharge for future developments whether or not they are within the GCOD.

- 9.8 BWSC Water Comment 1: In addition to the water conservation measures required by the Massachusetts Plumbing Code, Northeastern should also consider implementing other water saving measures, such as installing low flow toilets and flow-restricting faucets. The Commission suggests that any public restrooms also be equipped with sensor-operated faucets and toilets.

Response: The University will consider using water conservation measures including efficient fixtures that will decrease water usage below Plumbing Code requirements.

- 9.9 BWSC Water Comment 2: If a hydrant is to be used during construction, Northeastern will be required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. Northeastern

should contact the Commission's Operations Division for information on and to obtain a Hydrant Permit.

Response: A Hydrant Permit will be obtained from the Commission and the hydrant metered if a hydrant will be used during construction.

- 9.10 BWSC Water Comment 3: The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission provides a Meter Transmitter Unit (MTU) and connects the device to the meter. For information regarding the installation of MTUs, Northeastern should contact the Commission's Meter installation Department.

Response: The University will work with the Commission to install the appropriate meter and MTU for future domestic water services.

- 9.11 BWSC Sewerage/Drainage Comment 1: A Total Maximum Daily Load (TMDL) for Nutrients has been established for the Lower Charles River Watershed by the Massachusetts Department of Environmental Protection (MassDEP). In order to achieve the reductions in Phosphorus loading required by the TMDL, phosphorus concentrations in the lower Charles River from Boston must be reduced by 64%. To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater discharging from impervious areas in compliance with MassDEP. The proponent will be required to submit with any site plan a phosphorus reduction plan for the proposed developments. The proponent must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

In conjunction with the Site Plan and the General Service Application the proponent will be required to submit a Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan must be submitted and approved prior to any Site Plan Approval. The plan must:

- Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or storm water runoff to the Commission's drainage system when the construction is underway.
- Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.
- Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.



Response: Future developments at the University will evaluate phosphorus loading. It is expected that the primary means of phosphorus reduction will be through appropriately designed stormwater infiltration systems.

A Stormwater Pollution Prevention Plan (SWPPP) will be required for any project disturbing one or more acres of land as part of complying with the EPA's National Pollutant Discharge Elimination System program. A copy of the SWPPP will be provided to BWSC. Sites less than one acre will still provide a plan to BWSC indicating how their facilities will be protected from sediment and other pollutants.

- 9.12 BWSC Sewerage/Drainage Comment 2: Developers of projects involving disturbances of land of one acre or more are required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. Northeastern is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is requested that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item I above.

Response: See prior response.

- 9.13 BWSC Sewerage/Drainage Comment 3: Northeastern must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. Any site plans should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

Response: It is anticipated that future developments will provide stormwater management systems that will infiltrate the equivalent of 1" over the impervious area of the project site. Storm drainage will not be tied into the sanitary sewer system.

- 9.14 BWSC Sewerage/Drainage Comment 4: The Commission requests that Northeastern install a permanent casting stating "Don't Dump: Drains to Charles River" next to any catch basin that is created or modified as part of this project. The proponent should contact the Commission's Operations Division for information regarding the purchase of the castings.

Response: New or modified catch basins will be provided with "Don't Dump" plaques.

- 9.15 BWSC Sewerage/Drainage Comment 5: If a cafeteria or food service facility is built as part of any of the projects, grease traps will be required in accordance with the Commission's Sewer use Regulations. Northeastern is advised to consult with the Commission's Operations Department with regards to grease traps.

Response: Kitchen wastes will be treated by grease traps prior to entering the Commission's sanitary sewer. The grease trap design will be coordinated with the Commission's Operations Department.

- 9.16 BWSC Sewerage/Drainage Comment 6: The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by any proposed projects, be dye tested to confirm they are connected to the appropriate system.

Response: Storm drain and sanitary sewer connections to be re-used will be dye tested to confirm they are tied into the appropriate system.

- 9.17 BWSC Sewerage/Drainage Comment 7:

Sanitary sewage must be kept separate from storm water and separate sanitary sewer and storm drain service connections must be provided.

Response: Separate storm drain and sanitary sewer services will be provided and tied into the appropriate system.

- 9.18 BWSC Sewerage/Drainage Comment 8: If Northeastern seeks to discharge dewatering drainage to the Commission's sewer system, they will be required to obtain a Drainage Discharge Permit from the Commission's Engineering Customer Service Department prior to discharge.

Response: A Drainage Discharge Permit will be obtained prior to discharging dewatering drainage to the Commission's system.

#### 14.4 Comments from Public – Individuals, Abutters and Community Organizations

##### 10. Letter from Matthew A. Brooks, Fenway Civic Association, February 4, 2013.

10.1 Comments: FCA is disappointed that the IMP fails to place the importance of on-campus housing on equal footing with that of academic and student life space. A net withdrawal of students from the neighborhood has not been achieved.

Responses: Northeastern has worked to create on campus housing as discussed earlier in the responses to comment letters 2 and 3.

10.2 Comments: FCA supports replacement of Columbus Avenue parking lot with new building but wants the Columbus Avenue garage to be a part of the redevelopment.

Response: Northeastern has no plans to demolish the Columbus Garage and replace it with underground parking.

10.3 Comment: Supports the renovation of Carter Playground and that the permitted usage remains the same as any other public park.

Responses: Northeastern will not interfere with existing uses. The permitting process for usage will remain the same as any other public park — managed by the City of Boston; there will be no transfer of city lands to Northeastern and landscaping at the revised Carter Field will maintain the same standard currently on campus.

10.4 Comment: Supports development of Matthews Arena. Concerned about competing uses opposite Jordan Hall.

Response: Performance space and athletics have existed in the Matthews Arena/Jordan Hall area for decades and Northeastern sees no reason they will not continue to co-exist in the area after development changes have occurred.

10.5 Comment: Northeastern should provide more active opportunities to enhance student life including bowling, billiards, and other sought-after nightlife activities to offer healthy options.

Response: Among the goals of this IMP is to create more student experience space on campus, a use that was neglected in the course of the last IMP. The University believes additional student experience spaces will make on-campus residence more desirable and help address off-campus student conduct concerns.

- 10.6 Comment: Suggests that the development of the Cabot gym and Forsyth building be explored for mixed-use student housing as a major residential portion of the IMP.
- Response: The Cabot gym and the Forsyth buildings are proposed for mixed-use development to include student housing. However, swing space must first be constructed. This project is estimated to be in the later part of the IMP period.
- 10.7 Comment: Cabot could accommodate a large scale residence hall.
- Response: Cabot could accommodate a several hundred student beds and a much higher density but as mentioned above, swing space must first be constructed.
- 10.8 Comment: Requests coordination between Northeastern, Wentworth and MFA regarding triangle site occupied by Burstein/Rubenstein and Sweeney Field.
- Response: Northeastern and Wentworth Institute of Technology have been communicating with each other to issues of mutual and neighborhood concern.
- 10.9 Comment: Measures to incorporate bird safe glazing rather than LEED certification process be followed.
- Response: FCA is correct in aiming at expending funds to create sustainable features rather than trying to spend funds on certification. Bird safe glazing has been built into Northeastern design or recent buildings and will continue in proposed buildings.
- 10.10 Comment: FCA supports improvements to Forsyth Street and general plans for Huntington Avenue. Asks that the Gainsborough corridor be addressed and with providing a new crosswalk at Hemenway, and the alley between Fenway and Hemenway should be upgraded into a more pleasing, safe, and handicap accessible passage.
- Response: Northeastern is willing to discuss with the City of Boston and adjacent neighbors improvements to the crosswalk at Hemenway and Gainsborough Streets. The alley between the Fenway and Hemenway Street has a multiplicity of ownerships. Northeastern would be willing to work with adjacent owners to beautify the alley.
- 10.11 Comment: FCA asks about providing on-campus bike parking and repair stations and partnering with MassBike and others to offer safety courses.
- Response: A repair station has been installed in West Village. Northeastern meets and exceeds on-campus bike parking and currently has additional space for parking, and partners with the City of Boston to keep students and faculty current on safety.

- 10.12 Comment: Community benefits should be available equitably to all neighborhoods; believe the monthly community council meeting proposal by Northeastern could be productive.
- Response: Any benefits proposed through the course of the IMP will, unless otherwise specified, be equally available to all neighborhoods.
- 10.13 Comment: FCA does not want “endowment campus” projects built until sufficient on-campus housing is provided, with the exception of completing the hotel at Parcel 18; doesn’t approve the leasing of land for profit without more on-campus housing and sufficient open space for Northeastern’s students.
- Response: The hotel is a project from a previous PDA and not subject to the IMP. Northeastern will continue to update neighbors on the current status of the hotel in IMP.
- 10.14 Comment: Prefers elimination of leasing off-campus space, unless beneficial to neighborhoods.
- Response: Please see response to comment letter 1.
- 10.15 Comment: Supports residential master leasing at properties where Northeastern has leased previously; but should be phased out with mandated on-campus housing construction goals.
- Response: Please see response to letter 1. Master leasing is a valuable short-term real option available allowing the University rapid response to changing demand. In all identified cases the university has leased properties previously rented by students on the private market. Master leased units are subject to University conduct and safety oversight.
- 10.16 Comment: Further acquisition of existing residentially zoned buildings in the neighborhood should cease, and conversion should take place of off-site existing dorms into faculty and staff housing.
- Response: The IMP proposes no property acquisition; all projects proposed are for existing University property, except for the possibility of development partnerships for student housing. Northeastern has seen little demand for faculty and staff housing in proximity to campus but remains open to the possibility in future.
- 10.17 Comment: Northeastern properties should continue to be improved and maintained in keeping with their original character.

Response: Northeastern will continue to maintain and improve its older and historic properties and landscaping.

**11. Letter from Barbara B. Simmons, President and the Board of Symphony United Neighbors, February 1, 2013.**

11.1 Comment: An immediate priority for the neighborhood is in adding more on campus housing.

Response: Please see responses to comment letters 1 and 2.

11.2 Comment: North Lot's academic building of 8-10 stories is out of scale with surrounding neighborhood; will cast shadows during much of the day.

Response: Northeastern agreed to standards and a size of 250,000 gross square feet in the last IMP amendment, which was the result of prolonged discussion with the Community Task Force.

11.3 Comments: Community benefit proposals are missing affordable housing, community access to classes, lecture or library facilities or making Northeastern resources available to the community.

Response: Many University events and facilities are currently open to the community; the University acknowledges that it has not fully communicated opportunities to neighbors, and intends to help rectify that issue through the creation of a neighborhood council and neighborhood center as proposed in the IMP.

**12. Letter from Kyle Robidoux, Community Task Force Member, Lower Roxbury, February 4, 2013.**

12.1 Comments: Northeastern needs to more aggressively address the need for more on-campus housing. Leased housing should not count towards the university's goal to house more students on campus.

Response: Please see responses to comment letters 1 and 2.

12.2 Comment: The University should create more affordable housing as a community benefit and top priority.

Response: Please see responses to comment letters 1 and 2.

12.3 Comment: Details on local hiring and contracting goals needed in the IMP  
Response: Northeastern adheres to the City of Boston hiring goals. Further, the last major project Northeastern completed (the International Village residence hall) exceeded City goals, and was one of the few in Boston that achieved that distinction.

12.4 Comment: Northeastern should offer more educational opportunities to local residents  
Response: Northeastern does reach out to local residents in a number of ways, and actively participates in programs to help early childhood programs and after-school programs as discussed in the responses to comment letters 1 and 2.

**13. Letter from Alison Pultinas, February 6, 2013.**

13.1 Comment: Is it possible that 75% of the student body could be housed on campus in the future and is that a goal that the University is committed to?  
Response: The University holds that 75% of the student body needing housing and being housed on campus is a valuable goal and that housing proposed in this IMP would meet that goal

13.2 Comment: What is the bed count, taking out leased housing?  
Response: There are approximately 8,500 beds on campus.

13.3 Comment: What are the strategies to reduce the costs of on-campus housing?  
Response: Please see responses to comment letters 1 and 2.

13.4 Comment: Plans for future IMP projects and housing developed with private partners have consequences for the community.  
Responses: Plans for partnerships have not been fully developed, and would come before the Community Task Force and/or BRA before advancing.

13.5 Comment: Could Northeastern promote living close to campus for faculty and staff with financial and other incentives?  
Response: Please see response to comment letter 10.

13.6 Comments: What is the statistics on BPS graduates?

Response: Please see the response to comment letter 2.

13.7 Comment: The total parking supply should be lower with reduced enrollment and more on campus housing since 2000.

Response: Parking will be reduced in the proposed IMP.

13.8 Comment: Additional bikeways through campus are advisable.

Response: Northeastern has no plans to open World Series Way to bicycle traffic.

13.9 Comment: Important to permanently retain the Cardinal Medeiros affordable housing program at the Hastings Wing of the YMCA.

Response: Northeastern has agreed to maintain the Cardinal Medeiros program at the Hastings Wing of the YMCA unless an acceptable alternate location can be found in the Fenway neighborhood.

13.10 Comments: More information and a public process needed for the redesign of Carter Playground.

Response: The public process for Carter Field will be overseen by the City of Boston Parks Department.

**14. Letter from Steve Wolf, Board President and Dharmena Downey, Executive Director, Fenway CDC, February 7, 2013**

14.1 Comment: Affordable housing was removed from the community benefits package in the IMPNF.

Response: Northeastern continues to review affordable housing proposals in our adjacent neighborhoods for potential partnerships.

14.2 Comment: Supports BRA's suggestion for an in-depth analysis of student impact on neighborhood housing and affordability

Response: The housing impact study is underway, and the CDC is represented on the Community Task Force subcommittee that is working to shape the study.

14.3 Comment: Housing mitigation plan should describe specific proposals and methods for providing affordable neighborhood housing.



Response: Please see response to 14.1 above.

14.4 Comment: Northeastern should lay out a concrete plan to partner with the CDCs in high impact and increasingly expensive neighborhoods of Fenway and Mission Hill.

Response: Please see response to 14.1 above.

14.5 Comment: IMP should establish a clear plan to reduce student occupancy of neighborhood housing and bolster affordable housing stock in the surrounding area.

Response: The University is proposing 1,000 new student beds in this IMP.

14.6 Comment: The IMP should state how many beds are occupied; how many are vacant; and create a detailed plan for filling all beds.

Response: Because of the cooperative education program, the occupancy of University beds may be in flux from semester to semester depending on the student job market and other factors. As a financial proposition the University works to keep residence halls as close to fully occupied as possible at all times.

14.7 Comment: IMP should include a specific commitment to creating a specific number of student beds within the first five years of the IMP.

Response: The University has agreed to initiate a housing proposal during the first five years of the IMP.

14.8 Comment: Why was Gainsborough Garage removed as a housing site in the IMP?

Response: With the construction of GrandMarc and the proposal for a New England Conservatory residence hall on St. Botolph Street, many Fenway and South End neighbors expressed concern about a high density of students in the St. Botolph corridor. The University has identified several other potential campus sites that could include housing.

14.9 Comment: Master leasing should be phased out.

Response: Please see responses to comment letters 1 and 10.

14.10 Comment: Northeastern should provide a broad timeline for projects including anticipated sequence of construction and estimates of the number of units proposed at each site.

Response: The University has identified the Interdisciplinary Science and Engineering Building as the first project to fulfill immediate institutional need. A housing project has been identified as one that will be moved into the first five years of the term of the IMP. Future proposed projects are subject to financial and other considerations.

14.11 Comment: Lower the height of the proposed building on the North Lot.

Response: Please see response to comment letter 11.

14.12 Comment: A more detailed plan is needed for local business procurement and small business loan fund.

Response: The University is working with Next Street Financial and local officials to identify appropriate opportunities and goals.

14.13 Comment: There is a lack of detail in descriptions of workforce development and local hiring practices.

Response: The University is working with Next Street Financial and will partner with the mayor's Office of Jobs and Community Services as well as local nonprofits to enhance local hiring

**15. Letter from Cynthia Brophy, February 4, 2013.**

15.1 Comment: The height of the building on North Lot should not be eight stories.

Response: Please see response to letter 11.

15.2 Comment: Master Leasing should be phased out.

Response: Please see response to comment letter 1.

15.3 Comment: Northeastern has not complied with the terms of the Master Leasing Agreement.

Response: Please see response to comment letter 1. The 2004 agreement, as modified by the 2006 Third Amendment to the IMP, set a five-year timeline in motion based on the building of two new residence halls, with allowance for revisions after public meetings. The University currently has several hundred fewer master leased beds than in 2004.

15.4 Comment: There should be an overall plan for Huntington Avenue.

Response: The University works with institutional, commercial and residential neighbors on issues of mutual concern and is open to taking part in a comprehensive approach to changes along the “Avenue of the Arts”.

16. **Letter from William Dellea, February 5, 2013.**

16.1 Comment: What is the plan for Columbus lot?

Response: Please see **Section 7.3.1**.

16.2 Comment: What is the plan for Burke Street lot?

Response: Please see **Section 7.4.7**.

16.3 Comment: What are the plans for Matthew Arena, Gainsborough Garage and Carter Playground?

Response: Please see **Section 7.3.3** for an update on the Matthews Arena addition; **Section 7.4.6** for an update on the Gainsborough Garage, and **Chapter 12** for an update on the Carter Playground proposal.

17. **Letter from Sociedad Latina, February 4, 2013.**

17.1 Comment: City of Boston policy is to encourage colleges to expand on campus and the correlation of loss of family housing is due to student rental.

Response: The University is undertaking a housing impact study as described above, passim, with neighborhood input.

17.2 Comment: The IMP must prioritize construction of undergraduate housing to reach 75% on campus within the first five years of the IMP.

Response: Please see response to comment letter 1.

17.3 Comment: Northeastern must create a plan to reduce the number of students living on Mission Hill.

Response: Please see response to comment letter 1.

17.4 Comment: Northeastern must complete a student housing plan.

Response: The University has included a student housing plan as a required component of the IMP.

- 17.5 Comment: The number of students living off campus must be balanced with a benefits package that addresses increasing the supply of family housing.  
Response: A benefits package is incorporated in a cooperation agreement after the IMP has been approved by the BRA and the Zoning Commission.
- 17.6 Comment: Construction and hiring goals should be spelled out in the IMP as well as local procurement and hiring goals.  
Response: Please see response to comment letter 14.
- 17.7 Comment: Northeastern should provide increased educational opportunities for residents of adjacent neighborhoods, scholarships information should be provided and support for Community based organizations as well as college readiness programs expanded with quantifiable commitments in the IMP.  
Response: Please see response to comment letter 1.
- 17.8 Comment: A group should be formed to continue the work of the Community Task Force.  
Response: The University has proposed creation of a neighborhood council to begin after approval of the IMP.
- 17.9 Comment: Student behavior should be the same off campus as on campus.  
Response: The University imposes the same discipline for adjudged misconduct off campus as on campus; in addition, misconduct off campus is subject to action by Boston police and other municipal entities.
- 17.10 Comment: The IMP should contain information on current supervision and disciplinary procedures.  
Response: The University makes public disciplinary statistics for several years at [www.northeastern.edu/osccr/disciplinarystats/index.html](http://www.northeastern.edu/osccr/disciplinarystats/index.html).

**18. Letter from David Wilhelmi, February 4, 2013.**

- 18.1 Comment: Northeastern failed in its commitment to create more student housing.

Response: Northeastern completed more than 5,000 beds in the prior IMP and completed all the projects outlined in the 2000 IMP and subsequent amendments.

18.2 Comment: Cannot support a new IMP without new dorms being built.

Response: The University has proposed 1,000 new beds in this IMP and will initiate the first housing project in the first five years of the IMP.

18.3 Comment: Due to Northeastern, property taxes have gone up and the University pays no taxes.

Response: The University pays more than \$2 million annually in property taxes to the City of Boston and nearly \$900,000 annually in PILOT, in addition to specific community programs and services and general economic benefits to the city because of the University's presence.

**19. Letter from John and Virginia Morse, January 23, 2013.**

Response: The University is proud of its recycling and conservation programs.

**20. Letter from Diane Brown, December 31, 2012.**

20.1 Comment: Forsyth Street must remain open.

Response: The University is aware of no plans to close the city-owned Forsyth Street.

20.2 Comment: The tennis court and children's play area at Carter should remain unchanged.

Response: Northeastern will partner with the City of Boston Parks Department to improve Carter Field, in a process that will allow public comment on planning.

20.3Comment: Northeastern should stop expanding in Boston and build elsewhere.

Response: Projects proposed in this IMP are confined to University-owned land. The exception is the possibility of partnering with a development partner to develop student housing adjacent to campus.

20.4 Comment: Northeastern pays little in taxes.

Response: Please see response to comment letter 18.

**21. Letter from Timothy O'Brien, January 24, 2013.**

21.1 Comment: Councilor Ross' "no more than four" ordinance does not work.

Response: The University supported passage of this ordinance as an important safety tool for municipal officials and students, and continues to make students aware of the provisions of the ordinance.

21.2 Comment: There has been a policy shift by Boston police.

Response: Northeastern and other schools adjacent to Mission Hill, not Boston taxpayers, fund Boston police details on Mission Hill.

21.3 Comment: Greek life is a good alternative to solve some of the behavior problems.

Response: The creation of fraternity or sorority housing off campus would not involve the University. Any involved students would be subject to the same Student Code of Conduct provisions as students in any other housing on or off campus.

21.4 Comment: Northeastern should regulate off-campus parties and alcohol consumption.

Response: The Student Code of Conduct applies to all students equally, on or off campus. The University cannot legally regulate private off-campus gatherings.

22. **Letter from Tony Woodcock, President, New England Conservatory, January 18, 2013.**

Comment: The Conservatory has worked with Northeastern and the BRA in the St. Botolph and Gainsborough Streets corridor and will continue to do so.

Response: Northeastern continues a good working relationship and both formal and informal connections with the Conservatory, and will continue to work on issues of mutual and neighborhood benefit.

23. **Letter from Tony Woodcock, President, New England Conservatory, February 14, 2013.**

23.1 Comment: The Conservatory looks forward to continuing discussions with the MBTA, concerning the Orange Line, Commuter rail, improved access and improvements to the public parks and playgrounds.

Response: There will be continual review of plans as they progress on the Columbus Lot, mass transit facilities and public recreational areas.

23.2 Comment: The Conservatory is considering an L shaped development on St. Botolph Street and wishes to include public enhancements to the intersection of St. Botolph and Gainsborough Streets and wants Northeastern to be included in the discussions. Parking should be replaced somewhere on campus.

Response: Northeastern hopes to cooperate with the Conservatory to improve the St. Botolph/Gainsborough intersection, as described on Page 6-28 above.

23.3 Comment: The Conservatory wants to be kept informed of any changes to the Hastings Wing of the YMCA.

Response: There are no current plans for its redevelopment or reuse but Northeastern will of course communicate with the Conservatory about all issues of mutual concern.

23.4 Comment: The Conservatory will be working to enhance the public streetscape and would like to see Northeastern address more definitively what it anticipates in the corridor.

Response: Northeastern continues a good working relationship and both formal and informal connections with the Conservatory, and will continue to work on issues of mutual and neighborhood benefit.

**24. Letter from James Hoffman, Executive Director and Patricia Flaherty, Senior Project Manager and CTF Member, Mission Hill Neighborhood Services, February 5, 2013.**

24.1 Comment: Northeastern's transformation from a commuter-serving school to a residential campus has unfairly burdened the Mission Hill neighborhood in terms of quality of life and housing available and affordable to working families, senior citizens and professionals.

Response: Northeastern has initiated a housing impact study to review this concern.

24.2 Comment: Northeastern has stated housing is no longer a priority.

Response: Northeastern has proposed 1,000 new beds in this IMP and will initiate the first housing project in the first five years of the IMP term. The University has stated that after more than a decade in which it built housing almost to the exclusion of other uses, it must work to enhance its academic, research, athletic and student life space.

24.3 Comment: Northeastern's IMP must prioritize the construction of undergraduate housing to reach 75% on campus.

Response: Please see response to comment letter 1 and the response to comment 24.2.

24.4 Comment: Northeastern must have annual benchmark goals for the production of housing as part of the IMP.

Response: Please see response to comment letter 1 and the response to comment 24.2.

24.5 Comment: Northeastern must balance the needs of the institution with the needs of the surrounding neighborhoods.

Response: The Task Force process was created to bring neighborhood needs into the formal IMP discussion, and Northeastern has fully participated. The University also proposes creation of a neighborhood council after the IMP approval, to maintain continuous and open two-way communication with neighbors.

24.6 Comment: Article 80D of the Boston Zoning Code states an IMP shall include a Student Housing Plan.

Response: The IMP responds to all required components, including a Student Housing Plan.



- 24.7 Comment: The current Master Leased Property Program should be explained in detail.  
Response: Please see response to letter 1 and other letters, passim.
- 24.8 Comment: MHNHS requests that part of the proposed 600,000 square foot development of the Columbus lot be allocated to undergraduate housing.  
Response: The University has proposed an Interdisciplinary Science and Engineering Building for Columbus lot, and 1,000 new beds in the IMP.
- 24.9 Comment: There must be a detailed phasing and timing schedule for each IMP project.  
Response: Please see response to comment letter 14.
- 24.10 Comment: The IMP should provide an affordable housing component.  
Response: Please see response to comment letter 14.
- 24.11 Comment: Northeastern must provide funds for mitigation for affordable housing to families and elderly displaced by students.  
Response: Please see response to comment letter 14.
- 24.12 Comment: Construction and permanent hiring goals should be delineated as well as a business entrepreneurship program and loan program for small businesses. A timetable for hiring and training commitments should also be spelled out.  
Response: Please see response to comment letter 14 as well as Section 12-5 above.
- 24.13 Comment: The IMP should provide information on scholarships to BPS students and future annual projections. Support for community-based organizations' out-of-school initiatives and college-readiness programs should be expanded with quantifiable commitments shown in the IMP.  
Response: Please see response to comment letter 1.
- 24.14 Comment: More information should be provided on the status of Parcel 18.  
Response: Please see Pages 7-42, 9-86 and 12-1 and response to comment letter 10.

24.15 Comment: An ongoing Community Task Force should continue after the IMP is approved.

Response: The University has proposed creation of a neighborhood council after approval of the IMP.

25.16 Comment: MHNHS believes that student behavior off-campus should be treated the same as behavior on campus.

Response: Please see response to comment letter 17.

25. **Letter from Jeffrey Brody, President, Gainsborough Neighborhood Association, February 1, 2013.**

25.1 Comment: Any development at North Lot should comply with all residential zoning for height and mass.

Response: Please see response to comment letter 12.

## Appendix A

# BRA Scoping Determination for the Northeastern University IMP, April 5, 2013

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April 23, 2013

Mr. Ralph Martin, Senior Vice President and General Counsel  
Northeastern University  
360 Huntington Avenue  
Boston, Massachusetts 02115

Dear Mr. Martin:

Re: **Northeastern University Institutional Master Plan Scoping Determination**

Please find enclosed the Scoping Determination for the proposed Northeastern University Institutional Master Plan. The Scoping Determination describes information required by the Boston Redevelopment Authority in response to the Institutional Master Plan Notification Form, which was submitted under Article 80D of the Boston Zoning Code on December 21, 2012. Additional information may be required during the course of the review of the proposals.

If you have any questions regarding the Scoping Determination or the review process, please contact me at (617) 918-4438.

Sincerely,

Gerald Autler  
Senior Project Manager / Planner

# **BOSTON REDEVELOPMENT AUTHORITY**

## **SCOPING DETERMINATION**

### **FOR**

## **NORTHEASTERN UNIVERSITY INSTITUTIONAL MASTER PLAN**

### **PREAMBLE**

Northeastern University (“Northeastern” or the “University”) is seeking approval of an Institutional Master Plan (“IMP”) pursuant to Section 80D of the Boston Zoning Code (the “Code”). The Institutional Master Plan Notification Form (“IMPNF”) submitted to the BRA December 21, 2012, describes eleven Proposed Institutional Projects (the “Proposed Institutional Projects” or “Proposed Projects”). The BRA will review the IMP submitted in response to this Scoping Determination (“Scope”) pursuant to Section 80D of the Code (Institutional Master Plan Review).

Based on review of the IMPNF and comments from city and state public agencies, elected officials, the BRA-appointed Northeastern University Task Force, and the public, the BRA hereby issues its written Scoping Determination pursuant to Section 80D-5.3 of the Code. Northeastern is requested to respond to the specific elements outlined in this Scope. Comments from public agencies and from the public (including the Task Force and elected officials), found in Appendix 1 and 2, respectively, are incorporated as a part of this Scope and should be responded to in the IMP or in another appropriate manner over the course of the review process.

The IMP shall contain the information necessary to meet the specifications of Article 80D as well as any additional information requested below. At other points during the public review of the IMP, the BRA and other City agencies may require additional information to assist in the review.

In addition to the specific submission requirements outlined in the sections below, the following general points should be noted:

- Over the past two decades, Northeastern’s campus has undergone a physical evolution that reflects the changes in the University’s student population and mission. This physical evolution has been largely positive for both the institution and the surrounding neighborhoods, replacing surface parking with attractive buildings and publicly accessible open spaces. A major goal of the IMP should be to continue this transformation to further enrich the University’s host neighborhoods with better and more active public realm amenities, new open spaces, and distinguished architecture.
- Another outcome of the changes in the University’s student population and mission has been an increase in the student population in surrounding neighborhoods. While Northeastern has made significant progress building additional student housing and addressing concerns about off-campus student impacts, this issue remains a major cause of friction with the surrounding neighborhoods. This IMP must continue to

address these impacts through the creation of additional student housing, as well as other measures to be developed in consultation with the Task Force and the neighborhoods at large.

- Northeastern's growth represents significant potential economic opportunity for the surrounding communities, through employment and workforce development, university purchasing, business development, educational enrichment, and more. Many potential strategies have already been discussed with the Task Force, and the IMP and its associated public benefits package should be creative in ensuring that institutional growth translates into economic opportunity for the University's neighbors.

**SUBMISSION REQUIREMENTS**  
**FOR THE**  
**NORTHEASTERN UNIVERSITY IMP**

The Scope requests information required by the BRA for its review of the Proposed Institutional Master Plan in connection with the following:

1. Approval of the Proposed IMP pursuant to Article 80D and other applicable sections of the Code.
2. Recommendation to the Zoning Commission for approval of the Proposed IMP.

The Proposed IMP should be documented in a report of appropriate dimensions and in presentation materials which support the review and discussion of the IMP at public meetings. Forty-five (45) copies of the full report should be submitted to the BRA, in addition to an electronic version in .pdf format. Additional copies of the document should be available for distribution to the Northeastern Task Force, community groups, and other interested parties in support of the public review process. The IMP should include a copy of this Scoping Determination. The Proposed IMP should include the following elements.

**1. MISSION AND OBJECTIVES**

- **Organizational Mission and Objectives.** Define Northeastern's institutional mission and objectives, and describe how the development contemplated or proposed in the IMP advances the stated mission and objectives.
- **Major Programs and Initiatives.** Describe any major academic programs or initiatives that will drive academic and physical planning in the future. Included in the description should be current and future trends that are impacting Northeastern and shaping program objectives.

**2. EXISTING PROPERTY AND USES**

The IMP should present maps, tables, narratives, and site plans clearly providing the following information:

- **Owned and Leased Properties.** Provide an inventory of land, buildings, and other properties occupied by Northeastern's institutional uses as of the date of submission of the IMP, with the following information in tabular and map form for each property. Elements of this information may be combined with the Planning and Urban Design Framework, waived, and/or presented in an alternative form pursuant to further discussion with the BRA.
  - Illustrative site plans showing the footprints of each building and structure, together with roads, sidewalks, parking, and other significant improvements.
  - Land and building uses.
  - Building gross square footage, including area below grade, and floor area devoted to each use.

- Building height in feet and number of floors, including floors below grade and mechanical penthouses.
- Age of structures.
- A description of off-street loading, trash storage, and parking areas and facilities, including a statement of the approximate number of parking spaces in each area or facility.
- Tenure (owned or leased by Northeastern).
- Proposed action (rehabilitation, disposition, demolition, replacement, change of use, or other) during the term of the IMP.
- Indication of temporary swing space facilities, where applicable.
- Existing building linkage payments.

### 3. INSTITUTIONAL DEMOGRAPHICS

- **Student Population.** The IMP should provide an explanation of past trends and future projections of the size and other salient characteristics of Northeastern's student body, including the impact of the Co-op program on student residence characteristics and any anticipated effects of online education and other trends in higher education. These data should be referenced as appropriate in other sections, e.g. the Student Housing Plan.
- **Student Residence Locations.** The IMP should present data in tabular and graphical (i.e., map) format on the residence locations of students living in Northeastern-owned dormitories, master leased housing, and other Boston-based housing. The data should distinguish between students living in residence halls versus those living in rental housing, ideally at the sub-zipcode level. This information may be integrated with the Student Housing Plan, described below, if desired.
- **Employment.** Provide information on Northeastern's current employee population, disaggregated by faculty/staff, full-time/part-time, contract employees, Boston residents/non-residents, as well as projected employment over the term of the IMP.

### 4. JOB TRAINING ANALYSIS.

- **Workforce Development.** The BRA looks forward to working with Northeastern to support the City's employment and workforce development goals. The IMP will provide an opportunity for further discussion of measures to enhance educational opportunities for Boston residents and prepare Boston residents and students for employment. To this end, Northeastern shall arrange a meeting with the city's Office of Jobs and Community Services to discuss potential measures to enhance educational opportunities for Boston residents and prepare Boston residents and students for employment. Special efforts on the part of Northeastern are expected with regard to fulfilling the Boston Residents Jobs Policy and with regard to minority hiring and contracting, as well as with regard to hiring and training efforts in the neighborhoods in the vicinity of Northeastern.

### 5. PLANNING AND URBAN DESIGN FRAMEWORK

Northeastern uses the city as its campus, drawing vitality from it and contributing activity. Boston's streets and parks are the Northeastern open spaces, its storefronts the University's student centers, its sidewalks and subways Northeastern's circulation system, just as the campus provides important public linkages between neighborhoods, transportation hubs, and



institutions. While this symbiotic relationship is positive in many respects, because the University is so woven into the fabric of its host neighborhoods, it must carefully balance its desire for growth with the essentially public and neighborhood-oriented quality of the surrounding public realm, both by presenting its own identity sensitively and by striving to create and maintain spaces (whether retail, institutional, or of another nature) that are accessible to the public and that serve neighborhood needs.

The IMP should lay the groundwork for a shared vision for the campus and its place in the city. The BRA Urban Design Scoping Determination Comments, included in Appendix 1, addresses many points in great detail and is an integral part of this Scoping Determination. In addition to responding to that letter, the IMP should include the following:

- **Urban Design Vision.** Describe Northeastern's vision of its desired physical identity and physical relationship with key public realm infrastructure, public spaces, activity centers, and destinations in the vicinity of the University. Consistent with the BRA Urban Design Scoping Determination Comments, the IMP should distinguish among different campus districts, which may take on different identities and have distinct relationships with the surrounding neighborhoods and public realm components.
- **Urban Design Diagram.** Include a diagram showing the location of major activity centers and destinations, including both Northeastern buildings and other major activity centers (e.g. cultural facilities, transportation hubs, city parks) in the adjacent areas and the major pedestrian/bicycle routes connecting them. This may be combined with the diagrams requested in the BRA Urban Design Scoping Determination Comments.
- **Vitality at the Core and Edges.** Consistent with this stated goal (IMP NF, Page 5-2), the IMP should set forth a vision for activation of major activity centers and destinations on the campus, both existing and future. For example, the intersection of Saint Botolph Street and Gainsborough Street, the edge along Columbus Avenue, and the proposed "arc" across the railroad tracks as part of the Integrated Science and Engineering Building all need to be considered as part of an overall strategy of public realm activation, whether through active programming or through design that attracts users on a more casual basis.

The IMP should pay particular attention to the following key gateways and edges:

- **Gainsborough Street and Saint Botolph Street.** This area constitutes a key gateway into the campus, but one that is lacking a clear identity and public realm strategy. The IMP should present a long-term vision for this gateway, with both short- and long-term strategies that can be implemented in conjunction with the City of Boston, New England Conservatory, the MBTA, and others. Specifically, the IMP should:
  - Describe public realm improvements and activation strategies that can be implemented in the shorter term. Northeastern shall consult with the New England Conservatory, the Boston Transportation Department, and the BRA in the formulation of these proposals.
  - Describe a long-term vision for the area that can be implemented in conjunction with the Proposed Institutional Projects. The vision should include streetscape improvements and building design strategies that activate the intersection and create usable public realm spaces that can serve both as informal gathering spots and as locations for programming. In addition, Northeastern should work with the

BRA and the MBTA to study the possibility of an improved crossing over the Southwest Corridor tracks and an entrance to Massachusetts Avenue station where currently there is only an exit.

- Present an estimate of peak pedestrian and automobile traffic during major events. Of particular interest is an understanding of conditions during coinciding events at Jordan Hall and Matthews Arena. The long-term vision for the area should be informed by an understanding of the public realm, transportation, and parking infrastructure needed to handle a combination of such major events with the planned new student population.
- **Huntington Avenue.** Northeastern's proposed replacement of the Cabot Center and the associated athletic facilities with buildings that a more active face to Huntington Avenue is welcome. Likewise, the proposed projects at the location of the existing Burstein and Rubenstein buildings and at the Cargill Hall site also create welcome opportunities to enhance the campus edge along Huntington Avenue. The BRA Urban Design Scoping Determination Comments set forth specific requests for the Huntington Avenue corridor. Beyond addressing those requests, the IMP should take care to articulate the ways in which the proposed projects will enhance and activate the public realm along Huntington Avenue and facilitate circulation for both the campus community and the public at large.
- **Columbus Avenue and Melnea Cass Boulevard.** This area constitutes another key gateway into the campus, and is also the intersection between two major multi-use trails—the South Bay/Harbor Trail and the Southwest Corridor. With development anticipated at both Columbus Lot and Parcel 18 East, the area's importance will grow even as the pressures on it mount. The IMP should present a long-term vision for this gateway, with shorter-term action items that can be implemented in conjunction with the Interdisciplinary Science and Engineering Building ("ISEB") and/or through coordinated action with the City of Boston, DCR, the MBTA, and others. Specifically, Northeastern should work with those entities to examine and propose as part of the IMP:
  - Improvements to the Columbus Avenue edge of the Northeastern campus and Carter Playground.
  - A Columbus Avenue cycle track (i.e. protected bicycle route).
  - Strategies to create a safe, legible, and effective bicycle and pedestrian connection between the South Bay/Harbor Trail and the Southwest Corridor at the intersection where they meet.
  - Strategies to ensure that the new crossing over the railroad tracks proposed in conjunction with the ISEB is well-connected to the two multi-use trails so as to function as part of a larger, integrated city-wide system.

## 6. PROPOSED INSTITUTIONAL PROJECTS

The IMP shall contain the following:

- **Article 80D Requirements.** Pursuant to Article 80D, the IMP should provide the following information for each Proposed Future Project:
  - Site location and approximate building footprint.

- Uses (specifying the principal subuses of each land area, building, or structure, such as classroom, laboratory, parking facility).
  - Square feet of gross floor area.
  - Square feet of gross floor area eliminated from existing buildings through demolition of existing facilities.
  - Floor area ratio.
  - Building height in stories and feet, including mechanical penthouses.
  - Parking areas or facilities to be provided in connection with Proposed Institutional Projects.
  - Any applicable urban renewal plans, land disposition agreements, or the like.
  - Current zoning of site.
  - Total project cost estimates.
  - Estimated development impact payments.
  - Approximate timetable for development of proposed institutional project, with the estimated month and year of construction start and construction completion for each.
- **Phasing.** The IMP should also provide more detailed information about the anticipated sequence of the proposed IMP projects and the rationale behind that proposed sequence. The IMP should also explain the anticipated phasing of key infrastructure and public realm improvements that would accompany those projects.
  - **Active Ground Floor Uses.** Institutional buildings in those parts of the campus that interface with the public realm should contain ground floor uses with a public element, as well as a mix of uses that encourages activity throughout the day and evening.
  - **Consistency with Planning and Urban Design Framework.** Individual projects need to be consistent with the larger planning framework and help implement key area-wide goals, and the IMP should demonstrate that they accomplish this.
  - **North Lot.** A number of residents have expressed concern about the height of the proposed building on North Lot relative to the fabric of the surrounding residential neighborhood. In addition to the additional submissions requested in the BRA Urban Design Scoping Determination Comments, the IMP should present for evaluation an alternative Proposed Institutional Project with a height closer to that of the surrounding residential buildings.
  - **Matthews Arena Addition and Gainsborough Garage Site.** The IMP should provide a graphic and narrative discussion of how the two IMP projects in this area respond to and/or support the long-term planning concepts set forth in the Planning and Urban Design Framework.

Article 80D mandates that institutions submit a Student Housing Plan as part of the IMP. The IMP should address both the requirements set forth in Article 80D, which are reproduced below, and the additional requirements set forth in this section.

- **Article 80 Student Housing Plan Requirements.** Pursuant to Article 80D, the IMP should address the following:
  1. The number of full-time undergraduate and graduate students living in housing facilities owned or operated by the Institution, including a breakdown by type of degree of

- program (undergraduate or graduate) and type of housing facility (dormitory, apartment, or cooperative housing facility).
2. The number of housing units owned or operated by the Institution, by type of housing facility (dormitory, apartment or cooperative housing facility).
  3. Any housing requirements or restrictions the Institution places on its students (e.g. eligibility for University-owned housing, requirement to live on campus).
  4. The process by which the Institution directs its students to housing facilities (both on- and off-campus).
  5. The Institution's short-term and long-term plans for housing its undergraduate and graduate students in University-owned housing.
  6. Impacts of the Institution's student housing demand on housing supply and rental market rates in the surrounding neighborhoods, including those neighborhoods adjacent to the Institution's campus and other neighborhoods where the Institution's students are concentrated.
  7. A plan for mitigating the impacts of the Institution's student housing demand on surrounding neighborhoods.
- **Housing Impact Study.** Items 6 and 7 above should be addressed in a Housing Impact Study that may be filed as part of, or as a supplement to, the IMP. Since the results of the study will inform the IMP document and the review thereof, it is desirable that it be completed in advance of the filing of the IMP. Currently, Northeastern has retained a consultant and discussions are underway with the BRA and representatives of the BRA-appointed Northeastern Task Force to determine an appropriate scope of work. The BRA reserves the right to request additional information and/or IMP submissions based on the outcome of this study.
  - **University-Controlled vs. Master-Leased Housing.** When presenting percentage of students housed, the IMP should clearly distinguish between university-controlled housing (whether owned or leased on a long-term basis, as in the case of the GrandMarc) and master-leased housing that is intended to be a temporary use of the properties in question.
  - **Undergraduate Housing.** Northeastern has stated its intention to build undergraduate housing within the first five years of the term of the IMP. The IMP should investigate alternative sites on the Northeastern campus that would be viable for student housing, as requested in the BRA Urban Design Scoping Determination Comments. Northeastern will be expected to engage in an ongoing dialogue with the BRA and the Task Force on this subject.

## 7. TRANSPORTATION, PARKING, AND CIRCULATION

Northeastern's campus sits at the confluence of a rich array of transportation options, which both benefit from and are impacted by the presence of the campus. The overarching goal of Northeastern's transportation strategy should be to minimize the use of private automobiles by students and staff—an area in which the university has had notable success—while helping to increase the quantity, quality, and viability of transportation alternatives in the vicinity of the campus. Both new and improved transportation options AND better connectivity are key to achieving this goal. The letter from the Boston Transportation Department is included in Appendix 1 and is an integral part of this Scoping Determination. The BRA Urban Design Scoping Determination Comments also addresses issues related to the campus circulation

system. In addition to responding to any points in those letters not covered here, the IMP should include the following components.

- **Mode Share and Transportation Demand Management.** The IMP should describe the University's mode share goals and existing and planned TDM programs, including at a minimum:
  - Any incentives for carpooling/vanpooling.
  - Any trip reduction programs such as telecommuting.
  - Incentives for employees to use alternative modes including transit and bicycling.
  - More detail on MBTA pass subsidies, if any.
  - Eligibility for TDM program benefits (ex. part-time, full-time and contract workers).
  - TDM marketing and promotion.
- **Circulation System.** Pedestrian traffic—whether students and employees moving between Northeastern facilities or walking to and from MBTA stations—is a key component of the overall transportation system that serves the University. This is, on the whole, a desirable situation that helps to enliven the campus and urban core. Bicycles are also an integral component of the transportation system serving the campus and the immediate vicinity and deserve increased attention. Finally, the proximity of major transit stations and cultural destinations means that many people unaffiliated with Northeastern pass through the campus en route to other destinations. The IMP should:
  - Illustrate existing campus-wide pedestrian routes and connections and inventory and illustrate the location of key bicycle paths, bicycle lanes, and bicycle racks (covered/uncovered).
  - Identify potential new pedestrian circulation infrastructure and bicycle circulation and parking facilities—both outdoor and indoor—to be included in the Proposed Projects and/or developed in cooperation with the City of Boston and other property owners.
  - Describe existing and planned way-finding systems on the campus.
- **Mobility Hubs.** Mobility hubs integrate infrastructure from multiple modes in close proximity and combine them with technology and information to facilitate effective transportation choices. The presence of multiple modes (subway, bus, commuter rail) in the heart of the Northeastern campus, as well as the fact that multiple city-wide pedestrian and bicycle paths pass by the campus, means that those travelling to and from Northeastern have a wide range of mobility options. The IMP should explore ways that information about the different modes (from wayfinding to real-time arrival information) can be combined with additional infrastructure (bicycle parking, Hubway stations, car sharing services) all in close proximity to transit stations.<sup>1</sup>
- **Parking Management Plan and Strategy.** The IMP shall include a parking management plan and strategy with the following elements:

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<sup>1</sup> For some background on mobility hubs, see the following:  
[http://www.metroinix.com/en/projectsandprograms/mobilityhubs/RTP\\_Backgrounder\\_Mobility\\_Hubs.pdf](http://www.metroinix.com/en/projectsandprograms/mobilityhubs/RTP_Backgrounder_Mobility_Hubs.pdf)  
[http://www.metroinix.com/en/projectsandprograms/mobilityhubs/Mobility\\_Hubs\\_green\\_paper.pdf](http://www.metroinix.com/en/projectsandprograms/mobilityhubs/Mobility_Hubs_green_paper.pdf)

- An inventory of existing parking facilities (owned and leased) and current utilization rates by facility, including the number of spaces leased to others or used by the general public, if any.
  - Anticipated changes to supply over the term of the IMP based on project phasing (i.e. redevelopment of existing parking facilities).
  - Current and planned pricing for campus parking and a comparison with market rates at comparable facilities in the area.
  - Projected demand for on-campus parking over the term of the IMP based on anticipated staff levels, TDM programs, and parking pricing.
- **Bicycle Access and Parking Plan.** As stated in the BTM letter, the IMP should include a bicycle access and parking plan. In particular, given the challenges of providing long-term and short-term parking for large numbers of bicycles, and given that the IMPNF states that “on-campus bicycle storage will be a key focus of the IMP,” the IMP should provide more detail on proposed bicycle facilities, including proposed overall inventory and locations of bicycle parking for campus residents and commuters, and the availability of showers and changing areas on campus for students or employees who commute by bicycle. See City of Boston Off-Street Bicycle Parking Guidelines (Attached in Appendix 5) for more information.
  - **Key Transportation Initiatives.** As noted in the IMPNF and the letter from BTM, there are a number of initiatives of shared interest. Northeastern should meet pro-actively with the BRA and BTM on these issues, as well as addressing them in the IMP.
    - **Southwest Corridor/Ruggles Station/International Village.** Northeastern should continue working with the BRA, BTM, DCR, and the MBTA to ameliorate conditions at this location, which is particularly problematic in terms of bicycle-pedestrian interaction. Possible solutions include moving or removing bollards, creating a clear and marked path for bicycles to transfer between the Southwest Corridor path and the Columbus Avenue bike lanes, where most bicyclists choose to travel when eastward of this point (see also next point below), and using pavement marking to reduce bicycle-pedestrian conflicts.
    - **Columbus Avenue Cycle Track.** The vast majority of bicyclists choose to use the on-street bicycle lanes on Columbus Avenue between Massachusetts Avenue and Ruggles station, instead of the off-street Southwest Corridor path. The cobblestone median strip on Columbus Avenue means there is extra right-of way on that street, possibly enough to create a cycle track (protected bicycle lane). This might also provide benefits to the parkland and planned campus buildings on Columbus Avenue by removing a little-used component of the Southwest Corridor Park, namely the bicycle lane. Northeastern should explore these concepts with the BRA, BTM, and DCR.
    - **Emerald Necklace-Southwest Corridor Connection.** Northeastern has been a partner in conversations with the City of Boston regarding a potential on-street connection between these two major open space systems and multi-use trails, and should continue its involvement and support.
    - **Southwest Corridor-South Bay/Harbor Trail Connection.** Northeastern should work with the BRA, BTM, DCR, and other relevant public agencies and other entities to create a safe, legible, and effective bicycle and pedestrian connection between the South Bay/Harbor Trail and the Southwest Corridor at the intersection where

they meet, which will be the focus of two major Northeastern-related projects (the ISEB and the Parcel 18 Hotel).

- **Ruggles Station Improvement/Partnership.** Northeastern's efforts to engage in partnerships with the MBTA to improve Ruggles Station are welcome and should
  - **Massachusetts Avenue Station.** Northeastern should work with the BRA and the MBTA to study the possibility of an improved crossing over the Southwest Corridor tracks and an entrance to Massachusetts Avenue station where currently there is only an exit.
  - **Additional Hubway stations.** The Boston Transportation Department and Boston Bikes have expressed a strong desire to work with Northeastern to add additional Hubway stations to the campus and surrounding areas.
  - **Forsyth Street.** As mentioned in the IMPNF, Northeastern should continue working with all interested parties to identify in the IMP potential improvements to enhance Forsyth Street as a major gateway to campus, as well as a major transportation corridor leading to Ruggles Station.
- **Move-In/Move-Out Traffic Management Procedures.** Describe NEC's current procedures for managing traffic and parking impact generated by students moving into and out of dormitories, and any proposed changes to those procedures. Indicate how these procedures, or their equivalent, could be implemented in conjunction with the proposed new dormitories.

## 8. ENVIRONMENTAL SUSTAINABILITY

The City of Boston expects a high level of commitment to principles of sustainable development from all developers and institutions, and in fact Northeastern has made a strong commitment to sustainability by signing the *American College and University Presidents Climate Commitment* and by setting short- and long-term goals for greenhouse gas reductions, including the goal of a 20% reduction per gross square foot by 2015, using 2005 as a baseline, an 80% reduction by 2050, and a long-term goal of carbon neutrality by 2060.<sup>2</sup>

Northeastern's growth provides opportunities for innovation and excellence not only in individual buildings, but across the University as a whole. Northeastern will be expected to work with the BRA, the City of Boston Environment Department, and other entities as determined by the BRA to set and meet ambitious environmental sustainability goals in both the IMP and in the design of the Proposed Projects. In addition to the comments from the Boston Environment Department, which are attached in Appendix 1 and incorporated by reference, the IMP should present as much information as possible on the topics below.

- **University Sustainability Principles, Goals, and Initiatives.** The IMP should clearly state and explain Northeastern's sustainability principles and goals and should summarize progress made towards implementing those goals.
- **Application of Sustainability Principles.** The IMP should explain how Northeastern's sustainability principles have been applied throughout the development of the IMP and should discuss the aspects of the Proposed Institutional Projects and other campus

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<sup>2</sup> [Sustainable Action Plan: Roadmap Towards Carbon Neutrality](http://rs.acupcc.org/site_media/uploads/cap/551-cap.pdf), January 2010.  
[http://rs.acupcc.org/site\\_media/uploads/cap/551-cap.pdf](http://rs.acupcc.org/site_media/uploads/cap/551-cap.pdf)

investments that further those principles and the goals set forth in the Roadmap Towards Carbon Neutrality.

- **Article 37 Compliance and Green Buildings.** All new buildings and renovations, regardless of legal requirements, should achieve a superior level of performance in the areas of materials and resources, energy, water management, indoor environmental quality, and other standard performance areas of high-performance or “green” buildings. Consistent with the University’s own policy, all new buildings are to be certifiable at or comparable to the Silver level under the U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) program, and the BRA encourages Northeastern to seek LEED certification whenever feasible.
- **Solid Waste.** Master planning should set the goal of reducing the level of solid waste generation in both the construction and operation of buildings. The IMP should describe future efforts and commitments in this area.
- **Groundwater.** Most of Northeastern’s campus lies within the Groundwater Conservation Overlay District. The IMP shall address implementation of the requirements of Article 32 of the Boston Zoning Code. The goal should be on avoiding rather than mitigating impacts.
- **Stormwater Retention/Treatment/Reuse and Groundwater Recharge.** Northeastern’s development should go beyond the minimum requirements related to stormwater runoff. In particular, the new developments proposed as part of this IMP should set a goal of reducing stormwater discharge from the sites into the storm sewers, not simply avoiding any additional runoff. Individual building design, site design, and street-level interventions should all maximize the opportunities for stormwater retention, treatment, and reuse, as well as groundwater recharge, through innovative approaches. To the extent possible, the systems put in place should strive to work with the natural hydrology of the area.
- **Anti-Idling Signs.** Any locations routinely serviced by trucks should have signs posted reminding drivers of the university, local, and state anti-idling policies and ordinances. Consult the City of Boston Air Pollution Control Commission for further information.
- **Landscape and Natural Features.** A well-considered program of landscape design can not only create a high-quality aesthetic realm but can also enhance regional biodiversity, help mitigate air pollution, reduce heating and air conditioning costs and associated energy consumption, reduce water consumption, and reduce stormwater runoff and water pollution. Sustainability should be a primary consideration in landscape design.
- **Grow Boston Greener.** Trees are an integral part of many landscapes and streetscapes and an important element of an overall sustainability plan. The Grow Boston Greener campaign has the goal of planting 100,000 trees by 2020. For the city to achieve that goal, it is important for both private residents and large institutions to plant and maintain the bulk of those trees. The IMP should describe opportunities for Northeastern to assist with the Grow Boston Greener campaign as part of an overall landscape plan, including the following information:
  - **Number of New Trees.** Number of new trees, both street trees and trees in landscaped areas, to be planted with a maintenance commitment by Northeastern. The IMP should show the locations and types of trees proposed, at the level of detail appropriate for each campus district based on the proposed phasing of development for that district.
  - **Maintenance Commitments.** Existing or planned commitments for maintenance assistance with existing trees on streets and other public land.



## 9. PUBLIC BENEFITS PLAN

- **Existing Community Benefits.** The IMP should discuss the status of all community benefits currently provided by Northeastern as a result of commitments made with the BRA in Cooperation Agreements.
- **Future Community Benefits.** The BRA looks forward to working with Northeastern, the Northeastern Task Force, and Northeastern's neighbors to explore appropriate community benefits to be associated with the next IMP. Of particular interest are potential benefits related to the following:
  - Education, both educational enrichment and college readiness for primary and secondary school students, and college-level opportunities for older students.
  - Employment and workforce development, both related to construction employment and permanent employment.
  - Improvements to the public realm in the vicinity of Northeastern's facilities.
  - Local purchasing and local business development.
  - Affordable housing.
- **Parcel 18 Hotel.** Northeastern should update the BRA and the Task Force on the status of the Parcel 18 Hotel project and related hiring and job training efforts, either through the IMP or in another appropriate forum before consideration of the IMP by the BRA Board.
- **Affordable Housing.** At a minimum, the IMP should propose a strategy for seeking out opportunities to use the linkage funds generated by Development Impact Projects to support local affordable housing projects through "housing creation" efforts in conjunction with the Neighborhood Housing Trust and affordable housing developers.

## 10. OTHER

- **PILOT Payments and Property Taxes.** Northeastern should initiate a meeting with the Assessing Department on this subject and on the subject of the tax status of the Proposed Project.
- **Response to Comments.** The IMP should include responses to the major themes in public comment letters submitted on the IMPNF.
- **Public Notice.** Northeastern will be responsible for preparing and publishing in one or more newspapers of general circulation in the City of Boston a Public Notice of the submission of the IMP to the BRA as required by Section 80A-2. This Notice shall be published within five (5) days after the receipt of the IMP by the BRA. In accordance with Article 80, public comments on the IMP shall be transmitted to the BRA within sixty (60) days of the publication of this notice. A sample form of the Public Notice is attached in Appendix 3. Following publication of the Public Notice, Northeastern shall submit to the BRA a copy of the published Notice together with the date of publication.
- **Template.** Northeastern should complete the Institutional Partnership template (attached in Appendix 4) to facilitate collection of standardized data by the BRA. The template is available electronically upon request. This tool will become a standard request as part of the bi-annual updates required by Article 80D.

# Comment Letter 1

February 4, 2013

Peter Meade  
Director  
Boston Redevelopment Authority  
One City Hall Plaza  
Boston, MA 02201

Dear Director Meade:

We are writing to express our strong concerns about the Institutional Master Plan Notification filed by Northeastern University on December 21, 2012 with the Boston Redevelopment Authority due to a lack of adequate on-campus housing being proposed. We appreciate the time and effort that Northeastern University and the Task Force has invested into the process thus far. We also acknowledge the many community benefits that have been committed by the University. However, at its heart, we see the Institutional Master Plan as a zoning document that will forever change the landscape of a part of our city and the neighborhoods that are impacted. Those changes come mostly in the form of a physical plant of buildings, their uses, and their impact.

In their filing, Northeastern claims that in their past Master Plan they have made substantial progress in housing their undergraduates, citing more than 5,000 beds created. They suggest that their students are no longer interested in on-campus housing, and now they must turn the corner, and start enhancing the on-campus experience with non-housing uses such as recreational, athletic, meeting, and academic developments.

## Comment 1.1

While Northeastern believes they are ready to wind down their housing program, we respectfully suggest that they are not. Consider the impacts to the two immediate zip codes, 02120 (Mission Hill/Roxbury) and 02115 (Fenway):

- Northeastern's undergraduate population continues to grow every year. As a result of the constant growth of this population, **the number of undergraduates living in these neighborhoods is at an all time high** (since records have been kept).
- In 02120 (Mission Hill/Roxbury)
  - From Spring 2009 to Spring 2012:
    - Northeastern's off-campus undergraduate population increased 24.2% (from 1080 to 1341).
  - From Spring 2011 to Spring 2012:

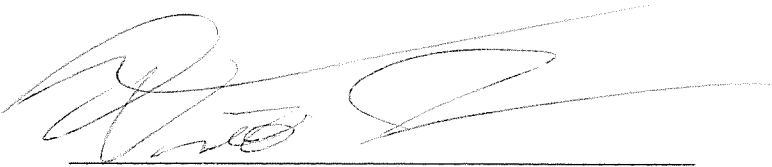
- All other institutions' off-campus undergraduate populations combined fell by 134 students.
    - 02120 would have experienced a 40-student off-campus undergraduate decrease but for Northeastern's increase.
  - In 02115 (Fenway)
    - From Spring 2009 to Spring 2012:
      - Northeastern's off-campus undergraduate population increased 24.2% (from 1559 to 1936).
    - From Spring 2011 to Spring 2012:
      - All other Institutions' off-campus undergraduate populations combined fell by 72 students.
      - 02115 would have experienced a 92-student off-campus undergraduate decrease but for Northeastern's increase.
  - Citywide, Northeastern makes up 27 percent (4,954 students) of the off-campus undergraduate population, more than any other college or university in the City of Boston.

These are just a few statistics about the lack of adequate on-campus housing. However the real impact comes in the form of working families unable to compete with the precipitous cost of housing in these neighborhoods due to the housing bubble caused by a lack Northeastern on-campus housing, as well as the impacts that come with large collections of off-campus undergraduates. Additionally, of the eight schools that are monitored by the institutionally supported Mission Hill Problem Property Task Force police detail, Northeastern represents 45 percent of all complaints and violations.

Instead of choosing to address the need for more housing in this most recent filing, Northeastern has unfortunately chosen to walk away from it. Of the approximate 2.6 million square feet of proposed new development referenced in the filing, Northeastern identifies only 550 net new beds that will be created as a part of the new Master Plan. This minute increase will do little more than preserve the status quo, and will prevent the neighborhoods that are surrounded by Northeastern, that we represent, from living up to their full potential, with a better balance of students to residents.

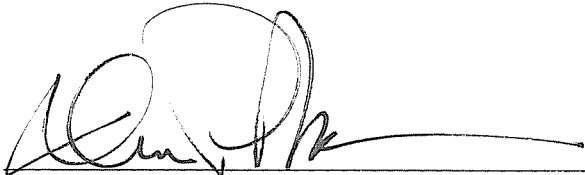
#### **Comment 1.2**

As a result, we the undersigned, cannot support the filing. We urge Northeastern to make net new commitments for on-campus housing that will bring about an immediate housing increase of 8 percent, or to a level of 75 percent of on-campus housed students, and within the balance of the Master Plan to increase the total on-campus housing to 80 percent.



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Tito Jackson  
Boston City Councilor District 7



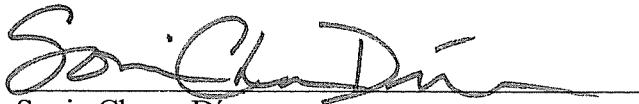
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Michael P. Ross  
Boston City Councilor, District 8



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Jeffrey Sánchez  
Massachusetts State Representative, 15<sup>th</sup> Suffolk/Norfolk District



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Sonia Chang-Díaz  
Massachusetts State Senator, 2<sup>nd</sup> Suffolk District



## The Office of State Representative Jeffrey Sánchez

The State House | Boston, MA 02133

Phone: (617) 722-2130 | Fax: (617) 722-2002

E-mail: [Jeffrey.Sanchez@mahouse.gov](mailto:Jeffrey.Sanchez@mahouse.gov)

# Comment Letter 2

Peter Meade  
Director  
Boston Redevelopment Authority  
One City Hall Plaza  
Boston, MA 02201

February 4, 2013

Dear Mr. Meade:  
**Comment 2.1**

I write to you today to express my disappointment in Northeastern University. I am unable to support the University's Institutional Master Plan Notification Form submitted to the Boston Redevelopment Authority on December 21, 2012 due to a lack of information provided by the University regarding its enrollment policies and commitments to Boston Public School students.

On several occasions, neighborhood residents, youth organizations, fellow elected officials and I had posed several questions to Northeastern University officials regarding their commitment to Boston Public School graduates, many of which reside in surrounding neighborhoods. These concerns were first expressed during the IMP process of 2004, and again in a letter dated October 9, 2012. Among those inquiries included a request for a report on the number of Boston Public School graduates admitted and enrolled at Northeastern University *by neighborhood*, and whether that number had increased since the last IMP process in 2004. In addition, I had inquired as to how many of those students are receiving Northeastern Grant Aid, how many are minorities, and how many originated from surrounding neighborhoods, such as Mission Hill. Lastly, I requested a report from Northeastern on what exceptional opportunities and programs the University offers to our Boston Public School graduates.

Many young people from surrounding communities grow up without hope of ever attending the University that quite literally occupies their back yards. After months of fruitless discussion with Northeastern officials to remedy this issue, and without any solutions offered within their IMPNF, I cannot support their plans for expansion until a meaningful dialogue around creating opportunities for neighborhood BPS students has been established.

If you have any questions, please do not hesitate to contact me at (617) 722-2130. Thank you for your consideration.

Sincerely,

A stylized signature of Representative Jeffrey Sánchez, consisting of a large, loopy 'J' and 'S'.

Representative Jeffrey Sánchez  
15<sup>th</sup> Suffolk District

A stylized signature of City Councillor Tito H. Jackson, featuring a large, flowing 'T' and 'J'.

City Councillor Tito H. Jackson  
Boston, District 7

## Comment Letter 3

January 2, 2013

Gerald Autler, Senior Project Manager  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

Reference: Northeastern University Institutional Master Plan Notification Form

Dear Autler:

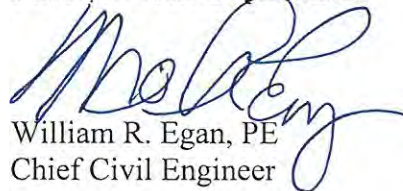
Thank you for the opportunity to comment on Northeastern University Institutional Master Plan Notification Form.

### Comment 3.1

The Public Works Department (PWD) has reviewed the document and has no specific comments at this time. The Project Proponent shall follow PWD's Standard Policy and Procedures for the Construction of Article 80 (Large Project and Small Project Reviews) Projects in the City of Boston which is currently being updated. Attached is a draft copy.

The PWD looks forward to working with the proponents and the BRA to ensure successful review and approval. If you have any comments please do not hesitate to contact the Public Works Department.

Very Truly Yours,  
**Public Works Department**

  
William R. Egan, PE  
Chief Civil Engineer

attachments



**PUBLIC WORKS DEPARTMENT** / Boston City Hall / City Hall Square 02201  
Joanne P. Massaro, Commissioner of Public Works  
617-635-4900 Fax 617-635-7499



# City of Boston Public Works Department

## Standard Policy and Procedures for the Construction of Article 80 (Large Project and Small Project Reviews) Projects in the City of Boston

October 2011

The following policies and procedures shall act as a guide for proponents of private development projects (Article 80) in the City of Boston.

### Sidewalk Construction

- Americans with Disabilities Act (ADA) compliance; all new construction in the city is required to meet the latest standards of the (ADA). The primary standards/specifications that the City of Boston designs to with respect to the public realm are CMR 521 and the proposed Accessibility guidelines for Pedestrian Facilities in the Public Right of Way, July 26, 2011. Other comments or questions regarding ADA accessibility issues can be addressed to the City's Commissioner for Persons with Disabilities (617)-635-3682.
- Pavers; In general, the city constructs sidewalks with concrete and does not use any pavers or bricks on local or collector roads outside of historic districts. If a developer is proposing to construct a new sidewalk in front of their development with pavers then the material itself shall be approved by the City of Boston Persons with Disabilities and the City's Public Improvement Commission. When proposing a public way that is not constructed with concrete, both the City's Disability Commission and the Public Works Department shall approve that alternative.
- Bricks; Brick pavers may only be used in the City's historic districts when the sidewalk, prior to construction of a particular development, has a brick sidewalk. The only type of brick that the City accepts are wire cut brick pavers (Endicott, Medium Ironspot, No. 46 or Pine Hall, Traditional Edge Paver, Pathway Full Range South Carolina or an approved equal). The use of brick where
- Concrete Sidewalks; The city uses a standard 4,000 psi mix for concrete sidewalks. Sidewalks are to be raked finished with 3/8 inch toweled joints. New sidewalks are to be 6 inches thick and are to be placed on a bed of 6 inches of compacted gravel.
- Pedestrian Ramps; Construction of Pedestrian Ramps shall be based on CMR 521. If a new ramp is constructed to replace an existing ramp, then the receiving ramp across the street shall be reconstructed if it does not meet the latest CMR 521 guidelines.
- Curb cuts; New curb cuts shall be approved by the City's Public Improvement Commission.

**Standard Policy and Procedures for Article 80 Projects in the City of Boston  
October 2011**

- Trees: All trees species shall be approved by the Parks Department. Tree pits shall be designed to allow for maximum water filtration and route saturation. If the tree roots do not get sufficient water then the roots rise to the ground surface and push up/warp the sidewalk.
- Bike racks and street furniture: All bike racks, benches or other street furniture shall be approved by the City's Public Improvement Commission. Street furniture shall be placed along the curb line. For sidewalks with width's that are greater than 10 feet street furniture shall be placed along the back of sidewalk. When determining the location of street furniture, keep in mind that a consistent/straight 4 foot path of travel shall be maintained along the entire length of the sidewalk.

**Roadway and Street Maintenance**

- Maintenance and care of roadway during construction: For development projects under construction, the developer shall ensure that the roadway adjacent to the construction site is maintained in such a manor that the roadway surface shall be drivable. Any potholes and ruts that are the result of construction vehicles shall be patched as soon as practicable.
- Street sweeping: During construction, particularly during the excavation and foundation installation stages, trucks leaving the site shall be hosed down to prevent dirt and construction remnants from being tracked onto the street. The developer shall ensure that material, dropped or tracked onto the street shall be swept off of the street with a street sweeper.
- Final condition: Upon completion of the project the developer shall ensure that the sidewalks and road adjacent to the construction project a restored to the same or better condition as the city's road and sidewalk assets were prior to construction.
- Utility work: Trench excavation in the street or sidewalk shall be fully supported and designed in accordance with AASHTO Guidelines. Backfilling of all trenches shall be done in accordance with the "Rules and Specifications for Excavation Activity in the City of Boston. Public Works has a 100% haul away policy for all excavated materials. All backfill shall be clean, well graded fill compacted to ASTM T-120.
- Construction – No construction work such as pre assembly of building elements shall be done outside the fenced in limits of the project site without prior approval of the Public Works Department or the Boston Transportation Department.

**Dewatering during construction**

- For any project that requires dewatering during construction, the developer shall prepare a dewatering plan which shall be reviewed by the Boston Groundwater Trust (bgwt.org). The plan shall show the methodology for



dewatering, steps taken to limit drawdown of the water table outside of the construction area and the groundwater methodology.

### **Effects of Support of Excavation during Construction on City Streets**

- When support of excavation is required to allow for the construction of a foundation it shall be designed for minimal deflection or disruption to the soil it is laterally supporting. If cracks or settlement of the adjacent roadway occurs during construction the project proponent will be responsible for reconstructing the roadway to its original condition. If it is determined by the City Engineer that extensive settlement and cracking of the roadway has occurred the proponent may be required to fully reconstruct the roadway and sub-base and compact the underlying soil.

### **Crane Use on City Streets**

- Portable cranes brought to the site that are placed in the street for the purpose of lifting into place building materials or other construction components shall have a predetermined maximum lifting capacity based on the type of crane, its maximum reach and the size of the project area. The developer shall ensure that at all times there is sufficient factor of safety during raising or lowering material or equipment to eliminate the possibility of overturning or other failure of the crane apparatus'. The developer shall also determine the bearing capacity of the soil under the crane and that a cribbing system shall be installed when necessary to prevent settlement of the soil or potential crushing of underground utilities.

### **Demolition/Hazardous Materials Removal**

- All hazardous materials being removed from the site shall be properly disposed of. Collection of hazardous materials shall meet all city, state and federal guidelines.

### **Drainage**

- Water generated from construction activities shall be filtered through sedimentation basins prior to draining to the city's drainage system. The developer will be responsible for retaining an EPA NPDES Construction General Permit. <http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>

### **Street lighting**

- For projects where the developer will be installing street lighting on City sidewalks; the City of Boston street light standards, drawings and

**Standard Policy and Procedures for Article 80 Projects in the City of Boston  
October 2011**

specifications are available from the street light section located on Frontage Road in South Boston. All street lighting plans, weather standard or non-standard equipment, shall be reviewed and approved prior to construction by the City's street lighting group.

**Utilities**

- Excavation in the public way for replacement or connection to utilities shall be approved by both the Public Works Department and the Boston Transportation Department. The Public Works Department issues a permit to perform excavation and utility work. The Transportation Department approves the hours that the work can be performed and the traffic management plan. Excavation and backfilling shall be in accordance with the City's Rule and Specifications for Excavation Activity within the City of Boston guide dated 2-10-2009.

**Reference Documents**

- Pavement Guide for the Reconstruction and Overlay of City of Boston Streets. October 2011
- Sidewalk Guide for the Reconstruction of Sidewalks in the City of Boston, October 2011
- Excavation and backfilling shall be in accordance with the City's Rule and Specifications for Excavation Activity within the City of Boston guide, 2-10-2009.
- City of Boston Public Works Department Sidewalk Construction and Rehabilitation Policy for Non-Arterial (local and collector) Streets, September 2011
- City of Boston Street Lighting Specifications



## Boston Landmarks Commission

City of Boston  
The Environment  
Department

Boston City Hall/ Room 805  
Boston, Massachusetts 02201  
617/635-3850

[www.cityofboston.gov/landmarks](http://www.cityofboston.gov/landmarks)

Susan D. Pranger, Chair  
John Freeman, Vice-Chair  
John Amodeo  
David Berarducci  
Susan Goganian  
Thomas Herman  
Kirsten Hoffman  
Thomas Hotaling  
Adam Hundley  
Diana Parcon  
Lynn Smiledge  
Yanni Tsipis  
Charles Vasiliades  
Richard Yeager  
Ellen J. Lipsey, Exec. Director

# Comment Letter 4

February 1, 2013

Mr. Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Plaza  
Boston, MA 02201

Re: Northeastern University, Comments on IMPNF

Dear Director Meade:

The Boston Landmarks Commission (BLC) appreciates the opportunity to comment on the IMPNF for Northeastern University, 360 Huntington Avenue, Boston. The BLC commends Northeastern on past and current rehabilitation of historic buildings such as Kerr Hall and the Hastings Wing of the YMCA. Specific comments follow.

Although several of the proposed projects will utilize surface parking areas for new construction, the project descriptions and location map indicate that several buildings will be demolished. Proposed demolition will require review under Article 85, Demolition Delay. Questions and/or applications may be addressed to Elizabeth Stifel, BLC Architect: [elizabeth.stifel@cityofboston.gov](mailto:elizabeth.stifel@cityofboston.gov).  
**Comment 4.1**

The Historic Resources Section of the IMP should include a chart listing all resources in the National and State Register of Historic Places as well as all resources in the Inventory of Historic and Archaeological Assets of the Commonwealth, "the state inventory," maintained by MHC – for all such properties located within ¼ mile radius of all the proposed project sites. The listed cultural resources should be keyed to a map included in the IMPNF. In addition, the "Northeastern University Preservation Plan" dated September 2005 should be updated as part of the IMPNF. The impact of proposed IMPNF projects on historic resources should be included in the IMPNF and the updated preservation plan. Please include potential impacts on any known archaeological sites or archaeological sensitivity areas.

BLC staff looks forward to reviewing additional information.

Sincerely,

Ellen J. Lipsey  
Executive Director

cc. Gerald Autler



# CITY OF BOSTON

## THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

### Comment Letter 5

February 27, 2013

Peter Meade, Director  
Boston Redevelopment Authority  
Boston City Hall, Room 925  
Boston, MA 02201  
Attention: Gerald Autler, Senior Planner/Senior Project Manager

Re: Northeastern University  
Institutional Master Plan Notification Form

Dear Director Meade:

The Boston Environment Department has reviewed the 10-year Northeastern University (Northeastern) Institutional Master Plan IMPNF (IMPNF) and offers the following comments.

Northeastern plans to expand its campus by about 2,000,000 gross square feet of academic space and 500,000 gross square feet of student-life space during the IMP term. Six partnering opportunities have been identified on larger, prominent sites where co-developers and other third parties may participate in design, construction and occupancy of large developments.

#### Comment 5.1

##### **CITY OF BOSTON KEY PRIORITIES**

- On-site alternative energy generation to the maximum extent possible or the use or purchase of off-site green power
- Reduce energy intensity to the maximum extent possible
- Strive to achieve LEED Platinum status for projects
- Conserve, maximize efficiency and reuse water to the greatest extent possible
- Seek innovative green attributes that exceed existing and required performance
- Due to the expected increase in flooding and high temperatures, assess the vulnerability of projects from both the construction and operation perspectives and identify risk management measures
- Maximize Transportation Demand Management opportunities for all students and staff
- Create a standard for sustainable campus operations and maintenance

There is a range of potential on-site alternative/renewable energy generation methods for individual projects as well as generation that can serve more than a single project. We request the evaluation of anaerobic digestion,

combined heat and power, photovoltaics, geothermal, solar thermal, district energy using a renewable source and other options. The evaluation of district energy should include how neighbors and other users may be included in district generation. The IMP should include the results of the evaluation and describe plans for generation options.

### **Energy Conservation**

Reducing energy use in existing and new buildings lowers operating costs, conserves limited natural resources, improves outdoor environmental quality, minimizes impacts on the local electrical grid, and reduces greenhouse gas emissions.

A simple step to reduce energy use is to meter and sub meter in buildings to provide information to facility managers about the ways in which behavior influences cost and, subsequently, about conservation. For residential projects, individual metering should more easily be incorporated into portions of the partnering projects.

Northeastern is working with Transsolar, a climate engineering firm, to establish guidelines to mitigate overshadowing of existing buildings, minimize solar gain, and develop solar strategies, including orientation, siting and massing, to minimize energy consumption. We support this effort.

The IMPNF indicates that Northeastern has installed low-flow water fixtures and compact fluorescent light bulbs, reduced its consumption of oil, gas and electricity and burns primarily natural gas in the central heating plant. We request that the IMP describe the ways in which it has achieved reductions. We further ask that the IMP include a copy of Northeastern's 2010 "Sustainable Action Plan: Roadmap towards Carbon Neutrality."

### **LEED Platinum**

We suggest that the design of new and renovation projects subject to Article 37 begin with the intent that the project can be built to LEED Platinum standards. As credits are assessed for implementation from that perspective, the reasons for choosing and not choosing credits can be clearly explained as can a description of the ways in which chosen credits will be implemented. We ask that LEED information be provided from this perspective during the Article 80 process and that a goal of LEED Gold be established.

We strongly suggest the use of LEED for Existing Buildings: Operations and Maintenance (EBOM), even for buildings that do not trigger Article 37.

### **Water Conservation and Reuse**

Most of Northeastern's campus is in the Groundwater Conservation Overlay District (GCOD). The IMPNF indicates that it will include an analysis of potential impacts and mitigation in IMP project filings.

Projects that are subject to the GCOD are required to show that they cannot cause a reduction in groundwater on site or on adjoining lots and also to provide the prescribed recharge of precipitation.

As noted in comments from the Boston Groundwater Trust, developers of projects subject to the Article 32 (GCOD) must show that they will not cause a reduction in groundwater on site or on adjoining lots and provide the prescribed recharge of precipitation. A commitment to the required standards is to be included in the IMP.

We request that Northeastern discuss with the Executive Director of the Boston Groundwater Trust whether, if recharge requirements are met, there is the potential for rainwater harvesting for reuse.

Given the importance of conserving potable water, lower usage along with reuse strategies such as greywater are essential. We urge Northeastern to develop a conservation and reuse plan and obtain all LEED Water Efficiency

credits for projects subject to Article 37. Measures to increase conservation, such as behavior change and leak detection measures, should be evaluated for the IMP period and discussed in the IMP.

### **Exemplary Green Performance**

A considerably high level of performance can distinguish Northeastern from other institutions as a model for sustainability and green building. Exceeding Code minima, instituting new green measures such as anaerobic digestion and using various opportunities to market Northeastern as a leader are examples of exemplary performance. Another option would be a commitment to implement during the IMP term for all campus buildings, LEED for Existing Buildings: Operations and Maintenance at the certifiable level.

We note that the Northeastern Web site identifies the College of Engineering as having a, “distinguished history of accomplishment and vast potential for innovation in engineering research and education, particularly in the energy [and] environmental” fields. Exemplary green performance might utilize the College’s talent to undertake projects that support and further Northeastern’s goals and potentially lead to academically-generated research and demonstration projects and/or those based upon the work of Transsolar.

### **Climate Change Preparedness**

Climate change is expected to result in more frequent high heat days and increase the frequency and intensity of storms. During IMP planning and project planning and design, Northeastern should conduct vulnerability assessments of asset locations and all IMP projects and general areas of additional interest, to identify risk management measures during construction and operation. We ask that the IMP include a plan for the way in which vulnerability assessments will be conducted.

Regarding this IMP, the purpose of the issues we have outlined is two-fold: they are necessary to both meet Mayor Thomas M. Menino’s goal to reduce Boston’s GHG emissions by 25 percent by 2020 and 80 percent by 2050 and to ensure that Northeastern continues its academic growth.

This department compliments Northeastern on its many objectives. The IMPNF is clear about its commitment to become a greener institution and to work with the BRA and Environment Department to, “develop, set and achieve ambitious Environmental Sustainability goals as determined in the Institutional Master Plan, in the design of Proposed Projects” and in compliance with Article 37 and GCOD requirements. We welcome the opportunity to partner with the BRA and Northeastern in the University’s efforts to create a model of sustainability.

We thank Northeastern for its consideration.

### **Transportation Demand Management**

Northeastern’s IMP should identify all existing and proposed Transportation Demand Management (TDM) measures quantify the results. The following information should also be included in the IMP:

- the number of Northeastern parking spaces leased to others or used by the general public, if any
- the number of parking spaces Northeastern leases from others and the end of lease terms, if any
- parking charges for students and staff
- incentives for car-sharing/vanpooling
- the ways in which students and staff are encouraged to use transit, including transit pass subsidies and the amount of such subsidies, if any
- eligibility for any demand management benefits (ex. part-time, full-time and contract workers)

The IMP should include the results of the planned evaluation of bike rack locations and a detailed description of the TDM plan developed for the IMP term.

**Operations and Maintenance**

LEED EBOM focuses on institutionalizing building operations and maintenance best practices so we again recommend it as a worthwhile resource. An operations and training manual for students, faculty and staff and associated training can help to ensure efficient operations and the reduction of environmental impacts. Such a manual will also serve as an educational tool and may present opportunities for students, faculty and staff to compete in implementation.

We look forward to the IMP.

Sincerely,

Maura T. Zlody  
Senior Environmental Policy Analyst



BOSTON  
TRANSPORTATION  
DEPARTMENT

ONE CITY HALL SQUARE • ROOM 721  
BOSTON, MASSACHUSETTS 02201  
617-635-4680 • FAX 617-635-4295

## Comment Letter 6

March 20, 2013

Gerald Autler  
Boston Redevelopment Authority  
One City Hall Square, 9<sup>th</sup> Floor  
Boston, MA 02201

RE: Northeastern - Institutional Master Plan Notification Form

Dear Ms. Autler,

Thank you for the opportunity for BTD to comment on the Institutional Master Plan Notification Form (IMP NF) for Northeastern University.

The plan demonstrates a strong commitment by Northeastern to reduce auto commuting and promote sustainable transportation by its students and employees. We commend Northeastern's success in decreasing single occupancy commuting for employees from 49% to 28% and for students from 27% to 11% since the 2000 IMP. We look forward to seeing continued reductions.

Based on the submittal and subsequent discussions, we request that Northeastern agree to do the following in the Institutional Master Plan:

### Comment

- 6.1 • Work with Boston Bikes to explore creation of a cycle track on Columbus Ave.
- 6.2 • Work with BTD Planning to create an improved connection between the Southwest Corridor and the South Bay Harbor Trail, in coordination with BTD's Melnea Cass Boulevard redesign project.
- 6.3 • Continue working with BTD Planning on the Southwest Corridor-Fenway bicycle path connection, including an improved crossing at Huntington Ave., and consider funding a portion or all of this connection.
- 6.4 • Provide additional Hubway Stations in and near the campus. Work with Boston Bikes to locate these.
- 6.5 • Meet the City of Boston Bike Parking Guidelines, and seek innovative ways to meet the demand for various types of bike parking on campus.
- 6.6 • In partnership with the MBTA, seek improvements to Ruggles Station to create a model "Mobility Hub." Provide information to support travel by foot, Hubway, and car share in addition to providing real-time information on transit alternatives.
- 6.7 • Continue discussions with the MBTA to explore the feasibility of installing an entrance to the Massachusetts Avenue MBTA station from the Gainsborough Street/Camden Street footbridge.



- 6.8° Continue working with BTD and the community on identifying improvements on Forsyth Street to enhance pedestrian conditions, including the possibility of making this a shared street.
- 6.9° Continue coordinating with the City on the St. Botolph Street/Gainsborough Street Reconstruction Project.
- 6.10° Continue exploring new and improved rail crossings over the Orange Line and Commuter Rail tracks with the MBTA.
- 6.11° Provide a pedestrian circulation plan demonstrating improved north-south and east-west connections through campus.
- 6.12° Provide a bicycle access and parking plan for the campus.

We look forward to working collaboratively with Northeastern as they advance their Institutional Master Plan.

Sincerely,



Charlotte Fleetwood  
Transportation Planner

# Comment Letter 7

## **BRA MEMORANDUM**

TO: Gerald Autler, Project Manager  
FROM: David Grissino AIA, Senior Architect/Urban Designer  
DATE: March 14, 2013  
SUBJECT: **Northeastern University Boston Campus**  
Institutional Master Plan Notification Form

## **URBAN DESIGN SCOPING DETERMINATION COMMENTS**

### **Background**

Northeastern University filed their Institutional Master Plan Notification Form (IMPNTF) on December 21, 2012. The IMPNTF described eleven new Institutional Master Plan (IMP) Projects spread throughout the IMP area; nine projects are new construction or replacement of existing facilities and two projects are renovations and expansions of existing structures to remain. The IMPNTF also references a number of public realm improvements which would serve to provide connections between the various IMP project areas.

Under the previous IMP and its associated Amendments, Northeastern has made tremendous strides in addressing the issue of on-campus housing, transforming vast sections of its campus into high-quality residential districts and bringing large numbers of students onto the campus. To accompany this shift from a locally-focused commuter campus to a world-renowned research institution with a significant residential population, the IMPNTF outlines a vision for the future which recognizes the need to also improve its academic and student life facilities.

