HARVARD
UNIVERSITY

Institutional Master Plan Notification Form

HARVARD UNIVERSITY'S CAMPUS IN ALLSTON

October 2012

HARVARD
UNIVERSITY

October 17, 2012

Peter Meade
Director
Boston Redevelopment Authority
One City Hall Square
9th Floor
Boston, MA 02201

Subject: Institutional Master Plan Notification Form for Harvard University's Campus in Allston

Dear Mr. Meade:

I am pleased to submit for your review the Institutional Master Plan Notification Form ("IMPNF") for Harvard University's Campus in Allston. This IMPNF is being submitted by Harvard to the BRA pursuant to the provisions of Article 80D-5 of the Boston Zoning Code. This IMPNF filing is intended to start the formal review of the University's Institutional Master Plan.

The information presented in this IMPNF has been discussed with and reviewed by the BRA, the Harvard Allston Task Force, and the community during multiple Task Force meetings and working sessions with the BRA.

A meeting of the Harvard Allston Task Force is scheduled for November 7, 2012. In accordance with the requirements of Article 80, a Public Notice of submission of the IMPNF will be published in the *Boston Herald* on October 19, 2012. We will forward a copy of the notice to your office following publication.

Harvard is committed to the economic, intellectual, social and cultural vitality of its neighborhoods and city. In that spirit, together with our Allston neighbors, elected representatives, City and State agencies, and civic leaders, Harvard has created a plan for the future that provides shared opportunity.

We look forward to continued planning and discussions with the City, the BRA, the Harvard Allston Task Force and members of the community. If you have any questions, please do not hesitate to call.

Sincerely,

Katherine Lapp

Katie Lapp
Executive Vice President

cc: Kairos Shen, BRA
Gerald Autler, BRA

Institutional Master Plan Notification Form

Harvard University's Campus in Allston

Submitted to:

Boston Redevelopment Authority

Submitted by:

Harvard University, through:

Harvard Planning & Project Management

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Suite 901

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Ayers Saint Gross

Camp Dresser & McKee Inc.

Epsilon Associates Inc.

Goulston & Storrs

Vanasse Hangen Brustlin Inc.

October 2012

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1.0 Introduction

1.1 Overview

Celebrating in 2011 the 375th anniversary of its founding, Harvard is the oldest institution of higher education in the United States. More than 21,000 degree candidates are enrolled at the University, including undergraduate, graduate, and professional students. Harvard, located in Cambridge and Boston, Massachusetts, has more than 360,000 alumni around the world.

Harvard University is devoted to excellence in teaching, learning, and research, and to developing leaders in many disciplines who make a difference on campus, in the community, and throughout the region, the nation and the world. The University has twelve degree-granting Schools in addition to the Radcliffe Institute for Advanced Study, offering a truly global education.

Harvard's planning for its campus locations in Cambridge and Boston has been defined by a development framework that balances the benefit of a comprehensive and predictable plan with the long-term flexibility needed by a dynamic, rapidly evolving academic enterprise.

Consistent with the University's long history, today the academic mission continues to evolve creating new types of campus growth needs. New technologies, discoveries, and societal issues require facilities that support innovation and collaboration in new ways and at new scales. Harvard will continue to address these academic evolutions, and its land in Allston will provide an opportunity to develop new campus resources to support the University's dynamic teaching and research mission.

While Harvard is a globally respected academic center, it is also a vital local institution, committed to the economic, intellectual, social, and cultural vitality of its neighborhoods and cities. In that spirit, together with its Allston neighbors, elected representatives, City and State agencies, and civic leaders, Harvard has created a plan for the future that provides shared opportunity.

1.2 Institutional Master Plan Notification Form

This Institutional Master Plan Notification Form ("IMPNF") is being submitted to the Boston Redevelopment Authority ("BRA") by the President and Fellows of Harvard College ("Harvard" or "the University"). This document is being submitted in accordance with Section 80D-5 of the Boston Zoning Code (the "Zoning Code") to begin formal review of a new Institutional Master Plan ("IMP") for Harvard University's Campus in Allston. Figure 1 highlights the proposed IMP area. The University's existing IMP is scheduled to expire at the end of 2012.

The information presented in this IMPNF has been discussed with and reviewed by the BRA, the Harvard Allston Task Force, and the community during multiple Task Force meetings and additional working sessions with the BRA in 2012. This IMPNF filing is intended to start the formal review of the master plan under Article 80.

Following the public comment period, the BRA will issue a Scoping Determination outlining issues to be addressed in more detail in an IMP filing. In addition, separate filings will be made for those individual projects that are subject to review under the BRA's Article 80 Large Project Review process. This IMPNF submission includes three components that address future development planning:

IMPNF Projects / Ten-Year Plan (Section 3)

The Ten-Year Plan outlines the specific projects the University aims to complete over the next decade to realize strategic goals in both academic and community development. The Ten-Year Plan will enhance the campus and surrounding communities, create new jobs, and drive economic development in the region. It will also provide benefits to those who live, work and learn in the area. The geography of the Ten-Year Plan represents the area in which projects will occur over the next decade and includes approximately one million square feet of new building space and approximately 500,000 square feet of renovation.

Non-IMPNF Projects (Appendix A)

The University will undertake a number of activities in Allston concurrent with the Ten-Year time frame outside of the scope of the IMPNF. While these projects will be subject to their own separate review and approval processes, they are included as an appendix to this IMPNF in order to provide broader context. They are also included in the evaluation of overall impacts.

Long-Term Framework Plan (Appendix B)

This document also includes a "Long-Term Framework Plan" that provides a general framework of streets, open spaces, development sites and other parameters that inform the University's long-term development. This Long-Term Framework Plan does not specify actual building footprints and design, thus ensuring the flexibility necessary to accommodate future needs as they are determined.

The Long-Term Framework Plan is provided for information and planning purposes only and is not being submitted for approval under the institutional master planning regulations. The geographic area of the Long-Term Framework Plan includes the IMPNF area plus additional acreage to the south of Western Avenue. It represents planning concepts, including new streets, pedestrian connections, open space, and opportunities for growth and development, that go beyond the ten-year time frame.

1.3 Projects Overview

The IMPNF presents plans for the near-term physical development of Harvard University's campus in Allston. Among the main components of the Ten-Year Plan is the construction of three new academic buildings, two new faculty and/or administrative buildings, the addition to and renovation of, Harvard Stadium, a new basketball venue and institutional/mixed use building, and a hotel and conference center. The plan also includes the renovation of both an academic building and a graduate student residential building.

The full list of projects is noted below. These projects are described in more detail in Section 3.

New Construction

1. Harvard Business School, Kresge Hall Replacement
2. Harvard Business School, Burden Hall Replacement
3. Harvard Business School, Faculty and Administrative Office Building
4. Harvard Stadium Addition/Renovation
5. Athletics Department, Basketball Venue and Institutional/Mixed-Use Facility
6. Mixed Use/Institutional Project
7. Hotel and Conference Center

Renovation

8. Renovation of Harvard Business School's Baker Hall
9. Renovation of Soldiers Field Park Housing

As described further in Appendix A, there are a number of projects that will occur concurrently with the Ten-Year Plan, but which are outside of the scope of the IMPNF. While these projects will be subject to their own separate review and approval processes, they are nonetheless important to the future of Barry's Corner, the key intersection of North Harvard Street and Western Avenue. These projects include the completion of the Health and Life Science Center (formerly called the Allston Science Complex) and the Barry's Corner Residential and Retail Commons project.

1.4 Project Team

Proponent:

President and Fellows of Harvard College
through the
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Figure 2: Existing Campus Map

2.0 Background

With the construction of the Stadium (1903), Allston became the center of the University's athletic programs (photograph 1920's).

2.1 History

Harvard College opened in Cambridge, Massachusetts in 1636 with an enrollment of nine students and one Master to teach all subjects. It was named after the College's first benefactor, the young minister John Harvard of Charlestown, who upon his death in 1638 left his library and half his estate to the institution. A statue of John Harvard stands today in front of University Hall in Harvard Yard, and is perhaps the University's best known landmark.

Harvard's original mission was to educate the religious and intellectual leaders of the newly settled New England colonies. In 1650, the Great and General Court of Massachusetts approved Harvard's charter of incorporation as a Massachusetts educational charitable corporation, which established the President and Fellows of Harvard College (a.k.a. the non-profit Harvard Corporation), a governing board that is the oldest corporation in the Western Hemisphere. Expanding its size and extending its geographical boundaries during the 19th and 20th centuries, the College added graduate and professional schools.

For more than a century, Harvard has undergone continuous and significant physical growth driven by a broad spectrum of societal change and need, ranging from the industrial revolution to the genetics revolution, the decision to house all undergraduates within the College, and from the emergence of a specialized School of Law to the recent establishment of a School of Engineering and Applied Sciences.

Development of Harvard's property in Allston began at the turn of the 20th century, focusing on athletics and new University uses. Harvard Stadium - the country's first large reinforced concrete structure – was built in Allston in 1903. With the construction of the Stadium, Allston became the center of the University's athletic programs.

With the end of World War I, Harvard Business School enrollment surged. As a result, Harvard constructed approximately 500,000 square feet of classroom, library, office and residential space in Allston in accordance with a formal master plan. Created by the firm of McKim, Mead and White, who were selected based on a design competition, the plan oriented buildings to a curving axis which follows the line of the Charles River. The plan centers on a formal quadrangle on axis with the Eliot House tower in Cambridge. Buildings that surround this quadrangle are organized by a series of smaller quadrangles and inner courtyards. This overall axial structure has guided the siting of most HBS buildings since that time.

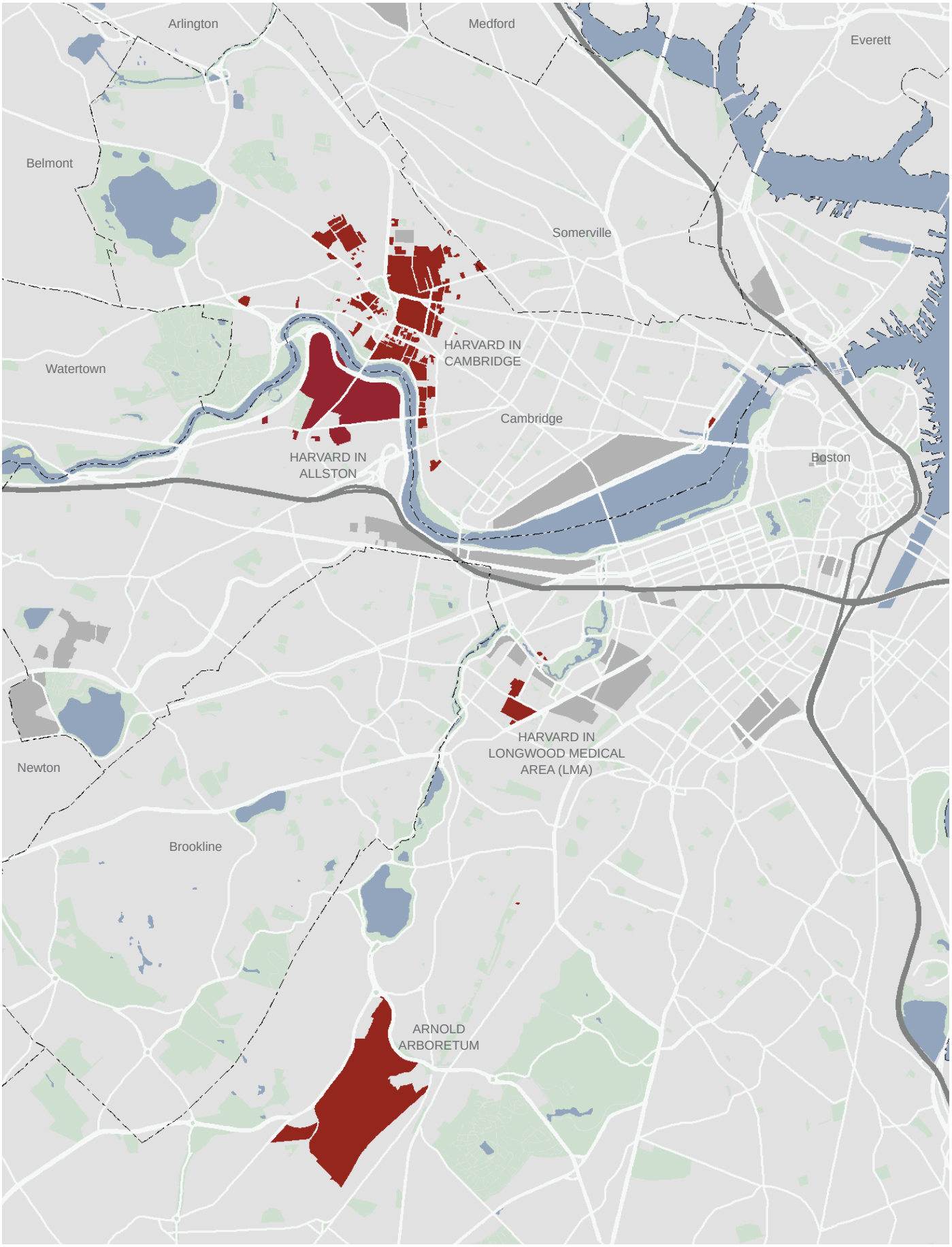


Figure 3: Campus Locator Map

2.2 Existing Conditions

The North Allston residential neighborhood abuts Harvard's property, raising opportunities to create appropriate transitions between the scale and uses of the institution and those of the neighborhood.

University Profile

Today, Harvard has a total graduate and undergraduate enrollment of approximately 21,000 degree candidates. Harvard's enrollment includes approximately 6,600 undergraduates and 12,600 graduate students. An additional 1,800 students from communities throughout New England are enrolled in the Harvard Extension School. Harvard has approximately 2,400 faculty (ladder and non-ladder), as well as 14,000 staff who work in Cambridge and Boston. In addition, Harvard has approximately 10,000 faculty members at its affiliated teaching hospitals, including Massachusetts General Hospital, Brigham and Women's Hospital, and the Beth Israel Deaconess Medical Center.

Harvard's operations are located primarily within its three main campuses: Harvard's original campus in Cambridge, centered in Harvard Square; its campus in the Allston neighborhood of Boston (the subject of this IMPNF); and its facilities within the Longwood Medical and Academic Area ("LMA") in Boston. In addition, Harvard's Arnold Arboretum occupies 265 acres in Jamaica Plain and Roslindale. Harvard's facilities in the LMA and at the Arboretum are the subject of their own Institutional Master Plans. Figure 2 maps campus precincts in Cambridge and Allston. Figure 3 locates the campuses in the larger metropolitan context.

Neighborhood Context

The North Allston residential neighborhood abuts Harvard property, creating opportunities for appropriate transitions between the scale and uses of the institution and the neighborhood. North Harvard Street and Western Avenue intersect at Barry's Corner, an important opportunity to link the neighborhood with the University and create a vibrant public realm.

As described in the City's 2005 North Allston Strategic Framework for Planning, a tradition of maintaining continuity while finding opportunity in the face of change is a major characteristic of North Allston's history. Since its origins in the early 17th century as an agricultural and cattle-raising outpost of Cambridge, the area has witnessed intense transformations: from a market town and center for the beef industry; to a streetcar suburb built along Western Avenue, which continues to serve as North Allston's Main Street; to a major rail transportation center, vestiges of which are visible today in the Allston Yards; to textile factories; to the small- and medium-sized businesses scattered through the neighborhood.

North Allston's residential streets provide ample evidence of the neighborhood's stability, with rows of well-maintained houses. Where once many of North Allston's residents walked to jobs at the railroad yards or at the mills, they now commute to other communities or other areas of the City. Today, North Allston residents include large numbers of immigrants, young professionals, and students, as well as its longer-term residents.

Area-Wide Context

The accompanying image (Figure 4) illustrates the buildings of Cambridge and Boston divided by the Charles River. Boston is often referred to as the City of neighborhoods. Many neighborhoods historically were conceived of as municipalities independent from downtown Boston with well-defined centers (often with "square" or "corner" in the name). Barry's Corner is somewhat isolated and less dense when compared with other corners and squares in Boston and Cambridge. This is largely the result of the North Allston's separation from the rest of the urban fabric by the river and the Massachusetts Turnpike. It is also due to the proximity of low density land uses such as athletic fields, and city and state park land. As a result, few access/egress points serve the area, making more challenging the University's efforts to create strong links with its Cambridge campus and to activate Barry's Corner. An increased level of density in and around the Barry's Corner area is necessary to create a successful, vibrant, pedestrian-friendly neighborhood. Harvard shares the City's and community's vision for an enlivened Barry's Corner.

Figure 4: Area-Wide Context

Physical Conditions

The accompanying map (Figure 5) illustrates conditions as they exist in 2012. Harvard-owned institutional buildings are shaded red. Key Harvard-owned historic buildings shaded orange include Harvard Stadium (1903) and the original campus of the Harvard Business School (1926) by McKim, Mead & White.

Non-institutional buildings are shown in black and include several commercial properties along Western Avenue.

Campus open space shown in light green includes the playing fields within the Soldiers Field Athletic Complex, and the tree-lined walkways, and open, grassy courtyards of the Harvard Business School.

Public open spaces including several neighborhood and regional parks are shown in darker green. At the heart of campus are ribbons of blue and green depicting the Charles River and the park lands owned and managed by the Department of Conservation and Recreation. This network of open space is a critical link between the Harvard University campus and the larger metropolitan area.

Much of Harvard's non-institutional property in North Allston was formerly commercial and industrial land, and is currently fenced, impervious and inaccessible. Projects to be completed within the next ten-years will begin the transformation of this area into an accessible pedestrian-friendly environment, with expanded open space and enhanced permeability, as envisioned in the Long-Term Framework Plan (Appendix B).

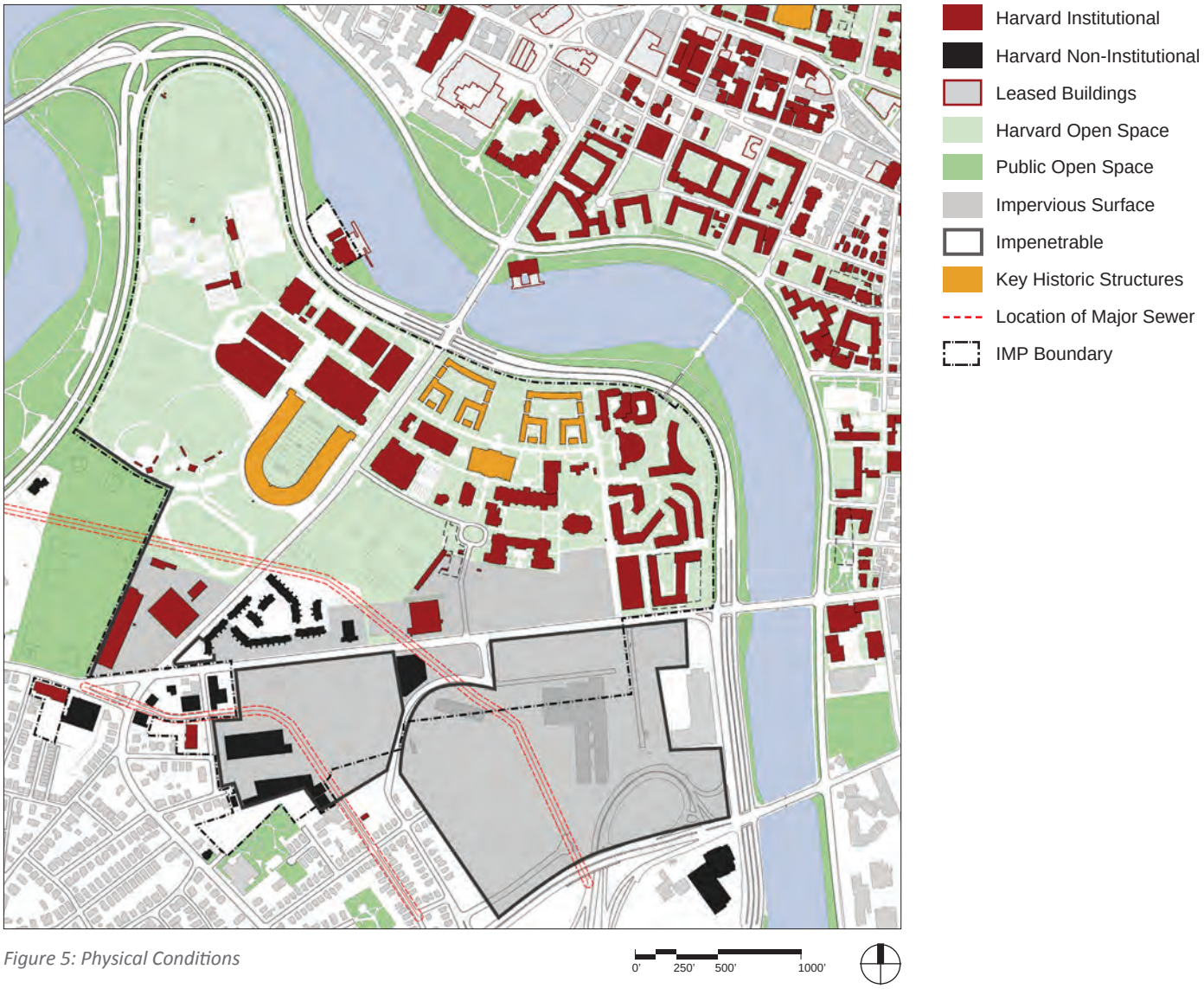


Figure 5: Physical Conditions

Spangler Hall, the HBS campus center proposed in the 1997 IMP, was completed in 2001 and has become an integral part of campus.

Once home to a concrete plant, Harvard worked with the North Allston community to transform 1.74 acres behind the Honan-Allston Library into Ray Mellone Park.

2.3 Past Institutional Master Planning

1997 IMP and Subsequent Amendments

Harvard has filed several Institutional Master Plans for its Allston campus since 1989. The most recent fully approved IMP dates to 1997 and includes several now-completed projects such as McArthur Hall, Spangler Center, and Hawes Hall. In 2006 and 2007, the University amended the 1997 IMP to add the proposed Harvard Allston Science Complex site on Western Avenue to the IMP Area. The 2007 IMP Amendment also extended the term of the renewed IMP for five years, until the end of 2012. In 2011 the IMP was again amended to add the Harvard Innovation Lab and Tata Hall. The University is in the process of filing an amendment to allow for certain institutional uses to be relocated from 219 Western Avenue so that enabling site work for the Barry's Corner Residential and Retail Commons project (discussed in more detail in Appendix A) can begin and so that services currently located at 219 Western Avenue can be operating in their new location prior to the start of the academic year.

