HARVARD UNIVERSITY

Town Gown Report

*for the*City of Cambridge

Submitted by: Harvard Planning & Project Management



Table of Contents

| I. | EXISTING CONDITIONS |
|------|---|
| | A. Faculty & Staff |
| | B. Students and Postdoctoral Scholars |
| | C. Student Residences |
| | D. Facilities & Land Owned |
| | E. Real Estate Leased |
| | F. Payments to City of Cambridge9 |
| | G. Institutional Shuttle Information |
| II. | FUTURE PLANS |
| | A. Development over the Past 5 Years |
| | B. Capital Projects |
| | 1. Project Map |
| | 2. Project List |
| | C. Other Planning Priorities |
| | D. Sustainability |
| III. | TRANSPORTATION DEMAND MANAGEMENT 52 |
| IV. | INSTITUTION SPECIFIC INFORMATION REQUESTS |

I. EXISTING CONDITIONS

A. FACULTY & STAFF¹

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|--------|--------|--------|--------|--------|
| Cambridge Based Staff | | | | | |
| Head Count | 12,027 | 11,444 | 11,644 | 11,854 | 12,173 |
| FTEs | 9,761 | 9,146 | 9,300 | 9,507 | 9,549 |
| Cambridge Based Faculty | | | | | |
| Head Count | 1,783 | 1,715 | 1,755 | 1,823 | 1,938 |
| FTEs | 1,621 | 1,572 | 1,605 | 1,660 | 1,749 |
| Number of Cambridge Residents Employed at Cambridge Facilities | 4,105 | 3,927 | 3,897 | 3,903 | 4,039 |
| | | | | | |
| Number of Cambridge Residents Employed at Boston Facilities | 720 | 747 | 754 | 747 | 815 |

Ten-year projection

Harvard has not undertaken University-wide projections for faculty and staff counts.

Employment figures are as of June 30, 2013 and March 30, 2013 and includes TA's, graduate students, postdoctoral scholars, interns and other staff.

B. STUDENTS AND POSTDOCTORAL SCHOLARS²

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|-------------|--------------|--------------|--------------|--------------|
| Total Undergraduate Degree Students | 7,156 | 7,181 | 7,255 | 7,245 | 7,256 |
| Day | 6,678 | 6,655 | 6,641 | 6,657 | 6,659 |
| Evening | [478] | [526] | [614] | [588] | [597] |
| Full Time | 6,890 [223] | 6,869 [219] | 6,909 [276] | 6,906 [254] | 6,899 [248] |
| Part Time | 266 [255] | 312 [307] | 346 [338] | 339 [334] | 357 [349] |
| Total Graduate Degree Students | 9,486 | 10,191 | 10,211 | 10,163 | 10,328 |
| Day | 8,557 | 8,730 | 8,896 | 8,868 | 8,983 |
| Evening | [929] | [1,461] | [1,315] | [1,295] | [1,281] |
| Full Time | 8,485 [126] | 8,767 [220] | 8,868 [126] | 8,823 [87] | 9,139 [264] |
| Part Time | 1,001 [803] | 1,424[1,241] | 1,343[1,189] | 1,340[1,208] | 1,125[1,017] |
| Total Non-degree Students | 6,172 | 6,525 | 6,354 | 6,350 | 6,675 |
| Day | 313 | 285 | 322 | 313 | 274 |
| Evening | [5,859] | [6,240] | [6,032] | [6,037] | [6,401] |
| Total Number of Students in Cambridge | 22,814 | 23,897 | 23,820 | 23,758 | 24,259 |
| | | | | | |
| Total Number of Postdoctoral Scholars ³ | 906 | 891 | 969 | 1,012 | 1,030 |

Numbers in brackets represent students at the Extension School and are a subset of the total number of Full and Part Time students indicated.

Ten-year projection

As is the case with faculty and staff counts, Harvard has not undertaken University-wide projections of future student population.

² Counts as of October 15, 2012 for 2013. Includes all non-degree students enrolled in day or evening classes, such as persons taking classes at Harvard Extension School.

³ Postdoctoral scholars are considered staff, therefore they are included in staff totals reported in Section A.

C. STUDENT RESIDENCES

| | 2009 | 2010 | 2011 | 2012 | 2013 | | |
|--|-------------|-------|--------------------|-------|-------|--|--|
| Number of Undergraduate Students Residing in Cambridge | | | | | | | |
| In dormitories | 6,566 | 6,566 | 6,363 ⁴ | 6,545 | 6,113 | | |
| With cars garaged in Cambridge | 17 | 22 | 12 | 15 | 8 | | |
| In Harvard affiliate housing ⁵ | 0 | 0 | 0 | 4 | 440 | | |
| In non-affiliate housing | 115 | 109 | 162 ⁶ | 142 | 128 | | |
| Number of Graduate Students Residin | g in Cambri | idge | | | | | |
| In dormitories | 1,181 | 1,270 | 1,230 | 1,181 | 1,054 | | |
| With cars garaged in Cambridge | 208 | 156 | 177 | 172 | 134 | | |
| In Harvard affiliate housing | 1,747 | 1,706 | 1,731 | 1,625 | 1,574 | | |
| In non-affiliate housing | 3,333 | 3,279 | 3,447 | 3,437 | 3,749 | | |

Ten-year projection

Harvard has not undertaken University-wide projections of future student residences.