The Northeastern campus sits at the crossroads of many distinct neighborhoods, including portions of the Mission Hill, Roxbury, Fenway, and South End communities. While all the IMP projects outlined in the IMPNTF are within the existing boundary of the campus, the projects, both individually and collectively, will serve to significantly redefine the areas around themselves and play a transformative role in the larger urban context at the edge of these communities.

Therefore, the IMP *must* identify the vision, mission, and principles which will guide the development of the campus *and* specifically describe how each proposed IMP project which is seeking approval will serve to advance and support that vision. Special attention should be given to the ways in which campus improvements will positively affect areas in nearby neighborhoods.

The IMPNTF submitted narrative regarding the planning and urban design framework and a series of public realm improvements. However, little graphic information was provided to complement and explain these concepts relative to the specific proposed IMP projects or to describe the vision for the campus and surrounding community in its entirety. The IMPNTF also did not include sufficient information regarding major projects at other institutions in

the area in the discussion and analysis of their IMP projects and sites. These projects include the redevelopment of Sweeney Field (Wentworth Institute of Technology), and the Student Life & Performance Center project (New England Conservatory of Music).

These Scoping comments should therefore be viewed as a way to make connections between the individual IMP projects, the long term planning principles which govern them, and the mission and vision for the campus and community. The following comments are structured in two ways, items that deal with the overall campus and items that look more closely at various “campus precincts”, which may include more than one currently proposed IMP project. These comments also request more details for the areas around proposed projects.

## **Overall Master Plan**

### *Urban Design Principles*

The development of new facilities and open spaces outlined in the IMPNF has great potential to make positive contributions to the evolution of the Huntington and Columbus Avenue corridors, the core campus, and the neighborhoods surrounding the University. The IMPNF outlined six major guiding principles for the IMP:

- Enhance the physical environment
- Design an open campus that engages with its nearby neighbors
- Create vitality at the core and the edges
- Plan for multi-use buildings to create an integrated, mixed-use urban campus
- Realize growth potential and improved connections across the MBTA tracks
- Ensure a sustainable and innovative campus

To enable these principles to be clearly related to the specific IMP projects, a comprehensive series of urban design diagrams and supporting narrative should be provided in the IMP. These analytical maps should discuss how individual issues such as land use, open space, and pedestrian and vehicular circulation, work together as a *system* to support the goals and vision of the university and community for the area. The maps should be sure to include specific and accurate information regarding all the various development activities in the area, either permitted, currently under review, or in construction. These diagrams should highlight those places where specific planning principles will guide individual project development.

Diagrams and narrative should also be provided for various interrelated themes such as, but not limited to:

- The evolution of the character and image of the University, as defined by the scale, use, and appearance of its buildings and open spaces
- The redefinition of the edges of the campus as it meets Huntington Avenue, Columbus Avenue, Ruggles Street, and Gainsborough Street
- The ability for growth to knit together the campus and community by expanding and clarifying the system of pedestrian-oriented networks through the campus

Northeastern, like many universities, has achieved a visual unity and cohesive identity for

some precincts within the campus through the use of similar materials, landscapes, and architectural expressions. The majority of purpose-built structures that form the core of the academic campus employ light colored masonry with strong vertically oriented windows to create a clear and memorable image of the campus from Huntington Avenue and the internal quads. This approach to campus-building was not used in the development of later structures, such as Egan and Snell, but was returned to once again for the development of the West Village Residence Halls. Development of the Cargill/Stearns site and the Science Quad would require the demolition of some of the original structures from the iconic original assemblage, potentially weakening the strength of this historic pattern in those areas.

The IMP should provide a narrative and graphic discussion of the use of consistent architectural and landscape themes in the history and development of the campus, as well as the attitude toward its use as a campus-building tool in the future. The intent of the analysis is to understand the issue of image and placemaking in a campus-wide context for use as a baseline for discussion when individual building or landscape projects move forward.

A broader urban design analysis should also be provided which describes the physical attributes of the various campus precincts. Those precincts could be loosely defined as the Core Campus (from Forsyth Street to the east side of Cullinane and Hurtig Halls), the North Campus (north side of Huntington) the West Campus (west of Forsyth Street), the East Campus (near the Gainsborough/St Botolph intersection), and the South Campus (south of MBTA Orange Line). Analysis should include not only those structures and open spaces which are within the precincts, but the character and qualities of the adjacent neighborhoods or urban corridors which form their edges.

A discussion should be provided which then highlights the ways in which the various proposed IMP projects serve to enhance and support the identity of these districts. Special attention should be given to how shifts in program use, such as the relocation of athletic uses from the Cabot Center to the Gainsborough site, will affect individual precincts and the pedestrian and vehicular circulation between precincts.

Urban design diagrams should be submitted which describe in detail the existing and future open space systems on the campus and how they relate to surrounding landscape resources and neighborhood pathways, such as the Southwest Corridor or the Back Bay Fens. Major existing pedestrian and vehicular routes should be described, as well as the new patterns required by, or in response to, the implementation of proposed IMP projects. Places where improvements will be made to the major north-south routes, which will allow a greater permeability between the Roxbury and Fenway neighborhoods, should be highlighted. In addition, an overall illustrative campus plan should be provided which places the IMP project site plan details requested individually below into a single graphic image.

### *Phasing*

The IMP should provide more detailed information regarding the rationale behind the anticipated sequence for all the proposed IMP projects, particularly if projects will occur near other concurrent development activity. In particular, the timing of new student housing projects should be noted. The several public realm improvements described in the IMPNF

should also be discussed relative to their connection with the timing of IMP projects and ways in which they may serve to support the overall long term planning goals for the campus.

The IMPNF provided more detailed information regarding three of the eleven proposed IMP Projects, presumably because those projects are anticipated to occur in the earlier phase of the IMP. However, due to the scale of the projects, more information about the massing and site configuration for each of the remaining eight projects will be required in the IMP submission.

### *Height and Massing*

The IMPNF proposed that the IMP projects be considered for height within certain ranges expressed in the number of *stories*. Due to the scale of the projects and the nature of their locations, the IMP should provide specific information regarding the height expressed in the number of *feet*. Graphic and narrative descriptions of the projects should also include height information (in feet) for the existing buildings which surround the individual project sites.

### *Alternatives*

As mentioned above, the addition of student housing has helped transform the Northeastern campus over the past decade. While not the primary focus of the new IMP projects, housing will continue to play an important role for the university and the surrounding community. Additional studies should be submitted which investigate alternative sites on the Northeastern campus which would be viable for student housing. Site locations and conceptual 3D massing studies should be submitted. In addition, information should be provided which describes the pros and cons of each location and the potential capacity for student beds on each site.

## **Campus Precincts**

### **Core Campus**

The proposed projects in the heart of the campus represent a significant point in the history of the campus due to the fact that several of the buildings from the original main campus will be demolished to make way for new facilities on their sites. Unlike more recent construction which replaced open surface parking lots, the projects in the campus core will need to respond more directly to existing buildings and patterns of circulation.

### *Public Realm*

The demolition of the Cabot Center and Forsyth Building are unique opportunities to significantly improve the public realm along all sides of the proposed redevelopment sites. Increasing transparency and porosity in new buildings along Huntington Avenue could enable active ground floor uses to enliven the streetscape, Forsyth Street could become a more animated and pedestrian-friendly north-south link between the Back Bay Fens and the Roxbury community, and the open spaces north of Snell Library and Churchill Hall could become a more integral part of a landscape sequence stretching across Forsyth Street to the West Campus. Attention could also be given to creating a space which allows views deep

into the campus from points along the Huntington Avenue sidewalk to complement to the shallower, terminated views at the Krenzman Quad.

In addition, the demolition of Cullinane Hall and Robinson Hall to make way for the new Science Quad offer new possibilities regarding vehicular and pedestrian routes through the campus. While no graphic information was provided in the IMPNF, presentations at community meetings depicted a reconfiguration of this area which retained Mugar Hall and portions of Hurtig Hall while introducing new structures on the sites of the demolished buildings. The southernmost building suggested an orientation which would enlarge and reshape the existing quad and connecting bridges between the buildings were shown which would impact the pedestrian experience along the east side of the site. The diagrams also suggest that the building which replaces Cullinane will relate to St. Botolph Street in a manner quite different than today.

To address these issues, an illustrated and annotated precinct plan for the Core Campus should be submitted which depicts each of the proposed IMP projects with diagrammatic footprints and describes the potential location and size of the buildings on their sites. The plan should highlight those elements and principles of the long term vision that are being implemented by the current projects, particularly those relating to the connectivity through the campus to the north and south. Places where open space configuration, view corridors, massing, or circulation are being intentionally redefined should be noted and explained. Although no specific building project is currently proposed, the potential locations for loading and service areas, the main building entries, ground floor uses, and other significant building program components should be discussed.

Redevelopment of the Cabot site could allow for a space similar to the one currently across Huntington Avenue in front of the Marino Center. This space, although small in size, acts as an important gathering space and expansion of the public realm at an important node of circulation. Analysis of this concept, together with an understanding of the potential improvements to Forsyth Street as a pedestrian corridor, should be submitted with the IMP.

### *Height and Massing*

Due to the relatively low scale of the existing buildings which are being demolished, the height and massing of the proposed projects will need to be analyzed in detail, particularly along the Huntington Avenue edge of the precinct. The analysis should show how the IMP projects help shape the evolving massing context of the area through the use of urban design diagrams, 3D models (physical and/or computer generated), and other methods which explain the relationship. All materials should incorporate the IMP projects into a context which includes portions of the surrounding area for reference (i.e. the proposed massing for the Athletics site or the Cargill site).

A minimum of three birds-eye views should be provided depicting the “future” condition only from vantage points north, south, and west of the precinct. Diagrammatic site sections should also be provided which are taken perpendicular to Huntington Avenue extending from the Marino Center through the Snell Engineering Center, perpendicular to Forsyth Street extending from Nightingale Hall through Hayden Hall, and perpendicular to the Orange Line

extending from the Mugar Building through the south side of the MBTA tracks.

### *Open Space and Pedestrian Networks*

The Core Campus not only contains signature open spaces such as the Krentzman Quadrangle, but provides major linkages to current and proposed pathways which integrate the campus with the surrounding community. Diagrams should be submitted which describe how the proposed projects and their associated open space improvements will impact the quality, scale, and connectivity of the open space network on the campus.

## **South Campus**

The continued commitment to improve university-owned properties south of the MBTA Orange Line tracks has great potential to enhance the urban environment and increase the connectivity between the Columbus and Huntington Avenue corridors.

### *Public Realm*

Today, the north side of Columbus Avenue from Camden Street to Ruggles Station is defined by vast amounts of open space and the large, inactive facades of parking facilities. The development of the Columbus Lot will enable a significant shift to occur in the quality of the streetscape in this area. It will provide opportunities for active ground floor uses with physical and visual connections to the sidewalk and create new spaces which expand the public realm deep into the site. New buildings on the Columbus Lot will also allow the University to strengthen its identity and create a gateway to the main campus. Along the south side of the Avenue, the redevelopment of the Burke lot would provide more continuity of the public realm by filling in a “missing tooth” in the street wall.

The IMP should provide an illustrated and annotated precinct plan which places the full build-out of all phases of the Columbus Lot and the Burke Lot within the context of other nearby improvements or proposed projects, including changes anticipated to the Carter Playground and the redevelopment of Parcel 18. The site plan should depict each of the proposed IMP projects with diagrammatic footprints which describe the potential location and size of the building on the site. The potential locations for loading and service areas, access to underground parking, the main building entry, and other significant building program components should be discussed. The plan should highlight those elements and principles of the long term vision that are being implemented by the current projects.

### *Height and Massing*

Significant discrepancies occur in the IMPNF regarding the scale and height of the Columbus Lot project that will need to be clarified in the IMP submission. Figure 6-2 of the IMPNF states that Phase A of the project would be 14-18 stories tall with an approximate area of 180–250,000 gross square feet. The accompanying drawings depict a massing with a maximum of six floors. Updated information should be provided.

Massing diagrams should be submitted which define the size and location of the proposed project and analyze its relationship to the adjacent parking structures along Columbus Avenue and the academic buildings across the MBTA tracks within the Core Campus. In

order to evaluate the cumulative effect of the two proposed projects on the South Campus, two ground level perspective views should also be included which show the proposed massing for the Burke Lot together with the full build-out of the Columbus Lot. Views should be submitted which show both the existing and proposed conditions (this will be required for all ground level perspectives requested).

The first view should be taken from the center of Columbus Avenue near Burke Street looking west; the second view should be taken from the center of Columbus Avenue near the entrance to the Renaissance Park Garage looking east. In addition, two aerial perspectives should be provided, taken from the north and south of Columbus Avenue and depicting the “future” condition only.

### *Open Space and Pedestrian Networks*

The concept shown in the IMPNF for the Columbus Lot presents the opportunity to provide a space similar in scale and potential character to the iconic Krentzman Quad which defines the symbolic front door to the Core Campus along Huntington Avenue. The role that this new open space will play in the identity of the campus should be discussed in greater detail, including how the edge condition along Columbus Avenue would need to be treated in order to provide the same welcoming and open connection as the Krentzman Quad does to Huntington Avenue. Greater definition should also be provided regarding the new connections across the MBTA tracks and the relationships to existing and proposed open spaces and pedestrian networks. The discussion of pedestrian networks should include ways in which multiple connections between Columbus Avenue and Tremont Street can be enhanced.

The additional height anticipated for Phase C could potentially serve as a marker or beacon, enabling orientation to the new significant quad from distant points. A view corridor analysis should be provided which investigates the ability to see the Columbus Lot project from locations within the heart of the Core Campus, West campus, and Roxbury community. Potential locations of vantage points for the analysis should be reviewed with BRA Urban Design staff.

### **West Campus**

The three projects located within the West Campus precinct will all play distinct roles in redefining the areas around themselves. The demolition of Stearns will remove another of the original light brick buildings from the campus (see discussion of Science Quad above); an addition to Ryder Hall will complete the development of Northeastern-owned sections of Ruggles Street from Tremont Street to Huntington Avenue; and reconstruction of student housing on the Burstein-Rubenstein site will increase the University presence along Huntington Avenue directly across from the front of the Museum of Fine Arts.

### *Public Realm*

The Cargill and Burstein-Rubenstein sites will provide opportunities to enhance the pedestrian experience by creating stronger relationships between the buildings and the street. The narrative and graphic analysis for the Cabot site should be extended to these sites to



outline a vision for Huntington Avenue once all these projects are complete. Special attention should be given to defining how elements such as materials, signage, site furnishings, and other features could be used to create a memorable and cohesive image for the University.

The Ryder site will act not only as an opportunity to extend the street wall and landscape pattern created by the West Village Residence Halls, but will serve as an important visual anchor to the corner of campus as seen from the overpass headed north along Ruggles Street. A graphic analysis should be provided which describes the configuration of the public realm and landscape along the Ruggles Street edge from Parker Street to Tremont Street, including a description of ground floor uses in Residence Halls A, C, and E. Special attention should be given to the existing condition and potential opportunities for improvement of the section of Ruggles Street between the Ryder site and the International Village.

### *Height and Massing*

The heights for the Huntington Avenue sites are greater than in those locations today and will need to be very carefully considered due to their proximity to the Museum of Fine Arts, the redevelopment site of Sweeney Field, and the existing West Village Residence Halls A and H. The Burstein-Rubenstein site, in particular, will demand a series of analyses to be performed to understand issues associated with greater height on that site. Massing studies for the Ryder site should clearly show the relationship to the West Village Residence Hall E.

In order to understand the massing context for this precinct, several aerial perspectives should be submitted in the IMP, taken from vantage points, east, west, north, and south of the sites. Views should be sure to include all existing and proposed buildings, as well as the massing for Sweeney Field.

Two ground level perspectives which include the massing of the projects should be provided from along Huntington Avenue at the intersection of Museum Road looking east, and from the intersection of Forsyth Street looking west. A ground level view should also be provided from Ruggles Street at the crossing of the Southwest Corridor Park looking north.

## **North Campus**

### *Height and Massing*

The proposal for the North Lot, although larger in scale than the surrounding buildings, will be shielded from the surrounding streets due to its location on the interior of the block. However, the long length of the north and south elevations will be very evident to the residents of the non-university buildings along St. Stephen Street and Gainsborough Street. More information should be provided about an approach to modulate the massing of the proposal to break down the scale of the project as it faces the rear of these properties. Of particular concern is the proximity to the St. Stephen Street properties. In addition, the portion of the project which is visible from the public way at Jarvis Place should be articulated in some way by the massing of the building.

The IMP should provide additional 3D graphic information regarding the development of the North Lot, including, but not limited to, three aerial perspective views taken from locations

above St. Stephen Street, Hemenway Street, and Gainsborough Street. The IMP should also include a site section taken perpendicular to St Stephen Street in order to understand the scale relationship between the proposed building and the existing properties.

### *Open Space and Pedestrian Networks*

The IMPNF describes the use of the North Lot as general academic “swing space” which will serve as a flexible space to address needs during reconstruction projects and draw people from many university departments throughout the campus. More information is therefore needed about the site access to this area, both for pedestrians and vehicles.

The IMP should provide an annotated site plan for the North Campus which extends into the campus precincts located south of Huntington Avenue and highlights the new circulation routes anticipated to access the uses which will be located in the new building. Based on these anticipated movement patterns, the site plan should indicate where the vehicular access point will be that minimizes the conflict with pedestrians. The site plan should also indicate those locations on the site where open space or landscape elements can help buffer or screen the project from the rear of the properties which surround it.

## **East Campus**

The area surrounding the intersection of St. Botolph Street and Gainsborough Street is about to undergo radical transformation. The New England Conservatory of Music (NEC) will be replacing the existing residence hall along Gainsborough Street and filling in the adjacent parking lot on St. Botolph Street with a multi-phased Student Life and Performance Center. The project will create a stronger street wall, bring new activity and vibrancy, and implement a series of public realm improvements which will change the character of the area. During the course of the Article 80 process for that project, the BRA met with NEC and Northeastern representatives to discuss a vision for the area. The GrandMarc is also proceeding forward, impacting the use patterns and scale of the immediate area.

### *Public Realm*

The NEC proposal included a range of creative public realm concepts for the NEC-owned areas near the St. Botolph Street and Gainsborough Street intersection. These concepts included sculpting the massing of the buildings to allow for extra space at the corners, locating active ground floor uses behind transparent facades, and developing a palette of streetscape elements which would create the appearance of a pedestrian-focused zone.

The IMP should provide a graphic and narrative discussion of how the two IMP projects in this area (Matthews Arena and the Gainsborough Garage) respond to and/or support these concepts. A site plan should be submitted which articulates a vision for how Northeastern will treat the extension of St. Botolph Street into the Core Campus and the dead-end section of Gainsborough Street. This discussion should also highlight how an addition to the Matthews Arena will complement the BRA-approved NEC building.

The site plan should also depict each of the proposed IMP projects with diagrammatic footprints which describe the potential location and size of the building on the site. The plan

should highlight those elements and principles of the long term vision that are being implemented by the current projects. Although no specific building project is currently proposed, the potential locations for loading and service areas, access to underground parking (where applicable), the main building entry, and other significant building program components should be discussed.

Multiple significant event venues (Matthews Arena, Symphony Hall, Jordan Hall, and potential future Northeastern sporting events at the new facility) place great demands on the surrounding area streets. The IMP should also provide a detailed discussion of the impacts throughout the broader Symphony area due to the intensification of uses on the sites of the Arena and existing Garage, particularly due to the decrease in available parking capacity for the district as a whole.

### *Height and Massing*

With the addition of GrandMarc, other Northeastern proposed IMP projects, and the approved project at NEC, the area immediately surrounding the Matthews Arena and Gainsborough Garage will be undergoing a shift in scale and density. A discussion should be provided of how Northeastern's IMP projects help shape the evolving massing context of the area. This should be supported by analytical diagrams, 3D models (physical and/or computer generated), and other methods which explain the relationship.

At least three birds-eye views should be provided depicting the "future" condition only from vantage points north, south, and west of the intersection of St. Botolph Street and Gainsborough Street. Diagrammatic site sections should also be provided which are taken perpendicular to those two streets, allowing the proposed massing to be evaluated in the context of the public realm and other surrounding buildings and open spaces. Locations of these sections should be determined in consultation with BRA Urban Design staff.

### *Open Space and Pedestrian Networks*

The IMP projects and their associated area improvements will potentially enhance the connectivity between the campus and the surrounding neighborhoods. The IMP should provide details of the approach to improving the pedestrian connections between Tremont Street and Huntington Avenue along Camden Street, over the tracks, and along Gainsborough Street. The conceptual perspective in Figure 6-4 of the IMPNF indicated the possibility of a connector between the Matthews Arena site and the Gainsborough Garage site. In general, the BRA is not supportive of bridges over streets. Studies should be provided which describe the rationale behind such a proposal and its impact on the public realm.

# Comment Letter 8

## Boston Groundwater Trust

229 Berkeley St, Fourth Floor, Boston, MA 02116  
617.859.8439 voice – 617.266.8750 fax  
www.bostongroundwater.org

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### Executive Director

Elliott Laffer

January 28, 2013

Mr. Gerald Autler, Senior Project Manager  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201-1007

Subject: Northeastern University

Dear Mr. Autler:

Thank you for the opportunity to comment on the Institutional Master Plan Notification Form filed by Northeastern University. The Boston Groundwater Trust was established by the Boston City Council to monitor groundwater levels in sections of the city where the integrity of building foundations is threatened by low groundwater levels and to make recommendations for solving the problem. Therefore, my comments are limited to groundwater related issues.

#### Comment 8.1

As stated in the IMPNF, most of Northeastern's campus is located within the Groundwater Conservation Overlay District established under Article 32 of the Zoning Code. Projects that are subject to the GCOD are required to show that they cannot cause a reduction in groundwater on site or on adjoining lots and also to provide the prescribed recharge of precipitation.

The IMPNF states that "As appropriate, IMP project filings will include analysis of potential impacts of groundwater and mitigation to be provided." As was discussed during the scoping session, this would not meet the GCOD standards outlined above. I appreciate the commitment made at that session by the proponent to meet the Article 32 standards and look forward to that commitment being memorialized in the Institutional Master Plan when it is filed.

The University is well aware, because of repairs they have had to make to some of their structures, of the high costs that can be incurred because of low groundwater levels in areas where buildings are supported on wooden pilings. I look forward to working with the proponent and the Authority to assure that the projects contemplated in the IMPNF can only have positive impacts on area groundwater levels.

Very truly yours,



Elliott Laffer  
Executive Director

Cc: Kathleen Pedersen, BRA  
Maura Zlody, BED

# Comment Letter 9

## **Boston Water and Sewer Commission**



980 Harrison Avenue  
Boston, MA 02119-2540  
617-989-7000

January 25, 2012

Mr. Gerald Autler  
Senior Project Manager/Planner  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201-1007

Re: Northeastern University  
Institutional Master Plan Notification Form

Dear Mr. Autler:

The Boston Water and Sewer Commission (Commission) has reviewed the Institutional Master Plan Notification Form (IMPNF) for Northeastern University (NEU) covering 2013 to 2023. This letter provides the Commission's comments on the IMPNF.

Over the prior ten-year IMP period, the University made substantial progress towards its goal of housing a higher proportion of its undergraduate students on campus. While the previous IMP focused on student residence development, the proposed IMP focuses on adding additional amenities for the social and recreational interests of its expanded residential population. Additional spaces for functions such as group meetings, arts performance and practice, athletics, recreation and exercise, and studying are all priorities for the current IMP.

The IMPNF proposes the following elements:

### Proposed Institutional Projects:

- Columbus Lot- Interdisciplinary Sciences and Engineering, Academic, Student Life, Retail, Commercial and Parking complex located at 795 Columbus Avenue.
- North Lot- Academic Multi-Use facility that could include classrooms/ lecture halls, offices, laboratories, cultural space, meeting room and some parking located within a triangular area bounded by Gainsborough, St. Stephens, and Hemenway Streets.
- Matthews Arena Addition- future expansion for athletic training and practice facilities, athletic team offices and social space for student life improvements located at 238-262 St. Botolph Street.
- Ryder Hall- Academic and residential space located at 11 and 66 Leon Street.



- Burstein Rubenstein- Academic and ground-floor commercial uses and dormitory space for 250 beds located at 458/464 Huntington Avenue.
- Cargill- New Academic Facility located at 45 Forsyth Street/420 Huntington Avenue.
- Cabot Site- Mixed use academic, research, classroom, cultural, student experience venue, gallery, commercial/retail and potentially residential space located at 400-402 Huntington Avenue.
- Forsyth Hall- An eight to twelve story academic building located at 70 Forsyth Street.
- New Science Quad- Improved Open Space and pedestrian circulation, new academic space for research activities located at 288/334/336 Huntington Avenue.
- Gainsborough Garage Site- Replace an existing garage space with a state of the art student recreation and athletic facility adjacent to Mathews Arena located at 10 Gainsborough Street.
- Burke Street- A mixed use facility with office, retail and potentially, student residences located at 10 Burke Street.

#### Public Realm Improvements:

- Forsyth Street Improvements- Limit Vehicle Traffic and improve pedestrian experience and stormwater management.
- Huntington Avenue/Krentzman Quadrangle Improvements- Create a multipurpose open space.
- Cabot Redevelopment Improvements- Provide new campus connections and open space.
- Columbus Lot Improvements- Create open space and integrate the campus and community on either side of the MBTA tracks.
- Columbus Avenue/Southwest Corridor Park Improvements- Add additional trees and landscape features.
- Science Quad Improvements- Increase pedestrian connections, provide an outdoor classroom extension to the science programs.



- St. Botolph/Gainsborough Street Improvements- Increase connections to the surrounding neighborhood and the campus.

The Commission's general comments on the proposed IMPNF projects are as follows:

#### General

##### Comment 9.1

1. NEU must submit General Service Applications and site plans to the Commission for each proposed project for review and approval. Any new or relocated water mains, sewers and storm drains must be designed and constructed at NEU's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, NEU, must submit a site plan to the Commission's Engineering Customer Service Department for review and approval when the design of any new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plans should include the locations of any new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations.

##### Comment 9.2

2. The design of any projects should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at <http://bostoncompletestreets.org/>

##### Comment 9.3

3. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.

##### Comment 9.4

4. The Department of Environmental Protection, in cooperation with the Massachusetts Water Resources Authority and its member communities, are implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/ inflow (I/I)) in the system. In this regard, DEP has been routinely requiring proponents proposing to add significant new wastewater flow to assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, DEP is typically using a minimum 4:1



ratio for I/I removal to new wastewater flow added. The Commission supports the DEP/MWRA policy, and will require NEU to develop a consistent inflow reduction plan.

Comment 9.5

5. For any proposed masonry repair and cleaning, NEU will be required to obtain from the Boston Air Pollution Control Commission, a permit for Abrasive Blasting or Chemical Cleaning. In accordance with this permit, NEU will be required to provide a detailed description as to how chemical mist and run-off will be contained and either treated before discharge to the sewer or drainage system or collected and disposed of lawfully off site. A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. NEU is advised that the Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system.

Comment 9.6

6. NEU should be aware that the US Environmental Protection Agency issued a Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If the project involves any subsurface work and groundwater contaminated with petroleum products, for example, is encountered, NEU will be required to apply for a RGP to cover these discharges.

Comment 9.7

7. Many of the project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining stormwater and directing the stormwater to the groundwater table for recharge.

Water

Comment 9.8

1. In addition to the water conservation measures required by the Massachusetts Plumbing Code, NEU should also consider implementing other water saving measures, such as installing low flow toilets and flow-restricting faucets. The Commission suggests that any public restrooms also be equipped with sensor-operated faucets and toilets.

Comment 9.9

2. If a hydrant is to be used during construction, NEU will be required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. NEU should contact the Commission's Operations Division for information on and to obtain a Hydrant Permit.

Comment 9.10

3. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission provides a Meter Transmitter Unit





(MTU) and connects the device to the meter. For information regarding the installation of MTUs, NEU should contact the Commission's Meter installation Department.

### Sewage / Drainage

#### Comment 9.11

1. A Total Maximum Daily Load (TMDL) for Nutrients has been established for the Lower Charles River Watershed by the Massachusetts Department of Environmental Protection (MassDEP). In order to achieve the reductions in Phosphorus loading required by the TMDL, phosphorus concentrations in the lower Charles River from Boston must be reduced by 64%. To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater discharging from impervious areas in compliance with MassDEP. The proponent will be required to submit with any site plan a phosphorus reduction plan for the proposed developments. The proponent must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

In conjunction with the Site Plan and the General Service Application the proponent will be required to submit a Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan must be submitted and approved prior to any Site Plan Approval. The plan must:

- Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway.
- Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.
- Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.

#### Comment 9.12

2. Developers of projects involving disturbances of land of one acre or more are required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. NEU is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is requested that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department prior to the commencement of construction. The



pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above.

Comment 9.13

3. NEU must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. Any site plans should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

Comment 9.14

4. The Commission requests that NEU install a permanent casting stating "Don't Dump: Drains to Charles River" next to any catch basin that is created or modified as part of this project. The proponent should contact the Commission's Operations Division for information regarding the purchase of the castings.

Comment 9.15

5. If a cafeteria or food service facility is built as part of any of the projects, grease traps will be required in accordance with the Commission's Sewer use Regulations. NEU is advised to consult with the Commission's Operations Department with regards to grease traps.

Comment 9.16

6. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by any proposed projects, be dye tested to confirm they are connected to the appropriate system.

Comment 9.17

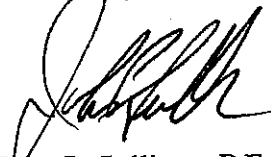
7. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided.

Comment 9.18

8. If NEU seeks to discharge dewatering drainage to the Commission's sewer system, they will be required to obtain a Drainage Discharge Permit from the Commission's Engineering Customer Service Department prior to discharge.

Thank you for the opportunity to comment on this IMPNF.

Yours truly,



John P. Sullivan, P.E.  
Chief Engineer

JPS/ah



c: Ralph Martin II, NEU  
M. Zlody, BED  
P. Larocque, BWSC

# Comment Letter 10



February 4<sup>th</sup>, 2013

Gerald Autler, Senior Project Manager

Boston Redevelopment Authority

One City Hall Square

Boston, MA 02201

Re: Northeastern University Institutional Master Plan

Dear Mr. Autler,

The Fenway Civic Association, while supportive of several aspects of Northeastern University's IMP, believes that current iterations of the plan require substantial change before approval is considered.

The Fenway has been restively waiting more than a decade for a resolution to the crisis created by off-campus student populations. **Comment 10.1** FCA is disappointed that this IMP fails to place the importance of on-campus housing on equal footing with that of academic and student life space.

While we understand the university's pressing need for both academic and student life space, there must be an acknowledgement that it is the lack of sufficient on-campus housing that has been the primary source of concern for all of NEU's surrounding neighborhoods and that a means for addressing this serious problem must be laid out in the IMP. This crisis was recognized in the consensus-based zoning adopted for the Fenway in 2003. The East Fenway Strategic Plan specifically states two priorities: 1) Work to increase the supply of quality on-campus housing for students and staff, 2) Promote the idea that student residences in the neighborhood be returned to the market as new housing is built on-campus. We do not feel that these priorities are reflected in the IMP. While NEU has created some on-campus housing and developed effective countermeasures to inappropriate student behavior, the rate and scale of construction has not kept pace with the growth of the student off-campus housing population. A net withdrawal of students from the neighborhood has not been achieved. Unless this serious issue is addressed in the IMP, it misses the opportunity to provide neighborhood residents and

the City a permanent solution to perpetual student housing issues and fails to demonstrate a serious financial commitment to resolving the student-housing problem.

FCA views the pairing of an institution's residential and academic development as a best practice for master plan development. Possible creation of additional housing dispersed at the outer edges of campus without an overall plan or timetable for completing it relative to other projects is not reassuring---particularly when considering the projects within the IMP may not be completed during its term. This raises the very real possibility that **no** on-campus housing may be constructed unless there is an enforceable mechanism to predicate the creation of on-campus housing to the creation of non-housing projects. While it is evident the university does need space to accomplish some its larger projects, a well-defined residential construction plan would be far more effective than the existing scattered proposals. Without an enforceable on-campus housing commitment, the only other option to achieving equilibrium between enrollment and beds is through a temporary reduction or change in enrollment practices.

While critical of the IMP's housing provisions, FCA is supportive of various proposals to revamp existing campus fabric and would like to comment on several items:

#### Comment 10.2

- We believe replacement of the Columbus Avenue parking lot with a new world-class technology quadrangle and additional access over the Orange Line right of way is transformative and will be every bit as dramatic as the development of West Village. However, FCA questions why the Columbus Avenue garage was not considered as part of the redevelopment area. As the garage borders the proposed new quadrangle site, we do not understand why the cost of the additional underground parking required to permit demolition of the garage does not outweigh the ability to utilize this acreage for better use. FCA requests that this site be incorporated into the new quadrangle development as an added link uniting campus on both sides of the Orange Line.

#### Comment 10.3

- We view the transfer of land to the city for the expansion of Carter Field and the university's support in renovating the field as a very significant community benefit. Many of the area's passive parks see excessive wear and tear from ad hoc student uses due to a lack of available recreational space. Providing a well-maintained multi-use park will help alleviate some crowding and improper use of passive park spaces. We hope the City will ensure that the permitted usage remains the same as any other public park.

We would like to recognize the University's own beautifully landscaped campus as an asset for the enjoyment of everyone who passes through. We are grateful that NU understands the importance of well-maintained public space and for its willingness to assist with valuable financial, strategic, and in-kind support in many of our surrounding public parks.

#### Comment 10.4

- FCA views the relocation and consolidation of athletic and student life facilities to cluster at the Matthew's Arena area as a positive step to facilitating the redevelopment of the core of campus and abolishing the pedestrian unfriendly walls fronting Huntington Avenue and Forsyth Street. We do have concerns that the concentration of athletic facilities directly adjacent to Jordan Hall and the proposed expansion of performance space at NEC might create conflicts during events of differing natures. We also have some concern that this site is somewhat removed from the majority of on-campus housing and might see a diminished level of use as a result. However, we believe this use in what has been a dead space against the Orange Line right of way improves and creates an active entertainment sub district abutting what has been a dangerous and inactive path.

#### Comment 10.5

- We believe additional student life space alone will not address student behavior issues rooted in youthful boredom, and suggest that NEU explore ways to provide active opportunities including bowling, billiards, and other sought-after nightlife activities in order to offer healthy options.

#### Comment 10.6

- The opening up of the core of campus along Huntington Avenue created by relocation of the existing athletic quad and redevelopment of several of the buildings at the perimeter of the School of Law is a positive step to transform the character Huntington Avenue into pedestrian friendly and porous streetscape. The proposed replacement of several low-rise buildings with high density, mid to high-rise buildings surrounding courtyards penetrated with pathways is highly desirable. In this vein we strongly suggest, in addition to the scattered areas identified as potential housing sites (which may be developed coinciding with academic projects), that the development area comprised of the Cabot gymnasium and Forsyth building be explored for mixed use student housing as the major residential project of this IMP. We do realize this would be a later phase, requiring the shifting of the athletic facilities first; however, it could provide “a

light at the end of the tunnel” if combined with other housing construction accomplished at the scattered sites earlier in the IMP.

#### Comment 10.7

- The Cabot site is centrally located on campus and could accommodate a large-scale dormitory development of significant height without affecting the neighborhood. We question why proposed tower heights for this area are restricted out of a desire to “reduce impacts on Huntington Avenue”. The avenue abuts the Prudential Center with negligible effect and will potentially be adjacent to a similar, if not taller, Wentworth tower proposal at the existing Sweeney Field site. Why is this site not evaluated and designated high point, or crown of campus, to avoid pushing towers to the edge of campus? FCA much prefers campuses grow up rather than sprawl out, with the exception of casting shadows on parkland, and it would make sense to maximize height at this location given both its centrality and scope that this IMP hopes to encompass.

#### Comment 10.8

- We are concerned with an apparent lack of coordination between NEU, Wentworth Institute of Technology, and the Museum of Fine Arts regarding the triangular site currently occupied by Burstein & Rubenstein Halls and Sweeney Field. We ask that appropriate dialogue develop given Wentworth's current proposal to replace Sweeney Field and the scale of NEU's potential development on the MFA's doorstep.

#### Comment 10.9

- While concern for sustainability on campus is appreciated, FCA views LEED certification as costly, and prefers funds to be expended on sustainable features and practices rather than certification processes. We ask that special consideration of the abutting Back Bay Fens (a major bird migration route and year round habitat for over-wintering birds) be taken. Measures to incorporate bird safe glazing and other features into the design of all new campus projects and renovations are encouraged, and we urge the university to follow the LEED standards for bird-safe buildings in Pilot Credit 55: Bird Collision Deterrence.

<http://www.usgbc.org/ShowFile.aspx?DocumentID=10402>. NEU is bordered by the Emerald Necklace and the Southwest Corridor Park making it very appropriate for the university to be every bit as green as its environs.

### Comment 10.10

FCA supports the potential for improvements to Forsyth Street and general plans for Huntington Avenue and other areas around campus. These proposals are great improvements to the public realm, the edges of campus, and the way campus interacts with the surrounding neighborhoods. However, we question why similar improvements are not proposed for two other public ways on campus: The Gainsborough Street corridor in its entirety is not part of the IMP despite NEU owning property at every intersection except Huntington Avenue. As Gainsborough Street is the only through pedestrian route for several blocks, we ask the university to undertake efforts to improve access with a new crosswalk at Hemenway Street and improved accessibility at the other intersections with which it has abutting property. We also believe the alley between the Fenway and Hemenway Street bordered by three NEU properties, most notably Melvin & Smith Halls, should be upgraded into a more pleasing, safe, and handicap accessible passage.

### Comment 10.11

- Regarding transportation issues, FCA suggests that NEU provide on-campus bike parking and repair stations similar to those pioneered locally by MIT and Berklee College of Music. This will serve to reduce street clutter, abandonment of bicycles, and use of cars by students within the neighborhoods. We also believe to the university should partner with MassBike, or one of the other advocacy groups, to offer safety courses to students and reduce the incidents of pedestrian, automobile, and cyclist conflicts within the neighborhood.

### Comment 10.12

- In review of the other new proposed community benefits, FCA asks that should the university proceed with proposals for local purchasing, revolving loan funds, hiring, etc. that these benefits be available equitably to all neighborhoods with which the university interacts and affects. The new community affairs team has been responsive to inquiries & concerns and we believe a monthly community council meeting could be a productive entity for resolving issues and discussing ongoing community benefits.

### Comment 10.13

- Regarding non-institutional related uses of campus property or investment FCA has several comments: We do not wish any 'endowment campus' type projects to be built on NEU owned land until sufficient on-campus housing is provided to satisfy a quorum of neighborhood groups, with an exception to the long standing hotel proposal at Parcel 18. FCA does not approve of institutional leasing of land for profit unless it has already satisfied the demand for on campus housing and sufficient open space to support student needs. We disapprove of institutional sale



or transference of land unless it is to other institutions or for projects seen as a community benefit, such as the cession of land to expand Carter Field.

#### Comment 10.14

FCA prefers to eliminate the leasing space of off-campus space, unless from other institutions, out of temporary need due to construction or in the process of facilitating developments beneficial to neighborhoods such as Parcel 3 Roxbury Square. We do not want the university creating a commercial space bubble similar to the housing bubble, which might force local employers or businesses out of the neighborhoods, and view limitations of leasing as another check on institutional expansion.

#### Comment 10.15

- Concerning residential master leasing, FCA supports master leasing at properties where it has occurred previously. While we do not like having housing stock occupied by students, FCA would rather have the university retain culpability and enforcement capabilities in occupied housing stock than not. This housing should not be included in the overall on-campus housing total and ultimately must be phased out with mandated on-campus housing construction goals.

#### Comment 10.16

- We ask that further acquisition of existing residential zoned buildings in the neighborhood cease with work towards conversion of off-site existing dormitories and apartment buildings into faculty and staff housing as on-campus housing develops. This will serve to shift employment to local residents, allow employees to become local residents, and support the university's connection and investment in the neighborhood. While FCA views the construction of student housing as a short-term community benefit, we consider the opportunity for staff & faculty housing and promotion of homeownership in the neighborhood a highly desirable long-term community benefit.

#### Comment 10.17

- With regard to all properties NEU owns within the neighborhoods, FCA wishes the university to continue to improve and maintain buildings in keeping with their original character. Wooden doors, aesthetically appropriate lighting, and landscaping instead of concrete, help to maintain the feel of a residential neighborhood. The recent renovations at Northeastern's St. Stephen Street properties and Melvin & Kerr Hall on the Fenway area good examples of this. FCA firmly believes that maintaining the historic dignity and residential character of the neighborhood

architecture & landscaping helps improve the perception, respect, and quality of life of residents and visitors alike.

While FCA supports many items in the current IMP, we maintain that improvements to a campus and the interaction of its edges with the neighborhood, no matter how wonderful, do not alleviate the effects and interactions the student population has WITHIN the neighborhood. We cannot support this IMP's approval unless NEU is willing to adjust the IMP filing to include a robust housing plan to coincide with the other proposals.

FCA hopes these comments, questions, concerns, and suggestions will be addressed and have been constructive in further developing this IMP filing.

Sincerely,

A handwritten signature in cursive script that reads "Matthew A. Brooks".

Matthew A. Brooks

NEU IMP Task Force, Fenway Civic Association board

# Comment Letter 11

SYMPHONY UNITED NEIGHBORS  
PO Box 230134 BOSTON MA 02123

Gerald Autler, Senior Project Manager/Planner  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

February 1, 2013

RE: Comments on Northeastern University IMPNF

Dear Gerald:

We have reviewed the current IMPNF submitted by Northeastern and discussed many of its provisions with our neighbors in the Gainsborough Neighborhood Association. From the neighborhood perspective, this document raises a number of issues, many of which have been raised at Task Force meetings but have not, we feel, been given enough attention by Northeastern.

Comment

- 11.1 First, of course, is the delay in adding more off-campus student housing, which is an immediate priority for the neighborhood. Although we understand that Northeastern feels it must expand academic and research space, we do not think this should be at the expense of neighborhood concerns and promises previously made.
- 11.2 Second, the height (8–10 stories) and massing proposed for the research/academic building in North Lot are seriously out of scale with the surrounding neighborhood, especially the abutting 4–5 story condominium buildings on Gainsborough Street. It is also far above the height allowed by local zoning. While greater height may be suitable for buildings in the campus core, it is inappropriate for a building at the outer edge of the Northeastern campus. Moreover, an 8–10 story building will certainly cast significant shadows during much of the day.
- 11.3 Third, most of the community benefits suggested by and for the East Fenway are missing from what Northeastern offers in this document. Specifically, there is no mention of affordable housing; community access to classes, lectures, or library facilities; or any other means of making NU resources available to the community.

Although the IMPNF is a preliminary document, we hope that Northeastern will make some changes as the Master Plan process continues.

Thanks for considering our concerns.

Sincerely,

Barbara B. Simons, President  
*and the Board of Symphony United Neighbors*

cc Councilor Mike Ross, Councilor Tito Jackson

# Comment Letter 12

February 4, 2013

Gerald Autler

Senior Project Manager/Planner

Boston Redevelopment authority

Boston City Hall, 9<sup>th</sup> Floor

Boston, MA 02201

RE: NEU IMPNF

Dear Mr. Autler:

I am writing to provide comments on the Institutional Master Plan Notification Form (MPNF) submitted by Northeastern University (NEU). I have carefully read the full report and as a Community Task Force member I've tried to attend as many community meetings as possible.

## Community Process

I applaud NEU's efforts in engaging the community over the past 12 months. I appreciate that they took the time and effort to schedule community meetings with each impacted neighborhood and that they have fully staffed all of the Task Force meetings. I understand that there are some outstanding questions raised and specific information requested and I hope NEU follows up with these requests.

## Residential Housing

### Comment 12.1

As a resident of Lower Roxbury, I've noticed over the past four to six years a dramatic increase in students living in my neighborhood. More students are moving into rental properties which have resulted in fewer and fewer families living in our community. I recently looked at Craig's list and was shocked to see a 3BR apartment on the street next to me listed for \$3,000/mo. Although not all NEU students, this does coincide with the 24.2% rise in NEU student population in zip code 02120 from spring 2009 to spring 2012. I would like to see the IMP more aggressively address the need for on-campus student housing. Additionally, I do not think leased housing should count toward NEU's goal to house more students on campus.

## Mitigation of Affordable Housing    Comment 12.2

I think there is a strong connection between the increased number of NEU students living in our neighborhoods and the strong need for more homes that are affordable to families of all income levels.

Increased support for affordable housing should be included in the IMP as a community benefits top priority. There is increased pressure in the private real estate market in every neighborhood that is impacted by NEU. In recent years we've experienced a tremendous strain on local, state, and federal resources for affordable housing. The current funding for preservation and construction of affordable housing does not come close to addressing the demand. NEU is uniquely positioned, both academically (research) and funding (endowment & other financial resources) to play a major role in addressing this need and strengthening the fabric of our community.

Workforce Development & Contracting Comment 12.3

I was pleased to see local hiring and contracting mentioned in the IMPNF. However, there were few details and goals so I hope future drafts will include concrete information and goals. I would like to see NEU's investment in local companies broken down by year and neighborhood. Additionally, there are many residents in surrounding neighborhoods that are either under or unemployed. Therefore, NEU should agree to workforce and hiring goals that exceed the City of Boston's guidelines. I respectfully ask that for all of their current and future projects NEU commit to employ 51% Boston residents, 51% people of color, and 15% women and 40% MBE and 10% WBE firms (including soft costs).

Also, there is a lot of energy and innovative ideas about opportunities to better train a diverse workforce and develop locally-owned businesses. I believe NEU is well positioned to play a key role in developing such initiatives that address these needs. I hope they reach out to their local higher-ed partners and community based organizations to start a dialogue about this.

Education Comment 12.4

NEU should continue to do more in terms of offering opportunities for local residents in every Boston neighborhood, especially those that NEU has a presence in. Additionally, NEU should prioritize partnerships with and support for local early childhood education centers and after-school programs. NEU has student and financial assets that can strengthen current programming and provide much needed sustainable funding.

Thank you for the opportunity to provide comments on the IMPNF and for considering my comments during the Scoping Determination process.

Sincerely,

  
Kyle Robidoux

Community Task Force member, Lower Roxbury

# Comment Letter 13

81 Lawn Street  
Roxbury, MA 02120

February 6, 2013

Gerald Autler, Senior Project Manager  
Boston Redevelopment Authority  
Boston City Hall 02201

Response to Northeastern's IMPNF

The IMP planning should thoughtfully engage the community and the school's administration to envision the ideal town/ gown environment. Instead the process has been reactive and piecemeal, much like the preceding 12 years.

## Comment 13.1

“ [Northeastern] has stated...in order to make the University more competitive it must become smaller and better” [2006 response to 3<sup>rd</sup> Amendment comments]. Reducing undergraduate enrollment further would enhance the value of the campus environment, reduce the long lines and red tape associated with the “ Northeastern Shuffle” and improve the quality of life for the adjacent neighborhoods. Quoting from the IMPNF (page 3-2) “... the University continues to review its level of local undergraduate population” – is this an empty gesture or a transformative change? Is it possible that 75% of the student body could be housed on campus in the future and is that a goal the University is committed to?

## Comment 13.2

Enrollment statistics are approximate; explanations are vague. Page 3-2 “ fall 2014... will have sufficient beds for 67% of all undergraduates seeking housing within the city of Boston.” What does that mean exactly? Has the admission office already confirmed the entering class for 2014 and the COOP students- have they all received their assignments for that semester? The University's COOP Program is a strong asset however there is an impact on residential campus life with so many students coming and going and it affects housing options. Including master leased properties in the bed count seems like padding the numbers. Leased facilities are different- minus many of the dorm amenities and the obvious fact, they are not owned by the school

According to CC Michael Ross's presentation, the college student population in Mission Hill has increased exponentially in spite of new dormitories. And there is an increased impact from student rentals on the real estate market because of limited housing stock and the small size of the neighborhood. Potential master leasing would create additional concentrations of undergraduates in neighborhoods and negates campus boundaries.

## Comment 13.3

Where are the strategies to reduce the costs of on campus housing given that pricing is a major factor in the choice to live off campus? For example- more “economy” beds, flexible meal plans, non-lux accoutrements in new dorms, subsidized room and board. Marketing on campus options for housing should emphasize competitive pricing above all. Doubtful that upperclassmen will find on campus social life competitive with the

entertainment attractions of downtown Boston, that counters the reason many choose the school.

#### **Comment 13.4**

Plans for future IMP projects and housing developed with private partners and unnamed 3<sup>rd</sup> parties (page 6-1) have consequences for the community, for example- management, zoning.... locating high intensity uses like large residence halls (IV) on the edge of the campus expands the boundaries and the related impacts farther into the community.

#### **A vision for a sustainable urban environment**

##### **Comment 13.5**

Other schools- Drexel and U Penn have strategized how to support community visions for stabilized diverse neighborhoods. Various methods for supporting faculty and staff to purchase housing close to campus with 5-7 yr occupancy requirements correlates with environmental goals and helps sustain a neighborhood. Could Northeastern promote living close to campus for faculty and staff with financial or other incentives? Blocks of housing now dominated by students in Mission Hill, Fenway and Lower Roxbury could change but only if there is support from the administration. Less than 25% of Northeastern's 3932 employees (IMPNF page 10-9) live in Boston, is there a goal to increase that percentage?

Related to CC Jackson's presentation *SOCIALLY RESPONSIBLE PROCUREMENT*, what is the target commitment from the institution for support of local business? "Faculty Experts" and building social capital are fine phrases but setting incentives and measurements connected to goals are needed.

##### **Comment 13.6**

President Aoun recently stated that access is a key part of higher education's mission, specifically embracing diversity and inclusion. Why is the data for BPS graduates enrolled as undergraduates so vague (page 10-1), \$11 million scholarships for "Boston native students"?? How many, over what time period and are the students BPS graduates?

##### **Comment 13.7**

###### **"Sustainable urban environment"**

The 700 parking spaces added since 2000 (IMPNF page 7-4) in spite of lowered enrollment and more on campus housing is significant. The parking ratio (# of spaces compared to SF of development) is not pertinent because the additional SF has been largely housing. Logically the total parking supply should be lower with reduced enrollment and more on campus housing since 2000. The commuting statistics (page 7-1) confirm this. Spaces at the future P3 1700 car garage could be leased to replace parking from the Columbus lot and Northeastern's supply might increase again.

#### **Public transit, bicycle, pedestrian routes**

##### **Comment 13.8**

Potential improvements for public bicycle access using World Series Way (Peter Furth study) are not mentioned in the IMPNF. Forsyth Street is heavily utilized by buses; both MASCO and Northeastern's own transportation, additional bike ways through campus are advisable.

More information is needed for the public process related to the discussion of “management” of Ruggles Station and changes to the access routes over the tracks.

**Comment 13.9 & Comment 13.10**

And related to the topic of community benefits -

Important to permanently retain the Cardinal Medeiros affordable housing program at the Hastings Wing of the YMCA and more information and a public process needed for the redesign of Carter Playground. The percentage of use by Northeastern, both current and future should be transparent.

Sincerely,

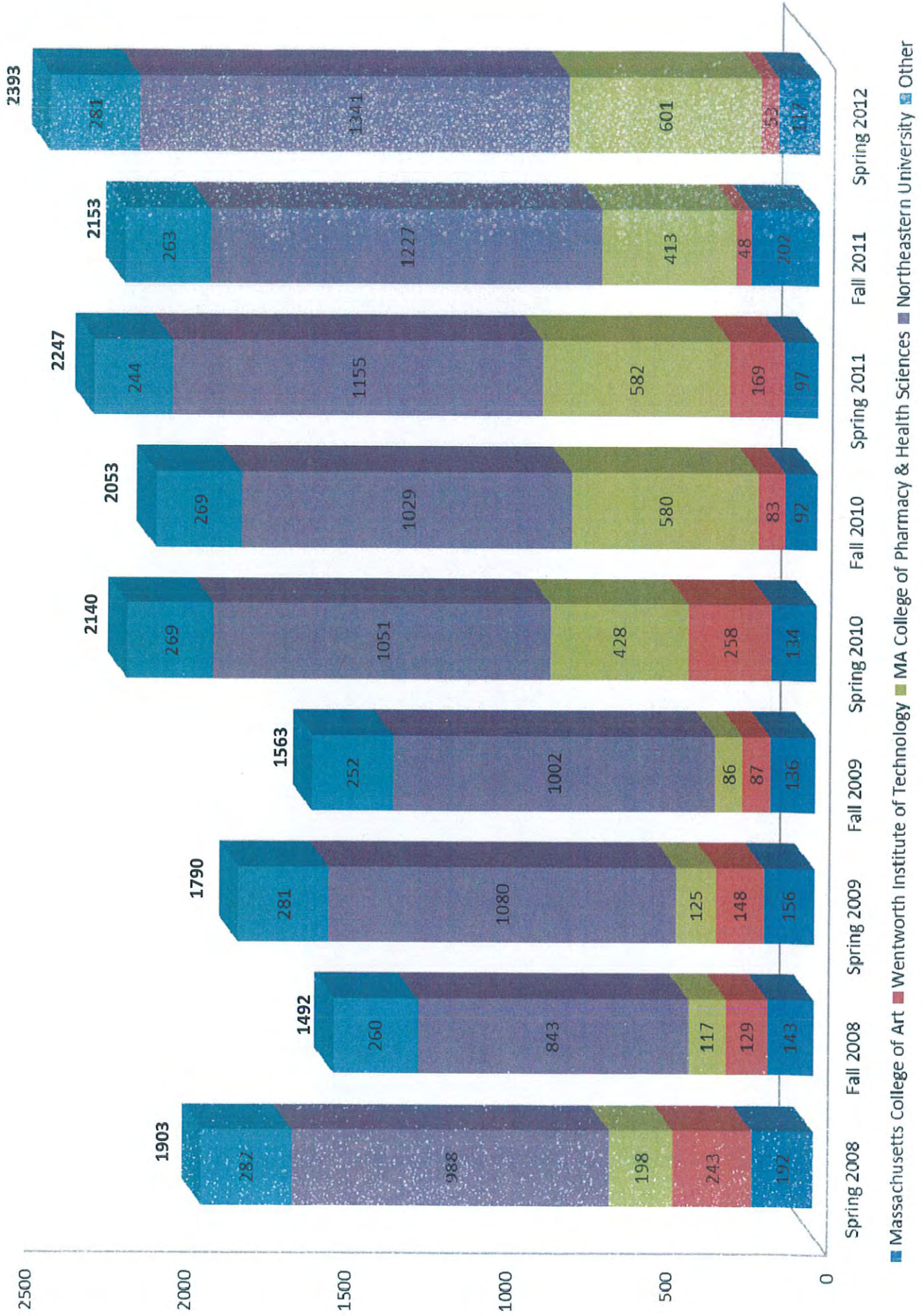


Alison Pultinas

cc: State Representative Jeffrey Sanchez  
CC Michael Ross



# Growth of Undergraduates in Mission Hill (02120) by Institution



M. ROSS, A Tale of Two MasterPlans

## **Stabilizing the Neighborhood: How Drexel Motivates Employees to Plant Roots Near Campus**

*By Andy Sharpe | Posted on Tuesday, July 17th, 2012*

As the financial recession drags on, gas prices remain high, and cities become more and more appealing places to live, localization is a hot trend in metropolitan areas across the United States. People who localize move to live close, often within walking or biking distance, to where they work, shop, play, and/or take classes.

Localization is one reason why Philadelphia experienced its first population gain in decades. One local institution that's encouraging this trend is Drexel University, which is assisting faculty and staff members who want to live in University City, Powelton Village, and Mantua through their Home Purchase Assistance Program.

**How 'Home Buy Now' Works** Drexel has had ten faculty and staff members take advantage of the local homeownership incentive program since its expansion in 2010, said Althea Wallace, the University's Director of Programs and Events for the Human Resources office, and the person in charge of the initiative. Wallace explained that Drexel will provide a \$15,000 "forgivable loan" and the city of Philadelphia will chip in with a \$4,000 grant through its Home Buy Now program for eligible full and part-time Drexel faculty and staff members.

Of the ten university employees who have adopted West Philadelphia as their home thanks to the program, four of them purchased homes in 2012, with three of the properties closed on since March, added Wallace. One of these homeowners is Glenn Booker, who is an Associate Professor in the School of Information Science and Technology. Booker purchased a home fifteen minutes from his office in June, and is thrilled with his local investment. "It's very handy to still live close to campus [...] and I'm close to major bus, trolley, and subway lines, so my car gets to rest a lot," exclaimed Booker.

The Home Purchase Assistance Program is a major component of Drexel's

Master and Strategic Plans, remarked Lucy Kerman, the Vice Provost for University and Community Partnerships. Kerman added that Drexel President John Fry has made localization a central tenet of his efforts. He embarked on the University of Pennsylvania's noted localization efforts in the 1990's as the Executive Vice President there, and had a similar program when he was President of Lancaster City's Franklin and Marshall College. Fry "learned how effective home ownership is in stabilizing the neighborhood," says Kerman.

**Beyond Homeownership** Drexel's initiative covers the communities between 31st and 42nd Sts., and Chestnut St. and Mantua Ave., which borders the Amtrak train tracks. Participating faculty and staff members are expected to own their West Philadelphia property as their primary residence for at least five years, and cannot have more than one family living with them. If they don't maintain the property as a primary residence, they are expected to re-pay part of the loan. Drexel employees have the freedom to use their own loan company, or go with a university-preferred lender.

This localization campaign is another way in which Drexel is becoming involved in the neighborhoods around it, says Kerman. Drexel has been especially active in the Mantua community, assisting Mt. Vernon Manor in their "We are Mantua" planning process. "We are Mantua" is an effort to transform the Mt. Vernon Manor low-income apartments on 34th St and the community around it through a federal Choice Neighborhoods grant. Drexel has also been involved in the People's Emergency Center's "Make Your Mark" planning process for Mantua, West Powelton, and other neighborhoods in West Philadelphia, added Kerman.

Wallace reported that employees such as Booker who've participated in the incentive program are overjoyed. "This is a huge benefit to our employees in this financial climate," she said. She's also heard some employees say they wouldn't have been able to purchase a home if not for the stroke of help from the Drexel dragon. "We're proud to help home ownership," Wallace concluded.

#### **GENEROCITY.ORG**

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# Beyond the Guaranteed Mortgage:

## A Cash Incentive Program, and Home Improvement Loans

Penn has developed two new housing initiatives including a cash incentive program-in addition to an enhancement of the Guaranteed Mortgage Program announced two weeks ago. The two new forms of assistance:

- . *In the Home Ownership Incentive Program*, the University will give either \$3,000 per year for seven years, or \$15,000 up-front to be spent on housing expenses, to Penn faculty and staff who purchase homes in University City. In either case, a homebuyer must commit to reside in the home for a minimum of seven years.
- . *In the Home Improvement Loan Program*, faculty and staff who already own homes in University City may obtain up to \$7,500 in matching funds towards exterior home improvements.

"Our goal in creating these exciting new programs is to make it easier, more affordable and more attractive for people to put down roots in the community," said President Judith Rodin in announcing the programs. "We are committed to West Philadelphia. We know how great it is and how much greater it can become, and our new housing programs are one way in which we can demonstrate our commitment to our community, and our enormous confidence in its bright future."

Penn's existing Guaranteed Mortgage Program, which was initiated in 1965, is offering a new option in which faculty and staff buying homes in West Philadelphia may finance 120 percent for a property needing rehabilitation through Commerce Bank. The original Guaranteed Mortgage Program will continue as well, allowing 105 percent financing for a property located in West Philadelphia, or 100 percent financing in parts of Center City, through Berean Federal Savings, Commerce Bank and Mellon Bank. Since its inception, more than 1,500 Penn faculty and

staff have used this program to finance their homes.

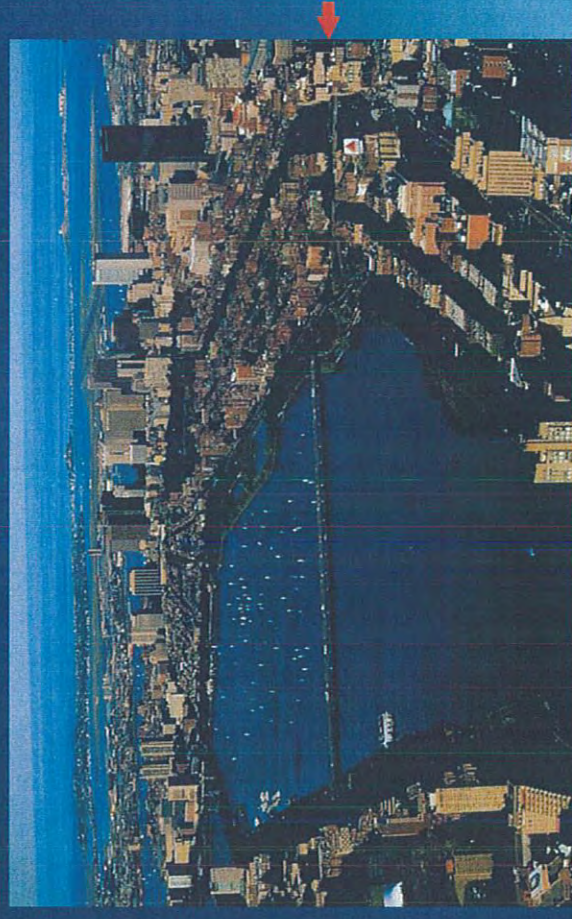
"We view these programs as an investment in the future, not only for Penn, but for our community," said Executive Vice President John Fry. "It is an investment that will add to the health and vitality of the area immediately surrounding our campus, as well as helping our faculty and staff purchase their own homes."

The housing programs are administered by Penn's Office of Community Housing (OCH), under the direction of Diane-Louise Wormley, Managing Director for Community Housing.

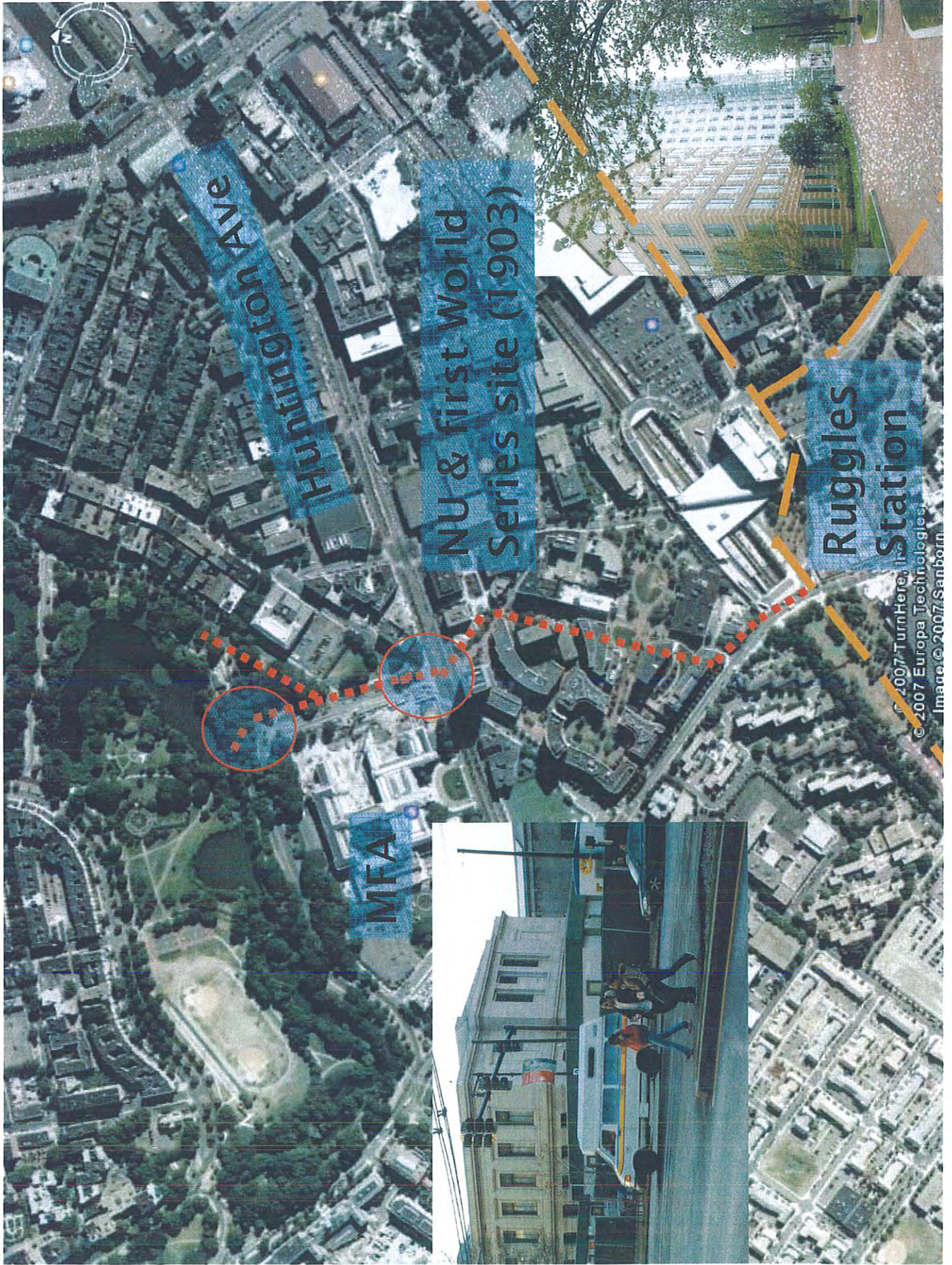
"We recognize that buying a home is one of the most important decisions that people make," Ms. Wormley said. "We want to encourage people to choose West Philadelphia by offering financial incentives as well as home purchasing counseling, support and other kinds of information on mortgage and rehab programs."

The housing program is one of several initiatives that Penn, in partnership with community residents and organizations, is undertaking to improve the quality of life in West Philadelphia. Other initiatives include the construction of Sansom Common, a 300,000 square-foot retail, dining, bookstore and hotel complex at 36th and Walnut streets; the establishment of the University City District, in collaboration with other area institutions, to provide a cleaner and safer environment for University City; UC Brite, a successful University initiative to "light" West Philadelphia, block-by-block; the 40th Street Action Team, which has made the 40th Street retail corridor cleaner, safer and more attractive; and the sponsorship of new Police Athletic League Center at the Wilson School at 46th and Woodland avenues. "As a great urban university, we know our future is linked to the success and vitality of our home community," Dr. Rodin said. "By sharing our vision, our resources and our commitment with our neighbors, we hope to ensure the best and brightest future for all of us."

# The Charlesgate Connection



Herb Nolan, Solomon Fund  
Peter Furth, Northeastern University  
February 28, 2008



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# South Bay Harbor Trail





F E N W A Y

The Fenway Alliance

The Fenway Alliance, a consortium of 21 nationally and internationally renowned cultural and academic institutions located in the Fenway, defines the best of arts, culture, education, and research in Boston and beyond.

Our collective goal is to enhance the District, creating a 5-mile area in the City of Boston that remains and grows in its uniquely rich academic and cultural offerings, and its beautiful parklands and green spaces. We create and sustain the Fenway Cultural District, and provide the highest quality intellectual, social and cultural opportunities for individuals and families throughout the region.

PARTICIPATING INSTITUTIONS:

- Berklee College of Music
- Boston Arts Academy
- Boston Architectural College
- Boston Conservatory
- Boston Symphony Orchestra
- Emmanuel College
- The First Church of Christ, Scientist
- Harvard School of Public Health
- The Huntington Theatre Company
- Isabella Stewart Gardner Museum
- Massachusetts College of Art and Design
- The Mary Baker Eddy Library
- Massachusetts Historical Society
- Museum of Fine Arts, Boston
- New England Conservatory
- Northeastern University
- Simmons College
- School of the Museum of Fine Arts
- Wheelock College
- The Winsor School
- YMCA of Greater Boston

THE FENWAY ALLIANCE, INC.  
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EMMANUEL COLLEGE



THE FIRST CHURCH OF CHRIST, SCIENTIST



# Comment Letter 14



70 BURBANK STREET  
BOSTON, MA02115  
617-267-4637  
[WWW.FENWAYCDC.ORG](http://WWW.FENWAYCDC.ORG)

February 7, 2013

Gerald Autler  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

## **RE: Comments Northeastern University's IMPNF**

Dear Gerald:

Thank you for the opportunity to comment on Northeastern University's Institutional Master Plan Notification Form (IMPNF). We submit this letter on behalf of the Fenway Community Development Corporation (Fenway CDC), a 39-year-old, community-based organization that builds and preserves affordable housing and promotes projects that engage our full community in enhancing the neighborhood's diversity and vitality. We reviewed the IMP against our vision for the neighborhood as a smart-growth community that welcomes the broadest spectrum of residents.<sup>1</sup>

We commend Northeastern's effort to expand its campus within the existing footprint through infill development. We also appreciate that the public process began well before the IMPNF was filed and has involved some discussion of community benefits, housing, and the impact Northeastern has on the surrounding neighborhoods. **However, we are concerned that the feedback provided by the community and the Task Force at these meetings has not been reflected in the IMPNF, particularly around housing and community benefits.**

Comment 14.1

### **Affordable Housing and Neighborhood Impacts**

At the last several Community Task Force (CTF) meetings, the focus of discussion was on formulating sustainable and structural community benefits that will have a tangible impact on the three neighborhoods surrounding Northeastern. At the October 18 CTF meetings, the four areas of community benefit explicitly discussed were affordable housing, local business development, jobs and local hiring, and education. **We were surprised that affordable housing was removed from the community benefits package in the IMPNF, given the extent of the**

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<sup>1</sup> <http://www.fenwaycdc.org/programs/urban-village>

**discussion at meetings and the impact Northeastern students have on the housing stock.** On reflection, we began to see this omission as an opportunity for a more comprehensive approach to affordable housing in the IMP. **Affordable housing should not simply be addressed as a community benefit—it should be an integral and distinct component of the IMP.**

#### Comment 14.2

We understand that Northeastern included a significant amount of dorm beds during the last institutional master plan, and we appreciate those efforts to manage the student population. However, once the GrandMarc dorm is built, the university will still house only 67 percent of its students on campus, including 511 master-leased beds. The full and exact impact of these students is unknown beyond the persistent increase in rents over the last few decades. **We would like to support the BRA's suggestion at the January 28 Task Force meeting for Northeastern to commission an in-depth analysis of student impact on neighborhood housing and affordability.** This is required under Article 80D of the Boston Zoning Code, which states that the IMP must specify the “ impacts of the Institution’s student housing demand on housing supply and rental market rates in the surrounding neighborhoods, including those neighborhoods adjacent to the Institution’s campus and other neighborhoods where the Institution’s students are concentrated” *and* create “a plan for mitigating the impacts of the Institution’s student housing demand on surrounding neighborhoods.”

#### Comment 14.3

**The housing mitigation plan should not only include a plan for student housing, but also describe specific proposals and methods for providing affordable neighborhood housing.** Building on the university’s progress to date, this IMP gives Northeastern an opportunity to make significant new progress in reducing the impact of students in off-campus units by developing affordable, community-serving housing. Institutions do not exist in isolation: they are part of the community in which they are located and as such should act as responsible members of the neighborhood.

#### Comment 14.4

The Fenway CDC has been gratified by recent substantive conversations with Northeastern regarding affordable housing development in the Fenway. This progress made us all the more surprised to find no discussion of affordable housing in the IMPNF. As part of the IMP, we believe Northeastern should lay out a concrete plan to partner with CDCs, particularly in high-impact and increasingly expensive neighborhoods like the Fenway and Mission Hill. As Councilor Ross’ presentation showed at the December 20 Community Task Force meeting, the construction of dormitories alone is not enough to address the student housing crisis in our neighborhoods. Despite the development of more on-campus housing over the last IMP, the number of students in neighborhood housing has not decreased; in fact, it has increased. We believe our conversations with Northeastern will continue in a productive manner, and we hope the university will engage other neighborhood organizations, such as Mission Hill Neighborhood Housing Services and Madison Park Development Corporation in a similar manner.

#### Comment 14.5

**The IMP should establish a clear plan to reduce students’ occupancy of neighborhood housing and bolster the affordable housing stock in the surrounding area.** This plan should include Northeastern’s commitment of financial resources towards increasing the affordability of the neighborhood.

## Comment 14.6

### **Student Housing Costs and Commitments**

Another concern, hand in hand with Councilor Ross's point, is that the high price of dorm rooms gives students a strong incentive to seek rental housing in surrounding neighborhoods. Northeastern has explained at CTF meetings that because some dorm beds remain unfilled, the university will postpone construction of additional on-campus housing until existing dorms reach full occupancy. **The IMP should state how many beds are occupied, how many are vacant, and create a detailed plan for filling all beds.** The IMPNF states that investments in student life will add incentives for students to live on-campus, but this will do little if room costs remain drastically higher than neighborhood housing. Our conversations with Northeastern students make clear that they tie the decision to move off-campus to financial interests, not student-life inducements. **Northeastern needs to find strategies to reduce the cost of dorms and lay out clear mechanisms for doing so.**

## Comment 14.7

We are frustrated that the IMPNF explicitly subordinates student housing to academic and student life space. It is clear that academic space is the priority for Northeastern, but the student housing issue simply cannot remain unaddressed in this IMP if the surrounding neighborhoods are to survive. Northeastern stated at the October 18 CTF meeting that the first five years of the IMP will consist solely of development for academic and student life space. This is simply unacceptable when over 3,000 Northeastern students live in neighborhood rental housing, and permanent residents are being forced to relocate as a result. This master plan should unquestionably address academic space, but housing is a perpetual and worsening issue that must be addressed if Northeastern is to act as a responsible member of the community. **The IMP should include a commitment to creating a specific number of student beds within the first five years of the IMP.**

## Comment 14.8

**Some of these units can and should be provided at the sites identified in the previous IMP.**

The previous Task Force sent a strong message that its work to identify on-campus housing sites at carefully researched and analyzed locations would not be lost to future planning. The Third Amendment to the previous IMP designated the Gainsborough Garage as a beneficial site for housing, yet this new IMPNF identifies the garage site as a proposed recreation building. Considered "next in line" for housing in the previous IMP, it should not be ignored in this upcoming master plan. With the approval of the New England Conservatory dorm, this corner of the Fenway becomes an even more important location: it would bring together students from both campuses to enliven an underutilized intersection and would improve the urban design of the area. **We would like to understand the reasoning behind the removal of the Gainsborough Garage as a housing site in the upcoming IMP.**

## Comment 14.9

### **Master Leased Property Program**

We appreciate that the Master Leased Property Program has provided a temporary solution to some student behavior issues in neighborhood housing, but it must be seen as an interim mechanism. We want to emphasize the importance of phasing out all master-leased beds in the next IMP. Each master-leased unit represents a unit removed from the community housing market, compounding the pressures that force permanent residents to relocate. Furthermore, master-leased beds should not be included in on-campus housing calculations: they are neighborhood units *temporarily* used for student housing until sufficient dormitory space is built.

The leased beds were never intended to become permanent on-campus units. Unless the university, the BRA, and the community agree to exceptional neighborhood compensation, we expect a timely end to the use of master-leased units. **We ask for inclusion of a strategy outlining the dissolution of the Master Lease Property Program in this IMP.**

### **Process, Transparency, and Development Proposals**

We reiterate our appreciation for the decision to begin the public process several months before the IMPNF was filed. This represents a respectful and praiseworthy confidence-building gesture. We remain frustrated, however, by the lack of transparency with the Task Force and the general public. Details regarding proposed projects and community benefits should have been clearly defined at Task Force meetings before the IMPNF was filed, and the Task Force should have received a copy of the document prior to the filing. Despite months of meetings, the IMPNF addresses very few community concerns (such as the need for student housing within the first five years of the IMP), suggesting that these plans were set from the beginning, and the public process represented merely window dressing. We do not want to believe this was the case, but find the absence of these issues in the document difficult to interpret in any other way.

#### **Comment 14.10**

On numerous occasions, the Task Force requested more information about the sequencing and timing of projects, specifically for proposed dorm/mixed-use development. Yet the IMPNF includes few development details, particularly for potential housing sites. Granted, these numbers may not yet be known, but **NU should provide a broad timeline for projects, including anticipated sequence of construction and estimates of the number of units proposed at each site.** As a concrete plan with legal power, the IMP should not present vague proposals that give no clear sense of what the plan encompasses.

#### **Comment 14.11**

With regard to a particular development proposal, **we would like to support the members of Symphony United Neighbors and Gainsborough Neighborhood Association in their request to lower the height of the proposed building on the North Lot.** Height should be concentrated toward the center of campus, not along the edges abutting residential neighborhoods. We respect Northeastern's emphasis on infill development, and expect that where new buildings abut non-campus properties, every effort will be made to match the scale and context of the surrounding neighborhoods.

#### **Comment 14.12**

### **Community Benefits and Local Hiring Practices**

As noted, our surprise at finding no mention of affordable housing as a community benefit leads us to expect that topic to be addressed more fully as a specific component of the plan. We are happy to see the inclusion in the community benefits package of Councilor Jackson's proposal for local business procurement and a small business loan fund, as well as entrepreneurship training and educational resources for local business owners. **We expect Northeastern to continue conversations with Councilor Jackson to create a more detailed plan for this proposal, which we believe would have a significant positive impact on the neighborhood.**

#### **Comment 14.13**

**We are disappointed by the lack of detail in descriptions of workforce development and local hiring practices.** Consistent with our request for greater transparency throughout the IMPNF, we request ZIP code-sorted data on the number of NU employees who live in the

Fenway, Mission Hill, and Lower Roxbury, not simply an aggregate count for the entire city. Once these numbers are established, we expect Northeastern to create a plan to establish a more systematic local hiring process. Residents of the Fenway, Mission Hill, and Lower Roxbury should receive priority applications, and supportive services should be in place to assist them in applying for relevant positions. There should be a clearinghouse for all nonprofessional and administrative openings at Northeastern, easily accessible to residents in the surrounding neighborhoods. The Fenway CDC has experience connecting residents to jobs in the surrounding institutions and would be happy to consult with the university about strategies and management.

Thank you for the opportunity to comment on Northeastern's IMPNF. We urge you to include our recommendations as part of the scoping determination.

Sincerely,



Steve Wolf  
Fenway CDC Board President



Dharmena Downey  
Fenway CDC Executive Director

cc: Manuel Delgado, Urban Village Committee Chair; Senator William Brownsberger; Senator Sonia Chang-Diaz; Representative Gloria Fox; Representative Byron Rushing; City Councilor Mike Ross; City Councilor Tito Jackson; Shaina Aubourg

# Comment Letter 15

February 4, 2013

Gerald Autler, Senior Project Manager  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

Northeastern University Institutional Master Plan Notification Form (IMPNF) Comments

Dear Mr. Autler:

## **Comment 15.1**

I am fully in support of the comments submitted by the Gainsborough Neighborhood Association (GNA). I gratefully acknowledge NU's willingness to adhere to prior commitments they made to not build dorm beds on N Lot. The proposed project for this location, would be 100 % taller than the abutting buildings on Gainsborough Street. This is unacceptable at the edge of their campus and in the middle of a residential neighborhood.. However, I will provide a few additional comments.

## **Comment 15.2 & Comment 15.3**

### **Master Leasing**

In 2004, Northeastern University (NU) and the City of Boston entered into an memorandum of understanding (MOU) that required NU to build a number of dormitory beds and to end the master lease property program (MLPP). NU's third amendment to its institutional plan, filed in 2006, states "In response to community concerns, the University agreed to a plan for phasing out its inventory of leased off- campus beds under the Master Lease Property Program.... The MOA provides for a five- year phase out of the 750 beds..." The phase out plan provided that within 5 years , 2011, there would be zero leased beds.

### **Comment 15.3**

The recently submitted IMPNF mentions the continued use of leased beds a number of times. Page 1-4 references 500 leased beds in their current inventory.. Page 3-2 cites the total number of on campus beds available and includes a sentence "When combined with the approximately 500 beds leased under the (MLPP), Northeastern University has housed approximately 62% of its in-region students". Page 4-1 lists NU's MLPP for 2012 as including 511 beds, of which fully 310 remain in our Fenway neighborhood.

Surprisingly, Page 3-4 states “ The University also intends to pursue discussions with neighbors, city officials and the Boston Redevelopment Authority to maintain the MLPP, in some form...”

**Comment 15.3**

Page 10.1 states that “NU has made a number of agreements with various city agencies and elected officials during the course of the past IMP as amended. Th University is in substantial compliance with these agreements, the primary exception being....the remaining part of parcel 18...”. NU has not complied with the MOU regarding leased property and in fact, now appears to want to continue this practice which residents and city officials opposed.

**Comment 15.4**

Overall Plan for Huntington Avenue: The Avenue of the Arts

Plans for a comprehensive plan for the development of Huntington Avenue are lacking on a large scale. Nu makes mention of intentions to improve the street but there is no overall development plan, Mass College of Art, Wentworth and NU have completed/ or are planning developments on this Street. The large building being proposed to replace Wentworth’s Sweeny Field would be built right up to the sidewalk with no open and green space. The BRA should provide a leadership role by sharing a vision for this prominent Avenue of the Arts before it becomes the Canyon Avenue of Mismatched Buildings with No Open Space..

I realize this is the early stage of the process and I will continue participation in the process as it moves forward.

Thank you for your consideration.

Cynthia Brophy  
87 Gainsborough Street  
Boston, MA 02115



# Comment Letter 16

**From:** [Bill Dellea](#)  
**To:** [Autler, Gerald](#)  
**Subject:** Northeastern University IMPNF comments  
**Date:** Tuesday, February 05, 2013 9:15:09 AM

---

Hello Gerald:

I am writing to provide my comments to the Northeastern University IMPNF as well as those of United Neighbors of Lower Roxbury. In general, the submission lays out a logical and clear plan for upcoming projects at the university with the bulk of planned construction on existing university owned land.

The plan envisions a much increased presence on the Roxbury side of the campus, and while we are not opposed to the university making the best use of its existing property, we hope that future expansion will be sensitively designed and of a scale that complements existing structures in the neighborhood. Specific comments are as follows:

## Comment 16.1

1. Columbus Avenue Lot

We support plans to build an academic complex on the Columbus Avenue lot. Such a project would bring more pedestrian activity to Columbus Avenue, improve what is now a rather bleak streetscape and afford the opportunity for neighborhood services to develop. More information is needed, however about the timing of the three phases of the project as well as the massing of the structures and the amount and configuration of any open or green space. In particular, the IMPNF text (page 6-3) lists phase A of the project as a 14-16 story building of 180,000 - 250,000 GSF, yet the drawing in figure 6-2 depicts a building of approximately 6 stories for phase A. Clarification is needed. Also of importance, if the 3 phases are to be spaced over several years, what does the university intend to do with the empty portion of the lot? Will it be landscaped and if so, how will it be landscaped? Will some parking remain (the neighborhood would not support such an option).

## Comment 16.2

2. Burke Street parking lot

The neighborhood generally supports construction on the Burke Street parking lot but is sensitive to the scale and massing of any such development. The streets between Columbus Avenue and Tremont Street are short and narrow and cannot support large scale development. The height, massing and composition of any building must be carefully reviewed. Although not necessarily opposed to housing on the site, the neighborhood wishes to review and discuss the amount of student recreation/congregation space in any dormitory as well as the university's plans for student supervision.

## Comment 16.3

3. Matthews Arena, Gainsborough Garage and Carter Playground

The university is proposing a major expansion of its athletic facilities on St. Botolph Street as well as a renovation of the Carter Playground. Massing and streetscape are very important considerations for these projects (the arena expansion and garage replacement). Athletic facilities can be low slung and bulky structures, presenting blank walls to the sidewalk. Care must be taken to avoid such a result.

Additionally, foot traffic in the area will presumably be increases considerably with the expansion of these facilities. Are studies to be performed on the additional pedestrian trips and the interaction with vehicular traffic? Will it be necessary to widen sidewalks, reduce or eliminate the number of parking spaces on the street or make St Botolph or Gainsborough Street one way?

Do the proposals for athletic facilities take into account the planned expansion on the New England Conservatory in the same general area? Specifically, has the combined effect of the plans of the two schools been considered on pedestrian and vehicular traffic? Wind and shadows? Etc.

Finally, although the neighborhood is supportive of the Master Plan's proposal to renovate and expand the Carter Playground, we are concerned that with the expanded athletic facilities so close to the playground, there will be temptation over time for the university to monopolize use of the

playground. The Master Plan must include clear safeguards to prevent that from happening.

Thank you for the opportunity to provide comments to the IMPNF.