2007 IMPNF

In January 2007, the University filed a new IMPNF to start the process of preparing a new IMP. The 2007 IMPNF presented a master plan that included both a 20-year plan and a 50-year vision. In response to the 2007 IMPNF, the BRA issued a Scoping Determination outlining the issues to be addressed in the new IMP.

Due to the global financial downturn and its severely constraining effects, the University slowed its long-term master planning process and did not file a new IMP. As part of this current IMPNF filing, Harvard hereby withdraws the 2007 IMPNF.

2.4 Current Institutional Master Planning

Current Approach

In 2009, the severe global economic crisis led many universities to slow or halt their capital programs. In light of these significantly changed economic circumstances, Harvard paused construction on the Allston Science Complex and worked to reassess needs and resources.

Within the context of these new financial and programmatic realities, the University issued a letter to the community on December 10, 2009, which announced the pause in construction of the Allston project and outlined the University's next steps in Allston in three phases: (i) property stewardship, leasing and community engagement; (ii) planning and greening; and (iii), as resources allowed, campus development. At the time of the letter, 65% of Harvard's leasable space in Allston was occupied. Today, more than 93% of leasable space is occupied, and since 2010, 24 new leases have been signed and Harvard tenants have created 390 new jobs in the Allston community.

Additionally, since 2009, the University has created two new green spaces, including Ray Mellone Park, a nearly two acre park located behind the Honan Allston Library as well as a green space located at 108 Holton Street. Harvard, with the support of the community and the BRA, also opened the doors of the Harvard i-lab, an innovative initiative that fosters team-based and entrepreneurial activities and deepens interactions among Harvard students, faculty, entrepreneurs, and members of the Allston and Greater Boston community. Since its opening

in November 2011, the i-lab has hosted more than 400 events, welcoming people from the University, the community, and the region.

During this time period, the University also established the Allston Work Team, charged with recommending strategies for achieving a cohesive scientific, academic, and learning campus environment in Allston. The University convened the Allston Work Team in early 2010 comprised of University Deans, faculty members and alumni to consider academic priorities and planning assumptions, as well as strategies and opportunities for development in Allston. In September 2011, Harvard announced that the Work Team recommendations had been endorsed by the President and the Harvard Corporation, along with a general timeline for development, in two separate but related phases. The Work Team recommendations, noted below (and in Figure 6) – combined with other institutional projects – form the basis of the new IMPNF.

The Work Team recommended that the University:

- Resume planning and development of the Western Avenue Foundation as a Health and Life Science Center
- Enhance the vibrancy of Barry's Corner through housing and other amenities via a partnership with a real estate partner
- Enable academic growth by preserving land adjacent to existing campus, consistent with past planning
- Explore the feasibility of a conference center and hotel
- And over a longer-term time horizon, develop an Enterprise Research Campus in Allston Landing North, creating a gateway to a collaborative community for business, investment capital, research and science development

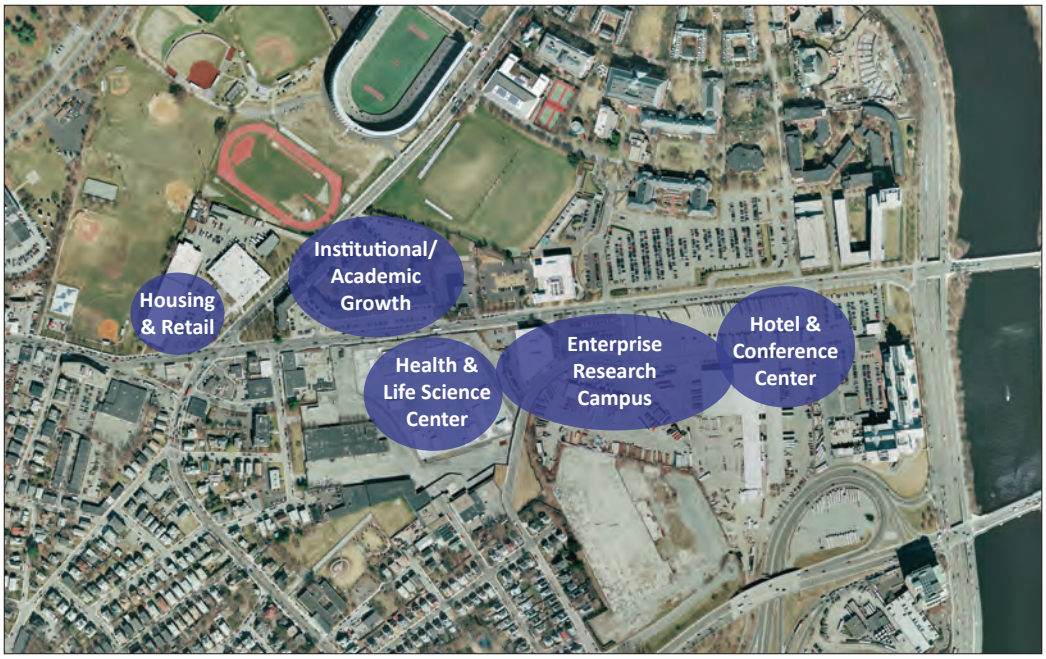


Figure 6: Work Team Recommendations Diagram

Definition of 2012 IMP Area

Existing IMP Area

As described in the 1997 Institutional Master Plan and the subsequently approved amendments, Harvard's existing Allston campus contains approximately 151[1] acres of land that are institutionally zoned and are located predominantly on land bounded by Soldiers Field Road and Western Avenue. North Harvard Street separates two distinct areas of the campus, with HBS predominantly to the east of North Harvard Street and Harvard Athletics predominantly to the west.

Table 1-1 provides a summary of the uses, property, and buildings that make up the existing IMP area of Harvard's Allston campus.

Table 1-1: **Existing IMP Area**

School/Department	Acres	Buildings	SF
Harvard Business School	53.8	34	1,668,500
Athletics	64.1	9	464,400
Other institutional	32.1	8	1,095,700
Non-institutional	1.1	1	34,100
TOTAL	**151.1**	**52**	**3,262,700**

NOTE: these figures include the site acreage of the Science Complex (since it has been rezoned to be part of the Harvard University Institutional Subdistrict) but they do not include the square footage of the proposed building.

Proposed IMP Area

The IMPNF proposes to add approximately 27 acres of land to the IMP area. Figure 7 depicts the existing and proposed IMP boundary.

[1] The most recent IMP-related filings have reported an overall site acreage for the IMP Area of approximately 148.5 acres. This figure inadvertently did not include the properties at 1230 Soldiers Field Road and 25 Travis Street which were added to the IMP Area via an IMP Amendment in 2002. In addition, these numbers have been refined using updated data from the Boston Assessing Department.

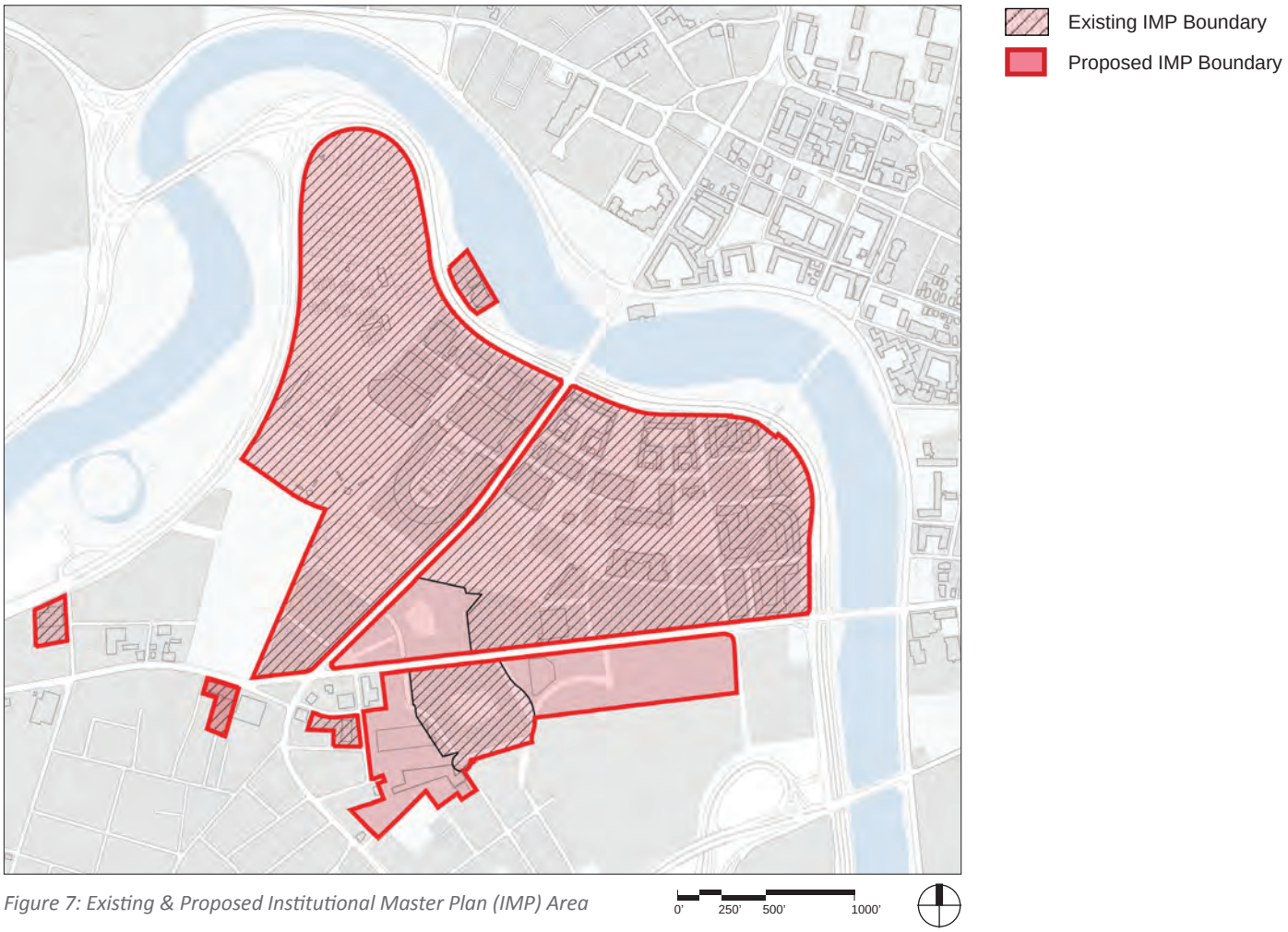


Figure 7: Existing & Proposed Institutional Master Plan (IMP) Area

Long-Term Planning Principles

Harvard's planning for Allston is focused on supporting the University's teaching and research mission and advancing the needs of Harvard schools and activities. Today, the century-long pattern of University growth continues as demands for new and different spaces continue to emerge from many areas of the University's academic community. Some of the projects proposed in the IMPNF reflect the growth of specific programs (such as HBS's Executive Education program) or the need to maintain and improve older facilities (such as Harvard Stadium). Other activity is driven by advances in life science and engineering. Fields of science such as these increasingly require large-scale facilities that provide high bay space, long spans, extensive loading and service capabilities, and layout flexibility. The Cambridge campus has limited space to accommodate this type of development, but Allston provides an opportunity to pursue these academic goals. In addition, Harvard's institutional growth proposed for Allston is intended to connect with the region's innovation economy.

Harvard's planning for its campus in Allston is guided by a set of core principles established by the University's leadership. Reinforcing Harvard as a single unified campus is critical among these, as is developing a strong public realm that can be shared by the University and the community. From a programmatic perspective, important principles include encouraging innovation and incubation, and capitalizing on interdisciplinary collaboration. Other key principles include extending Harvard's iconic character, making Allston a campus anchor and developing shared common spaces. In terms of implementation, Harvard's Allston planning is guided by the principle of balancing the visionary and the practical.

Public Review

Harvard Allston Task Force

Harvard works regularly with a task force of neighborhood representatives regarding Allston planning and development. The task force was first convened in the mid-1980's in preparation for the University's first Institutional Master Plan, filed in 1989.

In January, 2006, Boston Mayor Thomas M. Menino announced a new Harvard-Allston Task Force (the "Task Force") to serve as an advisory group to the BRA as Harvard began its new institutional master planning process for the expanded Allston campus. Since 2006, Harvard has met regularly with the approximately 17-member Task Force to review and shape the elements of Harvard's Allston planning and development.

The information presented in this IMPNF has been discussed with the BRA, the Harvard Allston Task Force, and the community through regular Task Force meeting and working sessions organized by the BRA.

MEPA Review

The 2007 IMPNF submitted to the BRA was also submitted to the Massachusetts Environmental Policy Act ("MEPA") Office of the Executive Office of Energy and Environmental Affairs as part of an Environmental Notification Form ("ENF") filing. The ENF also requested a Phase 1 Waiver for the Harvard Allston Science Complex, which was granted. In response to the ENF, the Executive Office of Energy and Environmental Affairs issued two Certificates: the first outlined issues to be addressed as part of an Environmental Impact Report ("EIR") for the master plan, and the second outlined Special Review Procedures that would be applied to the MEPA review of the master plan and of individual projects proposed pursuant to the master plan. The University is working with the MEPA Office to determine the precise mechanism for the MEPA review of the revised, reduced-scope master plan.

Zoning

The Allston campus area which is the subject of this IMPNF will be governed by the zoning parameters established in the IMP as approved by the BRA and the Boston Zoning Commission. The nine specific institutional projects discussed in this IMPNF, and to be described further in the IMP, will be subject to additional future BRA and community review. The IMP will establish guidelines and parameters for proposed development which will constitute the basis for the Allston Campus as it evolves.

By way of this IMPNF and the subsequent IMP, Harvard seeks to renew the current Allston Campus IMP for a term of ten years beginning with its anticipated approval in 2013.

IMP Boundary

IMPNF Projects

- New Construction
- Replacement
- New Underground Space
- Renovation/Renewal
- New Streets
- Non-IMPNF Projects

Figure 8: Proposed Institutional Projects

0' 250' 500' 1000'

New Construction

1. Harvard Business School's Kresge Hall Replacement
2. Harvard Business School's Burden Hall Replacement
3. Harvard Business School's Faculty and Administrative Office Building
4. Harvard Stadium Addition/Renovation
5. Athletics Department's Basketball Venue and Institutional/Mixed-Use Facility
6. Institutional/Mixed Use Project (on existing Charlesview site)
7. Hotel and Conference Center

Renovation

8. Renovation of Harvard Business School's Baker Hall
9. Renovation of Soldiers Field Park Housing

Areas shown are development sites, not building footprints.

The order of the listing of the projects does not represent any prioritization or intended sequence of these projects.

3.0 IMPNF Projects/ Ten-Year Plan

3.1 Description of Ten-Year Plan

The Ten-Year Plan comprises a combination of inter-related actions including demolition of some outdated structures to make way for new facilities, renovation of important existing buildings to optimize their functionality, and a mix of new building construction for executive education, teaching, research, administration and athletics, as well as a range of at-grade street-activating institutional and non-institutional uses. The Ten-Year Plan will also result in the creation of new campus streets, improvement of existing streets, upgrades to infrastructure, and new landscaping, pathways and open space.

3.2 Proposed Institutional Projects

This IMPNF includes seven new and/or replacement projects and two renovation projects as part of its Ten-Year Plan. The new projects total approximately one million square feet of additional building space, and renovation projects total approximately 500,000 square feet. Projects are located on Figure 8. With the exception of renovation projects (shaded blue), areas shown are development sites, not building footprints.

This section includes detailed descriptions of the Proposed Institutional Projects. Other projects in process (Non-IMPNF projects) are described in more detail in Appendix A. The order of the listing of the projects does not represent any prioritization or intended sequence of these projects. Similarly, references to anticipated time frames for project construction reflect current planning but such estimates may change and are not intended as a limitation on project approval within the ten year time frame.

HBS Kresge Replacement

Within the first five years of this IMP, Harvard is proposing to replace the existing Kresge Hall with a new HBS building of approximately 90,000 square feet.

Kresge Hall, dedicated in June 1953 based on a design by the architectural firm of Perry, Dean and Hepburn, was for many years the main dining facility for HBS. Kresge Hall is a D-shaped Georgian Revival structure with approximately 70,000 square feet of space on three floors. Following the construction of the Spangler Center in 2001, the use in Kresge focused on providing dining facilities to participants in HBS's Executive Education program rather than the broader HBS community.

The University's 1997 IMP filing proposed that during the time period of that IMP, Kresge Hall would be renovated to accommodate the growing needs of HBS's Executive Education Program. However, the IMP also noted that a renovation of Kresge would not fully meet the needs of the Executive Education Program. The section of the 1997 IMP that addressed long-term planning for HBS stated that the "alternative plan proposes demolition of Kresge and construction of a new facility just east of the existing structure. The future decision to renovate or rebuild will be based on a comparison of the costs and benefits of an entirely new, state-of-the-art facility, specifically designed to complement the expanded and newly consolidated Executive Education Program facilities."

In this interim period, and while the Executive Education program has continued to grow, HBS has continued to evaluate its programmatic and space needs relative to the existing Kresge Hall. During HBS's planning, the site has emerged as a focal point for a newly designed Executive Education quadrangle also comprising Baker Hall, McArthur Hall, McCollum Center, and Tata Hall (to be completed in 2013). HBS has concluded that the benefits derived from a new building on the current site of Kresge Hall that will have a greater mix of program space is more advantageous than a renovation of the existing facility. As such, Harvard is proposing to replace the existing Kresge Hall with a new HBS building.

The vision of the building as a gateway to Executive Education is in keeping with the consensus among planners that the new facility will be instrumental in transforming a collection of disparate buildings on the northeast quadrant of the campus into a true HBS Executive Education quadrangle. An important program element of the building is a central reception and greeting space which is planned to be the first experience participants will have with the HBS Executive Education precinct. The reception area will essentially become the "Front Door" of Executive Education at HBS and serve as a place for the HBS community, especially MBA students, to interact with participants.

Early discussions of the building's programming have focused on the fundamental HBS principle that learning happens both within and beyond the classroom. Daily life for Executive Education participants is rich with opportunities for discussion, debate, networking, and personal and professional growth. Planned for the building is a dining facility which will provide a vibrant, flexible, comfortable environment for mealtime meetings, guest speakers, and social functions.

Other components of the program may include:

- Classrooms of varying types that can be reconfigured in many different ways;
- Smaller project rooms for team-based learning or executive coaching; and
- Comfortable common spaces to accommodate events and to supplement existing lounges in Baker and McArthur Halls.

Also planned for the building are Executive Education administrative spaces, bringing together some of the 125+ staff members, such as program delivery teams, who now work in eight locations across campus.

HBS Kresge Replacement	
Site Location	HBS Precinct
Uses	Executive Education Dining, Administrative Offices, Classrooms
Gross Floor Area	90,000 ± SF
Gross Floor Area Demolished	67,000 SF
Floor Area Ratio (FAR)	TBD
Approximate Building Height	4 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2014-2016

Note: Numbers are estimates.

HBS Burden Replacement

Within the second five years of the planning horizon of this IMP, Harvard intends to build a new academic building to replace HBS's Burden Hall. The existing Burden Hall is an approximately 29,000 square foot academic building built in 1971 and designed by the firm of Johnson/Burgee Architects. It includes a 900 seat auditorium, the largest on the HBS campus.

As currently envisioned, the project will include approximately 127,000 square feet of space in two buildings. The two building components will be three stories in height and are planned to be connected below grade. Together, these sites will provide a significant amount of program space in a key location within the HBS academic precinct, accessible from East Drive and the new Spangler Way. The below-grade space of the project will also be accessed from a new entry pavilion on the Community Green. This pavilion is envisioned as a "jewel" in the landscape, inspired by the existing Class of 1959 Chapel, a successful complement to the Neo-Georgian buildings on campus.

HBS Burden Replacement	
Site Location	HBS Precinct
Uses	Academic, Classroom, Auditorium
Gross Floor Area	130,000 ± SF
Gross Floor Area Demolished	29,000 SF
Floor Area Ratio (FAR)	TBD
Approximate Building Height	3 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2016-2018

Note: Numbers are estimates.

HBS Faculty & Administrative Offices

Within the second five years of the planning horizon of this IMP, Harvard intends to build a new HBS faculty and administrative office building. The proposed site is in the northeast corner of what is now Ohiri Field and is directly north of the i-lab/Batten Hall.

As currently planned, the building will be approximately 110,000 square feet and four stories in height. Its footprint is designed symmetrically to Spangler Center, framing the axis and major pathway to Baker Library|Bloomberg Center. Proximate to the proposed visitor drop-off court at the north end of Batten Way, the HBS Faculty & Administrative Offices building will be both a gateway building to the HBS campus as well as firmly rooted in the pedestrian zone of the HBS campus.

HBS Faculty & Administrative Offices	
Site Location	HBS Precinct
Uses	Faculty and Administrative Offices
Gross Floor Area	110,000 ± SF
Gross Floor Area Demolished	0
Floor Area Ratio (FAR)	TBD
Approximate Building Height	4 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2018-2020

Note: Numbers are estimates.

Harvard Stadium Addition / Renovation

Within the first five years of this IMP Harvard anticipates undertaking a renovation of and addition to Harvard Stadium. As part of this project, it is anticipated that the total number of seats in the Stadium will be reduced. This project will also provide improved accessibility to disabled visitors.

Constructed in 1903, Harvard Stadium has hosted over one hundred years of Harvard Football and since the installation of lights, a synthetic field and seasonal bubble in 2006, has served Harvard men and women across varsity, club and intramural programs.

While the use of Harvard Stadium has greatly expanded in recent years, the University is proposing to renovate the stadium in order to address several deficiencies:

1. *Preservation of the Existing Building* –This project will repair areas of deterioration, match old repairs to a consistent coloring, clean the surface and seal the concrete to avoid future deterioration.

2. *Accessibility* –The renovation will increase accessibility by introducing elevator access to all levels, and providing appropriate seating opportunities and accessible amenities for disabled visitors.

3. *Amenities* –Restroom and concession facilities will be expanded and upgraded in the renovation.

4. *Programmatic Space* –

    a. Locker Rooms –New spaces will be constructed with adjacent sports medicine and equipment support spaces to meet the operational needs of the football program.

    b. Press box –A new, accessible press box will provide appropriate space and technology for coaching staffs, broadcast teams, video production, working media and limited suite seating.

    c. Club Seating –The renovation would introduce an enclosed club seating level for approximately 350 spectators with restrooms and concession areas, function/ gathering space and a small terrace overlooking the athletic complex. Overall, the total number of seats in the Stadium will be reduced.

    d. Meeting/Office Space – two levels of space at the existing colonnade level totaling approximately 7,500 square feet would be constructed to help meet the current demands of the Athletics Department.

To address these needs, the project will consist of the construction of a wide, shallow addition containing approximately 39,000 square feet to the westerly side of the stadium. The project will cantilever over the existing roof, with all of the other proposed improvements located within the existing building envelope.

Harvard Stadium Addition / Renovation	
Site Location	Athletics Precinct
Uses	Press Box, Athletics Offices, Athletic facilities
Gross Floor Area	39,000 SF new / 36,000 SF of renovation
Gross Floor Area Demolished	0
Floor Area Ratio (FAR)	TBD
Approximate Building Height	4 to 7 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2013-2015

Note: Numbers are estimates.

Basketball Venue and Mixed Use Project

Within the second five years of the planning horizon of this IMP, the University intends to build a new basketball venue – with the balance of that site accommodating additional institutional/mixed uses.

The Harvard basketball teams currently play in the Ray Lavietes Pavilion, located in the Briggs Cage on the northern edge of the Harvard Athletics area. The building opened in 1926 and was used for Harvard's indoor track activities. In the 1990s, the building was renovated to become the home to the Harvard men's and women's basketball teams. Despite the recent success of the basketball programs, Lavietes Pavilion requires facility and building upgrades and at approximately 1,950 seats, it remains the smallest basketball venue in the Ivy League.

It is currently envisioned that 175 North Harvard Street – the site of the existing Ed Portal – would be redeveloped for a new project that would include a basketball venue with the balance of the site accommodating institutional/mixed uses. (The Ed Portal would be relocated to another Harvard property within or adjacent to Barry's Corner prior to the construction of this project. The Lavietes Pavilion would be repurposed for other Athletics uses.) The new basketball venue is currently envisioned to be approximately 60,000 square feet and would include approximately 3,000 seats (approximately 1,000 more than the existing Lavietes Pavilion), locker rooms, athletics offices, and concession areas. It is not intended that there will be a significant increase in activity at the new basketball venue when compared with the existing activities at Lavietes Pavilion.

The remainder of the site may accommodate as much as approximately 140,000 square feet of institutional/mixed uses, which might include retail and/or institutional or commercial offices, or housing. Recognizing that a basketball venue does not provide significant active street uses outside of event days, the intent of the project is to provide a mix of uses that will activate the street and bring activity to the site and to Barry's Corner throughout the day and all year long.

Basketball Venue and Mixed Use Project	
Site Location	West side of North Harvard Street (site of existing building at 175 North Harvard Street)
Uses	Basketball Venue, Housing/Institutional/Office/Retail
Gross Floor Area	Basketball venue – 60,000 ± SF Mixed-Use - 140,000 ±
Gross Floor Area Demolished	50,000 SF (175 North Harvard Street plus garages)
Floor Area Ratio (FAR)	TBD
Approximate Building Height	4 to 9 stories
Parking Areas or Facilities	TBD
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2017-2022

Note: Numbers are estimates.

Mixed Use Institutional Project

During the second five years of the IMP, the University plans to propose development on the existing Charlesview site (which will continue to be occupied by its current residents until early 2014). The University recognizes the importance of this site in the development of Barry's Corner, and a number of important planning principles and design guidelines have emerged from the early analysis of the site and discussions with the BRA and Task Force which will guide future development.

In terms of siting and design, the intention is to enliven Barry's Corner, enhance the pedestrian environment, and link students, faculty members, staff and the community. This concept will also respect and incorporate the existing grove of trees by providing informal seating, spaces for music or performances, and a gathering place for the community. This will provide pedestrian permeability between the Barry's Corner Grove and the Harvard campus to the northeast and east. Development on this site will also provide an important complement to the Barry's Corner Residential and Retail Commons project by providing additional amenities and activity.

As currently planned, the proposed project would include approximately 200,000 square feet of space at between six and nine stories. An active ground floor supporting permeability would be mixed-use, comprised of service, retail, and/or other institutional uses and programming. The upper floors would include institutional/mixed uses, which may include administrative or academic office space.

Mixed Use Institutional Project	
Site Location	Existing Charlesview site
Uses	Administrative Offices, Retail
Gross Floor Area	200,000 ± SF
Gross Floor Area Demolished	0 (assumes demolition of existing Charlesview, & the New England Depository Library (NEDL))
Floor Area Ratio (FAR)	TBD
Approximate Building Height	6 to 9 stories
Parking Areas or Facilities	TBD
Urban Renewal Plans, Land Disposition, Etc.	North Harvard Urban Renewal Plan
Current Zoning of Site	MFR-1
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2017-2022

Note: Numbers are estimates.

Hotel/Conference Center

During the second five years of the IMP, the University plans to propose the development of a hotel and conference center. While the exact site has not yet been selected, it is expected to be on the south side of Western Avenue, across from the HBS Spangler parking lot. This location would take advantage of its proximity to the HBS campus, the Health and Life Science Center, and the long-term future development anticipated in the Enterprise Research Campus.

As currently envisioned, the project will include between 150 and 250 hotel rooms and between 50,000 and 100,000 square feet of meeting space for a total project of approximately 250,000 square feet.

It has not been determined whether this would be a Harvard-run facility that would cater primarily to Harvard events or whether it would be developed and managed by a third-party vendor who might take advantage of the proximity to the Harvard campus in Allston to attract both Harvard and non-Harvard events.

Hotel/Conference Center	
Site Location	South side of Western Avenue
Uses	Hotel (150-250 rooms), Conference Space
Gross Floor Area	250,000 ±
Gross Floor Area Demolished	0
Floor Area Ratio (FAR)	TBD
Approximate Building Height	6 to 9 stories
Parking Areas or Facilities	TBD
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Allston Landing North –EDA
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2017-2022

Note: Numbers are estimates.

Baker Hall Renovations

During the first five years of this IMP, Harvard intends to renovate HBS's Baker Hall.

The George Pierce Baker Hall was designed by the architectural firm of Shepley, Bulfinch, Richardson and Abbott, and opened in 1970. It is located in the northeast corner of the HBS campus and serves as a residence facility for HBS's Executive Education program. The building is approximately 75,000 square feet and six stories in height and features "living groups," each made up of eight or nine bedrooms around a shared living room/lounge.

The building has not had a significant renovation since its opening, and as a result it requires both cosmetic and system upgrades in order to provide comfortable accommodations for Executive Education participants.

Baker Hall Renovations	
Site Location	HBS Precinct
Uses	Executive Education Residence Hall
Gross Floor Area	Renovation of 78,000 ± SF
Gross Floor Area Demolished	0
Floor Area Ratio (FAR)	TBD
Approximate Building Height	6 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2014-2016

Note: Numbers are estimates.

Soldiers Field Park Renovations

During the second five years of this IMP, Harvard intends to renovate Soldiers Field Park Housing.

Soldiers Field Park Housing was built in 1974 to accommodate Harvard University graduate students. The four building complex, designed by the architectural firm of Benjamin Thompson and Associates, includes 478 units in approximately 423,000 square feet of space. The complex is located on the eastern edge of Harvard's Allston campus, between East Drive and Soldiers Field Road, south of HBS's Kresge Hall and Tata Hall (now in construction) and north of One Western Avenue. The buildings range in height from three to nine stories and are connected by a series of courtyards and pedestrian pathways which are framed by mature trees and plantings.

The complex has not had a significant renovation since its opening, and as a result it requires both cosmetic and system upgrades.

The University is investigating a range of options for renovating these buildings.

Soldiers Field Park Renovations	
Site Location	HBS Precinct
Uses	Housing
Gross Floor Area	Renovation of 423,000 ± SF
Gross Floor Area Demolished	To be determined.
Floor Area Ratio (FAR)	TBD
Approximate Building Height	3 to 9 stories
Parking Areas or Facilities	None
Urban Renewal Plans, Land Disposition, Etc.	None
Current Zoning of Site	Harvard University IS
Total Estimated Project Cost	TBD
Estimated Impact Payment	TBD
Approximate Time Table	2017-2022

Note: Numbers are estimates.

3.3 Previously Approved Project

The project discussed below (and in Appendix A) has already been approved as part of Harvard's 2007 IMP Amendment, but is repeated here for the purpose of carrying forward its approval under the new IMP.

In 2007, the BRA Board and the Boston Zoning Commission approved the Harvard Allston Science Complex following the review of an IMP Amendment and the completion of the BRA's Large Project Review process. The approved project consisted of approximately 589,000 square feet of gross floor area in a complex of four buildings connected below-grade that included laboratory space, offices, research support space, and other building amenities. Construction of the project started in late 2007 and resulted in the completion of the foundation and the subsurface component of the project, but in 2009, due to the global financial downturn and its severely constraining effects, the University announced that work on the project would be paused.

The project - now called the Health and Life Science Center – is currently undergoing a detailed review of building programming. As currently envisioned, any necessary redesign will take place in early 2013, to be followed by any repermitting necessitated by such redesign. It is anticipated that site enabling work will take place in late 2013, and construction of the Health and Life Science Center will restart in 2014. For purposes of analyzing the potential impacts of the proposed IMP Projects described in this IMPNF, the Health and Life Science Center is treated as part of existing conditions.

3.4 Other Athletics Projects

During the term of the IMP, Harvard also anticipates pursuing two other small projects within its Athletics district. The first such project being investigated involves the construction of a permanent, fully enclosed batting cage for baseball and softball to replace a temporary, seasonal batting cage which is made of chain link fence and mesh netting. This new structure of approximately 5,000 square feet would likely be located near the existing facility which is located between the existing baseball and softball fields. The second project being investigated is potential renovations of Newell Boat House in order to allow for the replacement of rowing equipment and the modification of the space in which the equipment is housed. These projects are both under study and are included in the IMPNF for completeness. As part of this filing, Harvard requests that the BRA include them as part of the scoping process.

3.5 Streets

New campus streets are located on Figure 9. Consistent with the City of Boston's Complete Streets Guidelines, sidewalks on the new campus streets will be sized to create a comfortable pedestrian environment with ample room for pedestrians next to a well-designed zone for trees, greenscape elements, street lights and furniture. The Ten-Year Plan will widen existing public sidewalks along sections of North Harvard Street and Western Avenue to accommodate anticipated pedestrian volumes and more active first floor uses. As appropriate, the Ten-Year Plan will also provide wider sidewalks at locations that are planned for pedestrian gathering areas, outdoor cafes, and other outdoor public amenities.

The Ten-Year Plan proposes to modify the geometry of Barry's Corner by eliminating the traffic island in front of Charlesview and extending the curb to create a tighter, more pedestrian-friendly intersection. This change also creates the opportunity to improve the size and quality of the grove of trees currently in Barry's Corner. The construction of a new street currently called "Academic Way" enables this geometric change to the intersection by creating a new connection between North Harvard Street and Western Avenue.

The Ten-Year Plan proposes to change parking regulations on North Harvard Street and Western Avenue near Barry's Corner. Harvard will work with the Boston Transportation Department to create additional two-hour customer parking for area businesses. Modifications to Western Avenue as part of the Barry's Corner Residential and Retail Commons project and North Harvard Street along the current Charlesview site may create new on-street parking for customers of area businesses. The parking would be added while retaining the current number of travel lanes at North Harvard Street and Western Avenue and preserving the opportunity to extend the Western Avenue bike lanes to the west of Barry's Corner. The Ten-Year Plan will also provide parking along the campus streets for permitted Harvard affiliate parking and short-term visitor parking (see Figure 10).

The cycle track on Western Avenue will be upgraded and the bike lanes will be retained on North Harvard Street. These streets experience higher traffic volumes and support more bikes traveling through the area than the new campus streets, which are planned as low volume/low speed streets that serve adjacent land uses, not through traffic. The character of the proposed new campus streets means that bicycles can be accommodated in mixed traffic rather than in separate bike lanes. This enables these streets to have a narrower cross-section that is more consistent with nearby streets in the neighborhood.

The creation of "Academic Way" provides the opportunity for a potential new transit hub to serve Barry's Corner and the adjacent institutional uses and residential neighborhood. In addition, the cross-sections of "Academic Way" and a second street currently called "Science Drive" provide the opportunity to accommodate future transit services, such as those explored in the Urban Ring planning initiative, by replacing some or all of the parking to make the streets more transit-oriented.

New campus streets which will be open to public travel and use, include:

***"Smith Field Drive"** between Barry's Corner Residential and Retail Commons and Smith Field*

***"Grove Street"** connecting Smith Field with the Barry's Corner Grove*

***"Academic Way"** from the Health and Life Science Center project across North Harvard Street, to "Smith Field Drive"*

***"Science Drive"** along the south side of the Health and Life Science Center project.*

Street names are illustrative only; it is anticipated that they may be re-named in the future.

The Ten-Year Plan proposes to modify the geometry of Barry's Corner by eliminating the traffic island on the northeast corner of Barry's Corner and extending the curb to create a tighter, more pedestrian-friendly intersection.

Figure 9: Streets / Barry's Corner Ten-Year Plan

New Streets

IMP Boundary

0' 125' 250' 500'

NOTE: New streets will be privately owned and operated, and publicly accessible. Street names are illustrative only, it is anticipated they may be re-named in the future.

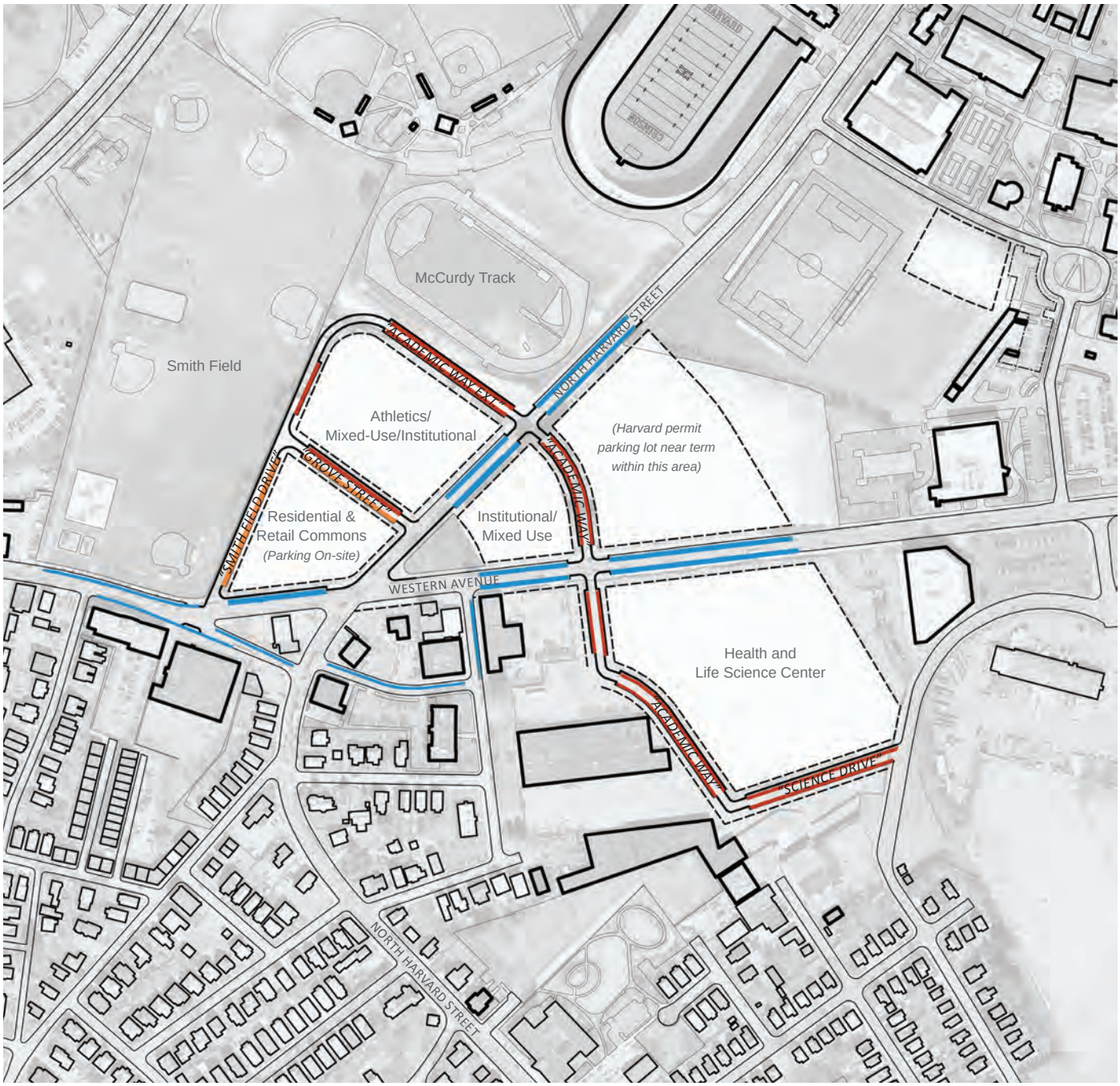


Figure 10: On Street Parking / Barry's Corner Ten-Year Plan

- Curb
- Build-to Line
- Public Parking
- Residential & Retail Commons Parking
- Harvard Permit Parking

NOTE: New streets will be privately owned and operated, and publicly accessible. Street names are illustrative only, it is anticipated they may be re-named in the future.

Figure 11: Barry's Corner Ten-Year Plan

Active Ground Floor

IMPNF Projects

Non-IMPNF Projects (Currently in Process)

Interim Uses

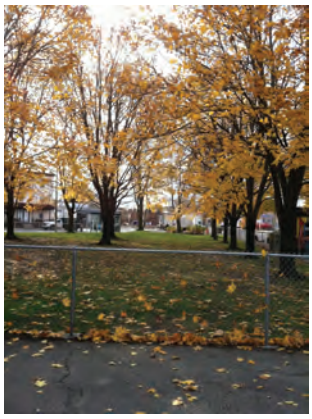
Streetscape Improvements

0' 125' 250' 500'

*The Ed Portal would be relocated to another Harvard property within or adjacent to Barry's Corner prior to the construction of this project.

3.6 Barry's Corner Planning and Development

Harvard's Ten-Year Plan is intended to provide the neighborhood, the City of Boston and the Commonwealth of Massachusetts with the information needed to ensure that the area's institutional presence, physical transformation, economic development, environmental enhancement and transportation improvements will continue to reflect the priorities of the University, the City, the community, and the State. One such priority is the enhancement of Barry's Corner; and as such, Barry's Corner is an integral part of both the University's Ten-Year Plan and its Long-Term Framework Plan. Figure 11 summarizes the Ten-Year Plan for Barry's Corner, highlighting locations of projects and active ground floor uses.



The Ten-Year Plan and Institutional/Mixed Use Project will aim to activate the grove of trees, making it a gathering place for the community.

Consistent with past planning efforts involving the City of Boston and the neighbors of Allston, Harvard's plan in Barry's Corner will establish a diverse mix of uses. The goal is to address academic needs, while creating new housing and retail opportunities, and developing sufficient density to support such retail and activating pedestrian streetscapes. Barry's Corner is the intersection of neighborhood and University, and efforts to enhance vibrancy there will serve all constituencies: students and faculty who travel to Allston; scientists and researchers who will work in the Health and Life Science Center; the future residents of the Barry's Corner Residential and Retail Commons project; families who frequent local restaurants, the ceramics studio, the Ed Portal, Portal Annex and Smith Field; the local leaders, business executives and students who spend time at Harvard Business School and Athletics; and all of the residents who call Allston home. Figures 12A, B, and C abstractly express the variety of uses which may feed into Barry's Corner during the day, and on evenings and weekends.

The University has proposed a range of interrelated initiatives that will help achieve these goals and contribute to the vitality of Barry's Corner.

Institutional Mixed Use Project- The Ten-Year Plan proposes an institutional/mixed use project at the northeast quadrant of Barry's Corner within the area of the existing Charlesview Apartments. The intention is to create a place that enlivens Barry's Corner, enhances the pedestrian environment, and links students, faculty members, staff and the community. This concept will respect and incorporate the existing grove of trees by providing informal seating, spaces for music or performances, and a gathering place for the community. The Ten-Year Plan seeks to provide pedestrian permeability between Barry's Corner and the Harvard campus. The grove as it exists today is shown in Figure 13A. Figure 13B includes photos illustrating the type of transformation envisioned for the grove.

Basketball Venue & Institutional Mixed Use Project- In the Ten-Year Plan Harvard is also proposing a new basketball venue that may include mixed-uses such as retail at its base, office space or additional new housing. These uses will complement those proposed as part of the mixed-use/institutional project and will contribute to an active use corridor along North Harvard Street.

Non-IMPNF Projects- As described further in Appendix A, there are a number of projects that will occur concurrently with the Ten-Year Plan, but which are outside of the scope of the IMPNF. While these projects will be subject to their own separate review and approval processes, they are nonetheless important to the future of Barry's Corner. These projects include: the completion of the Health and Life Science Center that will generate a large new daytime population of faculty, students, and staff in the area; and the Barry's Corner Residential and Retail Commons project, providing both a new residential population, and new service and retail uses along Western Avenue and North Harvard Street. The Harvard Ceramics program will be relocated into 224 Western Avenue, activating a blank-walled warehouse.