Bill Dellea  
billdellea@earthlink.net



# Comment Letter 17

February 4, 2013

Gerald Autler  
Senior Project Manager/Planner  
Boston Redevelopment Authority  
Boston City Hall, 9th Floor  
Boston, MA 02201

RE: Northeastern University Institutional Master Plan Notification Form

Dear Mr. Autler:

Sociedad Latina has reviewed and discussed the IMPNF submitted by Northeastern University and offers the following comments:

## Comment 17.1

### ***Residential Housing***

It has been the City of Boston's policy to encourage colleges and universities to expand their on-campus housing facilities for their students so there is decreasing use of private housing market resources in Boston's neighborhoods by students. This is a policy we support and we urge its continued application to Northeastern University. Northeastern University's transformation from a commuter-serving school to a residential campus, without adequate on-campus residential infrastructure, has severely and unfairly burdened the Mission Hill neighborhood both in terms of quality of life and housing available and affordable to working families, senior citizens, and professionals. This increase in NU students means a loss of family housing.

## Comment 17.2 & Comment 17.3

Sociedad Latina maintains that:

- The NU Master Plan must prioritize the construction of undergraduate student housing to reach at least 75% on-campus housing within the first five years of the Master Plan.
- A plan demonstrating how the University will significantly reduce the number of undergraduate students residing in the Mission Hill neighborhood with yearly benchmark goals should be provided as an integral part of the NU Master Plan. This plan should definitely be a collaborative effort with the community representatives on the Taskforce and if possible the community members at large.

## Comment 17.4

### ***Inclusion of Student Housing Plan***

Article 800 of the City of Boston Zoning Code states that *with respect to the Institution's current and future housing needs, the Institutional Master Plan shall include a Student Housing Plan.*

This Plan is meant to mitigate the impacts of the Institution's student housing demand on the surrounding neighborhoods. Sociedad Latina requests that such Plan be drafted by the University in collaboration with the NU Community Task Force and the BRA for inclusion in the Master Plan. The Student Housing Plan should provide data on current and future housing needs and impacts on the surrounding and Impacted Communities.

Elected officials and community groups, such as our Youth Leaders have already completed similar research and studies commissioned by third parties such as the Boston Public Health Commission's Child Health Assessment Mapping Project, which examined the effect of student housing on the trash levels and home count sales, and so we look forward to a comprehensive plan sponsored by the University that will include mitigation efforts and how they will be quantified and time-lined. Most importantly, this study should be broken down by neighborhood.



## Comment 17.5

### **Community Benefits**

#### **1. Affordable Housing**

At several NU Community Task Force meetings, the University put forth 4 focus areas for a Community Benefits package to be initiated as part of the Master Plan. At those meetings Affordable Housing was one of the areas. Support for affordable housing initiatives in the Impacted Communities should be included in the Master Plan as a mitigation measure. This support should have production goals and financial commitments that are quantified. Northeastern's UGs living off-campus in Mission Hill rose 6.5% from the Spring of 2011 to the Spring of 2012 alone. As of Spring 2012, Northeastern reports having 1,341 undergraduates living in the 02120 zip code - a majority of the Mission Hill neighborhood. If all off-campus NU UGs are living legally (no more than 4 to a unit), that's 335 units of housing occupied by NU students. That's 335 families lost to the Mission Hill Community. That's 111 triple deckers in Mission Hill occupied by NU. Mitigation by Northeastern must include funds to increase supply of family housing in Mission Hill and the other Impacted Communities and funds to write down the costs of dorms to be economically attractive to students and their families.

## Comment 17.6

#### **2. Economic Development and Job Opportunities**

Construction and permanent hiring goals and participation goals should be spelled out in the Master Plan. Current procurement totals and numbers for local businesses should be provided along with goals for the Master Plan period. Northeastern's current employment figures by category and neighborhood should be provided along with quantifiable goals with a timetable for achieving additional hires from the Impacted Communities. Training commitments should also be spelled out.

## Comment 17.7

#### **3. Education**

Northeastern University should provide increased educational opportunities for the youth living in the nearby Impacted Communities. The Master Plan should include the number of scholarships NU provides to Boston Public School students yearly and by neighborhood and projections on a yearly basis for the duration of the Master Plan. An educational opportunities plan for adults in the Impacted Communities should also be delineated. Support for Community Based Organizations' out of school initiatives and college readiness programs in the Impacted Communities should be expanded with quantifiable commitments outlined in the Master Plan.

## Comment 17.8

#### **4. Ongoing Community Task Force**

Implementation of NU's Community Benefits and the other commitments made in the NU Master Plan should be monitored within a process for ongoing dialogue between the Impacted Communities and the Institution. This could help to build a sustainable relationship between the Institution and the Community and possibly avoid the frustration with the deviations from the commitments made in the last NU Master Plan Amendments process. This on-going group should include the Community, as was proposed by John Tobin in the form of Neighborhood Council.

## Comment 17.9 & Comment 17.10

#### **5. Student Behavior and Interim Measures**

The youth and families of Mission Hill strongly believe that the behavior of off-campus students should be the same as student behavior on campus. Our residential streets should be as quiet and clean as the campus quad and dorms and the behavior of Northeastern University students should be respectful- no matter the night or the time.

The NU Master Plan should provide information on current supervision and disciplinary procedures in dormitories and off-campus. The NU Master Plan should include new initiatives that will mitigate current UG behavior on Mission Hill, specifically addressing vandalism, trash, public urination, public drinking



and drunkenness, noise and the large numbers of students roaming the residential streets at night in search of parties.

We thank you in advance for your consideration of our concerns and hope they will be reflected in the Scoping Determination.

Signed,  
*Alexandra Oliver- Davila*  
Executive Director

# Comment Letter 18

**From:** [Wilhelmi, David](#)  
**To:** [Autler, Gerald](#)  
**Cc:** [Patricia Flaherty](#)  
**Subject:** IMPNF  
**Date:** Monday, February 04, 2013 2:31:30 PM

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Re: NorthEastern's new IMPNF  
**Comment 18.1, Comment 18.2, & Comment 18.3**

I am writing as a member of the Mission Hill Community... In the last IMPNF NorthEastern failed in their commitment to my community. Each year more and more housing is changed from family usage to "dorm" usage. Along with the "dorm" usage comes the wild parties and property destruction. A few greedy individuals are taking advantage of NU's inaction of the promised construction of new dormitory space on campus. I cannot support your new IMPNF unless there is language specifying that new dormitories will be built and a specific time tables. Another problem that has occurred due to NU's inaction is that our property taxes have gone up due to the new found use of our housing and the high rents your students pay. Surely by now they must think they "own" the the Hill... All this takes place while NU pays no property tax. There should be financial ramifications for not living up to promises made in these documents. There is no reason why we should be punished for your inaction and just plain bargaining in bad faith.

David Wilhelmi

# Comment Letter 19

**From:** [Virginia Morse](#)  
**To:** [Autler, Gerald](#)  
**Subject:** Re: Next meeting(s)  
**Date:** Wednesday, January 23, 2013 3:39:22 PM

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Dear Gerald,

January 23, 2012

I am very impressed with the comprehensive product that I received concerning the IMP. As I was carefully reading this document, I was expecting to find some element/s which had not been covered. None were evident.

I especially liked the fact that the entrance to the NE campus from St. Botolph street will be enhanced from just being a service entrance -- to an inviting walkway -- heralding the improvements of the addition to the Matthews Arena, the Gainsborough recreation center, the Science Quad, and the GrandMarc residence hall. This will especially integrate these amenities into the increased student population, and the close proximities of the 'T' stops and rail lines near St. Botolph street.

Northeastern University should be very proud of their recycling and conservation programs concerning paper & cardboard waste, (550 tons/yr.) the "green" restaurants on campus (who compost 700 tons of food waste per year) and also 71 tons of bottles and cans. Northeastern was awarded Princeton Review's "Green Honor Roll" again in 2012 for the fourth year in a row!

In my view, this is the reason that many in the South End appreciate having Northeastern University as their close neighbor.

After what I have seen in the completeness this document, as Jefferson once said, the end result is "merely a matter of marching".

Gerald, keep up the great work! All the best, John Morse.

On Jan 4, 2013, at 9:54 AM, "Autler, Gerald" <[Gerald.Autler.bra@cityofboston.gov](mailto:Gerald.Autler.bra@cityofboston.gov)> wrote:

Happy 2013 to all of you.

We've secured a venue for Monday, January 28 for the next Task Force meeting. It will be 6:00-8:00 in the Alumni Pavilion, 6th floor, Columbus Place, 716 Columbus Avenue.

I'm looking at Tuesday, February 12 for the following meeting. Please let me know if there are any serious conflicts.

We're working on dates and venues for meetings for the remainder of the spring. I'll try to go back to Thursdays for those meetings but that may not be possible.

Best regards,

**Gerald Autler**  
Senior Project Manager/Planner  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201-1007  
T: 617.918.4438  
F: 617.742.7783

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# Comment Letter 20

**From:** [Diane Brown](#)  
**To:** [Autler, Gerald](#); [Jeffrey.sanchez@mahouse.gov](mailto:Jeffrey.sanchez@mahouse.gov); [Mayor](#); [Arroyo, Felix](#); [Murphy, Stephen \(Councilor\)](#); [Connolly, John \(City Council\)](#); [Pressley, Ayanna](#); [Ross, Michael \(City Council\)](#); [Parks](#); [apaltoo@mbta.com](mailto:apaltoo@mbta.com)  
**Subject:** Northeastern University-IMPINF  
**Date:** Monday, December 31, 2012 8:30:01 PM

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Dear Mr. Autler,

I would like Northeastern University to respect the needs of its neighbors. Here are my comments on Northeastern University 's IMPNF.

## Transportation Comment 20.1

Forsyth Street needs to remain open to vehicles as a Boston public street. It services commuters (MFA, other area colleges, MASCO, Red Sox, ect.) on the north side of Ruggles station's Orange Line track. It provides the only street connector for shuttle buses, vans, taxis & autos to connect commuters to the Orange line on the north side of Ruggles station. It's disturbing that Northeastern University is not considering the commuters' need for Forsyth St beyond their own university's.

Students in dormitories only need to walk a few steps to their daily classroom destination. I'm sure the placing of dormitory traffic in front of one of Boston's most important traffic nodes is not a good use of transit-oriented development. Perhaps Northeastern can provide Police for handling the dormitory pedestrian traffic on Forsyth St that interferes with access by vehicles & pedestrians to Ruggles station on this much needed Dead End Boston street. The city of Boston might also consider allowing on street parking as a traffic-calming measure.

## Carter Playground Comment 20.2

The tennis courts & the children's play area should remain where they are, near the Carter school and closest to the Boston resident who use them. They are the most active part of the park, and provide the much needed "eyes on the street" near the Camden St / Gainsborough St. footbridge.

## Housing Comment 20.3

Northeastern's dormitory solutions have failed in the Fenway, Mission Hill, South End and Roxbury. The bigger the dormitories get the worse the problems become. There is no increase in the undergraduate population, there is no waiting list for the dorms, and with the Master-Leased Property Program, no need for more dorms.

## Expansion Comment 20.4

Northeastern should stop expanding in Boston and build somewhere else. We can't afford subsidizing them nor their well-to-do privileged students from out of the area who are expected to leave the area, with our taxes. Over the decades Northeastern has land-banked and slumified the area. Now they are building ugly large monstrosities on our historic streets. There is no need for Northeastern to expand in Boston. Northeastern is operating globally, has remote campuses and there is a trend in online education. Northeastern can grow somewhere else. Boston doesn't need them casting a shadow over the Museum of Fine Arts. Northeastern University wants to take over Boston streets, a Boston playground and a major MBTA transit station all while pay little taxes & destroying Boston's historical fabric.

Sincerely,

Diane Brown  
44 Ellingwood St  
Roxbury MA 02120



# Comment Letter 21

**From:** [Timothy O'Brien](#)  
**To:** [Autler, Gerald](#)  
**Subject:** Northeastern IMP Comments  
**Date:** Thursday, January 24, 2013 3:14:07 PM  
**Attachments:** [Party Economics.doc](#)

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Mr. Autler,

I believe some things have been overlooked in the recent Northeastern IMP. Much stress has been put on reducing the disturbances by students in the neighborhoods around the school by residents and students alike. I feel that on that goal, this plan has failed. For some reason the school believes that if it can put more students in dorms and increase the penalties associated with partying, that somehow this problem will magically disappear. I am very disappointed with this plan - it's as if the school's officials have never heard of the failures associated with prohibition or the war on drugs. Why are we now the believe that the war on parties will turn out anything other than an abysmal failure?

More students in dorms is almost precisely the problem - as a mission hill resident I was almost never disturbed by the actual student residents themselves, but instead by the hordes of students roaming the streets looking for somewhere to go. These students almost certainly are trekking up the hill from the dorms. But this gets to my point - these students need somewhere to go. Increasing penalties and forcing them into dorms will not change that fact. It will only kick the problem down the road until the next IMP. I have put my ideas and recommendations into essay form which I have attached to this email. I look forward to hearing from you and getting your thoughts. I am free to speak in person if you feel that would help.

Sincerely,  
Timothy O'Brien

By Tim O'Brien

## Party Economics: An Idea for Northeastern University and the City of Boston

Northeastern University has done a great job at increasing its reputation, its job services, its alumni base, its research, and its ranking. In contrast, the university has largely failed in forming effective relations with the community around it, and has instead adopted a policy of appeasement and extreme risk management. To demonstrate this point, I will refer to the town hall style meeting about the Hemenway and Fenway areas. The meeting was held to try and alleviate the concerns the residents have about the university. As expected, no significant progress was made, and the usual banal arguments were made by both sides.

The residents around Northeastern do not want to school expanding, they do not want the school to increase enrollment, and most importantly, they do not want the students moving into the neighborhoods they call their own. The university gave its usual platitudes about increasing student awareness, accountability, and citizenship. None of these strategies have ever worked in any form of implementation, anywhere. Throughout this article I will examine these policies in detail. I will explain their reasoning, their purpose, and most importantly, their failures. I will then propose an alternative that has the ability to solve everyone's concerns.

### Comment 21.1

The first thing these concerns and the meeting itself should signal is that Councilor Ross' "four or more" student housing law is largely a failure, and that something else needs to be done. The intent of this law was to reduce the influx of students into the Mission Hill and Fenway neighborhoods. Ross attempted to achieve this goal by capping the number of students per lease to four, thus diminishing the economies

of scale students could achieve for rent. The reason for the law was to address the concerns of the residents about late night partying. Simple economics would explain why this law did not work in achieving those goals.

First of all, as the number of students per house was capped, the rent also essentially became capped. Landlords can not charge as much per additional student, as the number of students is now capped at four. This essentially acts as a de facto rent control law, and thus the number of students going off-campus was not significantly reduced. Also, students weren't given any significant alternative housing that would steer them away from going off-campus. Northeastern built the International Village dormitory, but as the name would suggest it is mainly home to the schools rapidly increasing international population, and only increased on campus living capacity by 1200.

Another point to note is Ross' self-proclaimed achievement regarding the law. He claims that it removes the financial incentive for landlords to build large pseudo-dorms. A simple look around Mission Hill proves this is false. Nearly all the new constructs and renovations have multiple apartments which are all rented on different leases (meaning more than 4 students can legally live in one domicile). These pseudo-dorms are identical to their on-campus counterparts in nearly every way except for their significantly lower cost. Maybe Council Ross can explain why this would in any way reduce the influx of students, because I certainly can't think of even one reason.

I am not alone in recognizing the failures of the "four or more" law. The BPD has also noticed the failure. All though they have not publicly stated it, or may even realize it, their actions dictate a failure in the law to reduce off campus parties. The BPD has

recently had to dramatically increase the number of police patrols in the neighborhood and along with Northeastern, has increased the penalties for partying. If this law, Northeastern's policies, and Boston's polices were a success, than BPD should instead be decreasing its patrols for parties in the area.

#### Comment 21.2

This policy shift by BPD only further exacerbates the problem and exposes yet another hole in the City and the University's policy against parties. My father has been in law enforcement for over thirty years, and because of that I have always had a great deal of respect for the police and an unusual understanding for their position. While many are quick to assign blame to the police for policy failures, I realize that the police are only an executive tool, and any major policy failure is due to the legislatures who create the ineffective laws the police are forced to carry out. This new party busting policy is one such failure.

At face value it seems that the policy of increasing police patrols for parties and of increasing the punishments for partiers would be beneficial to the community. It is not. In its purest form, this policy is a form of demand reduction. Demand reduction didn't work during prohibition, it isn't working for the "war on drugs," and it certainly won't work for the "war on parties." These policies are extremely costly, not just to the taxpayers but to society as a whole. Taxpayers will foot the bill for the increased enforcement costs. Students with criminal records for victimless crimes will go on to live unproductive lives, creating less for the economy as a whole. The "brain drain" problem that Mayor Menino has indentified will only become exacerbated. The students who came from all around the world the study in this great city will feel unwanted and disenfranchised, and will ultimately continue to leave after they get their degrees. All of

these costs to society are being created because an inefficient collective of bureaucracies that cannot innovate one real solution.

At this point you are probably very curious as to what my proposed solution could possibly be. Before I get to that, I want to explain the issues that it will address and ultimately solve. This policy will lower the cost of student housing, decrease the influx of students to surrounding neighborhoods, decrease the societal costs of partying, and help the reputation of the university in the city. Northeastern University should adopt a policy of significant Greek life housing. After reading that last sentence, you now could probably figure out why I didn't start with my thesis. It is an extremely unpopular idea. But it is not without merit.

#### Comment 21.3

Dozens of MIT Fraternity houses are just a ten minute walk away from Northeastern. Their benefits to the school, the students and the community are abundant. The school gets increased alumni attention, donations, housing paid for by other organizations, and the ability to regulate their student's parties. The students get cheaper housing and a way to satisfy their insatiable demand for parties, a demand that no previous policy has come close to decreasing. The community gets increased civic engagement from the students, who now have a permanent home in the community. The increased efficiency of living space will also lower rent. Since dozens of students can live in a property licensed fraternity house as opposed to only four in apartments, there will be less available students to drive up rent. Members of Greek organizations are also required to do community service, something with more obvious benefits to the community. And most importantly, the ability to regulate parties will allow for the school to contain the costs of partying.

#### Comment 21.4

Current off-campus parties have no structure, and are often filled beyond capacity in dangerously overcrowded apartments. There is also no way to limit the amount of alcohol being consumed there. If Northeastern requires the fraternity houses to register parties, such as MIT does, then it can only allow a certain amount of beer, rather than strong jungle juice for instance. This puts a cap on how intoxicated students can get, which would presumably reduce the amount of public urination and vomiting, both common resident complaints. The houses should also be purchased in one location. The societal cost of noise would be contained to one area, where the only neighbors are other fraternity houses.

These houses will also be funded by the Greek organizations, with little to no cost to the University or the City. And as Boston classifies fraternity and sorority houses legally as dormitories, the enforcement costs fall upon the university, not the BPD.

Although this idea may seem like a regression instead of a progression, it is the only viable solution. Our society being as it is, we will never find a way to get rid of the student demand for partying. What we can do is be smart, and create a system that doesn't go against the grain, but rather considers all the costs and makes a better city for everyone. I appreciate your time and thoughts on reading my recommendations.



## Comment Letter 22

*A. Autler*

Tony Woodcock : President

B.R.A.

January 18, 2013

2013 JAN 23 P 2:10

Mr. Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

Dear Mr. Meade,

The New England Conservatory supports Northeastern's filing of its Institutional Master Plan Notification Form (IMPNF), which is an important step forward for the University's aspirations and for the City of Boston.

Comment 22.1

We have worked cooperatively with Northeastern to plan for the building of the GrandMarc residential hall, and have held joint discussions about significant infrastructure and aesthetic improvements to the intersection of Gainsborough and St. Botolph streets. We look forward to our mutual effort, with input from neighbors, city officials and the BRA, to improve this important crossroads for the good of all.

We join our Fenway neighbors in support of proposals to use the Gainsborough Garage and Cullinane Hall sites for purposes other than housing, to maintain a reasonable density of undergraduate residence halls along the St. Botolph Street corridor as we plan for the opening of GrandMarc and the Conservatory's new residence hall.

We applaud Northeastern's promise to radically transform the face it presents to the "Avenue of the Arts" and to create more cultural and performance space for the university community and our neighbors.

We understand this is the first formal step toward an Institutional Master Plan and look forward to being part of the discussion, along with our neighbors, as our sister institution's planning process moves forward.

Sincerely,

*Tony Woodcock*

Tony Woodcock,  
President, New England Conservatory

cc: Linda Kowalcky, Deputy Director, BRA  
Gerald Autler, Senior Project Manager/Planner at BRA  
Joseph E. Auon, President, Northeastern University (NU)  
Ralph Martin II, Senior Vice President & General Counsel NU



# Comment Letter 23

*A. Cutler*

Tony Woodcock | President

B.R.A.

FEB 19 A 9 21

February 14, 2013

Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Plaza  
Boston, MA 02201

Dear Director Meade,

New England Conservatory is pleased to submit its comments on Northeastern University's 2012 Institutional Master Plan Notification Form.

We would like to reiterate our strong support for NEU and the goals it has set forth in the new IMPNF—support we have previously expressed in my letter of January 18, 2013.

Notwithstanding the ongoing responsibility of Northeastern to house more of its students on campus so as to alleviate the impact of student rentals on the surrounding neighborhoods, NEC endorses the University's priorities as contained in the IMPNF. We understand and affirm the need to upgrade many of the school's older academic buildings in order to enhance the education of students and the advanced research being conducted. We also recognize the need to offer students residing on campus more recreational amenities. Further, we commend the idea of making more efficient use of existing property, particularly those parcels fronting onto Columbus Ave. We recognize, too, the need to better connect the segments of the campus now divided by the MBTA tracks. And we commend the desire to create a more welcoming periphery to the campus, especially that edge facing onto the Avenue of the Arts (Huntington Ave), as well as the greatly improved park/playground on Columbus Ave. We very much look forward to seeing NEU's more detailed plans for individual buildings as the IMP is fully fleshed out.

Given our support of the Plan as it stands, NEC does have some concerns:

Comment

- 23.1 • Columbus Avenue Parking Lot – NEU is considering development of up to 600,000 sq ft of building on this site. We look forward to continuing discussions as the plans for this site evolve. Working with the MBTA, we hope that the city will consider opportunities to improve access to the subway and commuter rail facilities. We are pleased with the plans to improve the public park/playground on Columbus Ave.
- 23.2 • Matthews Arena – NEU is considering an L-shaped development of potentially five stories. As part of NEC's IMP, the Conservatory agreed to alter its own development plans to include public space enhancements on the corner of



Gainsborough and St. Botolph streets. We would hope that the BRA examines how elements and “soft edges” on both sides of the street will enhance both sites.

- Gainsborough Garage – NEU contemplates building a nine-story building on this parcel. NEC has concerns about the density of building, traffic, and residency in this area and would hope that NEU and the BRA examine these issues thoroughly. We also hope that if NEU elects to eliminate parking at the redeveloped Gainsborough Garage site, that they replace this parking availability somewhere on the NEU campus.

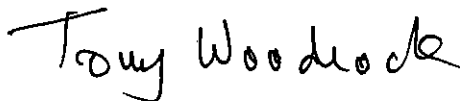
- 23.3 • Hastings Wing of the YMCA – NEU raises the possibility of redeveloping this building if they can find suitable replacement housing for the residents. Again, NEC has concerns about the density of building, traffic, and residency in this area and would hope that NEU and the BRA examine these issues thoroughly.

Comment 23.4

In general, we hope that NEU’s Master Plan addresses issues of security, density and traffic throughout areas of anticipated development in its Master Plan. NEC will be investing approximately \$3 million of federal earmark money into the public streetscape as part of our own development plans. We’d like to see NEU address more definitively what it will do with these corridors in order to make them more inviting to the schools’ constituencies as well as the community at large.

Thank you very much for providing the opportunity for New England Conservatory to respond to Northeastern’s IMPNF.

With best regards,



Tony Woodcock, President  
New England Conservatory

cc: Gerald Autler  
Senior Project Manager/Planner, BRA

# Comment Letter 24



February 4, 2013

Gerald Autler  
Senior Project Manager/Planner  
Boston Redevelopment Authority  
Boston City Hall, 9<sup>th</sup> Floor  
Boston, MA 02201

RE: Northeastern University Institutional Master Plan Notification Form

Dear Mr. Autler:

Mission Hill Neighborhood Housing Services (MHNHS) has reviewed and discussed the IMPNF submitted by Northeastern University and offers the following comments:

Comment 24.1 & Comment 24.2

***Residential Housing***

It has been the City of Boston's policy to encourage colleges and universities to expand their on-campus housing facilities for their students so there is decreasing use of private housing market resources in Boston's neighborhoods by students. This is a policy we support and we urge its continued application to Northeastern University.

Northeastern University's transformation from a commuter-serving school to a residential campus, without adequate on-campus residential infrastructure, has severely and unfairly burdened the Mission Hill neighborhood both in terms of quality of life and housing available and affordable to working families, senior citizens, and professionals. Nevertheless, NU representatives have stated at every Northeastern Community Task Force meeting and in the IMPNF that the production of on-campus residential beds to house Northeastern's undergraduate population *is no longer a priority* for the University. Northeastern by their own accounting submitted to the City in response to the University Accountability Ordinance has continued to increase the number of students living in the Mission Hill neighborhood each year. This increase in NU students means a loss of family housing. Northeastern's off-campus undergraduate population in 02120 rose 24.2% from Spring 2009 to Spring 2012 – from 1,080 to 1,341 undergraduates living in Mission Hill. The increase of 261 students during that time period (assuming they are living legally with 4 per unit) means 65 units or 21 triple deckers lost to student housing since the last NU Community Task Force process.

Mission Hill Neighborhood Housing Services maintains that:

- Comment 24.3 • The NU Master Plan must prioritize the construction of undergraduate student housing to reach at least 75% on-campus housing within the first five years of the Master Plan.
- Comment 24.4 • A plan demonstrating how the University will significantly reduce the number of undergraduate students residing in the Mission Hill neighborhood with yearly benchmark goals should be provided as an integral part of the NU Master Plan.

Comment 24.5

The IMP process should be an opportunity to plan for ways to balance the needs of the institution with the needs of the surrounding neighborhoods. Sensitive planning and development can serve not only to minimize and mitigate negative impacts, but also create benefits for the surrounding communities. Additional information and detailed proposals with quantifiable goals are needed from the University in order to allow for the stated “reciprocal” relationship with the Impacted Communities and to achieve the “sustainable mutually beneficial relationship” that Northeastern University says it desires.

Comment 24.6

***Provision of a Student Housing Plan***

Article 80D of the City of Boston Zoning Code states that *with respect to the Institution’s current and future housing needs, the Institutional Master Plan shall include a Student Housing Plan*. This Plan is meant to mitigate the impacts of the Institution’s student housing demand on the surrounding neighborhoods. MHNHS requests that such Plan be drafted by the University in collaboration with the NU Community Task Force and the BRA for inclusion in the Master Plan. The Student Housing Plan should provide data on current and future housing needs and impacts on the surrounding and Impacted Communities. Mitigation efforts should be quantified and timed. Impacts of Northeastern’s student housing demand on housing supply and the rental and homeownership housing market rates in the surrounding neighborhoods, including those neighborhoods where the Institution’s students are concentrated should be provided, broken down by neighborhood. This will necessitate third party services. Northeastern should provide the number of fulltime students broken down by undergraduate and graduate students currently and projected during the Master Plan period. Data on the number of undergraduate and graduate students broken down by the type of housing (on campus, off campus, and master leased) currently and projected should also be provided. Off campus undergraduate housing numbers should be provided by both zip code and geographic neighborhood. Other information should include the number of beds owned by the Institution, the number of beds leased by the Institution with expiration dates, and any housing requirements or restrictions placed on its students. These numbers should be projected on a yearly basis for the duration of the Master Plan. An explanation of past growth trends and any deviations from the projections outlined in Northeastern’s previous Master Plan should be described. A description of procedures used to manage enrollment consistent with projections should be provided. The process by which the Institution directs its students to housing facilities should be enumerated. An on-campus marketing plan for students and their

parents including an analysis of the academic and economic benefits of living in on-campus housing should be developed and included and implemented, as it has at nearby institutions. An affordability analysis of on-campus housing should be part of the Student Housing Plan. The University must provide economic support to make dorms as affordable to students as living in our family housing stock.

#### Comment 24.7

##### ***Master Lease Property Program***

The Master leased beds should not be included in the percentages of on-campus housing at Northeastern University as they appear in the current IMPNF. The goal of 75% on campus housing in the first five years of the Master Plan should not include master leased beds. Arguably, master leased beds could be counted as off-campus housing. The 67% on-campus housing that Northeastern projects with the completion and occupancy of Grand Marc should be corrected to subtract out the master leases in residential housing. The MOA Northeastern signed in July 2004 required NU to give up all of its leased beds in the Fenway. The Master Lease Program had sunset provisions in the last NU Master Plan Amendments. They were extended based on the timeline for dorm bed construction. While we recognize there is not the same advocacy from the Fenway Community for vacating the current master leases as there was during the NU Master Plan Amendment Process, largely because of the Mission Hill example of privately-housed students and the benefit of University oversight of leased housing related to student behavior issues, Northeastern should not extend master leasing into the Mission Hill. Master leasing of all the student occupied units by Northeastern in Mission Hill would not address the economic impacts of this institutional expansion. Master leasing should remain an interim measure and master leases should remain a separate housing category.

#### Comment 24.8

##### ***Proposed IMP Projects***

From the very first meeting of the NU Community Task Force it was clear that the priority project for Northeastern is the development of the Columbus Avenue lot and the University's desire to grow academic, faculty office and graduate research space at the location was the most likely to move forward. The first phase of the Columbus lot development is estimated to include 180,000 – 250,000 gsf. This is the project that has the most detail in the IMPNF and the project referenced by BRA staff as the one project expected to soon have more detailed architecture. There are two other phases anticipated at Columbus Avenue as priority projects. None of them currently include any student residential beds. With a total of 600,000 gsf development potential at this priority location, Mission Hill Neighborhood Housing Services requests that UG student housing be included as part of the mixed use development in all three phases of the development of the Columbus Avenue lot. This will ensure that residential development needs of the Impacted Communities are met concurrently with Institutional desires for additional academic, graduate, and research growth space.

Another priority of the University is the development of student-life facilities. Several Proposed IMP Projects are put forth as student-life facilities, including athletic and

recreational facilities. The argument by the University is that state-of-the-art student activity projects will attract students back to campus. Mission Hill Neighborhood Housing Services maintains that student life and recreational projects should come after projects providing sufficient on-campus beds at a competitive price and of a type conducive to upper classpeople – i.e. apartment style units with single bedrooms.

In addition to the inclusion of residential beds in the development of each phase of Columbus Ave., Northeastern University should prioritize additional beds at a University site that would allow for the housing to be built in the first five years of the Master Plan and which does not require waiting for a co-developer or private developer to surface. It is unclear from the information provided in the NU IMPNF when any of the sites mentioned to include or possibly include UG beds would be developed. What is clear and disturbing is that in almost all cases the University is suggesting that the development of residential beds should not impact their bonding capacity and should be built by others. Again, indicating that providing sufficient on-campus housing for their undergraduate students is not a priority of Northeastern University.

#### **Comment 24.9**

Prior to the final NU Master Plan, the NU Community Task Force needs to be engaged in detailed discussion about proposed institutional uses and locations to ensure there is agreement. There has not been enough specific discussion of the Proposed IMP Projects. As requested at several NU Community Task Force meetings by several members, there needs to be detailed phasing and timing information provided for each of the Proposed IMP Projects.

### ***Community Benefits***

#### **Comment 24.10**

##### **1. Affordable Housing**

At several NU Community Task Force meetings, the University put forth 4 focus areas for a Community Benefits package to be initiated as part of the Master Plan. At those meetings Affordable Housing was one of the areas. There were also several meetings with local community development groups including Mission Hill Neighborhood Housing Services around support for housing needs and costs. We were shocked to see Affordable Housing removed as a focus area in the IMPNF.

#### **Comment 24.11**

Support for affordable housing initiatives in the Impacted Communities should be included in the Master Plan as a mitigation measure. This support should have production goals and financial commitments that are quantified. Northeastern's UGs living off-campus in Mission Hill rose 6.5% from the Spring of 2011 to the Spring of 2012 alone. As of Spring 2012, Northeastern reports having 1,341 undergraduates living in the 02120 zip code – a majority of the Mission Hill neighborhood. If all off-campus NU UGs are living legally (no more than 4 to a unit), that's 335 units of housing occupied by NU students. That's 335 families lost to the Mission Hill Community. That's 111 triple deckers in Mission Hill occupied by NU. To build a new unit of family housing costs approximately \$350,000. Multiple that by 335 units and you get over \$117 Million in

housing costs to the Mission Hill Community to build replacement units. Try as we might to create new housing affordable to families and elderly to replace the units now occupied by UGs, there simply are not the funds on the federal, state, or city level to replace the family and elderly housing lost to Northeastern University. Mitigation by Northeastern must include funds to increase supply of family housing in Mission Hill and the other Impacted Communities and funds to write down the costs of dorms to be economically attractive to students and their families.

#### Comment 24.12

##### **2. Economic Development, Procurement and Job Opportunities**

Construction and permanent hiring goals and w/mbe participation goals should be delineated in the Master Plan. Current procurement totals and numbers for local businesses should be provided along with goals for the Master Plan period. Northeastern's current employment figures by category and neighborhood should be provided along with quantifiable goals with a timetable for achieving additional hires from the Impacted Communities. Training commitments should also be spelled out.

The business entrepreneurship program and loan program for small businesses discussed at several NU Community Task Force meetings and put forth in the IMPNF also need further development and the commitments by Northeastern in these areas need to be quantified.

#### Comment 24.13

##### **3. Education**

Northeastern University should provide increased educational opportunities for the youth living in the nearby Impacted Communities. The Master Plan should include the number of scholarships NU provides to Boston Public School students yearly and by neighborhood and projections on a yearly basis for the duration of the Master Plan. An educational opportunities plan for adults in the Impacted Communities should also be delineated. Support for Community Based Organizations' out of school initiatives and college readiness programs in the Impacted Communities should be expanded with quantifiable commitments outlined in the Master Plan.

#### Comment 24.14

##### **4. Parcel 18 East**

Northeastern University has not met its obligation to create a hotel or other large economic benefit on the remainder of Parcel 18. More information should be provided on the status of this commitment to the Community and a timeline for achievement.

#### Comment 24.15

##### **5. Ongoing Community Task Force**

Implementation of NU's Community Benefits and the other commitments made in the NU Master Plan should be monitored within a process for ongoing dialogue between the Impacted Communities and the Institution. This could help to build a sustainable relationship between the Institution and the Community and possibly avoid the frustration with the deviations from the commitments made in the last NU Master Plan Amendments process. This on-going group should include the Community

Representatives from the neighborhoods who currently sit on the NU Community Task Force.

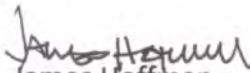
Comment 24.16


**6. Student Behavior and Interim Measures**

Mission Hill Neighborhood Housing Services strongly believes that student behavior off-campus should be the same as student behavior on campus. Our residential streets should be as quiet and clean as the campus quad and dorms and the behavior of Northeastern University students should be respectful – no matter the night or the time. The NU Master Plan should provide information on current supervision and disciplinary procedures in dormitories and off-campus. The NU Master Plan should include new initiatives that will mitigate current UG behavior on Mission Hill, specifically addressing vandalism, trash, public urination, public drinking and drunkenness, noise and the large numbers of students roaming the residential streets at night in search of parties.

We thank you in advance for your consideration of our concerns and hope they will be reflected in the Scoping Determination.

Sincerely,

  
James Hoffman  
Executive Director

  
Patricia Flaherty  
Senior Project Manager  
NU Community Task Force Member

Cc: Mayor Thomas Menino  
Director Peter Meade  
Congressman Michael Capuano  
State Senator Sonia Chang Diaz  
State Representative Jeffrey Sanchez  
Councilor Michael Ross  
Director Sheila Dillon, Department of Neighborhood Development  
Shaina Aubourg, Office of Neighborhood Services

# Comment Letter 25

Gainsborough Neighborhood Association  
295 Huntington Avenue Suite 307  
Boston, MA 02115

Gerald Autler, Senior Project Manager/Planner  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201

February 1, 2013

RE: Comments On Northeastern University IMPNF

Dear Gerald:

We have reviewed the current IMPNF submitted by Northeastern and discussed many of its provisions. Speaking for the 310 owners and taxpayers in the Gainsborough Neighborhood Association. From the neighborhood perspective, this document raises a number of serious issues, many of which have also been raised at Task Force meetings but have not, we feel, been given enough attention by Northeastern.

Our primary concern is the development of North Lot. While this parcel is owned by NU, it is an integral part of our residential neighborhood. It provides open space, air and light to all abutting residential buildings. Any development on this lot will impact the quality of life of all residential neighbors. Therefore any development should comply with all residential zoning for height and mass. The height and mass of building should be in character with other buildings in area.

Any building on the edge of Northeastern's campus should blend in its surroundings. Why should buildings at the edge of campus be eight to ten stories tall? Wind and shadow studies should be performed as to ensure a minimal impact to abutting buildings.

Contrary to what is said in the IMPNF, the proposed building does not provide a buffer nor does it conform to the height of the adjacent historic buildings. The proposal takes up the entire lot and is taller than four or five stories. This is double the height of the surrounding residential buildings.

Thanks for your consideration and we look forward to your response,

Sincerely,

Jeffrey Brody, President  
Gainsborough Neighborhood Association



**APPENDIX 3  
EXAMPLE OF IMP/DPIR PUBLIC NOTICE**

**PUBLIC NOTICE**

The Boston Redevelopment Authority (“BRA”), pursuant to Article 80 of the Boston Zoning Code, hereby gives notice that an Institutional Master Plan (“IMP”) / Draft Project Impact Report (“DPIR”) was submitted by the NAME OF INSTITUTION, on MONTH, DAY, AND YEAR. The NAME OF INSTITUTION IMP describes currently proposed institutional projects on the NAME OF INSTITUTION campus. The DPIR describes the design and impacts of the Proposed Project. DESCRIPTION OF IMP / DPIR. Approvals are required of the BRA pursuant Article 80 for the issuance of an Adequacy Determination / Preliminary Adequacy Determination by the Director of the BRA for the approval of the IMP/Project.

The IMP/DPIR may be reviewed at the Office of the Secretary of the BRA, Boston City Hall, Boston, Massachusetts 02210 between 9:00 a.m. and 5:00 p.m., Monday through Friday, except legal holidays. Copies may also be reviewed at LIBRARIES.

Public comments on the IMP/DPIR, including comments of public agencies, should be submitted to Mr. Gerald Autler, Senior Project Manager/Planner, BRA, at the address stated above or by email at [Gerald.Autler.BRA@cityofboston.gov](mailto:Gerald.Autler.BRA@cityofboston.gov) within \_\_\_\_\_ days of this notice or by \_\_\_\_\_, 20\_\_.

**BOSTON REDEVELOPMENT AUTHORITY**  
Brian Golden, Executive Directory/Secretary

**APPENDIX 4**  
**INSTITUTIONAL PARTNERSHIP PROGRAM**  
**DATA AND INFORMATION TEMPLATE**

**Boston Institutional Partnership Program**  
Data and Information Request (Brief Version)

Data Category and Description	Data
<p><b>Facilities</b></p> <ul style="list-style-type: none"> <li><b>Total acreage owned in Boston</b> <ul style="list-style-type: none"> <li>Tax-exempt</li> <li>Taxable</li> </ul> </li> <li><b>Total Gross Floor Area owned in Boston</b> <ul style="list-style-type: none"> <li>Tax-exempt</li> <li>Taxable</li> </ul> </li> <li><b>Total Gross Floor Area Leased in Boston</b></li> <li><b>Total Gross Floor Area proposed, under review, in construction</b></li> <li><b>New properties purchased or leased since previous update</b></li> </ul>	
<p><b>Student Population (as applicable)</b></p> <ul style="list-style-type: none"> <li><b>Undergraduate</b> <ul style="list-style-type: none"> <li>Part-time</li> <li>Full-time</li> </ul> </li> <li><b>Graduate</b> <ul style="list-style-type: none"> <li>Part-time</li> <li>Full-time</li> </ul> </li> <li><b>Post-doctoral</b></li> <li><b>Other (e.g. not in degree program)</b></li> </ul>	
<p><b>Patients (as applicable)</b></p> <ul style="list-style-type: none"> <li><b>Annual inpatient visits to Boston facilities</b></li> <li><b>Annual outpatient visits to Boston facilities</b></li> <li><b>Annual emergency room visits</b></li> </ul>	
<p><b>Employees</b></p> <ul style="list-style-type: none"> <li><b>Total employee count</b> <ul style="list-style-type: none"> <li>Staff (FTE)</li> <li>Faculty (FTE)</li> <li>Other (FTE)</li> <li>Number living in Boston (not FTE)</li> </ul> </li> </ul>	
<p><b>Financial Information</b></p> <ul style="list-style-type: none"> <li><b>Annual operating budget</b></li> <li><b>Property tax payments</b></li> <li><b>PILOT payments</b></li> <li><b>Other payments (fees and permits)</b></li> </ul>	
<p><b>Housing</b></p> <ul style="list-style-type: none"> <li><b>Student Housing (as applicable)</b> <ul style="list-style-type: none"> <li>Undergraduates housed by institution                             <ul style="list-style-type: none"> <li>Dormitory/apartment beds</li> <li>Leased housing</li> </ul> </li> <li>Graduate students housed by institution                             <ul style="list-style-type: none"> <li>Number living in owned housing</li> <li>Number living in leased housing</li> </ul> </li> </ul> </li> <li><b>Employee Housing</b> <ul style="list-style-type: none"> <li>Number of units owned by institution</li> <li>Number of units leased by institution</li> <li>Number of employees housed by institution</li> </ul> </li> </ul>	

**Boston Institutional Partnership Program**  
Data and Information Request (Brief Version)

<b>Data Category and Description</b>	<b>Data</b>
<p><b>Transportation</b></p> <p><b>Total Trip Generation by Mode</b> Drive alone Carpool Public transportation Walk Bicycle Other</p> <p><b>Parking Facilities</b> Number of surface spaces (owned and leased) Number of structured spaces (owned and leased) Applicable charges</p> <p><b>Transportation Demand Management Programs</b> T pass subsidies     Amount/percentage of subsidy     Number of passes subsidized Number of carpool parking spaces Number of bicycle spaces     Covered     Uncovered</p>	

**APPENDIX 5  
BICYCLE GUIDELINES**



# OFF-STREET BICYCLE PARKING GUIDELINES



## GUIDELINES AND APPLICATIONS

This policy is provided to encourage bicycling, promote physical exercise and reduce energy use and carbon emissions from personal-vehicle use in Boston.

The Guidelines are intended to facilitate adequate and secure short- and long-term bicycle parking for residents, workers in office and commercial buildings, students and staff in institutional buildings, and tourists. They will serve as a template for those building owners who would like to add parking facilities in existing structures and for all new buildings. The provision of parking facilities directly encourages people to use their bicycles as a means of transportation. More people are likely to bicycle if they are confident that they will find convenient and designated parking areas at their destinations.

The following Bicycle Parking Requirements are applicable for accommodating bicycles in all buildings in the City of Boston. They are required in all projects subject to Transportation Access Plan Agreements and Site Plan Review administered by the Boston Transportation Department, Article 80 Small and Large Project review and Zoning Board of Appeal permits. The Requirements set standards for bicycle parking, bike-share stations and shower facilities.

*Compliance to the requirements will be determined by the Director of Boston Bikes.*



All bicycle parking racks, signs, and secure bicycle parking areas installed per these requirements shall conform to **MTD** standards.

## REQUIREMENTS



### Sheltered, Indoor & Secure

Weather protected bicycle parking and shower facilities are appealing to cyclists, and is twice as likely to be used as unprotected parking options. Public bicycles are a mobility service, that remove the difficulties of daily cycling use including home parking, theft and maintenance of a private bicycle.

The following are *minimum* requirements according to building type. Exceeding these minimum requirements is encouraged but not required.

### One to Three-Unit Residential Buildings:

- One Secure/Covered bicycle parking space per unit located in an easily accessed basement storage area or adjacent / attached garage or shed.
- Shower / changing facilities as included in each residential unit.

### Multi-Unit Residential (4 or more units) Buildings:

- One Secure/Covered bicycle parking space per unit located in an easily accessed dedicated storage area.
- One Outdoor/Covered or Outdoor/Open parking space per five units with a minimum of 2 Outdoor/Covered or Outdoor/Open spaces per building.
- Shower / changing facilities as included in each residential unit.
- Provide at least one bike share station (standard size) for any residential building with 100 or more units. Bike share station requirements may be waived if another station is within 200 yards.



Bike-share Programs



### Office, Commercial & Industrial Buildings:

- One Secure/Covered parking space per worker for 10% of the planned part- and full-time worker occupancy (or 0.3 parking spaces per 1,000 square feet of development), but no fewer than 4 Secure/Covered parking spaces per building.
- One Outdoor/Covered or Outdoor/Open parking space for patrons and visitors for 2.5% of estimated daily building users but no fewer than 4 Outdoor/Covered or Outdoor/Open spaces per building.
- Provide at least one shower / changing facility for any building with 100 or more planned part- and full-time workers (or over 40,000 square feet of development) and one additional shower / changing facility per every 200 planned workers (or 80,000 square feet of development), thereafter. Shower / changing facility requirements may be met by providing the equivalent of free access to on-site health club shower facilities where health club can be accessed without going outside.
- Provide at least one bike share station (standard size) for any development with 100 or more planned worker occupancy (or 50,000 square feet of development). Bike share station requirements may be waived if another station is within 200 yards.

## Retail Buildings:

- One Secure/Covered bike parking space per worker for 10% of the planned part- and full-time worker occupancy (or 0.3 spaces for 1,000 square feet of development) but no fewer than 2 Secure/Covered parking spaces per building.
- One Outdoor/Covered or Outdoor/Open parking space for patrons and visitors per 5,000 square feet, but no less than 2 Outdoor/Covered or Outdoor/Open spaces per building.
- Provide at least one shower / changing facility for any development with 100 or more planned part- and full-time workers (or over 40,000 square feet of development) and one additional shower / changing facility per every 200 planned workers (or 80,000 square feet of development), thereafter. Shower / changing facility requirements may be met by providing the equivalent of free access to on-site health club shower facilities where health club can be accessed without going outside of buildings.
- Provide at least one bike share station (standard size) for any development over 50,000 square feet. Bike share station requirements may be waived if another station is within 200 yards.

## Institutional Building & Campus Dormitory Buildings:

- One Secure/Covered parking space per student and staff for 15% of the planned part- and full-time campus

wide occupancy (or 0.5 parking spaces per 1,000 square feet of development), but no fewer than 4 Secure/Covered parking spaces per building.

- One Outdoor/Covered or Outdoor/Open parking space for patrons and visitors for 5.0% of estimated daily building users but no fewer than 4 Outdoor/Covered or Outdoor/Open spaces per building.
- Provide at least one shower / changing facility for any campus building with 100 or more planned part- and full-time students and staff (or over 40,000 square feet of development) and one additional shower / changing facility per every 200 planned students and staff (or 80,000 square feet of development), thereafter. Shower / changing facility requirements may be met by providing the equivalent of free access to on-site health club or gym shower facilities where health club or gym can be accessed without going outside.
- Provide at least one bike share station (standard size) campus-wide or one share station per 50,000 square feet of development.
- One Secure/Covered parking space per every two beds in a Dormitory building where such parking spaces



One space:  
15% of planned  
institutional  
population

may not be counted in the campus wide total.

## Mixed- Use Buildings:

- Provide facilities proportional to the mix of uses using the above requirements.
- Shared facilities may be provided for non-residential uses mixed within a single building or for non-residential uses within a single development that is under 50,000 square feet.

Specific requirements for unique uses such as senior or assisted living facilities, movie theaters, sports arena or conference venues will be determined on a case-by-case basis. Special provisions such as bicycle valet parking for single events such as concerts may be required.

## Artistic, on-street & innovative design





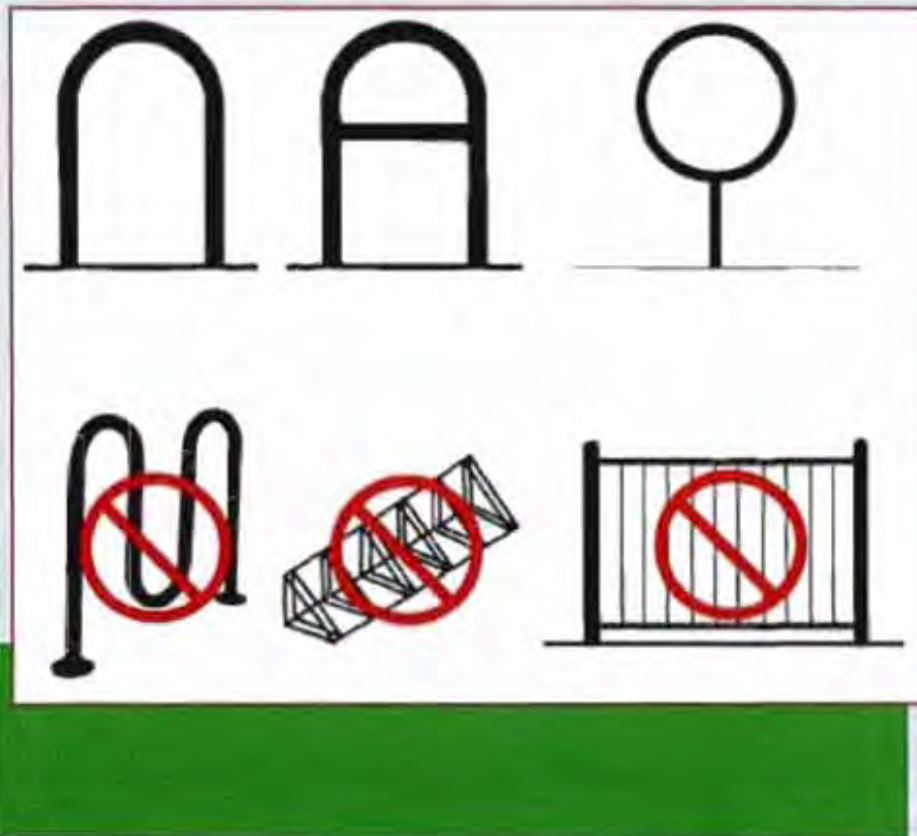
## BIKE PARKING DESIGN

1. Acceptable bike rack designs must have a two point support system for easy access and locking of frame and wheels. The designs must present no sharp edges to pedestrians.
2. Developers are encouraged, but not required to use either a black-powder coated hitch style rack, or an artistic style rack to match City of Boston preferred designs.
3. All racks and other fixtures must be securely affixed to the ground or a building.
4. Areas used for bicycle parking should be secure, well-maintained, well-lighted and easily accessible to bicycle riders.

5. No bicycle parking areas should impede sidewalk or pedestrian traffic.

Designs that do not provide two-point supports for bicycles create unfit sidewalk conditions. Bicycles can fall over easily and become damaged, or hang out into the pedestrian right-of-way. Older tire racks are not functional and do not provide full support. Single post designs with sharp edges can also be hazardous to pedestrians with visual disabilities. Racks with one point of contact, like hitch racks need to be in-ground mounted.

Examples of recommended racks include: hitch rack, upside down U rack and multiple bike racks, pictured below.



### Accessible, Indoor & Secure

Accessible bike parking encourages daily use with well-maintained and well-lit easy access for riders. Converting on-street car parking to creative bike parking can accommodate up to eight bicycles, and encourage people to use their bikes for shopping and running errands-not just commuting.



## BIKE PARKING LOCATION, SIGNAGE AND SPECIFICATIONS

Retail establishments shall have Outdoor/Covered or Outdoor/Open facilities within 50 feet of the primary entrance(s). Racks must be 4-5ft away from hydrants & other street furniture

No bicycle parking shall be located farther from the entrance of a building than the closest automobile parking space (to include accessible parking spaces).



Prominently placed signs should be within 50ft of parking & immediately visible. Signs must direct users to all secure/covered or outdoor/covered facilities that are not immediately visible from the street.



All bicycle parking shall be separated by a physical barrier/parallel to curb or sufficient distance from car parking and vehicular traffic to protect parked bicycles from damage.





Outdoor/On-street



Covered/Secure



Secure/Valet



Outdoor/On-street

## DEFINITIONS

- **Secure/Covered facilities** are defined as bicycle parking areas that protect the entire bicycle, its components and accessories against theft and against inclement weather, including wind-driven rain. Examples include but are not limited to: indoor bike room, indoor storage area, bike lockers, indoor or outdoor bike valet parking with weather protective cover and siding, areas with security camera linked to live viewers, and/or key access-covered cages with weather-protective siding.
- **Outdoor/Covered facilities** are defined as bicycle parking areas that provide some protection against inclement weather and may have added theft security. Covers include but are not limited to a building projection, an awning or tented roof. Siding is not required. Racks associated with covers will allow

the user to lock the bicycle frame and one wheel while the bicycle is supported in a stable position.

SPECIFIC  
REQUIREMENTS  
FOR  
UNIQUE USES MAY  
BE REQUIRED

- **Outdoor/Open facilities** are defined as bicycle parking areas that permit the locking of the bicycle frame and one wheel to a bicycle rack and which supports the bicycle in a stable position without damage to wheels, frame or components. Cover and/or security enhancements are not provided.
- **Bicycle parking spaces** refers to the number of bicycles that can be accommodated by the bicycle racks or facility, as defined by the users manual for the rack or facility referenced. For the remainder of this document, guidelines refer to spaces, or number of bicycles for which the facility is designed to accommodate.



## CITY OF BOSTON

1 City Hall Plaza, Rm 632  
Boston, MA 02111  
617.916.4456



## **Appendix B**

### **Northeastern University - Facilities Data Matrix, October 1, 2012**

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Northeastern University - Facilities Data Matrix

Issue Date 10-01-12

Building Name	Code	Official Street Address	Year Built	Year Acquired	Year Major Renovation	Below	Above	Penthouse Levels	Gross SF	Owned or Leased	Primary Building Use
<b><u>Academic &amp; Administrative Facilities</u></b>											
177 Huntington Avenue	177	177 Huntington Avenue	1974	2010		0	2	0	17,185 sf	Leased	Administrative
236 Huntington Avenue	236	236 Huntington Avenue	Unknown	2012	2012	0	1	0	5,077 sf	Leased	Administrative
335A Huntington Avenue (portion of bldg)	335	335A Huntington Avenue	Unknown	2000	2000	1	0	0	8,505 sf	Leased	Student Services
34 Beacon Street	34	34 Beacon Street, Boston, MA	1825	2006	2000	1	5	0	11,056 sf	Owned	Residence & Event Space
Asian American Center	AC	109 Hemenway Street	1898	2005		1	3	0	4,646 sf	Owned	Student Services
Warehouse	AT	NA	Unknown	Unknown		1	4	0	140,197 sf	Owned	Warehouse
Behrakis Health Sciences Center	BK	30 Leon Street	2002	NU Built		1	7	1	123,122 sf	Owned	Classroom/Admin.
Belvidere	BV	101 Belvidere Street	1974	2008	2005	0	4	0	69,911 sf	Leased	Academic/Administrative
Cahners Hall	CA	110 The Fenway	1957	1965		1	2	0	14,912 sf	Owned	Classroom/Admin.
Cargill Hall	CG	45 Forsyth Street	1982	NU Built		1	0	0	28,378 sf	Owned	Classroom/Admin.
Churchill Hall	CH	380 Huntington Avenue	1959	NU Built		1	4	1	56,277 sf	Owned	Classroom/Admin.
Cullinane Hall	CN	288 St Botolph Street	1911	1930	1986	1	2	0	28,043 sf	Owned	Administrative
Columbus Place	CP	716 Columbus Avenue	1910	1984	1995	1	6	0	124,192 sf	Owned	Administrative
Curry Student Center	CSC	346 Huntington Avenue	1964	NU Built	1994	1	5	0	167,573 sf	Owned	Student Services
Cushing Hall	CU	102 The Fenway	1910	1966		1	4	0	25,902 sf	Owned	Administrative
Dana Research Center	DA	110 Forsyth Street	1966	NU Built		1	5	0	71,374 sf	Owned	Research/Classroom
Dodge Hall	DG	324 Huntington Avenue	1952	NU Built	1993	1	4	1	85,826 sf	Owned	Classroom/Admin.
Dockser Hall	DK	65 Forsyth Street	1968	NU Built	2008	1	4	0	63,383 sf	Owned	Classroom/Admin.
Egan Center	EC	120 Forsyth Street	1996	NU Built		1	3	2	116,648 sf	Owned	Research
Ell Hall	EL	346 Huntington Avenue	1947	NU Built		1	4	1	88,368 sf	Owned	Classroom/Admin.
Fenway Center	FC	77 St Stephen Street	1898	2005		1	1	0	18,026 sf	Owned	Student Services
Forsyth Building	FR	70 Forsyth Street	1926	1949		1	2	1	87,454 sf	Owned	Classroom/Admin.
Hayden Hall	HA	370 Huntington Avenue	1956	NU Built		1	5	0	110,515 sf	Owned	Classroom/Admin.
Hillel-Frager House	HF	70 St Stephen Street	Unknown	Unknown		1	3	0	7,370 sf	Owned	Student Services
Holmes Hall	HO	39-41 Leon Street	1910	1961		1	5	0	73,758 sf	Owned	Administrative
Hurtig Hall	HT	334 Huntington Avenue	1968	NU Built		1	4	1	82,160 sf	Owned	Research/Classroom
International Village - Office Building	INVO	1155-1175 Tremont Street	2009	NU Built		0	5	0	35,615 sf	Owned	Academic/Administrative
Kariotis Hall	KA	55 Forsyth Street	1982	NU Built		1	3	0	14,987 sf	Owned	Classroom
Knowles Center	KN	416 Huntington Avenue	1961	NU Built	1990	1	4	1	61,112 sf	Owned	Classroom/Library
Lake Hall	LA	43 Leon Street	1910	1961		1	5	1	54,883 sf	Owned	Administrative
Latino Center	LT	104 Forsyth Street	1922	1963	1998	1	2	0	3,418 sf	Owned	Student Services
Meserve Hall	ME	35-37 Leon Street	1893	1961		1	4	0	33,101 sf	Owned	Administrative
Mugar Life Science Bldg	MU	330 Huntington Avenue	1941	NU Built		1	4	1	136,321 sf	Owned	Research/Classroom
Nightingale Hall	NI	105-107 Forsyth Street	1911	1961		1	5	0	65,110 sf	Owned	Administrative
Power Plant	PP	111 Forsyth Street	1910	1961		0	1	0	6,815 sf	Owned	Mechanical Facility
Robinson Hall	RB	336 Huntington Avenue	1965	NU Built		1	4	1	53,286 sf	Owned	Classroom/Admin.
Architecture Studios (portion of building)	RG	(Not Assigned)	1985	2000	2000	0	1	0	21,054 sf	Leased	Academic
Richards Hall	RI	360 Huntington Avenue	1938	NU Built		1	5	0	113,827 sf	Owned	Classroom/Admin.
Renaissance Building	RP	1135 Tremont Street	1994	1997		0	9	1	164,591 sf	Owned	Commercial/Leased out
Ryder Hall	RY	11 Leon Street	1913	1976	1986	0	4	0	114,329 sf	Owned	Classroom/Admin.
Shillman Hall	SH	115 Forsyth Street	1995	NU Built		0	4	0	49,304 sf	Owned	Classroom
Snell Library	SL	376 Huntington Avenue	1988	NU Built		1	4	1	245,993 sf	Owned	Library/Classroom
Snell Engineering Center	SN	110 Forsyth Street	1984	NU Built		1	4	1	85,980 sf	Owned	Classroom/Admin.
Stearns Hall	ST	420 Huntington Avenue	1976	NU Built		1	5	0	32,515 sf	Owned	Administrative
140 The Fenway	TF	140 The Fenway	1912,59,69	2010		2	4	0	148,145 sf	Leased	Academic
Tunnels (connecting segments only)	TN	NA	Various	NU Built		1	0	0	7,089 sf	Owned	Circulation
Boston YMCA	YMC	Huntington Avenue	1912	2009	2009,12	2	6	0	81,833 sf	Owned	Classroom
<b>Sub-total Academic Facilities</b>					<b>47 buildings</b>		<b>227</b>		<b>3,159,167 sf</b>		

**Northeastern University - Facilities Data Matrix**

Issue Date 10-01-12

Building Name	Code	Official Street Address	Year Built	Year Acquired	Year Major Renovation	Below	Above	Penthouse Levels	Gross SF	Owned or Leased	Primary Building Use
<b>Residence Facilities</b>											
106 St. Stephen Street	106	106 St. Stephen Street	1923	1975 (leased 1966)		1	4	0	17,529 sf	Owned	Residence Facility
110 St. Stephen Street	110	110 St. Stephen Street	1923	1975 (leased 1966)		1	4	0	17,590 sf	Owned	Residence Facility
116 St. Stephen Street	116	116 St. Stephen Street	1923	1975 (leased 1966)		1	4	0	17,567 sf	Owned	Residence Facility
122 St. Stephen Street (Levine Hall)	122	122 St. Stephen Street	1923	1975 (leased 1966)		1	4	0	17,534 sf	Owned	Residence Facility
142 Hemenway Street	142	142 Hemenway Street	1896	1961		1	5	0	10,142 sf	Owned	Community Apartments
144 Hemenway Street	144	144 Hemenway Street	1896	1961		1	5	0	8,012 sf	Owned	Residence Facility
146 Hemenway Street	146	146 Hemenway Street	1896	1961		1	5	0	8,036 sf	Owned	Community Apartments
148 Hemenway Street	148	148 Hemenway Street	1896	1961		1	5	0	8,787 sf	Owned	Community Apartments
319 Huntington Ave.	319	319 Huntington Avenue	c 1916	1982		1	5	0	31,320 sf	Owned	Residence Facility
337 Huntington Ave.	337	337 Huntington Avenue	1923	1982		1	5	0	50,014 sf	Owned	Residence Facility
407 Huntington Ave.	407	407 Huntington Avenue	1922	1969		1	5	0	29,921 sf	Owned	Residence Facility
Rubenstein Hall	464	464 Huntington Avenue	1924	1977		1	5	0	29,591 sf	Owned	Residence Facility
768 Columbus Avenue	768	768 Columbus Avenue	1914	1999		1	4	0	11,317 sf	Owned	Residence Facility
780 Columbus Avenue	780	780 Columbus Avenue	1912	Unknown	2001	1	5	1	40,273 sf	Owned	Residence Facility
Burstein Hall	BU	454-458-460 Huntington Ave	1927	Unknown	1984	1	4	0	51,715 sf	Owned	Residence Facility
10 Coventry Street	CV	10 Coventry Street	2004	2004		2	6	1	69,739 sf	Owned	Residence Facility
Davenport Commons A	DCA	700 Columbus Avenue	2001	2001		0	6	1	122,719 sf	Leased	Residence Facility
Davenport Commons B	DCB	696 Columbus Avenue	2001	2001		0	6	1	76,325 sf	Leased	Residence Facility
International Village - Residence	INV	1155-1175 Tremont Street	2009	NU Built		2	22	2	459,753 sf	Owned	Residence Facility/Academic
Kennedy Hall	KDY	115-119 Hemenway Street	1911	1979 (leased 1965)		1	5	0	48,084 sf	Owned	Residence Facility
Kerr Hall	KH	96 The Fenway	1913	1973		1	6	0	28,023 sf	Owned	Residence Facility
Loftman Hall (& 153 Hemenway Street)	LF	163, 157, 153 Hemenway Street	1909	1976-78		1	4	0	53,545 sf	Owned	Residence Facility
Light Hall	LH	81-83 St. Stephen Street	1892	1965		1	3	0	15,724 sf	Owned	Residence Facility
Melvin Hall	MH	90 The Fenway	1913	1965		1	5	0	30,455 sf	Owned	Residence Facility
Stetson East	SE	11 Speare Place	1967	NU Built		1	4	1	70,450 sf	Owned	Residence Facility
Smith Hall	SM	125,129,131 Hemenway Street	1902	1965	2007	1	3	0	59,225 sf	Owned	Residence Facility
Speare Hall	SP	10 Speare Place	1964	NU Built		1	4	1	98,710 sf	Owned	Residence Facility
Stetson West	SW	10 Forsyth Street	1966	NU Built		1	4	1	120,208 sf	Owned	Residence Facility
White Hall	WH	19-21-23 Forsyth Street	1925	1961		1	5	0	89,378 sf	Owned	Residence Facility
Willis Hall	WI	50 Leon Street	1979	NU Built		1	10	0	113,230 sf	Owned	Residence Facility
West Village A	WVA	500-510 Parker Street	1999	NU Built		1	13	2	225,327 sf	Owned	Residence Facility
West Village B	WVB	460 Parker Street (rear)	2000	NU Built		0	7	0	90,039 sf	Owned	Residence Facility
West Village C	WVC	480 Parker Street (rear)	2000	NU Built		0	7	0	92,569 sf	Owned	Residence Facility
West Village E	WVE	10-20 Leon Street	2002	NU Built		0	8	1	119,045 sf	Owned	Residence Facility
West Village F (& O'Bryant Center)	WVF	40 Leon Street	2006	NU Built		2	7	0	142,371 sf	Owned	Residence Facility/Academic
West Village G	WVG	450 Parker Street	2004	NU Built		0	6	0	133,981 sf	Owned	Residence Facility/Academic
West Village H	WVH	440 Huntington Avenue	2004	NU Built		0	16	2	161,268 sf	Owned	Residence Facility/Academic
<b>Sub-total Residence Facilities</b>					<b>37 buildings</b>		<b>273</b>		<b>2,769,518 sf</b>		

**Northeastern University - Facilities Data Matrix**

Issue Date 10-01-12

Building Name	Code	Official Street Address	Year Built	Year Acquired	Year Major Renovation	Below	Above	Penthouse Levels	Gross SF	Owned or Leased	Primary Building Use
<b><u>Athletic &amp; Recreation Facilities</u></b>											
Cabot Center (& Barletta Natatorium)	CB	400 Huntington Avenue	1954	NU Built		1	2	0	144,146 sf	Owned	Athletic Facility
Henderson Boathouse	HBH	1345 Soldiers Field Road, Brighton	1989	NU Built		0	2	0	17,663 sf	Owned	Athletic Facility
Matthews Arena	MA	238-262 St. Botolph Street	1906	1980		1	2	0	156,860 sf	Owned	Athletic Facility
Marino Recreation Center	MC	359-369 Huntington Avenue	1996	NU Built		0	3	0	82,763 sf	Owned	Athletic Facility
Parsons Field Dugout - 1st Base	PF-D1	186 Kent Street, Brookline	Unknown	Unknown		0	1	0	323 sf	Owned	Athletic Facility
Parsons Field Dugout - 3rd Base	PF-D3	186 Kent Street, Brookline	Unknown	Unknown		0	1	0	433 sf	Owned	Athletic Facility
Parsons Field Press Box	PF-PB	186 Kent Street, Brookline	Unknown	Unknown		0	2	0	1,013 sf	Owned	Athletic Facility
Parsons Field Storage Facility	PFG	186 Kent Street, Brookline	Unknown	Unknown		0	1	0	1,366 sf	Owned	Storage Facility
Parsons Field House	PFH	186 Kent Street, Brookline	Unknown	Unknown		0	2	0	9,402 sf	Owned	Athletic Facility
Badger & Rosen Squashbusters Center	SB	795A Columbus Avenue	2003	NU Built		0	4	0	38,498 sf	Owned	Athletic Facility
<b>Sub-total Athletic/Recreation Facilities</b>					<b>10 buildings</b>		<b>22</b>		<b>452,467 sf</b>		
<b>Sub-total Academic, Residential &amp; Athletic/Recreation Facilities</b>					<b>94 buildings</b>		<b>522</b>		<b>6,381,152 sf</b>		

<b><u>Parking Structures</u></b>											
Columbus Parking Garage	CPG	795 Columbus Avenue	1986	NU Built		0	7	0	327,931 sf	Owned	Parking Facility
Gainsborough Garage	GG	10 Gainsborough Street	1918	2000		1	3	0	198,897 sf	Owned	Parking Facility
Renaissance Park Garage	RPG	835 Columbus Avenue	2000	NU Built		0	10	0	337,574 sf	Owned	Parking Facility
West Village Garage	WPG	10-20 Leon Street	2002	NU Built		1	2	0	102,743 sf	Owned	Parking Facility
<b>Sub-total Parking Facilities</b>					<b>4 buildings</b>		<b>24</b>		<b>967,145 sf</b>		
<b>Total All Boston Campus Facilities</b>					<b>98 buildings</b>		<b>546</b>		<b>7,348,297 sf</b>	<b>58.40 acres</b>	

<b><u>Surface Parking Lots</u></b>	<b><u>Acres</u></b>
Arena Parking Area	0.83 acres
Camden Parking Area	1.56 acres
Columbus Parking Area	3.82 acres
Columbus Place Parking Area	0.50 acres
Hurtig Parking Area	0.39 acres
North Parking Area	1.95 acres
Ryder Parking Area	0.40 acres
	8.63 acres

Acreage calculations for parking areas are approximate.

<b><u>Property Without Buildings or Parking Lots</u></b>	<b><u>Land size</u></b>
78 The Fenway (property at or about)	0.11 acres
790 Columbus (property at or about)	0.06 acres
	0.17 acres

**Boston Campus Acreage 67.21 acres**  
**Boathouse Property 0.30 acres**  
**Parsons Field Property 5.52 acres**  
**Total All Boston Campus Acreage 73.03 acres**

Building Name	Code	Official Street Address	Year Built	Year Acquired	Year Major Renovation	Below	Above	Penthouse Levels	Gross SF	Owned or Leased	Primary Building Use
<b>Satellite Facilities</b>											
<b>Charlotte Campus</b>											
Facilities acquires 2010											
NU Charlotte - Independence Center	CLT	Charlotte, North Carolina		2010		0	2	0	12,271 sf	Leased	Classroom/Admin
<b>Sub-total Charlotte Facilities</b>					<b>1 buildings</b>		<b>2</b>		<b>12,271 sf</b>	<b>0.00 acres</b>	
<b>Burlington Campus</b>											
Land acquired 1964											
Library (former)	BFL	145 South Bedford Street, Burlington	1964			0	1	0	12,943 sf	Owned	Library
Elliot Hall	BL	145 South Bedford Street, Burlington	1964	NU Built		0	2	0	46,989 sf	Owned	Classroom/Admin
Burlington Maintenance Shed	BL-MS	145 South Bedford Street, Burlington				0	1	0	738 sf	Owned	Maintenance
Kostas Research Institute	KI	141 South Bedford Street, Burlington	2011	NU Built		0	3	0	70,266 sf	Owned	Research Facility
SDC Building	SDC	145 South Bedford Street, Burlington	1964			0	1	0	1,398 sf	Owned	Maintenance
<b>Sub-total Burlington Facilities</b>					<b>5 buildings</b>		<b>8</b>		<b>132,334 sf</b>	<b>14.26 acres</b>	
<b>Dedham Campus</b>											
Land and facilities acquired in 1983											
Barletta Hall	DC	370 Common Street, Dedham, MA		1983	1986	1	3	0	36,837 sf	Owned	Classroom/Admin
Barn	DC-B	370 Common Street, Dedham, MA	Unknown	1983		0	1	0	1,483 sf	Owned	Maintenance
<b>Sub-total Dedham Facilities</b>					<b>2 buildings</b>		<b>5</b>		<b>38,320 sf</b>	<b>20.17 acres</b>	
<b>Downtown - Batterymarch Conference Center</b>											
Conference Center & Classrooms	BM	89 Broad Street, Boston, MA	Unknown	1994	1994	0	2	0	27,620 sf	Leased	Classroom & Conference
<b>Sub-total Batterymarch Conference Center</b>					<b>1 building</b>		<b>2</b>		<b>27,620 sf</b>	<b>0.00 acres</b>	
<b>Nahant - Marine Science Center</b>											
Land acquired 1966											
Edwards Hall	MSC	East Point, Nahant				0	1	0	14,866 sf	Owned	Classroom/Admin
Murphy Bunker	GN	East Point, Nahant				0	1	0	28,710 sf	Owned	Research Facility
<b>Sub-total Marine Science Center Facilities</b>					<b>2 buildings</b>		<b>2</b>		<b>43,576 sf</b>	<b>21.00 acres</b>	
<b>Seattle Campus</b>											
Seattle Graduate Campus	SEA	401 Terry Avenue, Seattle WA				0	1	0	0 sf	Leased	Classroom/Admin
<b>Sub-total Seattle Facilities</b>					<b>1 building</b>		<b>1</b>		<b>0 sf</b>	<b>0.00 acres</b>	
<b>Weston - Henderson House</b>											
Henderson House	HH	West Cliff Road, Weston, MA				0	4	0	23,133 sf	Owned	Conference Facility
<b>Sub-total Henderson House Facilities</b>					<b>1 building</b>		<b>4</b>		<b>23,133 sf</b>	<b>5.60 acres</b>	
<b>The Warren Conference Center &amp; Inn</b>											
Hayden Lodge	WC-HL	529 Chestnut Street, Ashland, MA		1965		1	2	0	14,497 sf	Owned	Conference Center
The Inn	WC-IN	529 Chestnut Street, Ashland, MA	1999	NU Built		1	2	0	34,403 sf	Owned	Overnight Accommodations
Warren House	WC-WH	529 Chestnut Street, Ashland, MA		1965		1	3	0	13,939 sf	Owned	Conference Center
Northern Lodge	WC-NL	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,623 sf	Owned	Overnight Accommodations
Cabin 1	WC-C1	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,391 sf	Owned	Overnight Accommodations
Cabin 2	WC-C2	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,391 sf	Owned	Overnight Accommodations
Cabin 3	WC-C3	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,391 sf	Owned	Overnight Accommodations
Cabin 4	WC-C4	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,391 sf	Owned	Overnight Accommodations
Cabin 5	WC-C5	529 Chestnut Street, Ashland, MA		1965		0	1	0	1,391 sf	Owned	Overnight Accommodations
Carriage House	WC-CH	529 Chestnut Street, Ashland, MA		1965		0	2	0	2,544 sf	Owned	Storage Facility
Barn	WC-BN	529 Chestnut Street, Ashland, MA		1965		0	3	0	7,775 sf	Owned	Storage Facility
Restroom Building	WC-TO	529 Chestnut Street, Ashland, MA		1965		0	1	0	648 sf	Owned	Restroom Facility
<b>Sub-total Ashland Facilities</b>					<b>12 buildings</b>		<b>22</b>		<b>82,384 sf</b>	<b>140.00 acres</b>	
<b>Sub-total Satellite Facilities</b>					<b>25 buildings</b>		<b>45</b>		<b>359,638 sf</b>	<b>201.03 acres</b>	
<b>Grand Total All Northeastern Facilities</b>					<b>123 buildings</b>		<b>591</b>		<b>7,707,934 sf</b>	<b>274.06 acres</b>	
<b>Other Properties</b>											
1A Joy Street	1A	1A Joy Street, Boston, MA	1825	2007	2000	0	1	0	2,001 sf	Owned	Leased Condominium
St. Botolph Terrace	SBT	Massachusetts Ave, Boston, MA		2008		1	4	0		Owned	Long Term Lease Agreement
Holliston Property		Holliston, MA		2006		-	NA	-	NA	Owned	Land
<b>Sub-total Other Properties</b>					<b>3 buildings</b>		<b>6</b>		<b>2,001 sf</b>	<b>35.00 acres</b>	
<b>Wing's Neck</b>											
Robinson House	WN-RH	Wing's Neck Road, Bourne, MA				0	3	0	5,372 sf	Owned	Conference Facility
Cottage & Shed	WN-CT	Wing's Neck Road, Bourne, MA				0	1	0	238 sf	Owned	Conference Facility
Garage	WN-GR	Wing's Neck Road, Bourne, MA				0	1	0	210 sf	Owned	Maintenance Facility
<b>Sub-total Wing's Neck Facilities</b>					<b>3 buildings</b>		<b>5</b>		<b>5,820 sf</b>	<b>6.30 acres</b>	
<b>Sub-total Other Facilities</b>					<b>6 buildings</b>		<b>11</b>		<b>7,821 sf</b>	<b>41.30 acres</b>	
<b>Grand Total All Northeastern Facilities &amp; Other Properties</b>					<b>129 buildings</b>		<b>602</b>		<b>7,715,755 sf</b>	<b>315.36 acres</b>	



**Appendix C**  
**Northeastern Urban Design Principles by Campus Precinct**

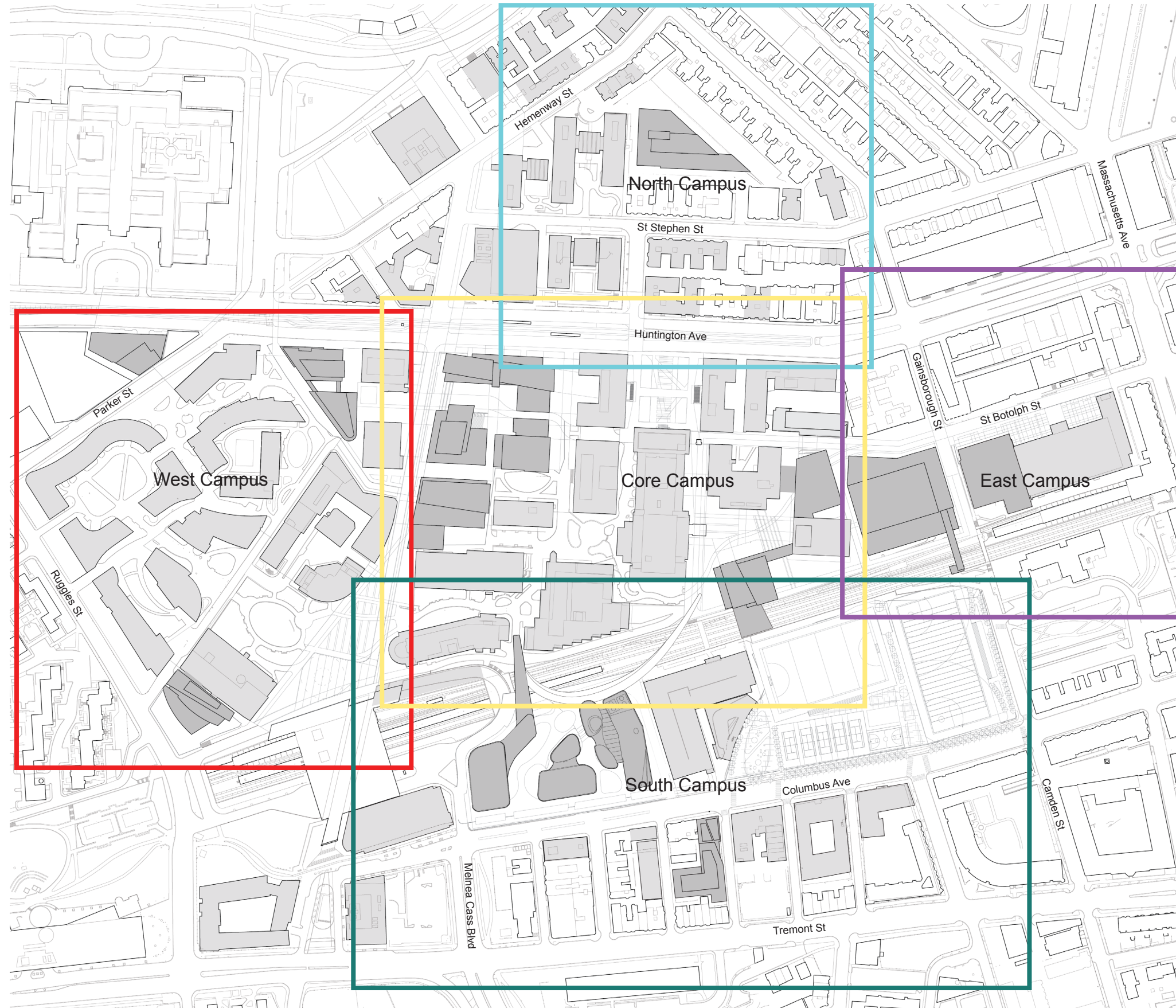
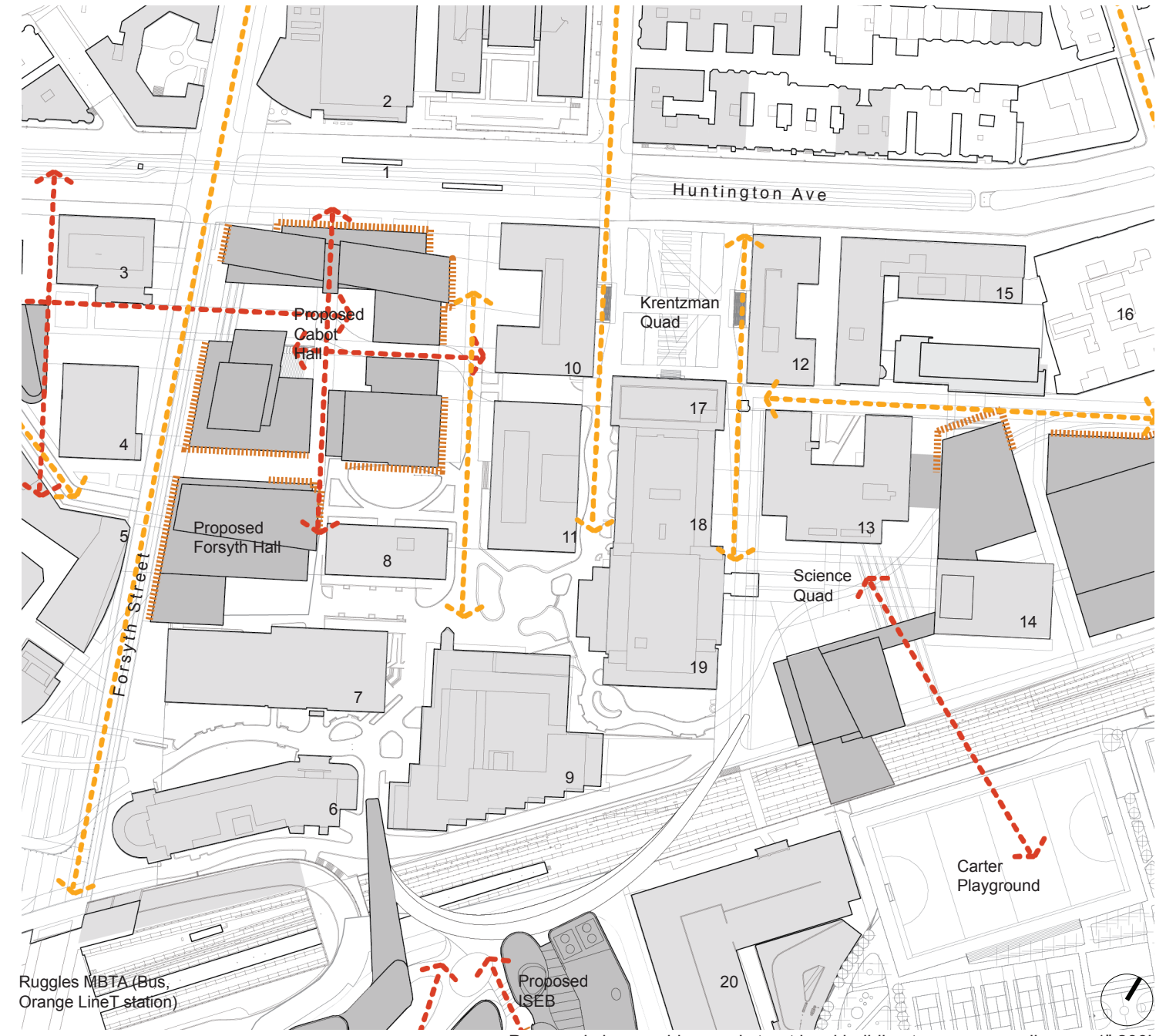


Figure C-1.  
Campus Precincts



Proposed Site Plan 1":200'