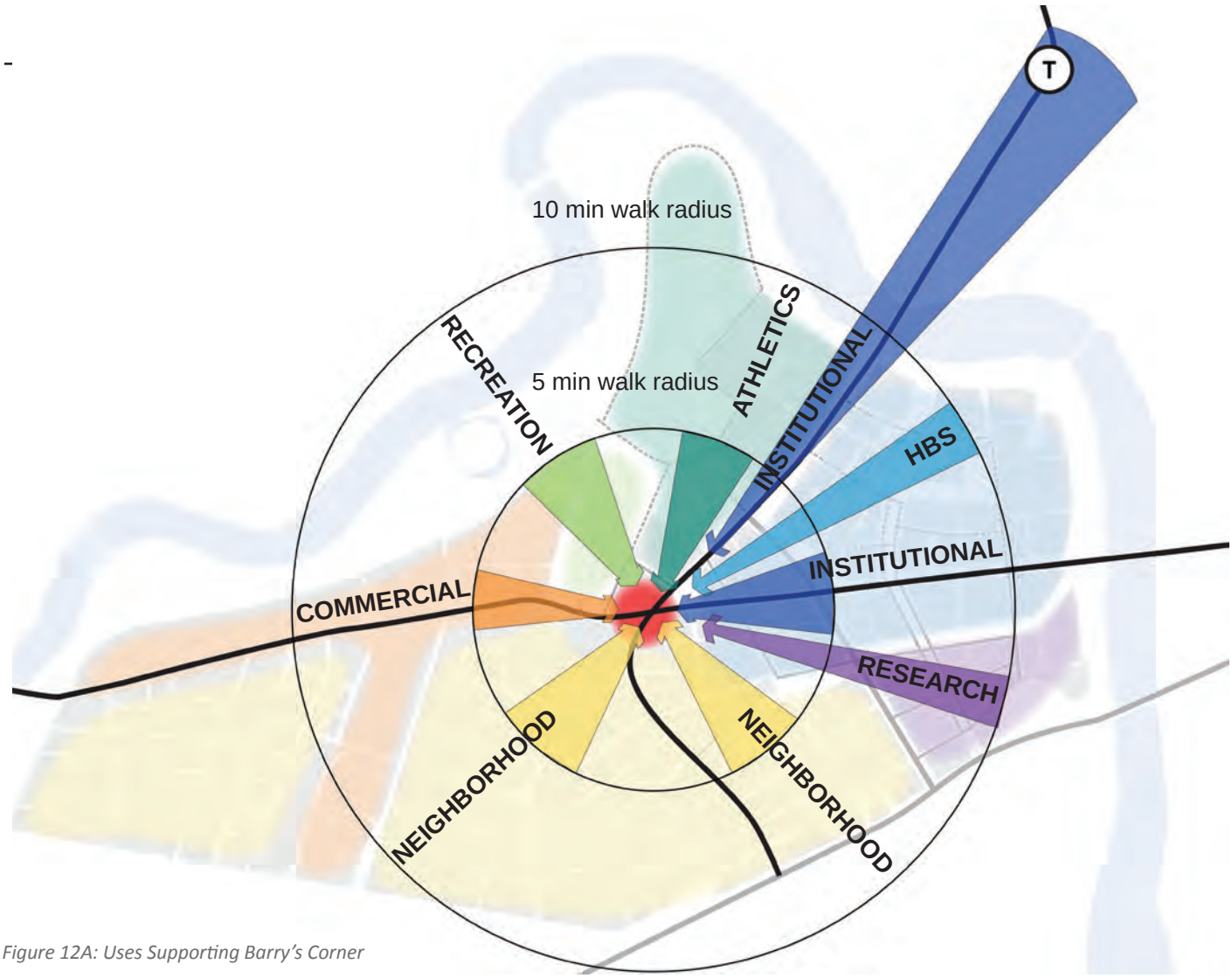


Figure 12A: Uses Supporting Barry's Corner

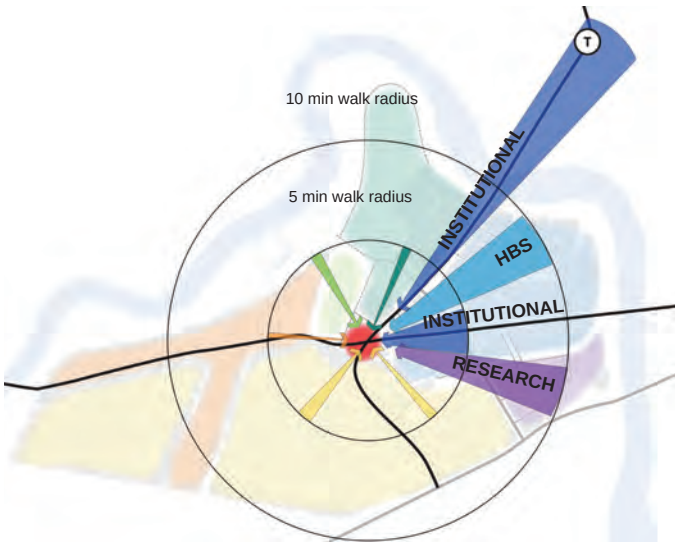


Figure 12B: Uses Supporting Barry's Corner: Daytime

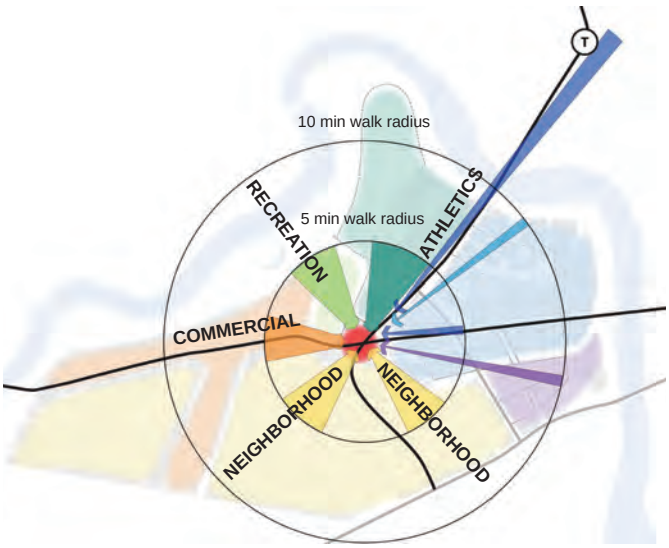


Figure 12C: Uses Supporting Barry's Corner: Evening & Weekend

Figure 13A: Existing Grove at Barry's Corner

Forbes Plaza, Cambridge

Winthrop Square, Cambridge

Figure 13B: Opportunities for Transformation

Forbes Plaza and Winthrop Square in Cambridge are comparable in size to the grove at Barry's Corner. Both include formal and informal seating, and a simple landscape palette that is consistent with what is envisioned for the grove.

Photos illustrate examples, not proposals.

4.0 Overview of Anticipated Impacts

4.1 Introduction

The potential environmental impacts and benefits of individual IMP projects will be discussed within the Project Notification Forms for such projects once they have been defined and as they move forward through the BRA's Article 80 Large Project Review process. In addition, the IMP will provide further discussion on the University's approach to environmental protection to the extent that potential impacts and mitigation measures can be characterized based upon the planning framework and design goals for the build-out of the projects over the ten-year term of the IMP. Potential effects of the IMP development program with respect to air quality, flood control, water quality, groundwater, noise and hazardous materials will be avoided, or will be significantly minimized compared to conventional development proposals, and, in many instances, will result in significantly enhanced conditions. This analysis also will incorporate as existing conditions the Health and Life Science Center and other projects noted in Appendix A, that are not included here as IMP projects.

4.2 Transportation, Access, and Parking

This section of the IMPNF describes existing transportation conditions, presents preliminary trip generation estimates for the Ten-Year Plan that is described in Section 3 and proposes areas for further technical study in the IMP.

Pedestrian Network

While current and former industrial uses make sections of North Allston inaccessible, the area does benefit from an extensive network of sidewalks and pedestrian paths. In addition, Harvard owns and maintains a network of campus paths within its Allston campus. These pathways provide internal connections as well as links to the system of public sidewalks and paths that are on the periphery of the campus. Public sidewalks and paths are primarily under the jurisdiction of the Department of Conservation and Recreation ("DCR"), the Massachusetts Department of Transportation ("MassDOT"), and the City of Boston.

- DCR has jurisdiction over the mixed use paths along the Charles River and along Soldiers Field Road and the pedestrian bridges that cross Soldiers Field Road (the Sinclair Weeks Bridge) and the Charles River (the John W. Weeks Bridge). DCR is planning accessibility improvements to the John W. Weeks Bridge.

Harvard has worked with the City of Boston to install Hubway bikeshare stations at key locations.

- MassDOT has jurisdiction over the sidewalks on the Anderson, Western Avenue and River Street bridges. MassDOT is reconstructing these bridges and enhancing pedestrian conditions at the adjacent intersections as part of the Accelerated Bridge Program.

- Public streets adjacent to the University are under the jurisdiction of the City of Boston. Western Avenue and North Harvard Street have eight to ten foot wide sidewalks on both sides of the streets that are generally in good condition. In 2007, the University reconstructed sidewalks on North Harvard Street and, more recently, the University reconstructed sections of the Western Avenue sidewalks.

The Ten-Year Plan will create sidewalks along new campus streets and provide new pedestrian paths within and through the campus. The Ten-Year Plan will also upgrade and enhance sidewalks along sections of North Harvard Street and Western Avenue. These improvements will support internal site circulation; promote connectivity to adjacent sites, transit stops, and bicycle amenities such as Hubway stations; and enhance the overall connectivity of Harvard's campuses in Allston with its campus in Cambridge, the adjacent residential neighborhood, and the riverfront.

Bicycle Network

Over the last three years, there has been a significant increase in the number of bike lanes serving Allston as the City of Boston has made great progress in creating a bike-friendly city by installing and enhancing bike facilities throughout the city and rolling out the Hubway bike share system. Previously, the area was only served by bike paths along the Charles River. Recent improvements to the bicycle network in Allston include the following:

- Harvard has collaborated with the City of Boston to install bike lanes along North Harvard Street north of Western Avenue.

- Harvard has collaborated with the City of Boston to install a cycle track on Western Avenue east of North Harvard Street, the first cycle track in Boston.

- The City of Boston has added bike lanes on North Harvard Street south of Western Avenue and is planning new bike lanes for Cambridge Street.

- Harvard has worked with the City of Boston to install Hubway bikeshare stations at key locations on its property, including locations that are adjacent to the neighborhood like Barry's Corner and Brighton Mills. The new Hubway stations in Harvard's campus in Cambridge will further support more use of the Allston Hubway stations.

In the future, MassDOT will add new bike lanes on the Anderson Memorial Bridge and new cycle tracks on the Western Avenue and River Street bridges. The DCR plans to improve bicycle accessibility to the John W. Weeks footbridge. Harvard and the City of Boston have participated in the planning and design of these projects to ensure that the new bike lanes on the bridges support and are coordinated with existing and planned improvements to the bike network on local streets and Harvard's campus. Bicycle parking is also an important part of the transportation system at Harvard's campus in Allston. Harvard provides both covered and uncovered bicycle parking for its employees, students, and visitors on its Allston campus, clustered around the residential and academic buildings. The Ten-Year Plan includes an upgrade

to the cycle track on Western Avenue and new bicycle facilities as part of proposed projects, consistent with the City's Bicycle Parking Guidelines. The improvements to the bicycle network are consistent with and will be developed as part of broader network improvements that are illustrated in the Long-Term Framework Plan. Other new campus streets in the Ten-Year Plan will accommodate bicycle travel on low volume, low speed streets, connecting to bicycle parking at new and existing campus buildings and the growing number of Hubway shared bicycle stations.

Public Transit

All areas within the Allston Campus are within one-quarter mile of bus stops for at least two routes and most of the campus is near bus stops for three routes. Two of the five MBTA bus routes (86 and 66) operate along North Harvard Street and provide connections between the Allston Campus and the Red Line at Harvard Square. The other three routes (64, 70, and 70A) provide connections to the Red Line Central Square: the 70 and 70A operate along Western Avenue and the 64 operates along Cambridge Street.

During commuter peak hours there are 30 to 35 buses per hour traveling along North Harvard Street or Western Avenue through the Harvard's Campus in Allston. Characteristics of the MBTA bus services are summarized in Table 4-1.

Table 4-1: **MBTA Bus Service in Allston**

Route #	Route Name	Allston Area Service Via	Peak Period Headway (minutes)	Average Weekday Ridership [2]
64	Oak Square (Brighton) Central Square	Cambridge Street	15-20	1,300
66	Harvard Square Dudley Station	North Harvard Street & Cambridge Street	10	14,700
70	Cedarwood (Waltham) Central Square	Western Avenue	20	4,700
70A	North Waltham Central Square	Western Avenue	30	2,000
86	Sullivan (Somerville) Cleveland Circle	North Harvard Street & Western Avenue	15	5,100

Source: MBTA Ridership and Service Statistics (Thirteenth Edition, 2010).

In 2011, the MBTA evaluated the Route 66 as part of its Key Bus Route Improvement Program. The MBTA conducted an extensive public process to develop and recommend improvements to the quality of service on this route. Based on this effort, the MBTA plans to improve the location of bus stops, upgrade amenities at the bus stops, and address accessibility issues along the route.

[2] Rounded to the nearest 100

66 Harvard Square
Dudley Station

70 Cedarwood (Waltham)
Central Square

70A North Waltham
Central Square

86 Sullivan (Somerville)
Cleveland Circle

T MBTA Bus Stop

H Harvard Shuttle

Curb

Build-to-Line

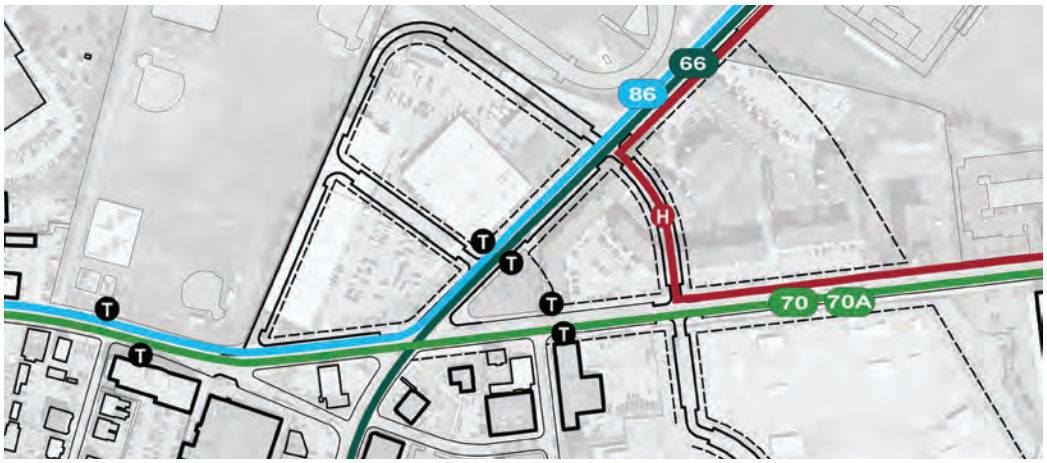


Figure 14: Barry's Corner Transit
(With potential future stop locations)

New shuttle bus services are planned as part of the proposed Health and Life Science Center and the Barry's Corner Residential and Retail Commons project.

Harvard Shuttle Bus Services

The University provides frequent shuttle services between Allston and Cambridge throughout the academic year. Buses on the Allston Campus Express shuttle depart from the Allston Campus approximately every 15 minutes on weekdays, making stops at Harvard Square, Harvard Kennedy School, Harvard Stadium, Harvard Business School (HBS)/i-lab, and Soldiers Field Park Garage. Dedicated year-round van service operates daily between Soldiers Field Park and Harvard Square, facilitating connections to the LMA via the M2 Cambridge shuttle, managed by the Medical Academic and Science Community Organization (MASCO).

New shuttle bus services are planned as part of the proposed Health and Life Science Center and the Barry's Corner Residential and Retail Commons project. The new shuttle services would support land uses in the Ten-Year Plan and improve transit access for Allston residents by creating a new transit/shuttle node in Barry's Corner for connections to and from Harvard Square and the Red Line. Harvard will work with the City of Boston and area residents to develop a system that would allow access for neighborhood residents to the shuttle service. In addition, there would be a shuttle bus route connecting the Health and Life Science Center with the Longwood Medical and Academic Area. The shuttle system will operate frequent and regularly scheduled service, using comfortable vehicles with WiFi, working tables and other amenities.

Traffic

Allston is strategically located on the western edge of Boston at the crossroads of the Massachusetts Turnpike/I-90 ("MassPike"), Soldiers Field Road, North Harvard Street, and Western Avenue. Regional highway access to and from the Harvard's Campus in Allston is principally provided by the MassPike to/from the east/west (linking to I-95/Route 128 to the west); Soldiers Field Road to/from the east; I-93 to/from the north and south; Route 2 to/from the west; and Route 1 to/from the north.

Regional Roadways

The MassPike, which is a toll road under the jurisdiction of MassDOT, is an interstate highway with an interchange that is located less than one-quarter mile from Harvard's campus in Allston. The MassPike provides regional connections to downtown Boston, Logan Airport, and the larger regional highway system that serves metropolitan Boston and New England including I-93 to the east.

Soldiers Field Road, which is under the jurisdiction of DCR, is adjacent to Harvard's campus in Allston with interchanges at Cambridge Street, Western Avenue and North Harvard Street. Soldiers Field Road is a parkway that is restricted to travel by autos and permitted vehicles only. This roadway connects Allston with downtown Boston, Back Bay, Cambridge, and communities to the west like Watertown and Newton. Soldiers Field Road becomes Storrow Drive east of the BU Bridge, providing connections to the north via I-93 and Route 1.

Local Streets

Western Avenue is a two-way, east-west arterial roadway under the jurisdiction of the City of Boston with daily weekday traffic volumes of approximately 12,500 as it passes through Harvard's campus in Allston. The roadway has one lane in each direction, turn lanes at signalized intersections, and striped bike lanes. On-street parking is provided on the southern side of the street near HBS and the Health and Life Science Center site in a floating parking lane that protects an on-road cycle track. The roadway width, including parking and the existing cycle track, varies from approximately 44 to 46 feet in the section between North Harvard Street and Soldiers Field Road. The Ten-Year Plan proposes to upgrade the existing cycle track; and to eliminate the traffic island on the northeast corner of Barry's Corner and extend the curb to create a tighter, more pedestrian-friendly intersection.

North Harvard Street is a two-way, north-south roadway under the jurisdiction of the City of Boston with daily weekday traffic volumes of approximately 13,400 as it passes through Harvard's campus in Allston. The roadway has one lane in each direction, turn lanes at signalized intersections and at Gate 8 (Harvard Stadium), and striped bike lanes. On-street parking is located next to the current Charlesview site and in front of Shad Hall at HBS. The roadway width, including parking, is 40 feet between Western Avenue and Soldiers Field Road. The Ten-Year Plan identifies the potential to add on-street parking spaces by widening North Harvard Street along the current Charlesview site.

The CommuterChoice program works to continually improve the cycling environment through marketing and education initiatives and the current participation in the Hubway bikeshare program.

New Campus Streets

The Ten-Year Plan includes construction of four new campus streets that will be maintained by Harvard: "Academic Way," "Science Drive," "Grove Street," and "Smith Field Drive." Street names are illustrative only; streets will be officially named in the future. These streets will have two travel lanes (one in each direction) and, with the exception of "Smith Field Drive," a sidewalk and a parking lane in each direction. "Smith Field Drive" will have a sidewalk and a parking lane on the southeasterly side of the street. These streets will be constructed by Harvard or, in the case of "Grove Street" and at least a portion of "Smith Field Drive", by the Barry's Corner Residential and Retail Commons project.

These new streets will provide local circulation opportunities and additional on-street parking to support a portion of the parking demands from institutional uses and the new housing and retail uses at the Barry's Corner Residential and Retail Commons project. These new streets are envisioned as low volume, low speed streets that provide pedestrian and local bicycle and motorized vehicle circulation opportunities and access to adjacent land uses. In addition, the construction of "Academic Way" will enable the proposed geometric change to the Barry's Corner intersection by creating a new connection for traffic making right turns from Western Avenue to North Harvard Street.

Transportation Demand Management

Harvard has an extensive Transportation Demand Management ("TDM") program that is an important tool in managing vehicular travel to the campus. Harvard is committed to maintaining and enhancing this program with respect to the Ten-Year Plan. Key components of the program include:

- *Transit* – Harvard provides a 50 percent subsidy on MBTA monthly passes for its employees.
- *Marketing* – Harvard continues to maintain an extensive CommuterChoice website (www.commuterchoice.harvard.edu).
- *Bicycle*– The CommuterChoice program works to continually improve the cycling environment through marketing and education initiatives and the current participation in the Hubway bikeshare program. Harvard supports five Hubway bikeshare stations in Boston, including one in Barry's Corner and one in Brighton Mills, and seven stations in Cambridge.
- *Carpool* – Harvard offers discounted and preferential carpool and vanpool parking in the largest garages and several surface lots and has arranged for additional carpool spaces as needed.
- *ZipCar* – Harvard University currently provides ZipCar parking for five vehicles at four locations on the Allston campus.
- *Event Management* – Harvard accommodates transportation demands related to athletic, commencement, and HBS events through police detail traffic control/management, parking demand management, temporary signage, etc.

The existing and envisioned continued expansion of the TDM program will support alternative modes as a major component of day-to-day transportation operations supporting the IMP development program.

Parking

The existing Harvard University parking facilities on Harvard's campus in Allston consist of several surface lots and two parking garages, totaling approximately 2,642 spaces. These spaces are used by eligible staff and faculty, students and affiliates living on campus, and visitors. The institutional parking supply also supports evening and weekend events at Athletics and other campus venues by allowing event attendees to park for a fee in spaces that are used by daytime campus commuters. In addition, a limited number of unregulated on-street parking spaces are located along North Harvard Street and Western Avenue adjacent to Harvard's campus in Allston. All University parking is controlled and administered by the Harvard University Parking Office as a University-wide resource with a permitting system, specific parking lot assignments and fee schedule. The IMP will evaluate the future parking demand generated by the Ten-Year Plan and identify the location of any new parking facilities. The IMP will also discuss the opportunity for shared parking uses (e.g., institutional spaces that would be used by commuters during the day and event attendees at night or on weekends).

Preliminary Trip Generation Estimate

The transportation analysis for the IMP will evaluate the traffic impacts of the Ten-Year Plan. The first step in the transportation analysis involves estimating the person-trips generated by these potential projects using vehicle-trip rates published by the Institute of Transportation Engineers[3] ("ITE") and data at existing Harvard facilities.

Several of the projects in the Ten-Year Plan will add little or no new typical daily or peak hour traffic volumes to the area network. These projects are:

- The proposed Kresge Replacement and Burden Replacement that involve the replacement of existing buildings on the Harvard Business School campus.
- The proposed Harvard Stadium Addition that will upgrade amenities but reduce the number of seats.
- The proposed Basketball Venue that includes the relocation of an existing facility and increasing the number of seats from 1,950 to 3,000. The increased traffic and parking demand of this facility will not occur during the typical morning or evening peak hours and instead will occur in connection with facility events. Therefore, the IMP will provide an evaluate of the impact of the seating increase as part of the University's event management strategy.

In addition, it is anticipated that the two renovation projects, the proposed Soldiers Field Park Renovation and the Baker Hall Renovation, will add little or no new typical daily or peak hour traffic volumes to the area network

[3] Trip Generation – 8th Edition; Institute of Transportation Engineers; 2008.