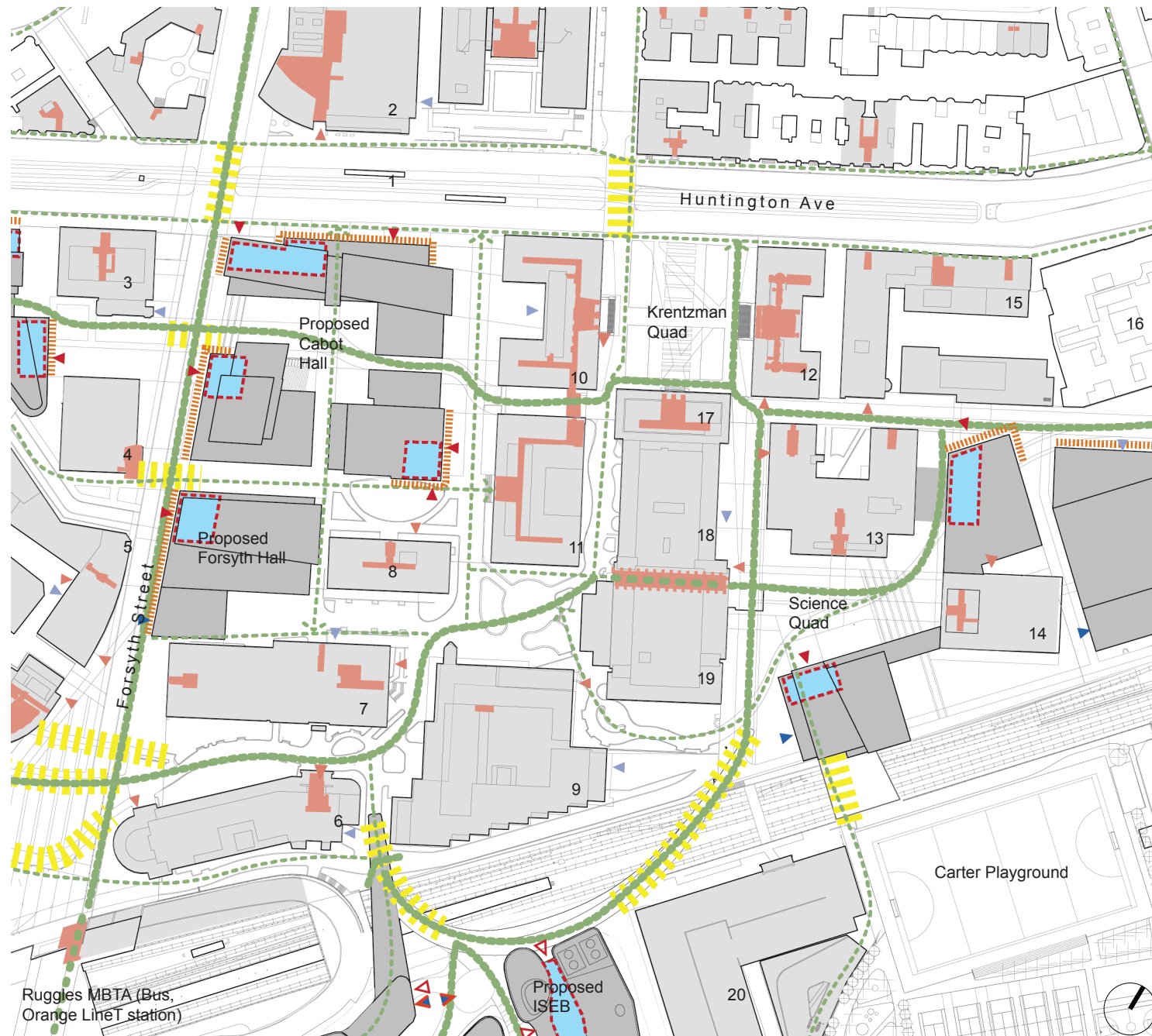


Proposed view corridors and street level building transparency diagram 1":200'

- |                                       |  |
|---------------------------------------|--|
| 1 Northeastern T station (Green Line) | 11 Hayden Hall                           |
| 2 Marino Center                       | 12 Dodge Hall                            |
| 3 Knowles Center                      | 13 Mugar Life Sciences                   |
| 4 Dockser Hall                        | 14 Hurtig Hall                           |
| 5 Lake Hall                           | 15 Huntington Avenue YMCA                |
| 6 Dana Research Center                | 16 New England Conservatory/ Jordan Hall |
| 7 Snell Engineering Center            | 17 Ell Hall                              |
| 8 Churchill Hall                      | 18 Blackman Auditorium                   |
| 9 Snell Library                       | 19 Curry Student Center                  |
| 10 Richards Hall                      | 20 Columbus Garage                       |

- Active Street Frontage
- Proposed View Corridor
- New View Corridor

**Figure C-2.**  
**Core Campus**

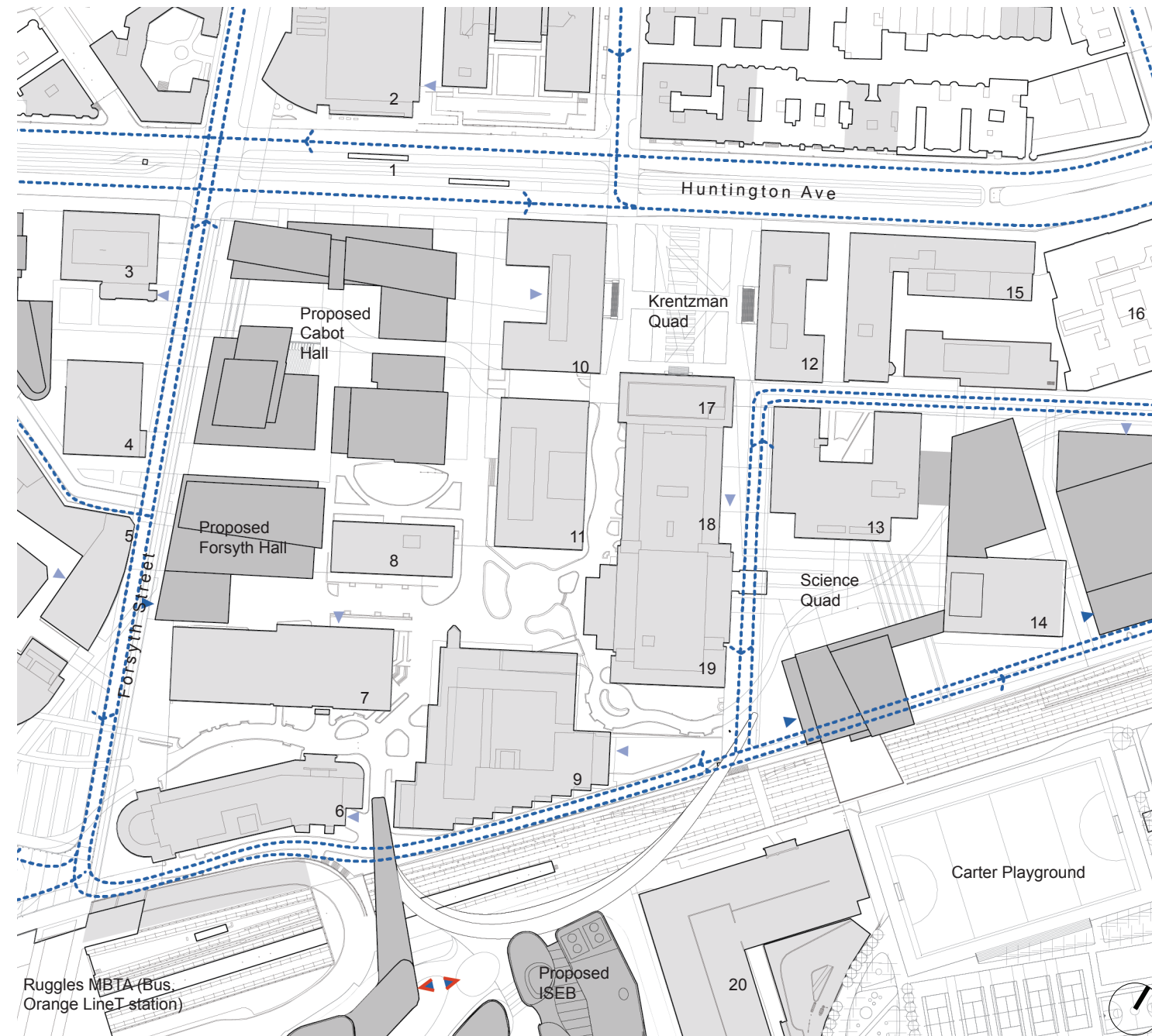


Proposed Pedestrian Circulation Diagram 1":200'

- |                                       |   |
|---------------------------------------|---|
| 1 Northeastern T station (Green Line) | 11 Hayden Hall                            |
| 2 Marino Center                       | 12 Dodge Hall                             |
| 3 Knowles Center                      | 13 Mugar Life Sciences                    |
| 4 Dockser Hall                        | 14 Hurtig Hall                            |
| 5 Lake Hall                           | 15 Huntington Avenue YMCA                 |
| 6 Dana Research Center                | 16 New England Conservatory / Jordan Hall |
| 7 Snell Engineering Center            | 17 Ell Hall                               |
| 8 Churchill Hall                      | 18 Blackman Auditorium                    |
| 9 Snell Library                       | 19 Curry Student Center                   |
| 10 Richards Hall                      | 20 Columbus Garage                        |

**Key**

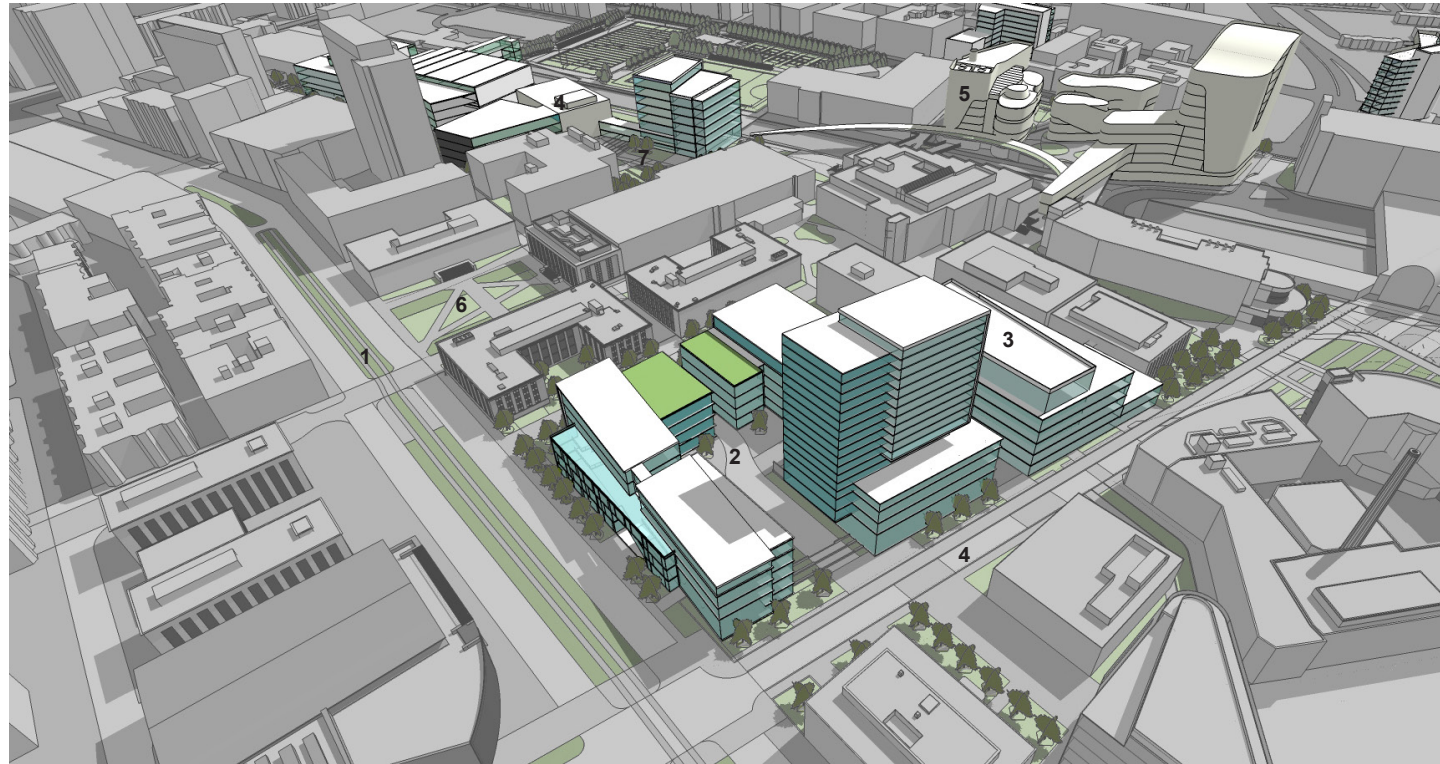
- Enhanced pedestrian crossing
- Primary pedestrian route
- Secondary pedestrian route
- Accessible entrance to existing buildings
- Main entrance to proposed buildings
- Secondary entrance to proposed buildings
- Existing buildings' entrance spaces
- Proposed buildings' entrance spaces



Proposed vehicle circulation diagram 1":200'

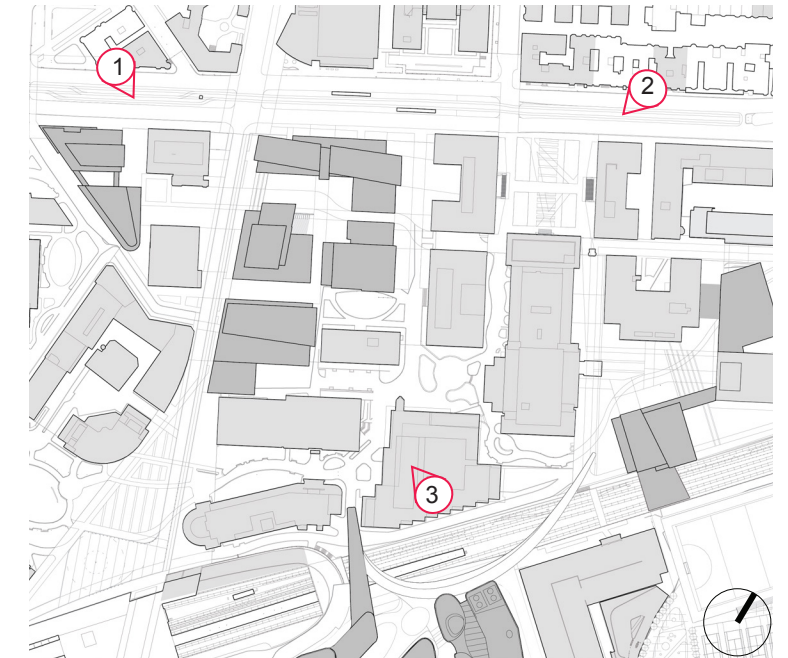
**Key**

- Primary vehicle route
- Proposed loading bay entrance
- Proposed entrance to below grade structured parking
- Existing loading bay entrance

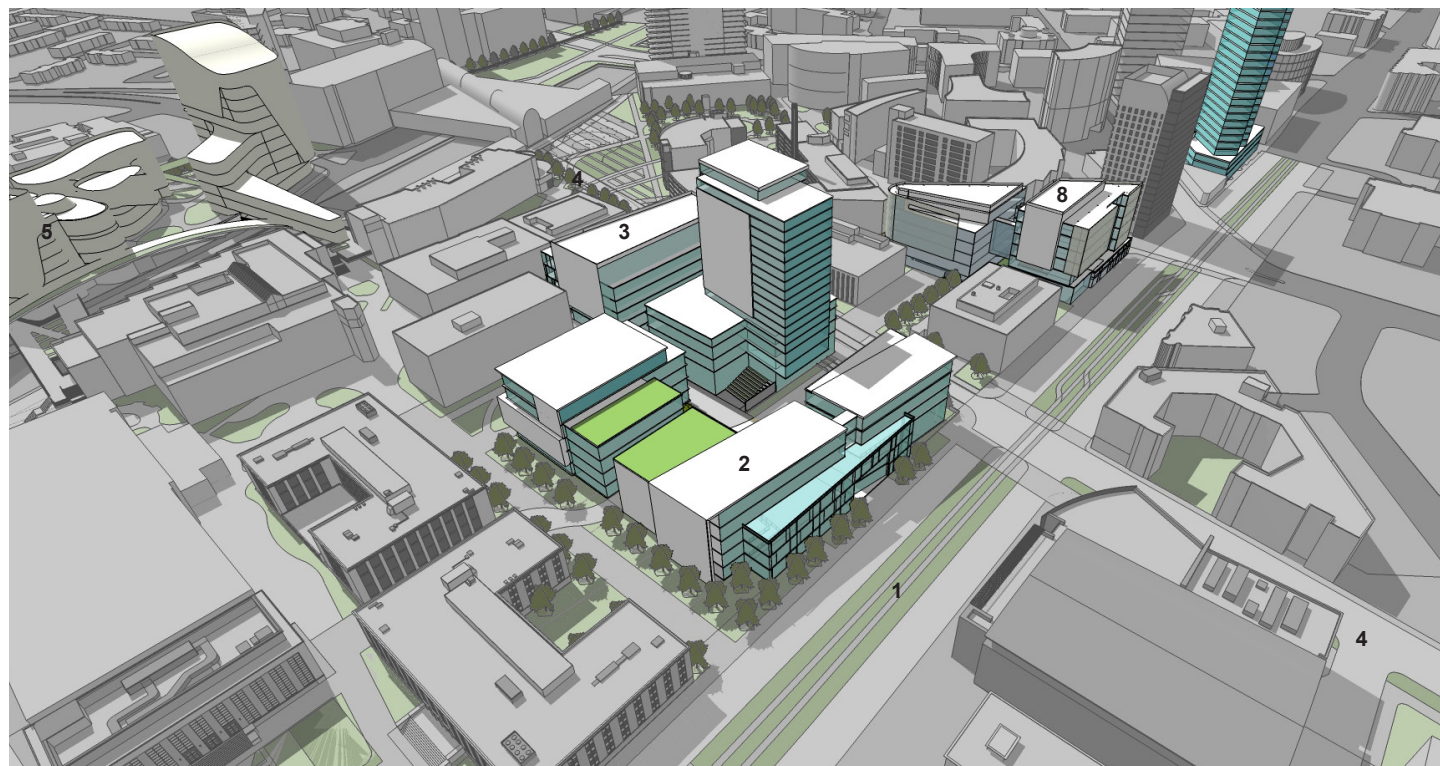


Proposed aerial perspective 1 from northwest

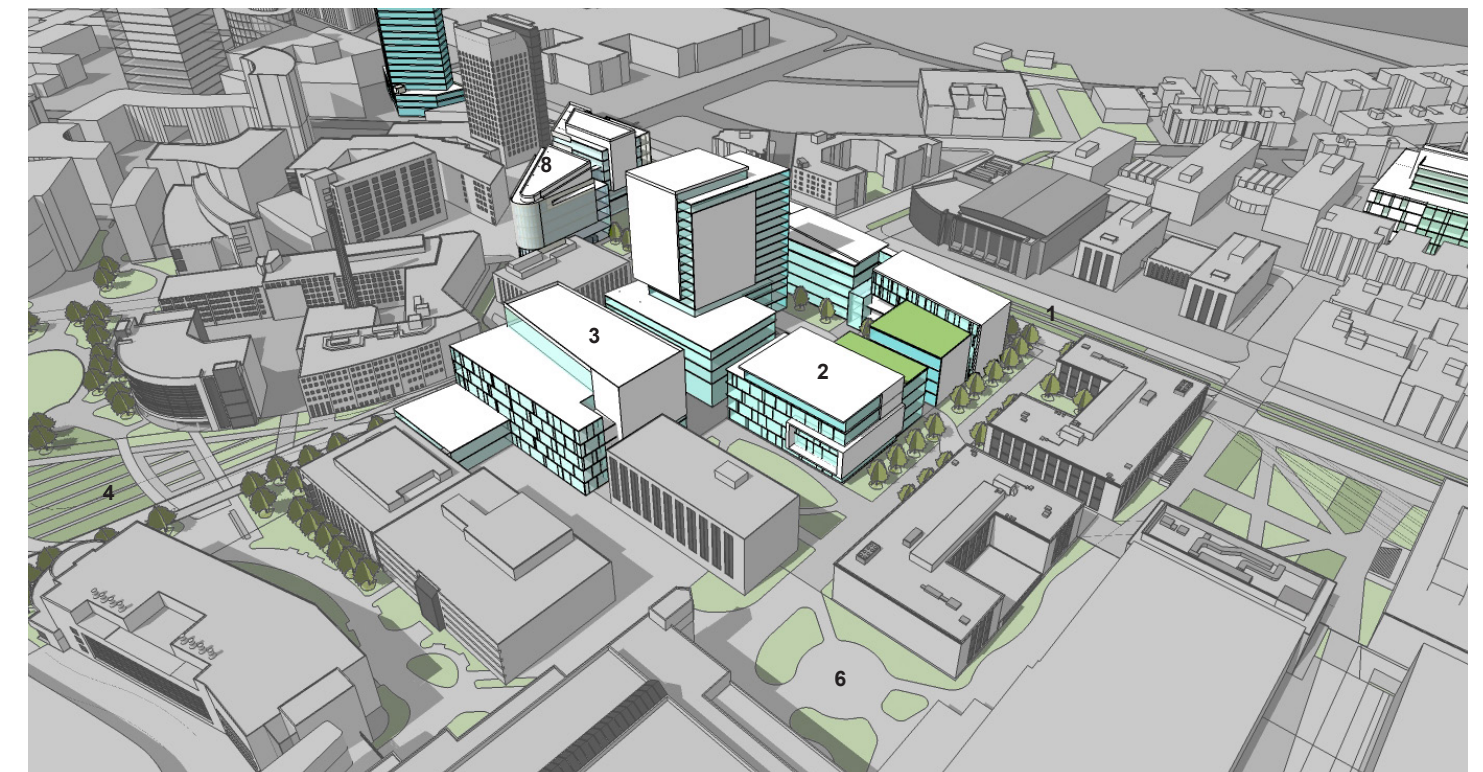
- Key**
- 1 Huntington Ave.
  - 2 Proposed Cabot Redevelopment
  - 3 Proposed Forsythe Redevelopment
  - 4 Forsyth St.
  - 5 Proposed ISEB
  - 6 Krentzman Quad
  - 7 Science Quad
  - 8 Proposed Cargill Hall
  - Street level perspective
  - Aerial perspective



Core Campus Plan, not to scale

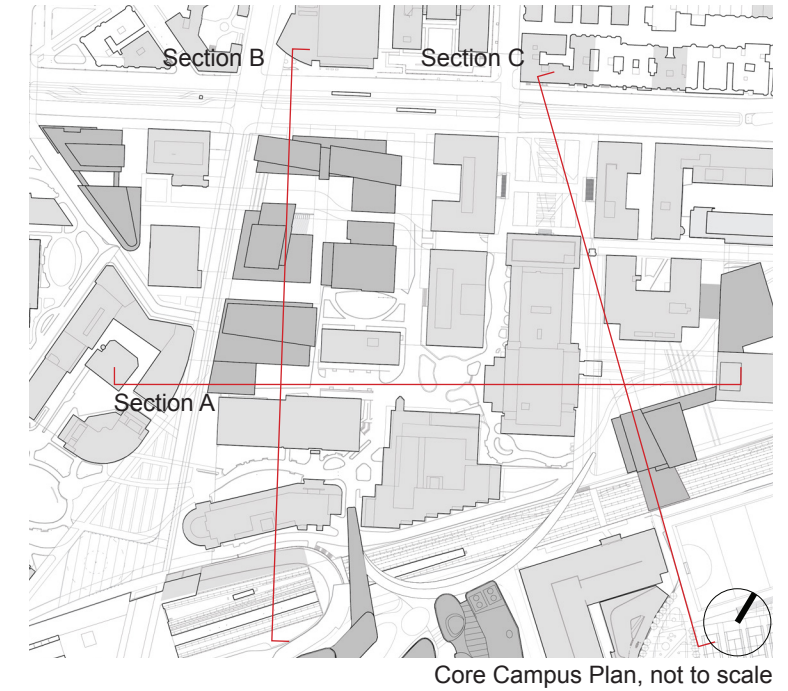
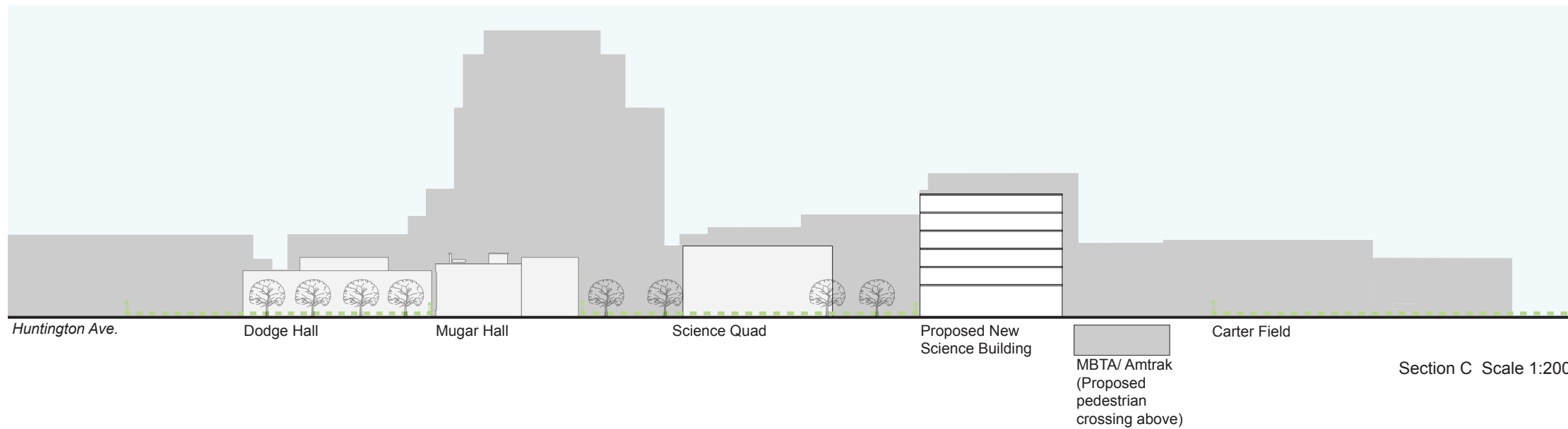
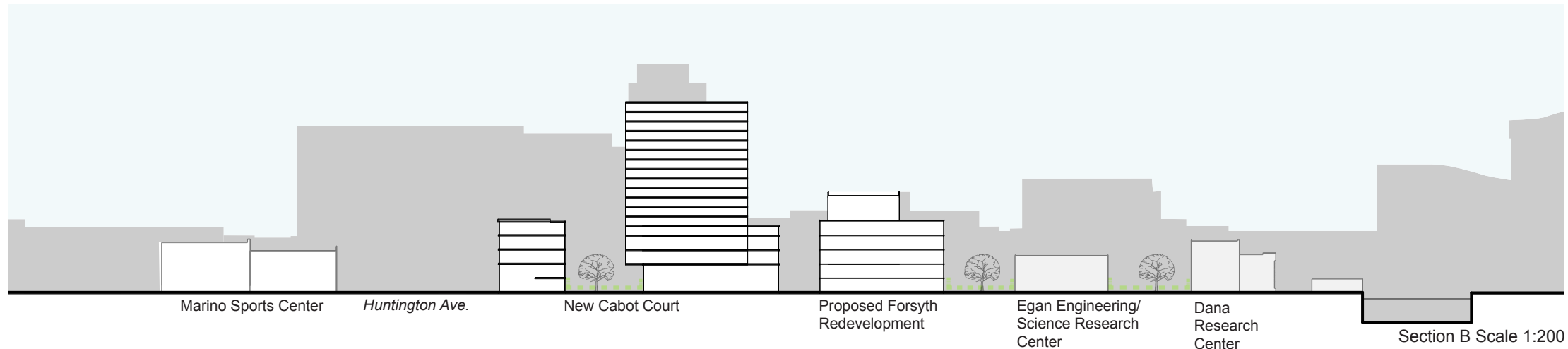
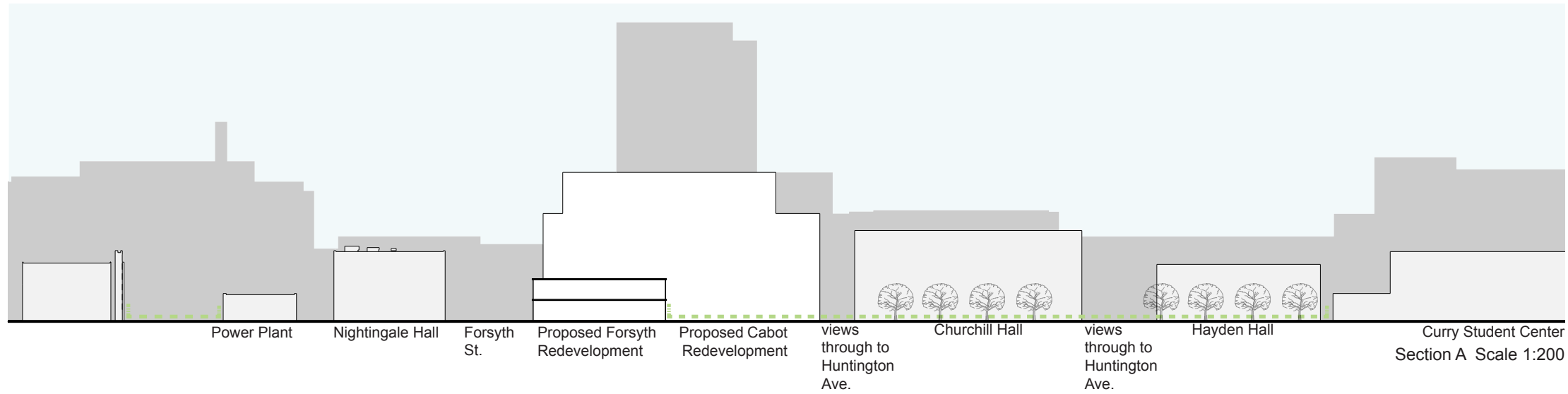


Proposed aerial perspective 2 from north

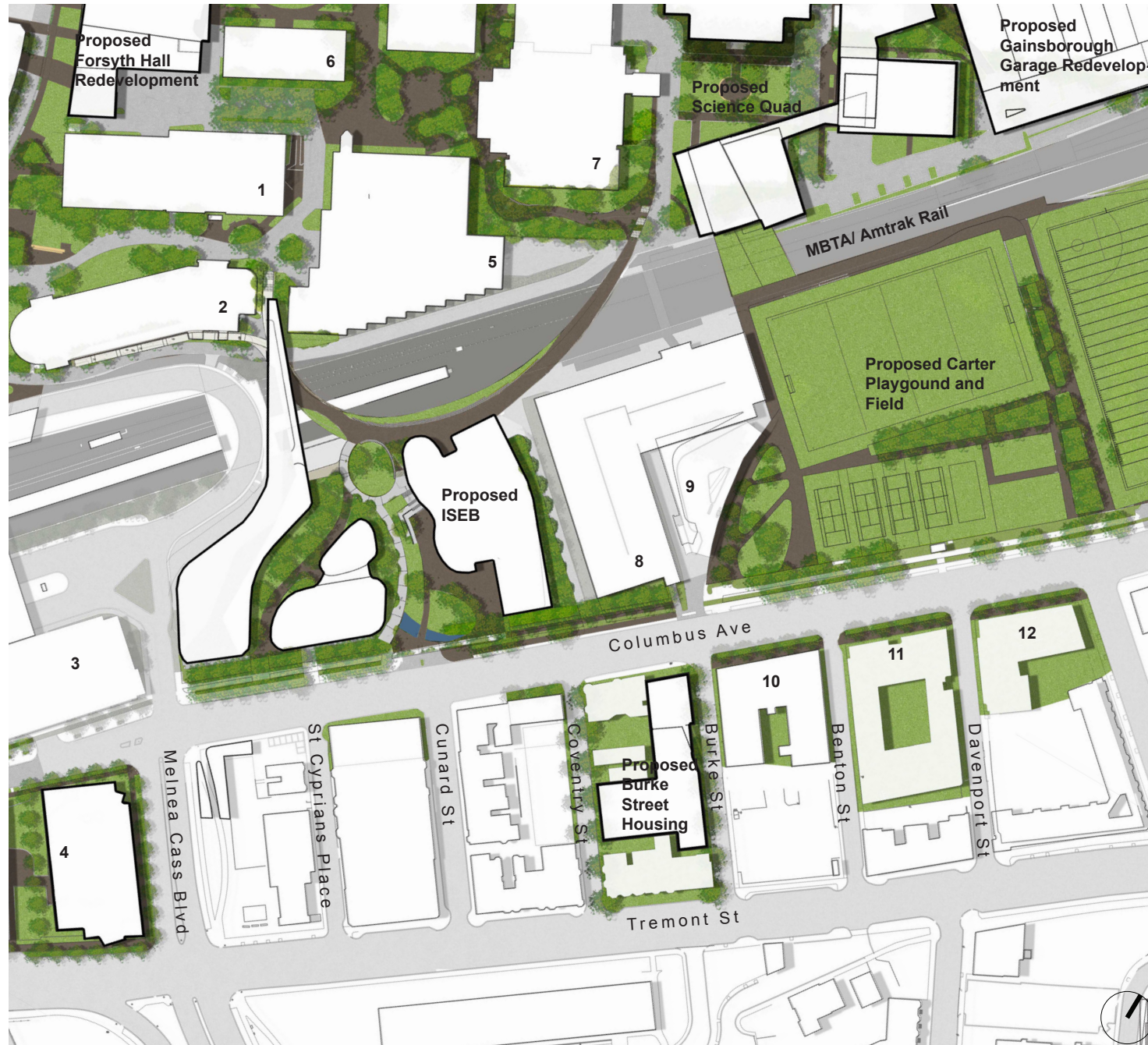


Proposed aerial perspective 3 from the southeast

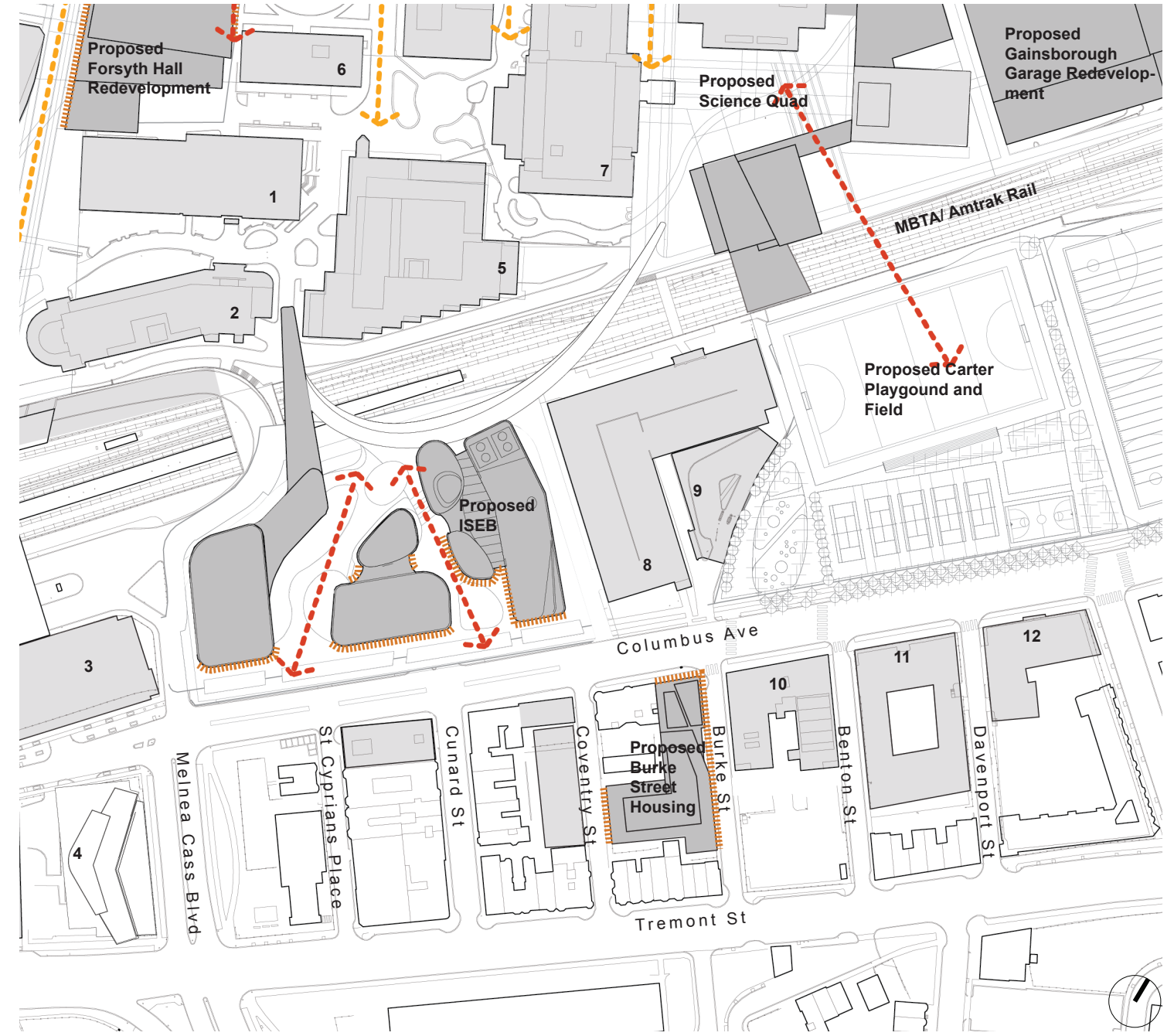
**Figure C-4.**  
**Core Campus Aerial Perspectives**



**Figure C-5.**  
**Core Campus Site Sections**



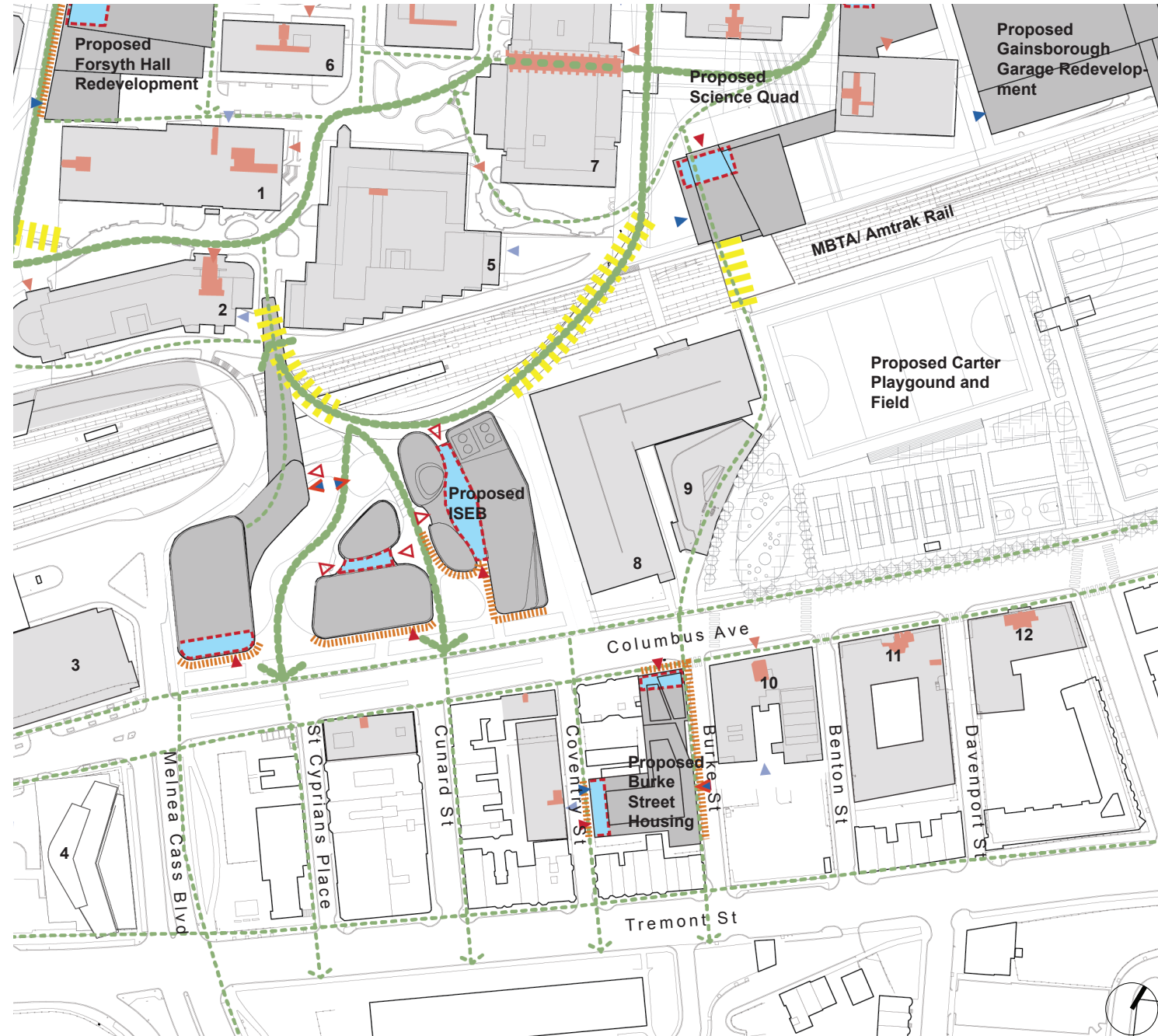
Proposed Site Plan 1":200'



Proposed view corridors and street level building transparency diagram 1":200'

- 1 Dana Research Center
- 2 Egan Research Center
- 3 Renaissance Center Garage
- 4 Parcel 18 proposal
- 5 Snell Library
- 6 Churchill Hall
- 7 Curry Student Center
- 8 Columbus Garage
- 9 Squash Busters
- 10 Columbus Place
- 11 700 Columbus Avenue
- 12 Davenport Commons

- Active Street Frontage
- Enhanced Existing View Corridor
- New View Corridor

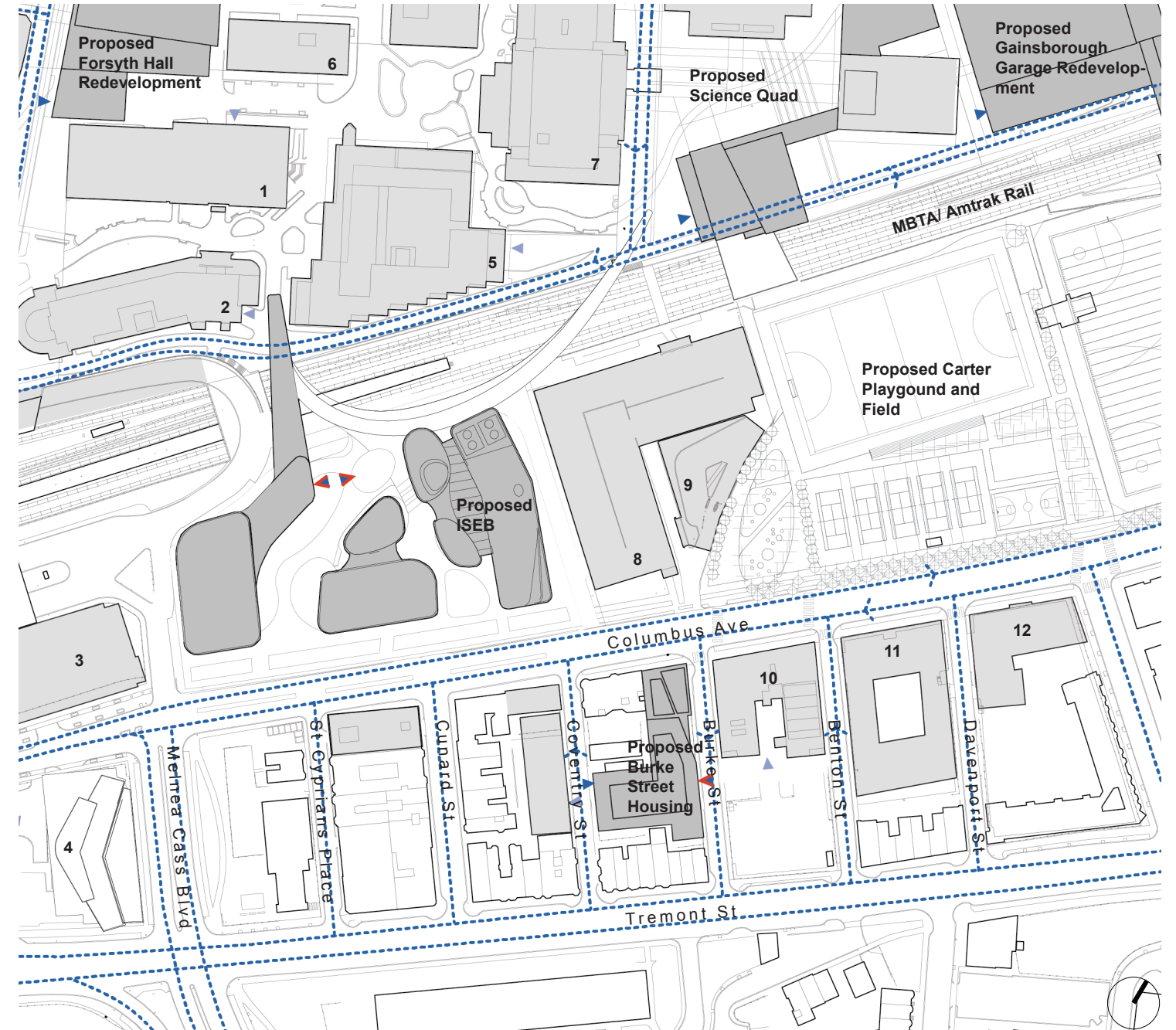


Proposed Pedestrian Circulation Diagram 1":200'

- 1 Dana Research Center
- 2 Egan Research Center
- 3 Renaissance Center Garage
- 4 Parcel 18 proposal
- 5 Snell Library
- 6 Churchill Hall
- 7 Curry Student Center
- 8 Columbus Garage
- 9 Squash Busters
- 10 Columbus Place
- 11 700 Columbus Avenue
- 12 Davenport Commons

**Key**

- Enhanced pedestrian crossing
- Primary pedestrian route
- Secondary pedestrian route
- Accessible entrance to existing buildings
- Main entrance to proposed buildings
- Secondary entrance to proposed buildings
- Existing building entrance area
- Proposed building entrance area



Proposed vehicle circulation diagram 1":200'

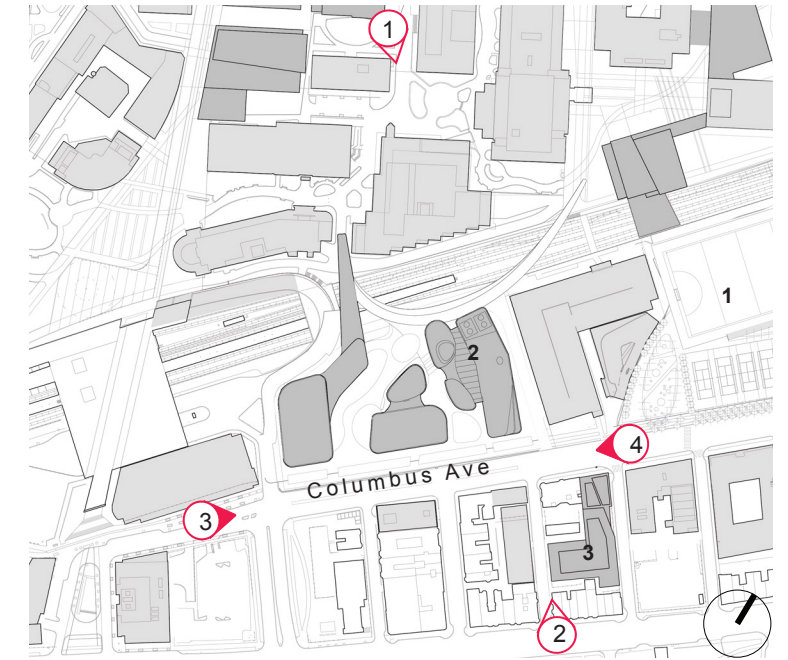
**Key**

- Primary vehicle route
- Proposed loading bay entrance
- Proposed entrance to below grade structured parking
- Existing loading bay entrance

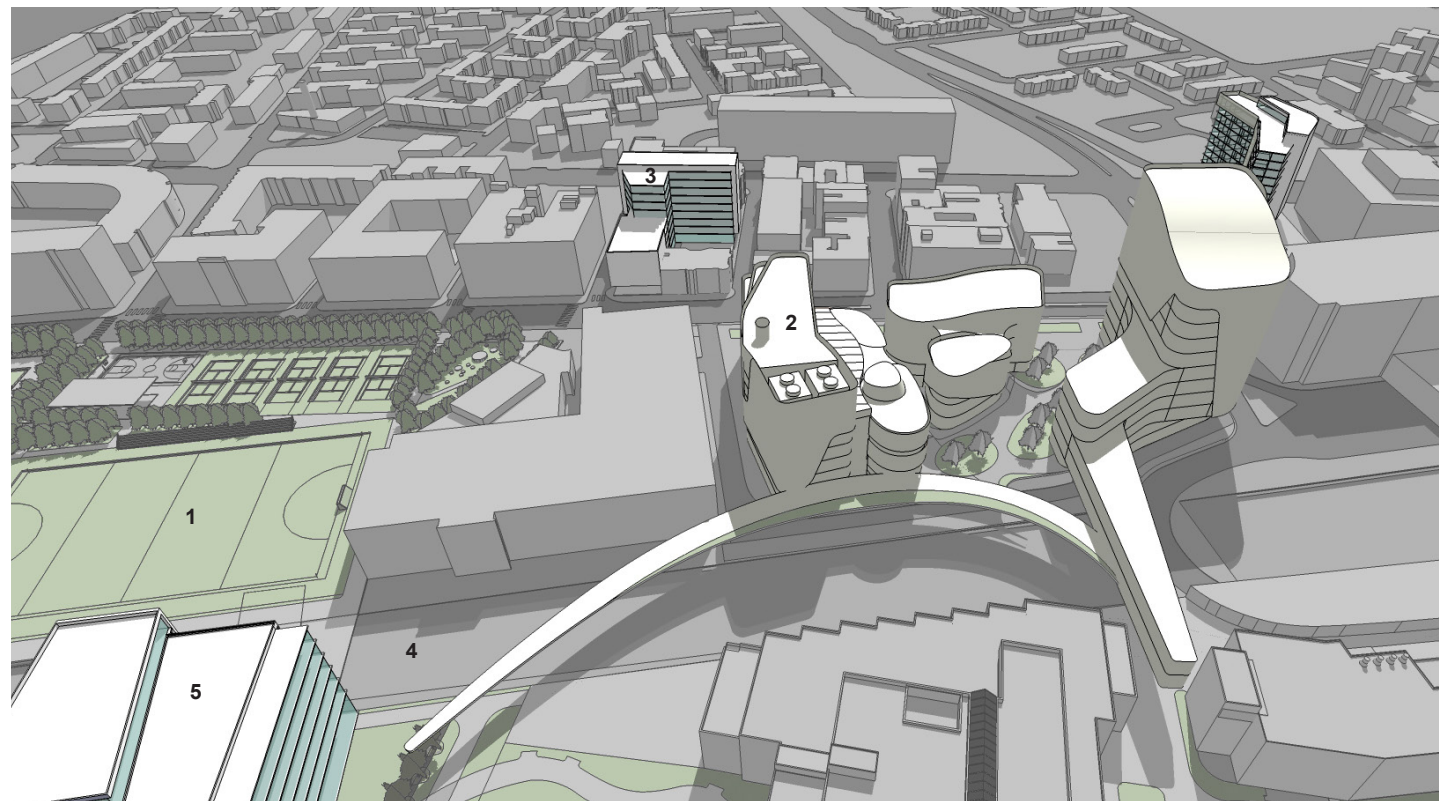




- Key**
- 1 Proposed Carter Playground and Field
  - 2 Proposed ISEB
  - 3 Proposed Burke Street Housing
  - 4 MBTA / AMTRAK Track
  - 5 Science Quad
  - Street level perspective
  - Aerial perspective



South Campus Plan, not to scale



Proposed aerial view 1 from the north



Proposed aerial view 2 from the south

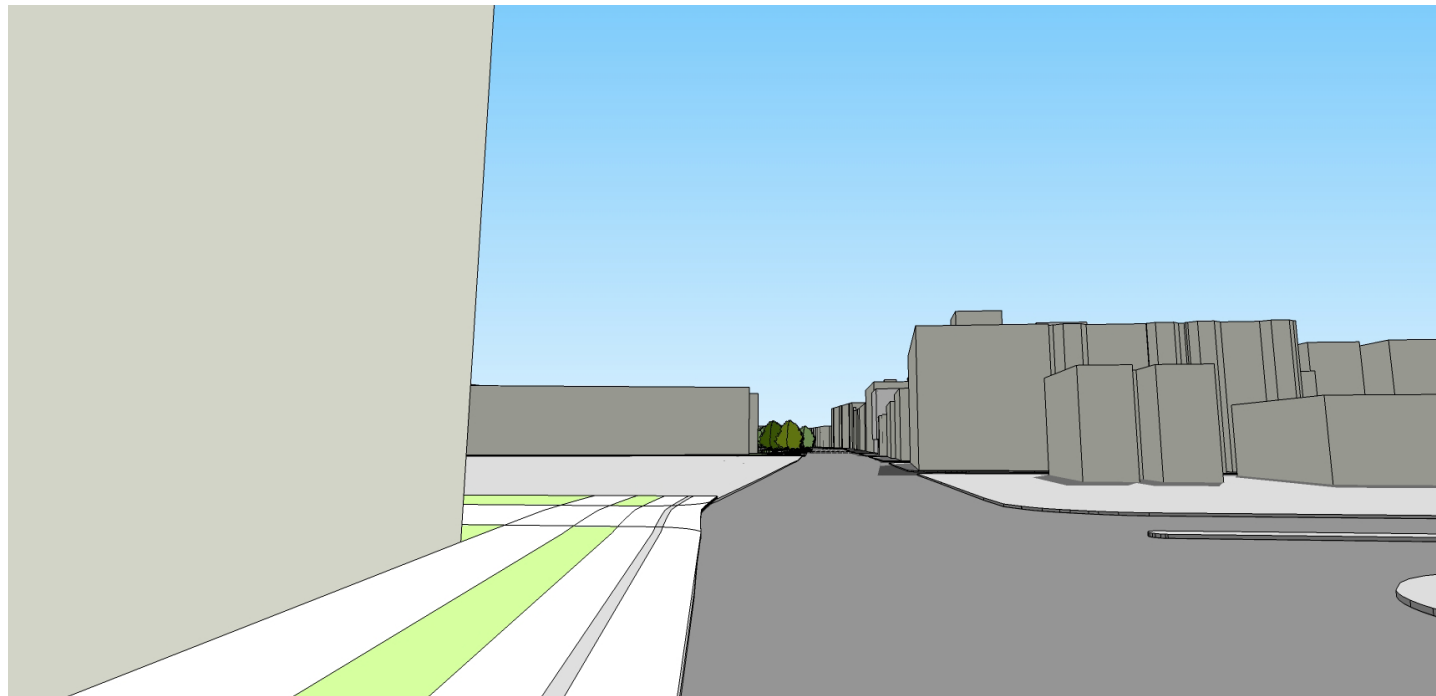
**Figure C-8.**  
**South Campus Precinct Aerial Perspectives**



View 3: looking west along Columbus Ave (existing)



View 3: looking west along Columbus Ave (proposed)



View 4: Looking east along Columbus Ave (existing)



View 4: Looking east along Columbus Ave (proposed)

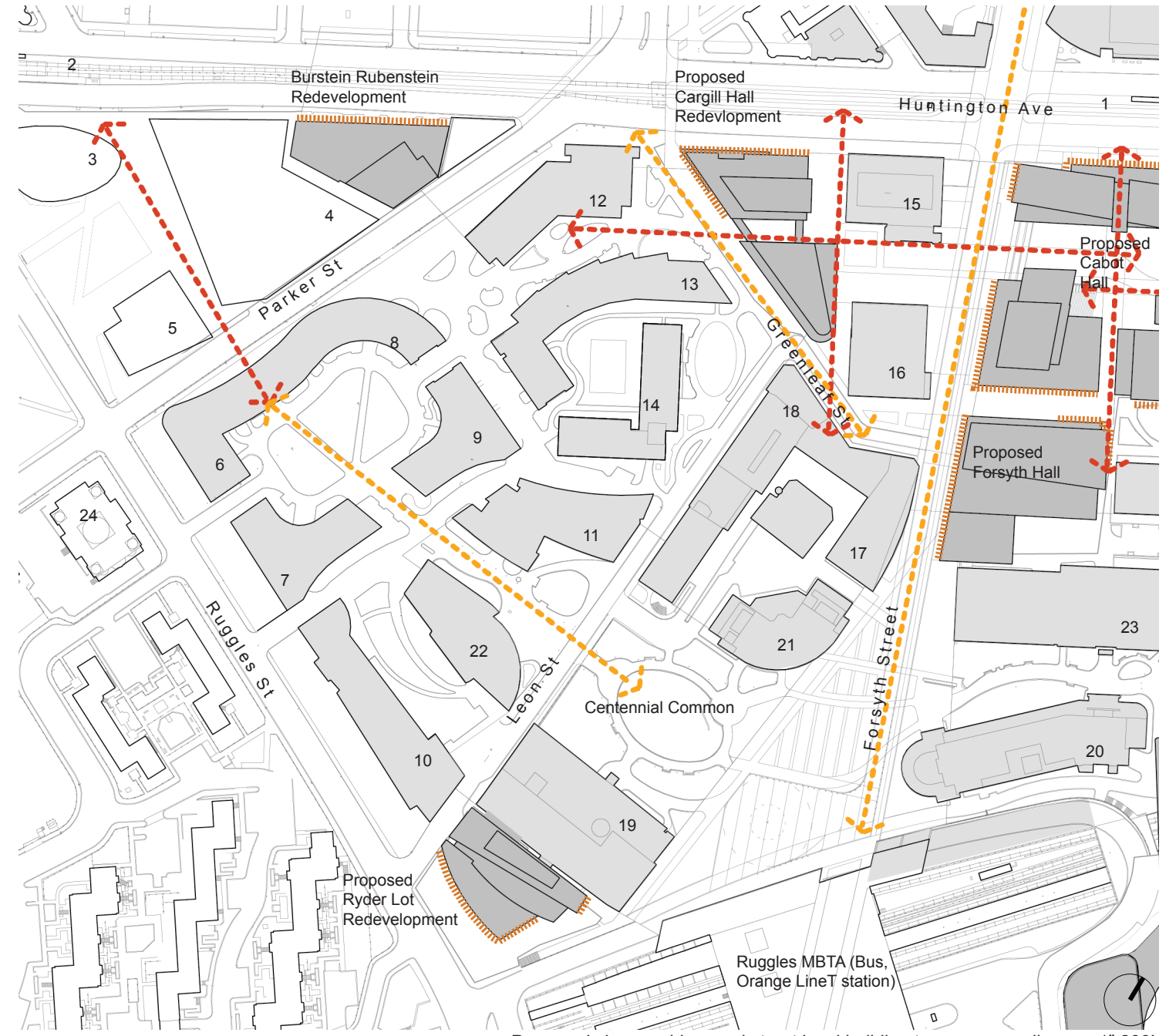
**Key**

- 1 Proposed ISEB
- 2 Proposed Burke Street Housing

**Figure C-9.**  
**South Campus Precinct Street Views**



Proposed Site Plan 1":200'

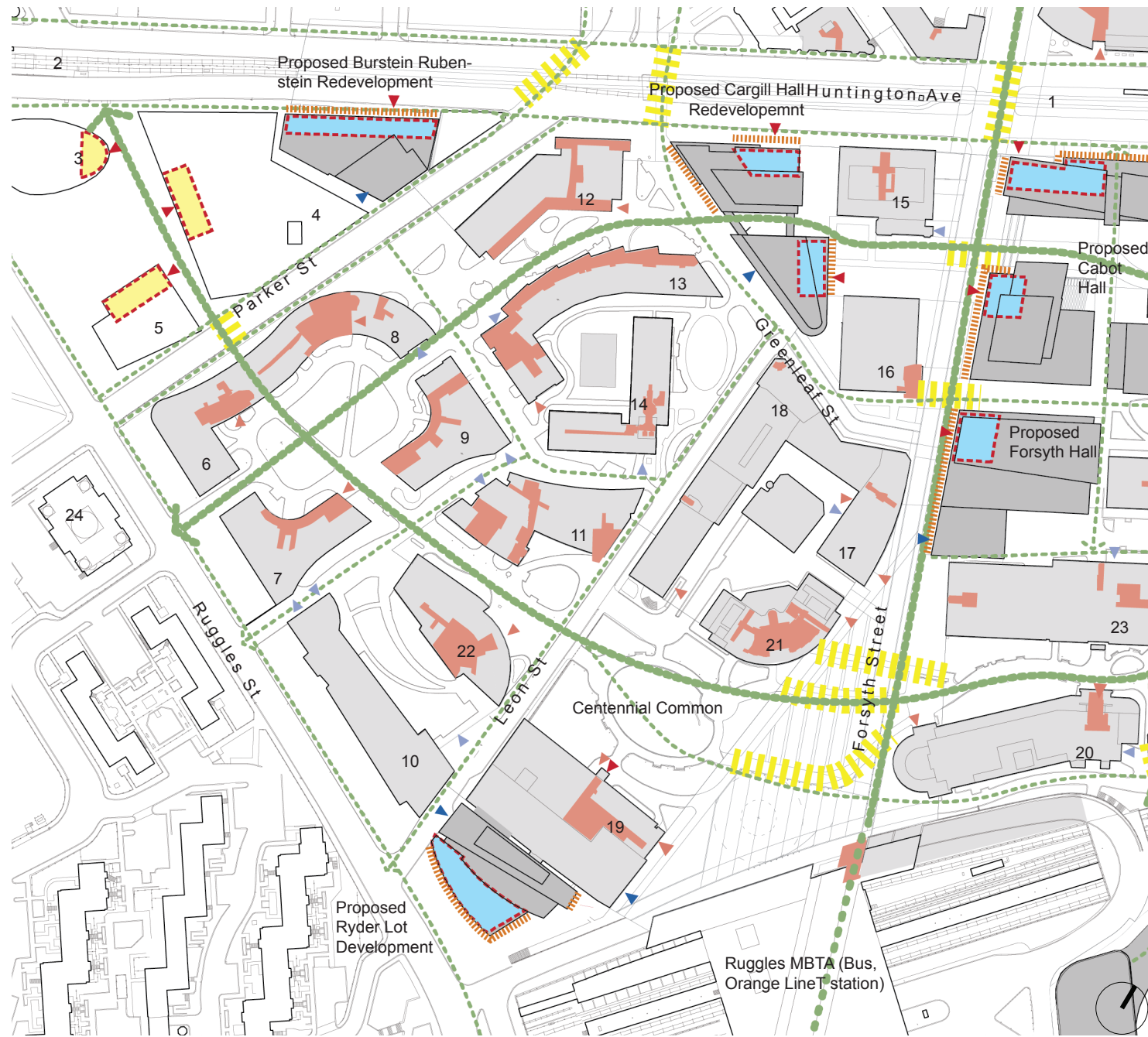


Proposed view corridors and street level building transparency diagram 1":200'

- |  |  |
|--|--|
| 1 Huntington Avenue Green Line T station     | 13 West Village G                          |
| 2 Museum of Fine Arts Green Line T station   | 14 Willis Hall                             |
| 3 Wentworth Institute of Technology building | 15 Knowles Center                          |
| 4 Wentworth Institute of Technology building | 16 Dockser Hall                            |
| 5 Wentworth Institute of Technology building | 17 Nightingale Hall                        |
| 6 West Village A South                       | 18 Lake Hall                               |
| 7 West Village C                             | 19 Ryder Hall                              |
| 8 West Village A North                       | 20 Egan Research Center                    |
| 9 West Village B                             | 21 Shillman Hall                           |
| 10 West Village E                            | 22 Behrakis Hall                           |
| 11 O'Bryant African American Institute       | 23 Dana Research Center                    |
| 12 West Village H                            | 24 Greek Orthodox Cathedral of New England |

- Active Street Frontage
- Enhanced Existing View Corridor
- New View Corridor

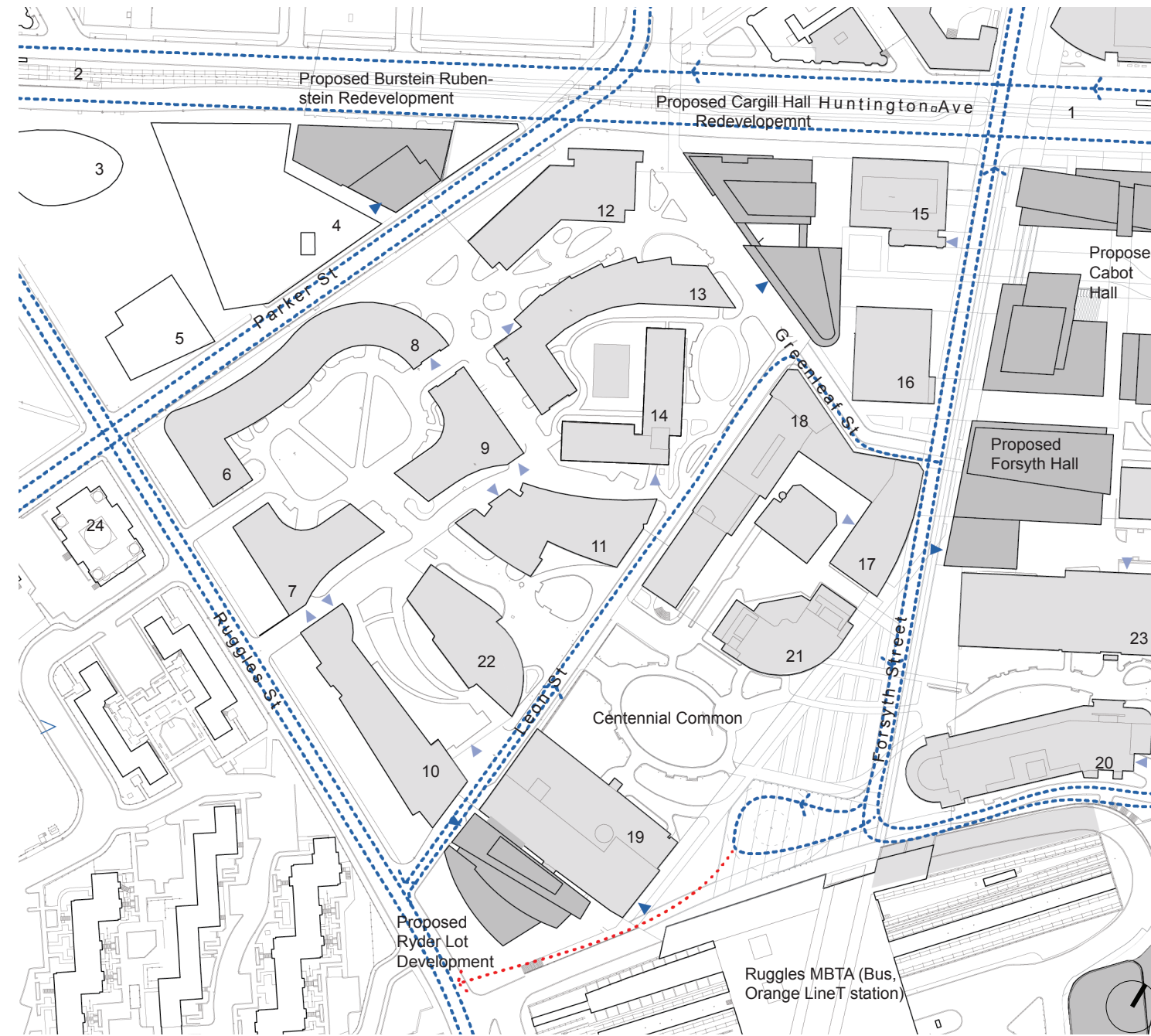
**Figure C-10.**  
**West Campus Precinct**



Proposed Pedestrian Circulation Diagram 1'':200'

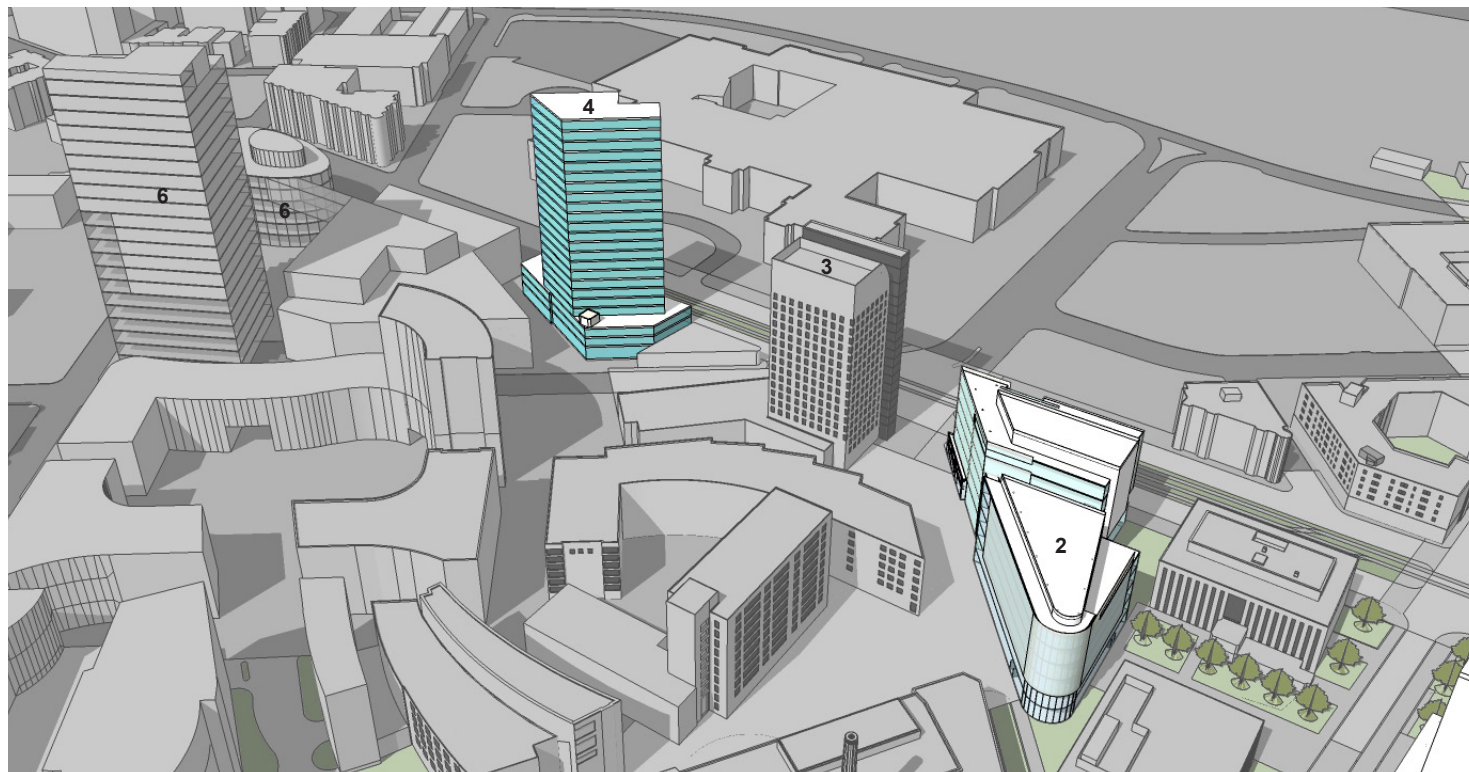
- |  |  |
|--|--|
| 1 Huntington Avenue Green Line T station     | 13 West Village G                          |
| 2 Museum of Fine Arts Green Line T station   | 14 Willis Hall                             |
| 3 Wentworth Institute of Technology building | 15 Knowles Center                          |
| 4 Wentworth Institute of Technology building | 16 Dockser Hall                            |
| 5 Wentworth Institute of Technology building | 17 Nightingale Hall                        |
| 6 West Village A South                       | 18 Lake Hall                               |
| 7 West Village C                             | 19 Ryder Hall                              |
| 8 West Village A North                       | 20 Egan Research Center                    |
| 9 West Village B                             | 21 Shillman Hall                           |
| 10 West Village E                            | 22 Behrakis Hall                           |
| 11 O'Bryant African American Institute       | 23 Dana Research Center                    |
| 12 West Village H                            | 24 Greek Orthodox Cathedral of New England |

- Key**
- Enhanced pedestrian crossing
  - Primary pedestrian route
  - Secondary pedestrian route
  - Accessible entrance to existing buildings
  - Main entrance to proposed buildings
  - Secondary entrance to proposed buildings
  - Existing building entrance area
  - Proposed building entrance area
  - Wentworth building entrance area

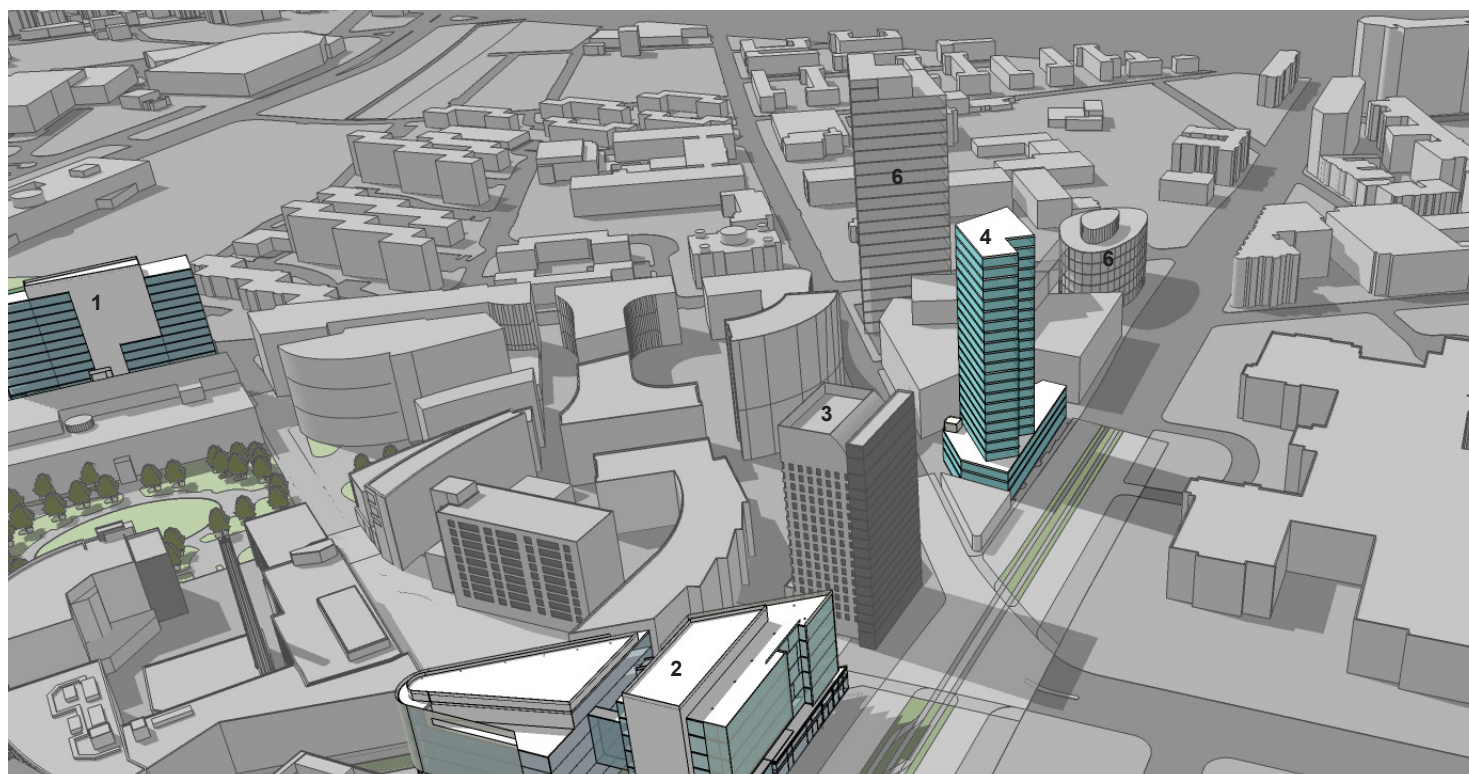


Proposed vehicle circulation diagram 1'':200'

- Key**
- Primary vehicle route
  - Proposed access link between Ruggles and Forsyth Sts
  - Proposed loading bay entrance
  - Existing loading bay entrance



Proposed aerial perspective 1 from southeast



Proposed aerial perspective 2 from northeast

- Key**
- 1 Proposed Ryder Lot development
  - 2 Proposed Cargill Hall Redevelopment
  - 3 West Village H
  - 4 Proposed Burstein Rubenstein Redevelopment
  - 5 Proposed Cabot Redevelopment
  - 6 Proposed Wentworth Institute of Technology building
  -  Aerial perspective

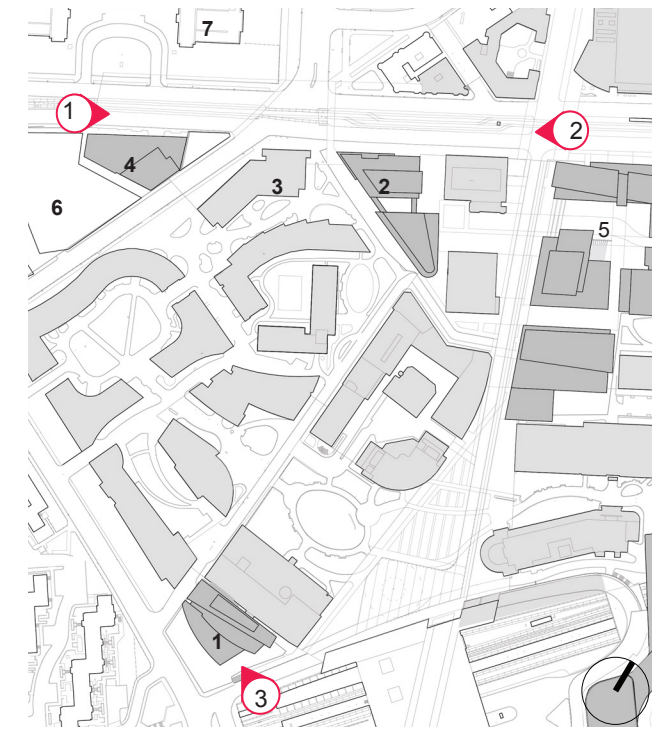



West Campus Plan, not to scale



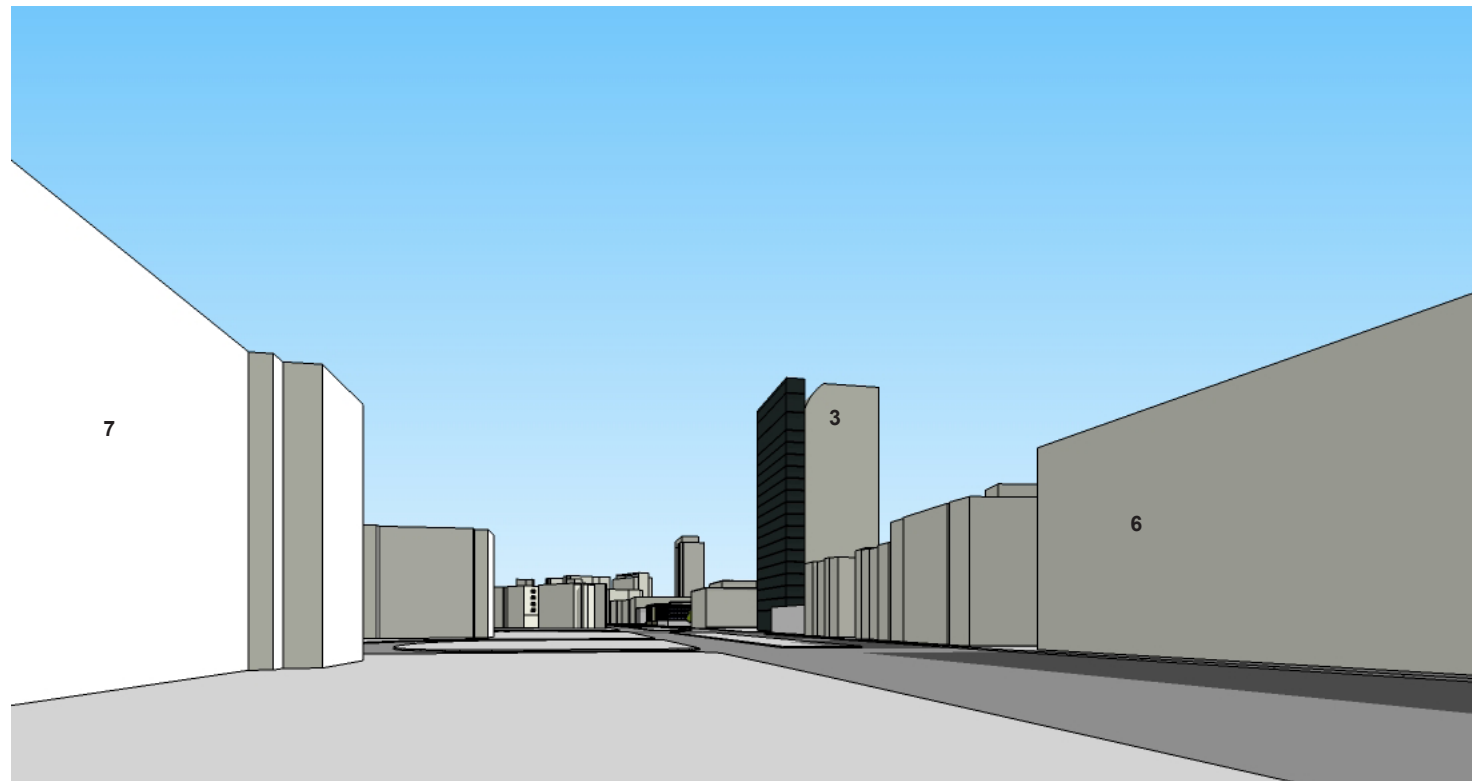
Proposed aerial perspective 3 from northwest

**Figure C-12.**  
**West Campus Precinct Aerial Perspectives**

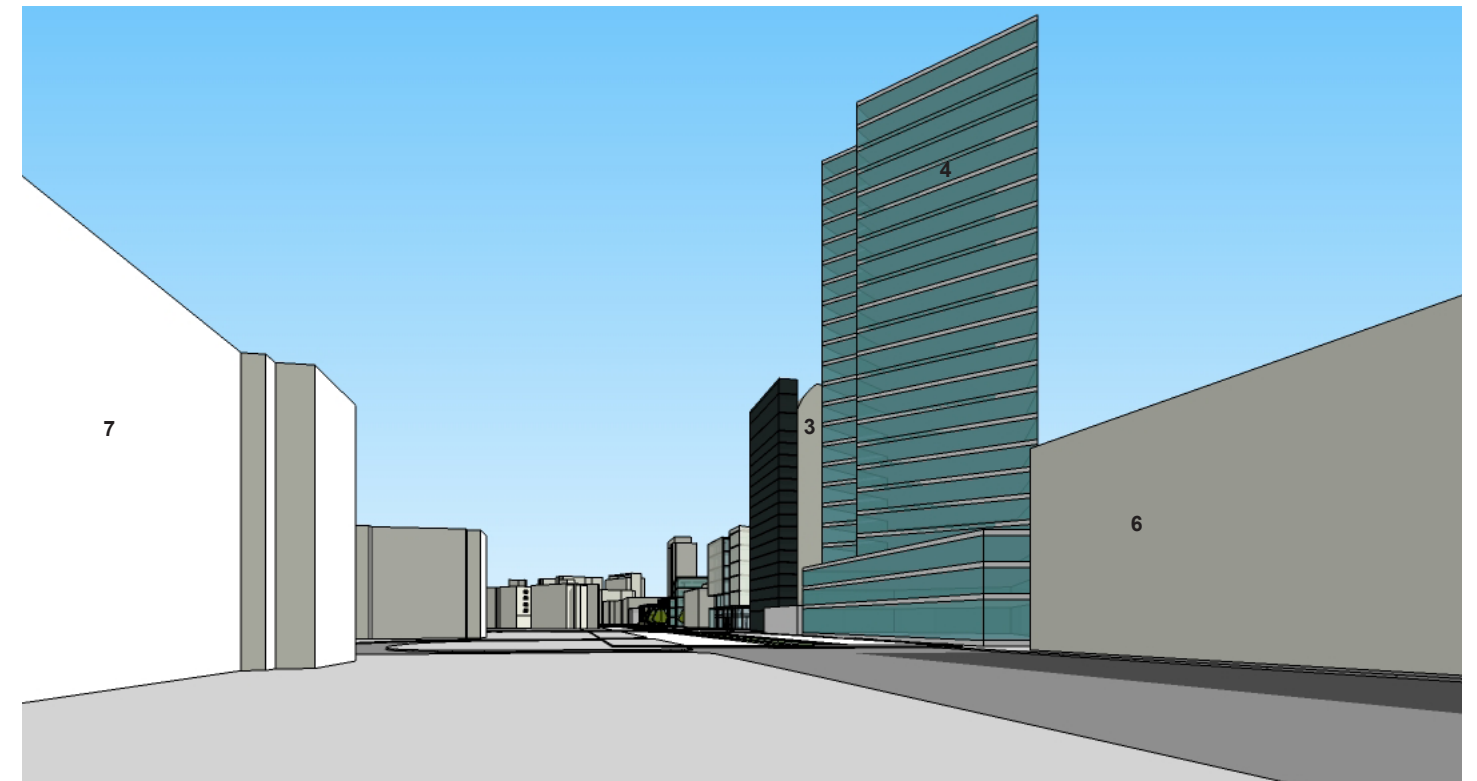


- Key**
- 1 Proposed Ryder Lot development
  - 2 Proposed Cargill Hall Redevelopment
  - 3 West Village H
  - 4 Proposed Burstein Rubenstein Redevelopment
  - 5 Proposed Cabot Redevelopment
  - 6 Proposed Wentworth Institute of Technology building
  - 7 Boston Museum of Fine Arts
  -  Street level perspective

West Campus Plan, not to scale

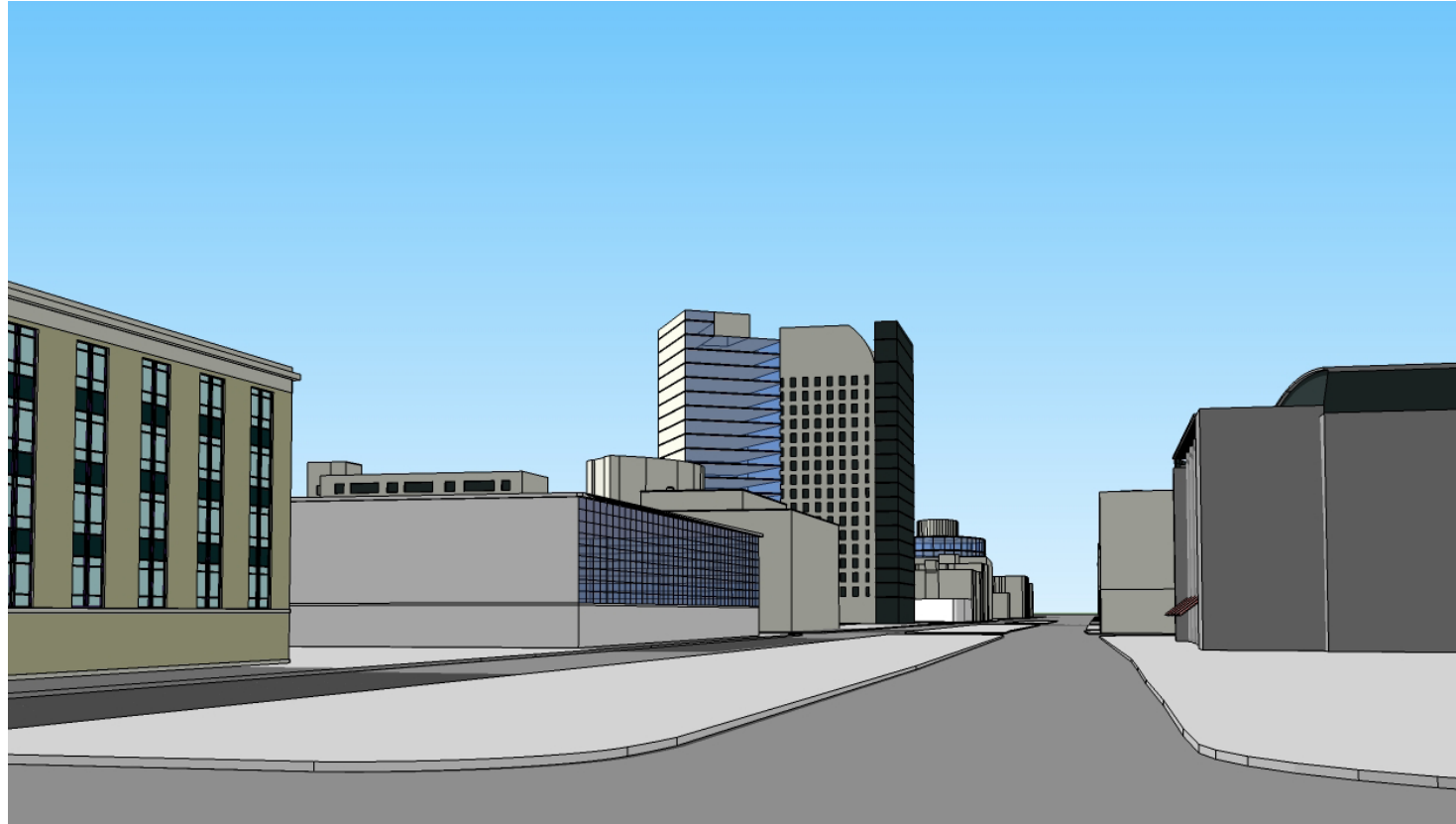


View 1: Existing perspective along Huntington Avenue looking east

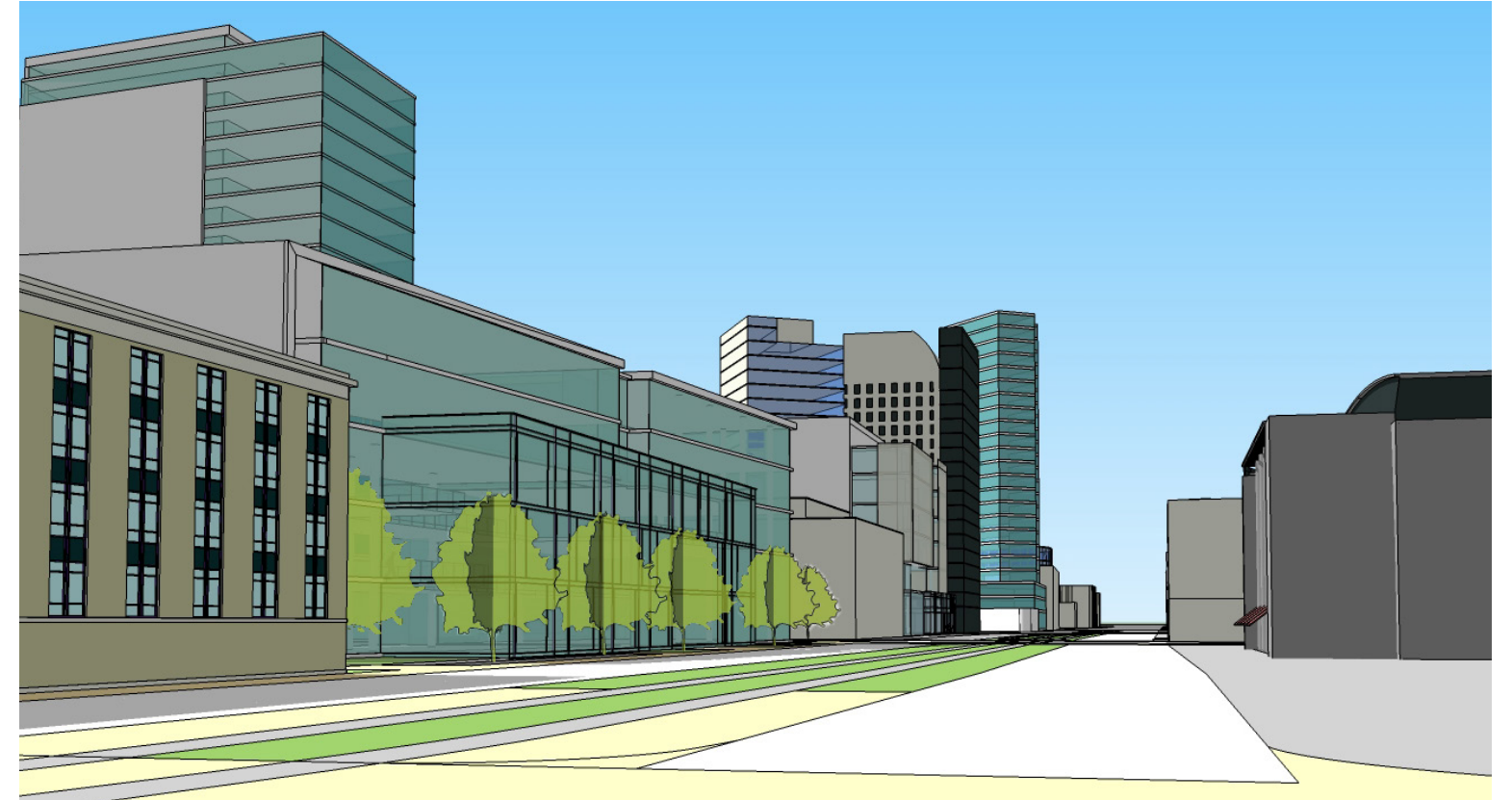


View 1: Proposed perspective along Huntington Avenue looking east

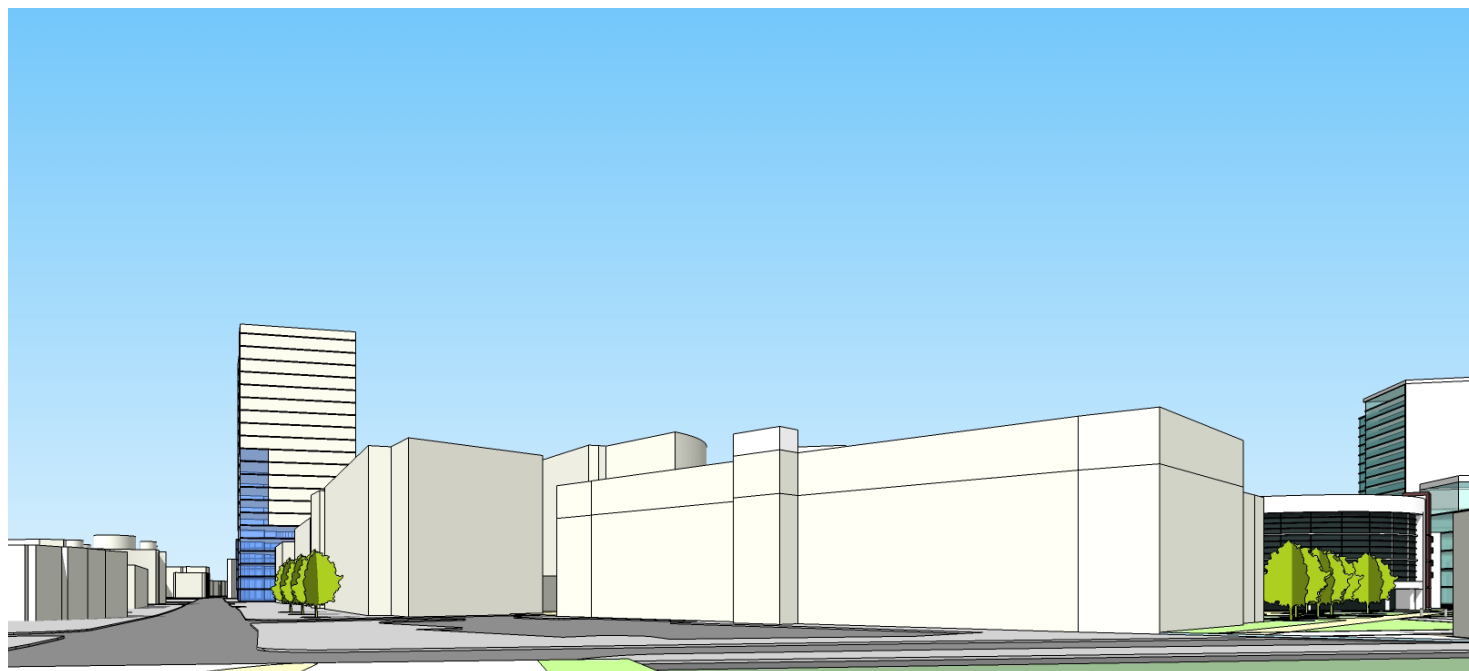
Figure C-13.  
**West Campus Precinct Street Views**



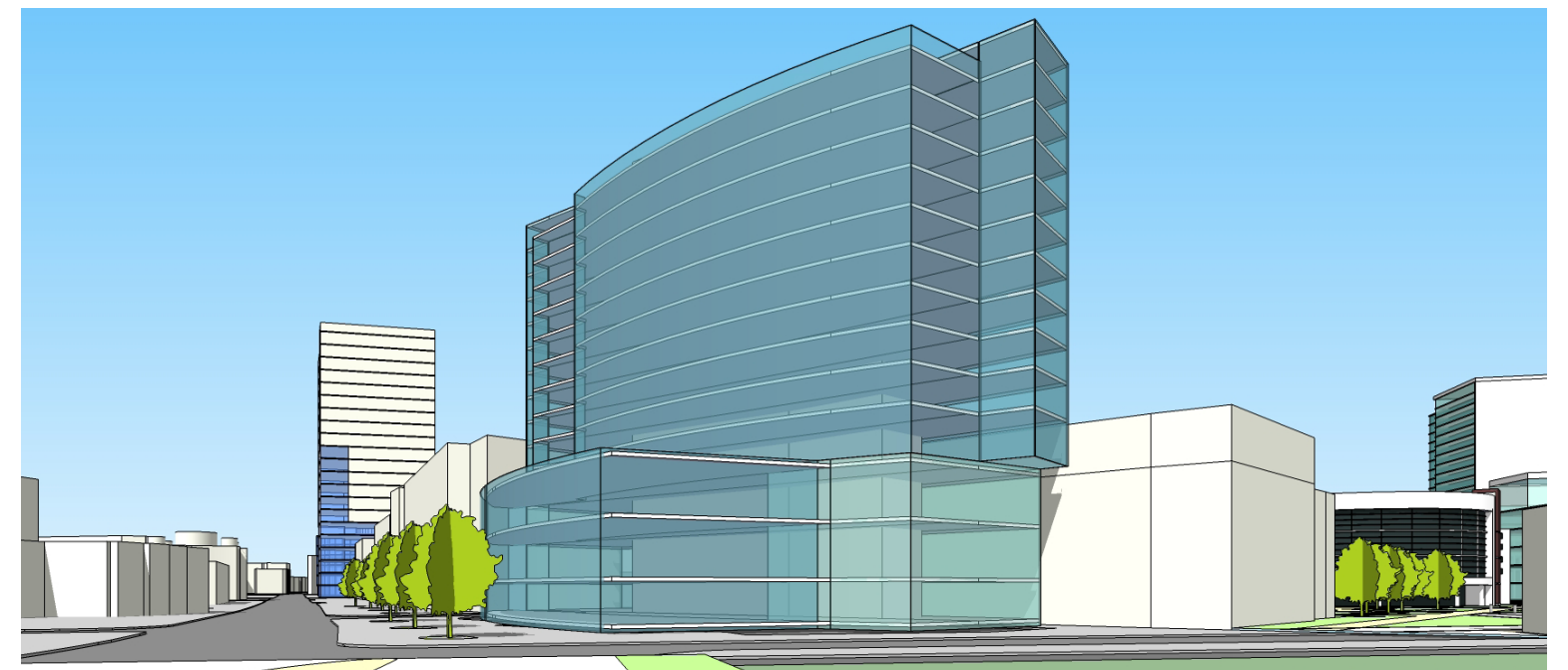
View 2: Existing perspective along Huntington Avenue looking west



View 2: Proposed perspective along Huntington Avenue looking west



View 3: Existing perspective along Ruggles Street looking north

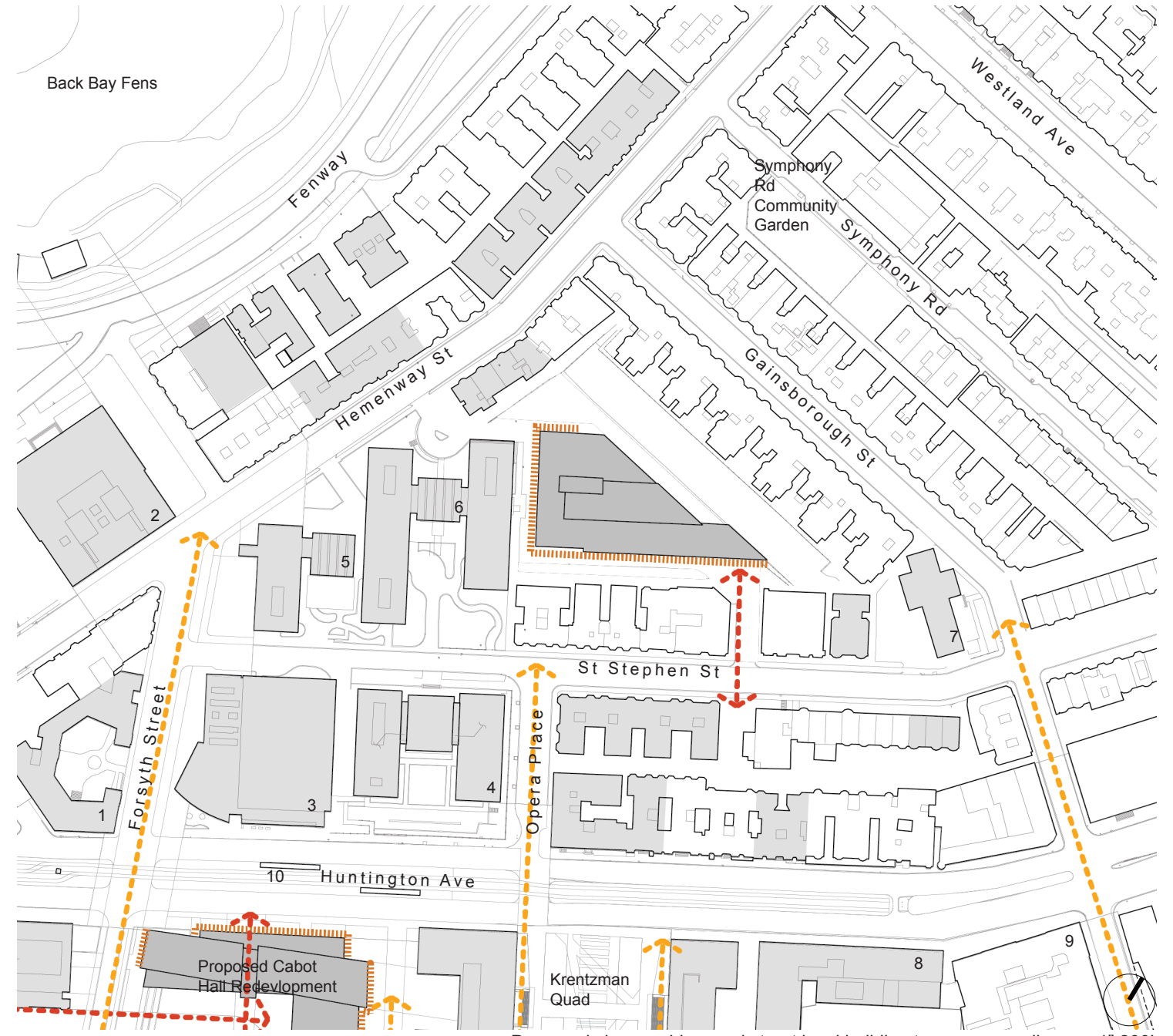


View 3: Proposed perspective along Ruggles Street looking north



Proposed Site Plan 1":200'

- 1 White Hall
- 2 Emerald Necklace Conservancy
- 3 Marino Center
- 4 Speare Hall
- 5 Stetson West
- 6 Stetson East
- 7 Fenway Center
- 8 Huntington Ave YMCA
- 9 NEC
- 10 Huntington Avenue Green Line T station

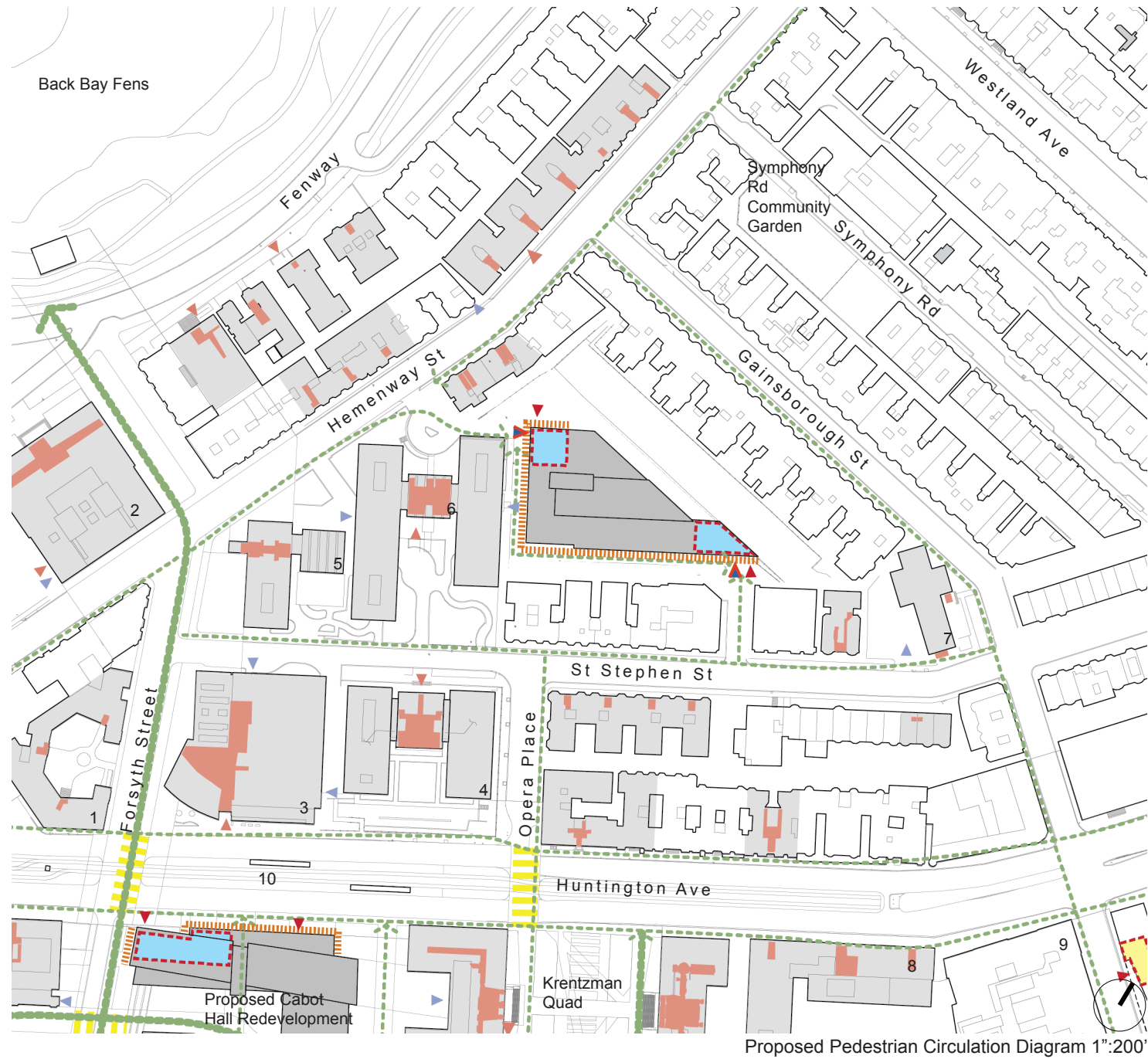


Proposed view corridors and street level building transparency diagram 1":200'

- Active Street Frontage
- Enhanced Existing View Corridor
- New View Corridor

**Figure C-15.**  
**North Campus Precinct**

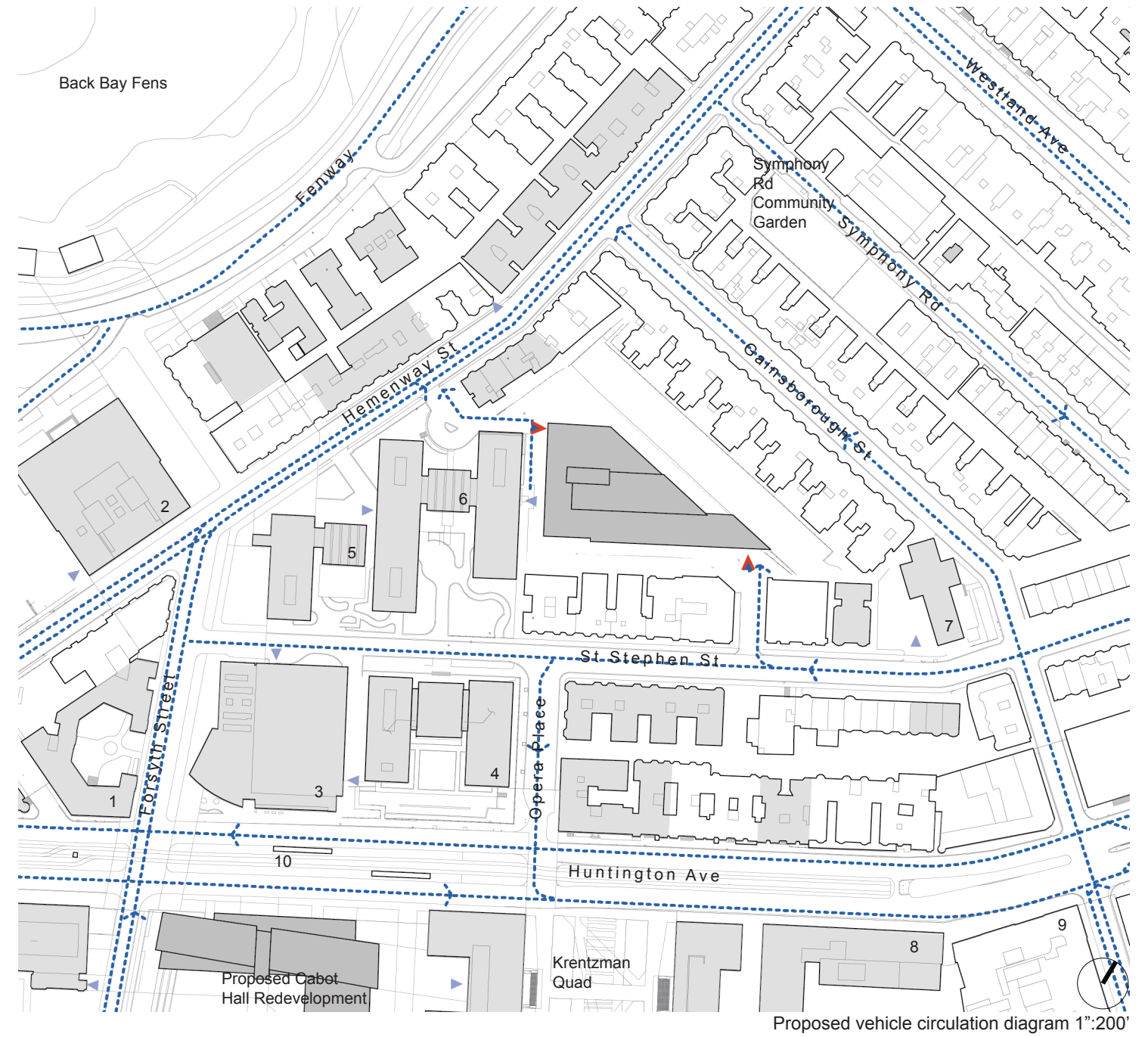




- 1 White Hall
- 2 Emerald Necklace Conservancy
- 3 Marino Center
- 4 Speare Hall
- 5 Stetson West
- 6 Stetson East
- 7 Fenway Center
- 8 Huntington Ave YMCA
- 9 NEC
- 10 Huntington Avenue Green Line T station

**Key**

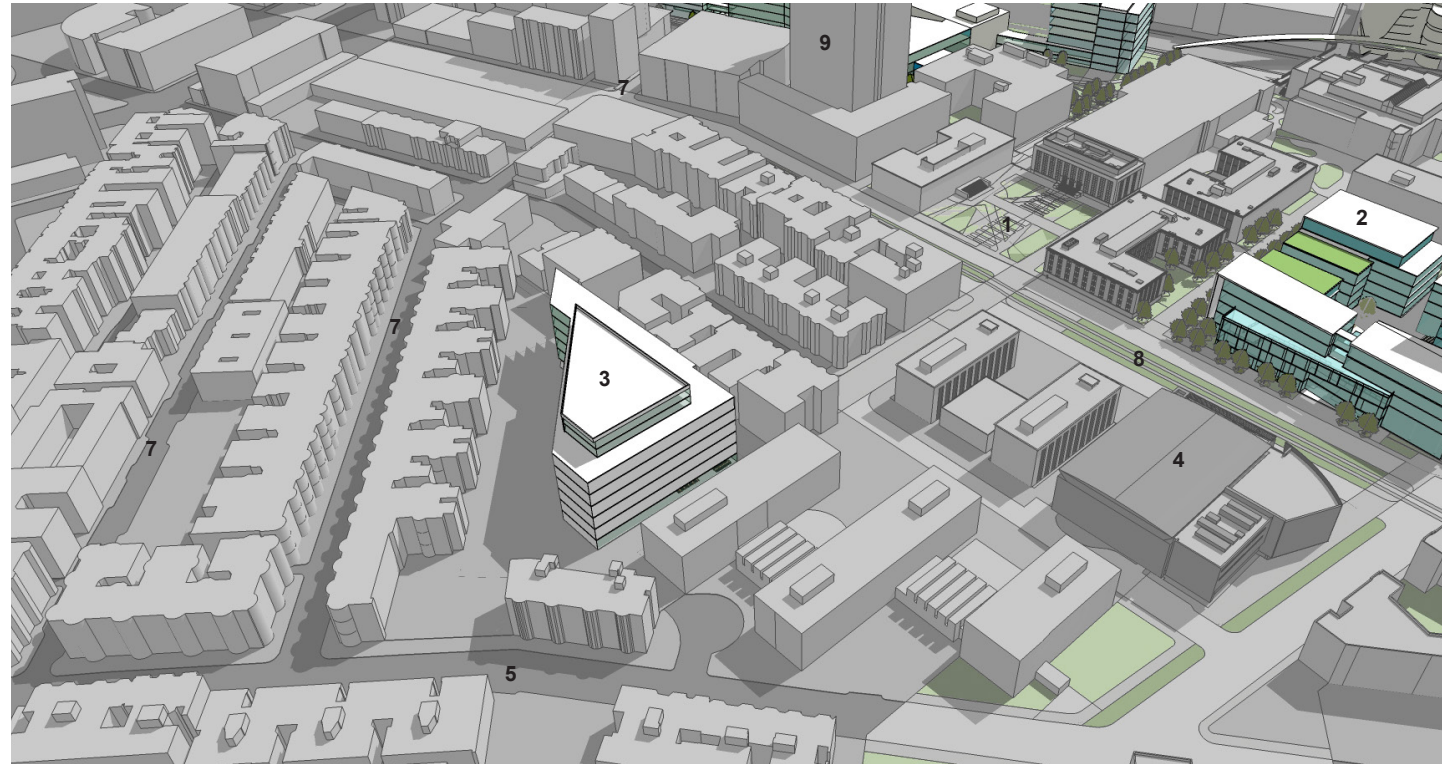
- Enhanced pedestrian crossing
- Primary pedestrian route
- Secondary pedestrian route
- Accessible entrance to existing buildings
- Main entrance to proposed buildings
- Secondary entrance to proposed buildings
- Existing building entrance area
- Proposed building entrance area



**Key**

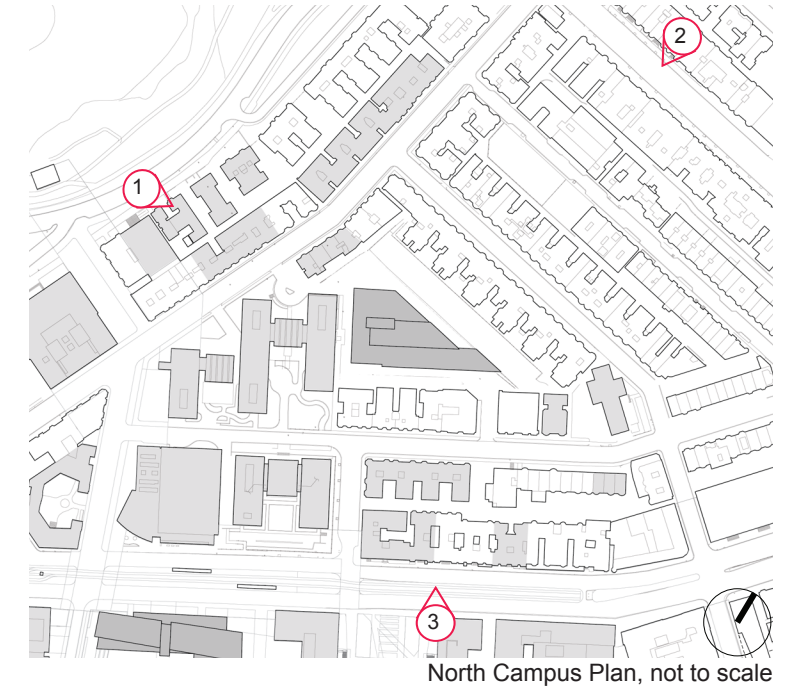
- Primary vehicle route
- Proposed loading bay entrance
- Proposed entrance to below grade structured parking
- Existing loading bay entrance

Figure C-16.  
**North Campus Precinct**



Proposed aerial view 1 from Northwest

- Key**
- 1 Krentzman Quad
  - 2 Cabot
  - 3 North lot
  - 4 Marino Sports Center
  - 5 Hemenway St
  - 6 St. Stephen St.
  - 7 Gainsborough St
  - 8 Huntington Ave
  - 9 GrandMarc Residences
  - 10 Back Bay Fens
  - Street level perspective
  - Aerial perspective



Proposed aerial view 2 from Northeast



Proposed aerial view 3 from South

**Figure C-17.**  
**North Campus Precinct**

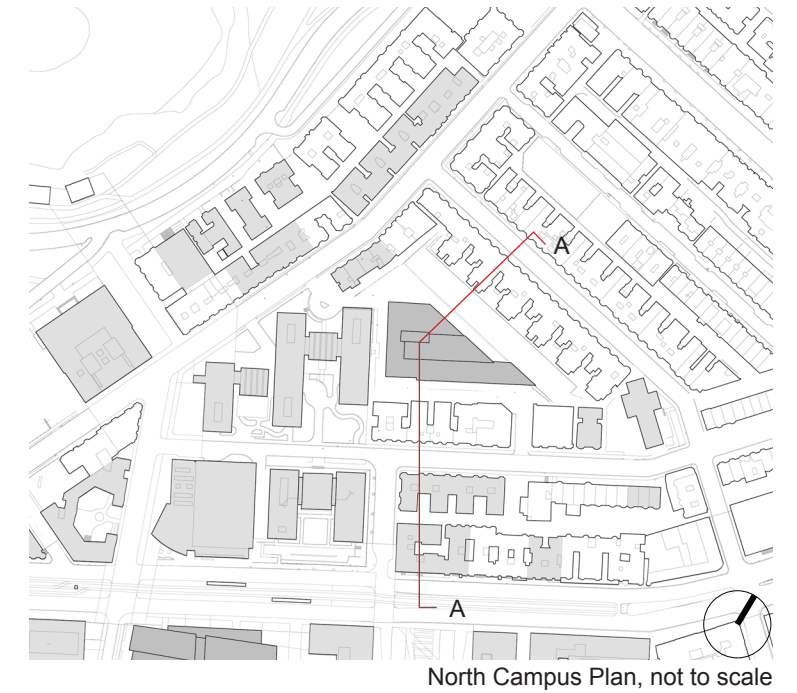
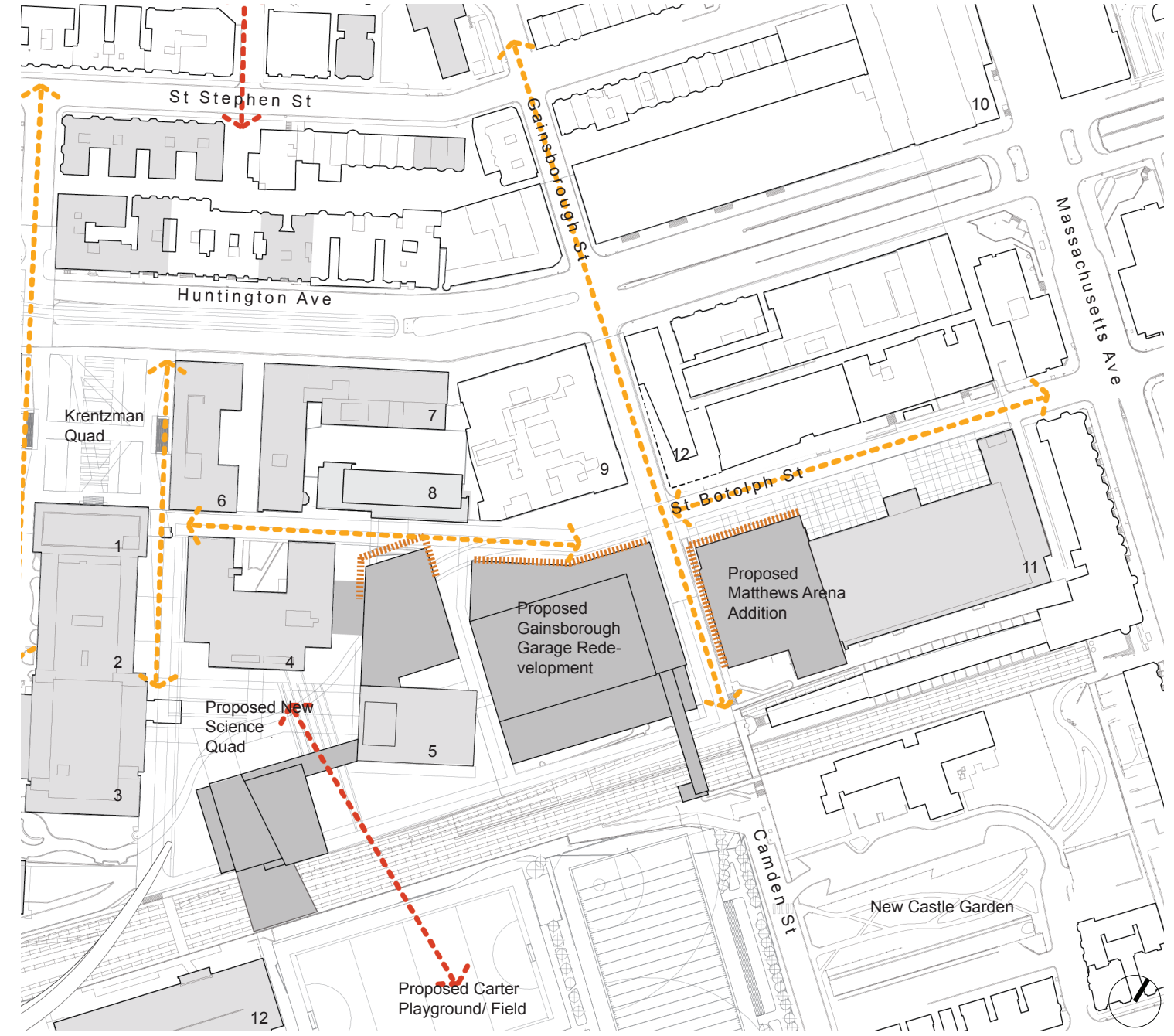


Figure C-18.  
**North Campus Precinct Section**



Proposed Site Plan 1":200'

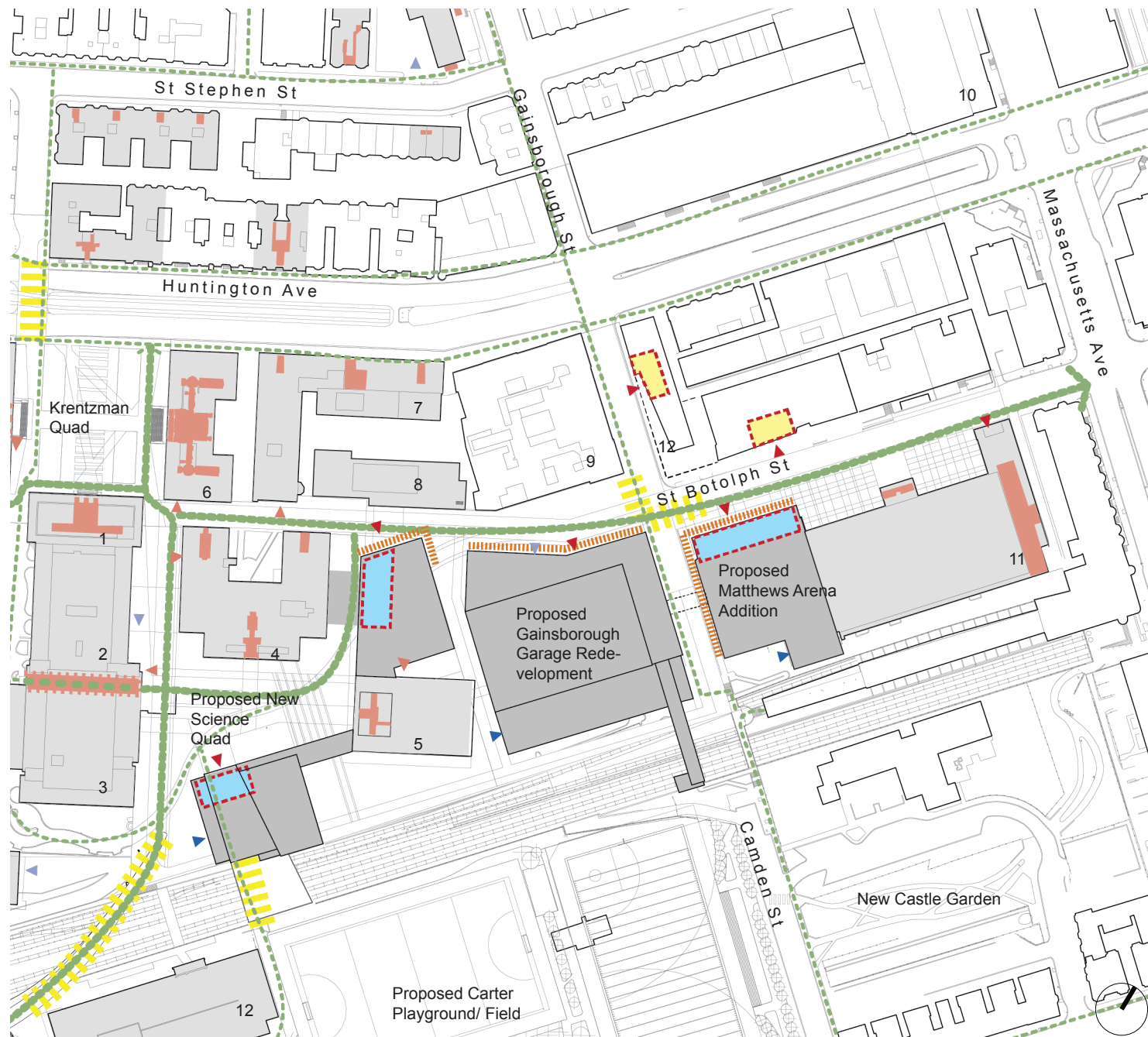


Proposed view corridors and street level building transparency diagram 1":200'

- 1 Ell Hall
- 2 Blackman Auditorium
- 3 Curry Student Center
- 4 Mugar Life Sciences Center
- 5 Hurtig Hall
- 6 Dodge Hall
- 7 Huntington Ave YMCA
- 8 Grandmarc Development Student Residence
- 9 NEC Jordan Hall
- 10 Symphony Hall
- 11 Matthews Arena
- 12 Proposed NEC Addition

- Active Street Frontage
- Enhanced Existing View Corridor
- New View Corridor

**Figure C-19.**  
**East Campus Precinct**

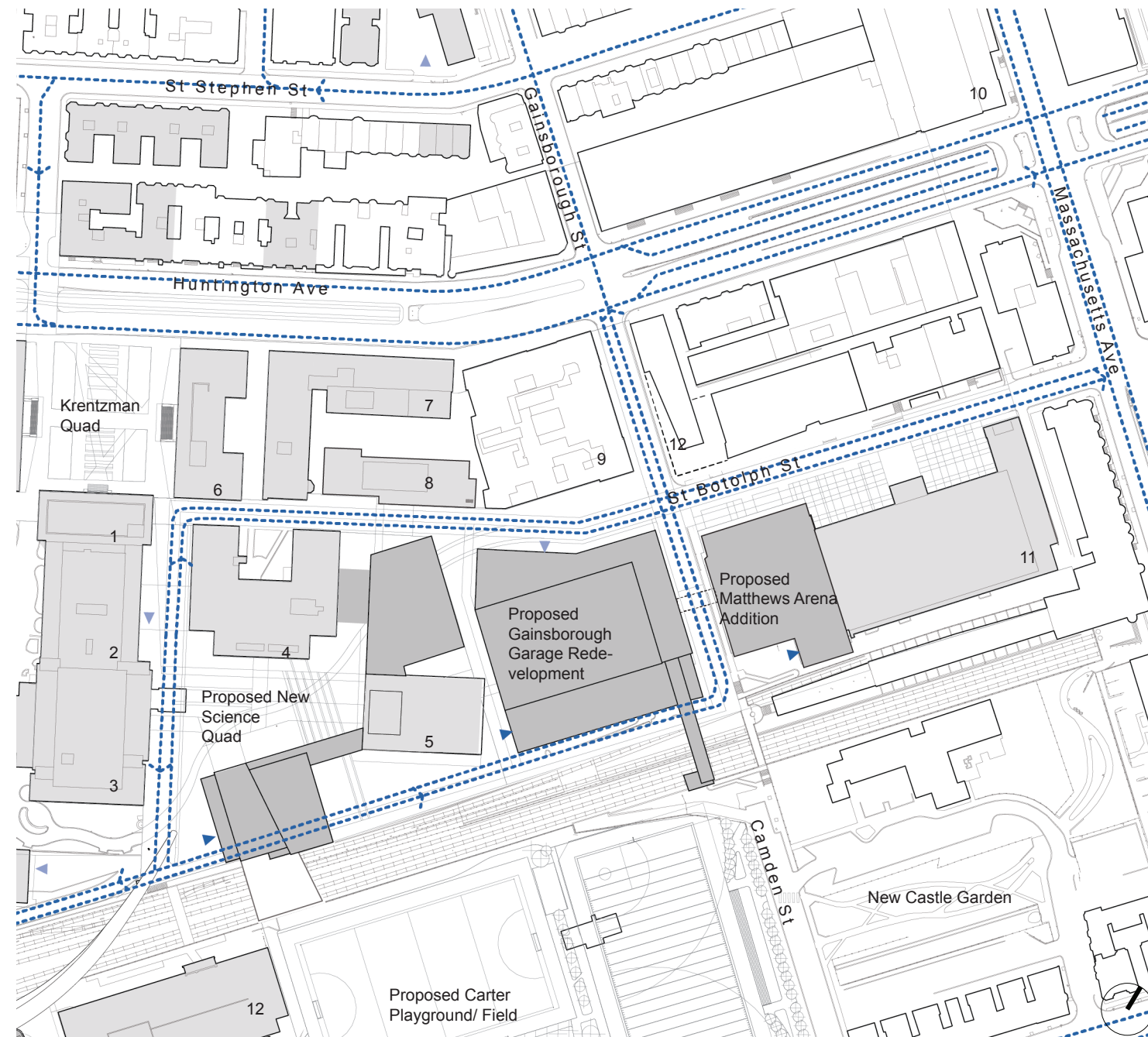


Proposed Pedestrian Circulation Diagram 1":200'

- 1 Ell Hall
- 2 Blackman Auditorium
- 3 Curry Student Center
- 4 Mugar Life Sciences Center
- 5 Hurtig Hall
- 6 Dodge Hall
- 7 Huntington Ave YMCA
- 8 Grandmarc Residences
- 9 NEC, Jordan Hall
- 10 Symphony Hall
- 11 Matthews Arena
- 12 Proposed NEC Addition

**Key**

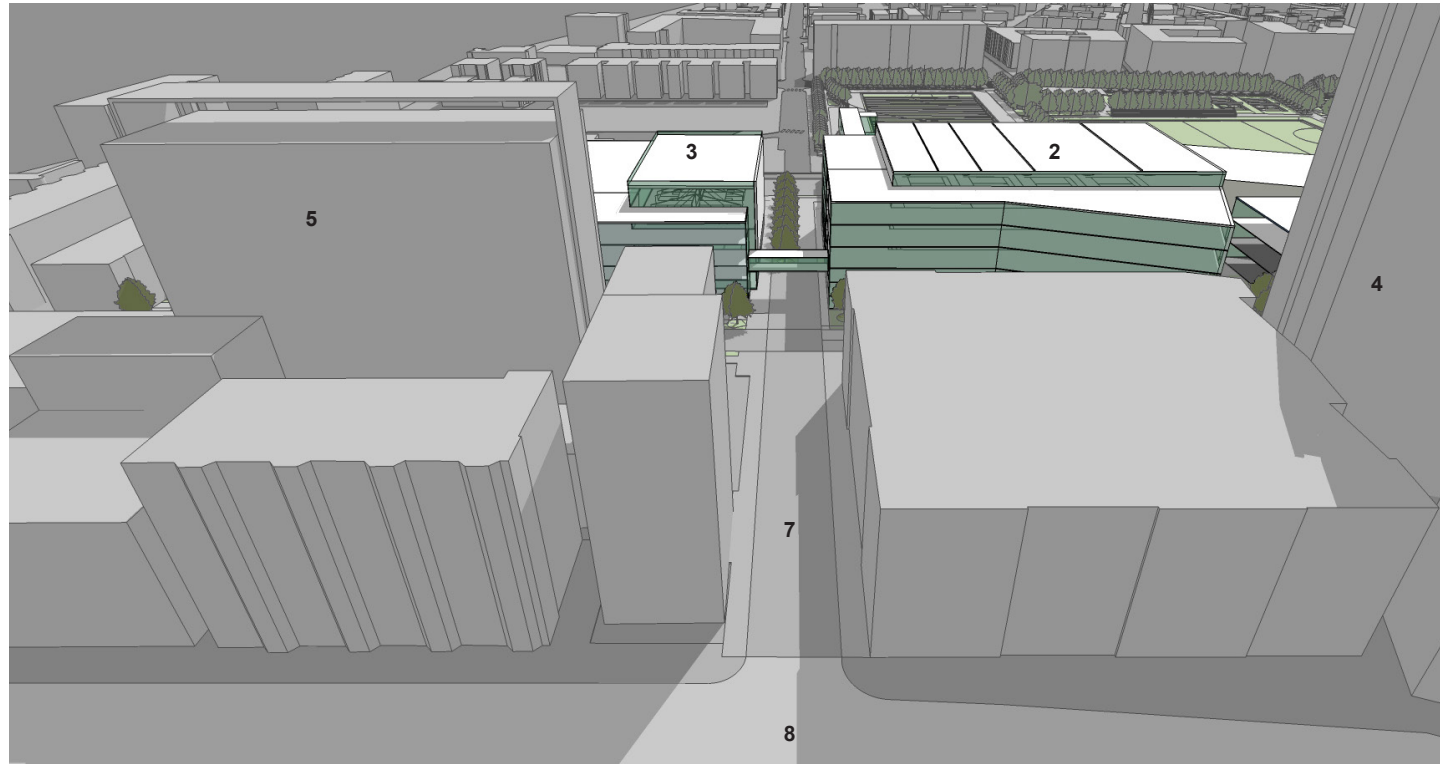
- Enhanced pedestrian crossing
- Primary pedestrian route
- Secondary pedestrian route
- Accessible entrance to existing buildings
- Main entrance to proposed buildings
- Secondary entrance to proposed buildings
- Existing building entrance area
- Proposed building entrance area
- Proposed NEC building entrance area



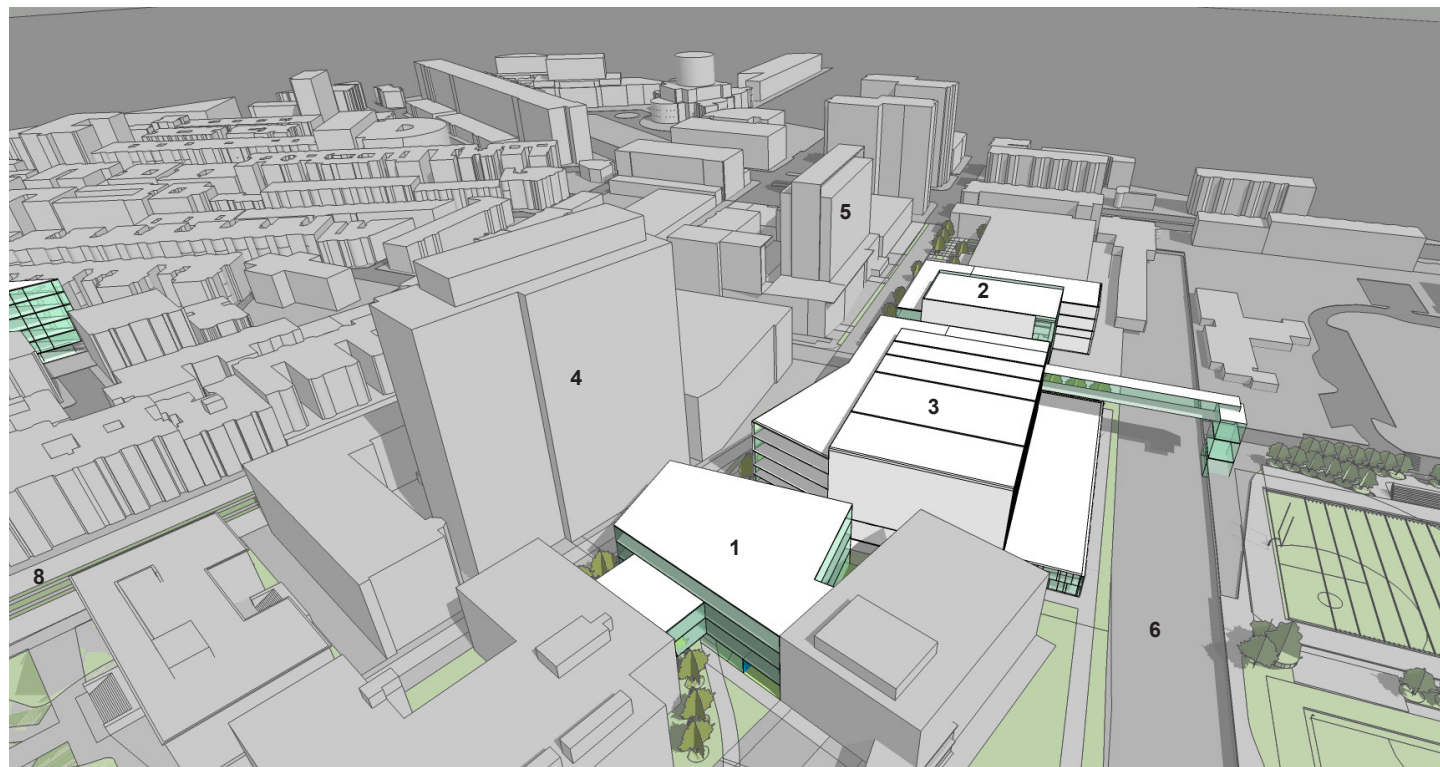
Proposed vehicle circulation diagram 1":200'

**Key**

- Primary vehicle route
- Proposed loading bay entrance
- Proposed entrance to below grade structured parking
- Existing loading bay entrance



Proposed aerial view 1 from northwest

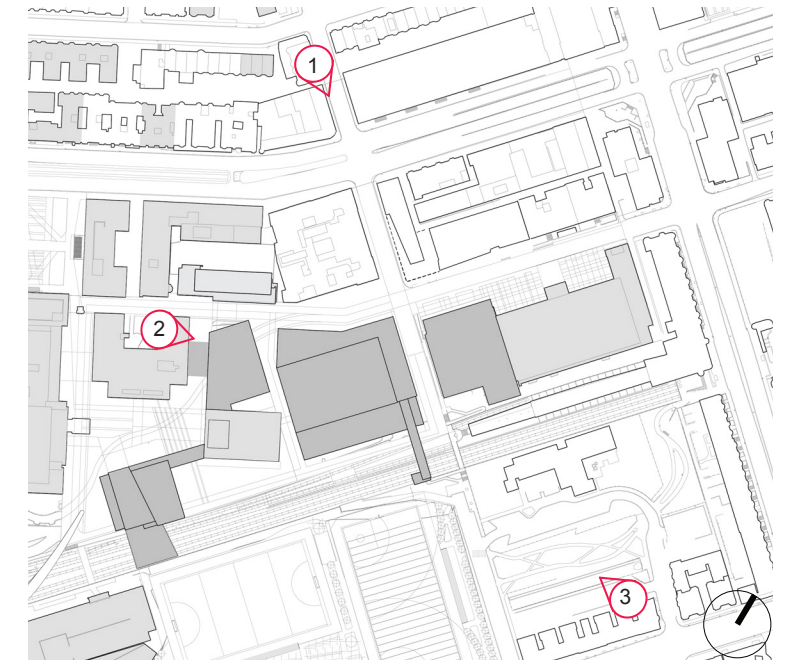


Proposed aerial perspective 2 from west

**Key**

- 1 Science Quad
- 2 Gainsborough Garage Redevelopment
- 3 Matthews Arena Addition
- 4 Grandmarc
- 5 Proposed NEC development
- 6 MBTA / Amtrak tracks
- 7 Gainsborough St.
- 8 Huntington Ave.

 Aerial Perspectives



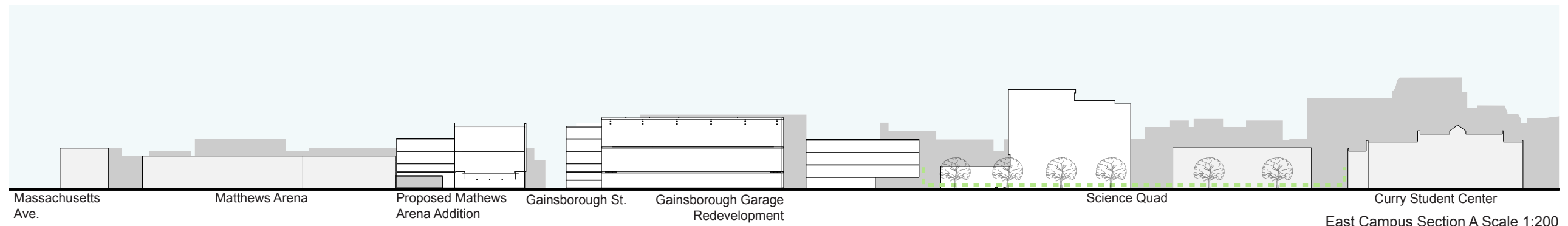
East Campus Plan, not to scale



Proposed aerial perspective 3 from southeast



East Campus Plan, not to scale



**Figure C-22.**  
**East Campus Precinct Sections A & B**

## **Appendix D**

### **Traffic Appendices**

**(Available upon request as a separate document or CD. To be provided to City agencies for review.)**

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## **Appendix E**

### **Additional Historic Resources**

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This appendix identifies the historic resources that are currently part of the Northeastern Boston campus that were not previously surveyed and that were built prior to 1969. In general, that includes buildings that were built by Northeastern between 1961 and 1969 and buildings that are 45 years or older and were acquired by Northeastern since 2005.

### **E-1. Previous Historic Resources Surveys**

A historic resources survey of the Fenway neighborhood was completed in 1984 and a survey of the Parker Hill/Mission Hill neighborhood was completed in 1985 under the supervision of the Boston Landmarks Commission and the BRA. The Completion Report for each neighborhood survey identified numerous historic individual properties and districts, including those that are individually listed and listed as districts in the State and National Registers of Historic Places and as Local Landmarks. The 1984 and 1985 reports also listed those properties and districts that are recommended for such listings. Among the recommendations, several Northeastern-owned properties were recommended for National Register listing either individually or as part of proposed historic districts. While many of these are not yet listed as Local Landmarks or in the State or National Registers of Historic Places, they were included in the 2005 Preservation Plan.

In 2005, Northeastern completed a survey of all buildings on the Boston campus that were 45 years or older and that had not yet been surveyed. The properties were listed and mapped in the Plan for easy identification. Combined with the available from the MHC and BLC files, this provided an excellent framework to understand the developmental history and the historic resources of the University and the immediate surroundings.

### **E.2. Current Survey – 2013**

The current historic resources survey undertaken as part of this update to the 2005 Preservation Plan includes five academic buildings, one recreational building, three residential facilities and one parking garage. **Table 11-1** in **Section 11.12** lists the surveyed properties which are identified by survey number and shown on the map in **Figure 11-1** in **Section 11.12**. Except for the parking garage, all of the buildings were built by Northeastern and were designed by the architectural firm of Shepley, Bulfinch, Richardson & Abbott, the successor to Coolidge, Shepley, Bulfinch & Abbott, architects of the original campus plan and buildings. The 1960s buildings follow the modern architectural expression of the original structures with their light gray brick curtain walls, vertical window strips, scale of four to five stories and minimal architectural detail. Including the original 1930s and 1950s buildings at Northeastern, this 1960s group forms a particularly coherent architectural statement, which was clearly embraced by the University to express their forward-looking institutional mindset.

### **E.3. National Register Recommendations**

In concert with the recommendations in the 2005 Preservation Plan, the additional nine buildings constructed by Northeastern between 1961 and 1969 may be eligible for listing in the National Register of Historic Places as part of the Northeastern University Quadrangle complex. Although most of these buildings, except for Knowles Hall, are in secondary or tertiary locations on the campus, the architecture

is identical to that of the original Northeastern buildings. In addition, they were all built as part of an expansion plan that included new programs and schools, updating existing programs and providing housing to attract potential students from a broader geographic area. They represent in particular a rapid growth period when Northeastern increased its programs in sciences and research. The merger with Boston-Bouve College, which had a strong program in physical therapy, and the opening of the College of Nursing were part of that expansion. This expansion, under the direction of President Asa S. Knowles, exhibited the University's dynamic flexibility which achieved the goals of bringing Northeastern increased exposure and prestige.

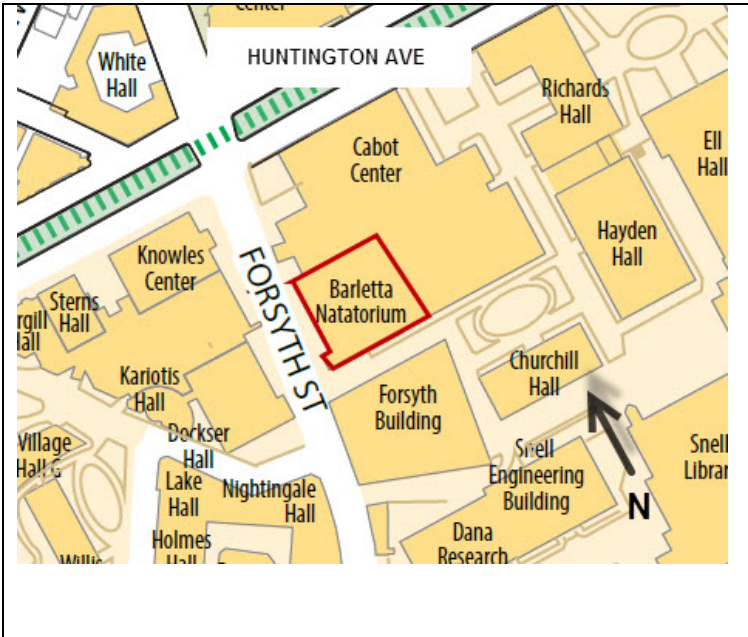
# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

## Photograph



## Topographic or Assessor's Map



Assessor's Number    USGS Quad    Area(s)    Form Number

**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

**Address:** 400 Huntington Avenue

**Historic Name:** Barletta Natatorium

**Uses:** Present: Recreational, Pool

Original: Recreational, Pool

**Date of Construction:** 1968

**Source:** Drawings, Frederick p. 524.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

### Exterior Material:

Foundation: concrete

Wall/Trim: glazed gray brick, sandstone

Roof: tar & gravel

### Outbuildings/Secondary Structures:

**Major Alterations** (*with dates*): Snell Engineering Center added to the east elevation, 1984.

**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing west on the east side of Forsyth Street, southeast of the original Northeastern 1930s/1950s quadrangle.

**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

# INVENTORY FORM B CONTINUATION SHEET

BOSTON

400 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

--	--

Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

## ARCHITECTURAL DESCRIPTION:

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Barletta Natatorium is attached to the southwest corner of Cabot Center (1952 – 54) and it is set back from Forsyth Street with a landscaped area with benches shaded by trees along the west side of the building. Rectangular in plan, the building is two stories tall and open to the ceiling on the interior. It is 11 bays long on Forsyth Street and its gray brick walls rise two stories to a concrete overhanging cornice supported on tall concrete beams that project beyond the wall plane. Windows are set between the beams at the top of the wall, providing clerestory lighting to the interior. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Narrow stone or cast concrete columns delineate the bays, which have no other detailing.

The south elevation of Barletta is unrelieved brick and it is entered through Cabot Center. There is a large metal sculptural form hanging from the north elevation at the west corner.

## HISTORICAL NARRATIVE

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Completed in 1968, Barletta Natatorium held a swimming pool, weight rooms, handball courts and other athletic facilities. It was intended to provide Boston-Bouve College with state-of-the-art facilities. Barletta was dedicated in January 1969, in honor of Vincenza and Frederick Barletta, to acknowledge the family's generous donation to the project. Barletta was part of phase two of Northeastern's Diamond Anniversary Development Program.

Barletta was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Barletta is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1969. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Fredericks (p. 524), as the "contemporary classic style." In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson's office and established a notable practice in its own right. George Shepley's oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern's 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University's current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

400 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from the 1930s and 1950s. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( - 1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore a firm well known for their theatre designs.

**BIBLIOGRAPHY and/or REFERENCES**

Epsilon Associates. *Northeastern University Preservation Plan*. September 2005.

Frederick, Antoinette. *Northeastern University, an Emerging Giant, 1959 – 1975*. Boston, Mass: Northeastern University Custom Book Program. 1982.

Sanborn Insurance Co., *Sanborn Insurance Maps, Boston, MA. Vol. 2*. New York, New York. 1908, corrected to 1938, 1929 corrected to 1951.

<http://www.shepleybulfinch.com/history/>

Shepley, Bulfinch Richardson & Abbott. Drawings: Women's Dormitory. 4/10/1963

Withey, Henry F. AIA and Withey, Elsie Rathburn. *Biographical Dictionary of American Architects (Deceased)*. Los Angeles: Hennessey & Ingalls, Inc. 1970.

# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

Assessor's Number    USGS Quad    Area(s)    Form Number

	Boston South		
--	-----------------	--	--

**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

Photograph



**Address:** 110 Forsyth Street

**Historic Name:** Northeastern University Research Building/current: Charles A. Dana Research Center

**Uses:** Present: Research

Original: Physics and Electrical Engineering Research

**Date of Construction:** 1966

**Source:** Drawings, Frederick p. 523.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: rubber

**Outbuildings/Secondary Structures:**

**Major Alterations (*with dates*):** Snell Engineering Center added to the east elevation, 1984.

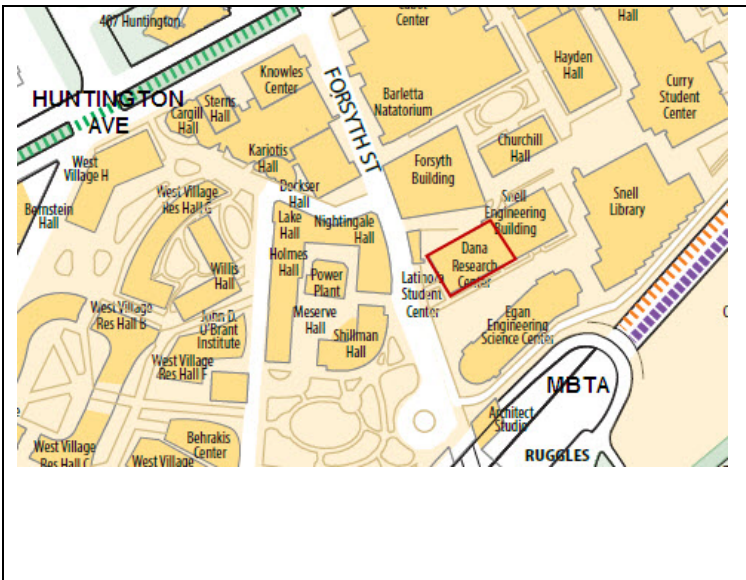
**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing west on the east side of Forsyth Street, southeast of the original Northeastern 1930s-1950s quadrangle.

Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date (*month / year*):** May 2013

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

110 FORSYTH STREET

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

--	--

Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

**ARCHITECTURAL DESCRIPTION:**

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Dana Hall is set back from Forsyth Street with a wide paved path leading up to the central entrance. Rectangular in plan, the four story building is 9 bays wide by 11 bays long and its gray brick walls rise four and one-half stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Shallow inset window bays run from the basement to the top of the fourth story windows. They are constructed of a combination of steel framed windows, which include hopper sashes, fixed windows, black and gray opaque panels which from a distance suggest a vertical void between colossal columns where the separate stories are not articulated. There are two projecting glass bays on the south elevation, at the third and fourth stories.

The main entrance steps appear to be a later addition. They are built of almost white monochromatic brick with granite steps and low concrete benches on either side of the concrete landing. The entrance is framed by two flat pilasters supporting a tall, flat limestone panel with a central coat of arms and the name Charles A Dana Research Center incised near the lower edge of the limestone panel.

Dana Research Center has 71,374 sq. ft.

**HISTORICAL NARRATIVE**

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Completed in 1966 as a Physics and Electrical Engineering building, Dana Research Center was dedicated on May 18, 1967 to Charles A. Dana, industrialist, philanthropist and past president of the Charles A. Dana Foundation<sup>1</sup>. The \$2.8 million cost was financed in part by a National Science Foundation grant of \$900,000 and by a donation from Charles A. Dana. The large amount of the NSF grant was part of a program of federal funds available through the National Defense Education Act passed in 1958 in response to the Soviet launching of the Sputnik satellite in October 1957. Dana Research Center was the first facility at Northeastern devoted solely to graduate instruction and research and contained “the newest in high and low energy solid state laboratories, a physics and engineering library, computation rooms, and administrative offices for faculty and graduate students.”<sup>2</sup> Dana was part of phase two of Northeastern’s Diamond Anniversary Development Program.

Dana Research Center was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Dana Center is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1969. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Antoinette p. 524, as the “contemporary classic style.” In

<sup>1</sup> Founded in 1950, “the Dana Foundation is a private philanthropic organization that supports brain research through grants, publications, and educational programs.” <http://www.dana.org/aboutdana/>

<sup>2</sup> Fredericks, p. 523.



**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

110 FORSYTH STREET

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson's office and established a notable practice in its own right. George Shepley's oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern's 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University's current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from. Clapp was a graduate of Harvard (1935) the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore, a firm well known for their theatre designs.

Renovations to Dana Research Center have created updated facilities. A semiconductor research laboratory was installed in 1990. In 2008, an interferometry lab was designed and a design was completed for the Lev Perelman Lab. In 2012, the graduate student area was renovated.

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# FORM B – BUILDING

Assessor's Number    USGS Quad    Area(s)    Form Number

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

	Boston South		
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**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

## Photograph



**Address:** 65 Forsyth Street

**Historic Name:** Boston Bouvé College/current Charles and Estelle Dockser Hall

**Uses:** Present: Bouvé College of Health Sciences

Original: school of physical education and physical therapy

**Date of Construction:** 1968

**Source:** Drawings, Frederick p. 524.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: white rubber

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*): Two-story projecting glass and aluminum entrance vestibule added at the south east corner.

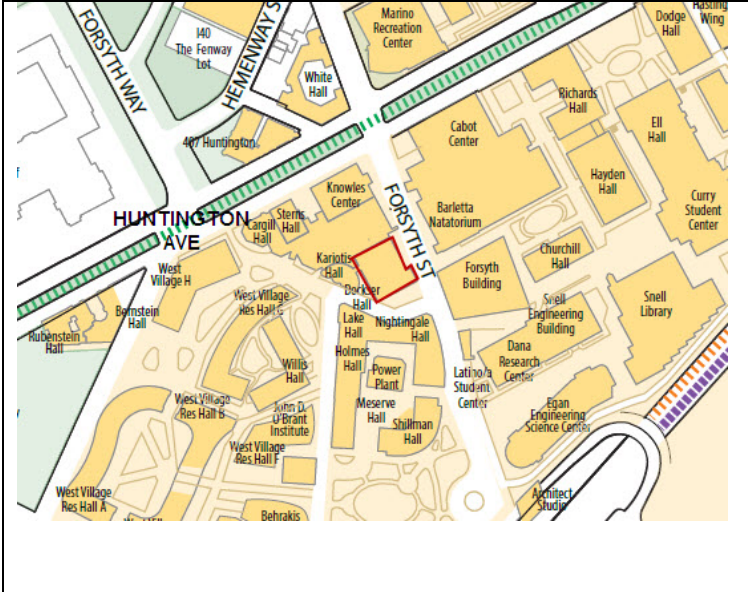
**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing east on the west side of Forsyth Street, west of the original Northeastern 1930s-1950s quadrangle. Adjacent to a raised plaza with plantings between Knowles Center and Dockser Hall.

## Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

65 FORSYTH STREET

MASSACHUSETTS HISTORICAL COMMISSION  
 220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

**ARCHITECTURAL DESCRIPTION:**

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Dockser Hall is set back approximately 10 feet at the sidewalk on Forsyth Street with grass and plantings at the sidewalk and a handicap ramp at the northeast corner leading to an entrance on the north elevation. Rectangular in plan, the four story building is 10 bays wide by 13 bays long along Forsyth Street. Its brick walls rise four stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Shallow inset window bays run from the basement to the top of the fourth story windows. They have aluminum-framed glass panels, with tinted and opaque panels, which were most likely installed during the 2008 renovations. It is not clear whether any of the windows are operable and it is not possible to distinguish the different floors. The dark tinted glass and opaque panels suggest a vertical void between colossal columns.

The 1 ½-story entrance projects out from the southeast corner of the building extending one bay on the south and four bays along the east (Forsyth Street) elevation. It is built of glass panels with a narrow black aluminum frame set on a stone or cast stone base. The entrance roof cantilevers over the south entrance walk, the glass doors are on the south elevation and the building name is silk-screened onto the glass wall panels near the entrance.

Dockser was reportedly 40,000 sq. ft. when it was completed in 1968, and it now contains 63, 383 sq. ft.

**HISTORICAL NARRATIVE**

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Charles and Estelle Dockser Hall, referred to on the drawings as Boston Bouvé College, was completed and dedicated in the fall of 1968. It contained administrative offices and classrooms for Boston Bouvé College as well as an instructional gymnasium, a dance studio, laboratories and recreational facilities. Boston Bouve College, originally a women's school founded in 1913 as the Boston School of Physical Education, had been affiliated at different times with Simmons College and Tufts University before it merged in 1964 with Northeastern to form the Boston-Bouvé College of Northeastern University. Northeastern was thus able to introduce courses to men and women in physical education and physical therapy. Having undergone a few transitions within Northeastern, it is now known as the Bouvé College of Health Sciences. Dockser Hall was part of phase two of Northeastern's Diamond Anniversary Development Program. It was named for an alumnus who made a large donation toward the construction of the building. Dockser was renovated in 2008; it is assumed that the window replacement, new entrance pavilion, and white rubber roof were installed at that time.

Dockser Hall was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Dockser Hall is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1968. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Antoinette (p. 524), as the "contemporary classic style." In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with glass, steel and brick curtain walls, which offered the advantage of being fire resistant.

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

65 FORSYTH STREET

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson's office and established a notable practice in its own right. George Shepley's oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern's 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University's current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning. Engineers John J. McEvoy (plumbing) and Edward Shooshanian (mechanical/electrical) worked on Dockser when it was built in 1968.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from the 1930s, 1940s and 1950s. He was a principal at Shepley Bulfinch and became well respected for his expertise in library design. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore a firm well known for their theatre designs.

The architectural firm of Sasaki with LeMessurier Consultants structural engineers were responsible for the 2007-2008 design of improvements to Dockser Hall, which included a moot court and were labeled "School of Law – Dockser Hall" indicating that by then the Law School had expanded into Dockser.

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Shepley, Bulfinch Richardson & Abbott. Drawings: Women's Dormitory. 4/10/1963

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# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

Assessor's Number    USGS Quad    Area(s)    Form Number

**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

**Address:** 334 Huntington Avenue

**Historic Name:** Chemistry Building/current: Edward L. Hurtig Hall

**Uses:** Present: Research/Classroom

Original: Chemistry, Chemical Engineering & Allied Health Services

**Date of Construction:** 1968

**Source:** Drawings, Frederick p. 524.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: tar and gravel

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

**Condition:** good

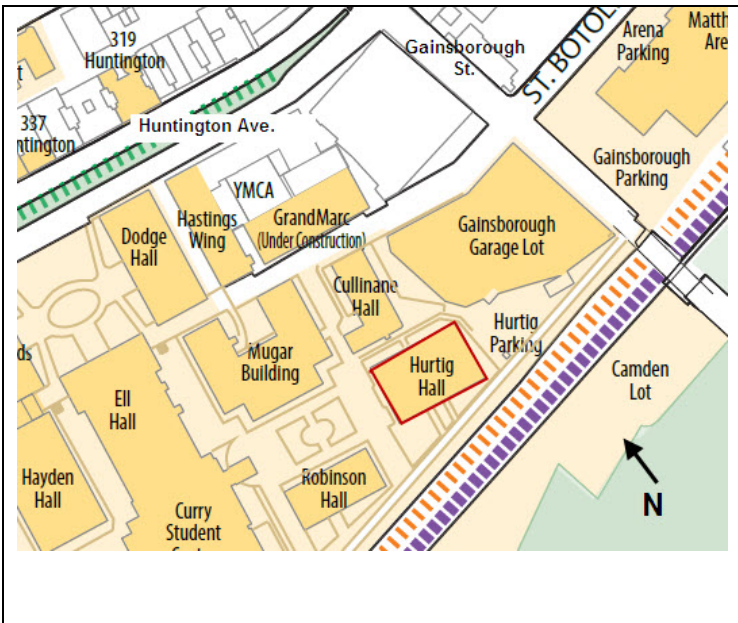
**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing west on the east side of the health sciences quadrangle.



**Topographic or Assessor's Map**



**Recorded by:** Leslie Donovan  
**Organization:** Tremont Preservation Services LLC  
**Date** (*month / year*): May 2013

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

334 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
 220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

**ARCHITECTURAL DESCRIPTION:**

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Hurtig Hall is located just north of the MBTA Commuter Rail/Orange Line tracks at the southern edge of the Huntington Avenue campus. It encloses the east side of what was known at the time as the health sciences quadrangle. Rectangular in plan, the four story building is 8 bays wide by 14 bays long. Its gray brick walls rise four stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Shallow inset window bays run from the basement to the top of the fourth story windows. The vertical window strips are constructed of a combination of a single light window alternating with narrow metal louvered spandrel panels. Some spandrel panels appear to be narrow louvers, while others are ribbed metal. Because of the difference in material, it is possible to discern the floor levels. The windows and spandrels appear to be original to the building and are set slightly closer to the plane of the facade. Hurtig Hall contains 82,160 square feet.

The main entrance steps are centered on the west elevation in the 4<sup>th</sup> and 5<sup>th</sup> bays. A two tiered set of concrete steps lead up to two pair of aluminum-frame and glass entrance doors with two transoms above. A large rectangular sandstone panel projects slightly at the spandrel panel above the door. The name "EDWARD L HURTIG HALL" is carved near the lower edge of the stone panel and gold-painted pentagonal panel with other geometric forms inside fill the center of the panel. On either side of the west entrance steps, there are areaways and two large openings at the basement filled with louvers. In addition to the main entrance, there are two loading doors on the south elevation; one secondary door on the north elevation is set in a slightly projecting flat-arched surround.

**HISTORICAL NARRATIVE**

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Edward L. Hurtig Hall, referred to on the drawings as Chemistry Building, was completed in the fall of 1968 at a cost of \$3 million and dedicated in December 1969. Carl R. Hurtig, E' 1948, had the building named for his brother Edward, Chemistry 1946, who had died in Europe during World War II. Carl Hurtig contributed generously to the cost of constructing the building. He was Senior Vice President of the Damon Corporation, member of the University Corporation and the National Council and later a member of the Board of Trustees.<sup>1</sup> Hurtig Hall was part of phase two of Northeastern's Diamond Anniversary Development Program.

Part of the goal to enhance Northeastern's graduate and research programs, Hurtig Hall was built for the departments of Chemistry, Chemical Engineering and Allied Health Sciences. Hurtig was another beneficiary of the federal grants available as a result of the National Defense Education Act passed in 1958 in response to the Soviet launching of the Sputnik satellite in October 1957. The United States and the federal government in particular placed a priority on funding science, technology and engineering to overcome what was seen as a U.S. deficiency in these fields that had allowed the Soviets move ahead in the space race.

<sup>1</sup> Fredericks, p. 524.

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

334 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Hurtig Hall was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Hurtig Hall is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1968. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Frederick (p. 524), as the "contemporary classic style." In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson's office and established a notable practice in its own right. George Shepley's oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern's 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University's current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from the 1930s, 1940s and 1950s. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore a firm well known for their theatre designs.

The Boston firm of Marsters Sargent Rivers Architects designed new labs for Hurtig in 1998 and in 2011 façade repair and roof replacement drawings were completed by LeMessurier Consultants, structural engineers and V P Consultants, consulting engineers.

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# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

Assessor's Number    USGS Quad    Area(s)    Form Number

	Boston South		
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**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

**Address:** 416 Huntington Ave

**Historic Name:** Bi-partite Building/current: Asa S. Knowles Center, Ethel B. and Reuben G. Grymzmich Hall, John A. Volpe Hall

**Uses:** Present: Classroom/Library

Original: Center for Law and Criminal Justice

**Date of Construction:** 1969

**Source:** Drawings, Frederick p. 525.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: rubber

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

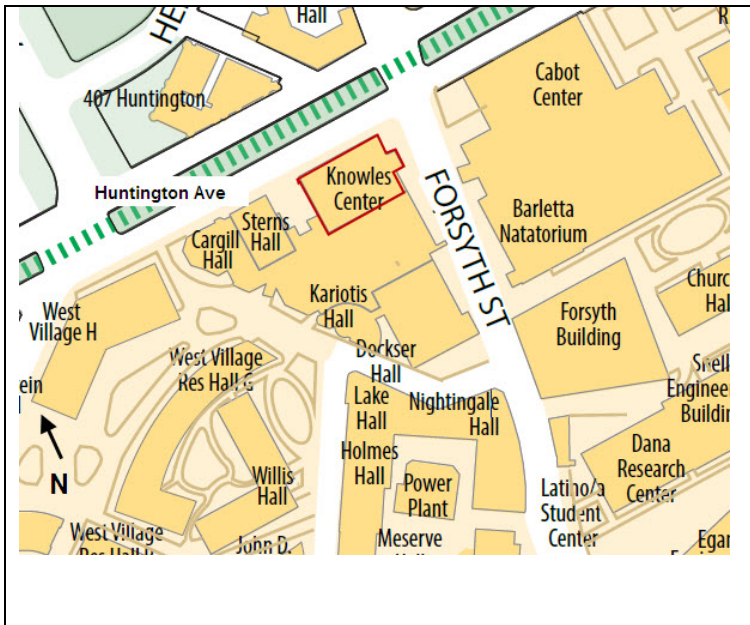
**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus prominently sited at the southwest corner of Huntington Avenue and Forsyth Street. Adjacent to a raised plaza with recessed planting areas between Dana Research Center and Dockser Hall.

## Photograph



## Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013



# INVENTORY FORM B CONTINUATION SHEET

BOSTON

416 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

## ARCHITECTURAL DESCRIPTION:

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Knowles Center is set back approximately 10 feet at the sidewalk on Forsyth Street with grass and plantings at the sidewalk and a handicap ramp at the northeast corner leading to an entrance on the north elevation. Rectangular in plan, the four story building is 17 bays long facing Huntington Avenue by 14 bays long along Forsyth Street. Its gray brick walls rise four stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. The walls sit on a low dark stone foundation with a slightly sloped water table. Shallow inset window bays run from the basement to the top of the fourth story windows. They are constructed of a combination of aluminum framed windows with a low hopper sash and black opaque panels. Because the glass is not heavily tinted and the windows have white blinds, the original expression has been altered. Instead of a vertical void between colossal pilasters where the separate stories are not articulated, the stories are easily read by the contrast of black and white. Also, unlike some of the earlier buildings, there is almost no projection of the narrow cornice beyond the plan of the wall. A low mechanical penthouse is centered on the flat roof and is set back from the edges of the building.

On the Huntington Avenue façade, three center bays have been recessed and a new recessed entrance pavilion built with an aluminum and glass curtain wall system. Above paired entrance doors at the first story, a three-story aluminum framed glass oriel projects out over the entrance. The name Northeastern University School of Law is written on lowest band of the oriel and at the second story is Asa S. Knowles Center. The entrance is approached at grade and a ramp to the east of the entrance provides access between the lower level and the first story. A corresponding recessed bay is centered on the south elevation, but it does not have the projecting glass oriel. At the base of that bay 1 ½-story enclosed vestibule projects from the building. An enclosed one-story ramp is attached to the east side of the vestibule in front of the building. The original main entrance to Gryzmish Hall has been blocked off and filled with an aluminum and glass storefront. The former entrance is framed by a sandstone surround with a tall blank panel above the entrance. The name "ETHEL AND REUBEN GRYZMISH HALL" is carved in the upper half of the panel and in smaller letters along the bottom of the panel is carved "SCHOOL OF LAW." Broad granite steps lead up to a wide concrete landing framed on either side by low concrete benches. The Volpe entrance surround on the west elevation is similar, but seems a bit shallower than that at the Gryzmish entrance. Similar to many of the other buildings of this period, it also has a coat of arms centered above the name.