Person-trips were estimated for each of the remaining projects in the Ten-Year Plan using ITE trip generation rates and, as appropriate for academic uses, available trip generation characteristics of current HBS facilities. The results of preliminary person-trip generation analysis indicate that these projects would generate approximately 12,800 new daily person-trips (approximately 6,400 in and 6,400 out). During the morning peak hour there would be approximately 800 new person-trips (approximately 600 in and approximately 200 out). During the evening peak hour there would be approximately 1,400 new person-trips (approximately 500 in and approximately 900 out).

Vehicle trips were estimated by applying an automobile mode share and an average vehicle occupancy rate (VOR) to the person trip generation estimates. These estimates are based on BTD's published mode share data by trip purpose for Area 17 (the zone for Allston) and, as appropriate for academic uses, the mode share and VOR for staff of the existing HBS campus. The results of estimated vehicle generation analysis indicate that these projects would generate approximately 4,700 new daily vehicle-trips (approximately 2,350 in and 2,350 out). During the morning peak hour there would be approximately 400 new vehicle-trips (approximately 300 in and approximately 100 out). During the evening peak hour there would be approximately 600 new vehicle-trips (approximately 200 in and approximately 400 out). These figures will be refined in the IMP and subsequent Large Project Review for each project.

Outline of Transportation Analysis for IMP

The IMP will provide additional detailed analysis of the transportation conditions and impacts of the Ten-Year Plan. The transportation analysis will evaluate existing 2012 conditions, a 2022 No Build Scenario, and a 2022 Build Scenario. The 2022 No Build Scenario does not include the Ten-Year Plan, but does include approved projects (e.g., The Health and Life Science Center) and non-Harvard projects that are currently within the BRA's review process. The 2022 No Build Scenario in the IMP will also include the Barry's Corner Residential and Retail Commons project and the 28 Travis Street and 38 Travis/90 Seattle project (which involves relocating the existing uses at 219 Western Avenue), which will be permitted through separate filings with the BRA that are anticipated to occur on or near the filing of this IMPNF. The 2022 Build scenario will includes the Ten-Year Plan and the projects in the No Build scenario.

The transportation analysis will refine the person- and vehicle-trip estimates and distribute trips by various modes over a study area network. Data provided by Harvard University will be used in the IMP to distribute Harvard employee vehicle trips accessing Harvard's campus in Allston. For the traffic analysis, it is anticipated that 20 study intersections along Western Avenue, North Harvard Street, Cambridge Street, and other local streets would encompass an appropriate study area for the IMP. Harvard anticipates refining the study area for this IMP with the BTD and BRA before the IMP is filed. The traffic analysis will use BTD's SYNCHRO traffic model for the area to evaluate AM and PM peak hour traffic for existing (2012) conditions and future 2022 scenarios.

4.3 Sustainability

Introduction

Harvard University is committed to being a leader in environmental stewardship and sustainability, both in greater Boston and in the broader higher education community. This leadership is already embodied in the forward-looking work of Harvard's Office for Sustainability.

The LEED Existing Buildings: Operations & Maintenance (EBOM) certification of the HBS Class of 1959 Memorial Chapel resulted in 49% reduction in energy consumption, including a reduction of lighting energy consumption of over 71%.

Harvard Office for Sustainability

Harvard's formal sustainability efforts began in the late 1990s with the creation of the Harvard Green Campus Initiative ("HGCI"). Over time the HGCI evolved into the formal University-wide Office for Sustainability ("OFS"). The Harvard OFS works as a catalyst for change by partnering with faculty, students and staff at all Harvard schools and administrative units to foster a culture of sustainability and to use the campus as a living laboratory for innovation. OFS oversees the implementation of Harvard's sustainability goals and convenes the community to share best practices and develop new programs and policies that strive to serve as replicable models to inspire our students and future leaders, and seek to influence the higher education, government and business sectors. The OFS team, in partnership with all Campus Services groups, works to expand the integration of sustainability into operational practices throughout Harvard.

Employee Green Teams and student peer-to-peer outreach programs promote behavior change and provide the community with tools to reduce energy and conserve resources. HBS Section students wear green on Earth Day as part of a HBS green competition.

Harvard Highlights

Harvard's approach to sustainability is shaped by University-wide commitments to green building standards, sustainability principles, and efforts to reduce emissions of greenhouse gas.

Below are some of the highlights of Harvard's sustainability initiatives:

- The University supports the City's efforts through its participation on Mayor Menino's Boston Green Ribbon Commission.
- As of August 2012, Harvard has 99 buildings registered with the United States Green Building Council (USGBC), 76 of which are certified, the highest number of certified projects of any university in the United States, according to the USGBC.
- As of the end of Fiscal Year 2011, greenhouse gas emissions have decreased 7.3% from Fiscal Year 2006 including 3 million square feet of growth, 18% without growth (from base buildings). For the first time, every School at Harvard achieved energy reductions in the FY06-FY10 period.
- In 2009, Harvard started the Green Office program, a four-step process for reducing energy use and waste in Harvard offices, and a simple way to involve employees in making a more sustainable workplace. Currently there are 145 green offices on campus, with over 2,600 employees engaged in the program.
- Harvard's Schools and departments are making big strides in reducing energy use across campus. Each day facility leaders join faculty, students and staff to implement energy saving projects in dorms, offices, classrooms and laboratories. To date, energy audits have been performed on 80% of the campus. As a result of that effort, the University has implemented over 800 cost-effective energy conservation measures and have

In May 2012 Harvard Athletics completed a six week renewable project as it installed a layer of 2,275 solar panels on the roof of Gordon Track. Harvard now has over 1MW of installed solar capacity from on campus projects.

identified over 1,500 additional projects that will save money and cut energy use.

- In 2009, Harvard met 17.5% of its electricity needs through renewable sources, most of which is purchased energy. There are a number of small-scale on-site renewable energy installations on campus including building-integrated wind, photovoltaics, and solar-thermal for heating hot water. As part of these efforts, Harvard recently installed 2,275 solar photovoltaic panels on 1.5 acres of roof space of the Gordon Indoor Track and Tennis building in Allston, Harvard's largest solar energy project.

- The Green Campus Loan Fund is a $12 million revolving loan fund that provides up-front capital for projects that reduce Harvard's environmental impact. Loan fund projects save the University almost $4 million dollars per year and have a median return on investment of 27%. Harvard is a Founding Circle member of the Billion Dollar Green Challenge—a challenge to get $1B in investments from higher education institutions, municipalities and health care institutions.

- Harvard's recycling rate of 55% in 2008 is the highest recycling rate of the schools in the Ivy League. This is a result of a new SingleStream recycling process, new composting programs in cafes, office buildings and dorms, not to mention student-led waste audits, freecycle events, reuse efforts such as the Harvard Reuse List and Harvard Surplus Center, and efforts of Green Teams across the campus.

- Depending on the season, 35-70% of produce featured on Harvard University Hospitality and Dining Services menus is grown within 250 miles of its kitchens. Approximately 25% of the total budget is dedicated to locally produced foods. Harvard holds two farmer's markets, one in Cambridge and one in Allston.

- Only 15% of Harvard employees drive to work alone, a very low rate even for an urban university. Thanks to generous commuter benefits, infrastructure support for bicycles, and the Departmental Bike program run by the Commuter Choice office, record numbers of Harvard commuters are reducing their transportation-related carbon footprint. Harvard sponsors Hubway stations in Boston and Cambridge.

Outline of Sustainability for IMP

The Institutional Master Plan submission will include a detailed section on sustainability. It should be emphasized, however, that sustainability has been integrated as a central theme throughout the planning process for Allston and therefore sustainability will be incorporated throughout the IMP. Key elements of a sustainable approach that will be incorporated throughout the Allston IMP include:

- *Smart growth:* The IMP will create a blueprint for a vibrant campus and mixed use neighborhood that will be a magnet for new people, new jobs and new vitality in the North Allston neighborhood.

- *Green spaces:* The IMP will integrate a system of recreational and open spaces, all with native or adapted landscaping, to ensure that the project's density is balanced with green spaces.

- *Transportation choices:* The IMP will be designed to minimize car dependence and

vehicle emissions and maximize transportation choices such as walking, bicycling and shuttle and transit options for students, employees, residents and visitors.

- *Water Management:* Because water is a limited resource, an important priority for the projects in the IMP will be to reuse water and decrease demand for potable water. Improving ground water infiltration will also be emphasized. Redevelopment in Allston provides an opportunity to reduce the negative impacts of past development by reducing impervious surfaces and creating systems to control, treat, and recharge groundwater systems.
- *Green Building Design:* All projects will achieve at least a LEED Gold certification.

4.4 Utilities and Infrastructure

Water and Wastewater

Within the IMP Area, the Ten-Year Plan includes demolition of existing buildings, including some older high water using and wastewater generating buildings, such as the Charlesview Apartments. The reduction in water use and wastewater generation by demolishing these older less efficient buildings will help off-set the water and wastewater requirements of the new, more efficient Harvard building space being proposed for the IMP's ten-year term. Also proposed is a significant amount of renovation that will also result in reduced water and wastewater requirements as older fixtures are replaced with new more efficient fixtures. In addition, there will be new green space associated with the IMP projects that will require irrigation to supplement rainfall. Harvard plans to incorporate the use of non-potable water whenever feasible to reduce the need for potable water for irrigation. It is estimated that the ten years of development described in this IMPNF will result in a net increase in average annual water demand of approximately 140,000 gallons per day (gpd) and approximately 110,000 gallons per day of wastewater generation.

The increase in average annual water demands and wastewater generation is not projected to have a significant impact on the Boston Water and Sewer System ("BWSC") and Massachusetts Water Resources Authority ("MWRA") infrastructure serving this area, and no capacity-related water or wastewater system improvements are anticipated. Impacts related to peak flows and specific pipelines are discussed separately below for potable water and wastewater.

It should be noted that the preliminary water usage and wastewater generation estimates will be determined, along with additional information about the potential water and wastewater infrastructure extensions or relocation needs as part of the IMP and during the Article 80 Large Project Review process for each project.

Water

Within the IMP area, the BWSC water system serves existing buildings individually, except for Harvard Business School buildings which are served by a Harvard-owned piping network that receives its water supply through three BWSC master meters. Field testing done in 2006 in the area near the proposed Health and Life Science Center revealed an available fire flow of over 3,500 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure. The latter value is typical in this part of Allston. The fire flow requirements of the proposed new and

renovated buildings will typically be much less than 3500 gpm at 20 psi since the new buildings will be equipped with sprinkler systems.

Recently, BWSC has improved the hydraulic capacity in the area by relining existing water mains on Bertram Street and North Harvard Street. In addition, Harvard recently replaced an old tuberculated 8-inch main on Travis Street with a new larger capacity water main. This new main was turned over to BWSC upon completion. These improvements have resulted in a significant capacity increase in the area, especially in the vicinity of Barry's Corner.

Wastewater

The existing wastewater system is made up of pipes of various materials, size and age owned by the MWRA, the BWSC, or Harvard-owned facilities. Harvard has done a preliminary evaluation of the existing wastewater system in the area of the proposed Harvard Campus in Allston. Based on this analysis – which will be updated and presented in the IMP - the existing wastewater facilities in the area appeared to be of sufficient condition and capacity for the Ten-Year Plan.

As part of the previously approved Health and Life Science Center project, Harvard has constructed new sewer facilities in Western Avenue and Travis Street. These new sewers were subsequently turned over to BWSC. A new 12-in PVC sewer was constructed in Western Avenue near Travis Street. This sewer was connected to the new 18-in PVC sewer in Travis Street which discharges to the MWRA's Charles River Valley Sewer ("CRVS"). A portion of the 4.5'x5.12' brick CRVS was lined with cured-in-place pipe to strengthen it prior to the foundation work being performed in the vicinity of the site and to improve its capacity. The CRVS is subject to surcharge during wet weather events and overflows to the MWRA's 7'x9.33' South Charles Relief Sewer ("SCRS"), which runs nearly parallel to the CRVS through this area. It has been demonstrated that the MWRA sewers have adequate wastewater capacity even during wet weather. Therefore, any new development of the Western Avenue corridor west of the SCRS to North Harvard Street can be sufficiently served by the new and existing BWSC pipes and CRVS, and any development east of the SCRS toward the Charles River can be adequately served by the existing 24-in BWSC sewer in Western Ave which discharges directly to the SCRS. These wastewater facilities are capable of accommodating the new flows generated by the projects within the Ten-Year Plan.

Stormwater

The development of Harvard's campus in Allston is a unique opportunity to improve how stormwater is addressed. Given that so much of the study area consists of previously developed impervious surfaces, thoughtful development of projects within the IMP Area is anticipated to provide environmental benefit in the area.

The current IMP Area footprint includes varying types of surface areas, ranging from open athletic fields to highly developed, predominantly industrial and commercial acreage. From an overall perspective, the existing infrastructure was built as individual parcels were developed. Today, the opportunity exists to reassess and enact stormwater solutions, using measures that will lead to such benefits as improved water quality of stormwater runoff to the river, reducing the volume of direct stormwater discharge to the river, and increasing water conservation by rainwater harvesting. These benefits are planned in parallel with improving surface drainage by reconfiguring drainage basins and rerouting piping alignments to more efficiently manage stormwater.

The total IMP Area is approximately 178 acres, approximately half of which consists of impervious surfaces (buildings and paved areas) under existing conditions. The proposed developed IMP Area will result in a net increase in green areas compared to existing conditions. As part of the IMP, Harvard will continue to investigate opportunities for installing green stormwater management and water quality treatment measures within the IMP Area. The greening of the project area in concert with proposed stormwater management will also provide significant reductions in peak rates of runoff to BWSC drainage systems in Allston public ways throughout the campus.

Stormwater management controls will be established in compliance with BWSC standards and the Department of Environmental Protection's ("DEP's") Stormwater Management Standards. They will also be designed to reduce phosphorus and bacteria loads to the Charles River, in accordance with Boston's anticipated EPA National Pollutant Discharge Elimination System (NPDES) permit.

BWSC Standards

Any proposed connections to the existing BWSC storm drainage system will comply with BWSC Site Plan Application regulations. Site plans will show in detail how drainage from building roofs and from other impervious areas will be managed. The development of the Ten-Year Plan is expected to improve runoff water quality through treatment and infiltration. Project designs will include methods for retaining stormwater on project sites, such as directing stormwater to water features, infiltration facilities and landscaped areas, including vegetated bioretention areas and swales. The flows reaching the stormwater management facilities will typically be pre-treated by routing through grassed swales, deep-sump hooded catch basins and/or particle separators that, combined with the stormwater management facilities, will achieve the goal of 80 percent or greater total suspended solids ("TSS") removal.

The capacity of BWSC storm drainage systems serving the Harvard campus in Allston and individual project sites are expected to be adequate to meet future project demands due to the planned reduction in impervious areas and the installation of green infrastructure. Over the past several years, Harvard has constructed new drainage facilities in the area, including new 12- to 36-inch drains in Western Avenue, a 72-inch drain in the roadways around perimeter of the Health and Life Science Center site, and stormwater management facilities in Ray Mellone Park, including a grassed channel and leaching manhole.

State Stormwater Standards

The proposed drainage facilities will be designed in accordance with the DEP's Stormwater Management Standards to the maximum extent practicable. If impervious areas are not increased, the project is considered a redevelopment project per the Massachusetts Stormwater regulations. For redevelopment, stormwater management standards addressing peak flow attenuation, groundwater recharge, and TSS removal must be met to the maximum extent practicable; the remaining standards must be fully met. To meet the Massachusetts regulations, peak flow attenuation will not be required if there will be no increase in impervious area. Infiltration and stormwater management systems will be required to provide groundwater recharge and TSS removal.

EPA NPDES Permit Requirements

Since the University's runoff is tributary to the Charles River, it will be subject to Total Maximum Daily Load ("TMDL") requirements for phosphorous and bacteria under Boston's anticipated NPDES permit. BWSC expects that, in the long run, the City will be required to reduce phosphorous to the Charles River by 65 percent. This reduction can be met by treating the water quality volume, defined as ½ inch of runoff times the impervious area of a site, with stormwater management controls such as bioretention and infiltration. The University's stormwater management measures will be designed to reduce phosphorous by in compliance with BWSC guidelines.

Energy Systems

Harvard's facilities located within the IMP Area derive their heating and cooling energy supplies from building specific (stand-alone) equipment as well as from Harvard-owned district energy systems. Building specific systems include equipment such as natural gas fired boilers, domestic hot water heaters, building-scale chillers, and cooling towers. Harvard-owned district energy systems produce and deliver steam (or hot water), electricity, and chilled water on a larger scale to multiple facilities on campus. Additionally, Harvard purchases both electricity and natural gas from local distribution companies (e.g. NSTAR and National Grid) and provides service to facilities through direct connections to the utility or through a Harvard-owned distribution network serving multiple facilities.

Harvard expects to provide heating energy, cooling energy, electricity, and natural gas service as needed to existing, renovated, and new academic facilities within the IMP Area in a similar manner going forward (including the installation of building specific equipment where desirable as well as expanding the use of existing district energy facilities/systems and installing additional district energy facilities/systems over time).

While the energy needs for several projects are envisioned to be served by existing Harvard-owned district energy facilities and potentially a new district energy facility, additional energy (e.g. steam, hot water, chilled water, electricity) generation, cogeneration, energy conversion, and energy distribution equipment/systems/facilities may be added over time within the IMP Area to meet energy supply requirements and/or operational needs. As part of this process Harvard anticipates working with the City, local utilities (e.g. NSTAR, National Grid), and regulators to ensure adequate systems are in place to meet the energy needs of the Harvard facilities in the IMP Area.

Distribution infrastructure (e.g. piping, electrical conduit/cables, etc.) is expected to be located primarily on Harvard property; however there will likely be instances where public ways will need to be crossed. At this time, routings, piping/conduit sizing, and other specifics have yet to be evaluated and/or determined. This will be done as planning, alternatives analyses, and preliminary design activities progress, and will be set forth in the IMP.

4.5 Historic and Archaeological Resources

The proposed IMP project area includes or is located in the vicinity of several properties listed in the State and National Registers of Historic Places and/or included in the *Inventory of Historic and Archaeological Assets of the Commonwealth*. In particular, the IMP projects described previously in Chapter 3 include a proposed renovation of and addition to Harvard Stadium (a property listed in the State and National Registers of Historic Places and a National Historic Landmark) and replacements of Kresge Hall and Burden Hall, which are part of the Harvard Business School-Athletic Facilities Area and included in the *Inventory of Historic and Archaeological Assets of the Commonwealth.* The larger IMP project area is also adjacent to the State-and-National Register-listed Charles River Basin Historic District.

In accordance with applicable historic preservation statutes and regulations, Harvard will work cooperatively with the Massachusetts Historical Commission and the Boston Landmarks Commission to ensure that potential impacts to historic resources are avoided, minimized, or mitigated. Beyond those properties already mentioned, Harvard will identify properties over 50 years of age in the IMP study area. Potential impacts to National Register- and State Register-listed properties, Inventoried properties, and properties over 50 years of age will be addressed.

The proposed IMP project area is located on previously disturbed land. No previously identified archaeological resources are located within the IMP project area. No impacts to archaeological resources are anticipated.

5.0 Community Benefits

5.1 Introduction

Harvard University is proud to work with the City, and commits to identify opportunities to bring University resources to bear for the betterment of the neighborhood. The University makes considerable contributions to the City of Boston, providing a wide range of programs and initiatives in the areas of education, public health and fitness, housing, and culture. Across the City, Harvard is engaged in our communities – training after school staff in Boston Public Schools, connecting Harvard Business School students to local non-profits, providing HIV testing and counseling at local community health centers, introducing science to Head Start students at the Arnold Arboretum, and helping to create affordable housing through the 20/20/2000 initiative. The following section outlines a sampling of the diverse programming that Harvard faculty, staff and students provide that touch virtually every corner of the City of Boston.

In Allston-Brighton, Harvard has extensive existing community programs that have emerged through decades of engagement. Prominent among them is the Harvard Allston Education Portal, bringing Harvard undergraduates to Allston to mentor Allston-Brighton youth in the areas of math and science. This October, the Ed Portal will launch its fifth year of programming and triple in size with the opening of the Ed Portal Annex – creating additional space for expanded arts, culture and fitness programming. Harvard's partnership with the Gardner Pilot Academy, North Allston's only K-8 Boston Public School, brings homework support curriculum, Graduate School of Education interns, arts education, professional development, and field trip opportunities to students. The Harvard Allston Workforce Collaborative provides job training for Allston Brighton residents.

These programmatic contributions are only part of Harvard's overall impact on the region. Harvard employs more than 2,800 Boston residents and is currently the Commonwealth's third largest employer. Harvard attracts millions of dollars to the Commonwealth annually and strives to bring the best and brightest to its campus, from within Massachusetts and across the globe. The quality of life afforded by Harvard's host communities is exceptional and is an important part of what attracts students, faculty and scholars to Harvard. Opportunities for innovation, research, and scholarship make Greater Boston a desirable destination for the brightest minds in the world, and no doubt contribute to the Commonwealth's national leadership in the knowledge and research-based economy.

This IMPNF submission includes nine new projects anticipated over a five to ten-year period. As the approval process for the University's Institutional Master Plan unfolds, Harvard will develop a coherent approach to community benefits associated with each project as it moves forward. Harvard's hope is that a predetermined approach to community benefits will be established so that the City, Allston community and Harvard will clearly understand the contribution each project may make towards community benefits and, armed with that knowledge, foster a more

comprehensive approach to community benefits than engaging on one-off discussions related to individual projects as they arise.

Through such a plan, we believe that the projects outlined in the IMPNF will generate community benefits throughout Allston that will genuinely honor the principle of mutual benefit and that will have a cumulative impact over the life of the Institutional Master Plan.

A more extensive listing of existing community benefits is provided in this section.

5.2 Existing Community Benefits

Education, Arts and Culture

- *AP Biology Hinton Scholars*: Hinton Scholars (11th and 12th grade students from select Boston schools) meet after school during the academic year with their AP Biology teacher on the Harvard Medical School campus for additional academic tutoring in preparation for the AP Biology exam. Students engage in hands on, inquiry-based AP laboratory experiences and participate in AP Biology exam preparation provided by Harvard University graduate students and post-docs.

- *AP Biology Callbacks*: Provides workshops on best practices and professional development, seminars and lectures throughout the academic year to Boston Public School teachers who teach AP Biology and participate in the AP Biology Hinton Scholars program.