The Knowles Center now contains 61,112 square feet.

## HISTORICAL NARRATIVE

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Construction for the Asa S. Knowles Center for Law and Criminal Justice started in 1968 following up on the completion of Dockser Hall, Barletta Natatorium and Hurtig Hall. Named for Asa S. Knowles, in recognition of his ten-year anniversary as president at Northeastern, Knowles Center opened in the fall of 1969. Originally referred to as the Bi-Partite Building, the two sections of the building, Law and Criminal Justice, were separately named. The Reuben and Ethel Gryzmish Law Building was dedicated on December 19, 1970. Reuben Gryzmish, Law 1912, was a Boston industrialist, developer and philanthropist, who constructed the first causeway from Miami to Miami Beach. His generous donation helped make the Law building a reality. The building contained the law library, a court room for moot trials, classrooms and administrative offices.

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

416 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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The Criminal Law section also was opened in 1969, but the dedication was delayed until April 15, 1972 due to student unrest and protests. It was ultimately named John A. Volpe Hall, in honor of the former Ambassador to Italy, three times governor of Massachusetts, and former U.S. Secretary of Transportation and a benefactor of Northeastern. In 1956, Northeastern had awarded Volpe an honorary doctor of engineering degree.

Since 1969, renovations to the Knowles Center have updated the facilities. Herbert S. Newman & Assoc. designed a renovation in 1980 – 1981, and in 1990 – 1991, a substantial renovation was designed by Elkus Manfredi.

Knowles Center was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Knowles Center is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1969. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Fredericks (p. 524), as the “contemporary classic style.” In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

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Shepley, Bulfinch Richardson & Abbott. Drawings: Women’s Dormitory. 4/10/1963

Withey, Henry F. AIA and Withey, Elsie Rathburn. *Biographical Dictionary of American Architects (Deceased)*. Los Angeles: Hennessey & Ingalls, Inc. 1970.

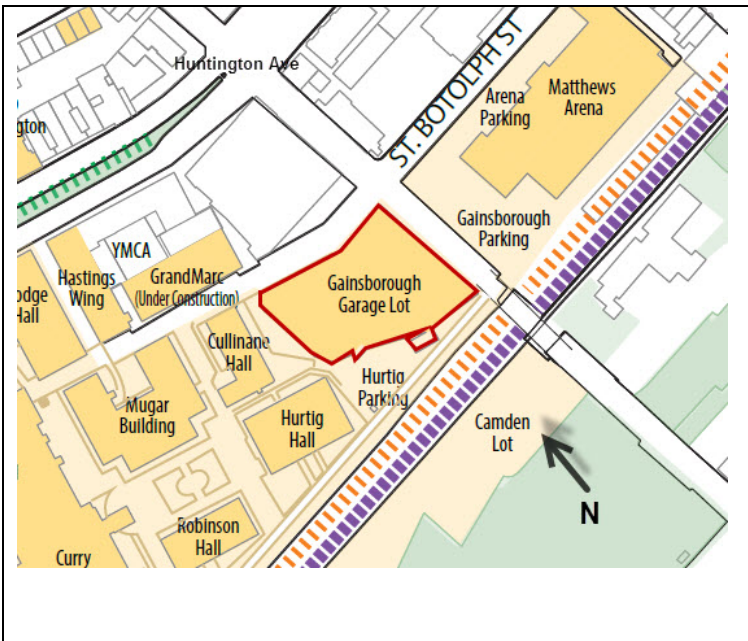
# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

## Photograph



## Topographic or Assessor's Map



Assessor's Number    USGS Quad    Area(s)    Form Number

**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

**Address:** 10 Gainsborough Street

**Historic Name:** Gainsboro Garage

**Uses:** Present: Garage

Original: Garage

**Date of Construction:** 1918

**Source:**

**Style/Form:**

**Architect/Builder:**

**Exterior Material:**

Foundation: concrete

Wall/Trim: concrete

Roof: upper parking deck: concrete

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

**Condition:** good

**Moved:** no |X|    yes |    |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing west on the east side of Forsyth Street, southeast of the original Northeastern 1930s/1950s quadrangle.

**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

400 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
 220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

**ARCHITECTURAL DESCRIPTION:**

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Sitting toward the southeast corner of the Huntington Avenue campus, Gainsboro Garage faces east on the west side of Gainsborough Street, near the MBTA Commuter Rail and Orange Line. It is a three-story parking garage with an open upper parking level. It is constructed of reinforced concrete with concrete interior ramps. Aluminum frame windows with fixed and awning sashes have been installed at the second story and at parts of the first story. The primary feature of the east elevation is a tall pavilion at the automobile entrance. Rusticated pilasters support a frieze and architrave, above which is a sign reading "Gainsboro Garage" centered over four single window openings. The pavilion rises one story above the roof and has a Greek fret band, a narrow ornamental cornice piece and a low pedimented top. It is supported by struts that go back to the top parking level.

There are two automobile entrance/exits on Gainsborough Street and one on St. Botolph Street. There is one pedestrian entrance on St. Botolph Street.

*Shallow pilasters are irregularly spaced framing bays of single window openings or large bands of window stretching between the pilasters.*

**HISTORICAL NARRATIVE**

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

A wood frame building was located on this site, owned by the West End Street Railway Co. and leased to the Boston Elevated Railway Company. It first appeared on the 1902 Bromley atlas through the 1922 atlas. It had an irregular footprint, but it was not exactly the same as the existing building. Beginning in 1928, the current building appears as a two-story brick garage owned by Gainsborough Garage Inc. On the 1938 atlas, the building is indicated as concrete and it is owned by St. Botolph Holding Co. While there are brick partition walls on the interior, it is likely the exterior walls were always concrete.

In 1938, the building had 5 sets of enclosed fire stairs, 4 small skylights and a gasoline station at the first story in the northeast corner, a convenience to those who parked here. On the south wall there was a small area that projects from the building and was labeled the Auto Trimming Shop. It was surrounded by fire proof walls and had a fire proof door. The 1938 Sanborn Insurance map indicates the capacity of the building was 500 cars.

Gainsboro Garage was acquired by Northeastern University in 2000. It has been maintained and has a masonry coating most likely to protect from moisture and the windows have been replaced with aluminum-framed, tinted windows.

**BIBLIOGRAPHY and/or REFERENCES**

Bromley, George. Atlases of Boston, Mass. 1902 - 1938

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

400 HUNTINGTON AVE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Sanborn Insurance Co., *Sanborn Insurance Maps, Boston, MA. Vol. 2.* New York, New York. 1908, corrected to 1938, 1929 corrected to 1951.

# FORM B – BUILDING

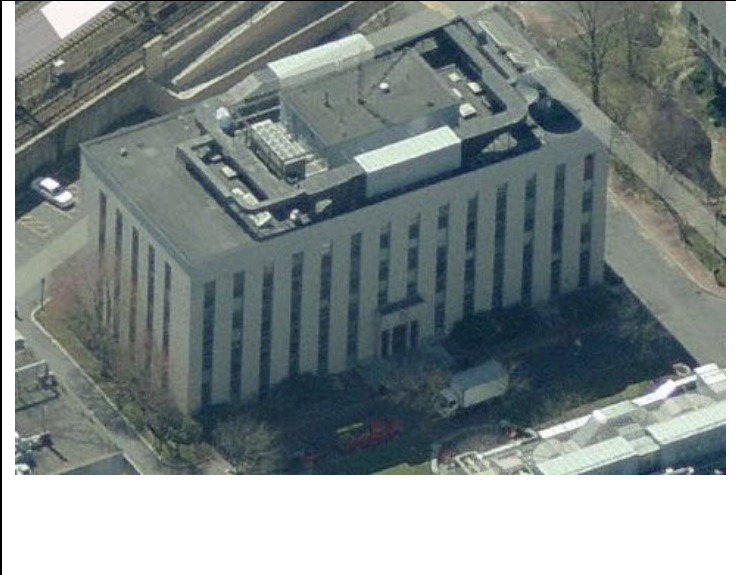
MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

Assessor's Number    USGS Quad    Area(s)    Form Number

**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

## Photograph



**Address:** 336 Huntington Avenue

**Historic Name:** Northeastern University College of Nursing/current: Mary Gass Robinson Hall

**Uses:** Present: Classroom, Administrative Offices

Original: College of Nursing and Physical Therapy Dept.

**Date of Construction:** 1965

**Source:** Drawings, Frederick p. 122, 522-523.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: rubber

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

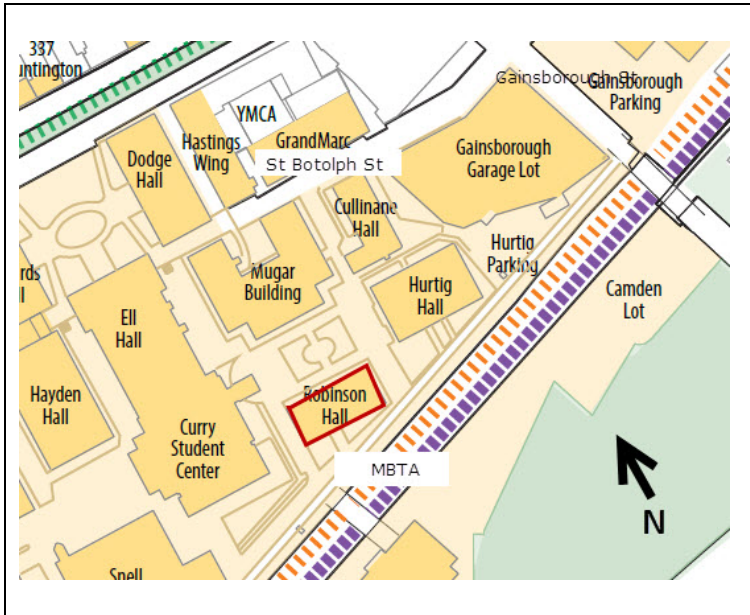
**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Part of Northeastern University Boston campus facing north on the south side of the health sciences quadrangle.

## Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

# INVENTORY FORM B CONTINUATION SHEET

[TOWN ]

[ADDRESS ]

MASSACHUSETTS HISTORICAL COMMISSION

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.

*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

## ARCHITECTURAL DESCRIPTION:

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

One of the smaller buildings constructed by Northeastern for its Huntington Avenue campus, Robinson Hall is located just north of the MBTA Commuter Rail and Orange Line, near the south border of the Huntington Avenue complex. Rectangular in plan, the four story building is 5 bays wide by 14 bays long and its gray brick walls rise four stories to a thin metal cornice with minimal overhang. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Shallow inset window bays run from the basement to the top of the fourth story windows. They are constructed of a combination of aluminum framed windows with a low awning sash and opaque panels. Because there is a difference in the reflective qualities of the windows in contrast to the opaque panels, the original expression has been altered. Instead of a vertical void between colossal pilasters where the separate stories are not articulated, the stories are easily read.

The main entrance is centered on the north elevation. Low steps lead up to paired aluminum-framed glass entrance doors. Four narrow stone posts support a projecting, tall stone sign band. The name MARY GASS RICHARDSON HALL is carved near the lower edge of the stone and centered above that is a coat of arms.

Typical of most of the science buildings, Robinson Hall has extensive roof top equipment and an enclosed mechanical penthouse. It currently has 53,286 square feet.

## HISTORICAL NARRATIVE

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Robinson Hall was constructed for the College of Nursing and for Bouve College's physical therapy department. Completed in 1965 at a cost of \$1.5 million, it also contained biology research laboratories. The building was named for the wife of Dwight P. Robinson, Vice Chairman of Northeastern's Corporation and Board of Trustees. Funded in part by Robinson's donation, Robinson Hall was part of phase two of Northeastern's Diamond Anniversary Development Program. The shield on the entrance sign was selected by Mrs. Robinson to show the heraldic symbols of nursing, physical therapy, the health sciences and the Red Cross. It was the first of such symbols which appear on other buildings of this era.

Robinson Hall did eventually benefit from federal grants that became available as a result of the National Defense Education Act passed in 1958 in response to the Soviet launching of the Sputnik satellite in October 1957. The United States and the federal government in particular placed a priority on funding science, technology and engineering to overcome what was seen as a U.S. deficiency in these fields that had allowed the Soviets move ahead in the space race. Construction took two years to complete, however, due to the rapid pace of construction which was ahead of government inspections, there was a delay in receiving a \$450,000 grant. With the intervention of US Senator Leverett Saltonstall and Representative John W. McCormack, the federal grant was finally released in 1966.

Robinson Hall was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Robinson Hall is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1968. Five were academic buildings, three were residential buildings and

*Continuation sheet 1*

**INVENTORY FORM B CONTINUATION SHEET**

[TOWN ]

[ADDRESS ]

MASSACHUSETTS HISTORICAL COMMISSION

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

Area(s) Form No.

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one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Fredericks (p. 524), as the “contemporary classic style.” In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson’s office and established a notable practice in its own right. George Shepley’s oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern’s 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University’s current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from. He was a principal at Shepley Bulfinch and became well respected for his expertise in library design. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore a firm well known for their theatre design.

Among the upgrades to Robinson Hall, were new thermal windows installed in 1993. Drawings by Perkins & Will dated October 2003 also included windows as well as interior upgrades and renovations.

**BIBLIOGRAPHY and/or REFERENCES**

Epsilon Associates. *Northeastern University Preservation Plan*. September 2005.

Frederick, Antoinette. *Northeastern University, an Emerging Giant, 1959 – 1975*. Boston, Mass: Northeastern University Custom Book Program. 1982.

Sanborn Insurance Co., *Sanborn Insurance Maps, Boston, MA. Vol. 2*. New York, New York. 1908, corrected to 1938, 1929 corrected to 1951.

<http://www.shepleybulfinch.com/history/>

Shepley, Bulfinch Richardson & Abbott. Drawings: Women’s Dormitory. 4/10/1963

Withey, Henry F. AIA and Withey, Elsie Rathburn. *Biographical Dictionary of American Architects (Deceased)*. Los Angeles: Hennessey & Ingalls, Inc. 1970.



# FORM B – BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

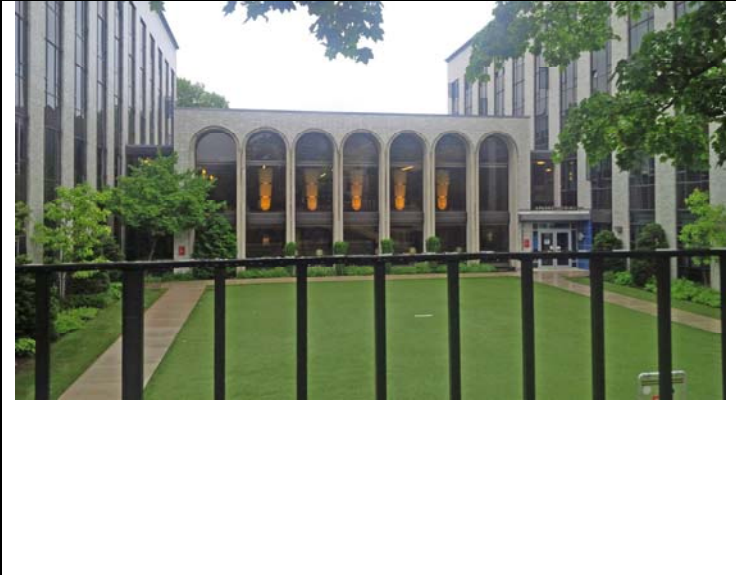
Assessor's Number    USGS Quad    Area(s)    Form Number

	Boston South		
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**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

## Photograph



**Address:** 10 Speare Place

**Historic Name:** Women's Dormitory/ current: Frank Palmer Speare Hall

**Uses:** Present: Dormitory

Original: Dormitory

**Date of Construction:** 1964

**Source:** Drawings, Frederick p. 342.

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed, speckled gray brick

Roof: tar & gravel/composition

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

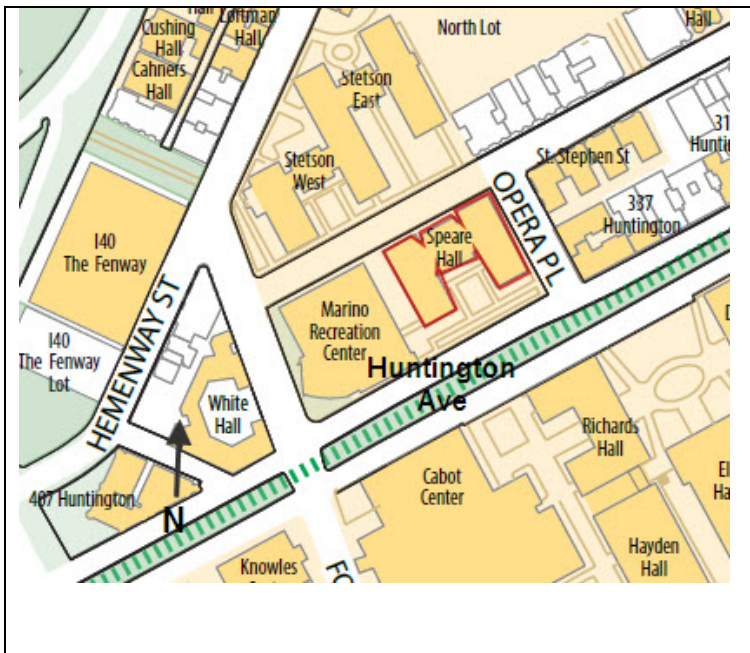
**Condition:** good

**Moved:** no |X|    yes |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Among the residential buildings at Northeastern University Boston campus on the north side of Huntington Avenue. Frames a depressed courtyard. Faces south toward the academic buildings across Huntington Avenue.

## Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

# INVENTORY FORM B CONTINUATION SHEET

BOSTON

10 SPEARE PLACE

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

## ARCHITECTURAL DESCRIPTION:

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

Speare Hall is located at the northwest corner of Huntington Avenue and Opera Place on a lot that had previously been occupied by the Boston Opera House. It is U-shaped in plan, set back from Huntington Avenue framing a depressed landscaped courtyard. The building consists of two parallel rectangular 5-story blocks connected by a tall two-story connector (7 bays wide by 7 bays deep) which is the one feature that does not conform to the standard Northeastern architectural form. The north and south elevations of the connector/lounge are identical and are characterized by two-story arched bays on narrow columns. The flanking buildings are 3 bays wide by 12 bays long and the gray brick walls rise five stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. The connection between the tall blocks and the lower lounge/connector is made by one-bay dark, glazed connectors that are shorter and stepped back from the north and south elevations of the main connector and that read as voids, to visually create a separation between the two elements.

The main entrance is centered on the north elevation with broad low steps approaching the three center bays of the connector. On the south elevation, an entrance with a cantilevered canopy is tucked into the northeast corner of the courtyard. The building name is spelled in individual metal letters attached to the south (Huntington Avenue) elevation at the southeast corner.

Renovations were conducted to Speare Hall in 2004 and 2012.

## HISTORICAL NARRATIVE

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Completed in 1964 as a Women's dormitory, Speare Hall was the first new building constructed in phase two of the Diamond Anniversary Development Plan (DADP). It was a priority to increase campus housing for women and thus to attract more women applicants. The DADP plan called for this one dorm for women, which had a capacity of 400 beds. However, it turned out that Speare was the first of three women's dorms built between 1964 and 1967 (including Stetson West and Stetson East). The construction cost was \$2.9 million and when it opened in 1964, the building was dedicated to Frank Palmer Speare, Northeastern's first president (1898-1940), who oversaw the transition of Northeastern from an evening school of the Boston Young Men's Christian Association to a college and then a university, which eventually became fully independent of the YMCA in 1948. Under Speare's leadership, several new schools were founded as part of Northeastern.

Speare Hall was designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. Speare Hall is one of nine buildings constructed by Northeastern on the Boston campus between 1961 and 1968. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Fredericks (p. 524), as the "contemporary classic style." In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON

10 SPEARE PLACE

MASSACHUSETTS HISTORICAL COMMISSION

NORTHEASTERN UNIVERSITY

Area(s) Form No.

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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An interesting feature of Speare Hall also seen at the two Stetson dorms is that the connector building between the dormitory blocks is quite different from the standard Northeastern architectural form of the period 1936 – 1969. The Speare connector strongly suggests the Metropolitan Opera House (Wallace K. Harrison, architect) at Lincoln Center which was built two years later (1966). It seems that these smaller elements were one area where Shepley, Bulfinch would demonstrate their latest interpretation of the modern style.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson's office and established a notable practice in its own right. George Shepley's oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern's 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University's current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

It is interesting to note that the earlier firm of Shepley, Rutan and Coolidge designed the YMCA building next door to Northeastern at 312 – 320 Huntington Avenue (1912). The YMCA building is a well executed and traditional design. When they first appeared in the 1930s and 1940s, the Northeastern buildings next door must have stood in stark contrast to their neighbors east of Northeastern which like the YMCA were traditional with classical ornament.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from the late 1930s, 1940s and 1950s. He was a principal at Shepley Bulfinch and became well respected for his expertise in library design. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore, a firm well known for their theatre designs.

**BIBLIOGRAPHY and/or REFERENCES**

Epsilon Associates. *Northeastern University Preservation Plan*. September 2005.

Frederick, Antoinette. *Northeastern University, an Emerging Giant, 1959 – 1975*. Boston, Mass: Northeastern University Custom Book Program. 1982.

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# FORM B – BUILDING

Assessor's Number    USGS Quad    Area(s)    Form Number

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

## Photograph



**Town:** BOSTON

**Place:** (*neighborhood or village*) FENWAY

**Address:** East – 10 Speare Place; West – 10 Forsyth Street

**Historic Name:** Stetson East and Stetson West

**Uses:** Present: Dormitory

Original: Dormitory

**Date of Construction:** 1966 & 1967

**Source:** Drawings, Frederick p. 526

**Style/Form:** Modern

**Architect/Builder:** Shepley, Bulfinch, Richardson & Abbott

**Exterior Material:**

Foundation: concrete

Wall/Trim: glazed gray brick

Roof: Tar and gravel

**Outbuildings/Secondary Structures:**

**Major Alterations** (*with dates*):

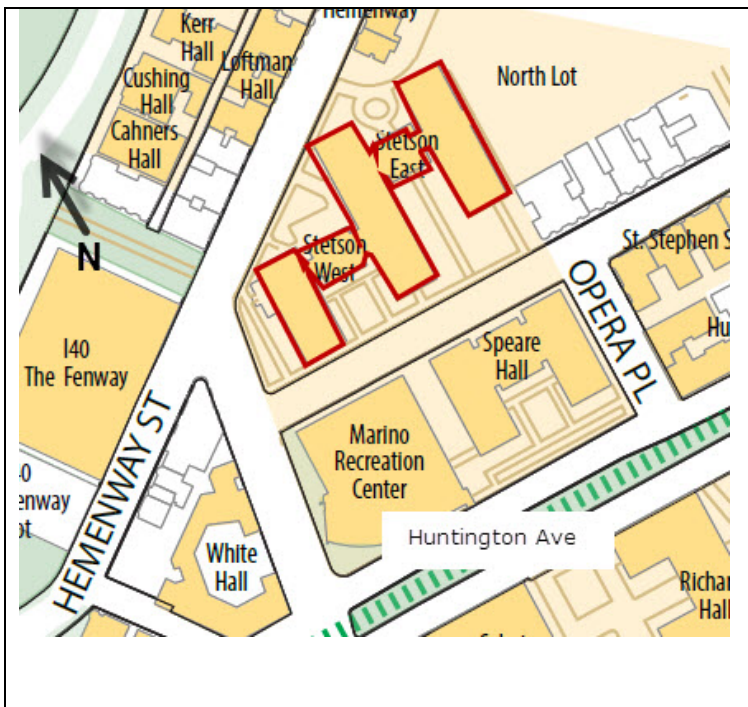
**Condition:** good

**Moved:** no |X|    yes | |    **Date** \_\_\_\_\_

**Acreage:** n/a

**Setting:** Among the residential buildings at Northeastern University Boston campus located on the north side of Huntington Avenue.

## Topographic or Assessor's Map



**Recorded by:** Leslie Donovan

**Organization:** Tremont Preservation Services LLC

**Date** (*month / year*): May 2013

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON 10 SPEARE PLACE &amp; 10 FORSYTH

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

*Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.*

**ARCHITECTURAL DESCRIPTION:**

*Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.*

The Stetson Residence Halls are discussed together since they are essentially one connected building with a consistent design. The Stetson buildings are located at the southeast corner of the intersection of Hemenway and Forsyth streets on land that had previously served as open parking lots. They form a connected L and H in plan, consisting of three long parallel blocks linked by shorter connector buildings. All of the dormitory blocks are three bays wide; the West block is 12 bays long; the center block is 20 bays and the East block is 17 bays long. The gray brick walls rise four stories to a thin metal overhanging cornice. The walls are built of speckled glazed brick with slight color variations from medium gray to almost white creating an impression in the sunlight of dappled light on the walls. As described in the earlier buildings (Epsilon, 2005), the brick is set in a variation of Flemish bond with two stretchers to each header. Interestingly, the connectors do not conform to the standard Northeastern architectural form. The connector/lounges are five bays wide. The north and south elevations of the connector/lounges were identical and were characterized by two-story concrete, flat-arched bays supported on concrete slabs standing on end. The connection between the tall blocks and the lower lounge/connector is made by lower one-bay links that are shorter and stepped back from the north and south elevations of the main connector and that read as voids, to visually create a separation between the two elements.

The west entrance to Stetson West is located in a one story projecting enclosed portico with brick walls and aluminum-frame glass front. It is approached from a raised, brick paved plaza with two pergolas. The rear (north elevation) of the west connector appears to retain its original form and is used as a service entrance. The north entrance to the east connector is approached by a reinforced concrete stair that forms a bridge from the plaza in front of the building to the building. The dark tinted glazed wall under the arches is recessed. The south elevation of the East Connector has a metal frame that sits forward of a deeply recessed glass wall. At the west corner, a covered open portico supported on a similar metal frame projects into the courtyard.

Together the Stetson Residence Halls contain 190,658 sq. ft.

**HISTORICAL NARRATIVE**

*Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.*

Stetson West was completed in 1966 quickly followed by Stetson East in 1967. Stetson West drawings say Men's Dormitory and Stetson East was named Addition to Men's Dormitory. The East drawings were dated 3/4/1965 and the West drawings have the date 12/31/1965. So, before the West Building was completed, it was decided that more dormitory space was needed immediately. Before either building opened, the West building was switched to a women's dorm and at least part of the East building also housed women. In total, just over 800 women lived in the Stetson Residence Halls. This is surprising because Speare Hall, located directly south of Stetson was completed in 1964 as a Women's residence, which at the time was considered adequate for present needs plus room for some growth.

Northeastern had made it a priority to increase campus housing for women and thus to attract more women applicants, and clearly they exceeded their expectations. The Diamond Anniversary Development Program announced in 1961 called for one dorm for women, which had a capacity of 400 beds. However, it turned out that Speare was just the first of three women's dorms built between 1964 and 1967 (including Stetson West and Stetson East). Charles and Annie Stetson Hall was named in memory

**INVENTORY FORM B CONTINUATION SHEET**

BOSTON 10 SPEARE PLACE &amp; 10 FORSYTH

MASSACHUSETTS HISTORICAL COMMISSION  
 220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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of Charles Stetson, a former member of the Northeastern Corporation and the Board of Trustees, and his mother, Annie B. Stetson.

Stetson Hall West and East were designed by Shepley, Bulfinch, Richardson & Abbott (now known as Shepley Bulfinch), a successor to the firm responsible for the original 1936 plan for Northeastern University. The two Stetson Residence Halls are among nine buildings constructed by Northeastern on the Boston campus between 1961 and 1969. Five were academic buildings, three were residential buildings and one was the swimming pool (Barletta Natatorium). This group of buildings expresses the modern vocabulary and aesthetic of the early campus buildings (see 2005 survey forms) referred to by Fredericks (p. 524), as the “contemporary classic style.” In keeping with contemporary technology, the structure for all nine buildings was concrete floors and roof with brick, glass and steel curtain walls, which offered the advantage of being fire resistant.

An interesting feature of the Stetson Halls also seen at Speare Hall is that the design of connector building between the residential blocks is quite different from the standard Northeastern architectural form of the period 1936 – 1969. The two Stetson connectors originally were the same and their north and south elevations were essentially the same. It seems that these smaller elements were one area where Shepley, Bulfinch would demonstrate their latest interpretation of the modern style.

Shepley Bulfinch is a successor firm to the practice of Henry Hobson Richardson, after he died in 1886. The firm of Shepley, Rutan and Coolidge with principals George Foster Shepley, Charles Hercules Rutan, and Charles Allerton Coolidge, undertook to complete the work from Richardson’s office and established a notable practice in its own right. George Shepley’s oldest son, Henry, was to become senior partner in a subsequent firm named Coolidge, Shepley, Bulfinch & Abbott and organized by Coolidge in 1925. It was this firm that executed Northeastern’s 1936 master plan with six quadrangle buildings and designed the earliest buildings. The firm had been selected based on an architectural competition held in 1934 to design a master plan for the University’s current and future needs and to design the first buildings for Northeastern. As early as 1888, Shepley, Rutan and Coolidge were selected to design the master plan and buildings for Stanford University, from the ground up. In the 1960s, Shepley, Bulfinch were responsible for science buildings at other schools such as Dartmouth (1962), Vanderbilt (1965) and Smith (1967). They were clearly a leader in the field of academic design and planning.

It is interesting to note that the earlier firm of Shepley, Rutan and Coolidge designed the YMCA building next door to Northeastern at 312 – 320 Huntington Avenue (1912). The YMCA building is a well-executed and traditional design. When they first appeared in the 1930s and 1940s, the Northeastern buildings next door must have stood in stark contrast to their neighbors east of Northeastern which like the YMCA were traditional with classical ornament.

James Ford Clapp, Jr. ( - 1997) FAIA signed the Shepley Bulfinch drawings for all of the Northeastern buildings of this period and it is assumed that his oversight was responsible for the strong cohesion of design among the buildings of this period and with the earlier buildings dating from the late 1930s, 1940s and 1950s. He was a principal at Shepley Bulfinch and became well respected for his expertise in library design. Clapp was a graduate of Harvard (1935) and the son of James Ford Clapp ( -1941) a partner in the notable Boston architectural firm of Blackall, Clapp & Whittemore, a firm well known for their theatre designs.

Additions have been made to both of the Stetson connectors. In each case, a full height addition was added to the south elevation, increasing the floor area of the connector. The elevations of the two additions are primarily glass, but otherwise are not the same. In 2004, the architectural firm PCA, Prellwitz Chilinski Architects designed the new south addition to the connector and did interior renovations for Stetson West.

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**INVENTORY FORM B CONTINUATION SHEET**

BOSTON 10 SPEARE PLACE &amp; 10 FORSYTH

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

NORTHEASTERN UNIVERSITY

Area(s) Form No.

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**Appendix F**  
**Institutional Partnership Template**

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**Boston Institutional Partnership Program**  
Data and Information Request (Brief Version)

Data Category and Description	Data
<b>Facilities</b>  <b>Total acreage owned in Boston</b> Tax-exempt Taxable <b>Total Gross Floor Area owned in Boston</b> Tax-exempt Taxable <b>Total Gross Floor Area Leased in Boston</b> <b>Total Gross Floor Area proposed, under review, in construction</b> <b>New properties purchased or leased since previous update</b>	  73.03 acres  7,001,871 s.f.
<b>Student Population (as applicable)</b>  <b>Undergraduate</b> Part-time Full-time <b>Graduate</b> Part-time Full-time <b>Post-doctoral</b> <b>Other (e.g. not in degree program)</b>	  15,491  8,275
<b>Patients (as applicable)</b>  <b>Annual inpatient visits to Boston facilities</b> <b>Annual outpatient visits to Boston facilities</b> <b>Annual emergency room visits</b>	  N/A
<b>Employees</b>  <b>Total employee count</b> Staff (FTE) Faculty (FTE) Other (FTE) Number living in Boston (not FTE)	  3,922 (1,003 contract employees) 903 (492 contract)
<b>Financial Information</b>  <b>Annual operating budget</b> <b>Property tax payments</b> <b>PILOT payments</b> <b>Other payments (fees and permits)</b>	  \$2,195,875 FY11 \$900,000 FY13
<b>Housing</b>  <b>Student Housing (as applicable)</b> Undergraduates housed by institution Dormitory/apartment beds Leased housing  Graduate students housed by institution Number living in owned housing Number living in leased housing  <b>Employee Housing</b> Number of units owned by institution Number of units leased by institution Number of employees housed by institution	  8,042  7,955 undergraduate (87 others)  N/A

**Boston Institutional Partnership Program**  
 Data and Information Request (Brief Version)

Data Category and Description	Data
<b>Transportation</b>	
<b>Total Trip Generation by Mode</b> Drive alone Carpool Public transportation Walk Bicycle Other	
<b>Parking Facilities</b> Number of surface spaces (owned and leased) Number of structured spaces (owned and leased) Applicable charges	3,728
<b>Transportation Demand Management Programs</b> T pass subsidies Amount/percentage of subsidy Number of passes subsidized Number of carpool parking spaces Number of bicycle spaces Covered Uncovered	Pre-tax sales    775 258 517

# Appendix G

## Public Notice of the IMP

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## **PUBLIC NOTICE**

The Boston Redevelopment Authority ("BRA"), pursuant to Article 80 of the Boston Zoning Code (the "Code"), hereby gives notice that an Institutional Master Plan ("IMP") was submitted by Northeastern University ("Northeastern"), 360 Huntington Avenue, Boston, Massachusetts 02201 on June 14, 2013 for the Northeastern Institutional Master Plan ("IMP"), 2013-2023. The Northeastern IMP describes eleven currently proposed institutional projects located within the Northeastern University's Boston Campus. These proposed institutional projects include the following institutional uses: academic, research, dormitory, student life, recreation and athletics, parking, and accessory and support spaces.

The IMP may be reviewed at the Office of the Secretary of the BRA, Boston City Hall, Boston, Massachusetts, 02210 between 9:00 a.m. and 5:00 p.m., Monday through Friday, except legal holidays. Copies of the IMP may also be reviewed at the Boston Public Library, Copley Square Central Library, 700 Boylston Street, Boston, MA 02116; the South End Branch Library, 685 Tremont Street, Boston, MA; the Dudley Branch Library, 65 Warren Street, Roxbury, MA 02119; and the Northeastern Snell Library, 346 Huntington Avenue, Boston, MA 02115. Public comments on the IMP, including comments of public agencies, should be submitted to Mr. Gerald Autler, Senior Project Manager/Planner, BRA, at the address stated above or by email to [Gerald.Autler.BRA@cityofboston.gov](mailto:Gerald.Autler.BRA@cityofboston.gov) within 60 days of this notice or by August 14, 2013.

### **BOSTON REDEVELOPMENT AUTHORITY**

Brian Golden, Executive Director/Secretary

June 14, 2013

**Appendix H**  
**Off-Campus Student Housing Market Impact Study**

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# **SUMMARY REPORT**

## **OFF-CAMPUS STUDENT HOUSING MARKET IMPACT STUDY**

**NORTHEASTERN UNIVERSITY  
INSTITUTIONAL MASTERPLAN  
2013**

**Prepared For:**

Northeastern University  
716 Columbus Ave., Suite 328  
Boston, MA 02118

**Prepared By:**

Byrne McKinney & Associates, Inc.  
607 Boylston Street, 6<sup>th</sup> Floor  
Boston, MA 02116

**September 2013**

# Byrne McKinney & Associates, Inc.

REAL ESTATE APPRAISERS & CONSULTANTS

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September 16, 2013

Mr. James A. Chiavelli, II  
Office of the Senior Vice President/General Counsel  
Northeastern University  
716 Columbus Ave., Suite 328  
Boston, MA 02118

**RE: Northeastern Institutional Masterplan  
Off-Campus Student Housing Market Impact Study  
Mission Hill, Fenway and Lower Roxbury Neighborhoods**

Dear Mr. Chiavelli:

Please find attached, a market study to facilitate your understanding of the impact which Northeastern University students (specifically undergraduates) have on the surrounding neighborhood rental and for-sale housing markets.

In accordance with our scope of work, the analysis examines:

- Boston demographic patterns and trends, with particular attention to the college-age population and student-headed households in three specific neighborhoods that abut the NU campus - Mission Hill, Fenway and Lower Roxbury.
- Boston housing development and supply trends with particular attention to the nature and influences of student occupancy in the above referenced neighborhoods.
- the specific impacts of Northeastern's students on the Mission Hill, Fenway and Lower Roxbury housing markets.

The intent of the analysis is to provide market inputs to inform the management of the University's current and future student housing assets. The effective date of our report is August 1, 2013.

We appreciate the opportunity to be of assistance and look forward to discussing our findings with you further. Please do not hesitate to contact us if you have any questions.

Respectfully submitted,

BYRNE MCKINNEY & ASSOCIATES, INC.

Pamela S. McKinney MAI, CRE  
Principal

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## INTRODUCTION

### Study Description

The study which follows presents our analysis of the impacts of off-campus residential occupancy by Northeastern University undergraduates within the Mission Hill, Fenway and Roxbury neighborhoods that abut the campus. The study was commissioned by the University as a requirement of the Boston Redevelopment's scoping for the 2013 Institutional Master Plan (IMP) filing and appears as a supplemental attachment to the IMP.

In accordance with the required scope, the analysis examines:

- Boston demographic patterns and trends, with particular attention to the college-age population and student-headed households in three specific neighborhoods that abut the NU campus - Mission Hill, Fenway and Lower Roxbury.
- Boston housing development and supply trends with particular attention to the nature and influences of student occupancy in the above referenced neighborhoods.
- the specific impacts of Northeastern's students on the Mission Hill, Fenway and Lower Roxbury housing markets.

### Effective Dates

The analysis was conducted during the spring and summer months of 2013. Preliminary results and a review draft were published in August of 2013. The attached document completed on September 17, 2013 represents our final report as amended following review by the University, the Boston Redevelopment Authority and an appointed Housing Task Force made up of neighborhood representative from each of the affected neighborhoods.

### Study Area Definitions

The study examines housing supply and demand activity in several overlapping market areas including the City's defined Neighborhoods and Planning Districts and for the four zip codes that make up the neighborhoods that abut the Northeastern Campus – 02120 (Mission Hill), 02115 (Fenway) and 02118/02119 (Roxbury).

Maps for each of these geographic areas are presented in the pages that follow.

### PLANNING DISTRICT DEFINITIONS

### NEIGHBORHOOD DEFINITIONS

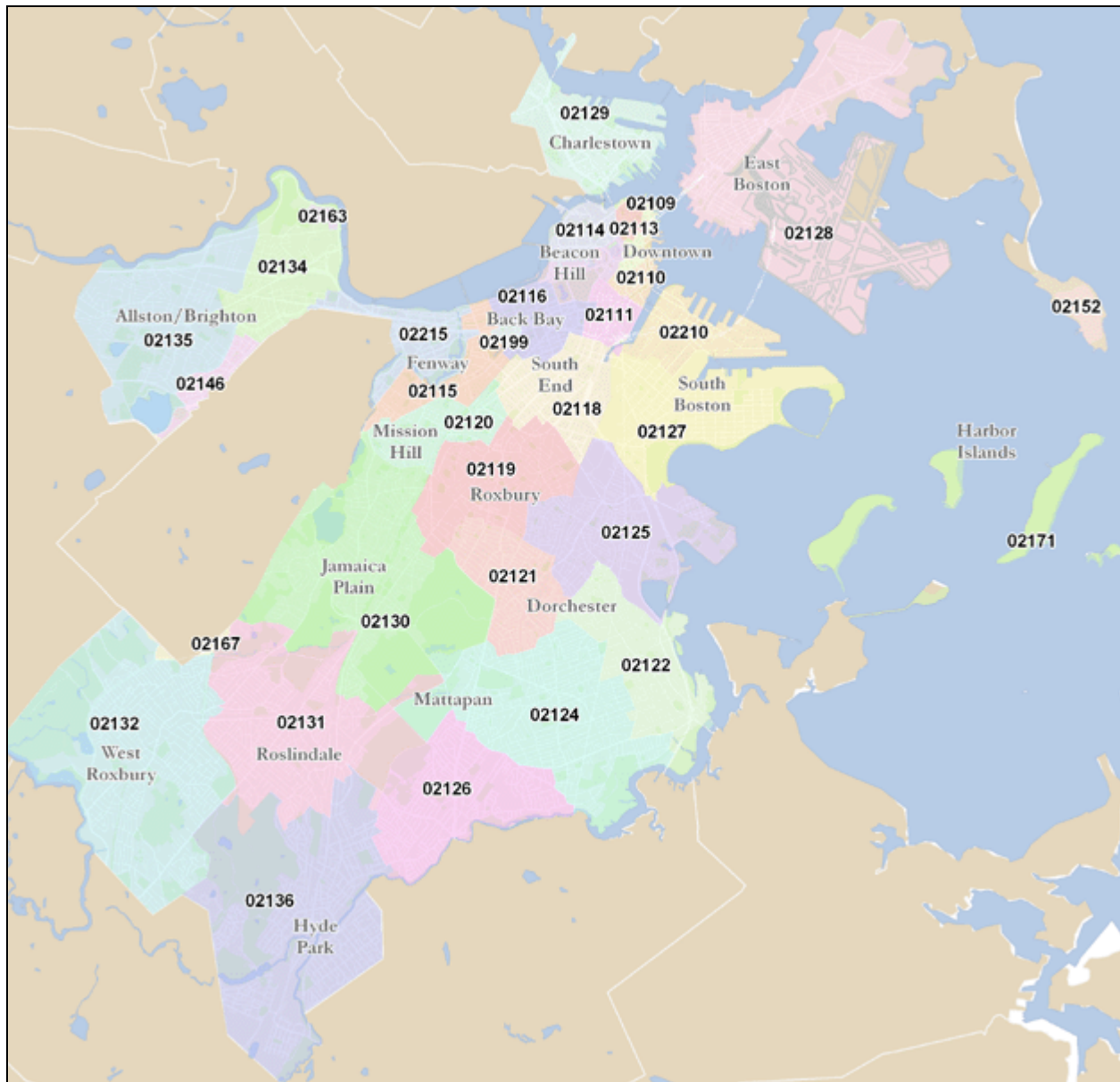


As indicated by the preceding maps, we note that the City Planning District shows that the targeted 02120 Mission Hill zip code falls primarily within the northern area of Jamaica Plain (with a small portion along the Tremont Street Corridor in Roxbury) and the pertinent Roxbury zip codes (02118 and 02119) correspond with parts of the City's Roxbury and South End Planning Districts. The City's Fenway/Kenmore District includes the targeted Fenway focus area (02115) as well as the West Fens, Kenmore Square and Longwood Medical Area neighborhoods.

The City Neighborhood definitions offer a closer match to the zip code focus areas. Mission Hill is called out separately, excluding some parts of the Longwood Medical Area and the Tremont corridor that are included within 02120. The Fenway Neighborhood definition is also narrower as it excludes the LMA, yet still includes the West Fens and Kenmore and Roxbury is also reshaped to include more of the Tremont Street corridor. While the City definitions are not a perfect match to the focus area zip codes they offer a way for us to looking at the historic trends and patterns for City-wide housing supply and demand.

Zip codes were chosen as the most appropriate means for evaluating Northeastern student housing impacts as this is the organizing principle used by Northeastern to track student housing locations and is the method used by the City to collect student housing data under the University Accountability Ordinance (UAO).

**BOSTON ZIP CODE MAP**



## MARKET FUNDAMENTALS

### Regional Economy

#### *Historic Trends*

The Boston metropolitan area is the economic hub of the Commonwealth of Massachusetts and the New England region, providing governmental, professional, business, financial, higher educational and medical services, as well as important transportation, communications, export, cultural and entertainment activities to the region – all of which has attracted growing numbers of renters and homeowners to the Boston market.

Over the past four decades Greater Boston has made the transition from manufacturing to a knowledge-based economy. “The area attracts a wellspring of young talent as well as research funds and venture capital to turn innovations into new business spin-offs...Boston and Cambridge are the region’s most concentrated locus of talent, expertise and innovation, with renowned institutions of higher education, culture and medicine, providing great ballast to the Greater Boston economy in volatile economic times.”<sup>1</sup> In fact, the Milken Institute has ranked Massachusetts 1<sup>st</sup> among the 50 states on each biennial State Technology and Science Index since 2002.

Data published in the most recent *New England Economic Indicators* report of the Federal Reserve Bank of Boston provides historic and recent trends. The tables below summarize total non-agricultural employment and annual average unemployment rates over the past decade for the region, state and metropolitan area. The latter is the Boston core urbanized area plus surrounding towns with strong social and economic ties to the core area, defined by the U.S. Census Bureau as the Boston-Cambridge-Quincy MA-NH Metropolitan NECTA (aka CMSA).

#### **Employment Change in the New England Region 2002-2012** (NON-AGRICULTURAL EMPLOYMENT; SEASONALLY ADJUSTED AVERAGES)

Area	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>New England</b>	<b>6,928,600</b>	<b>6,850,500</b>	<b>6,874,700</b>	<b>6,918,700</b>	<b>6,986,100</b>	<b>7,046,300</b>	<b>7,045,800</b>	<b>6,788,500</b>	<b>6,771,600</b>	<b>6,812,400</b>	<b>6,855,700</b>
Emp. Change		-78,100	24,200	44,000	67,400	60,200	-500	-257,300	-16,900	40,800	43,300
% Change		-1.13%	0.35%	0.64%	0.97%	0.86%	-0.01%	-3.65%	-0.25%	0.60%	0.64%
<b>Massachusetts</b>	<b>3,259,600</b>	<b>3,197,900</b>	<b>3,194,400</b>	<b>3,211,800</b>	<b>3,246,500</b>	<b>3,281,200</b>	<b>3,291,100</b>	<b>3,180,400</b>	<b>3,189,800</b>	<b>3,209,400</b>	<b>3,246,200</b>
Emp. Change		-61,700	-3,500	17,400	34,700	34,700	9,900	-110,700	9,400	19,600	36,800
% Change		-1.89%	-0.11%	0.54%	1.08%	1.07%	0.30%	-3.36%	0.30%	0.61%	1.15%
<b>Boston NECTA</b>	<b>2,466,000</b>	<b>2,410,100</b>	<b>2,404,500</b>	<b>2,424,000</b>	<b>2,451,900</b>	<b>2,486,200</b>	<b>2,496,500</b>	<b>2,416,500</b>	<b>2,426,300</b>	<b>2,441,300</b>	<b>2,482,300</b>
Emp. Change		-55,900	-5,600	19,500	27,900	34,300	10,300	-80,000	9,800	15,000	41,000
% Change		-2.27%	-0.23%	0.81%	1.15%	1.40%	0.41%	-3.20%	0.41%	0.62%	1.68%

Source: Federal Reserve Bank of Boston’s website (‘Indicators Interactive’, data from U.S. Bureau of Labor Statistics).

<sup>1</sup> The Boston Foundation, *The Boston Indicators Report 2012*, p. 17.

Over the past decade the Boston metro-area unemployment rate has ranged from a low of 2.5% in 2000 to a high of 7.6% in 2009-2010. Notably, the local area has consistently fared better than the country overall. Unemployment figures rose as the regional and national economies sunk into the previous recession (2002-2003), then trended downward with the subsequent recovery, which reached an annual average low of 4.1% for the Boston area in 2007. This trend reversed, with substantial increases seen in unemployment which reached an annual average high of 7.6% in 2010, before declines in unemployment were reported starting in 2011 and continued in 2012.

As shown in the table below, the Boston area's unemployment rate typically trends well below the State and region. According to the Bureau of Labor Statistics, the non-seasonally-adjusted annual unemployment rate for the City of Boston hit a high of 8.0% in 2010, and declining to 7.1% in 2011 and to 6.3% in 2012.

**Annual Average Unemployment Rates, 2000-2012**

Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	4.0%	4.7%	5.8%	6.0%	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%
New England	2.8%	3.6%	4.8%	5.4%	4.9%	4.7%	4.5%	4.5%	5.4%	8.1%	8.5%	7.8%	7.1%
Massachusetts	2.7%	3.7%	5.3%	5.8%	5.2%	4.8%	4.8%	4.5%	5.4%	8.2%	8.3%	7.4%	6.4%
Boston NECTA	2.5%	3.6%	5.3%	5.7%	5.0%	4.5%	4.4%	4.1%	4.9%	7.6%	7.6%	6.6%	5.9%
City of Boston	3.0%	4.1%	5.9%	6.4%	5.6%	5.2%	4.9%	4.4%	5.1%	7.6%	8.0%	7.1%	6.3%

Note: Annual seasonally adjusted rates (except local community, which is non-seasonally adjusted).

Source: Federal Reserve Bank of Boston's website ('Indicators Interactive') and U.S. Bureau of Labor Statistics.

### *Outlook*

The New England Economic Partnership (NEEP), a nonprofit corporation comprised of representatives from New England business firms, state governments, and educational institutions, which is dedicated to providing objective economic analysis and forecasts, meets twice annually. The following highlights their published outlook for the regional economy following their last conference in December 2012.

The forecast for the New England region is for the economy to continue to grow slowly, with employment increases averaging 1.5% annually and overall economic growth (regional gross product) averaging 3.3% annually over their forecast period out to 2016. The regional unemployment rate is expected to remain below the U.S. average, but remain at above 6% until 2015. The slow economic improvement regionally reflects continued weakness nationally and globally, which is influenced by concerns about legislative gridlock in the U.S. and the weak European economy and sovereign debt crises.

Northeastern University associate professor Alan Clayton-Matthews prepared the NEEP forecast for the State of Massachusetts, which indicated that the economy here has been in recovery mode since the summer of 2009.

Real gross state product is 4.5% above its pre-recession peak, 87% of the 143,000 jobs lost in the recession have been regained, and the State's unemployment rate has fallen from a peak of 8.7% in December 2009 to 6.6% by Q4 2012. It was noted however, that the State economy "decelerated significantly" in the third quarter. That said, growth in the Massachusetts economy is expected to slowly improve to a more moderate pace in 2013, and then to "expand robustly" in 2014 and 2015.

Apropos of this study, the residential housing market "finally appears to be past the bottom and on its way back, assuming that the temporarily weak economy will not set it back once again." Prices have been rising moderately, sales have increased substantially, and housing permits are running above last year (although most are in the multifamily sector, the expectation is for a "firmer trend in the single family permits soon").

At the time the economic forecast was issued, it was assumed that: "Chances are that the state and the nation will be spared these short-term impacts of fiscal austerity by some sort of deal between Congress and the White House that will soften the blow of the fiscal cliff, and this is what is built in to the forecast for Massachusetts. Thus, growth will be greater in 2013 than it would be without a deal, but less than it would be if current policy were extended."

## **Boston Economy**

### *Trends*

The metro-Boston economy primarily rests on high technology, finance, professional and business services, defense, and educational and medical institutions. The City's economy is more focused in the financial, governmental, business and professional services, and educational and medical sectors, than the suburban economy. The accompanying table (from the City of Boston's General Obligation Bonds Preliminary Official Statement, issued February 21, 2013) shows the City of Boston's employment by industry and recent trends for 2008 through 2011 (the report notes that full year 2012 city data was not yet available as of this publication date).

Boston had a 2.3% loss in jobs between 2008 and 2010 and a 2.1% gain 2010 and 2011. Losses during calendar year 2011 were in informational services, government and utilities. Largest gains were evident in professional, scientific and technical services; food service and drinking places; health care and social assistance; and educational services.

Health Care is identified as the largest local employment sector. Boston's medical and educational institutions provide wide ranging job opportunities for residents of the City and the surrounding metro area. Twenty-two inpatient hospitals are located within the City, and in addition the greater metropolitan area reportedly has one of the nation's largest clusters of life sciences industries.

As of academic year 2012-2013, the City's 34 universities, colleges and community colleges had a combined enrollment of 157,670 full- and part-time students (including professional and graduate schools of Harvard and Tufts, whose principal campuses are located respectively in Cambridge and Medford).

<b>City of Boston Employment 2008 – 2011</b>						
<b>NAICS (North American Industry Classification System)</b>						
Industry	2008	2009	2010	2011	Absolute Change '10-'11	Percent Change '10-'11
Agriculture/Fishing/Mining .....	165	175	219	246	27	12.4
Utilities .....	2,250	2,291	2,404	2,285	-119	-5.0
Construction .....	16,655	14,856	13,857	13,787	-70	-0.5
Manufacturing .....	9,756	8,915	8,788	9,092	304	3.5
Wholesale Trade .....	10,625	9,700	9,301	9,282	-19	-0.2
Retail Trade (excludes food service) .....	31,114	29,839	30,065	30,947	882	2.9
Transportation and Warehousing .....	19,595	18,531	18,639	18,892	252	1.4
Information .....	17,036	16,124	15,991	15,265	-726	-4.5
Finance and Insurance .....	84,104	82,677	79,954	79,965	11	0.0
Banking .....	22,520	23,067	20,822	21,033	211	1.0
Securities & other Financial Investment Activities .....	41,561	38,624	37,981	37,804	-177	-0.5
Insurance Carriers and related Activities .....	20,022	20,987	21,152	21,129	-23	-0.1
Real Estate and Rental and Leasing .....	21,976	22,090	22,857	23,382	525	2.3
Professional, Scientific, and Technical Services .....	75,631	72,597	73,272	77,033	3,761	5.1
Legal Services .....	21,014	19,787	19,633	19,187	-445	-2.3
Accounting, Tax Preparation, Bookkeeping .....	9,448	9,276	8,867	9,645	778	8.8
Architectural, Engineering, Design and Related .....	9,704	8,523	8,199	8,498	300	3.7
Computer Systems Design and Related Services .....	7,224	7,084	7,454	8,736	1,282	17.2
Management, Scientific, Technical Consulting .....	12,976	13,857	14,916	15,898	982	6.6
Scientific Research and Development Services .....	8,286	8,729	8,438	8,662	224	2.7
Other Professional, Scientific, and Technical Services .....	6,978	5,341	5,766	6,407	640	11.1
Management of Companies and Enterprises .....	6,972	6,481	6,175	6,355	180	2.9
Admin. & Support and Waste Mgmt. and Remediation Ser. ....	43,431	38,417	33,176	34,339	1,163	3.5
Educational Services .....	48,069	50,137	51,764	53,260	1,496	2.9
Colleges and Universities .....	41,522	43,446	45,196	46,250	1,055	2.3
Health Care and Social Assistance .....	116,854	118,973	122,748	125,070	2,322	1.9
Hospitals .....	80,625	82,276	85,671	85,710	39	0.0
Social Assistance .....	12,300	12,276	13,156	13,591	434	3.3
Arts, Entertainment, and Recreation .....	14,188	14,119	14,323	14,674	351	2.5
Accommodation and Food Services .....	49,193	48,147	49,613	53,410	3,797	7.7
Accommodation .....	11,439	10,916	10,931	10,999	69	0.6
Food Service and Drinking Places .....	37,754	37,231	38,683	42,411	3,727	9.6
Other Services (except public administration) <sup>(1)</sup> .....	28,980	28,811	28,726	29,100	374	1.3
Government .....	79,389	78,418	78,273	77,666	-607	-0.8
<b>Total .....</b>	<b>675,982</b>	<b>661,301</b>	<b>660,145</b>	<b>674,050</b>	<b>13,905</b>	<b>2.1</b>

(1) Other services include repair and maintenance, personal and laundry services, and religious, grant making, civic, professional, and similar organizations.

Source: The employment figures are from the Bureau of Economic Analysis Series for Suffolk County, pro-rated to the City's geographical boundary using data from DWD. See the footnotes above. Due to use of pro-rating factors, minor discrepancies of 1 to 3 units between totals and employment categories may result.

We note that several of the City's largest employers (including among others - the Longwood Medical Area institutions, Blue Cross Blue Shield, John Hancock, Partners Health Care, Berklee College of Music and Northeastern University) are situated in or within immediate walking proximity to the residential neighborhoods being studied by this report and exert a powerful influence on these housing markets.



**Largest Private Employers in Boston, Fall 2010\***

**Over 10,000 Employees**

Brigham & Women’s Hospital  
Massachusetts General Hospital

**5,000 to 9,999 Employees**

Beth Israel Deaconess Medical Center  
Boston University  
Children’s Hospital  
Fidelity Investments (FMR Corp.)  
Harvard University (graduate schools)  
State Street Bank & Trust Co.

**2,000 to 4,999 employees**

ARAMARK Corporation  
Blue Cross Blue Shield of Massachusetts, Inc.  
Boston College  
Boston Globe/New York Times  
Boston Medical Center  
Brown Brothers Harriman & Co.  
Dana-Farber Cancer Institute  
Gillette Co. (Proctor & Gamble)  
John Hancock (Manulife Financial)  
Liberty Mutual Group  
New England Financial/Met Life  
Northeastern University  
Tufts Medical Center  
Wellington Management

**1,000 to 1,999 employees**

AIG (Lexington and Chartis Insurance)  
American Cleaning Co.  
Ameriprise Financial Inc.

**1,000 to 1,999 employees (continued)**

Bain & Co. Inc.  
Bank of New York Mellon  
Berklee College of Music  
Brigham and Women’s Faulkner Hospital  
CBS/Viacom  
Christian Science Monitor/Publishing  
CVS Corporation  
Deloitte LLP  
Dunkin’ Donuts  
Eaton Vance Corporation  
Hebrew Rehabilitation Center  
KPMG LLP  
Mass. Eye and Ear Infirmary  
MFS Investment Management  
New England Baptist Hospital  
NSTAR  
Partners Health Care Services, Inc.  
Pearson Education Inc.  
Pioneer Investments Management Inc.  
Putnam Investments LLC  
St. Elizabeth Medical Center/Steward Health Care  
Shaw’s  
Simmons College  
Stop & Shop  
Suffolk University  
Sunbeam Television Corp. (WHDH & WLVI)  
Thomson Reuters  
Tufts University (graduate schools)  
Verizon New England, Inc.  
WGBH Educational Foundation

Source: American Hospital Association, Dun and Bradstreet, Hoovers, InfoUSA, Manta, New England Board of Higher Education, and BRA Research Division web research and phone contacts, 2011.

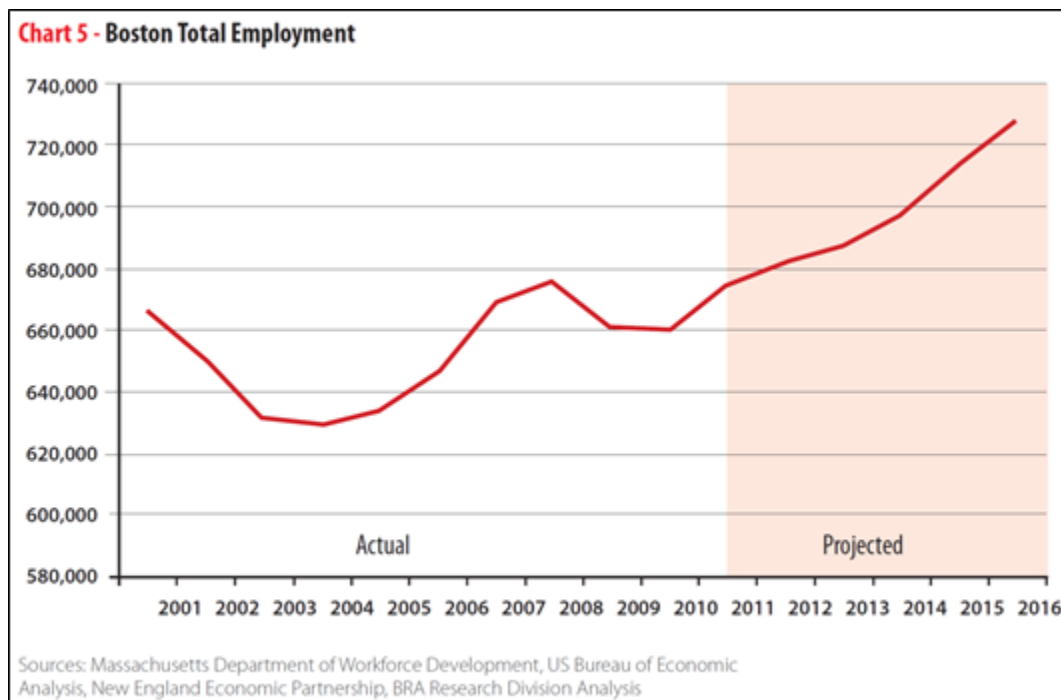
\* Corrections have been made since 2011 to include the Harvard University and Tufts University graduate schools each of which have large Graduate and Professional Schools in Boston and to delete the Art Institute of Lesley University which had included the full college employment most of which is in Cambridge. Also some corporate names change occasionally and annual adjustments are made. Several small differences may exist with lists from other sources.

*Outlook*

According to the “2013 Economy Report” produced in January 2013 by the Boston Redevelopment Authority, the following chart illustrates Boston’s total employment trend and forecast (the later based on NEEP projections).

This report states that:

“If Boston’s employment base grows at the rates projected for Massachusetts industries by NEEP, the city economy will exceed its 2008 job peak of 676,000 by 2013 and then grow to 728,500 total jobs in 2016. Boston’s 7.9% cumulative job growth projected for 2011-2016 exceeds Massachusetts’ 7.4% projected growth. This is due to the city’s favorable industry mix, with Professional, Scientific and Technical Services, Health Care and Education, and Hospitality and Leisure leading the way.”



The resilience of Boston’s economy and the growing employment in these “knowledge-based” sectors has had a profound impact on the Boston housing markets. As the analyses that follow demonstrate, both rental and for-sale markets within the Central City markets (which include the subject neighborhoods) remained relatively strong through the most recent recession.

In fact, the recession merely served to slow new housing production which has yielded pent-up demand, especially for the walkable and transit accessible (to employment) neighborhood markets like the Fenway, Mission Hill and Lower Roxbury locations, driving rents and sale prices in these markets to historic highs and rental vacancy and sale inventory levels to historic lows.

## Boston Demography

### Population Trends 1990-2000

According to the US Census, Boston population grew relatively slowly through the 1990's, ending the decade with 589,141 people, an increase of 2.6%. More significantly, the City's composition changed, with far fewer children under 5, lots more kids aged 5 to 14, somewhat more kids between 15 and 19, fewer young adults between 20 and 34, lots more middle aged households aged 35 to 60, fewer retirees aged 60 to 84 and more elderly – over aged 85.

**City-wide Trends – The 1990's**

**Population Trends**

	1990	2000	Number Change	Percent Change
<b>Total Population</b>	574,283	589,141	14,858	2.6%
Male	275,972	283,588	7,616	2.8%
Female	298,311	305,553	7,242	2.4%
<b>Age</b>				
Under 5 Years	36,601	32,046	(4,555)	-12.4%
5 to 9 years	30,084	33,721	3,637	12.1%
10 to 14 years	26,626	32,552	5,926	22.3%
15 to 19 years	40,757	43,631	2,874	7.1%
20 to 24 years	76,213	70,084	(6,129)	-8.0%
25 to 34 years	132,364	124,762	(7,602)	-5.7%
35 to 44 years	78,159	86,420	8,261	10.6%
45 to 54 years	46,916	63,554	16,638	35.5%
55 to 59 years	19,638	22,746	3,108	15.8%
60 to 64 years	20,975	18,288	(2,687)	-12.8%
65 to 74 years	35,832	31,154	(4,678)	-13.1%
75 to 84 years	21,899	21,675	(224)	-1.0%
85 years and over	8,219	8,507	288	3.5%
<b>Median age</b>	30.3	31.1		

### Household Trends 1990-2000

According to the US Census, Boston households also grew through the 1990's, ending the decade with 239,528 households, an increase of 4.8%, and all of which reflected growth in non-family households. The City's family household counts declined by nearly 1.0% over the decade – a demographic tipping point. By 2000, following the national trends, the number of households comprised of unrelated individuals exceeded family households by nearly 8,000.

## City-wide Trends – The 1990's

### Household Types

	1990	2000	Number Change	Percent Change
Total Households	228,464	239,528	11,064	4.8%
Family households (families)	115,927	115,096	(831)	-0.7%
With own children under 18 years	51,540	54,310	2,770	5.4%
Married-couple family	67,991	65,747	(2,244)	-3.3%
With own children under 18 years	28,251	28,219	(32)	-0.1%
Female householder, no husband present	38,351	39,366	1,015	2.6%
With own children under 18 years	20,641	22,793	2,152	10.4%
Non-Family households	112,537	124,432	11,895	10.6%
Householder Living Alone	81,212	88,944	7,732	9.5%
Householder 65 years or older	23,297	21,796	(1,501)	-6.4%
Households with individuals under 18	57,570	61,428	3,858	6.7%
Households with individuals 65 years plus	48,085	45,350	(2,735)	-5.7%
Average household size	2.37	2.31	(0.06)	-2.5%
Average family size	3.19	3.17	(0.02)	-0.6%

Average household sizes followed the national trend, declining by 2.5% over the decade.

Also noteworthy is the decline in married households, the increase in unrelated domestic partner households (probably at least in part a reporting phenomenon), and the increase in group quartered population – especially students (non-institutionalized) – an 8.6% increase over the 1990's decade.

## City-wide Trends – The 1990's

### Population by Household Types

	1990	2000	Number Change	Percent Change
Total Households	228,464	239,528	11,064	4.8%
Total Population	574,283	589,141	14,858	2.6%
In households	541,434	554,064	12,630	2.3%
Householder	228,464	239,528	11,064	4.8%
Spouse	67,991	65,747	(2,244)	-3.3%
Child	149,781	142,362	(7,419)	-5.0%
Own child under 18 years	95,775	100,177	4,402	4.6%
Other relatives	36,491	41,110	4,619	12.7%
Other relatives under 18 years	11,001	13,170	2,169	19.7%
Nonrelatives	58,707	65,317	6,610	11.3%
Unmarried partner	10,919	14,719	3,800	34.8%
In group quarters	32,849	35,077	2,228	6.8%
Institutionalized population	8,356	8,481	125	1.5%
Non-institutionalized population	24,493	26,596	2,103	8.6%

Household sizes also shifted dramatically with many more one and two person households (mostly younger households), relatively stable numbers of three and four person households (mostly family households), more five person households (assumed to be mostly student households) and fewer larger 6+ person households.

## City-wide Trends – The 1990’s

### Household Size Trends

Persons Per Household	1990	%	2000	%	Change	% Change
1 Person	81,213	35.5%	88,944	37.1%	7,731	9.5%
2 Persons	67,340	29.5%	70,880	29.6%	3,540	5.3%
3 Persons	34,003	14.9%	34,323	14.3%	320	0.9%
4 Persons	23,443	10.3%	23,494	9.8%	51	0.2%
5 Persons	12,274	5.4%	12,596	5.3%	322	2.6%
6 Persons	5,779	2.5%	5,369	2.2%	-410	-7.1%
7-or-more Persons	4,414	1.9%	3,922	1.6%	-492	-11.1%
Total Households	228,466	100%	239,528	100%	11,062	4.8%

### Housing Supply Trends 1990-2000

Despite the growing demand, housing unit counts remained relatively unchanged during the 1990’s registering an increase of less than .5%. Occupancy grew and vacancy fell in both rental and for-sale categories.

## City-wide Trends – The 1990's

### Housing Occupancy and Tenure Trends

	1990	2000	Number Change	Percent Change
Total Housing Units	250,863	251,935	1,072	0.4%
Occupied housing units	228,464	239,528	11,064	4.8%
Vacant housing units	22,399	12,407	(9,992)	-44.6%
For seasonal, recreational or occasional use	870	1,568	698	80.2%
Homeowner vacancy rate (percent)	2.6	1.0	(1.6)	-62.1%
Rental vacancy rate (percent)	7.8	3.0	(4.8)	-61.5%
Occupied housing units	228,464	239,528	11,064	4.8%
Owner-occupied housing units	70,544	77,226	6,682	9.5%
Percentage of occupied units	30.9	32.2	1.3	4.2%
Renter-occupied housing units	157,920	162,302	4,382	2.8%
Percentage of occupied units	69.1	67.8	(1.30)	-1.9%
Ave. household size of owner-occupied units	2.64	2.51	(0.13)	-4.9%
Ave. household size of renter-occupied units	2.25	2.22	(0.03)	-1.3%
Ave. household size of all units	2.37	2.20	(0.17)	-7.2%

Most neighborhoods gained owner-occupants - but some neighborhoods gained far more than others – Charlestown, Central Boston, South End, South Boston, Fenway, and Back Bay/Beacon Hill.

## City-wide Trends – The 1990's

### Owner Occupancy Trends by Neighborhood

PD-ID	Planning District	Total Occupied housing units		Owner occupied		% of District Stock		Increase in Owner occupied units		As a % of 1990 Owners	
		1990	2000	1990	%	2000	%	2000	%		
1	East Boston	13,417	14,328	3,930	29.3%	4,029	28.1%	99	2.5%		
2	Charlestown	6,841	7,350	2,259	33.0%	3,039	41.3%	780	34.5%		
3	South Boston	13,080	14,038	3,958	30.3%	4,743	33.8%	785	19.8%		
4	Central	11,766	13,180	2,554	21.7%	3,359	25.5%	805	31.5%		
5	Back Bay/Beacon Hill	15,888	16,558	4,602	29.0%	5,241	31.7%	639	13.9%		
6	South End	13,223	14,301	2,584	19.5%	3,904	27.3%	1,320	51.1%		
7	Fenway/Kenmore	12,252	12,820	949	7.7%	1,177	9.2%	228	24.0%		
8	Allston/Brighton	29,427	30,505	6,100	20.7%	5,980	19.6%	-120	-2.0%		
9	Jamaica Plain	15,653	15,768	4,541	29.0%	4,974	31.5%	433	9.5%		
10	Roxbury	20,304	20,473	4,486	22.1%	4,655	22.7%	169	3.8%		
11	North Dorchester	8,991	9,776	2,617	29.1%	2,629	26.9%	12	0.5%		
12	South Dorchester	20,583	21,516	8,134	39.5%	8,567	39.8%	433	5.3%		
13	Mattapan	11,240	12,520	4,099	36.5%	4,418	35.3%	319	7.8%		
14	Roslindale	12,151	12,836	5,650	46.5%	5,999	46.7%	349	6.2%		
15	West Roxbury	12,405	12,083	7,652	61.7%	7,749	64.1%	97	1.3%		
16	Hyde Park	11,245	11,478	6,426	57.1%	6,763	58.9%	337	5.2%		
17	Harbor Islands	0	0	0	0	0	0	0	0		
	<b>Boston</b>	<b>228,466</b>	<b>239,528</b>	<b>70,541</b>	<b>30.9%</b>	<b>77,226</b>	<b>32.2%</b>	<b>6,685</b>	<b>9.5%</b>		

Vacancy was also declining from nearly 8.9% in 1990 during the trough of a recession to reach under 5% by 2000 with dramatic improvements across almost every neighborhood submarket – but most dramatically in the Fenway (falling from 10% to 2.6%).

## City-wide Trends – The 1990's

### Vacancy Rate Trends by Neighborhood

PD-ID	Planning District	Total Housing units		Total Vacant		Vacancy Rate	
		1990	2000	1990	2000	1990	2000
1	East Boston	14,810	15,078	1,394	752	9.4%	5.0%
2	Charlestown	7,752	7,755	911	405	11.8%	5.2%
3	South Boston	14,784	15,031	1,702	993	11.5%	6.6%
4	Central	13,361	14,220	1,596	1,040	11.9%	7.3%
5	Back Bay/Beacon Hill	17,975	17,912	2,086	1,354	11.6%	7.6%
6	South End	14,915	15,267	1,692	966	11.3%	6.3%
7	Fenway/Kenmore	13,619	13,159	1,367	339	10.0%	2.6%
8	Allston/Brighton	30,862	30,988	1,435	483	4.6%	1.6%
9	Jamaica Plain	17,165	16,554	1,511	786	8.8%	4.7%
10	Roxbury	23,158	22,423	2,853	1,950	12.3%	8.7%
11	North Dorchester	10,218	10,311	1,227	535	12.0%	5.2%
12	South Dorchester	22,364	22,615	1,780	1,099	8.0%	4.9%
13	Mattapan	12,238	13,101	999	581	8.2%	4.4%
14	Roslindale	12,917	13,247	767	411	5.9%	3.1%
15	West Roxbury	12,950	12,397	545	314	4.2%	2.5%
16	Hyde Park	11,777	11,877	532	399	4.5%	3.4%
17	Harbor Islands	0	0	0	0	0	0
	<b>Boston</b>	<b>250,865</b>	<b>251,935</b>	<b>22,397</b>	<b>12,407</b>	<b>8.9%</b>	<b>4.9%</b>

### Population Trends 2000-2010

According to the US Census, Boston population grew more rapidly through the 2000's; ending the decade with 617,594 people, double the increase at 4.8% (on a larger base!) of the earlier decade.

In town living became fashionable and environmental quality was on the rise – more to do, less crime, reliable City services, great public transit, and more job opportunities (at least in certain sectors). Nowhere was the appeal of City living more obvious than in the walking and transit accessible neighborhoods next to downtown, the Longwood Medical Area and connected via Red and Green Lines to the educational and medical institutions in Cambridge and Boston.

## City-wide Trends – The 2000's

### Population Trends by Neighborhood

Neighborhood	2000	2010	2000-2010	
	Count	Count	Change	% Change
South Boston Waterfront	509	3,889	3,380	271.1%
Leather District	219	639	420	191.8%
Downtown	7,355	11,215	3,860	52.5%
Chinatown	3,559	4,444	885	24.9%
Mission Hill	13,935	16,305	2,370	17.0%
Roxbury	41,484	48,454	6,970	16.8%
Fenway	29,316	33,796	4,480	15.3%
Allston	25,623	29,196	3,573	13.9%
West End	3,609	4,080	471	13.1%
South End	21,911	24,577	2,666	12.2%
Bay Village	1,194	1,312	118	9.9%
Charlestown	15,195	16,489	1,244	8.2%
South Boston	31,005	33,311	2,306	7.4%
West Roxbury	28,755	30,446	1,691	5.9%
East Boston	38,413	40,508	2,095	5.5%
North End	9,637	10,131	494	5.1%
<b>Boston</b>	<b>589,141</b>	<b>617,594</b>	<b>28,453</b>	<b>4.8%</b>
Brighton	44,025	45,801	1,776	4.0%
Hyde Park	30,076	30,637	561	1.9%
Back Bay	17,952	18,088	136	0.8%
Beacon Hill	9,052	9,023	(29)	-0.3%
Jamaica Plain	38,176	37,468	(708)	-1.9%
Dorchester	118,848	114,235	(4,613)	-3.9%
Longwood Medical Area	3,969	3,785	(184)	-4.6%
Roslindale	30,351	28,680	(1,671)	-5.5%
Mattapan	24,333	22,600	(1,733)	-7.1%
Harbor Islands	640	535	(105)	-16.4%

At the same time Boston launched a plan to attract and keep its young people, boasting the highest location quotient of 20 to 34 year olds of any major city in the country.

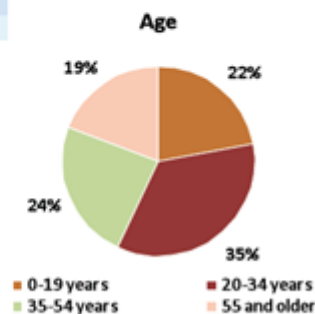
## City-wide Trends – The 2000's

### Age Distributions by Neighborhood

#### Breakdown of Boston's Population by Age

\* Boston is a young city; currently it has the highest concentration of young adults (20-34) among 15 of the largest cities in the US

City	20 to 34-Year-Olds	% of Total Population	Location Quotient
Boston	216,213	35.0%	1.73
Austin	251,064	31.8%	1.57
Washington DC	188,855	31.4%	1.55
Atlanta	127,101	30.3%	1.49
Seattle	181,501	29.8%	1.47
San Francisco	228,738	28.4%	1.40
Chicago	738,578	27.4%	1.35
Dallas	314,728	26.3%	1.29
Houston	545,071	26.0%	1.28
Baltimore	160,024	25.8%	1.27
Philadelphia	392,776	25.7%	1.27
Los Angeles	953,443	25.1%	1.24
New York	2,035,030	24.9%	1.23
San Antonio	304,784	23.0%	1.13
Phoenix	330,885	22.9%	1.13





By 2010, some neighborhoods had over 50% of their population in this category including Allston (64.5%), Fenway (59.2%), Brighton (55.7%), North End (54.8%), Longwood Medical Area (51.7%), Beacon Hill (50.9%), and South Boston Seaport (50.5%); with others not far behind – Mission Hill (48%), Back Bay (46.5%) and South Boston-proper (41.4%).

### NEIGHBORHOOD AGE DISTRIBUTIONS 2010

Neighborhoods: Age	Total Population	Median Age	Under 9 Yrs	%	10-19	%	20-34	%	35-54	%	55-64	%	65+	%
Allston	29,196	24.8	1,004	3.4%	3,676	12.6%	18,837	64.5%	3,437	11.8%	1,148	3.9%	1,094	3.7%
Fenway	33,796	22.8	426	1.3%	8,458	25.0%	20,018	59.2%	2,435	7.2%	934	2.8%	1,525	4.5%
Brighton	45,801	28.1	2,427	5.3%	2,876	6.3%	25,507	55.7%	7,260	15.9%	2,827	6.2%	4,904	10.7%
North End	10,131	30.5	335	3.3%	251	2.5%	5,554	54.8%	1,874	18.5%	809	8.0%	1,308	12.9%
Longwood	3,785	20.7	22	0.6%	1,644	43.4%	1,958	51.7%	114	3.0%	29	0.8%	18	0.5%
Beacon Hill	9,023	31.3	493	5.5%	284	3.1%	4,590	50.9%	1,816	20.1%	905	10.0%	935	10.4%
South Boston	1,889	33.3	58	3.1%	42	2.2%	954	50.5%	593	31.4%	182	9.6%	60	3.2%
Mission Hill	16,305	24.4	995	6.1%	2,362	14.5%	7,832	48.0%	2,551	15.6%	1,088	6.7%	1,477	9.1%
Back Bay	18,088	31.9	771	4.3%	1,206	6.7%	8,407	46.5%	3,881	21.5%	1,767	9.8%	2,056	11.4%
South Boston	33,311	32.3	2,584	7.8%	2,495	7.5%	13,806	41.4%	8,260	24.8%	2,932	8.8%	3,234	9.7%
Bay Village	1,312	38.1	35	2.7%	31	2.4%	538	41.0%	307	23.4%	122	9.3%	279	21.3%
West End	4,080	35.5	252	6.2%	169	4.1%	1,581	38.8%	980	24.0%	419	10.3%	679	16.6%
Leather District	639	36.5	40	6.3%	15	2.3%	226	35.4%	284	44.4%	49	7.7%	25	3.9%
<b>Boston</b>	<b>617,594</b>	<b>32.1</b>	<b>59,243</b>	<b>9.6%</b>	<b>76,349</b>	<b>12.4%</b>	<b>216,213</b>	<b>35.0%</b>	<b>147,501</b>	<b>23.9%</b>	<b>56,051</b>	<b>9.1%</b>	<b>62,237</b>	<b>10.1%</b>
South End	24,577	36.3	1,974	8.0%	1,453	5.9%	8,303	33.8%	7,665	31.2%	2,571	10.5%	2,611	10.6%
Downtown	11,215	30.7	346	3.1%	2,238	20.0%	3,772	33.6%	2,371	21.1%	1,156	10.3%	1,332	11.9%
Charlestown	16,439	34.6	1,806	11.0%	1,108	6.7%	5,494	33.4%	4,668	28.4%	1,679	10.2%	1,684	10.2%
Jamaica Plain	37,468	34.7	3,851	10.3%	3,234	8.6%	11,936	31.9%	10,295	27.5%	4,145	11.1%	4,007	10.7%
Chinatown	4,444	37.5	285	6.4%	400	9.0%	1,396	31.4%	1,143	25.7%	539	12.1%	681	15.3%
East Boston	40,508	32.3	5,554	13.7%	4,508	11.1%	12,476	30.8%	11,478	28.3%	2,960	7.3%	3,532	8.7%
Roxbury	48,454	30.0	6,502	13.4%	8,376	17.3%	12,468	25.7%	11,957	24.7%	4,693	9.7%	4,458	9.2%
Dorchester	114,235	32.6	15,543	13.6%	17,209	15.1%	28,441	24.9%	30,936	27.1%	11,364	9.9%	10,742	9.4%
Roslindale	28,680	37.6	3,567	12.4%	3,543	12.4%	6,133	21.4%	8,696	30.3%	3,264	11.4%	3,477	12.1%
Mattapan	22,600	36.3	2,861	12.7%	3,363	14.9%	4,677	20.7%	6,283	27.8%	2,732	12.1%	2,684	11.9%
Hyde Park	30,637	38.4	3,663	12.0%	4,454	14.5%	5,863	19.1%	8,993	29.4%	3,720	12.1%	3,944	12.9%
Harbor Islands	535	45.3	4	0.7%	10	1.9%	100	18.7%	324	60.6%	82	15.3%	15	2.8%
West Roxbury	30,446	42.2	3,845	12.6%	2,944	9.7%	5,346	17.6%	8,900	29.2%	3,935	12.9%	5,476	18.0%

The dormitory population also grew as colleges worked to house more of their students on campus and by 2010 some neighborhoods had nearly 20% or more of their resident population in dormitory housing including Longwood (87%), Fenway (41%), Downtown (31%) and Allston (19%). In absolute terms, Fenway led the market in 2010 dormitory occupants with 13,824 followed by Allston, a distant second at 5,451 and Brighton at 3,810. Most neighborhoods supported a small fraction of Boston's dormitory population

### NEIGHBORHOOD GROUP QUARTERED POPULATION 2010

Neighborhoods: Group Quarters Population	2000: Total Population	2010: Total Population	2010 Pop. in Group Quarters	2010 Pop. in Custodial Care	Custodial Care Pop. @ % of GQP	2010 Pop. In Dorms & Other Non-custodial Care	Dorm Pop. @ % of All Group Quarters Pop.	Neighborhood Dorm Pop. @ % of All Boston Dorm Pop.	Neighborhood Dorm Pop. @ % of All Neighborhood Pop.
Harbor Islands	640	535	535	0	0%	535	100.0%	1%	100%
Longwood Medical Area	3,969	3,785	3,318	27	1%	3,291	99.2%	8%	87%
Fenway	29,316	33,796	13,967	143	1%	13,824	99.0%	35%	41%
Downtown	7,355	11,215	4,543	793	17%	3,750	82.5%	9%	33%
Allston	25,623	29,196	5,563	112	2%	5,451	98.0%	14%	19%
South Boston Waterfront	509	1,889	211	0	0%	211	100.0%	1%	11%
Mission Hill	13,935	16,305	1,537	175	11%	1,362	88.6%	3%	8%
Brighton	44,025	45,801	4,030	220	5%	3,810	94.5%	10%	8%
Back Bay	17,952	18,088	1,548	52	3%	1,496	96.6%	4%	8%
Roxbury	41,484	48,454	2,941	238	8%	2,703	91.9%	7%	6%
Leather District	219	639	34	0	0%	34	100.0%	0%	5%
South End	21,911	24,577	966	175	18%	791	81.9%	2%	3%
West End	3,609	4,080	113	0	0%	113	100.0%	0%	3%
Bay Village	1,194	1,312	30	0	0%	30	100.0%	0%	2%
Chinatown	3,559	4,444	99	0	0%	99	100.0%	0%	2%
Jamaica Plain	38,176	37,468	1,234	799	65%	435	35.3%	1%	1%
Dorchester	118,848	114,235	1,304	386	30%	918	70.4%	2%	1%
Charlestown	15,195	16,439	126	0	0%	126	100.0%	0%	1%
North End	9,637	10,131	175	103	59%	72	41.1%	0%	1%
Mattapan	24,333	22,600	375	290	77%	85	22.7%	0%	0%
Hyde Park	30,076	30,637	295	193	65%	102	34.6%	0%	0%
East Boston	38,413	40,508	229	95	41%	134	58.5%	0%	0%
South Boston	31,005	33,311	1,973	1,897	96%	76	3.9%	0%	0%
West Roxbury	28,755	30,446	658	607	92%	51	7.8%	0%	0%
Beacon Hill	9,052	9,023	6	0	0%	6	100.0%	0%	0%
Roslindale	30,351	28,680	404	392	97%	12	3.0%	0%	0%
<b>Boston Total</b>	<b>589,141</b>	<b>617,594</b>	<b>46,214</b>	<b>6,697</b>	<b>14%</b>	<b>39,517</b>	<b>85.5%</b>	<b>100%</b>	<b>6%</b>

By 2010, some neighborhoods had nearly 20% or more of their resident population in dormitory housing including Longwood (87%), Fenway (41%), Downtown (31%) and Allston (19%). In absolute terms, Fenway led the market in 2010 dormitory occupants with 13,824 followed by Allston, a distant second at 5,451 and Brighton at 3,810. Most neighborhoods supported a small fraction of Boston’s dormitory population.