- *Arnold Arboretum School Programs*: School Programs began at the Arboretum in 1984 in response to a request to local museums from Boston Public Schools for help with science instruction. This need continues today, illustrated by Boston Mayor Thomas Menino's "Step-Up" program, which challenged Boston's largest institutions of higher learning to assist troubled schools. Through its unique relationship with the City of Boston, the Arboretum has been increasingly committed to improving local science education. The programs emphasize depth over breadth, and consequently field study programs are offered to approximately 2,000 students annually. In a small group setting that emphasizes inquiry and hands-on learning, students receive increased attention with a well-trained volunteer as their guide through the landscape.

- *Art History Workshops*: Workshops for K-12 teachers to encourage integration of art history into social studies and art curriculum.

- *Askwith Forum Series*: Each year, thousands of members of the public gather at the Harvard Graduate School of Education to learn about and engage experts on issues relevant to education and learning. This free lecture series seeks to serve as a galvanizing force for debate and conversation about education issues ranging from national policy to path-breaking research findings. Past speakers have included Steven Pinker, Ted Sizer, James Comer, E.D. Hirsch, and Elmo from Sesame Street.

- *Boston Teachers Union School*: In the 2011-12 academic year, the Arboretum initiated a partnership with the Boston Teachers Union (BTU) School. In collaboration with teachers, Arboretum Science Specialists provided science instruction in preschool, kindergarten, first grade, and second grade classrooms throughout the school year,

covering topics on plants and animals, earth science, weather studies, and physical science. Students in each elementary grade at the BTU School—as well as students in the eighth grade—participated in field studies at the Arboretum. In June, the Arboretum hosted an open house for the families of BTU School students to showcase student achievement from the first year of partnership.

- *Bridge to AP Biology*: Summer enrichment pre-AP Biology program for 11th and 12th grade students and their teachers from select Boston schools. Held at Harvard Medical School for students and teachers who will be Hinton Scholars during the following academic year. Students are exposed to AP Biology concepts, hands on lab experiments and academic field trips before commencing their AP Biology courses in the fall.

- *Explorations*: Annual one-day science enrichment program for middle school students who have an interest in science, mathematics or health careers. The program links students with Harvard Medical School faculty, researchers and medical/graduate students who provide hands-on scientific research experience in a lab.

- *Field Study Experiences*: The Arboretum offers seasonal school programs for students in grades 3 to 6. These two-hour programs are designed to encourage the investigation of plant science in the meadows and woodlands of the Arnold Arboretum. Lessons that begin in the classroom can be explored and enlarged through these outdoor learning adventures. The programs emphasize student inquiry and direct interaction with natural phenomena. Students work in small groups with a volunteer guide to explore and discuss science-oriented questions. Pre- and post-visit materials help teachers plan a challenging learning opportunity. Children from Boston schools are served free of charge.

- *Gardner Pilot Academy Partnership*: For many years, Harvard has had a growing relationship with the GPA.

    - *GPA Field Days:* Every June, Harvard hosts GPA's annual Field Days at the Harvard Track and Infield, welcoming all grades for the event.

    - *GPA fourth and fifth grade after-school program:* Students engaged in hands-on inquiry-based science enrichment activities in small groups.

    - *Harvard Art Museum:* 2nd and 5th grade program: This partnership is a multi-visit museum program with the GPA that fosters connections between learning in the classroom and in the museum. Additionally, the Harvard/Art Museum (H/AM) has an ongoing relationship with the GPA that encourages teachers in all grades to use the resources of the museum.

    - *Harvard Public School Initiative:* Works with the GPA after-school staff for professional development focused on: SmartTALK Homework Support, Project Based Learning (PBL), and Differentiated Instruction through a PBL Model. Harvard staff also serve as the after-school coach for all GPA surround care teachers.

The Harvard Allston Education Portal brings Harvard's greatest strength of teaching and research to the Allston-Brighton community.

- *Harvard Allston Education Portal:* The Harvard Allston Education Portal, located at 175 North Harvard Street, opened in June 2008 and brings Harvard's greatest strength of teaching and research to the Allston-Brighton community. Anyone living in Allston-Brighton or attending school in North Allston-Brighton can become a member of the Harvard Allston Education Portal. Membership is free. The Harvard Allston Education Portal provides mentoring and enrichment opportunities in science, math, writing and public speaking by Harvard undergraduates for children and youth who are Ed Portal members. Additional Education Portal programs include an adult speaker series, scholarships to athletic camps and museum summer programs, and links to Harvard enrichment programs, athletic programs, and events. The Harvard Allston Education Portal Advisory Board advises the Faculty Director of the Education Portal and Harvard University. The Board has 11 members, selected by Harvard in coordination with the BRA and the Harvard Allston Task Force.

- *Harvard Allston Education Portal Mentee Showcase (Summer, Fall, and Spring):* The Harvard Allston Education Portal has created an ongoing end of the semester Mentee Showcase, providing an opportunity for students enrolled in the mentoring program to show their family members and friends what they have learned throughout their participation in the mentoring program. The program includes hands-on science experiments that are part of science club and science mentoring and skits and storytelling performed by the writing mentees and mentors.

- *Harvard Art Museums:* The Harvard Art Museums are free to children under 18.

- *Harvard Business School Staff Mentors:* HBS Human Resources, matches HBS staff with students at a local school to help them practice and improve upon their writing skills. This provides the opportunity for students to interact with an adult role model. HBS staff correspond with students once a month and attend an end of the school year celebration cookout.

- *Harvard Public School Initiative:* SmartTALK, prepares after-school staff to help kids develop their academic skills in out-of-school time by creating a positive learning environment and providing students with standards-aligned, games-based activities to support homework time. Mind Matters, is a program that translates the science of how children learn for real-world practice in early care and education.

- *Harvard-Manville Mentoring Program:* The Manville School at the Judge Baker Center in Mission Hill is a therapeutic day school for children ages 5 – 16 who experience emotional, neurological, or learning difficulties that have impacted their ability to succeed in other school settings. HMS/HSDM students are paired with one child and act as a big sister/brother throughout the year while simultaneously completing related coursework.

- *Harvard University i-lab (Batten Hall):* The Harvard Innovation Lab is an innovative initiative that fosters team-based and entrepreneurial activities and deepens interactions among Harvard students, faculty, entrepreneurs, and members of the Allston and Greater Boston community. Since its opening in November 2011, the i-lab has hosted more than 400 events, welcoming people from the University, the Allston Brighton community, and the region.

- *HBS Apprentice:* HBS Apprentice held its second annual 5th grade entrepreneurship program with 41 students from the Gardner Pilot Academy on April 14 & 15. Six student teams launched small businesses that raised $680 for Gardner in two hours by selling products they envisioned, produced, and marketed on the Harvard Business School campus.

- *Head Start Initiative:* The Arnold Arboretum has offered field trips for local Head Start programs in Boston since 2007. In this age-appropriate program, volunteer guides conduct multi-sensory explorations, allowing children to participate in investigations, gather a collection of plant materials, and make an observational drawing. Preschool children come in the spring, summer, and fall.

- *Head Start Family Day:* In addition to the seasonal field trips, the Arboretum hosts Head Start Family Day, a fall open house for families of Head Start students. With bus transportation provided by the Arboretum, families embark together on hikes, make leaf rubbings, examine plant material under microscopes, and enjoy healthy snacks. Last year the Arboretum hosted 60 parents and children, the largest number of attendees yet for this annual event. This fall, the Arboretum anticipates hosting the Mattapan Head Start families in addition to the South Side families for this special day.

- *Health Professions Recruitment and Exposure Program (HPREP):* HPREP brings high school students who are interested in the health professions to HMS for nine weeks where students are exposed to a wide variety of students, faculty and events. About 30 minority students from all over Boston participate in this yearly event.

- *Hemlock Hill:* An ecosystem study for Boston Public School fifth grade students. Boston Public Schools and the Arboretum have collaborated to to enhance fifth grade life science curriculum on ecosystems. Hemlock Hill was chosen as a small ecosystem for study because it is a local forest undergoing significant ecological change that students can visibly observe.

- *MBA Impact Initiative with Timilty Middle School and Frederick Middle School:* Harvard Business School students visited two middle schools in Dorchester and Roxbury to mentor 7th graders about leadership. Middle school children later visited HBS for follow-up sessions.

- *Museum Tours:* Tours are available of Harvard Art Museum, Botanic and Peabody, Mineralogical, Geological and Museum of Comparative Zoology to interested schools and other groups.

- *Reflection in Action:* Building Healthy Communities™ (RIA) is the spring component of Explorations. It is a contest culminating in a day of celebrating healthy life styles at Harvard Medical School. It offers students the opportunity to generate a vision for

Since its opening in November 2011, the i-lab has hosted more than 400 events, welcoming people from the University, the Allston Brighton community, and the region.

change by weaving together the themes of heart, lung and blood diseases, oral health, health disparities, community engagement and creative expression to promote positive change in their community. Through visual, written and performing arts, students identify pressing health care needs that are currently overlooked in today's media and provide a proactive approach to healthy living that focuses on personal empowerment, access and awareness, and good health habits. RIA has incorporated First Lady, Michelle Obama's "Let's Move" Campaign.

Public Health

- *Boston Asthma Swim Program:* Student volunteers travel to Chinatown every Friday to provide health education and swimming classes for children and information for families at the Boston Chinatown Neighborhood Center. Volunteers work with physicians at South Cove Community Health Center to get referrals to the program. Now, in its 11th year (the longest running asthma swim program in the city), tracking "peak flow" measurements over time has shown that participation in the program helps the children either maintain or improve their asthma management.

- *Faculty Community Outreach:* Many Harvard Medical School faculty members serve as volunteer staff, providing free or affordable health services in many of the community's underserved areas. Local health organizations served include Dimock Community Health Center, East Boston Neighborhood Health Center, and Health Care for the Homeless.

- *First-Year Urban Neighborhood Campaign:* This program was started in 1998 and brings incoming Harvard Medical School and Harvard School of Dental Medicine students to the Longwood Medical Area one week before classes start to complete community service work in the Boston area. Students participate in community service projects throughout Boston, including vaccination, pediatric prevention programs, dental awareness programs and meals programs in sites such as community health centers, battered women's shelters, and AIDS service organizations.

- *HIV Counseling and Testing Program:* Harvard Medical School and Harvard School of Dental Medicine first year students get trained and certified as HIV Test Counselors (MA certification) and volunteer once a week at five sites: East Boston Neighborhood Health Center, The Dimock Center (Roxbury), The MALE Center (AIDS Action Committee), Boston HAPPENS (program through Children's Hospital that serves youth at risk from all over the city) and Martha Eliot Health Center (Jamaica Plain). Now in its sixth year, more than 3,000 hours have been donated to these sites and volunteers have assisted in doing outreach events, expanding hours for the agencies, and reaching more people at risk for HIV.

- *Operation Mouthguard:* A dental program that provides oral health education and free mouthguards to young athletes at sites around Boston. In operation for more than ten years, sites have included the Charlestown Boys and Girls Club and the Boston Boys and Girls Club.

- *Prevention, Health Awareness and Choice through Education:* Harvard Medical and Dental School students participate in a training program on adolescent health issues and volunteer to teach sexual health education at the McKinley Schools (middle and high school) in Boston.

Scholarships

- *Allston-Brighton Scholarship Programs:* As part of Harvard's partnership with the City of Boston and the Allston-Brighton community, Harvard's Office of Public Affairs and Communications and the Division of Continuing Education offers a number of scholarship programs specifically for Allston-Brighton residents; they include:
  - Allston-Brighton Community Scholars Program;
  - Allston-Brighton English Language Scholarships; and
  - Brian J. Honan Scholarships for municipal employees.
- *The Crimson Summer Academy at Harvard University:* Over the course of three consecutive summers, 30 high-achieving students from Boston and Cambridge high schools engage in a stimulating mix of classes, projects, field trips and cultural activities as they prepare for success in college and beyond. After a period of orientation, Crimson Scholars live on Harvard's Cambridge campus from Sunday evenings through Friday afternoons, returning to their homes on weekends. Through small group instruction, sustained support, and close mentoring relationships with Harvard undergraduates, Crimson Scholars expand their vision of what's possible as they prepare for admission to challenging four-year colleges and universities.
- *Harvard Business School Executive Education Scholarships:* HBS provides scholarships in its Executive Education program to Boston residents and City employees.
- *Harvard Museum of Natural History Summer Program Scholarships:* Through the Harvard Allston Education Portal, Harvard offers 10 Harvard Museum of Natural History summer program scholarships, selected by lottery, to children who are residents of Allston-Brighton or attend the Gardner Pilot Academy (regardless of where they live).
- *Secondary School Scholarships to Harvard Summer School:* Designated for students living in Allston–Brighton who have completed their junior or senior year of high school, this program offers free tuition for one 4-unit course (equivalent to half-time summer study).
- *Skills Workshops for High School and College Students:* Program for high school and college students from New England and surrounding states in collaboration with the Biomedical Science Careers Program (BSCP). It provides students, especially African American, Hispanic American and American Indian/ Alaska Native students with information and guidance through mentorship in areas such as the application process for college, medical and graduate school; including interviewing skills, resume writing and financial aid. An informational session on educational options, career planning and financial aid is also offered to parents and caregivers.
- *Summer Athletic Camp Scholarship Program (25 scholarships/year):* Through the Harvard Allston Education Portal, Harvard offers approximately 25 athletic camp scholarships, selected by lottery, to children and youth who are residents of Allston-Brighton or attend the Gardner Pilot Academy (regardless of where they live).

Boston and Cambridge high school students engage in a stimulating mix of classes, projects, field trips and cultural activities at the Crimson Summer Academy.

The Harvard Allston Workforce Collaborative Program is a workforce development program run through the Education Portal in conjunction with the Allston-Brighton Resource Center.

Workforce and Housing

- *Boston Youth Jobs:* Through the Boston Private Industry Council, HBS recruits high school students to work in part-time, paid roles across campus.
- *Career and Business Resource Center:* In 2005, Harvard made an "early action" commitment of support to help establish the City of Boston's Career and Business Resource Center, which opened in June 2006.
- *Harvard Allston Summer Corps:* Harvard University, in partnership with the City of Boston's Youth Fund summer jobs program, funds 20 Harvard Allston Summer Corps members. The program provides summer youth employment at local non-profit organizations.
- *Harvard Allston Workforce Collaborative:* Courses, taught by staff from Harvard's Office of Human Resources, are held at the Harvard Allston Education Portal. Courses include Career Explorations and Computer Skills Training.
- *Harvard Business School/Boston Employment Center Partnership:* Through the Boston Employment Center, an HBS recruiter spends 8-10 hours per month meeting with clients, conducting resume reviews and mock interviews, and advising on job searches.
- *Harvard Business School Leadership Fellows:* HBS funds the Leadership Fellows program, which supports full-time fellows working in non-profit and public sector organizations in Boston.
- *Harvard 20/20/2000 Affordable Housing Initiative:* In Spring 1999, residents and civic leaders in Boston and Cambridge identified affordable housing as a chief community concern. In response, Harvard examined how University resources could help address the cities' challenge. The study determined that Harvard could play an effective role by using its financial and intellectual resources to fill gaps in the housing financing system – utilizing the well-established infrastructure of public and private agencies and intermediaries.

  With input from civic and community leaders, Harvard University identified a need for low cost capital to increase the supply of affordable housing particularly for middle-income families. The study findings became the basis of the University's 20/20/2000 Housing Initiative. To date, 20/20/2000 financing has supported the following affordable housing projects in Allston:

  - *The Brian J. Honan Apartments:* Fifty units of affordable housing on Everett Street in Allston named to honor the late City Councilor, Brian J. Honan, comprise nine buildings on a site once occupied by Legal Seafood's fish processing plant. In support of the Mayor's housing objectives, Harvard helped fund this project with a $2.8 million grant, one of the largest grants ever made by a single private institution to an affordable housing project in Boston. The Allston Brighton Community Development Corporation developed the project with the financial support of Harvard and state and city organizations.
  - *Hano Homes on Hano Street:* Harvard contributed approximately $300,000 to the renovation of the 20 rental units - 15 of them affordable - through its 20/20/2000

affordable housing partnership. Allston Brighton Community Development Corporation, which has owned Hano Homes since 1985, renovated the 20 units, replacing electrical and plumbing systems, reconfiguring walls, and installing new flooring and drywall. Undertaking the renovation also greatly increased the energy efficiency of the units.

- *Project Success:* Opening the Door to Biomedical Careers for Boston and Cambridge students in grades 11 and 12. Project Success places high school students at Harvard research sites where they complete an eight-week, hands-on, paid, mentored summer research project under the supervision of Harvard faculty, attend a science and career development seminar series and through oral presentations and preparations of research reports enhance their speaking and writing skills. Once a student is accepted in the program he/she is welcome to reapply every year through college as long as they maintain a 2.75 GPA and continue to major in a career related to the biomedical sciences. The program had been in existence since 1993 with 99% of participants matriculating at four-year colleges. Participants include Gates Millennium Scholars, Posse Scholars and recipients of full scholarships to prestigious colleges and universities.

During Boston Shines, staff and volunteers from Harvard University work alongside Allston neighbors, neighborhood businesses, public organizations and private agencies.

In 2008, Harvard launched the Harvard Allston Farmer's Market in Barry's Corner.

Physical Improvements and Greening Initiatives

- *Boston Shines:* Since the inception of Boston Shines in 2004, Harvard University has actively supported this annual citywide neighborhood cleanup by donating flowers and cleaning up streets and sidewalks around the Jackson Mann Community Center, the Honan Allston Library, and the Cambridge Street firehouse in Allston. Staff and volunteers from Harvard University work alongside Allston neighbors, neighborhood businesses, public organizations and private agencies.
- *Harvard Allston Farmers' Market in Barry's Corner:* In 2008, Harvard launched the Farmer's Market. The Farmer's Market is held every Friday from 3:00-7:00 p.m. from mid-June through October.
- *Holton Street Green Space:* The University created and maintains an open green space located at 108 Holton Street.
- *North Harvard Street Improvements:* Harvard worked with the Boston Transportation Department ("BTD") and the Boston Public Works Department on the redesign of a portion of North Harvard Street in the fall of 2009. This work, which Harvard designed and the City implemented, created bike lanes on newly-paved North Harvard Street from Soldiers Field Road to the intersection of Western Avenue.
- *Ray Mellone Park:* Harvard worked with Allston neighbors to design a new 1.74 acre neighborhood park behind the Honan Allston Branch Library on North Harvard Street. The park officially opened in 2011 and is maintained by Harvard University.
- *Rodent Control and Container Distribution Program:* In fall 2009, Harvard partnered with the City of Boston's Inspectional Services Department ("ISD") to provide every household in North Allston-Brighton whose trash is collected by the City of Boston with a new, 64-gallon, rodent-proof trash container. Harvard also worked with ISD to create a rodent control educational guide that was distributed to every household in North Allston-Brighton to provide residents with comprehensive information about the City

The annual Family Skating Party draws Allston-Brighton residents of all ages to Harvard's Bright Hockey Center for an evening of free ice skating.

of Boston's rodent control program and actions that residents can take to assist with rodent control.

- *Smith Field:* Harvard Real Estate Services and Harvard Athletics crews perform maintenance on the Smith Field little league baseball diamonds and the perimeter of this public park.
- *Western Avenue Sidewalks and Tree Plantings:* In fall 2007, more than 100 trees were planted along Western Avenue as part of a streetscape improvement project.

Contributions and Volunteerism

- *Allston Brighton Game Nights:* Every year, athletic designates Allston-Brighton game nights for a variety of sports, where residents can attend for free.
- *Allston Brighton Oral History Project:* The oral history project was the first comprehensive multimedia oral history of the Allston neighborhood. It was conceived by residents of Allston-Brighton and funded and created by Harvard University to celebrate and preserve the rich history of the neighborhood. The project includes more than 70 interviews with longtime Allston residents, historic photographs, and other treasures. It is now housed by the Boston Public Library as part of the online Center for Neighborhood History. The Allston-Brighton Oral History documentary film is available to interested residents at the Honan-Allston Branch Library, 300 North Harvard Street, Allston, and at the Brighton-Allston Local History Room at the Brighton Branch Library, 40 Academy Hill Road, Brighton.
- *Annual Allston-Brighton Family Skating Party:* Annual Allston-Brighton Family Skating Party is held at Bright Hockey Center.
- *Annual Community Football Day:* All Allston-Brighton residents receive free admission to the game and complimentary lunch.
- *Blodgett Pool Access:* Harvard makes Blodgett Pool available in the summer to all Harvard Allston Education Portal members.
- *Community use of Athletics facilities:*
    - Boston Children, Youth and Families Swim Meet (May)
    - Special Olympics (June)
    - Boston Scholar Athlete Programs All-Star High School Baseball Game (June)
    - Boston Scholar Athlete Program All-Star High School Soccer Game (Oct/Nov)
- *Community Use of Facilities:* Harvard Business School continues to provide space for meetings of local organizations, including the Harvard Allston Task Force, Brighton Board of Trade, the Allston-Brighton Community Development Corporation, the Jackson Mann Community Center, and others.

- *Contributions to Allston-Brighton Nonprofits:* Harvard Business School has made contributions to a number of local organizations, including the Allston-Brighton Community Development Corporation, Allston-Brighton Little League, Allston Brighton Youth Hockey, the Joseph M. Smith Community Health Center, the Oak Square YMCA, and more.
- *Football Games:* Free admission to all children age 12 and under to Harvard football games, making it a convenient and affordable entertainment option for the whole family
- *Harvard Allston Partnership Fund:* The Harvard Allston Partnership Fund ("HAPF") was created by Harvard and the City of Boston, in collaboration with the Allston community, to support neighborhood improvement projects, cultural enrichment, and educational programming. The program awards $100,000 in grants each year.
- *HBS Board Fellows Program:* MBA student club members serve in one-year roles on the boards of Boston-area nonprofit organizations. Twenty-three Boston-area nonprofit organizations received a total of 2,900 person-hours of engagement in the 2010-2011 season. Organizations included: Adoption&Foster Care Mentoring; Affordable Housing Institute; Citi Performing Arts; Citizen Schools; Clean Power Now; Mass. Appleseed; Prize4Life; Rediscovery House; Acre Family Child Care; BELL; Community Boating; Science Club for Girls; Seeds of Peace; Solutions at Work; West End Boys & Girls Club; Bay Sate Community Services; City Year Boston; COMPASS; Generation Citizen; Greater Boston Foodbank; Minds Matter Boston; South Shore YMCA; Sustainable Endowments Institute.
- *HBS Faculty Volunteerism:* HBS faculty members are involved in community activities through presentations, pro-bono consulting to local community organizations, and participation on local boards.
- *HBS/Year Up Partnership:* HBS supports Year Up, a training program for post high school students. HBS pays for two interns a year who do six-month apprenticeships on the HBS campus.