Overall student populations (all undergraduate and graduate school enrollees) including those in off-campus housing, dominate in the LMA and the Fenway, with substantial concentrations in Mission Hill, Allston-Brighton and Downtown/Back Bay.

Despite efforts to increase on-campus housing occupancy (citywide in 2010, over 53% of undergraduates were housed on-campus), many neighborhoods continue to support large numbers of students in off-campus housing with the 201 Census recording the largest numbers in Dorchester (6,961), Fenway/LMA (6,241), Downtown/Back Bay (4,138), Allston/Brighton (3,654), Mission Hill (3,031) and Jamaica Plain (2,339).

**COLLEGE ENROLLEES 2010**

Neighborhoods: Educational Enrollment	Total Population	Undergraduate Enrollees	% of Pop.	Grad-school Enrollees	% of Pop.	% of UG Enrollees in Dormitory Housing	Off Campus UG Student Populations
Dorchester	105,475	7,879	7%	2,329	2%	12%	6,961
Fenway	32,111	18,247	57%	2,749	9%	76%	4,423
Mission Hill	15,816	4,393	28%	900	6%	31%	3,031
Jamaica Plain	34,538	2,774	8%	1,869	5%	16%	2,339
Brighton	47,935	6,068	13%	5,414	11%	63%	2,258
Back Bay	17,552	3,586	20%	1,244	7%	42%	2,090
Downtown	17,395	2,976	17%	693	4%	31%	2,058
Hyde Park	31,426	2,013	6%	600	2%	5%	1,911
Longwood Medical Area	5,991	5,109	85%	480	8%	64%	1,818
West Roxbury	27,758	1,759	6%	445	2%	3%	1,708
East Boston	38,903	1,749	4%	373	1%	8%	1,615
Allston	18,948	6,847	36%	2,360	12%	80%	1,396
Mattapan	23,285	1,401	6%	303	1%	6%	1,316
South Boston	29,196	1,372	5%	1,430	5%	6%	1,296
Roslindale	25,940	1,308	5%	597	2%	1%	1,296
North End	8,196	1,010	12%	358	4%	7%	938
South End	30,817	1,725	6%	1,820	6%	46%	934
Roxbury	42,425	3,515	8%	958	2%	77%	812
Beacon Hill	8,952	684	8%	665	7%	1%	678
Charlestown	15,619	549	4%	602	4%	23%	423
West End	2,232	26	1%	132	6%	72%	7
<b>Boston</b>	<b>583,081</b>	<b>75,141</b>	<b>13%</b>	<b>26,399</b>	<b>5%</b>	<b>53%</b>	<b>35,624</b>

*Household Trends 2000-2010*

According to the US Census, Boston households also grew through the 2000's, ending the decade with 252,699 households, an increase of 5.5%, most of which was again reflected as growth in non-family households. By 2010 almost 55% of all households City-wide were comprised of singles (37% of all households) and unrelated individuals (17% roommates and domestic partners) living under the same roof.

In the neighborhoods most dominated by younger households (headed by households aged 20-34), the percentages of non-family households is dramatically higher than the city-wide average with the Fenway, the LMA, the North End, Bay Village, Back Bay, Allston, Brighton, Beacon Hill, the West End, and the Downtown all posting percentages above 70%. We also note that the neighborhoods with large student populations like the Fenway, Mission Hill, Allston and Brighton all record "roommate" households approaching 30% of total households or more.

### HOUSEHOLD TYPES 2010

Neighborhoods: Household Type	Total Households	All Families	% Total HH's	Two- Parent Family	% Total HH's	Single- Parent Family	% Total HH's	All Non- Families	% Total HH's	Live- Alones	% Total HH's	Roommate Households	% Total HH's
Fenway	12,266	1,779	15%	1,198	10%	581	5%	10,487	85%	6,757	55%	3,730	30%
Longwood Medical Area	316	55	17%	53	17%	2	1%	256	81%	206	65%	50	16%
North End	6,158	1,274	21%	965	16%	309	5%	4,884	79%	3,242	53%	1,642	27%
Bay Village	796	197	25%	165	21%	32	4%	599	75%	437	55%	162	20%
Allston	10,714	2,684	25%	1,805	17%	879	8%	8,030	75%	3,801	35%	4,229	39%
Back Bay	10,649	2,688	25%	2,366	22%	322	3%	7,961	75%	6,271	59%	1,690	16%
Beacon Hill	5,450	1,393	26%	1,227	23%	166	3%	4,057	74%	2,875	53%	1,182	22%
West End	2,585	698	27%	572	22%	126	5%	1,887	73%	1,589	61%	298	12%
South Boston Waterfront	1,028	284	28%	254	25%	30	3%	744	72%	473	46%	271	26%
Downtown	4,258	1,297	30%	1,156	27%	141	3%	2,961	70%	2,376	56%	585	14%
Brighton	19,896	6,297	32%	4,562	23%	1,735	9%	13,599	68%	7,468	38%	6,131	31%
Mission Hill	6,332	2,126	34%	961	15%	1,165	18%	4,206	66%	2,345	37%	1,861	29%
South End	12,831	4,370	34%	2,987	23%	1,383	11%	8,461	66%	6,084	47%	2,377	19%
Leather District	362	133	37%	129	36%	4	1%	226	62%	172	48%	54	15%
South Boston	15,191	6,012	40%	3,477	23%	2,535	17%	9,179	60%	5,900	39%	3,279	22%
Charlestown	8,033	3,607	45%	2,540	32%	1,067	13%	4,426	55%	3,264	41%	1,162	14%
Jamaica Plain	15,903	7,393	46%	4,533	29%	2,860	18%	8,510	54%	5,158	32%	3,352	21%
Chinatown	1,982	976	49%	749	38%	227	11%	1,006	51%	774	39%	232	12%
Roxbury	18,494	10,562	57%	3,199	17%	7,363	40%	7,932	43%	6,400	35%	1,532	8%
West Roxbury	12,961	7,597	59%	5,403	42%	2,194	17%	5,364	41%	4,391	34%	973	8%
East Boston	14,651	8,723	60%	4,775	33%	3,948	27%	5,928	40%	4,210	29%	1,718	12%
Roslindale	11,145	6,976	63%	3,992	36%	2,984	27%	4,169	37%	3,154	28%	1,015	9%
Dorchester	41,232	25,986	63%	11,022	27%	14,964	36%	15,246	37%	11,073	27%	4,173	10%
Mattapan	8,387	5,644	67%	2,229	27%	3,415	41%	2,743	33%	2,282	27%	461	5%
Hyde Park	11,079	7,485	68%	4,183	38%	3,302	30%	3,594	32%	2,999	27%	595	5%
Boston	252,699	116,244	46%	64,502	26%	51,742	20%	136,455	54%	93,701	37%	42,754	17%

### Housing Supply Trends 2000-2010

Housing production kicked into gear during the 2000's decade and Boston saw over 20,500 units added to the supply, an increase of over 8%. In absolute terms, Roxbury, Dorchester and the Downtown all saw unit counts grow by over 2,000 units and South Boston, the South End, Fenway and West Roxbury each saw additions of over 1,000 units.

On a percentage basis, the burgeoning new Seaport neighborhood realized the most dramatic change (35% increase in the stock) followed closely by Chinatown (54%) and the downtown (63%). The vast majority of neighborhoods experienced increased supply of 1% or less.

### City-wide Trends – The 2000's

#### Housing Unit Trends by Neighborhood

Neighborhood	2000	2010	2000-2010	
	Count	Count	Change	% Change
South Boston Waterfront	270	1,214	944	349.6%
Leather District	157	377	220	140.1%
Downtown	3,305	5,390	2,085	63.1%
Chinatown	1,367	2,114	747	54.6%
South End	12,000	13,648	1,648	13.7%
West End	2,554	2,896	342	13.4%
Mission Hill	5,848	6,628	780	13.3%
Roxbury	17,796	20,005	2,209	12.4%
Charlestown	7,755	8,648	893	11.5%
South Boston	14,761	16,409	1,648	11.2%
Fenway	11,547	12,836	1,289	11.2%
West Roxbury	12,398	13,547	1,149	9.3%
<b>Boston</b>	<b>251,935</b>	<b>272,481</b>	<b>20,546</b>	<b>8.2%</b>
Allston	10,373	11,095	722	7.0%
Mattapan	8,597	9,150	553	6.4%
Jamaica Plain	15,922	16,797	875	5.5%
North End	6,393	6,728	335	5.2%
East Boston	15,078	15,854	776	5.1%
Dorchester	42,948	45,133	2,185	5.1%
Back Bay	11,708	12,266	558	4.8%
Hyde Park	11,289	11,816	527	4.7%
Bay Village	800	837	37	4.6%
Roslindale	11,625	11,927	302	2.6%
Brighton	20,615	20,817	202	1.0%
Harbor Islands	0	0	0	0.0%
Beacon Hill	6,122	6,013	(109)	-1.8%
Longwood Medical Area	707	336	(371)	-52.5%

Most neighborhoods gained rental supply bringing the city-wide average to 66% renter occupancy and 33% owner-occupancy. Not surprisingly, the neighborhoods dominated by younger non-family households are also dominated by renters with Chinatown Fenway, Mission Hill, LMA, North End, West End, Allston and Brighton leading the way with renter occupancy percentages above 70%.

And despite the robust growth in unit supply, the markets grew even tighter, posting vacancy levels at 6% city-wide for all housing types and the closest employment proximate neighborhoods all registering vacancy levels below the structural 5% threshold indicating persistent undersupply conditions in those neighborhoods.

**HOUSING TENURE TRENDS 2010**

<b>Neighborhoods: Housing Tenure</b>	<b>Total Occupied Units</b>	<b>Owner Occupied Units</b>	<b>% Total Units</b>	<b>Renter Occupied Units</b>	<b>% Total Units</b>
Harbor Islands	N/A	N/A	N/A	N/A	N/A
Leather District	362	252	69.6%	110	30.4%
West Roxbury	12,961	8,237	63.6%	4,724	36.4%
Hyde Park	11,079	6,431	58.0%	4,648	42.0%
Roslindale	11,145	5,567	50.0%	5,578	50.0%
Charlestown	8,033	3,719	46.3%	4,314	53.7%
Jamaica Plain	15,903	7,061	44.4%	8,842	55.6%
South Boston	15,191	6,108	40.2%	9,083	59.8%
Mattapan	8,387	3,339	39.8%	5,048	60.2%
South End	12,831	5,026	39.2%	7,805	60.8%
Downtown	4,258	1,620	38.0%	2,638	62.0%
South Boston Waterfront	1,028	388	37.7%	640	62.3%
Dorchester	41,232	14,200	34.4%	27,032	65.6%
Beacon Hill	5,450	1,836	33.7%	3,614	66.3%
Back Bay	10,649	3,509	33.0%	7,140	67.0%
Bay Village	796	225	28.3%	571	71.7%
East Boston	14,651	4,028	27.5%	10,623	72.5%
Brighton	19,896	5,056	25.4%	14,840	74.6%
North End	6,158	1,532	24.9%	4,626	75.1%
West End	2,585	616	23.8%	1,969	76.2%
Longwood Medical Area	316	63	19.9%	253	80.1%
Roxbury	18,494	3,632	19.6%	14,862	80.4%
Allston	10,714	1,379	12.9%	9,335	87.1%
Mission Hill	6,332	721	11.4%	5,611	88.6%
Fenway	12,266	1,113	9.1%	11,153	90.9%
Chinatown	1,982	133	6.7%	1,849	93.3%
Boston	252,699	85,791	33.9%	166,908	66.1%

### HOUSING OCCUPANCY TRENDS 2010

Neighborhoods: Vacancy Rates	2010 Total Housing Units	Units Committed Or Occupied	% of All units	Vacant Units	% of All Units	For Rent	% of Vacant Units	For Sale	% of Vacant Units	All Other Vacant (uninhabitable / untenable/ in transition)	% of Vacant Units
Leather District	377	368	98%	9	2%	7	78%	1	11%	1	11%
Allston	11,095	10,815	97%	280	3%	195	70%	18	6%	67	24%
Bay Village	837	812	97%	25	3%	15	60%	1	4%	9	36%
Fenway	12,836	12,413	97%	423	3%	372	88%	12	3%	39	9%
West End	2,896	2,795	97%	101	3%	83	82%	3	3%	15	15%
Longwood Medical Area	336	324	96%	12	4%	12	100%	0	0%	0	0%
West Roxbury	13,547	13,048	96%	499	4%	267	54%	72	14%	160	32%
Brighton	20,817	20,047	96%	770	4%	527	68%	55	7%	188	24%
South End	13,648	13,103	96%	545	4%	304	56%	110	20%	131	24%
Mission Hill	6,628	6,363	96%	265	4%	133	50%	37	14%	95	36%
Beacon Hill	6,013	5,762	96%	251	4%	173	69%	32	13%	46	18%
Chinatown	2,114	2,017	95%	97	5%	73	75%	6	6%	18	19%
Jamaica Plain	16,797	16,002	95%	795	5%	386	49%	123	15%	285	36%
North End	6,728	6,392	95%	336	5%	215	64%	69	21%	51	15%
Hyde Park	11,816	11,152	94%	664	6%	355	53%	77	12%	232	35%
Charlestown	8,648	8,157	94%	491	6%	340	69%	51	10%	100	20%
Back Bay	12,266	11,544	94%	722	6%	465	64%	143	20%	114	16%
Roslindale	11,927	11,219	94%	708	6%	364	51%	98	14%	246	35%
South Boston	16,409	15,302	93%	1,107	7%	518	47%	185	17%	404	36%
East Boston	15,854	14,757	93%	1,097	7%	580	53%	102	9%	415	38%
Roxbury	20,005	18,609	93%	1,396	7%	836	60%	75	5%	485	35%
Mattapan	9,150	8,438	92%	712	8%	455	64%	82	12%	175	25%
Dorchester	45,133	41,536	92%	3,597	8%	2,133	59%	301	8%	1,162	32%
Downtown	5,390	4,859	90%	531	10%	318	60%	198	37%	15	3%
South Boston Waterfront	1,214	1,086	89%	128	11%	43	34%	52	41%	33	26%
Boston	272,481	255,698	94%	19,782	8%	9,169	46%	1,903	10%	4,486	23%

## BOSTON RESIDENTIAL MARKET OVERVIEW

### Boston Rental Apartment Market Trends

#### *Metro Boston Rental Apartment Trends*

According to the latest REIS Observer (May, 2013 – excerpted below), the metro Boston market continues to outpace the nation in terms of rental growth and absorption.

#### THE REAL ESTATE MARKET

The 199,881-unit Boston metropolitan apartment market was in balance in the first quarter of 2013, with a continuation of low vacancy and steady rent gains. Although rents are high here, and rising faster than wages, the pace of increase has been modest since a rent spike during the late 1990s tech boom. Vacancy is characteristically low, and down sharply over three years due to a slowdown in new supply.

#### OCCUPANCY

Reis reports a first quarter 2013 vacancy rate of 3.6% for metro Boston, unchanged from the prior quarter and down 20 basis points from a year earlier. The rate had peaked at just 6.5% in the first quarter of 2010; it had fallen as low as 0.7% at year-end 2000. Starting in the mid-2000s new supply has introduced some fluidity into the Class A market, but in the first quarter the Class A rate was just 4.6%, up 10 basis points from a quarter and a year earlier. With affordable housing always in short supply here, the Class B/C rate was just 2.9%, down 10 basis points for the quarter and 40 from a year earlier.

#### Apartment Vacancy Trends

Year	Boston (%)	Northeast US (%)	US (%)
98	2.5	2.5	4.0
99	1.5	2.0	3.5
00	1.0	1.5	3.0
01	2.0	3.0	5.0
02	4.0	4.5	7.0
03	5.0	5.0	7.5
04	5.0	5.0	6.5
05	4.5	4.5	6.0
06	4.5	4.5	6.0
07	5.0	5.0	6.5
08	5.5	5.5	7.0
09	6.0	6.0	8.0
10	6.5	6.5	8.5
11	4.5	4.5	5.5
12	4.0	4.0	5.0
13	3.5	3.5	4.5
14	3.5	3.5	4.5
15	3.5	3.5	4.5
16	3.5	3.5	4.5
17	3.5	3.5	4.5

Source: Reis, Inc.

- “All too often, the effect housing has on a state’s overall economic success or decline is spoken of in terms of single family dwellings, the housing market, as it were, defined by the willingness of nuclear families to cough up their nest egg and commit to a 30-year fixed-rate mortgage,” Boston Innov reported. “Apartment living, though, is a trillion dollar national industry in its own right, and a new report reveals just how valuable it is to the health and growth of the Massachusetts economy.” “In 2011, apartment construction and operations contributed a staggering \$3.3 billion to the metro Boston economy,” according to a George Mason University economist, “supporting 24,000 local jobs. Additionally, apartments and their residents pumped \$28 into the Massachusetts economy, affecting in turn 665,000 jobs.” “Boston had almost 600,000 apartment residents in 2011 living in 346,221 apartment homes. Today, the high demand for apartments in Boston and its outlying suburbs has spawned a construction boom, to the point where thousands of new units are expected over the next few years.”
- “Mayor Thomas M. Menino announced a plan to lay the groundwork for the creation of 30,000 new housing units in the Hub by 2020,” the Boston Herald reported. “In a wide-ranging speech before the Boston Municipal Research Bureau, Menino said the city will work with experts inside and outside of government to prepare Boston for the housing needs of all of our people, not just some of our



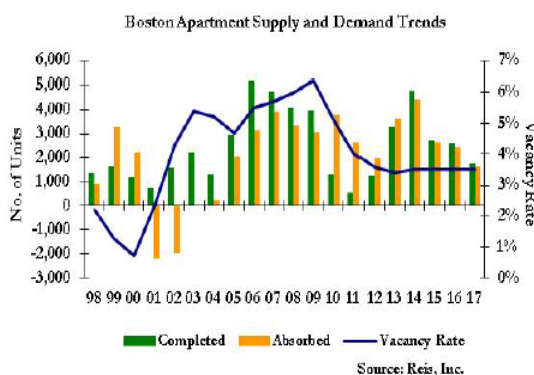
## SUPPLY AND DEMAND

As in many U.S. markets, apartment demand has been strong here in recent years, with Reis recording an average of nearly 3,000 units per year in net absorption in the eight years from 2005 to 2012. The first quarter got off to a

modest start with just 283 units absorbed, including 139 in the Class A segment and 146 for Class B/C. But with vacancy this low net absorption is constrained by the lack of available existing apartments, and tends to be driven by new supply. Reis reports 270 new units completed (246 market rate) during the first quarter, in three projects.

Multifamily housing development had been restricted during the second half of the 20<sup>th</sup> Century in metro Boston, discouraged by rent regulations and economic and population decline in urban areas and exclusionary zoning that favored one-family houses in developing suburbs. These conditions have reversed somewhat in the new century, with young people pouring into cities where apartments are welcome, Boston in particular, and state legislation forcing suburbs to accept apartments. In the four years from 2006 to 2009 an average of more than 4,500 apartments per year completed construction in metro Boston. A condominium construction boom took place at the same time. The financial crisis, which limited development funding, slowed the trend, but the apartment boom has resumed. Reis reports 6,264 market-rate apartments under construction as of the data of this report, with another 2,804 in planned projects with at least partial development schedules announced.

This apartment boom, however, is not expected to be quite as fruitful as the mid-2000s. Reis predicts about 3,300 units will complete construction this year, followed by nearly 4,800 in 2014, but after that apartment development is expected to slow down. With some year-to-year variation tenants are expected to absorb nearly all the apartments that become available, keeping the vacancy rate stable. Unlike the 2000s, moreover, condominium development remains limited, though apartment to condominium conversions also have yet to resume.



### SPECIAL STUDENT HOUSING & SERVICES

Continued

people.” “The city’s housing supply has grown faster than at any time in the last 50 years,” according to the outgoing Mayor. “From 2000 to 2010, the city created 20,000 housing units, injecting \$6 billion of investment into the economy. Of those units, 6,400 are set aside as affordable, including nearly 600 for the homeless. Over the same period, more than 10,000 new dorm beds have gone up, creating housing for students and freeing up apartments for families.”

- “Four Boston legislators say Northeastern University has reneged on a promise to build enough dorms to get its undergraduates out of the Mission Hill, Roxbury, and Fenway neighborhoods,” the Boston Business Journal reported. “Today, the school houses 7,871 of its 13,000 students on campus, or 60.5%. Another 2,000 are commuter students who do not require housing,” a school Vice President said. “When the 17-story GrandMarc dorm opens next year at the YMCA, it will add another 720 beds bringing the total to 66.0%. We acknowledge that to get to 75.0% we need 1,000 beds over the next decade.”
- “An Allston student rental, in which 19 tenants crammed into 3,000 square feet of space, had reportedly not been inspected by the city before a Sunday morning fire claimed the life of a Boston University student there,” the Business Journal reported in late April. “City officials told the Boston Herald the property hadn’t been inspected in 21 years. The landlord, Anna Belokurova, owns two other

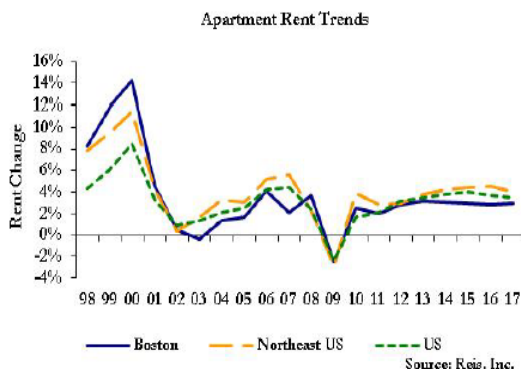
## RENTS

Boston's apartment rent gains slowed in the first quarter of 2013, as both the average asking rent and the average effective rent rose 0.5% to \$1,833 and \$1,755 per month, respectively. Rents are up 3.1% asking and 3.5% effective from a year

earlier. Note, however, that due to the high level of rents here, these relatively modest percentage gains equal monthly rent increases of \$55 for asking and \$59 for effective compared with a year earlier. The Class A asking average for the first quarter is \$2,261 per month, up 1.2% during the quarter and 3.7% from a year earlier. The Class B/C asking average is down 0.2% over three months to \$1,529 per month. It remains 2.1% higher than a year earlier.

"The sky-high rents have made the decision to buy in Boston a no-brainer," according to *CNN Money* quoting Trulia. "Even after just a three-year stay, buyers save an average of 10.0% over renters. After seven years, that savings advantage soars to 40%." "Rents in Beantown are among the highest in the country, thanks to a limited supply of housing for renters. Besides a constant influx of students to the area's colleges and universities, the growing tech and biotech sectors have attracted a lot of well-paid workers to the area. That has the vacancy rate in town at just 3.0%.

With low vacancy putting upward pressure on rents, low income growth is limiting tenants' ability to pay and interest rates are providing an alternative. On balance, Reis predicts steady but moderate rent gains in somewhat excess of the current overall inflation rate. The baseline forecast for 2013 has increases at 3.2% asking and 3.4% effective. Subsequent annual rent gains are expected to be smaller, but not by much. Even so, asking rent gains are forecast to be slightly higher in the Northeast and U.S. as a whole relative to Boston, extending a period of relative underperformance here since the rent spikes of the late 1990s and 2000.



Continued

properties in Boston, including a similar large Allston rental house at 7 Reedsdale St."

- "A combination of public-private investment will be the catalyst for the \$1.6 billion plan to revitalize Quincy Center," according to the *Business Journal*. "The project includes 700,000 square feet of retail, more than 1 million square feet of office space, 1,200 apartments and condominiums, two hotels, a cinema, and classrooms for Quincy College. There are also plans for a farmers market, 30 restaurants, and an expanded park in front of City Hall. The redevelopment—the biggest historic downtown revitalization project in the United States—is funded by investments from Quincy Mutual Fire Insurance and developers Boston-based The Beal Cos. and New-York based Street-Works, a White Plains, N.Y., company that designed a master plan for Quincy Center and specializes in urban redevelopment projects."
- "Massachusetts home sales fell in March because of a shortage of homes on the market," the *Boston Globe* reported. "Single-family home sales dropped 3.6% to 3,100 in March when compared with the number sold in March 2012, said the Warren Group, a Boston firm that tracks local real estate data. That tight inventory helped the median price to rise more than 8.0% to \$285,000 on a year-to-year comparison basis." The *Globe* found too many buyers and not enough sellers. "The Warren

## SUBMARKETS

Gentrifying rather than declining central cities, Boston and Cambridge have the most prestigious rental addresses in the metropolitan area. Unusually the most expensive suburbs are located inland, west of the cities, the while submarkets along the coast to the north and south are the least expensive. New apartment construction was now widely distributed throughout the metro area, in cities and suburbs alike, during the mid-2000s boom, but is now more concentrated in central locations.

### Central Boston/Brookline

- The 22,481-unit Central City/Back Bay/Beacon Hill submarket has a first quarter 2013 vacancy rate of 2.5%, the lowest among nine submarkets, and an average asking rent of \$2,831 per month, the highest according to Reis.
- The 48-unit Hamilton Crossing completed construction in January, but net absorption totaled 125 units and the vacancy rate fell 40 basis points during the first quarter. It is down 70 year-over-year. The average asking rent fell 0.1% during the quarter and the average effective rent was unchanged at \$2,714 per month. The year-over-year gains were 1.9% and 2.4%, respectively.
- Reis reports there are nearly 1,100 units under construction as of the date of this report, and more than 1,200 units in planned projects with projected start and/or completion dates.
- In the 13,976-unit Boston City submarket Reis reports a vacancy rate of 2.8%, second lowest among the submarkets, and an average asking rent of \$1,630 per month.
- The 38-unit 63 Melcher Street completed construction and net absorption totaled 37 as the vacancy rate was unchanged. It is down 20 basis points from a year earlier. Both the average asking rent and the average effective rent increased 1.0% during the quarter, the latter to \$1,560 per month. The year-over-year gains are 3.2% and 3.4%, respectively.

### Special Real Estate Factors:

*Continued*

*Group noted that in March 2013, Massachusetts condo sales decreased by more than 2.0% to 1,211 on a year-to-year comparison basis. The median price for condos sold in March was \$261,000, up more than 1.5%, the Warren Group said."*

- *The whole micro apartment discussion is circulating in Boston, as developers seek ways to adjust for the lower standard of living of younger generations of Americans. "Introducing micro-apartments, a new housing option that's popping up in population-dense cities like Vancouver, Chicago, San Francisco, New York City, and Boston" Software Advice reported in April. "Designed to meet the growing demand for one- and two-person households in urban centers, micro-apartments target middle-class, single, and Generation Y residents, who may otherwise be unable to afford housing in these prime neighborhoods. Often smaller than existing city codes allow, the rise of micro-apartments has driven some mayors, like Mayor Bloomberg, to modify minimum living space ordinances." Politicians usually describe micro apartments as an option to encourage units in new buildings, but not this source. "If you own properties in population-dense cities, this could be an opportunity to convert existing units into micro-units. This gives you more rentals within your portfolio. For example, New York City sets its minimum square footage to 250, and the average square footage of a one-bedroom apartment there is 750.*

- Development is extensive here as well, with 1,053 market-rate units under construction. Three projects with 587 market-rate units broke ground last December. Three more with 443 market-rate units are likely to start construction soon.
- For the 17,942-unit Brookline/Brighton/Newton submarket, Reis reports a first quarter vacancy rate of 3.1%, and an average asking rent of \$1,995 per month.
- The vacancy rate has changed little over the past two quarters, with virtually no net absorption and no new supply. The average asking rent increased 0.9% during the quarter, with the average effective rent up 0.7% to \$1,907 per month. The year-over-year increase is 2.7% by both measures.
- Reis reports the 240-unit (72 market-rate) Charlesview Apartments under construction for delivery in June. The Edge, a 79-unit building, is expected to complete construction in August.

#### Cambridge/Watertown/Waltham

- The 29,137-unit Cambridge/Watertown/Waltham submarket has a vacancy rate of 4.0%, second highest among the submarkets, and an average asking rent of \$2,328 per month, also second highest metrowide according to Reis.
- The vacancy rate increased 30 basis points despite 79 units of net absorption, as the 184-unit (160 market-rate) Maxwell's Green completed construction in February. The rate is up 40 basis points from a year earlier. The average asking rent rose 0.7% during the first quarter 2013, with the average effective rent up 0.6% to \$2,260 per month. The year-over-year gains were 3.7% and 4.0%, respectively.
- Development is roaring here, with 2,101 apartment units (2,038 market-rate) under construction in ten projects. Three of those projects broke ground in February. Another, with 392 units, is expected to break ground in May.

#### Special Real Estate Factors:

*Continued*

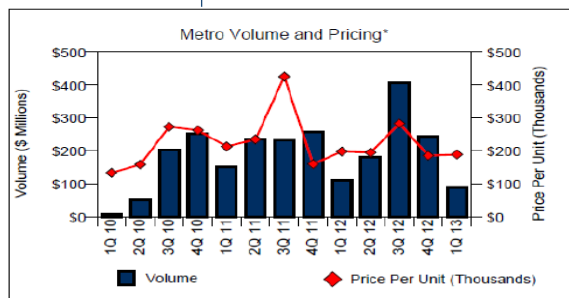
*This means you could create three micro-apartments out of one average-sized apartment."*

- *"The idea of micro-apartments for Boston has long been predicated on the willingness of young tech pros to, well, live in micro-apartments, pods of a few hundred square feet of severely functional living space," according to the Boston Globe. "Should not enough young tech pros opt for these micro-apartments (which, by and large, remain on the drawing board), then that's it for the idea in Boston." Unless the units can be rented to less well off families. "We now know that micro-apartments in downtown Boston will likely go for the same rents as much larger abodes and will ask tenants to trade privacy for that functionality (i.e., there would be a lot of shared common space in individual buildings). It's going to take a lot of young tech professionals, and others, to move these micro-apartments. The current migration from Cambridge would have to be just the start."*

## TRANSACTION ANALYTICS

### Metro Volume and Pricing

Qualifying single-property Boston apartment investment sales slowed in the first quarter of 2013 after a strong 2012.\* The quarter saw nine sales for \$89.1 million at a mean price of \$189,472 per unit. The 2012 totals had been 49 transactions for \$940.7 million at a mean price of \$222,710. In the first quarter's largest sale, Prudential Insurance Company sold the 310-unit Alterra at Overlook Ridge 1A in Revere for \$61.25 million (\$197,581 per unit). The buyer was Mack-Cali Realty Corp. As noted by the *Business Journal*, Alterra at Overlook Ridge 1B also sold. That *Business Journal* article was in late April, after the first quarter closed.



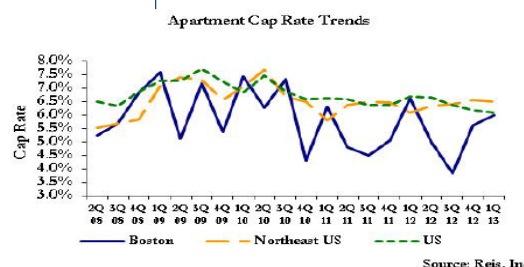
### Top Submarkets

The Mystic River/Route 128 submarket held the top spot among the submarkets for the dollar value of sales over the past four quarters at \$349 million, and in units sold at 1,446. The Central City/Back Bay submarket leads in mean price at \$385,331 per unit.

Submarket Name	Units Sold	Trans Volume (\$ millions)	Price Per Unit (\$ Thousands)
Mystic Riv N/Rt128	1,446	\$349	\$241,438
S Shore/Rt 128 S	1,074	\$258	\$240,579
South/SE Suburban	622	\$101	\$161,977
Cambridge/Watertwn	191	\$54	\$284,175
CTI City/Back Bay	136	\$52	\$385,331
Brookline/Brighton	188	\$49	\$261,043
North Shore	462	\$47	\$102,165

### Cap Rate Comparisons and Forecasts

The mean cap rate for 2013 sales was 6.0%, up 40 basis points from the prior quarter but down 60 from a year earlier. While the local mean varies from quarter-to-quarter based on the character of the properties sold, the general tendency is for Boston area cap rates to be lower than the U.S. and Northeast region averages. The rolling 12 month cap rate is 5.4%, the highest since the second quarter of 2011 but below earlier readings. It is forecast to fall back to the vicinity of 5.0%.



## OUTLOOK

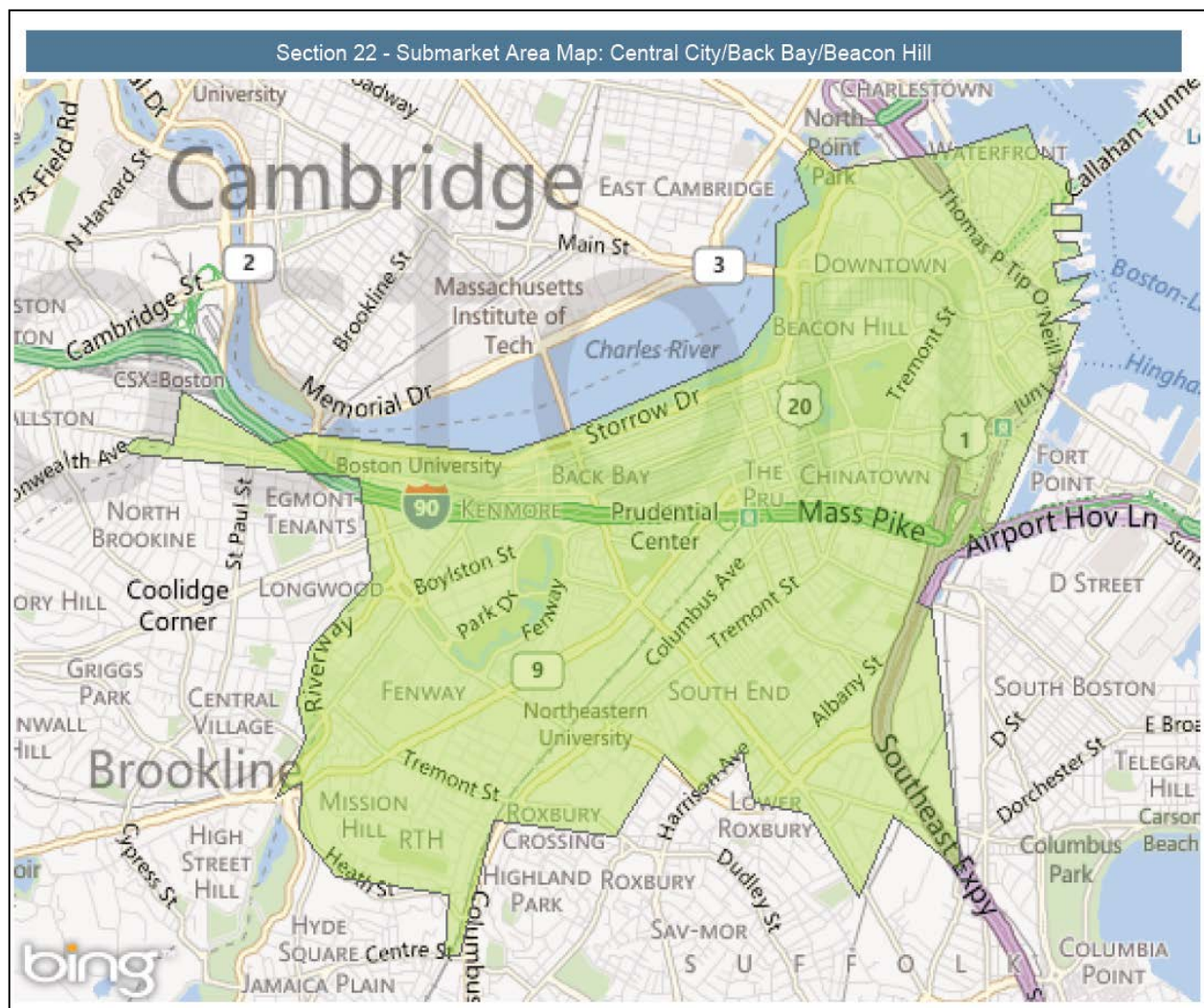
The Reis baseline forecast calls for more stability for Boston apartments, with the vacancy rate nearly stationary at 3.5% and annual rent gains running from 3.0% to 3.5%, roundly speaking. This despite a surge of new supply that is expected to peak over the next two years. The average vacancy rate from 1990 to 2012 was 3.9%, and the market is expected to be slightly tighter than that. The average rent gains during the period were 3.4% asking and 3.3% effective.

### Central Boston Rental Apartment Trends

With extremely limited inventory, the subject's Central Boston submarket has seen steady rent growth since 2009 with best in class properties achieving annual increases at between 5% and 7% while continuing to maintain vacancy levels far below structural levels at between 1% and 3%.

According to REIS, the five year outlook (through 2018) suggests continued stability in the Central Boston sub market despite the unit deliveries anticipated during this time frame with annual rent growth and vacancy expected to moderate to more normative levels at 3% to 3.5% per year increases for rents and vacancy levels approaching structural standards at between 4% to 5%.

### SUBMARKET BOUNDARIES



Section 13 - Current Submarket Rent Details

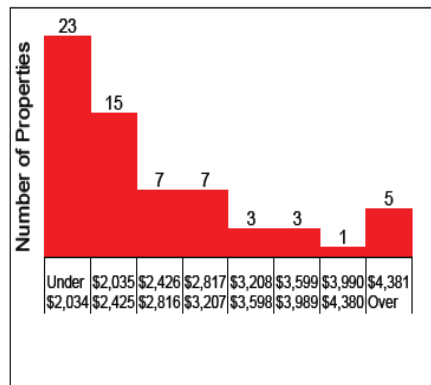
Asking Rent by Age

Year Built	Rent
Before 1970	\$2,358
1970-1979	\$2,637
1980-1989	\$3,460
1990-1999	\$2,102
2000-2009	\$3,624
After 2009	\$3,187
All	\$2,831

As of 03/31/13

Asking Rent Distribution

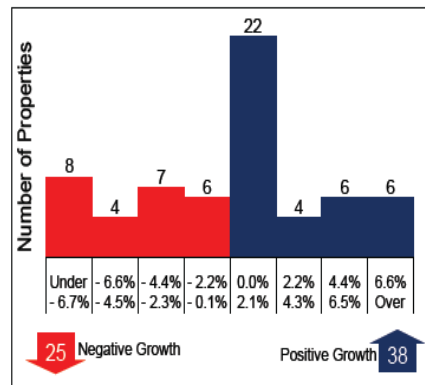
Low	25%	Mean	Median	75%	High
\$1,643	\$2,012	\$2,831	\$2,769	\$3,308	\$4,772



As of 03/31/13

Asking Rent Growth Rate Distribution

Low	25%	Mean	Median	75%	High
-8.5%	-2.1%	-0.1%	0.0%	2.8%	8.9%

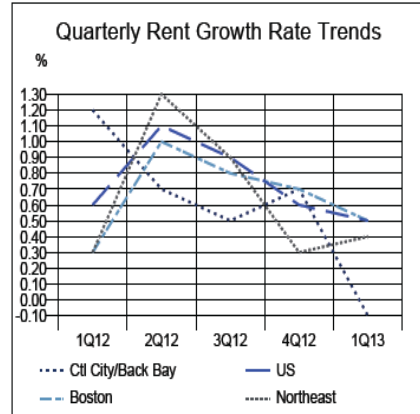


Qtr Ending 03/31/13

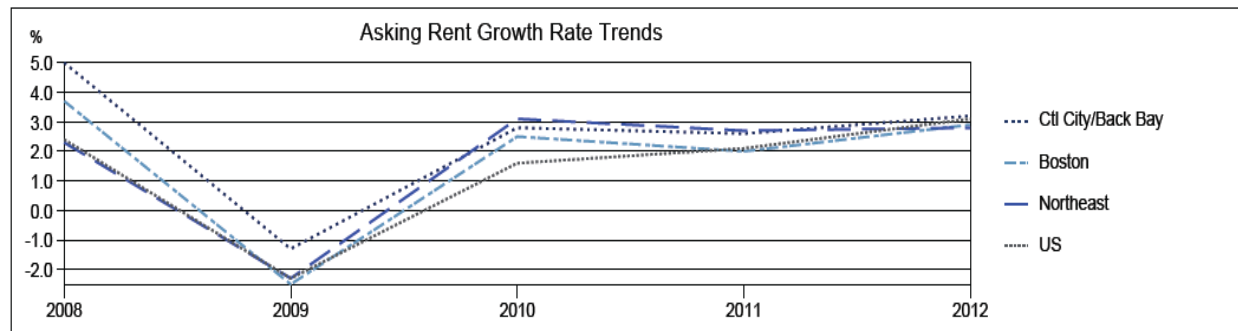
Section 14 - Rent Growth Comparisons

	Asking Rent Growth					
	Quarterly			Annualized		
	1Q13	4Q12	YTD Avg	1 Year	3 Year	5 Year
Ctl City/Back Bay	-0.1%	0.7%	-0.1%	3.2%	2.9%	2.4%
Boston	0.5%	0.7%	0.5%	2.9%	2.5%	1.7%
Northeast	0.4%	0.3%	0.4%	2.8%	2.9%	1.7%
United States	0.5%	0.6%	0.5%	3.1%	2.3%	1.4%
Period Ending:	03/31/13	12/31/12	03/31/13	12/31/12	12/31/12	12/31/12

Submarket Rank Compared to:	Total Subs	Submarket Ranks					
		1Q13	4Q12	YTD	1 Year	3 Year	5 Year
Boston	9	9	5	9	3	3	2
Northeast	103	71	43	71	29	15	7
United States	834	628	334	628	307	132	88



Period ending 03/31/13



Period ending 12/31/12

Section 15 - Current Submarket Vacancy Details

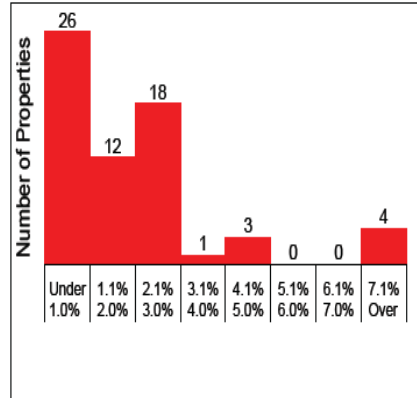
Vacancy Rate By Age

Year Built	Vac. Rate
Before 1970	2.4%
1970-1979	2.4%
1980-1989	1.6%
1990-1999	0.6%
2000-2009	3.2%
After 2009	9.5%
All	2.5%

As of 03/31/13

Vacancy Rate Distribution

Low	25%	Mean	Median	75%	High
0.0%	0.8%	2.5%	1.8%	4.2%	8.3%

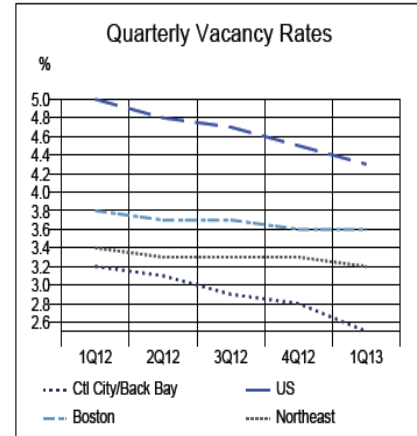


As of 03/31/13

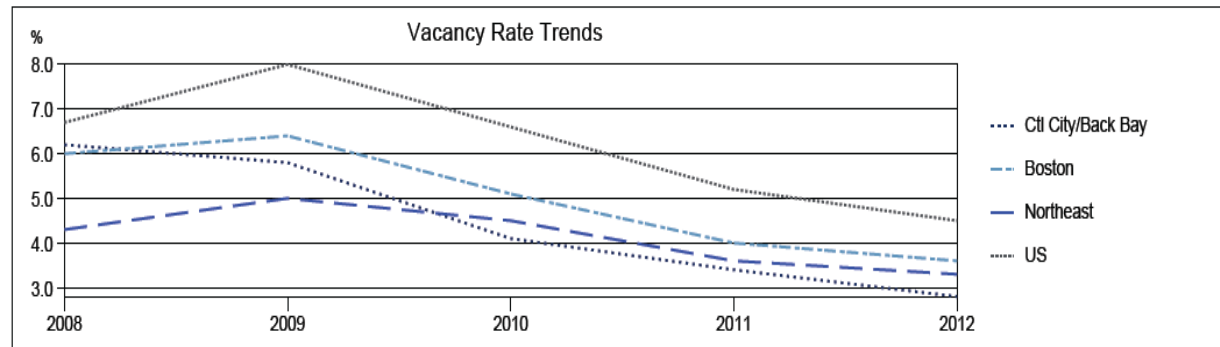
Section 16 - Vacancy Rate Comparisons

	Vacancy Rates					
	Quarterly			Annualized		
	1Q13	4Q12	YTD Avg	1 Year	3 Year	5 Year
Ctl City/Back Bay	2.5%	2.8%	2.5%	3.1%	4.0%	4.5%
Boston	3.6%	3.6%	3.6%	3.8%	4.8%	5.1%
Northeast	3.2%	3.3%	3.2%	3.4%	4.1%	4.1%
United States	4.3%	4.5%	4.3%	4.9%	6.1%	6.1%
Period Ending:	03/31/13	12/31/12	03/31/13	12/31/12	12/31/12	12/31/12

Submarket Rank Compared to:	Total Subs	Submarket Ranks					
		1Q13	4Q12	YTD	1 Year	3 Year	5 Year
Boston	9	1	2	1	3	2	4
Northeast	103	33	44	33	45	51	67
United States	834	119	147	119	142	148	199



Period ending 03/31/13

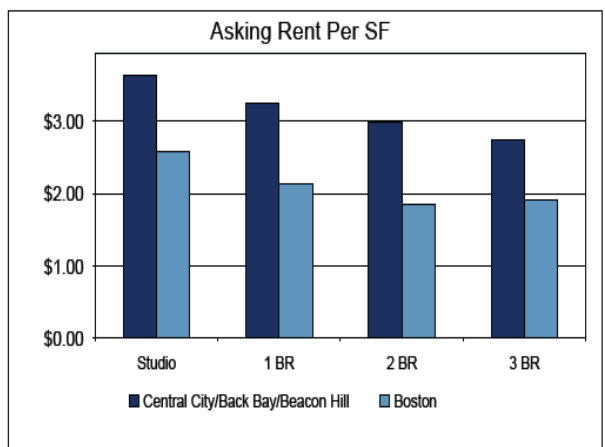
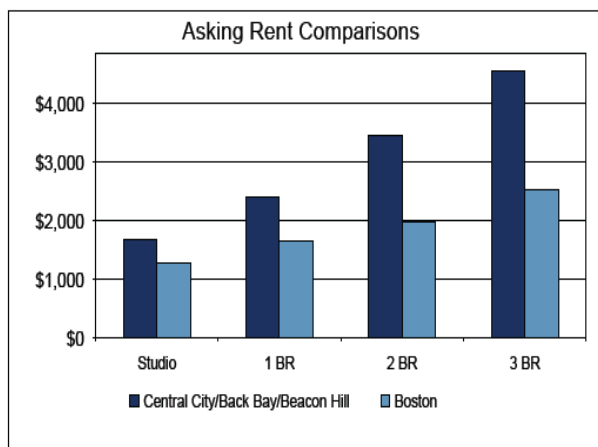


Period ending 12/31/12



**Section 17 - Submarket Unit Mix Rent Details**

Current Submarket Average Rents and Sizes				Asking Rent Growth					
	1Q 2013			Quarterly			Annualized		
	Rent	Avg. SF	Avg. Rent PSF	1Q13	4Q12	YTD	1 Year	3 Year	5 Year
	Studio/Efficiency	\$1,677	462	\$ 3.63	2.3%	0.1%	2.3%	- 4.9%	1.8%
One Bedroom	\$2,411	744	\$ 3.24	- 1.1%	0.6%	- 1.1%	4.2%	3.2%	2.4%
Two Bedroom	\$3,438	1150	\$ 2.99	0.2%	1.0%	0.2%	3.7%	2.7%	2.8%
Three Bedroom	\$4,543	1653	\$ 2.75	3.3%	0.0%	3.3%	- 0.5%	2.9%	- 0.6%
Average over period ending:				03/31/13	12/31/12	03/31/13	12/31/12	12/31/12	12/31/12



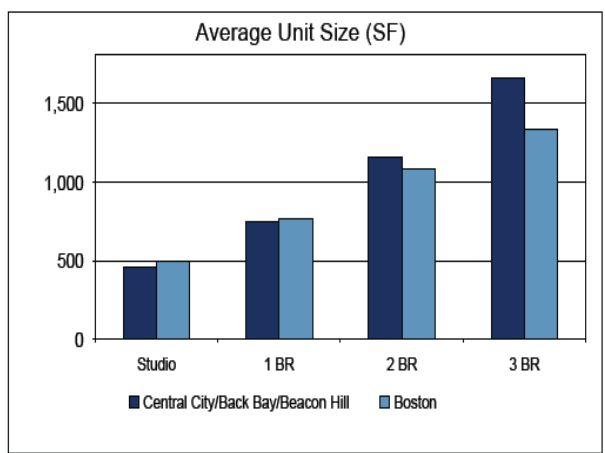
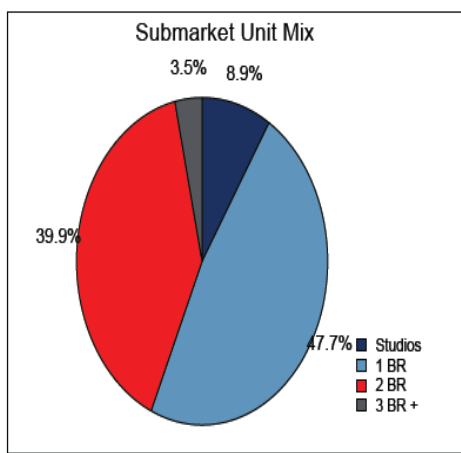
	Studio	1 BR	2 BR	3 BR
Central City/Back Bay/Beacon Hill	\$1,677	\$2,411	\$3,438	\$4,543
Boston	\$1,276	\$1,645	\$1,980	\$2,536

As of 03/31/13

	Studio	1 BR	2 BR	3 BR
Central City/Back Bay/Beacon Hill	\$ 3.63	\$ 3.24	\$ 2.99	\$ 2.75
Boston	\$ 2.58	\$ 2.14	\$ 1.84	\$ 1.90

As of 03/31/13

**Section 18 - Submarket Unit Mix Inventory Details**



Section 19 - Submarket Inventory Details

Inventory By Building Age

Year Built	Percent
Before 1970	44.0%
1970-1979	18.0%
1980-1989	13.0%
1990-1999	2.0%
2000-2009	21.0%
After 2009	1.0%
All	100.0%

As of 03/31/13

Apartment Stock Traits

	Submarket			
	Low	Mean	Median	High
Year Built	1896	1960	1969	2013
Size (units)	40	167	96	800
Distance to Highway (miles)	0	0.1	0.1	0.4
Distance to CBD (miles)	0.2	1.7	1.8	3.1
Distance to Landmark (miles)	0.2	0.6	0.6	1.3

As of 03/31/13 Landmark =Coast

Average Submarket Lease Terms

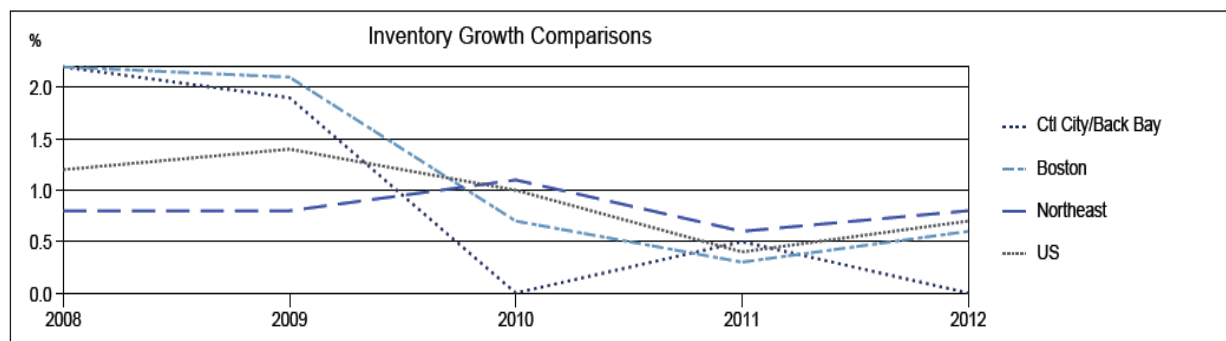
Free Rent (mos)	Expenses % (Apartment)
0.50	40.7%

As of 03/31/13

Section 20 - Inventory Growth Comparisons

	Inventory Growth Rates					
	Quarterly			Annualized		
	1Q13	4Q12	YTD Avg	1 Year	3 Year	5 Year
Ctl City/Back Bay	0.2%	0.0%	0.2%	0.0%	0.2%	0.9%
Boston	0.1%	0.4%	0.1%	0.6%	0.5%	1.2%
Northeast	0.2%	0.2%	0.2%	0.8%	0.8%	0.8%
United States	0.2%	0.3%	0.2%	0.7%	0.7%	0.9%
Period Ending:	03/31/13	12/31/12	03/31/13	12/31/12	12/31/12	12/31/12

Submarket Rank Compared to:	Total Subs	Submarket Ranks					
		1Q13	4Q12	YTD	1 Year	3 Year	5 Year
Boston	9	3	7	3	8	9	7
Northeast	103	10	30	10	44	47	28
United States	834	75	182	75	287	398	297



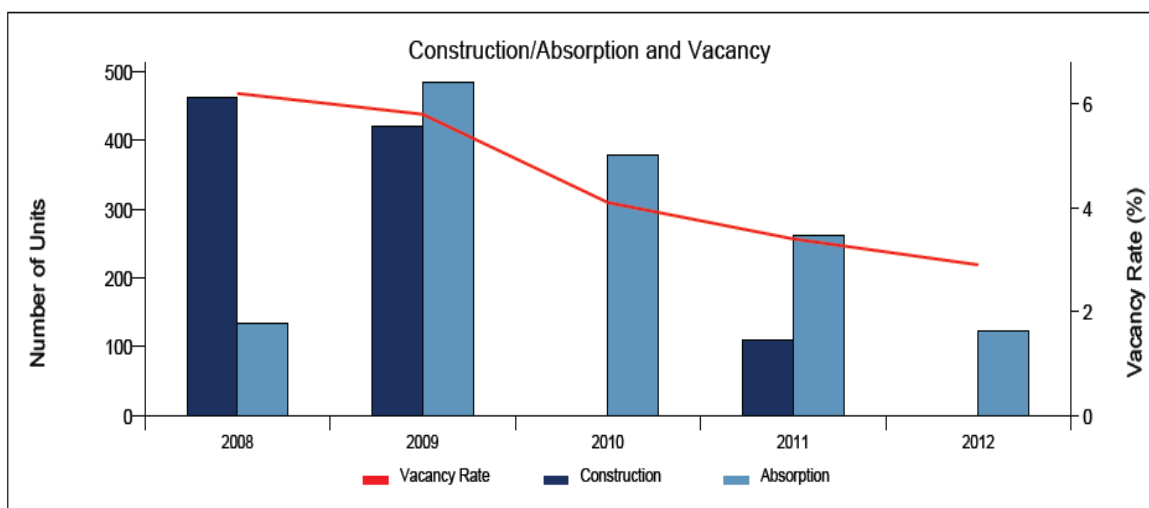
Period ending 12/31/12

Section 21 - Construction/Absorption Change

Construction and Absorption

	Quarterly								
	1Q13			4Q12			YTD Avg		
	Units Built	Units Absorbed	Con/Abs Ratio	Units Built	Units Absorbed	Con/Abs Ratio	Units Built	Units Absorbed	Con/Abs Ratio
Ctl City/Back Bay	48	125	0.4	0	12	0.0	48	125	0.4
Boston	246	283	0.9	721	770	0.9	246	283	0.9
Average over period ending:	03/31/13	03/31/13	03/31/13	12/31/12	12/31/12	12/31/12	03/31/13	03/31/13	03/31/13

	Annualized								
	1 Year History			3 Year History			5 Year History		
	Units Built	Units Absorbed	Con/Abs Ratio	Units Built	Units Absorbed	Con/Abs Ratio	Units Built	Units Absorbed	Con/Abs Ratio
Ctl City/Back Bay	0	124	0.0	37	255	0.1	199	277	0.1
Boston	1,285	1,982	0.6	1,051	2,803	0.4	2,245	2,956	0.4
Average over period ending:	12/31/12	12/31/12	12/31/12	12/31/12	12/31/12	12/31/12	12/31/12	12/31/12	12/31/12



Period ending 12/31/12

*Boston Neighborhood Rental Apartment Trends*

According to annual surveys conducted by the City of Boston Department of Neighborhood Development, neighborhoods across the city have seen substantial rent growth in the last 10 to 15 years and more dramatically in the most recent two to three year period.

Despite the City’s impressive efforts to encourage new rental production, demand continues to outstrip supply – especially in the neighborhoods most impacted by employment growth – the walkable and transit accessible neighborhoods that offer housing to employees of the downtown, the LMA and Kendall/Tech Square and students attending the many education institutions in Boston and Cambridge.

**NEIGHBORHOOD RENT GROWTH TRENDS 2000-2012**

<b>Median Rents</b>	<b>2000</b>	<b>2010</b>	<b>Annual % Change '00-'10</b>	<b>2012</b>	<b>Annual % Change '10-'12</b>
Allston Brighton	\$1,400	\$1,650	1.8%	\$1,750	3.0%
Back Bay/Beacon Hill	\$2,200	\$2,500	1.4%	\$2,950	9.0%
Central	\$1,800	\$2,600	4.4%	\$3,000	7.7%
Charlestown	\$1,600	\$2,100	3.1%	\$2,450	8.3%
Dorchester	\$1,200	\$1,400	1.7%	\$1,500	3.6%
East Boston	\$1,100	\$1,450	3.2%	\$1,500	1.7%
Fenway/Kenmore	\$1,600	\$1,963	2.3%	\$2,100	3.5%
Hyde Park	\$1,200	\$1,350	1.3%	\$1,335	-0.6%
Jamaica Plain	\$1,300	\$1,800	3.8%	\$1,875	2.1%
Mattapan	--	\$1,350	--	\$1,400	1.9%
Roslindale	\$1,200	\$1,350	1.3%	\$1,600	9.3%
Roxbury	\$1,400	\$1,400	0.0%	\$1,500	3.6%
South Boston	\$1,350	\$1,900	4.1%	\$2,400	13.2%
South End	\$2,200	\$2,400	0.9%	\$2,800	8.3%
West Roxbury	\$1,275	\$1,400	1.0%	\$1,575	6.3%
<b>City-Wide</b>	<b>\$1,600</b>	<b>\$1,900</b>	<b>1.9%</b>	<b>\$2,250</b>	<b>9.2%</b>

## Boston For-Sale Housing Market Trends

### Single Family Sale Trends

According to the City’s Department of Neighborhood Development which reports recorded real estate sales published by the Warren Group for the Boston neighborhoods, the single family market in Boston has shown continued strength over the past 10-15 years; with steady, progressive median price increases and relatively small declines even during recession years. Note that while the city-wide prices for Boston have been relatively stable since 2010, several neighborhoods – including two of the most affordable (East Boston & Roxbury – defined to include parts of Mission Hill) and has seen double digit annual increases.

#### SINGLE FAMILY SALE TRENDS 2000-2012

Single Family Price Trends	2000	2010	Annual % Change '00-'10	2012	Annual % Change '10-'12
Allston Brighton	\$215,230	\$399,000	8.5%	\$427,500	3.6%
Back Bay/Beacon Hill	--	\$2,320,000	--	\$2,625,000	6.6%
Central	--	--	--	--	--
Charlestown	\$395,000	\$674,500	7.1%	\$637,500	-2.7%
Dorchester	\$176,750	\$288,250	6.3%	\$304,000	2.7%
East Boston	\$138,500	\$216,075	5.6%	\$270,000	12.5%
Fenway/Kenmore	--	--	--	--	--
Hyde Park	\$189,000	\$270,500	4.3%	\$260,000	-1.9%
Jamaica Plain	\$385,000	\$575,000	4.9%	\$557,450	-1.5%
Mattapan	\$160,000	\$195,000	2.2%	\$191,500	-0.9%
Roslindale	\$222,500	\$348,250	5.7%	\$327,000	-3.1%
Roxbury	\$135,000	\$180,900	3.4%	\$220,000	10.8%
South Boston	\$240,000	\$440,000	8.3%	\$425,000	-1.7%
South End	\$690,000	\$1,488,750	11.6%	\$1,750,000	8.8%
West Roxbury	\$265,000	\$413,750	5.6%	\$391,500	-2.7%
<b>City-Wide</b>	<b>\$216,000</b>	<b>\$350,000</b>	<b>6.2%</b>	<b>\$350,000</b>	<b>0.0%</b>

### Two Family Sale Trends

The market for two-family properties in Boston has also shown strength over the past 10-15 years. Note that the city-wide price for Boston two-family properties has increased more dramatically than the single family market since 2010, with one of the most affordable neighborhoods (Jamaica Plain - defined to include parts of Mission Hill) registering double digit annual increases since then.

#### TWO-FAMILY SALE TRENDS 2000-2012

Two-Family Price Trends	2000	2010	Annual % Change '00-'10	2012	Annual % Change '10-'12
Allston Brighton	\$369,450	\$500,000	3.5%	\$563,000	6.3%
Back Bay/Beacon Hill	--	--	--	--	--
Central	--	--	--	--	--
Charlestown	\$364,750	\$623,750	7.1%	\$485,000	-11.1%
Dorchester	\$220,000	\$265,000	2.0%	\$305,000	7.5%
East Boston	\$200,000	\$220,000	1.0%	\$250,500	6.9%
Fenway/Kenmore	--	--	--	--	--
Hyde Park	\$250,000	\$270,000	0.8%	\$290,000	3.7%
Jamaica Plain	\$292,500	\$505,000	7.3%	\$682,500	17.6%
Mattapan	\$195,750	\$244,500	2.5%	\$248,500	0.8%
Roslindale	\$285,000	\$365,000	2.8%	\$374,000	1.2%
Roxbury	\$172,000	\$225,000	3.1%	\$243,000	4.0%
South Boston	\$262,500	\$425,000	6.2%	\$495,000	8.2%
South End	--	--	--	\$1,807,500	--
West Roxbury	\$336,500	\$450,000	3.4%	\$394,000	-6.2%
<b>City-Wide</b>	<b>\$250,500</b>	<b>\$300,000</b>	<b>2.0%</b>	<b>\$343,000</b>	<b>7.2%</b>

### Three-Family Sale Trends

The market for three-family properties in Boston is most concentrated the southern neighborhoods where dramatic price increases were experienced during the 2000 to 2010 period - with some neighborhoods registering average annual growth in the double digits for the entire decade (see South Boston and Jamaica Plain which includes parts of Mission Hill).

The price growth has been driven by a number of phenomena, the most important of which include: 1) the appeal of these properties for condo conversion – which was rampant during the early part of the decade; and, 2) by Boston’s supply constrained rental market, especially in the most employment accessible neighborhoods - like South Boston with the Red Line providing a short ride to South Station, Charles Street/MGH, Kendall/Tech Square and Harvard Square and like Jamaica Plain which offers walking and Green Line accessibility to the Longwood Medical Area and the Colleges of the Fenway (including Northeastern). Since 2010 price growth in both Jamaica Plain and South Boston has moderated, however prices in Dorchester, Hyde Park and Roxbury (which includes parts of Mission Hill) triple-deckers are up by over 10% annually as the market continues to seek lower cost alternatives to the higher priced, closer-in neighborhoods.

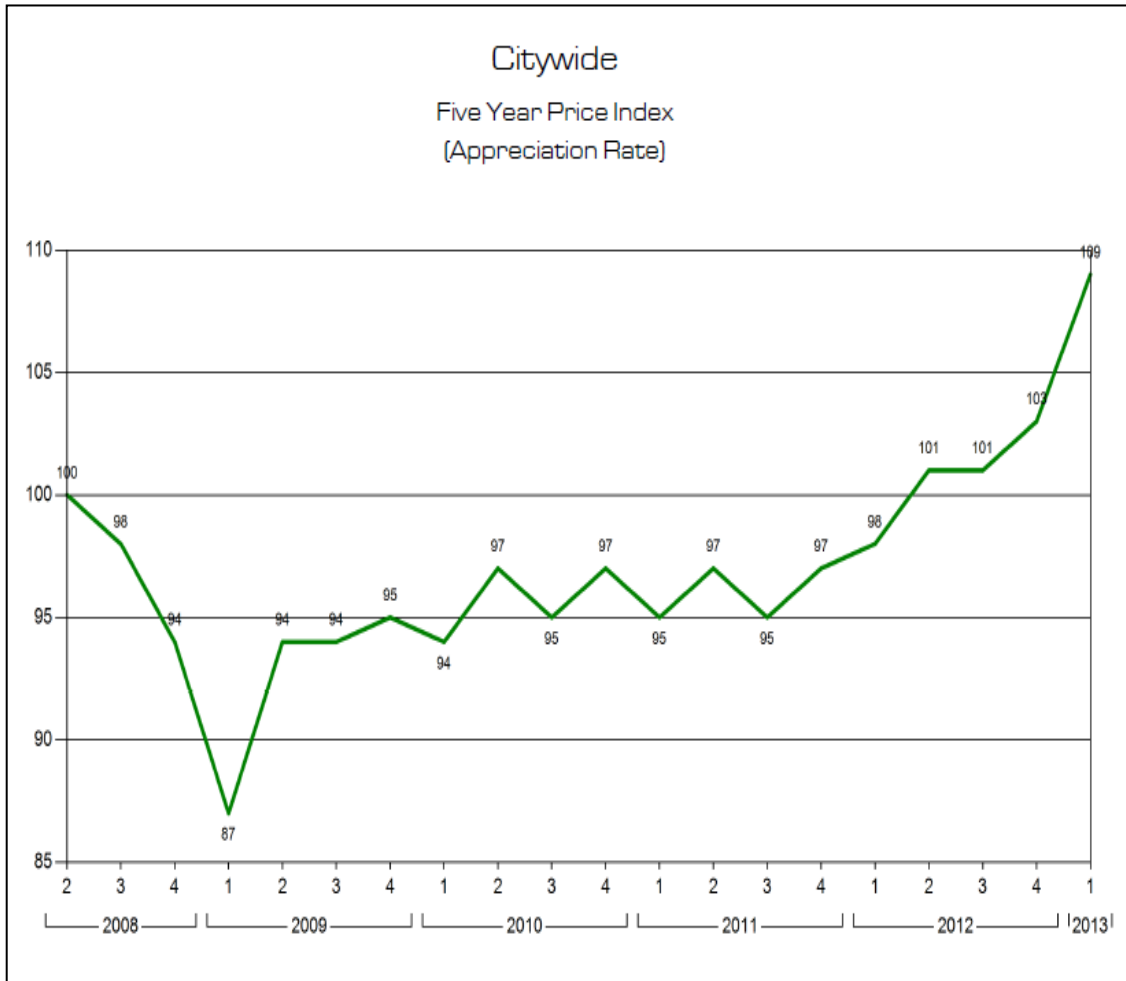
### THREE-FAMILY SALE TRENDS 2000-2012

Three-Family Price Trends	2000	2010	Annual % Change '00-'10	2012	Annual % Change '10-'12
Allston Brighton	\$460,000	\$598,000	3.0%	\$669,300	6.0%
Back Bay/Beacon Hill	--	--	--	--	--
Central	--	--	--	--	--
Charlestown	--	--	--	\$390,000	--
Dorchester	\$231,450	\$288,750	2.5%	\$347,500	10.2%
East Boston	\$225,100	\$270,000	2.0%	\$287,500	3.2%
Fenway/Kenmore	--	--	--	--	--
Hyde Park	\$276,500	\$255,250	-0.8%	\$337,000	16.0%
Jamaica Plain	\$317,000	\$754,000	13.8%	\$665,000	-5.9%
Mattapan	\$240,000	\$232,825	-0.3%	\$260,000	5.8%
Roslindale	\$300,000	\$382,500	2.8%	\$450,000	8.8%
Roxbury	\$205,000	\$230,000	1.2%	\$295,000	14.1%
South Boston	\$300,000	\$610,000	10.3%	\$545,500	-5.3%
South End	--	--	--	\$1,580,000	--
West Roxbury	--	\$288,500	--	\$375,000	15.0%
<b>City-Wide</b>	<b>\$243,000</b>	<b>\$300,000</b>	<b>2.3%</b>	<b>\$343,000</b>	<b>7.2%</b>

### Central Boston Condominium Sale Trends

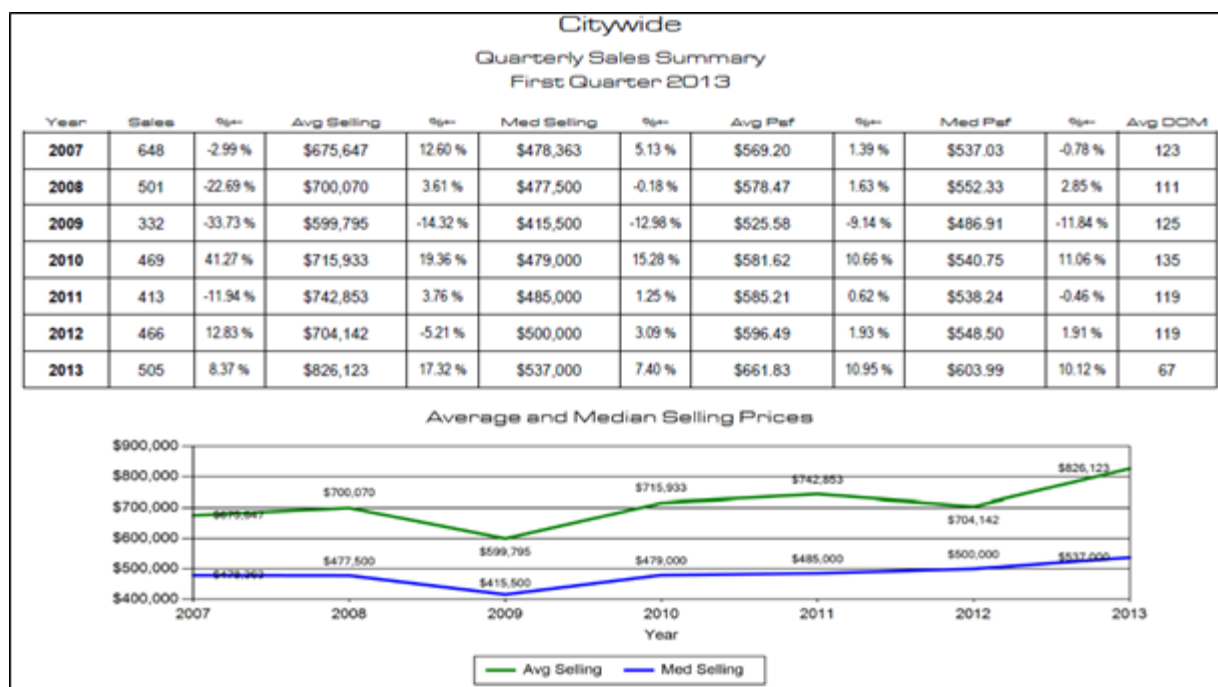
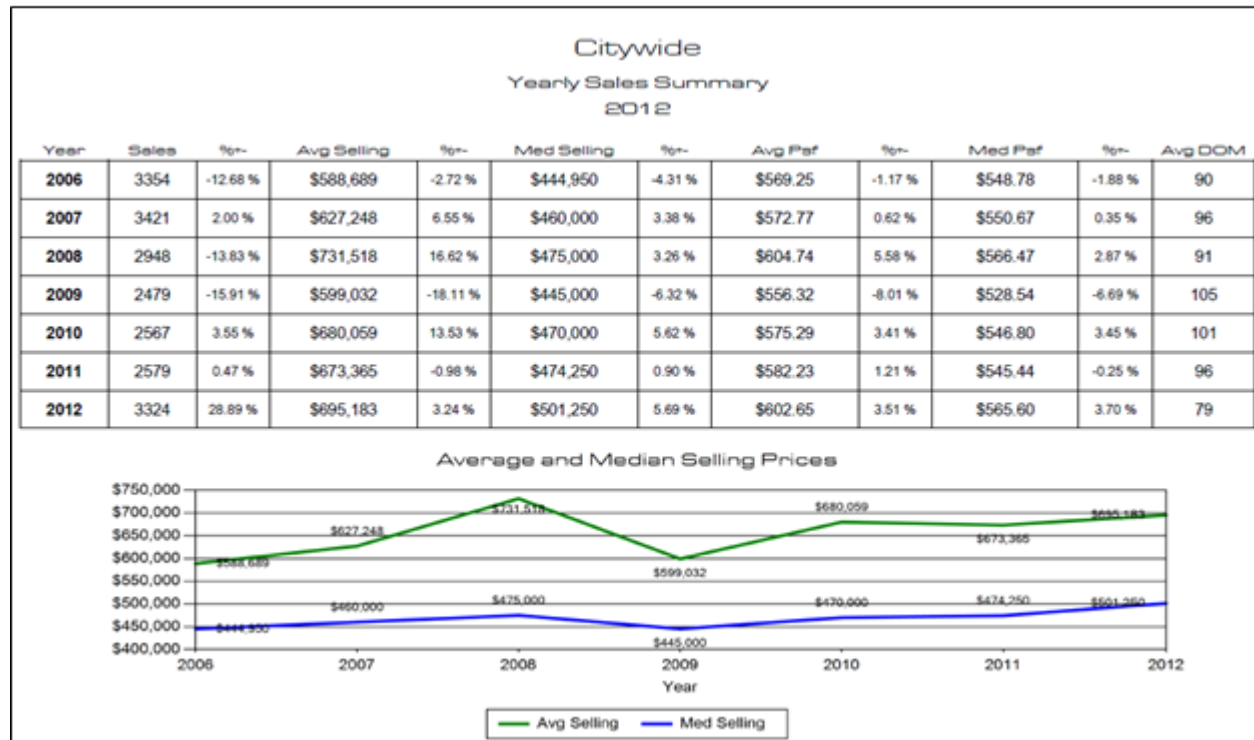
According to The Listing Information Network (LINK), which tracks recorded real estate sales for the Boston neighborhoods, the condominium market in Boston has shown continued strength over the past 25 years; with steady, progressive median price increases and relatively small declines during recession year.

Note that the median city-wide price for Boston was off only 6% in 2009 and has been improving ever since with dramatic increases in the last 12 months through Q1 2013 (the most recent quarter for which there is data).



The annual median condominium price increase in Boston in 2010 was 3.4%, 1.2% in 2011 and increased another 3.51% in 2012. More striking is the return of deal velocity, with annual sales activity now back to pre-recession levels.





All Boston neighborhoods registered strong increases in 2012 median prices and the City-wide Q1 2013 year over year growth in the median pricing registers at +7.4% per unit and +10.12% per SF, with averages at +17.32% per unit and +10.95% per SF

2012 Sales Summary											
City	Sales	%±	Avg Sell	%±	Med Sell	%±	Avg Paf	%±	Med Paf	%±	DOM
Back Bay	575	28.35 %	\$1,161,133	1.48 %	\$750,000	-2.60 %	\$808.23	2.72 %	\$754.30	4.78 %	98
Beacon Hill	219	19.67 %	\$721,406	2.71 %	\$520,000	4.00 %	\$730.32	4.25 %	\$722.49	6.74 %	77
Charlestown	363	42.35 %	\$470,743	0.72 %	\$432,000	2.61 %	\$447.53	1.89 %	\$452.10	0.18 %	75
Fenway	187	26.35 %	\$354,358	12.42 %	\$340,000	17.24 %	\$521.21	8.24 %	\$533.17	7.72 %	60
Leather District	44	91.30 %	\$597,753	1.46 %	\$582,750	5.00 %	\$478.77	7.44 %	\$472.21	6.81 %	84
Midtown	147	28.95 %	\$1,067,332	-6.90 %	\$936,234	7.86 %	\$845.47	1.56 %	\$865.38	6.28 %	110
North End	99	41.43 %	\$472,925	5.41 %	\$410,000	9.53 %	\$615.22	10.65 %	\$605.26	15.73 %	62
Seaport	120	53.85 %	\$699,834	12.95 %	\$608,750	12.84 %	\$509.70	7.59 %	\$502.61	7.90 %	85
South Boston	689	31.99 %	\$416,958	11.01 %	\$395,000	8.97 %	\$389.78	4.83 %	\$390.56	4.91 %	75
South End	646	15.56 %	\$707,756	7.79 %	\$573,750	3.38 %	\$629.71	3.77 %	\$626.06	2.79 %	61
Waterfront	185	44.53 %	\$917,615	-5.14 %	\$725,000	13.64 %	\$692.83	6.86 %	\$629.72	7.57 %	108
West End	50	-1.96 %	\$395,050	7.48 %	\$381,500	5.97 %	\$436.87	3.94 %	\$433.24	3.23 %	50

2013 First Quarter Sales Summary											
City	Sales	%±	Avg Sell	%±	Med Sell	%±	Avg Paf	%±	Med Paf	%±	DOM
Back Bay	84	6.33 %	\$1,717,713	34.75 %	\$1,162,500	45.31 %	\$984.27	21.72 %	\$877.89	19.71 %	70
Beacon Hill	23	-34.29 %	\$1,023,826	26.58 %	\$599,000	9.11 %	\$819.76	9.81 %	\$802.38	16.25 %	56
Charlestown	54	28.57 %	\$519,579	9.51 %	\$503,500	17.09 %	\$465.70	9.16 %	\$475.09	12.00 %	65
Fenway	39	105.26 %	\$333,571	-17.55 %	\$310,100	-17.31 %	\$581.35	13.36 %	\$579.64	10.65 %	38
Leather District	6	500.00 %	\$621,625	0.26 %	\$625,000	0.81 %	\$463.67	-14.89 %	\$462.75	-15.06 %	61
Midtown	36	24.14 %	\$1,248,701	37.43 %	\$942,500	17.81 %	\$879.37	8.69 %	\$891.65	4.40 %	197
North End	14	40.00 %	\$449,875	28.13 %	\$425,000	16.44 %	\$658.42	24.25 %	\$673.56	25.28 %	71
Seaport	19	-17.39 %	\$618,568	-19.82 %	\$595,000	-15.60 %	\$534.91	1.18 %	\$530.84	4.62 %	62
South Boston	99	-1.00 %	\$419,050	5.83 %	\$405,000	6.72 %	\$431.95	18.49 %	\$433.96	18.71 %	42
South End	109	19.78 %	\$747,651	13.33 %	\$595,500	10.28 %	\$655.05	6.26 %	\$667.79	12.64 %	41
Waterfront	16	-44.83 %	\$960,938	35.62 %	\$757,250	37.68 %	\$739.75	24.13 %	\$718.92	30.49 %	79
West End	6	-25.00 %	\$533,500	37.81 %	\$514,500	36.65 %	\$489.25	8.79 %	\$515.17	15.30 %	49

We note that the Fenway (which is defined to include the LMA) and South End (which is defined to include Lower Roxbury) markets continue to be among the City's strongest performers both in terms of deal velocity and price appreciation.

Increases in median prices per SF were registered for all bedroom typologies and most unit size tiers – with the greatest absolute and PSF increases recorded for the City's smallest and largest units.

Citywide												
Sales Comparison by Number of Bedrooms												
2012												
Beds	Year	Sales	%±	Avg Selling	%±	Med Selling	%±	Avg PSF	%±	Med PSF	%±	Avg DOM
Studio	2010	82	-28.70 %	\$297,048	5.28 %	\$291,000	5.82 %	\$595.13	0.62 %	\$572.35	-1.04 %	67
	2011	79	-3.66 %	\$284,107	-4.36 %	\$272,500	-6.36 %	\$617.39	3.74 %	\$599.48	4.74 %	88
	2012	124	56.96 %	\$299,408	5.39 %	\$289,000	6.06 %	\$672.05	8.85 %	\$639.62	6.70 %	65
One Bed	2010	843	-0.12 %	\$416,106	1.03 %	\$385,000	5.24 %	\$575.05	1.80 %	\$564.13	0.84 %	91
	2011	856	1.54 %	\$412,201	-0.94 %	\$375,000	-2.60 %	\$565.05	-1.74 %	\$544.04	-3.56 %	89
	2012	1079	26.05 %	\$446,718	8.37 %	\$410,000	9.33 %	\$597.70	5.78 %	\$578.08	6.26 %	66
Two Beds	2010	1240	4.55 %	\$655,839	5.41 %	\$525,000	0.86 %	\$551.82	2.52 %	\$513.56	3.19 %	101
	2011	1208	-2.58 %	\$695,153	5.99 %	\$560,000	6.67 %	\$570.89	3.46 %	\$532.41	3.67 %	95
	2012	1561	29.22 %	\$712,489	2.49 %	\$571,000	1.96 %	\$586.83	2.79 %	\$541.67	1.74 %	81
Three Plus Beds	2010	343	47.21 %	\$1,515,486	10.99 %	\$1,150,000	9.52 %	\$660.80	6.32 %	\$600.00	0.92 %	127
	2011	308	-10.20 %	\$1,510,577	-0.32 %	\$1,174,638	2.14 %	\$663.85	0.46 %	\$584.66	-2.56 %	117
	2012	405	31.49 %	\$1,454,490	-3.71 %	\$1,035,000	-11.89 %	\$658.47	-0.81 %	\$615.63	5.30 %	105

Citywide												
Sales Comparison by Number of Bedrooms												
First Quarter 2013												
Beds	Year	Sales	%±	Avg Selling	%±	Med Selling	%±	Avg PSF	%±	Med PSF	%±	Avg DOM
Studio	2011	9	-18.18 %	\$274,778	-2.53 %	\$272,500	-9.17 %	\$601.75	2.84 %	\$541.73	-6.41 %	51
	2012	12	33.33 %	\$312,533	13.74 %	\$293,500	7.71 %	\$622.35	3.42 %	\$610.17	12.63 %	178
	2013	20	66.67 %	\$375,385	20.11 %	\$307,250	4.68 %	\$727.78	16.94 %	\$699.90	14.70 %	29
One Bed	2011	136	-14.47 %	\$442,521	4.13 %	\$390,000	2.63 %	\$577.44	1.40 %	\$558.45	-0.61 %	108
	2012	138	1.47 %	\$454,421	2.69 %	\$426,500	9.36 %	\$598.79	3.70 %	\$582.02	4.22 %	100
	2013	161	16.67 %	\$477,099	4.99 %	\$425,000	-0.35 %	\$634.93	6.04 %	\$610.75	4.94 %	50
Two Beds	2011	191	-16.23 %	\$689,396	1.19 %	\$544,500	3.91 %	\$550.10	0.08 %	\$511.63	3.02 %	119
	2012	234	22.51 %	\$728,694	5.70 %	\$558,875	2.64 %	\$577.45	4.97 %	\$516.45	0.94 %	119
	2013	242	3.42 %	\$750,654	3.01 %	\$580,000	3.78 %	\$625.91	8.39 %	\$553.89	7.25 %	74
Three Plus Beds	2011	63	-3.08 %	\$1,701,866	2.76 %	\$1,449,900	7.40 %	\$716.22	-2.70 %	\$666.67	7.57 %	145
	2012	54	-14.29 %	\$1,456,983	-14.39 %	\$1,049,500	-27.62 %	\$666.15	-6.99 %	\$635.48	-4.68 %	142
	2013	68	25.93 %	\$2,109,101	44.76 %	\$1,651,500	57.36 %	\$842.40	26.46 %	\$786.72	23.80 %	79

Annual price growth in 2012 was registered for all bedroom typologies and most unit size tiers – with the greatest absolute and PSF increases recorded for the City’s smallest and largest units. Year over year PSF increases for Q1 2013 were +14.7% for studios (\$699.90/SF) and 23.8% for three-plus bedroom units (\$786.72/SF).