On Community Day, all Allston-Brighton residents receive free admission to the game and complimentary lunch.

5.3 Other Public Benefits

In addition, it should be noted that the University's Allston development will also produce the following public benefits.

- *Linkage:* In accordance with Article 80B-7 of the Boston Zoning Code, in connection with any Development Impact Project ("DIP"), Harvard will make a housing linkage contribution to the Neighborhood Housing Trust and jobs linkage contribution to the Neighborhood Jobs Trust.
- *PILOT:* Harvard currently has a Payment in Lieu of Taxes ("PILOT") agreement with the City of Boston. This PILOT agreement provides for payments (in place of property taxes) for those Harvard-owned properties that are being used by the University for institutional purposes. With respect to all of the Harvard-owned property in Boston that is not being used for institutional purposes, Harvard pays the required property taxes in accordance with the City property tax assessment process.

Appendix A: Non-IMPNF Projects and Other Harvard Property

Introduction

Within the ten-year time frame of this IMPNF, there are a number of other relevant projects being developed on Harvard-owned land. From a technical regulatory point of view, these are not included as "Proposed Institutional Projects" in the IMPNF because they are being reviewed through another regulatory mechanism, they are already approved, or they are non-institutional uses. For purposes of the analysis in Section 4 and the subsequent IMP submittal, all of these projects are treated as existing background projects. These projects total approximately 560,000 to 860,000 square feet of new construction as well as approximately 82,000 square feet of renovation.

Non-IMPNF Project Descriptions

A. Health and Life Science Center

In 2007, the BRA Board and the Boston Zoning Commission approved the Harvard Allston Science Complex following the review and approval of an IMP Amendment and the completion of the BRA's Large Project Review process. The approved project consisted of approximately 589,000 square feet of gross floor area in a complex of four buildings connected below-grade that included laboratory space, offices, research support space, and other building amenities. Construction of the project started in late 2007 and resulted in the completion of the foundation and the three-level subsurface component of the project but in 2009, due to the global financial downturn and its severely constraining effects, the University announced that work on the project would be paused.

In September 2011, the University endorsed the Allston Work Team recommendations (described in section 2), which outlined a vision for near term development, and reaffirmed the University's commitment to science in Allston by recommending that this project be restarted. As the project – now called the Health and Life Science Center – moves forward, it will represent the single largest investment in a science facility ever made by Harvard, and the biggest investment in science space envisioned for at least the next decade. The University envisions the Health and Life Science Center as a hub of 21st century learning, collaboration, innovation and growth.

The project is currently undergoing a detailed review of building programming. As currently envisioned, any necessary redesign will take place in early 2013, to be followed by any re-permitting necessitated by such redesign. It is anticipated that site enabling work will take place in late 2013, and construction of the Health and Life Science Center will restart in 2014.

A new studio space at 224 Western Avenue will allow the Ceramics Program to add vibrancy to Barry's Corner.

B. Barry's Corner Residential and Retail Commons

Through a Request for Proposals and selection process that included administrators, faculty members and two Allston neighbors, the University engaged a real estate partner, Samuels and Associates, to develop the Barry's Corner Residential and Retail Commons under a long-term ground lease. The residential component will include 200-400 market rate rental units. Active ground floor uses such as retail will line the ground floor. Planning with the BRA, the Harvard-Allston Task Force and the community is currently underway. Depending on the pace of the regulatory process, construction is anticipated to begin in late 2013. As determined by the BRA, the project is proceeding through the permitting process as a Planned Development Area project and will undergo Large Project Review.

C. 224 Western Avenue Renovation

Harvard Ceramics will be relocated to 224 Western Avenue, the former Verizon building, both to accommodate programmatic needs and to activate a key Barry's Corner location with a community-friendly use and an open, welcoming design. Relocating the Harvard Ceramics Program from 219 Western Avenue will provide an active non-institutional use at 224 Western Avenue and allow for construction of the Barry's Corner Residential and Retail Commons project. Known internationally for its leadership in the field, the Ceramics Program provides a creative learning environment for a dynamic mix of students and professionals from the University, greater Boston, and international community.

HBS's Tata Hall will face the Charles River and complete an Executive Education quadrangle

D. 28/38 Travis Street and 90 Seattle Street Renovation

Relocating institutional uses (including mail services, office, storage and other institutional uses) from 219 Western Avenue to 28 and 38 Travis Street and 90 Seattle Street is an enabling project that will allow for construction of the Barry's Corner Residential and Retail Commons project.

E. Tata Hall (Under construction at time of writing)

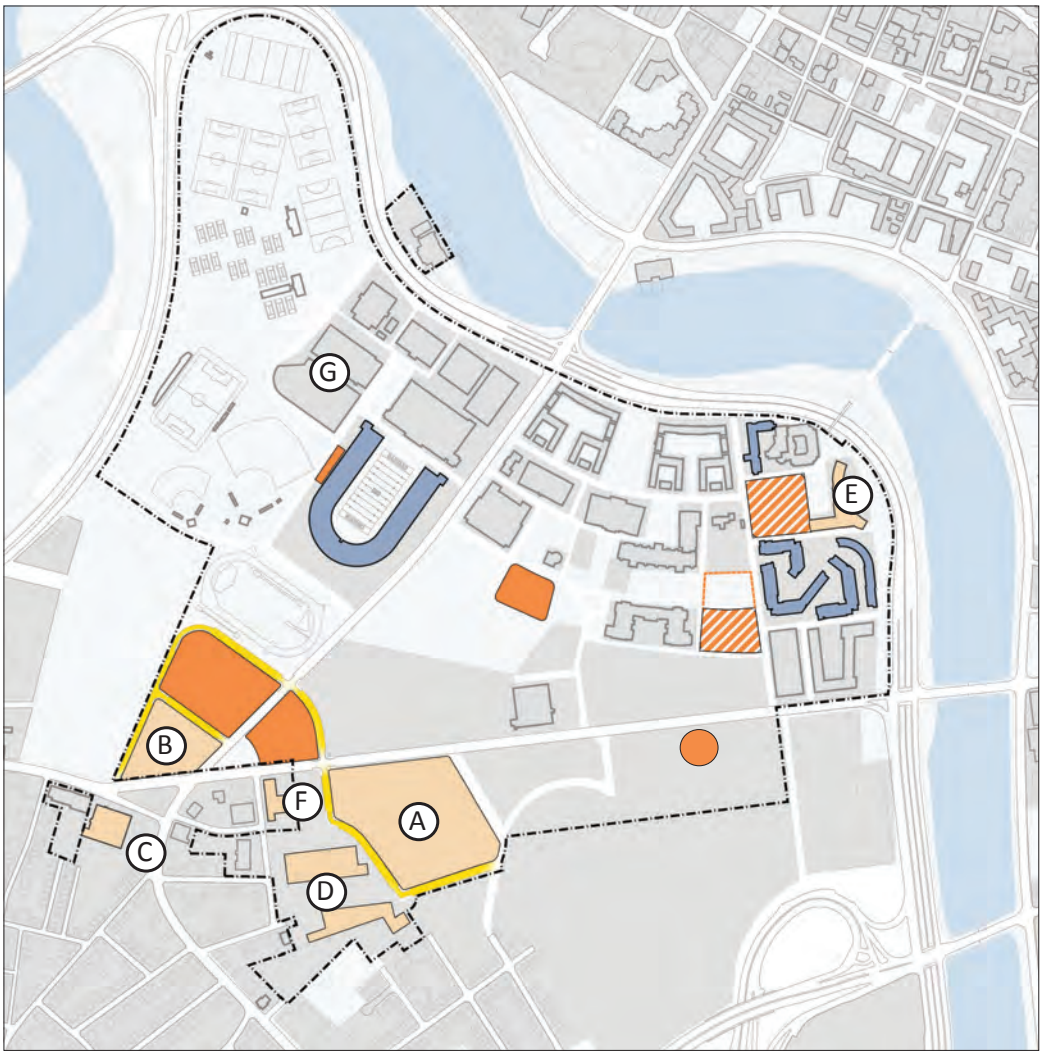
Situated at the northeast corner of the Business School, Tata Hall will face the Charles River and complete an Executive Education quadrangle. The project, which broke ground in December 2011 and is expected to be completed in December 2013, will include 180 new bedrooms, two classrooms, and common meeting space for HBS's Executive Education Program.

F. Swiss Bakers (Under construction at time of writing)

Swiss Bakers is a 14,000 square-foot retail and commercial bakery. It will occupy the former Volkswagen dealership at 168 Western Avenue. Renovations and site improvements are well underway and an opening is expected in the coming months.

G. Bright Hockey Center Renovation and Addition

The Bright Hockey Center project involves the interior renovation of space within the Bright Hockey Center and Gordon Indoor Track facilities within Harvard's Athletics area. This work complements other planned work involving the addition of an infill arcade space between the Bright and Gordon facilities. The renovated space in Bright and Gordon will allow for the expansion of existing locker rooms, bathrooms, coaches' facilities, and storage, and the new construction will create a new formal entry to the Bright and Gordon facilities.



IMP Boundary

IMPNF Projects

- New Construction
- Replacement
- New Underground Space
- Renovation/Renewal
- New Streets

Non-IMPNF Projects

0’ 250’ 500’ 1000’

Non-IMPNF Projects

- (A) Health and Life Science Center
- (B) Barry’s Corner Residential and Retail Commons
- (C) 224 Western Avenue Renovation
- (D) 28/38 Travis Street and 90 Seattle Street Renovation
- (E) Tata Hall
- (F) Swiss Bakers
- (G) Bright Hockey Center Renovation and Addition

Areas shown are development sites, not building footprints.

The order of the listing of the projects does not represent any prioritization or intended sequence of these projects.

Other Real Estate

East of Barry's Corner

Much of Harvard's land located east of Barry's Corner and south of Western Avenue and known respectively as "Allston Landing North" and "Allston Landing South," is encumbered by an exclusive, perpetual railroad easement held by CSX Transportation, Inc. ("CSX"), the major freight railway company. As has been widely reported, CSX is in the process of relocating its freight railway facilities and operations to locations west of Boston, including Worcester and Westborough. In connection with CSX's relocation, Harvard and CSX have entered into an agreement which outlines the steps necessary to transfer ownership and possession of the CSX site to Harvard over the coming months and years. It is likely that the transfer of interest will occur in phases. The most immediate parcel which may become available to Harvard is likely to be the Allston Landing North area currently occupied by Romar Transportation. It is likely that the Allston Landing South area will be transferred later.

Recognizing that the Work Team recommendations include parts of Allston Landing North as a possible location for parts of the Enterprise Research Campus, Harvard will continue to pursue its interest in assuring that, in the longer term, these parcels, located close to Western Avenue and the Health and Life Science Center, Harvard Business School and the i-lab, are viable as future contributors to the Enterprise Research Campus. In the near term, however, Harvard believes these parcels present an important location for construction support activities that can alleviate potential construction and traffic impacts on nearby Allston streets and neighborhood that otherwise might result from the development projects identified in the IMPNF.

Similarly, Harvard will seek to ensure that, in the longer term, the land comprising Allston Landing South remains viable as a location for future Enterprise Research Campus development. In the near term, Harvard first will engage the Commonwealth of Massachusetts and, in particular, the Massachusetts Department of Transportation ("MassDOT") to determine its needs to use this area for transportation infrastructure improvements relating to the ongoing Boston to Worcester commuter rail expansion and to the maintenance and enhancement of the Mass Turnpike. Harvard, the City of Boston and the Commonwealth of Massachusetts share the overriding goal of providing seamless mobility for those entering and departing the City for work or pleasure.

West of Barry's Corner

The University also owns a number of properties west of Barry's Corner, mainly located along the western portion of Western Avenue and in the north-south corridor to the west of Everett Street. The University has no plans to develop these properties for institutional uses during the term of the IMP, and over the past five years has continued to focus on finding new tenants and active uses for these properties.

In 2009, 65% of Harvard's leasable space in Allston was occupied. Today, 93% (910,607 square feet) of the University's leasable space in Allston is occupied. The University has signed 24 new leases from 2010 – 2012 and welcomed a variety of businesses and non-profit organizations to the Allston community, including a number of businesses in the area west of Barry's Corner, such as the Boston Boxing Club, Quixote Studios, Mass Motion, Seawall Entertainment, and

Jump On In. Harvard's new tenants created approximately 390 jobs in the Allston community from 2010 – 2012.

There are three projects, either underway or contemplated, that involve development by non-Harvard parties acquiring land from the University via land swaps or sale in the area west of Barry's Corner. These projects are in various stages of planning and construction and are described below.

- *Charlesview Residences:* In June 2011, Harvard and Charlesview Inc. ("Charlesview") closed on a land transfer agreement, which exchanged land at the northeast corner of the Western Avenue/North Harvard Street intersection (the existing Charlesview Apartments) for parcels in and across from the Brighton Mills Shopping Center on Western Avenue. Charlesview, with financing from multiple sources, commenced construction on the new Charlesview Residences in 2011.

  The first phase of the new Charlesview Residences will increase the existing rental housing from 213 to 240 rental units. An additional 100 units of homeownership housing will be developed in a subsequent phase – 20 units south of Western Avenue and 80 units on Telford Street. The new design complements the existing neighborhood and includes significant infrastructure and open space. The first phase of construction is expected to be complete by early 2014. The University will demolish the existing complex once residents move to the new Charlesview Residences at Brighton Mills.

- *Brookline Machine site:* The University is currently engaged in discussions with the BRA and the community regarding future uses for the site.

- *Skating Club of Boston:* The Skating Club of Boston (the "Skating Club") and Harvard University have completed due diligence and have finalized and executed the land exchange agreement enabling the Skating Club to advance planning and development of a new three-rink facility at 176 Lincoln Street in Allston. The agreement, which involves exchanging the Skating Club's current property on Western Avenue for the University's Lincoln Street property, will enable the Skating Club to build a new state of the art facility, expand offerings to the community, and stay in the Allston-Brighton community. The Skating Club's facility will remain in operation in its current location until construction of the new facility is completed. Prior to the Skating Club relocating to its new facility, Harvard will communicate to the community a plan for the near-term use of the Skating Club of Boston property on Western Avenue and the process through which longer term plans will be established.

Green Space

Two new parks created and maintained by Harvard University: the Ray Mellone Park located behind the Honan Allston Library, and a smaller green space located at 108 Holton Street.

Planning Principles

The University is committed to responsible property stewardship beyond the boundaries of the IMP Area. Harvard will continue to manage its property consistently, with the goals of maintaining reliable tenants, fostering attractive streetscapes and preserving long-term

planning options. In particular, the University will:

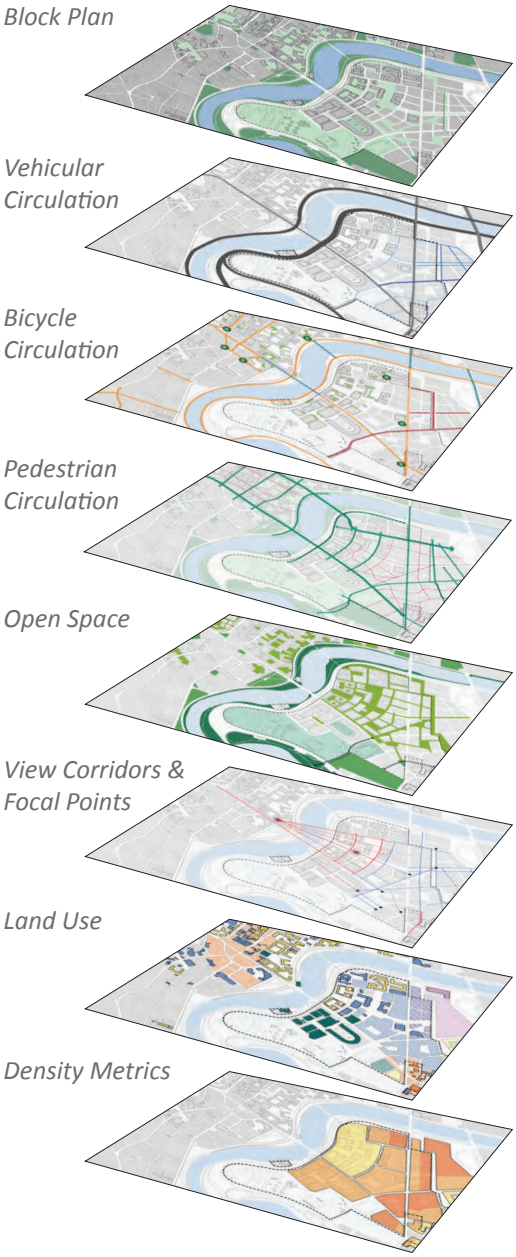
- Continue to pursue tenants who contribute to the community fabric and further the greening and longer term planning desires of both Harvard and the Allston community;
- Continue to pursue tenants who favor local employment and might bring additional jobs to the Allston community;
- When current leases expire and new tenancies are considered, Harvard will be mindful of the ultimate highest and best use of the actual property and explore options related to mutually beneficial longer term planning goals of the community and Harvard;
- Provide an annual update on Harvard leasing and property stewardship; and
- Engage in discussions around Harvard holdings in Allston so that near term opportunities for mutually agreeable improvements are captured while preserving longer term opportunities.

Appendix B: Long-Term Framework Plan

Introduction

Layered together, the drawings that follow illustrate a Long-Term Framework Plan for Harvard University's Campus in Allston. This framework provides generalized and flexible parameters to guide the build out of other Harvard landholdings in the longer-term. The geographic area of the Long-Term Framework Plan includes the IMPNF area plus additional acreage to the south of Western Avenue. It represents planning concepts, including new streets, pedestrian connections, open space, and opportunities for growth and development that go beyond the ten-year timeline. The Long-Term Framework Plan informs the Ten-Year Plan, ensuring that planning and development in the next decade complements a longer-term vision.

This Long-Term Framework Plan is provided for information purposes only and is not submitted for approval under the institutional master planning regulations. What is depicted here is intended to guide growth over decades to come.



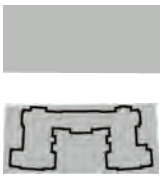
Long-Term Block Plan

The framework organized by streets, paths and open spaces breaks down existing impenetrable areas into a system of development blocks that guide future incremental growth. The blocks comprise development sites for future buildings, allowing for a mix of building types and scales to coexist in Allston – from large iconic structures to small wood frame. The block plan provides building envelopes or build-to lines within which building footprints may be developed in the future.

Public Open Space

Harvard Open Space

IMP Boundary

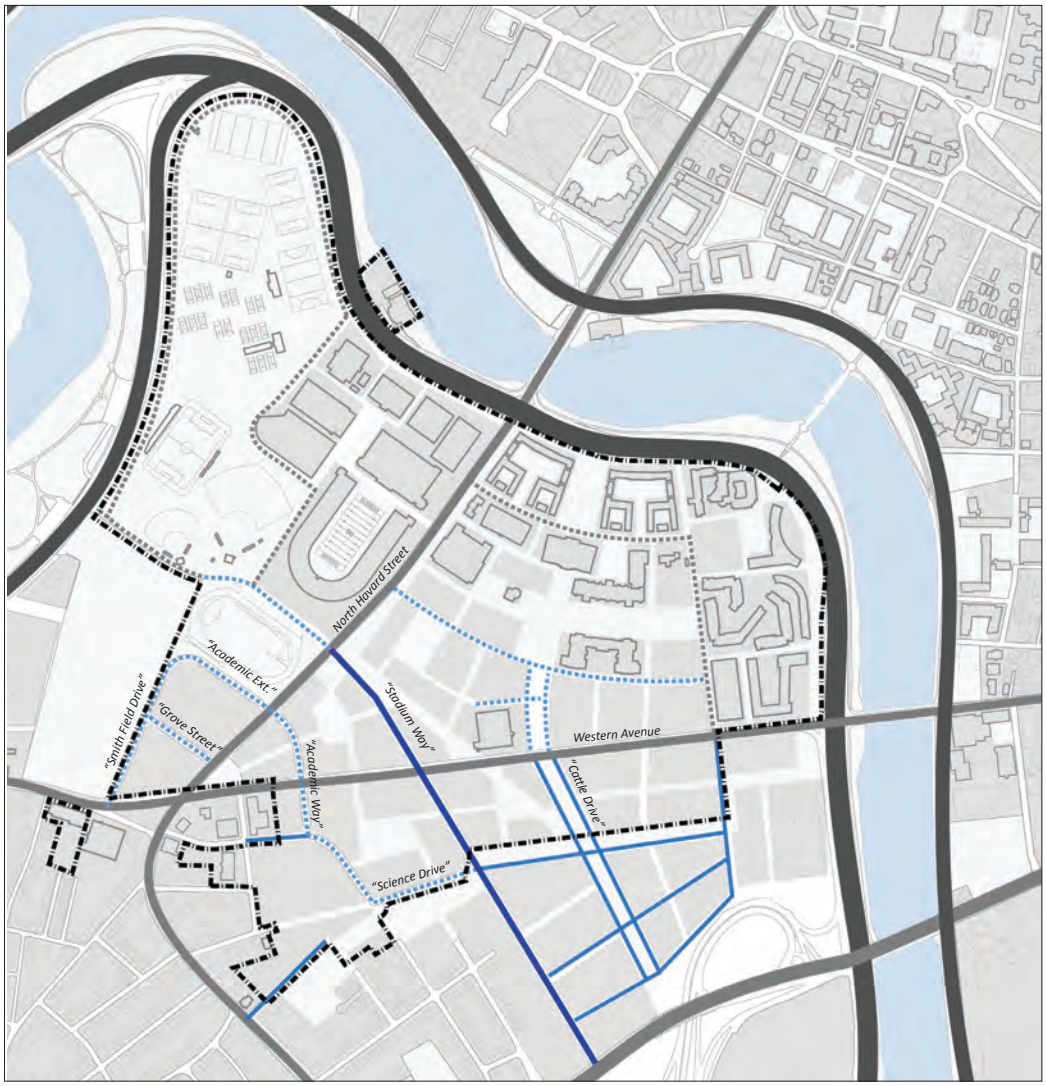


Blocks illustrate development envelopes. Buildings would be designed within these blocks as time progresses. One gray block may be developed with one building, or multiple buildings.