Citywide												
Sales Comparison by Square Footage												
2012												
Sq Feet	Year	Sales	%±	Avg Selling	%±	Med Selling	%±	Avg PSF	%±	Med PSF	%±	Avg DOM
700 or Less	2010	611	-2.08 %	\$319,663	0.33 %	\$320,000	1.59 %	\$583.62	-0.80 %	\$584.91	-1.11 %	77
	2011	626	2.45 %	\$312,823	-2.14 %	\$307,000	-4.06 %	\$568.77	-2.54 %	\$557.91	-4.62 %	87
	2012	764	22.04 %	\$337,526	7.90 %	\$331,000	7.82 %	\$621.24	9.22 %	\$606.34	8.68 %	60
701-1000	2010	726	-5.10 %	\$442,929	1.74 %	\$421,000	3.44 %	\$524.54	1.79 %	\$508.28	3.89 %	88
	2011	664	-8.54 %	\$460,770	4.03 %	\$439,500	4.39 %	\$547.33	4.34 %	\$527.64	3.81 %	79
	2012	818	23.19 %	\$467,402	1.44 %	\$443,938	1.01 %	\$557.20	1.80 %	\$538.63	2.08 %	62
1001-1500	2010	740	13.15 %	\$639,843	2.82 %	\$578,000	1.40 %	\$526.36	2.93 %	\$485.81	1.38 %	99
	2011	702	-5.14 %	\$650,690	1.70 %	\$595,000	2.94 %	\$532.30	1.13 %	\$490.46	0.96 %	96
	2012	1024	45.87 %	\$686,546	5.51 %	\$609,688	2.47 %	\$562.18	5.61 %	\$514.39	4.88 %	85
1501-1800	2010	174	9.43 %	\$1,040,782	8.95 %	\$942,500	2.45 %	\$633.10	7.86 %	\$578.86	3.60 %	110
	2011	201	15.52 %	\$1,064,890	2.32 %	\$1,000,000	6.10 %	\$655.97	3.61 %	\$634.01	9.53 %	99
	2012	258	28.36 %	\$1,038,044	-2.52 %	\$982,500	-1.75 %	\$634.13	-3.33 %	\$607.05	-4.25 %	92
1800-2400	2010	166	23.88 %	\$1,482,438	11.70 %	\$1,454,770	10.84 %	\$721.26	9.93 %	\$696.81	11.72 %	155
	2011	171	3.01 %	\$1,393,625	-5.99 %	\$1,430,000	-1.70 %	\$686.32	-4.84 %	\$704.64	1.12 %	122
	2012	200	16.96 %	\$1,391,568	-0.15 %	\$1,342,490	-6.12 %	\$681.97	-0.63 %	\$653.20	-7.30 %	111
Over 2400	2010	101	50.75 %	\$3,054,203	13.97 %	\$2,625,000	4.42 %	\$908.71	1.77 %	\$913.36	5.34 %	187
	2011	94	-6.93 %	\$2,907,329	-4.81 %	\$2,450,000	-6.67 %	\$944.32	3.92 %	\$873.96	-4.31 %	182
	2012	108	14.89 %	\$3,101,442	6.68 %	\$2,862,500	16.84 %	\$977.07	3.47 %	\$947.13	8.37 %	141

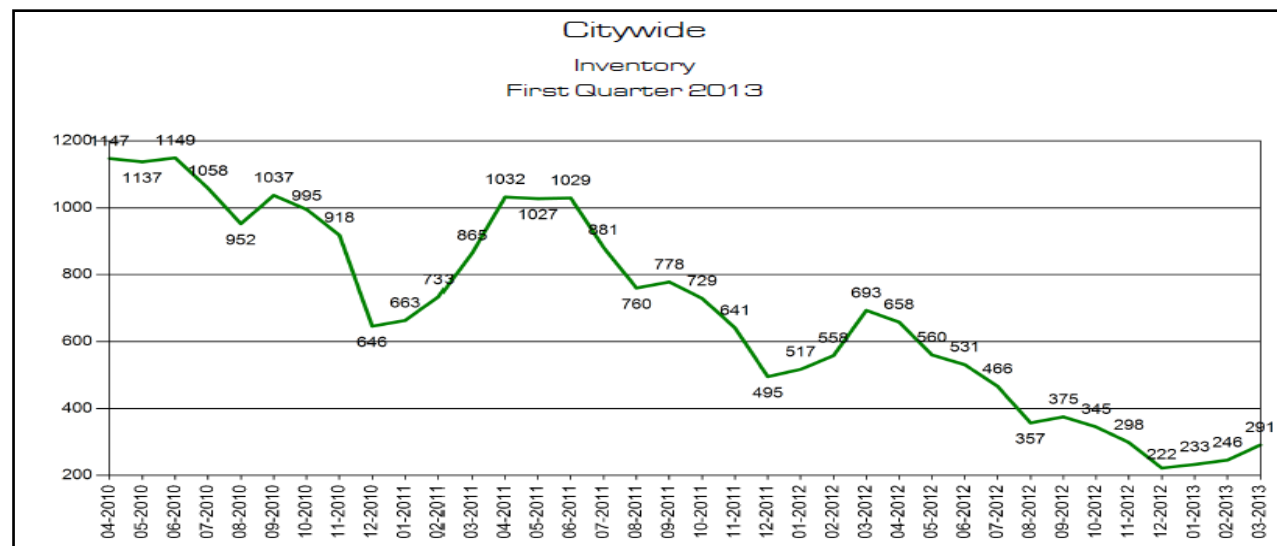
We also note that contrary to what we see in some markets, Boston PSF prices tend to be highest for BOTH the smallest (under 700 SF) AND the largest units (over 1,800 SF). This phenomenon arises from two key influences in the Boston market – the impact of the youngest households which tend to favor the lowest absolute prices afforded by the smallest units; and by affluent households (younger and older) who are prospecting for large units to accommodate lifestyle and possessions in a market that has a very short supply of larger units.

We note as well that that the sale of larger units is NOT being driven by traditional family demand (with kids) – quite the contrary, most larger units (3+ br’s) are being purchased by dual income couples or retirees with no kids, looking for guest rooms and studies not bedrooms for kids.

**Citywide  
Sales Comparison by Square Footage  
First Quarter 2013**

Sq Feet	Year	Sales	%±	Avg Selling	%±	Med Selling	%±	Avg PSF	%±	Med PSF	%±	Avg DOM
700 or Less	2011	92	-17.12 %	\$303,649	1.53 %	\$305,000	-1.93 %	\$552.57	1.12 %	\$527.46	-6.44 %	105
	2012	81	-11.96 %	\$348,119	14.64 %	\$338,000	10.82 %	\$620.51	12.30 %	\$621.21	17.77 %	108
	2013	111	37.04 %	\$353,588	1.57 %	\$335,000	-0.89 %	\$654.27	5.44 %	\$638.12	2.72 %	35
701-1000	2011	100	-21.88 %	\$465,827	10.33 %	\$441,750	10.59 %	\$549.28	8.42 %	\$547.98	15.23 %	111
	2012	119	19.00 %	\$450,134	-3.37 %	\$435,000	-1.53 %	\$540.42	-1.61 %	\$514.20	-6.16 %	95
	2013	122	2.52 %	\$498,228	10.68 %	\$477,000	9.66 %	\$605.35	12.02 %	\$570.30	10.91 %	48
1001-1500	2011	114	-17.99 %	\$599,998	-9.49 %	\$559,000	-2.78 %	\$497.98	-8.08 %	\$480.70	-0.58 %	121
	2012	152	33.33 %	\$676,602	12.77 %	\$578,750	3.53 %	\$662.58	12.97 %	\$515.48	7.23 %	115
	2013	152	0.00 %	\$707,493	4.57 %	\$604,500	4.45 %	\$587.89	4.50 %	\$516.43	0.18 %	56
1501-1800	2011	40	33.33 %	\$1,030,889	-12.99 %	\$957,000	-17.68 %	\$641.77	-10.70 %	\$607.17	-13.66 %	100
	2012	41	2.50 %	\$1,009,463	-2.08 %	\$1,035,000	8.15 %	\$618.21	-3.67 %	\$651.35	7.28 %	154
	2013	42	2.44 %	\$1,063,252	5.33 %	\$992,500	-4.11 %	\$654.09	5.80 %	\$611.41	-6.13 %	166
1800-2400	2011	35	-5.41 %	\$1,437,636	-1.95 %	\$1,477,777	6.51 %	\$692.35	-2.71 %	\$648.65	-0.54 %	153
	2012	30	-14.29 %	\$1,417,249	-1.42 %	\$1,332,490	-9.83 %	\$687.43	-0.71 %	\$659.89	1.73 %	172
	2013	38	26.67 %	\$1,780,599	25.64 %	\$1,693,500	27.09 %	\$861.30	25.29 %	\$827.26	25.36 %	77
Over 2400	2011	22	-4.35 %	\$3,102,459	7.71 %	\$3,100,000	11.31 %	\$1,063.70	4.11 %	\$1,066.32	0.60 %	164
	2012	12	-45.45 %	\$3,843,708	23.89 %	\$3,100,000	0.00 %	\$1,118.46	5.15 %	\$1,119.09	4.95 %	165
	2013	23	91.67 %	\$3,856,348	0.33 %	\$3,705,000	19.52 %	\$1,171.13	4.71 %	\$1,182.99	5.71 %	113

Also noteworthy is the decline in available inventory, which is now less than a third of what it was two years ago – a factor that is generating pricing pressures throughout the market place.



*Neighborhood Condominium Price Trends*

Condominiums have become an economically attractive alternative for ownership housing in virtually all the Boston neighborhoods but especially in the denser, walking and transit accessible neighborhoods nearest the Downtown, Back Bay and the LMA employment centers. According to data compiled by the City’s Department of Neighborhood Development, through the 2000’s condominium prices grew at an average of 5.7% city-wide and much more rapidly in some neighborhoods.

In recent years since 2010, value seeking buyers have pushed further out from the core markets surrounding these key employment concentrations and the effects are being registered in significant price growth in neighborhoods like Roxbury and Dorchester.

**NEIGHBORHOOD CONDOMINIUM SALE PRICE TRENDS 2000-2012**

<b>Condominium Price Trends</b>	<b>2000</b>	<b>2010</b>	<b>Annual % Change '00-'10</b>	<b>2012</b>	<b>Annual % Change '10-'12</b>
Allston Brighton	\$141,000	\$251,500	7.8%	\$254,750	0.6%
Back Bay/Beacon Hill	\$360,000	\$647,000	8.0%	\$618,000	-2.2%
Central	\$320,000	\$580,000	8.1%	\$643,750	5.5%
Charlestown	\$308,000	\$420,500	3.7%	\$440,000	2.3%
Dorchester	\$125,000	\$190,000	5.2%	\$220,500	8.0%
East Boston	\$92,000	\$213,700	13.2%	\$194,000	-4.6%
Fenway/Kenmore	\$175,000	\$345,000	9.7%	\$352,000	1.0%
Hyde Park	\$94,750	\$175,000	8.5%	\$151,000	-6.9%
Jamaica Plain	\$189,250	\$330,000	7.4%	\$354,000	3.6%
Mattapan	\$97,500	\$72,500	-2.6%	\$110,000	25.9%
Roslindale	\$157,500	\$272,000	7.3%	\$245,000	-5.0%
Roxbury	\$140,000	\$130,000	-0.7%	\$214,500	32.5%
South Boston	\$243,000	\$365,000	5.0%	\$409,000	6.0%
South End	\$320,000	\$540,000	6.9%	\$575,000	3.2%
West Roxbury	\$135,000	\$259,500	9.2%	\$265,000	1.1%
<b>City-Wide</b>	<b>\$229,000</b>	<b>\$360,000</b>	<b>5.7%</b>	<b>\$399,000</b>	<b>5.4%</b>

## NORTHEASTERN STUDENT HOUSING MARKET IMPACTS

Having set the market context, the balance of the report examines the influences of Northeastern students on the housing markets within the three neighborhoods that abut the campus – specifically the Fenway, Mission Hill and Roxbury. Data for each of the surrounding neighborhoods was compiled from Claritas, Inc. and ESRI, Inc., nationally recognized demographic data bases. Information regarding student enrollments and housing accommodations was provided by the University.

### Neighborhood Housing Supply & Demand Features

The three neighborhoods surrounding the Northeastern campus are the focus of our impact study and include Fenway (Zip code 02115), Mission Hill (Zip code 02120) and Roxbury (Zip codes 02118 and 02119). The discussions that follow highlight key demand and supply factors that help to illustrate the influence of students in each neighborhood.

#### *Fenway Demography and Housing Stock*

The composition of Fenway neighborhood population and household types has shift over time, reflecting increasing numbers of young people corresponding both to increasing enrollments in the Colleges of the Fenway (including Northeastern) and to other city-wide demographic and rental market changes that are producing to increased demand for housing outside of higher priced locations on the Fenway borders (like the downtown, Back Bay and the South End).

As indicated by the table that follows, in 2013, the youngest households (headed by persons aged 15 to 24 and including off-campus student residents) accounted for 15% of all households in the Fenway. We note that younger professional households predominate here accounting for over 55% of households (39% are 25-34 and another 17% are headed by person aged 35-44) a reflection of the neighborhood's convenient proximity to both of Boston's powerhouse employment growth centers in the Longwood Medical Area and Downtown/Back Bay.

Fewer than 20% of households are headed by middle aged person (45-64) which dominate in both the more affluent neighborhoods to the north/east as well as the less affluent neighborhoods to the south. Less than 10% of Fenway households are headed by seniors (65+). Estimates for 2018 produced by Claritas, Inc. suggest that these proportions are forecast to continue relatively unchanged for the next five years.

### HOUSEHOLD DISTRIBUTIONS

2013 Head of HH By Age	Fenway	
Total HH's	10,803	100%
15-24	1,639	15%
25-34	4,241	39%
35-44	1,826	17%
45-54	1,202	11%
55-64	794	7%
65-74	582	5%
75-84	364	3%
85+	155	1%

Like most of Boston's close-in neighborhoods, renter households dominate the Fenway market and while students are a factor (17% of renters are in households aged (15-24), most of Fenway renters represent younger, non-student households (56%). We note that a majority of Fenway owner occupants also fall in this age cohort (54%). These proportions are also forecast to continue relatively unchanged through 2018.

### HOUSING TENURE BY AGE OF HOUSEHOLD HEAD

2013 Renter HH's	Fenway	
Total Renter HH's	9,091	100.0%
15-24	1,566	17.2%
25-34	3,713	40.8%
35-44	1,431	15.7%
45-54	873	9.6%
55-64	579	6.4%
65-74	480	5.3%
75-84	324	3.6%
85+	125	1.4%
2013 Owner HH's	Fenway	
Total Owner HH's	1,712	100.0%
15-24	73	4.3%
25-34	528	30.8%
35-44	395	23.1%
45-54	329	19.2%
55-64	215	12.6%
65-74	102	6.0%
75-84	40	2.3%
85+	30	1.8%

The density of development in the Fenway is high with over 80% of Fenway housing stock located in both large (50% in 20+ unit buildings) and small (30% in 5-19 unit buildings) multi-family investor and owner-occupied rental and condominium buildings.



**HOUSING STOCK BY BUILDING TYPE**

Housing Stock	Fenway	
	2013 Housing Units	
	<b>11,330</b>	<b>100%</b>
SF	61	0.5%
SF-Attached	282	2.5%
2-Fam	351	3.1%
3-Fam	1,352	11.9%
5-9 Unit	2,109	18.6%
10-19 Unit	1,490	13.2%
20-49 Unit	2,137	18.9%
50+ Unit	3,543	31.3%
Other	5	0.0%

Consistent with the nature of the stock, virtually all non-family households in the Fenway live in single (70%) or two (20%) person households – with only 10% of households in larger groups. Roughly 4% of Fenway non-family households (308 HH’s) support 1,366 individuals in large “room-mate” constellations – an average unit size of 4.4 individuals per unit, while 413, large family households support 1,907 individuals with a similar resident count per unit.

**POPULATION IN 4+ PERSON UNITS**

HH Type	# Non Fam. Residents
	<b>Fenway</b>
4 Person	872
5 Person	300
6 Person	96
7 Person	98
Total	1,366
HH Type	# Family Residents
	<b>Fenway</b>
4 Person	968
5 Person	520
6 Person	300
7 Person	119
Total	1,907

Family households are also dominated by small household sizes – with over 60% comprised of only 2 persons. This pattern reflects the City’s changing demography away from family households – and is most apparent in those neighborhoods that are proximate to the City’s major employment centers. These trends and proportions are also forecast to continue relatively unchanged through 2018.

**PERSONS PER HOUSEHOLD**

<b>Non Family HHs 2013</b>	<b>Fenway</b>	
Total	8,412	100%
1 Person	5,896	70%
2 Person	1,655	20%
3 Person	553	7%
4 Person	218	3%
5 Person	60	1%
6 Person	16	0%
7 Person	14	0%
<b>Family HH's 2013</b>	<b>Fenway</b>	
Total	2,391	100%
2 Person	1,477	62%
3 Person	501	21%
4 Person	242	10%
5 Person	104	4%
6 Person	50	2%
7 Person	17	1%

Also noteworthy in these neighborhoods is the proportion of supply restricted to occupancy by “affordable” households. Based on data supplied by the MA Department of Housing and Community Development the Fenway market current contains 1,005 affordable housing units – roughly 10% of the overall housing supply in the neighborhood. Of these, 50% are targeted to families and 50% to seniors. Fully 70% of the affordable supply consists of studio and one bedroom units, 26% are 2 and 3 bedroom units and 2% are 4 bedrooms.

### *Mission Hill Demography and Housing Stock*

Mission Hill neighborhood population and household types have also shift over time for many of the same reasons described for the Fenway with increasing numbers of young people corresponding to increasing enrollments in the Colleges of Fenway (including Northeastern), employment growth in the walking proximate LMA and as well general rental market pressures that have driven younger and less affluent households out of higher priced locations even including the Fenway.

As indicated below, in 2013, the youngest households (headed by persons aged 15 to 24 – and dominated students) accounted for 15% of households in Mission Hill. Like the Fenway, younger non-student households predominate here as well accounting for over 45% of households.

But unlike the Fenway, Mission Hill also supports more middle aged and older households with almost 40% of households headed by persons over 45 years of age. These proportions are expected to remain unchanged through 2018.

#### HOUSEHOLD DISTRIBUTIONS

2013 Head of HH By Age	Mission Hill	
Total HH's	5,447	100%
15-24	792	15%
25-34	1,543	28%
35-44	1,061	19%
45-54	843	15%
55-64	604	11%
65-74	363	7%
75-84	171	3%
85+	70	1%

Like all close-in Boston neighborhoods, renter households dominate in Mission Hill (86% of all occupied households) and while students are clearly an influence (15% of renter households are headed by persons aged 15-24) most of Mission Hill renters (over 50%) represent younger, non-student households (headed by persons 25 to 44).

While owner occupants represent only a small fraction of the occupied stock (comparable to the Fenway at 14%), unlike the Fenway, Mission Hill owner occupants are broadly disbursed among young professional to empty nester cohorts alike. These proportions are estimated to continue unchanged through 2018.

### HOUSING TENURE BY AGE OF HOUSEHOLD HEAD

<b>2013 Renter HH's</b>	<b>Mission Hill</b>	
Total Renter HH's	4,675	100.0%
15-24	745	15.9%
25-34	1,463	31.3%
35-44	901	19.3%
45-54	670	14.3%
55-64	447	9.6%
65-74	287	6.1%
75-84	117	2.5%
85+	45	1.0%
<b>2013 Owner HH's</b>	<b>Mission Hill</b>	
Total Owner HH's	772	100.0%
15-24	47	6.1%
25-34	80	10.4%
35-44	160	20.7%
45-54	173	22.4%
55-64	157	20.3%
65-74	76	9.8%
75-84	54	7.0%
85+	25	3.2%

Roughly 60% of Mission Hill housing stock is located in multi-family investor and owner-occupied rental and condominium buildings (compared with 82% for the Fenway and 46% for Roxbury). Fully 40% of the stock is comprised of owner-occupant and investor owned 1, 2 and 3-family buildings reflecting the lower density of housing in the neighborhood overall and the historic pattern of triple decker housing here.

### HOUSING STOCK BY BUILDING TYPE

<b>Housing Stock</b>	<b>Mission Hill</b>	
<b>2013 Housing Units</b>	<b>5,717</b>	<b>100.0%</b>
SF	129	2.3%
SF-Attached	514	9.0%
2-Fam	266	4.7%
3-Fam	1,431	25.0%
5-9 Unit	715	12.5%
10-19 Unit	479	8.4%
20-49 Unit	666	11.6%
50+ Unit	1,504	26.3%
Other	13	0.2%

While there are fewer large multi-family buildings in Mission Hill, still, 75% of non-family households live in small single or two person households – with 25% of households in larger groups – including 13% in “roommate” households of 4 or more occupants (this compares with 4% for the Fenway and 2% for Roxbury). The appeal of multi-bedroom units found in this neighborhood’s significant supply of one to four unit structures for these larger household constellations is unmistakable. There are currently 416, 4+ person non-family households in Mission Hill supporting 1,977 unrelated individuals – an average household size in these units of 4.8 persons (contrasts with 1,366 individuals in 4+ person non-family HH’s in the Fenway – a 4.4 persons per unit average and 844 individuals in 4+ person non-family HH’s in Roxbury - a 4.0 persons per unit average).

Some 814 large family households also occupy units on Mission Hill supporting population of 3,923 individuals in units averaging roughly 4.8 residents per unit.

### POPULATION IN 4+ PERSON UNITS

HH Type	# Non Fam. Residents
<b>Mission Hill</b>	
4 Person	912
5 Person	540
6 Person	210
7 Person	315
Total	1,977
HH Type	# Family Residents
<b>Mission Hill</b>	
4 Person	1,668
5 Person	1,005
6 Person	732
7 Person	518
Total	3,923

As indicated by the table that follows, family households in Mission Hill tend to be larger than in the Fenway but still house a significant proportion of small 2-person households (36% of all family households) while 28% are in 3 person households and over 35% are in constellations of 4+ persons per household. These trends and proportions are expected to remain unchanged through 2018.

**PERSONS PER HOUSEHOLD**

<b>Non Family HHs 2013</b>	<b>Mission Hill</b>	
Total	3,222	100%
1 Person	1,810	56%
2 Person	665	21%
3 Person	331	10%
4 Person	228	7%
5 Person	108	3%
6 Person	35	1%
7 Person	45	1%
<b>Family HH's 2013</b>	<b>Mission Hill</b>	
Total	2,225	100%
2 Person	794	36%
3 Person	617	28%
4 Person	417	19%
5 Person	201	9%
6 Person	122	5%
7 Person	74	3%

Affordable housing also plays a role in the Mission Hill housing market. According to the DHCD inventory, Mission Hill current contains 1,339 affordable housing units – roughly 20% of the overall housing supply in the neighborhood. Of these units, 88% are targeted to families and 12% to seniors. Roughly 47% of the affordable supply consists of studio and one bedroom units, 47% are 2 and 3 bedroom units and 6% are 4 bedrooms.

*Roxbury Demography and Housing Stock*

As one of the City’s largest neighborhoods geographically, and with fewer direct transit connections to the downtown and LMA employment centers, only a relatively small area (mostly to the north of Tremont Street) has been affected by market demand pressures emanating out of the Fenway institutions or the downtown.

As indicated in the table that follows, in 2013, the youngest households (headed by persons aged 15 to 24 – and dominated students) accounted just 5% of households in Roxbury. Like Fenway and Mission Hill, households headed by persons aged 25 to 44 predominate here too, accounting for 48% of total households. But more than either Fenway or Mission Hill, Roxbury has many more middle aged and senior households (47% of households v. 29% in the Fenway and 38% for Mission Hill). These proportions are forecast to continue relatively unchanged through 2018.

### HOUSEHOLD DISTRIBUTIONS

2013 Head of HH By Age	Roxbury	
Total HH's	22,557	100%
15-24	1,157	5%
25-34	6,409	28%
35-44	4,341	19%
45-54	3,871	17%
55-64	3,159	14%
65-74	2,087	9%
75-84	1,115	5%
85+	418	2%

Like most Boston neighborhoods, renter households dominate Roxbury (69% of occupied households) but unlike the close-in walkable and transit accessible neighborhoods closest to the downtown and the LMA, Roxbury renters are more broadly disbursed by age cohort. We note that fully 44% of renter households are headed by persons over the age of 45.

### HOUSING TENURE BY AGE OF HOUSEHOLD HEAD

2013 Renter HH's	Roxbury	
Total Renter HH's	15,520	100.0%
15-24	990	6.4%
25-34	4,937	31.8%
35-44	2,775	17.9%
45-54	2,424	15.6%
55-64	2,038	13.1%
65-74	1,379	8.9%
75-84	717	4.6%
85+	260	1.7%
2013 Owner HH's	Roxbury	
Total Owner HH's	7,037	100.0%
15-24	167	2.4%
25-34	1,472	20.9%
35-44	1,566	22.3%
45-54	1,447	20.6%
55-64	1,121	15.9%
65-74	708	10.1%
75-84	398	5.7%
85+	158	2.2%

Roxbury owner occupants are also broadly disbursed among the age cohorts. These proportions are forecast to continue relatively unchanged through 2018.

Less than 47% of Roxbury housing stock is located in multi-family investor and owner-occupied rental and condominium buildings (compared to 80% for the Fenway and 60% for Mission Hill). And only 14% of the stock is in the largest 50+ unit complexes (compared to 31% for the Fenway and 26% for Mission Hill).

### HOUSING STOCK BY BUILDING TYPE

Housing Stock	Roxbury	
<b>2013 Housing Units</b>	<b>24,199</b>	<b>100.0%</b>
SF	1,112	4.6%
SF-Attached	2,055	8.5%
2-Fam	2,343	9.7%
3-Fam	7,455	30.8%
5-9 Unit	4,546	18.8%
10-19 Unit	1,656	6.8%
20-49 Unit	1,626	6.7%
50+ Unit	3,386	14.0%
Other	20	0.1%

Virtually all (95%) of all non-family households in Roxbury live in single (77%) or two (18%) person households – with only 5% of households in larger groups. We note that there are currently only 211, 4+ person non-family households in Roxbury supporting 844 unrelated individuals – an average household size in these units of 4.0 persons.

As indicated by the table that follows, the majority of all Roxbury households are in family rather than non-family groups and of family units fully a third are comprised of large 4+ person households, supporting 13,424 individuals with an average household size of 4.0 persons.

### POPULATION IN 4+ PERSON UNITS

HH Type	# Non Fam. Residents	
	Mission Hill	Roxbury
4 Person		532
5 Person		216
6 Person		56
7 Person		40
Total		844
HH Type	# Family Residents	
	Mission Hill	Roxbury
4 Person		6,964
5 Person		3,672
6 Person		1,904
7 Person		884
Total		13,424



Family households in Roxbury tend to be larger than in either the Fenway or Mission Hill but still house a significant proportion of small 2-person households (42% of family households) with 26% in 3-person households and the rest (32%) in large family constellations. These trends and proportions are also forecast to continue relatively unchanged through 2018.

**PERSONS PER HOUSEHOLD**

<b>Non Family HHs 2013</b>	<b>Roxbury</b>	
Total	12,302	100%
1 Person	9,412	77%
2 Person	2,229	18%
3 Person	450	4%
4 Person	133	1%
5 Person	54	0%
6 Person	14	0%
7 Person	10	0%
<b>Family HH's 2013</b>	<b>Roxbury</b>	
Total	10,255	100%
2 Person	4,272	42%
3 Person	2,627	26%
4 Person	1,741	17%
5 Person	918	9%
6 Person	476	5%
7 Person	221	2%

According to the DHCD inventory, the Lower Roxbury sub-neighborhood most proximate to the Northeastern campus current contains 863 affordable housing units. Of these units, 95% are targeted to families and 5% to seniors. Beyond this submarket, Roxbury supports another 7,279 affordable units – 85% for families and 15% for elderly households. Affordable units account for roughly a third of the overall Roxbury housing supply.

## Northeastern Student Housing Impacts

The following discussions profile Northeastern student housing supply and demand concluding with an analysis of the impact of NU's off-campus undergraduate residents on the local neighborhood markets described on the previous pages. The intent is to explore both the extent of the existing impact and the likely effect of new Northeastern dormitory construction on the competitive price and occupancy characteristics of each market.

### NU Student Enrollment Trends

Northeastern University undergraduate enrollment at the campus has declined significantly since the 1980's in response to the University's repositioning to emphasize increased graduate school research activity. Based on data report to the City under the University Accountability Ordinance (UAO), since 2005, UG enrollment has ranged between 15,000 and 16,000.

The spring 2013 campus enrollment was 15,941 students. Undergraduate enrollment is forecast by the University to be stable - at around 15,000 - through the IMP period. Conversely graduate student enrollments have grown in recent years and are expected to grow by roughly another 10% through 2021.

### NORTHEASTERN UNIVERSITY CAMPUS ENROLLMENT

#### 1980-2005

Periods	1980-2000 Trends			2000-2005 Trends		
	1980 (NU Data)	1990 (NU Data)	2000 (NU Data)	2005 (UAO)	Change '00- '05	Annual % '00-'05
<b>Enrollment</b>						
Full Time Undergrad	19,109	13,788	12,460	14,688	2,228	3.58%
Other (Grad, part-time, etc.)	24,075	19,885	13,832	4,972	-8,860	-12.81%
Total	43,184	33,673	26,292	19,660	-6,632	-3.07%

#### 2010-2021

Periods	2005-2010 Trends			2010-2013 Trends			2013-2021 Trends		
	2010 (UAO)	Change '05-'10	Annual % '05-	2013 (UAO)	Change '10-'13	Annual % '10-	2021 (NU Est)	Change '13-'21	Annual % '13-
<b>Enrollment</b>									
Full Time Undergrad	14,926	238	0.32%	15,941	1,015	2.27%	15,000	-941	-0.74%
Other (Grad, part-time, etc.)	6,549	1,577	6.34%	8,275	1,726	8.79%	9,103	828	1.25%
Total	21,475	1,815	1.85%	24,216	2,741	4.25%	24,103	-114	-0.06%

*On-Campus Residence Hall Capacity*

To accommodate its enrollment, Northeastern University offers a variety of on-campus housing options to lower and upper classmen (lower classmen are required to live on campus). In total, Northeastern University residence halls have the capacity to house 8,042 students in their current configuration.

**RESIDENCE HALL CAPACITIES**

Name of Building (If Different From Address)	Address		Zip Code	Building Type *	# Students
	#	Street Name			
LP- NU at Douglass Park	650	Columbus Avenue	02118	O	151
Davenport Commons B	696	Columbus Avenue	02118	O	216
Davenport Commons A	700	Columbus Avenue	02118	O	372
	768	Columbus Avenue	02120	O	10
	780	Columbus Avenue	02120	O	107
	10	Coventry Street	02120	L	138
Stetson Hall - West	10	Forsyth Street	02115	O	531
White Hall	21	Forsyth Street	02115	O	320
Kennedy Hall	119	Hemenway Street	02115	O	179
Smith Hall	129	Hemenway Street	02115	O	236
	132	Hemenway Street	02115	O	8
	136	Hemenway Street	02115	O	9
	144	Hemenway Street	02115	O	15
	153	Hemenway Street	02115	O	120
Loftman Hall	157	Hemenway Street	02115	O	87
	165	Hemenway Street	02115	O	15
	171	Hemenway Street	02115	O	17
	204	Hemenway Street	02115	O	39
Northeastern at YMCA	316	Huntington Avenue	02115	O	54
The Fairwoods	319	Huntington Avenue	02115	L	110
	331	Huntington Avenue	02115	O	23
	335	Huntington Avenue	02115	O	20
The Fairwoods	337	Huntington Avenue	02115	O	138
	407	Huntington Avenue	02115	O	72
West Village H - Age 21+	440	Huntington Avenue	02115	O	186
Burstein Hall	458	Huntington Avenue	02115	O	138
Rubenstein Hall	464	Huntington Avenue	02115	O	82
West Village E	10	Leon Street	02115	O	284
Willis Hall	50	Leon Street	02115	O	351
West Village F	40A	Leon Street	02115	O	222
West Village G	450	Parker Street	02115	O	292
West Village A North	500	Parker Street	02115	O	398
West Village A South	510	Parker Street	02115	O	181
West Village B	60 Rear	Parker Street	02115	O	211
West Village C	80 Rear	Parker Street	02115	O	228
Speare Hall	10	Speare Place	02115	O	397
Stetson Hall - East	11	Speare Place	02115	O	278
	97	St Stephens Street	02115	O	48
	106	St Stephens Street	02115	O	53
	109	St Stephens Street	02115	O	22
	110	St Stephens Street	02115	O	57
	115	St Stephens Street	02115	O	57
	116	St Stephens Street	02115	O	57
Levine Hall	122	St Stephens Street	02115	O	45
Light Hall	81-83	St Stephens Street	02115	O	57
Melvin Hall	90	The Fenway	02115	O	116
Kerr Hall	96	The Fenway	02115	O	110
	801	Tremont Street	02118	O	31
International Village	1155	Tremont Street	02120	O	1,154
<b>Total</b>					<b>8,042</b>

The current bed supply reflects an aggressive program of dorm construction and acquisition over the past 10 to 12 years, which has added 5,039 beds to the NU on-campus residence supply (an average annual pace of 336 additional beds/year).

**DORM CONSTRUCTION AND ACQUISITION  
1999-2012**

<b>Dormitory Name</b>	<b>Beds</b>	<b>Built/ Bought</b>
West Village A	599	1999
West Village B	225	2000
West Village C	236	2000
780 Columbus Avenue	117	2001
Davenport A	383	2001
Davenport B	227	2001
West Village E	295	2002
West Village G	325	2004
West Village H	219	2004
10 Coventry Street	154	2004
West Village F	251	2006
International Village	1,200	2009
Hastings	88	2012
GrandMarc (Under Construction)	720	2014
<b>Total/and Per Year</b>	<b>5,039</b>	<b>336</b>

As noted above, a major addition (720 beds) will come on line with the delivery of the GrandMarc in the 2014/2015 academic year increasing the current bed supply by nearly 10%. The current supply also includes 511 beds in 194 master leased apartments located in the surrounding streets abutting the campus in the Fenway. This number has declined significantly since the 1990's when over 1,300 beds were rented from private sector owners in the neighborhood.

**MASTER-LEASED APARTMENTS**

<b>Address</b>	<b># Units</b>	<b># Beds</b>
650 Columbus Avenue (Douglass Park)	57	201
331 Huntington Avenue (graduate students only)	15	27
335 Huntington Avenue (graduate students only)	15	25
97 St. Stephen Street	19	54
109 St. Stephen Street	12	24
115 St. Stephen Street	33	68
132 Hemenway Street	4	12
136 Hemenway Street	5	10
165 Hemenway Street	9	22
171 Hemenway Street	9	22
204 Hemenway Street	16	46
<b>Total</b>	<b>194</b>	<b>511</b>

The planned and proposed additions (720 in the GrandMarc plus another 1,000 beds through 2021) will bring the University’s owned bed count to 8,762 by 2014 and to 9,762 by 2021, a number sufficient to accommodate fully 75% of all undergraduate demand (excluding the long standing base of commuter students living outside of Boston). Sites being considered for new dorm construction are cited below for informational purposes and are more fully described in the University’s Institutional Masterplan.

**NEW BED POTENTIALS  
2013-2021**

Potential New Sites	Bed Capacity
Burstein	225
Ryder Hall	300
Burke Street	280
Cabot/Forsythe	300
<b>Total</b>	<b>1,105</b>

*Resident and Non-Resident Enrollment*

Over the past 20 years, an increasing number of Northeastern University undergraduate students have been provided with housing accommodations on-campus, producing rising on-campus residency percentages from 35% in 1990 to 50% of undergraduate students accommodated on campus today.

**RESIDENT AND NON-RESIDENT ENROLLMENT HISTORY  
1990-2013**

Periods	1990-2000		2005-2010 Trends				2010-2013 Trends		
	1990 (NU Data)	2000 (NU Data)	2005 (UAO)	2010 (UAO)	Change '05-'10	Annual % '05-	2013 (UAO)	Change '10-'13	Annual % '10-
<b>Undergraduate Student Domicile</b>									
On Campus	3,447	3,613	7,210	7,354	144	0.40%	7,455	101	0.46%
Masterleased	1,379	1,246	Inc. Above	500	N/A	N/A	500	0	N/A
Off-Campus	8,962	7,601	7,478	7,072	-406	-1.09%	7,986	914	4.31%
<b>Total</b>	<b>13,788</b>	<b>12,460</b>	<b>14,688</b>	<b>14,926</b>	<b>-262</b>	<b>-0.36%</b>	<b>15,941</b>	<b>1,015</b>	<b>2.27%</b>
<b>% NU Beds</b>	<b>35%</b>	<b>39%</b>	<b>49%</b>	<b>49%</b>			<b>50%</b>		

Correspondingly, off-campus residency numbers have declined during this period by nearly 1,000 (8,962 in 1990 v. 7,986 in 2013) in spite of a 1,900 student enrollment increase (13,788 in 1990 v. 15,941 in 2013) during this time frame.

The majority of non-resident enrollees represent members of the junior and senior classes who are not guaranteed housing for a full four years. The remainder consists of married and commuter students (from all classes) – a segment that historically comprised nearly 50% of the undergraduate student body (47% as recently as 2005) but has declined to roughly 30% in 2013.

With stable undergraduate enrollments forecast through 2021 and the University’s commitment to enhance the on-campus living environment and to add 1,720 on-campus beds to the existing supply (including the GrandMarc), the non-resident undergraduate count is forecast to drop by over 2,100 through 2021.

**RESIDENT AND NON-RESIDENT ENROLLMENT FORECAST  
2013-2021**

Periods	2013-2021 Forecast		
	2021 (NU Est)	Change '13-'21	Annual % '13-'21
<b>Enrollment</b>			
Full Time Undergrad	15,000	-941	-0.74%
Other (Grad, part-time, etc.)	9,103	828	1.25%
Total	24,103	-114	-0.06%
<b>Undergraduate Student Domicile</b>			
On Campus	9,175	1,720	2.88%
Masterleased	0	0	0.00%
Off-Campus	5,825	-2,161	-3.38%
Total	15,000	-941	-0.74%
% NU Beds	61%		
<b>Graduate Student Domicile</b>			
On Campus	96	9	1.25%
Masterleased	0	0	0
Off-Campus	9,007	819	1.25%
Total	9,103	828	3.33%
% NU Beds	1%		

Note: Enrollment forecasts provided by NU

By 2021, with the new construction of 1,720 beds, the percentage of all undergraduates being accommodated on-campus is expected to reach 60% overall or 75% of Boston student demand excluding the long standing commuter student base (those living beyond Boston), a percentage that is forecast to stabilize at between 25% and 30% of the total undergraduate population.

*On Campus Housing Costs*

Per capita housing costs for University housing range generally between \$600 and \$900 per student per month for multi-bedroom dormitory arrangements - some with private baths and all requiring participation in a University-sponsored meal plan. Dormitory singles (without cooking facilities) are priced generally between \$1,000 and \$1,500 per month and apartment style studios and one-bedroom units (with in-unit food prep facilities and private living space) are priced between \$1,500 and \$1,600 per month.

Translating these rates to commensurate per unit per month rates produces a range from \$925/unit/month for units at the YMCA (analogous to market rate Single-Room-Occupancy rents which range between \$200 to \$250/week) to \$1,500 to \$1,600 for single occupancy apartments (currently below the market rate studio and one-bedroom rents in the market) up to \$2,200/month for a three person apartment with cooking facilities and a high of \$2,650/month for a dormitory quad unit housing four students. The upper end of the range is viewed as competitive with the market for comparable units on a per capita basis, conferring no premium or discount to off-campus alternatives especially after consideration for other costs of off-campus living (utilities, maintenance supplies, etc.).

**DORMITORY PRICING 2013**

Room Type	Current Rate 2010 - 2011	Monthly Rent Equivalent	Current Rate 2012-2013	Monthly Rent Equivalent/ Person	% Change	Per Unit Equivalent
Economy Res Hall Quad	\$2,475	\$619	\$2,650	\$663	7.1%	\$2,650
Enhanced Double Bedroom	\$4,960	\$1,240	\$5,240	\$1,310	5.6%	\$2,620
Enhanced LOFT Double (780)	\$4,960	\$1,240	\$5,240	\$1,310	5.6%	\$2,620
Enhanced Studio Double-WVE	\$4,820	\$1,205	\$5,090	\$1,273	5.6%	\$2,545
Standard Res Hall Triple	\$3,060	\$765	\$3,350	\$838	9.5%	\$2,513
Economy Triple Apartment	\$2,750	\$688	\$2,945	\$736	7.1%	\$2,209
Economy Res Hall Triple	\$2,670	\$668	\$2,800	\$700	4.9%	\$2,100
Standard Double Bedroom	\$3,680	\$920	\$3,940	\$985	7.1%	\$1,970
Studio Double	\$3,395	\$849	\$3,635	\$909	7.1%	\$1,818
Standard Res Hall Double	\$3,380	\$845	\$3,620	\$905	7.1%	\$1,810
Economy Double Bedroom	\$3,175	\$794	\$3,400	\$850	7.1%	\$1,700
Economy Res Hall Double	\$3,125	\$781	\$3,275	\$819	4.8%	\$1,638
1 Bedroom Apartment	\$6,090	\$1,523	\$6,425	\$1,606	5.5%	\$1,606
Studio Apartment	\$5,775	\$1,444	\$6,100	\$1,525	5.6%	\$1,525
Enhanced Single Bedroom	\$5,560	\$1,390	\$5,870	\$1,468	5.6%	\$1,468
Standard Single Bedroom	\$4,340	\$1,085	\$4,650	\$1,163	7.1%	\$1,163
Economy Single Bedroom	\$3,990	\$998	\$4,275	\$1,069	7.1%	\$1,069
Standard Res Hall Single	\$3,880	\$970	\$4,095	\$1,024	5.5%	\$1,024
YMCA Standard Single	\$3,415	\$854	\$3,690	\$923	8.1%	\$923
YMCA Economy Single	\$3,415	\$854	\$3,690	\$923	8.1%	\$923
YMCA Single w/ Bath	\$3,415	\$854	\$3,690	\$923	8.1%	\$923

*Non-Resident Housing Locations*

Address data for the spring of 2013 enrollment indicates that 7,986 undergraduate students currently reside in the surrounding Fenway, Mission Hill and Roxbury neighborhoods, representing approximately 53% of all non-resident undergraduate enrollees.

The majority of students who reside in the surrounding neighborhoods are located in the Fenway and Mission Hill; and the greatest student concentrations are on the walking and public transit accessible streets that straddle Huntington Avenue in the area between Massachusetts Avenue and Brigham Circle.

A smaller but not insignificant concentration of students also resides in Roxbury, primarily in Lower Roxbury along the cross streets straddling the Columbus Avenue/Tremont Street and Massachusetts Avenue corridors.

**NON-RESIDENT LOCATIONS**

Periods	2005-2010 Trends				2010-2013 Trends		
	2005 (UAO)	2010 (UAO)	Change '05-'10	Annual % '05-	2013 (UAO)	Change '10-'13	Annual % '10-
<b>Undergraduate Off-Campus Locations</b>							
Fenway (02115)	1,612	1,606	-6	-0.07%	2,241	635	13.18%
Mission Hill (02120)	926	1,029	103	2.22%	1,538	509	16.49%
Roxbury (02119 & 02118)	350	343	-7	-0.40%	442	99	9.62%
Other Boston	1,099	1,152	53	0.96%	1,441	289	8.36%
Other	3,491	2,942	-549	-3.15%	2,324	-618	-7.00%
<b>Total</b>	<b>7,478</b>	<b>7,072</b>	<b>-406</b>	<b>-1.09%</b>	<b>7,986</b>	<b>914</b>	<b>4.31%</b>
% In Surrounding Neighborhoods	39%	42%			53%		
<b>Graduate Student Off-Campus Locations</b>							
Fenway	394	682	288	14.62%	581	-101	-4.94%
Mission Hill	133	348	215	32.33%	640	292	27.97%
Roxbury (02119 & 02118)	108	106	-2	-0.37%	140	34	10.69%
Other Boston	1,154	968	-186	-3.22%	1,299	331	11.40%
Other	3,070	4,368	1,298	8.46%	5,528	1,160	8.85%
<b>Total</b>	<b>4,859</b>	<b>6,472</b>	<b>1,613</b>	<b>6.64%</b>	<b>8,188</b>	<b>1,716</b>	<b>8.84%</b>
% In Surrounding Neighborhoods	13%	18%			17%		



Based on information submitted to the City under the University Accountability Ordinance (UAO), off-campus residency by Northeastern students has grown in recent years in all the nearby neighborhoods, producing an absolute increase in undergraduate numbers in the neighborhoods since 2010 of over 1,200 students. This reflects growth of roughly 10% annually - the majority of which has been experienced by the Fenway and Mission Hill neighborhoods.

These vibrant and diverse neighborhoods with their excellent and relatively affordable housing stock and convenient locations have long attracted students from the adjacent institutions including especially, Northeastern, Wentworth, Berkeley School of Music, New England Conservatory of Music Boston Conservatory, MassArt, Emmanuel and Harvard Medical School.

Through the recession (2005 to 2010), Northeastern student occupancy in the neighborhoods remained relatively constant (22% to 23% of non-residents for the Fenway; 12% to 15% of non-residents for Mission Hill and 5% for Roxbury) but has grown in the recent years since 2010 to 28% for the Fenway (an increase of 635 UG students), 22% for Mission Hill (an increase of 509 UG students) and 7% for Roxbury (and increase of 99 UG students). The majority of this increase is seen as emanating from the sheer increase in enrollment (1,015 more UG students since 2010) but is clearly also influenced by the waning image of the University as a “commuter” school.

**% OF NON-RESIDENT ENROLLEES BY NEIGHBORHOOD**

<b>Off-Campus Residence % of Total Off Campus</b>	<b>2005 UAO</b>	<b>2010 UAO</b>	<b>2013 UAO</b>	<b>2021 Forecast</b>
Fenway	22%	23%	28%	26%
Mission Hill	12%	15%	19%	22%
Roxbury	5%	5%	6%	7%
Other Boston	15%	16%	18%	20%
Commuter	47%	42%	29%	25%

We also note the changes in graduate student occupancy in the neighborhoods (both positive and negative with increasing grad school residents in Mission Hill and decreased grad school residents in Fenway). Like the undergraduate trends this being driven in part by increased student enrollments, but especially for graduate students (many surviving economically on their own without parental supports) the trend toward Mission Hill and away from the Fenway is also influenced by the rapid rise in rents and occupancy levels in the multi-family stock in the so-called “walkable” neighborhoods abutting the Longwood Medical Area and Back Bay employee markets – which are driving value seekers further out the transit lines.

In absolute terms, off-campus student numbers in the local neighborhoods are forecast to return to pre-2010 levels over the next several years in response to both new dormitory construction (1,720 new beds planned) and pricing pressures being exerted by adjacent neighborhoods which are driving prices beyond what can be supported by undergraduate student households (even in multi-person configurations) in these neighborhoods.

### LOCAL NEIGHBORHOOD STUDENT COUNTS 2013-2021

Local Off-Campus Residence % of Total Off Campus	2013 UAO	% of Local	2021 Est.	% of Local
Fenway	2,241	53%	1,515	47%
Mission Hill	1,538	36%	1,282	40%
Roxbury	442	10%	408	13%
<b>Total</b>	<b>4,221</b>		<b>3,204</b>	

### Non-Resident Student Housing Profile

A review of student residency addresses provides a snapshot of the numbers and nature of undergraduate off-campus housing occupancy in the neighborhoods that abut the campus. A total of 4,217 undergrads occupy market rate units in the surrounding communities. Of this number, we estimate that 15% are in two person households (generally occupying studio and one bedroom apartments), 50% are in 3 and 4 person households (generally occupying 2 bedroom apartments), 17% are in five person households (generally occupying 3-bedroom apartments) and the remaining 18% are in larger multi-person constellations of 6 or more students (generally occupying the larger single and 2 to 4-unit apartment buildings).

### NU UNDERGRADUATE POPULATION BY NEIGHBORHOOD AND HOUSEHOLD TYPE

Household Type	Northeastern Undergraduate Non-Resident Population in the Local Neighborhoods - By Household Type							
	NU Undergrad Pop. In Fenway	% of NU Fenway Pop.	NU Undergrad Pop. In Mhill	% of NU Mhill Pop.	NU Undergrad Pop. In Roxbury	% of NU Roxbury Pop.	Total NU Pop in the Local Neighborhoods	% by Households Type
2 Person	596	27%	27	2%	22	5%	645	15%
3 Person	581	26%	209	14%	81	18%	870	21%
4 Person	654	29%	456	30%	133	30%	1,243	29%
5 Person	240	11%	378	25%	108	25%	726	17%
6 Person	82	4%	189	12%	56	13%	327	8%
7 Person	83	4%	284	18%	40	9%	407	10%
<b>Totals</b>	<b>2,235</b>	<b>100%</b>	<b>1,542</b>	<b>100%</b>	<b>440</b>	<b>100%</b>	<b>4,217</b>	<b>100%</b>

Translating population counts to household unit occupancy the highlights the variations by neighborhood, and the differences in the nature of the available housing stock – with more smaller households occupying housing units in the Fenway and more larger households occupying housing units in Mission Hill and Roxbury.

In total, NU undergraduates are estimated to occupy approximately 1,181 housing units in the local neighborhoods, representing approximately 14% of the total non-family unit occupancy. Of this total, 61% of NU undergraduate households are in the Fenway (occupying units at an average of 3 persons/household), 29% are in Mission Hill (occupying units at an average of 4.5 persons/household) and 10% are in Roxbury (occupying units at an average of 4.0 persons/household).

### LOCAL NU STUDENT HOUSEHOLDS BY HOUSEHOLD COMPOSITION

NU Student Units									
Household Type	Undergraduate Housing Unit Occupancy in the Local Neighborhoods								
Neighborhood	NU Undergrad Units in Fenway	% of Total Non-Family Units	NU Undergrad Units in Mission Hill	% of Total Non-Family Units	NU Undergrad Units in Roxbury	% of Total Non-Family Units	Total NU Undergraduate Units	% of Total Non-Family Units	
2 Person	298	18%	13	2%	11	1%	323	7%	
3 Person	194	35%	70	21%	27	6%	291	22%	
4 Person	164	75%	114	50%	33	25%	312	54%	
5 Person	48	80%	76	70%	22	40%	147	66%	
6 Person	14	85%	32	90%	9	67%	56	86%	
7 Person	12	85%	41	90%	6	57%	60	87%	
<b>Totals</b>	<b>728</b>	<b>9%</b>	<b>344</b>	<b>11%</b>	<b>108</b>	<b>1%</b>	<b>1,181</b>	<b>14%</b>	
Note: Analysis assumes no NU students 1-person HH's in Off-campus housing									

While detailed occupancy data is not tracked by the University housing office we estimate that roughly 70% of Northeastern University non-resident undergraduates reside in the studio, one and two bedroom units (2 to 4-person HH's) concentrated in the small and large multi-family investor owned apartment structures (with 5+ units/structures) located within the surrounding neighborhoods (mostly in the Fenway and Mission Hill).

The remaining 30% of Northeastern University local non-resident undergraduate students (in 5+ person HH's) are in single family and two to four-family buildings which include both investor and owner-occupied structures – most units in these properties contain 2 to 4 bedrooms. Examination of student residential address suggests that few if any non-resident students are living in single person households.

Note that the average occupancy for a 2-bedroom unit is three to four persons. The average for a 3-bedroom unit is four to five persons. The average for a 4-bedroom unit is six-plus occupants. For the few 5+ bedrooms, the average occupancy jumps to seven occupants and above.

Within the surrounding neighborhoods, NU students outnumber other institutional affiliates, representing roughly 57% of the total student population in the neighborhoods (70% of students in the Fenway, 55% of students in Mission Hill and 30% of students in Roxbury).

### *Rental Market Impacts*

Comparing Northeastern University undergraduate student occupancies for the 2010 and 2013 academic years with statistics for the neighborhood markets overall, reveals that non-resident students enrolled at Northeastern University occupy approximately 4% of the total rental housing supply within the local neighborhood markets representing occupancy in 8% of the Fenway rental supply, 7% of the Mission Hill rental supply and under 1% of the Roxbury rental supply.

Setting aside affordable units, these percentages rise to 9% of the Fenway rental supply, 10% of the Mission Hill rental supply and 1.5% of the Roxbury rental supply. Not surprisingly, given the relative size of the rental market supply in the local neighborhoods, the dramatic undersupply conditions for these close-in neighborhoods and the anticipated continuation of the trend toward out-migration of value seeking renters from the more expensive neighborhoods, Northeastern University non-resident enrollees play only a nominal role in influencing the workings of this portion of the market.

More significant is the general trend and the expectation that both Mission Hill and Roxbury may expect to see greater pricing pressure in the future as the rental markets downtown and in the Fenway drive prices higher.

To more fully understand the meaning of these percentages it is useful to examine the hypothetical effect of returning 100% of units now occupied by Northeastern University non-resident students to the market. In theory, vacated units would either be absorbed by other market occupants seeking units in the neighborhoods or in the worst case, would contribute to increased vacancy in the marketplace.

As the analysis illustrates, even if no other occupants appeared to absorb the vacated units (an impossible assumption in a market posting average vacancy of under 3% City-wide), the vacancy rate for the neighborhoods would increase by only 2.3%.

This degree of vacancy impact is well below the level sufficient to produce a meaningful impact on rents or appreciation rates. Vacancy levels would have to reach 7% to 10% to produce meaningful reductions in average rent or sale prices.

For studio and one bedroom units (which are 98% occupied), two bedroom units (which are nearly 97% occupied) and three bedroom units (which are nearly 100% occupied), the effect of removing Northeastern University non-resident tenants serves to alleviate the rental vacancy level by less than 2%, yielding an overall vacancy impact for these smaller unit types well under the level required to effect an impact on pricing.

Somewhat more significant is the impact of Northeastern University students in the larger unit, three-plus bedroom sector of the market. Removal of Northeastern University student occupants from this sector would produce roughly a 5-percentage point impact on overall vacancy for these unit types, and resultant vacancy levels at or slightly above a balanced market standard.

It follows, then, that the hypothetical effect of removing all Northeastern undergraduates from the large unit sector of the market might moderate rental growth within this unit type, however, such an outcome is only likely if one assumes that other roommate groups (i.e. undergrads from other nearby institutions and grad students and other young worker households being pushed from the Fenway and elsewhere) do not backfill Northeastern undergraduate demand. This assumption is not seen as reasonable in the current market.

### *For Sale Market Impacts*

In reality, a significant number of the largest units consist of single family to four family dwellings being rented to students by both owner-occupant and absentee owners. As is demonstrated by data, the historic advantages of this approach from an economic perspective are clear.

Rents paid by students for the largest units (4+ bedrooms) have most recently ranged between \$4,000 and \$7,000 per month (\$700 to \$1,500 per student on average). At these levels, assuming that 30% of gross income is set aside to cover real estate taxes and operating costs, with 20% down and investor borrowing rates, an investor-owner, targeting the student rental market could afford to pay between \$650,000 and \$1.2M for a three-plus bedroom unit or single family home.

**AVERAGE OFF-CAMPUS RENTAL RATES  
AND SUPPORTABLE SALE PRICES**

<b>Students/unit</b>	<b>Per Capita Rent</b>	<b>Monthly Rent</b>	<b>Annual Rent</b>	<b>Less Expenses</b>	<b>Supportable Debt Service</b>	<b>Supportable Mortgage</b>	<b>Supportable Sale Price</b>
4	\$1,000	\$4,000	\$48,000	\$33,600	\$26,880	\$537,600	\$672,000
5	\$1,000	\$5,000	\$60,000	\$42,000	\$33,600	\$672,000	\$840,000
6	\$1,000	\$6,000	\$72,000	\$50,400	\$40,320	\$806,400	\$1,008,000
7	\$1,000	\$7,000	\$84,000	\$58,800	\$47,040	\$940,800	\$1,176,000

These prices are supported by recent sale data in the neighborhoods (especially Fenway and Mission Hill) and show the influence of roommate renters (currently primarily students) for this product type.

Removal of Northeastern University non-resident undergrads from the single to three-family market would free approximately 10% of the local single-family to three-family market supply. While significant, this is not viewed as sufficient to produce a material effect on pricing or appreciation rates in the local single to three-family markets given the pressures being exerted on this market by other demand sectors. Especially if one extrapolates the current trend and assumes that these larger units, in the absence of rental demand, would be converted to condos by investors or acquired by owner-occupant households being pushed out of the Back Bay and South End where prices for larger units now routinely exceed (by a wide margin) the rental investor supported prices discussed above.

## SUMMARY CONCLUSIONS

The most significant conclusions to be drawn from the analysis are as follows:

- Powerful demographic changes and employment growth in the tech, health care and business sectors are driving rental and for-sale housing demand and price increases city-wide.
  - The population is trending younger
  - Households are getting smaller (1 and 2 person HH's dominate)
  - Families are no longer the majority household type
  - Increases in housing costs are far outpacing growth in income
  - Owners are seeking out smaller and smaller units – in part because 1 and 2 person HH's simply need less space and in part because they can't afford more
  - Renters are doing likewise or are seeking roommates (and not just students) with whom to share the cost
- And the most significant impacts are being felt in the walkable and transit accessible neighborhoods that abut the City's major institutions (education and health care) and employment centers (LMA, Back Bay and Downtown).
- As this trends continues (and it is expected to), less affluent households, including students, will be pushed further out from the core in search of more affordable housing alternatives - a phenomenon which is likely to have a greater impact on housing prices and occupancy in neighborhoods like Mission Hill and Roxbury (which are more affordable) over time.
- Fenway is also likely to be affected from a pricing and occupancy stand-point; however, ironically, the impact of students is likely to lessen here as they seek less expensive alternatives elsewhere.
- Students currently exert an impact on all three neighborhoods, however, NU students represent a small fraction of the market rate rental demand (1,181 units overall) – occupying less than 10% of the Mission Hill and Fenway rental stock – and less than 2% for Roxbury (our analysis assumes that all students are in rental housing – although we know anecdotally that some students are in owned units).
- Roughly 70% of off-campus student demand occupies smaller - ≤2 bedroom units - located in investor-owned multi-family buildings containing 5 or more units – this product is more concentrated in the Fenway.

- 30% of student demand is accommodated in single to four family dwellings being rented by both owner occupants and absentee investor owners – this product is more concentrated in the Mission Hill and Roxbury neighborhoods.
- NU has added 4,319 beds to their on-campus supply since 1999 with another 720 beds under construction and due for delivery in 2014 – reflecting the addition of over 330 beds per year for the last 15 years.
- With declining to stable undergraduate enrollments expected over the next several years (NU forecasts stability at 15,000 enrollees), Northeastern’s dormitory construction (another 1,720 beds are under construction or planned through 2021) is expected to yield 2,100 fewer undergraduate students living off-campus by 2021.
- Assuming that NU housing costs remain as they are - at or below the market rate equivalent - and that newly constructed beds continue to be designed to meet a modern standard (we note that the older style dormitory options lack the appeal of the off-campus alternatives).
- The analysis shows that if 100% of NU undergraduates were removed from the current demand pool, the impact on the local markets would be nominal given the overwhelming pressures being exerted by much larger City-wide demographic and market forces – vacancy might increase slightly from the current record lows to more normal levels – but rents and sale price increases are unlikely to moderate.
- That said, the potential impacts associated with removing students from off-campus housing are not uniformly felt across the neighborhoods. The data also suggests that Mission Hill and Roxbury, which both have a disproportionate number of larger multi-person households occupying single to four family dwellings are likely to benefit most from proactive efforts to house more undergraduates on campus.
- However, we stress that the impacts of such efforts would be expected to be more qualitative than quantitative.



## **ADDENDA**

## **Certification**

We certify that, to the best of our knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, unbiased professional analyses, opinions, and conclusions.
- We have the requisite knowledge and experience to competently undertake the assignment.
- We have no present or prospective interest or bias with respect to the outcome of this report and/or to the parties involved with this assignment.
- Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined outcome that favors the cause of the client, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
- No one provided significant assistance to the persons signing this certification, unless otherwise stated in this report.
- We do not authorize the out-of-context quoting from or partial reprinting of this report. Further, neither all nor any part of the report shall be disseminated to the general public by the use of media for public communication without the prior written consent of the undersigned.

BYRNE MCKINNEY & ASSOCIATES, INC.

Pamela S. McKinney, MAI, CRE  
Principal

## Qualifications

### **PAMELA S. MCKINNEY, MAI, CRE**

Pamela S. McKinney, MAI, CRE, has conducted a broad range of consulting and valuation assignments for public, private, and institutional clients. Her background includes both public and private sector experience, with an emphasis on commercial, industrial, large-scale residential and special purpose property.

Assignments undertaken by Ms. McKinney include: asset management and disposition/acquisition counseling for non-profit institutions and public agencies, Fortune 500 companies and institutional investors; market and financial feasibility studies for large scale land developments; development feasibility and marketing implementation studies for both downtown and suburban office, industrial and bio-medical research parks; market and financial analyses for major mixed-use developments; development consulting for ski area, marina, golf and equestrian resorts; hotel valuation and feasibility analyses; adaptive re-use, redevelopment and disposition studies for surplus public, corporate and institutional properties; residential condominium, rental apartment and assisted living analyses for market rate and affordable projects; commercial district revitalization, affordable housing and fiscal impacts studies for various state and local governments; and the valuation of investor-held properties nationwide.

Ms. McKinney has qualified as an expert witness in the Middlesex, Norfolk and Suffolk County courts in Massachusetts as well as the Massachusetts Land Court and the Federal bankruptcy and tax courts.

Ms. McKinney is the President and a Principal of Byrne McKinney & Associates, Inc. with over 30 years of experience in the field of real estate counseling and valuation. Prior to founding the firm in 1989, Ms. McKinney was Senior Vice President of Leggat McCall Advisors, Inc., the national consulting arm of the Leggat McCall Companies. Before joining Leggat McCall, she served as Senior Vice President of Minot, DeBlois & Maddison, Inc., the nation's oldest real estate firm, where she was a principal in the consulting group and a director of the firm. Ms. McKinney also worked as a planner and real estate market analyst for metropolitan Boston's Regional Planning Agency where she managed major land use projects, and authored several planning manuals for local officials.

Ms. McKinney has taught courses in real estate investment analysis and finance for Harvard University, Boston University, Tufts University and MIT and lectures widely on the topic of affordable housing, assisted living development and the economics of transit oriented development and smart growth.

Ms. McKinney holds the CRE designation of the Society of Real Estate Counselors, the MAI designation of the Appraisal Institute, is a member of the Board of Directors of the Greater Boston Chapter of the Appraisal Institute and has been elected to Lambda Alpha International, an honorary land economics society. Ms. McKinney is also a former member of the Board of Directors of the Massachusetts Assisted Living Facilities Association, former chair of the Board of YWCA Boston and the Advent School of Boston and is a current trustee of the Boston Latin School Association.

## **Appendix I**

# **Boston Redevelopment Authority Board Memorandum on the Northeastern University Institutional Master Plan, November 14, 2013**

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# BOARD APPROVED

MEMORANDUM

NOVEMBER 14, 2013

**TO:** BOSTON REDEVELOPMENT AUTHORITY AND  
PETER MEADE, DIRECTOR

**FROM:** LINDA KOWALCKY, DEPUTY DIRECTOR OF INSTIUTIONAL SECTOR  
MANAGEMENT  
GERALD AUTLER, SENIOR PROJECT MANAGER/PLANNER

**SUBJECT:** PUBLIC HEARING TO CONSIDER THE NORTHEASTERN  
UNIVERSITY INSTITUTIONAL MASTER PLAN AND THE  
INTERDISCIPLINARY SCIENCE AND ENGINEERING BUILDING AS A  
DEVELOPMENT IMPACT PROJECT

**SUMMARY:** This Memorandum requests that the Boston Redevelopment Authority ("BRA" or "Authority") authorize the Director to: (1) issue an Adequacy Determination pursuant to Section 80D-5.4(c) of the Boston Zoning Code ("Code") approving the Northeastern University Institutional Master Plan ("Northeastern IMP"); (2) issue a Scoping Determination waiving further review pursuant to Article 80B-5.3(d) of the Code for the Interdisciplinary Science and Engineering Building ("Proposed Project"); (3) issue a Certification of Compliance for Article 80 Large Project Review for the Proposed Project pursuant to Section 80B-6 of the Code; (4) issue Certifications of Consistency in connection with the proposed institutional projects in the Northeastern IMP pursuant to Section 80D-10 of the Code; (5) petition the Boston Zoning Commission to consider the Northeastern IMP and associated map amendment; and (6) execute any and all documents deemed necessary and appropriate relative to the Northeastern IMP and the Proposed Project, including, but not limited to, execution of a Boston Residents Construction Employment Plan, a Development Impact Plan Agreement, and a Cooperation Agreement.

## INTRODUCTION

Northeastern University ("Northeastern" or the "Proponent" or the "University") is seeking an Adequacy Determination approving its Institutional Master Plan ("Northeastern IMP") and a Scoping Determination waiving further review for an Interdisciplinary Science and Engineering Building proposed therein ("Proposed Project" or "ISEB Project").

The Northeastern IMP describes eleven currently proposed institutional projects located within Northeastern University's Boston Campus. These proposed institutional projects include the following institutional uses: academic, research, dormitory, student life, recreation and athletics, parking, and accessory and support spaces.

The ISEB Project is an approximately 197,000 gross square foot building as defined by the code consisting of research and office space for new faculty, interdisciplinary research clusters and collaborative space, specialized teaching labs, classrooms, student space, and café open to the public with associated landscaping and construction of pedestrian track crossings that will span the MBTA Orange Line, Commuter Rail, and Amtrak tracks. The Proposed Project will be located on a portion of Northeastern's approximate 3.44 acre Columbus Lot surface parking area located south of the tracks, with an address at 805 Columbus Avenue between the Renaissance Park and the Columbus Garages. The ISEB will include six stories (excluding mechanical penthouse) with a height defined by the Code of approximately 87 feet, along with a pedestrian and light vehicle crossing over the public transit rail line.

On December 18, 2012, the Proponent filed an Institutional Master Plan Notification Form ("IMPNF") proposing the Northeastern IMP. The Boston Redevelopment Authority ("BRA") issued a Scoping Determination pursuant to Section 80D-5.3 of the Code on April 23, 2013. On June 14, 2013, the Proponent filed an Institutional Master Plan in response to the BRA's Scoping Determination. On July 3, 2013 Northeastern submitted a Project Notification Form for the ISB Project ("PNF") and on July 19, 2013 Northeastern filed additional information including Wind, Air Quality and Solar Glare Analysis. Together, these filings contain sufficient information about the Proposed Project to qualify for the provisions of Section 80B-5.3(d) of the Boston Zoning Code (the "Code"), i.e. Scoping Determination Waiving Further Review.

Northeastern's transformation from a primarily commuter campus into an institution that draws students from across the country and around the world has caused an influx of undergraduate students into rental housing in the surrounding neighborhoods. This has impacted housing prices, quality of the housing stock, and neighborhood quality of life. Throughout the process of developing the Northeastern IMP, the BRA-appointed advisory Community Task Force made clear the desire for Northeastern to build more dormitory beds as part of the Northeastern IMP. The BRA supports the goal of creating roughly 1,000 new undergraduate beds during the term of the Northeastern IMP, and has obligated Northeastern to create 600 beds in the first five years of the term of the Northeastern IMP, i.e. five years following the date that the Northeastern IMP is made effective. The basic terms of the agreement are as follows:

- Northeastern University commits to create, or assist in the creation of, new housing for a minimum of 600 undergraduate students before five years of the term of the Northeastern IMP have elapsed.

- Housing should be a net addition to the stock of housing currently available to Northeastern students, i.e. not a conversion of master leased units.
- Housing shall be an addition to the city's housing stock, i.e. shall not be created through the conversion or replacement of existing housing.
- Regardless of ownership, housing should operate with the same degree of supervision as Northeastern's traditional dormitories, i.e.:
  - Resident Advisors in the same ratio.
  - Same disciplinary standards and rules.
- Northeastern is expected to make a good faith effort to fulfill this obligation. If for any reason, other than delay due to unusual or unanticipated regulatory restraints, legal challenges, force majeure or an Act of God, Northeastern fails to make adequate progress towards the creation and occupancy of the required housing during the specified time period, the BRA reserves the right to deny Northeastern Certifications of Consistency and Compliance to build or occupy other major campus projects, or to deny Northeastern the right to submit for review PNFs and IMPNFs for IMP Amendments or major campus projects.
- As described in the Institutional Master Plan and follow-up documentation, Northeastern has explored the potential of the Burke Street Parking Lot to accommodate the required 600 beds. However, the BRA views the Burke Street Parking Lot as only one possible location for some or all of the required beds. Northeastern's obligation to build the required number of beds within the timeframe stated exists independently of its ability or inability to fulfill the entirety of its obligation on that site.

### **DEVELOPMENT IMPACT PROJECT EXACTIONS**

Northeastern will pay Exactions in connection with the ISEB Project. The estimated Development Impact Project ("DIP") square footage of the ISEB Project is 197,000 square feet, as defined by the Code. Based upon current plans for the ISEB Project, Northeastern will provide an estimated \$763,390.00 in housing linkage funds and an estimated \$152,290.00 in jobs linkage funds pursuant to the provisions of Section 80B-7 of the Code. These estimated linkage payments are calculated on a preliminary basis as follows:

#### Housing Linkage:

DIP Uses	197,000 square feet
Minus 100,000 square feet	
Exclusion	<u>-100,000</u> square feet
	97,000 square feet
Housing DIP Rate	<u>x \$7.87</u> per square foot
	\$763,390

Jobs Linkage:	
DIP Uses	197,000 square feet
Minus 100,000 square feet	
Exclusion	<u>-100,000 square feet</u>
	97,000 square feet
Jobs DIP Rate	<u>x \$1.57 per square foot</u>
	\$152,290

## **PUBLIC BENEFITS**

Following extensive consultation with the BRA-appointed Northeastern Task Force, the broader community, elected officials, and the BRA, Northeastern has committed to the following public benefits in association with the Northeastern IMP.

### 1. Northeastern/Neighborhood Partnership for Academic Success.

These benefits will extend to Boston Public Schools (“BPS”) students applying from homes in the zip codes 02115, 02118, 02119, 02120, 02130 and 02215.

- Beginning fall 2014, Northeastern will offer an additional 30 full-tuition, need-based scholarships to Boston Public Schools graduates, 20 in the specified zip codes and 10 citywide, in addition to continuation of 120 current full-tuition scholarships currently offered in Boston. Of the 120 existing scholarships, a minimum of 10 will be targeted to the specific zip codes.
- Beginning fall 2013, working with BPS guidance counselors and other administrators, Northeastern will host semiannual College Readiness events on campus for BPS students and their families from the four neighborhoods, to provide critical information needed to prepare and apply for college and for financial aid.
- Beginning fall 2014, BPS graduates from these neighborhoods applying to Foundation Year will receive priority in the admission process.
- Beginning spring 2015, BPS graduates not admitted directly to the undergraduate program or to Foundation Year can arrange with an admissions counselor for a transfer contract, guaranteeing transfer admission provided the student successfully hits a determined set of academic benchmarks at any accredited institution.
- Beginning fall 2014, Northeastern will negotiate transfer articulation agreements with Roxbury Community College and Bunker Hill Community College to provide another route for BPS graduates from these neighborhoods to enter Northeastern.
- Beginning fall 2014, Northeastern will provide financial aid covering 100% of demonstrated need for all enrolling BPS students from these neighborhoods.



- Estimated cost of financial aid is at least \$3.5 million annually based on current enrollment of BPS graduates from these neighborhoods and average financial need.
- Estimated cost of College Readiness Night is estimated to be \$5,000 per event for staff time and space. Two event per year for ten years totals \$100,000.

## 2. Northeastern IMP Advisory Council

Northeastern will convene an IMP Advisory Council to maintain regular and continuous dialogue and transparency with neighbors, address issues of concern as and when they arise, and explore new possibilities for community-university engagement. Estimated cost is approximately \$2,000 annually. It is anticipated that the IMP Advisory Council will meet quarterly.

## 3. Northeastern Neighborhood Center

Northeastern will create a Neighborhood Center, as both a focal point for community engagement programs and services and a portal for community enquiries into university procurement, employment, admissions, and financial aid. Northeastern has committed to paying the cost of buildout up to \$500,000, an estimated \$50,000 per year in operating costs, and the salaries of any staff.

## 4. On-Campus Business Siting

Northeastern will identify appropriate community-based businesses for on-campus opportunities, with the goal of integrating them into new or existing university buildings as well as designating them as preferred vendors in the university purchasing system.

## 5. Housing Impact Study

Northeastern will fund an update of the Housing Impact Study at or around the five-year term of the Northeastern IMP (timing to be discussed with the BRA and Task Force) in order to examine any changes in the impacts of Northeastern students in rental housing stock, particularly in light of the anticipated opening of over 1,000 new dormitory beds during the next five years (720 at GrandMarc and at least 600 as a result of the Northeastern IMP).

## 6. Carter Playground

Northeastern will commit to rebuilding and maintaining Carter Playground, enhanced by the long-term inclusion of the University's Camden parking lot, (approximately 2 acres appraised at \$8.9 million), into an expanded park at a cost

of up to \$15 million initially. The city will continue to regulate permitting and scheduling of the facilities.

## 7. Jobs and Procurement

- Northeastern will commit to increasing business with SLBEs to 20% of its discretionary spending and W/MBEs to 12% of discretionary spending within ten years.
- Northeastern will commit 30% of hard construction costs for the Interdisciplinary Science and Engineering Building to MBEs and 10% to WBEs.
- For non-design project on ISEB, Northeastern will commit to the goal of hiring 51% Boston residents, not less than 35% minorities and 10% women, and further to establish a planning and oversight committee, including residents and elected officials, to help meet those goals.
- Northeastern will direct 30% of major design/construction spending in the Northeastern IMP to MBEs and 10% to WBEs.
- Northeastern will direct 10% of non-Northeastern IMP design/construction spending at Northeastern to W/MBEs within three years.
- Northeastern will pursue the goal of increasing Northeastern employees in the contiguous zip codes by 3-5% within three years.
- Northeastern will encourage Northeastern vendors to hire an additional 100 employees from the contiguous zip codes within three years.
- Northeastern will provide 10 employment training and education programs to community members per year.
- Northeastern will provide 10-15 three-month internship opportunities to community members per year.
- Northeastern will continue to hold job and vendor fairs, including events targeted specifically to SLBEs and W/MBEs.
- Northeastern will contribute \$2.5 million to establish an entrepreneurship fund to build local business capacity, with the guidance of a suitable financial institution such as Next Street Financial.

## 8. MBTA track crossing

Adjunct to the first IMP project on Columbus Avenue, Northeastern will create a landscaped crossing of the public transit rail line to better knit the Roxbury and Fenway communities and enhance access for persons with disabilities.

## 9. Affordable Housing

In addition, Northeastern will work with partners to identify, advance, and support affordable housing projects in the surrounding neighborhoods that can take advantage of Northeastern's housing linkage obligations.

### **PROJECT/IMP REVIEW**

The Northeastern IMP is subject to Institutional Master Plan review pursuant to Section 80D of the Code. The Proposed Project is subject to Large Project Review pursuant to Section 80B of the Code. A portion of the Proposed Project is located within the Groundwater Conservation Overlay District ("GCOD") and is subject to Article 32 of the Code.

The Northeastern IMP and the Proposed Project have been reviewed and discussed at multiple community meetings. Task Force meetings were held on the following dates:

- April 25, 2012
- May 22, 2012
- June 21, 2012
- July 19, 2012
- August 16, 2012
- September 20, 2012
- October 18, 2012
- December 20, 2012
- January 28, 2013
- February 12, 2013
- March 28, 2013
- May 21, 2013
- June 11, 2013
- July 11, 2013
- August 1, 2013
- August 13, 2013
- August 27, 2013
- September 17, 2013

### **RECOMMENDATION**

Based on the foregoing, BRA staff recommends that the BRA: (1) issue an Adequacy Determination approving the Northeastern Institutional Master Plan ("Northeastern IMP") pursuant to Section 80D-5.4 of the Code; (2) issue a Scoping Determination waiving further review pursuant to Article 80B-5.3(d) of the Code for the

Interdisciplinary Science and Engineering Project ("Proposed Project"); (3) issue a Certification of Compliance for Article 80 Large Project Review for the Proposed Project pursuant to Section 80B-6 of the Code; (4) issue Certifications of Consistency in connection with the proposed institutional project in the Northeastern IMP pursuant to Section 80D-10 of the Code; (5) petition the Boston Zoning Commission to consider the Northeastern IMP and associated map amendment; and (6) execute any and all documents deemed necessary and appropriate relative to the Northeastern IMP and the Proposed Project, including, but not limited to, execution of a Boston Residents Construction Employment Plan, a Development Impact Plan Agreement, and a Cooperation Agreement.

Appropriate votes follow:

**VOTED:** That in connection with the Northeastern University Institutional Master Plan ("Northeastern IMP") presented at a public hearing held pursuant to Section 80D of the Boston Zoning Code ("Code") at the offices of the Boston Redevelopment Authority ("Authority" or "BRA") on November 14, 2013, and after consideration of evidence presented at the November 14, 2013 public hearing, and in connection with, the proposed Northeastern Institutional Master Plan ("Northeastern IMP"), the BRA finds that: (a) the Northeastern IMP complies with the Scoping Determination issued by the BRA on April 23, 2013 pursuant to Section 80D-5.3 of the Code; (b) the Northeastern IMP conforms to the provisions of Article 80D of the Code; (c) the Northeastern IMP conforms to the general plan for the City of Boston as a whole; and (d) on balance, nothing in the Northeastern IMP will be injurious to the neighborhood or otherwise detrimental to the public welfare, weighing all the benefits and burdens; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized to issue an Adequacy Determination, pursuant to Article 80D-5.4 of the Code, approving the Northeastern IMP; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized to petition the Boston Zoning Commission to approve the Northeastern IMP and amend "Map 6A/6B/6C, Roxbury Neighborhood District" and "Map 1Q, Fenway Neighborhood District", in substantial accord with the Northeastern IMP presented to the BRA at its public hearing on November 14, 2013; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized to issue a Scoping Determination waiving further review pursuant to Article 80B-5.3(d) of the Code for the Interdisciplinary Science and Engineering Building (“Proposed Project”) as described in the Interdisciplinary Science and Engineering Building Project Notification Form submitted to the BRA on July 3, 2013 (“PNF”) and the Northeastern IMP, which Scoping Determination shall provide that the PNF and additional information submitted to the BRA on July 19, 2013 (i) adequately describe the impacts of the Proposed Project, subject to further BRA design review, and (ii) include any conditions that the Director deems necessary for the mitigation of such impacts; and

**FURTHER**

**VOTED:** That the BRA hereby finds and determines that the Proposed Project conforms to the general plan for the City of Boston as a whole, and that nothing in such Proposed Project will be injurious to the neighborhood or otherwise detrimental to the public welfare; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized to execute a Development Impact Project Agreement for the Proposed Project in accordance with Section 80B-7 of the Code; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized, pursuant to the provisions of Section 80B-6 of the Code, to issue a Certification of Compliance for the Proposed Project upon the successful completion of all Article 80 processes for the Proposed Project; and

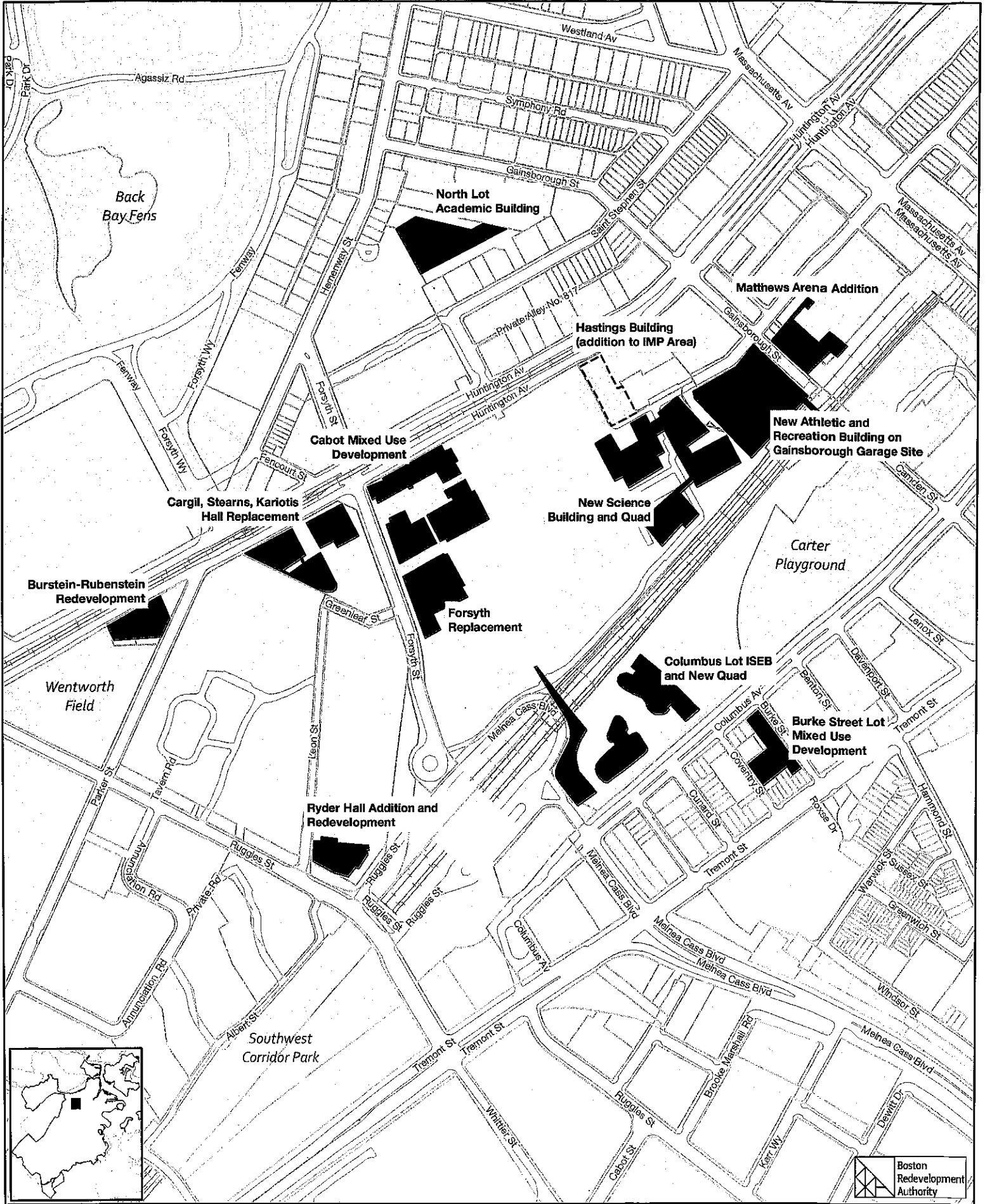
**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized, pursuant to the provisions of Section 80D-10 of the Code, to issue Certifications of Consistency with respect to the proposed institutional projects set forth in the Northeastern IMP when the Director finds that: (a) the Proposed Institutional Project is adequately described in the Northeastern IMP; (b) the Proposed Institutional Project is consistent with the Northeastern IMP; (c) the Northeastern IMP has been approved by the BRA and the Boston Zoning Commission in accordance with applicable provisions of Article 80D of the Code, Institutional Master Plan Review; and (d) the Northeastern IMP is in compliance with the update requirements of Section 80D-7 of the Code and with the renewal requirements of Section 80D-8 of the Code; and

**FURTHER**

**VOTED:** That the Director be, and hereby is, authorized to execute any and all documents deemed necessary and appropriate by the Director in connection with the Northeastern IMP and the Proposed Project, including, without limitation, a Boston Residents Construction Employment Plan and a Cooperation Agreement, all upon terms and conditions determined by the Director to be in the best interest of the BRA.

# Northeastern Institutional Master Plan Projects







Map Amendment Application No. 644  
Boston Redevelopment Authority  
Northeastern University Institutional  
Master Plan 2013-2023  
Map 1Q, Fenway Neighborhood District

TO THE ZONING COMMISSION OF THE CITY OF BOSTON:

The Boston Redevelopment Authority hereby petitions the City of Boston Zoning Commission to adopt the Northeastern University Institutional Master Plan 2013-2023, dated November 14, 2013, and to amend "Map 1Q, Fenway Neighborhood District," of the series of maps entitled "Zoning Districts City of Boston," dated August 15, 1962, as amended, as follows:

By adding the designation "IMP", indicating an Institutional Master Plan Overlay Area, to the parcel of land shown on Exhibit A attached hereto, containing approximately 11,900 square feet, as part of the Northeastern University Institutional Master Plan Overlay Area.

Petitioner: Boston Redevelopment Authority

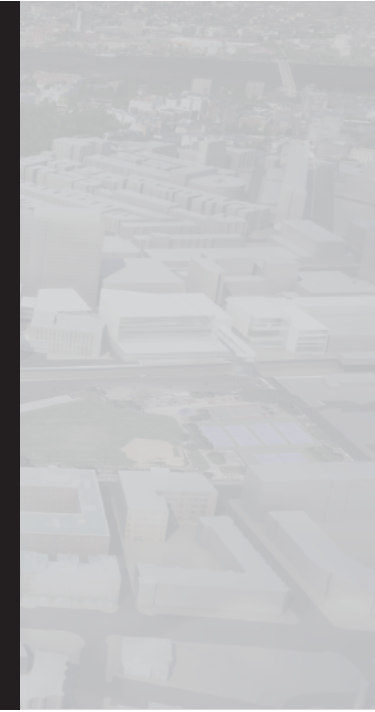
By: \_\_\_\_\_  
Peter Meade, Director

Address: City Hall/9<sup>th</sup> Floor

Boston, MA 02201-1007

Tel. No.: (617) 722-4300, ext. 4308

Date: \_\_\_\_\_  
As authorized by the BRA Board on  
November 14, 2013.



**NORTHEASTERN UNIVERSITY**  
**Boston Campus**  
**Institutional Master Plan**

*Prepared by*

**Northeastern University**  
360 Huntington Avenue  
Boston, Massachusetts 02115