Long-Term Block Plan

Long-Term Vehicular Circulation

The hierarchy envisioned for potential future campus streets in Allston is depicted in the adjacent Long-Term Vehicular Circulation map. The street framework incorporates the City of Boston's vision for Complete Streets, emphasizing the character of the entire street rather than traditional road classifications emphasizing vehicle movements. The Ten-Year Plan identifies segments of campus streets that are related to proposed projects and will therefore be built within the IMP time frame.



Long-Term Vehicular Circulation

Existing Parkways
Existing Neighborhood Connectors
Existing Local Streets
Existing Campus Streets
IMP Boundary
New Connector
New Local Streets
New Campus Streets

This Long-Term Framework plan seeks to achieve the following:

Increase permeability by creating a new north-south connector road, "Stadium Way", and a set of local, campus streets that enhance mobility and circulation by all modes.

Reflect and respect the fine-grain street network of the adjacent residential neighborhood, providing better connections to activities in Barry's Corner and important open spaces.

Improve transit access by creating new pathways to bus stops and integrating shuttle bus circulation needs into the local street network.

Note: Street names are illustrative only, it is anticipated they may be re-named in the future.

The accompanying diagram indicates 5, 10, and 15 minute walk times. It is possible to walk from Barry's Corner to the river in 10 minutes and from Barry's Corner to Harvard Square in 20 minutes.

Long-Term Bicycle Network

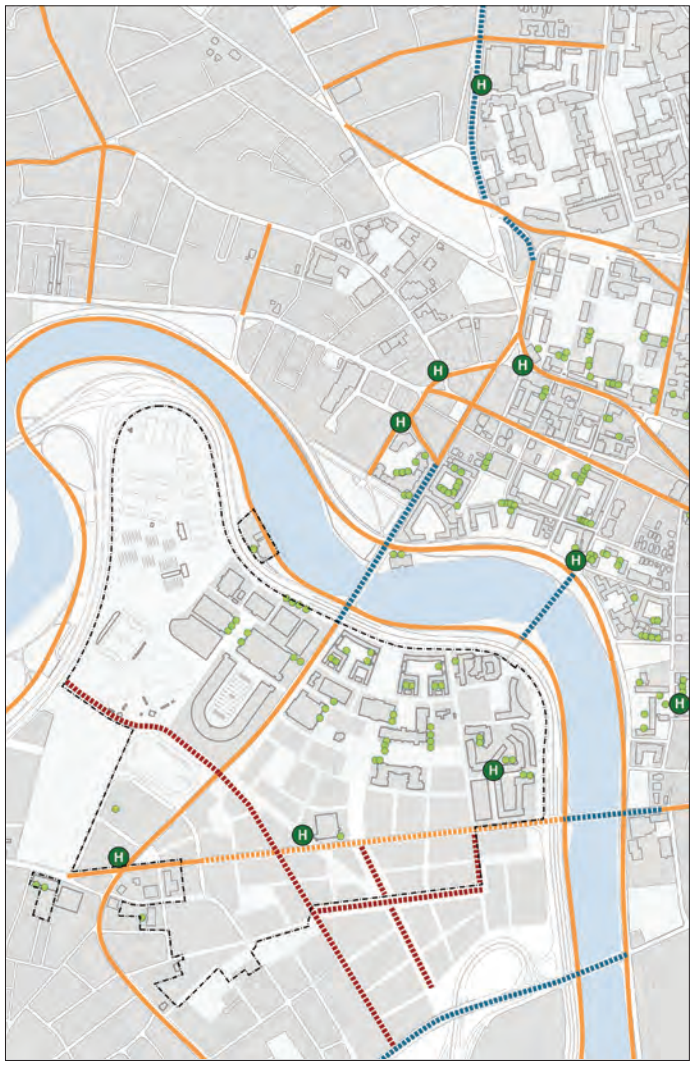
A mix of bike lanes and paths are envisioned to be integrated into the growing public bicycle network. Harvard has coordinated with the cities of Boston and Cambridge and with MassDOT to develop and implement new bike lanes in Allston and on the Anderson Bridge.

The Long-Term Framework Plan builds on recent public investments that include a new north-south bicycle link from Cambridge Street to Soldiers Field Road and eventually the Charles River via the "Stadium Way" bike lanes and the multiuse path extending from "Stadium Way" at North Harvard Street to Soldiers Field Road. The Ten-Year Plan also envisions upgrading a portion of the cycle track on Western Avenue. Other new campus streets would accommodate bike travel on low volume, low speed streets, connecting to bike parking at new and existing campus buildings and to the growing number of Hubway bike-share stations.

Long-Term Pedestrian Circulation

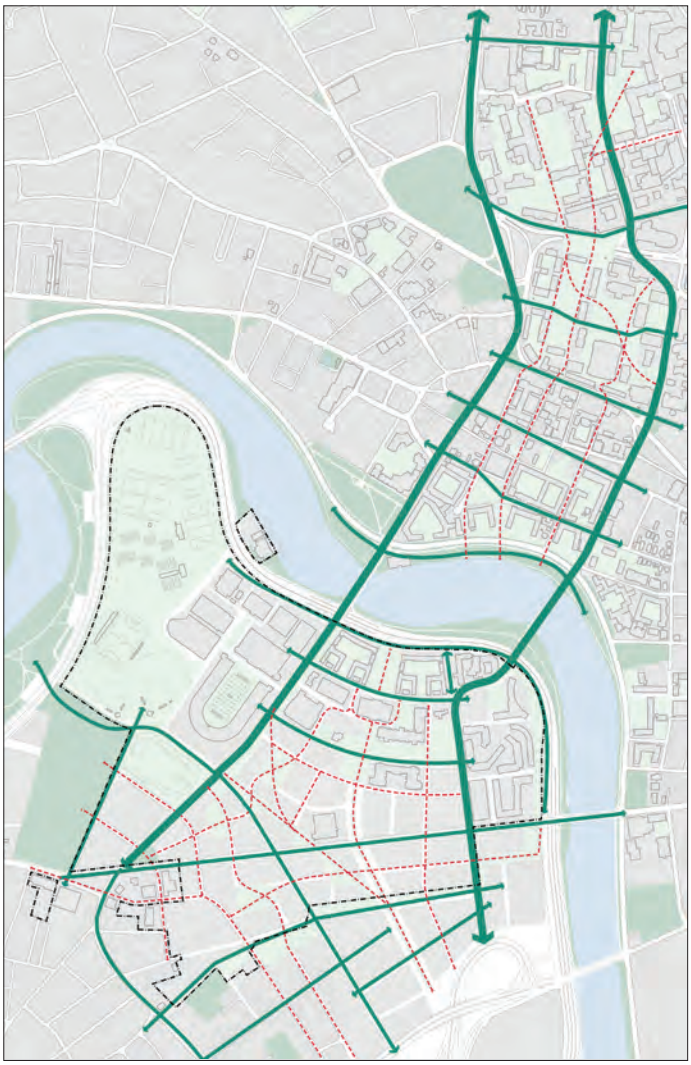
Harvard's campus is a walking campus. Its compact form makes it possible to walk, bike, or use transit. The close interweaving of streets, sidewalks, buildings and open spaces integrate the campus into a dynamic urban fabric. The Long-Term Framework Plan seeks to extend walkable patterns south into new areas of the campus and the residential neighborhood in Allston by creating a pedestrian scale block pattern in areas that are currently impenetrable to pedestrians, and strengthening connections to the adjacent neighborhoods. The Long-Term Pedestrian Circulation drawing illustrates existing and proposed pedestrian circulation routes in a pattern resembling a ladder. North-south spines connect the Harvard campus in Cambridge and Allston. Smaller campus and local streets ('rungs') establish a rhythm of blocks. Networks of smaller paths provide internal pedestrian circulation.

The Anderson Bridge (between North Harvard Street and JFK Street), and the Weeks Footbridge and connecting overpass to Harvard Business School, are the spines crossing the Charles River to connect Allston and Cambridge. MassDOT is undertaking improvements to the Anderson Bridge that will enhance pedestrian crossings and add bike lanes. The Massachusetts Department of Conservation and Recreation is planning accessibility improvements for the Weeks Footbridge with support from HBS.



Long-Term Bicycle Network

- Existing Bike Lanes/Paths
- Potential Cycle Track Improvements
- Proposed Public Bike Lanes/Paths
- Potential Harvard Bike Lanes/Paths
- Existing Hubway Station
- Existing Bike Parking
- IMP Boundary



Long-Term Pedestrian Circulation

- "Ladder" Connection
- Secondary Connection
- IMP Boundary

0' 250' 500' 1000'

Long-Term Campus Open Space

Together with the streets, the potential open spaces (depicted in the Long-Term Open Space plan) provide the framework for Harvard's campus in Allston and its connection with the North Allston residential neighborhood. These spaces would allow Harvard and the community to meet, relax, work and play on a welcoming system of green spaces. The plan maintains the Soldiers Field Athletic Complex west of North Harvard Street, and envisions new quadrangles as the organizing elements of future academic expansion on the Charlesview and Ohiri Field sites.

Although academic expansion on the Charlesview/Ohiri site is not within the time frame of the Ten-Year Plan, the University sees an opportunity to begin greening this area once the Charlesview Apartments are taken down. Harvard is committed to preserving and enhancing the grove of trees at Barry's Corner. Work sessions led by the BRA with the Allston Task Force suggest shifting the focus of Barry's Corner away from the intersection eastward toward the grove of trees. This idea reinforces the concept that Barry's Corner will be a central place for people to meet and interact. The wooded open space is comparable in size to Cambridge's Winthrop Square and could become an informal gathering space for members of the Allston and Harvard communities.

The greenway has long been a vision in Harvard's planning in Allston, connecting North Allston's primary civic space, the Honan-Allston Library, to the Charles River. It is a potential long-term initiative and is seen as an organizing element of the Enterprise Research Campus envisioned for Allston Landing North. It could provide opportunities for a new type of campus landscape and new civic ecology. The greenway is envisioned as a vegetated, linear, and multi-purpose system. In addition to serving as a recreation and open space corridor, it could be an integral working landscape for stormwater management.

Also crossing this area is the long-term concept for "Longfellow Path", a pedestrian connection that would eventually thread together the greenway, "Stadium Place", Smith Field, Harvard Athletics, and the Charles River running along the sewer easement from North Harvard Street southeast, ultimately to the Enterprise Research Campus.

Long-Term Open Space

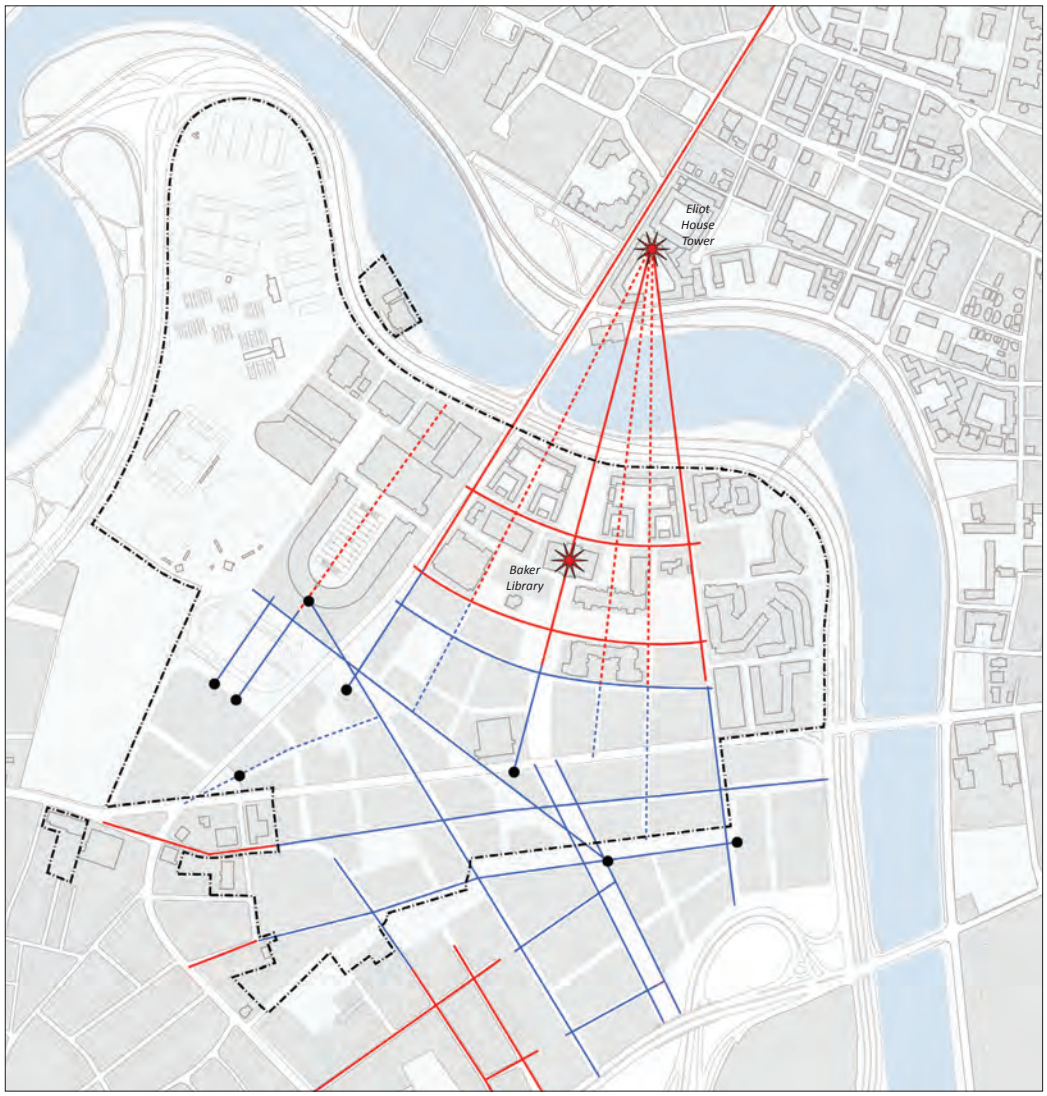
Existing Open Space Network

Community Green
Plan by Beyer Blinder Belle

HBS Dedication 1927

Long-Term View Corridors and Focal Points

The Long-Term Framework Plan is shaped by existing axial alignments, view corridors and focal points. Illuminated bridges and towers glowing over the tree line serve to physically identify Harvard University and to orient pedestrians. In Allston, Baker Library was designed to serve as the visual and intellectual focal point of Harvard Business School. The axial alignment with Eliot House maintains Baker Library as a focus point and has continued to guide development in Allston. The plan foresees possible opportunities for new landmarks and focal points.



Long-Term View Corridors & Focal Points

- Visual Axis
- Organizing Axis
- Existing Axis
- Extended Axis
- Existing Focal Point
- Focal Point Opportunities
- IMP Boundary

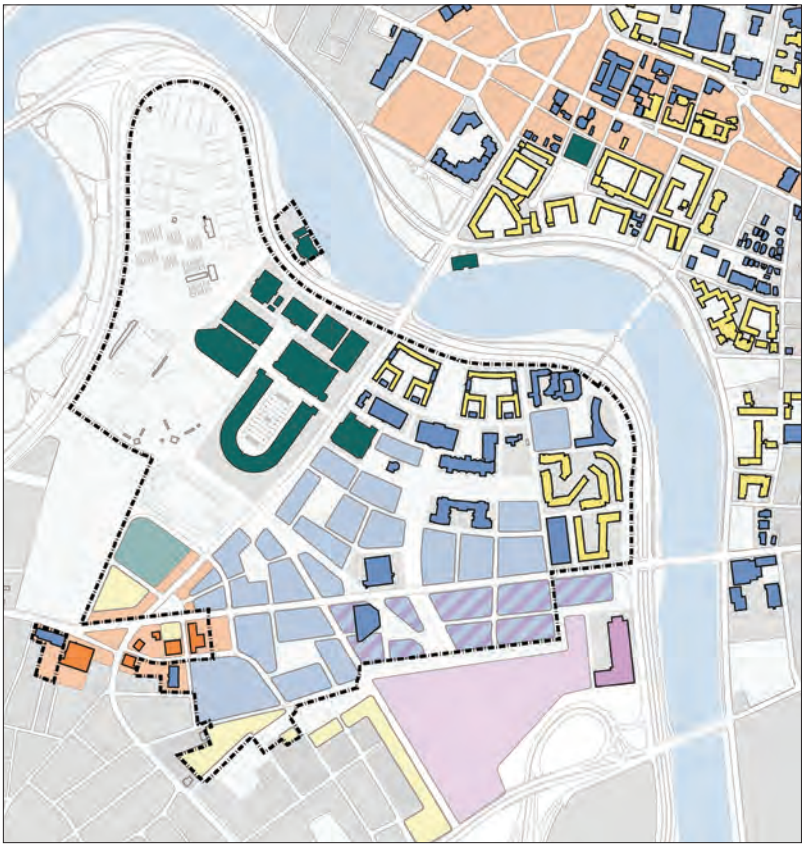
Long-Term Land Use

A generalized land use pattern including predominant building-use is depicted on the accompanying diagram (Long-Term Land Use).

Dark colors show existing uses within built structures, while lighter shades illustrate future long-term use in precincts. The extension of institutional uses south to Barry's Corner is consistent with the Work Team recommendation that the University enable academic growth by preserving land adjacent to the existing campus. South of Western Avenue institutional uses will meet the future Enterprise Research Campus area, seen as a collaborative community for business, investment capital, research and science development. This area is under study for future development, and therefore not subject to the ten-year IMPNF review.

The area proposed for the new basketball venue, illustrated in lighter green, is planned to be lined with a mix of uses to activate North Harvard Street and Barry's Corner.

Light red illustrates locations for a mixed-use center at Barry's Corner. Lining housing, athletics, and institutional uses with light red illustrates Harvard's interest in achieving active ground floor uses at Barry's Corner. Bright yellow illustrates districts of existing campus housing at the riverfront. The lighter yellow area identifies opportunities for future housing including a residential buffer west of the southern portion of Stadium Way.



Long-Term Land Use

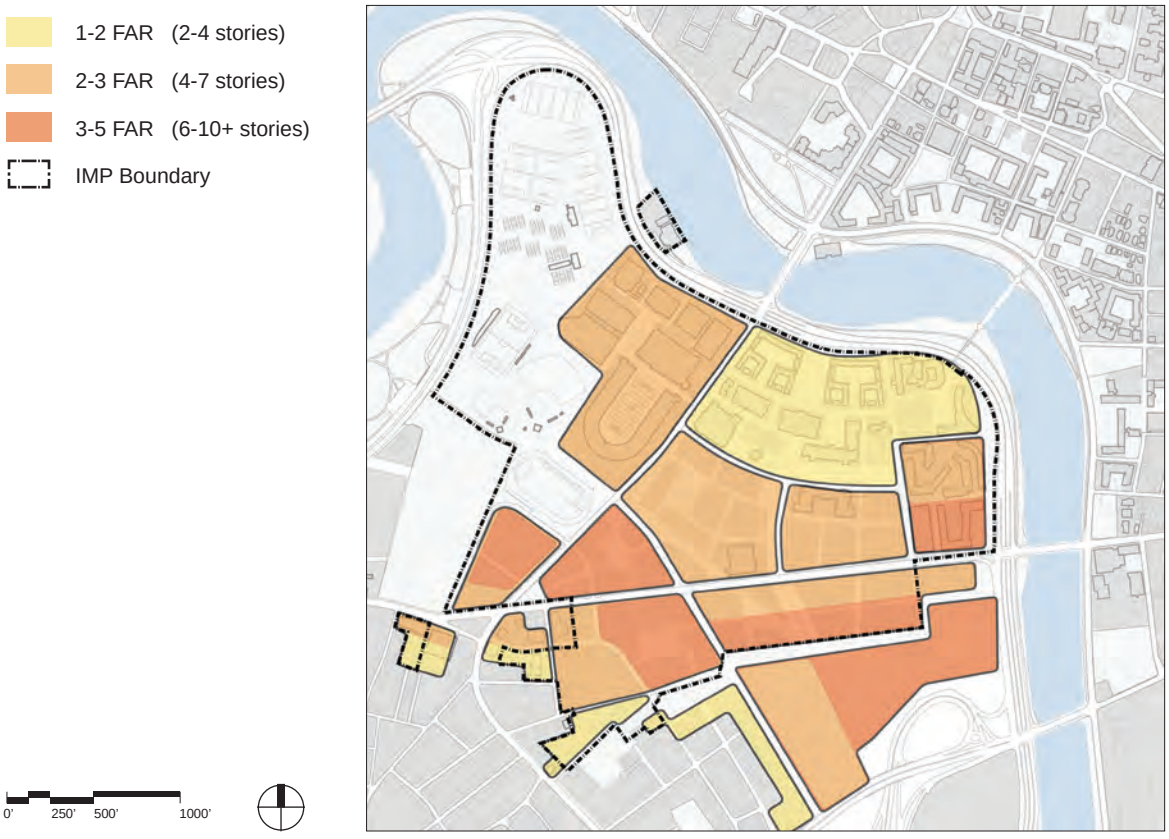
Long-Term Density Metrics

The total build-out capacity of the area of the long-term framework plan is estimated at approximately nine million square feet.

Other than for specific projects within the Ten-Year Plan, specific density parameters have not yet been established within the area of the Long-Term Framework Plan. However, as depicted in the accompanying Long-Term Density Metrics drawing, different ranges of density are anticipated within various districts of the framework. Typically, density is measured in terms of floor-area-ratio (FAR) which is defined as the ratio of a building's floor area to the size of its site; the larger the FAR, the greater the density. Two areas are expected to be built at relatively low densities. These include the edge of the existing residential area, and the historic core campus of the Harvard Business School. In these areas density is likely to remain roughly consistent with existing development, at approximately 1-2 FAR.

Areas between the Business School and Western Avenue, as well as the existing Athletics building district, have somewhat greater density. Larger buildings either already exist in these areas, or would be expected as part of future development. In these areas, density is expected to be roughly within the range of 2-3 FAR.

Similarly, two areas are expected at the higher end of the overall range of anticipated densities. These include Barry's Corner, where a greater population and density are needed to foster the success of retail and other active ground-floor uses, and in the area of the future Enterprise Research Campus, where private development partnerships are likely to generate an economic need for greater density. In these areas, density is estimated at 3-5 FAR.



Long-Term Density Metrics