⁴ Prior to 2011 the figures reported were beds available for undergraduate students. Beginning in 2011 the number of undergraduate students residing in Cambridge dormitories is reported.

⁵ Prior to 2012 this number was not available. Beginning in 2013, the number of undergraduate students residing in Harvard affiliate housing includes 10-20 DeWolfe Street and students residing in "swing housing" to accommodate the House Renewal program.

⁶ Prior to 2011, visiting undergraduate students, who are not eligible to live on campus, were not included.

D. FACILITIES & LAND OWNED

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------------|-----------|-----------|--------------------|---------------------|-------------------------|
| Acres (Tax Exempt) 7 | 201.59 | 201.59 | 202.68 | 190.4 | 190.4 |
| Acres (Taxable) 7 | 24.61 | 24.61 | 24.97 | 23.1 | 23.1 |
| Number of Buildings | 395 | 388 | 390 | 391 | 391 |
| Dormitories | | | | | |
| Number of Buildings | 80 | 80 | 74 ⁸ | 74 | 74 |
| Number of Beds | 7,917 | 7,918 | 8,287 ⁹ | 8,258 | 8,222 |
| Size of Buildings (GFA) | 15.5M | 15.5M | 15.5M | 15.9M ¹⁰ | 15.9M |
| Assembly/ museum | 884,536 | 997,167 | 987,520 | 972,554 | 972,554 |
| Athletic | 225,761 | 210,780 | 210,780 | 210,780 | 210,780 |
| Classroom | 866,512 | 866,512 | 866,512 | 877,524 | 877,524 |
| Commercial | 282,045 | 282,045 | 282,045 | 282,045 | 185,453 ¹¹ |
| Healthcare | 77,155 | 77,155 | 77,155 | 77,155 | 77,155 |
| Laboratory | 2,485,937 | 2,546,699 | 2,546,699 | 2,587,479 | 2,587,479 |
| Library | 1,154,716 | 1,086,080 | 1,091,446 | 1,091,084 | 1,091,084 |
| Office | 2,882,301 | 2,880,697 | 2,871,984 | 3,096,323 10 | 3,121,737 |
| Residential | 5,714,655 | 5,646,543 | 5,663,194 | 5,606,735 | 5,766,765 ¹¹ |
| Support | 886,349 | 881,041 | 881,041 | 1,104,054 | 1,071,830 |

⁷ Starting in 2012 the number reported for taxable and tax exempt land reflects a more accurate accounting of land that was partially taxable as of 7/1/2012.

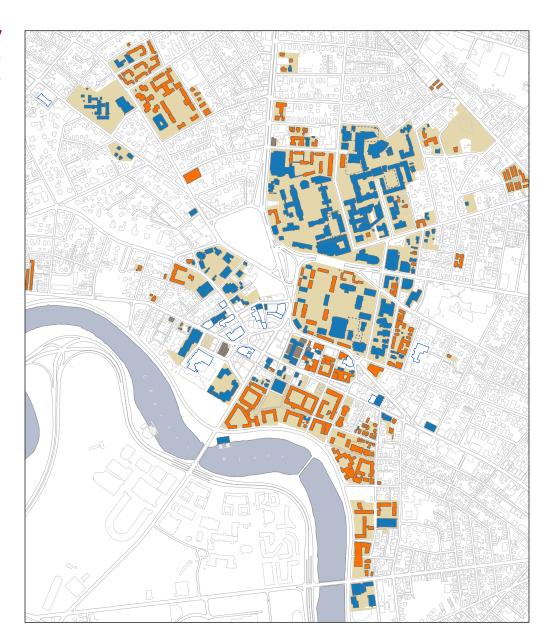
The building number reported in 2010 included several buildings ancillary to dormitory residential buildings which have been excluded from the 2011 building count.

⁹ The overall increase in dormitory beds reflects a more accurate accounting of existing undergraduate student beds and does not represent an increase in the capacity to house students.

The increase in SF is due to the completion of Wasserstein Hall Caspersen Student Center and Clinical Wing and the Everett Street Garage in 2012.

¹¹ Change in area reflects the conversion of 1201 Massachusetts Avenue from hotel use to dormitory.

Real Estate Owned and Leased by Harvard University



Legend

Buildings by Ownership Status and Primary Use $^{(1)}$



Land Parcels

Harvard Owned

Notes:

- (1) Primary Use reflects predominant building use.
- (2) The Rowland Institute located at 100 Edwin Land Blvd is located outsite the map coverage area.
- (3) Includes real estate leased to third party
- (4) Buildings may be leased by Harvard in whole or in part.
- (5) The following buildings leased by Harvard for Institutional Use are located outside the map coverage area:
 - 155 Fawcett Street 625 Massachusetts Avenue One Kendall Square

Parking Facilities

Harvard University owns and maintains 4,576 non-commercial parking spaces in the City of Cambridge. These spaces constitute the University's parking inventory and are used to support University operations and accommodate faculty, staff, student, and visitor parking. The inventory is updated and approved each December as part of Harvard's annual PTDM Progress Report.

Housing (This table does not include information about dormitories.)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------------------------|-------|-------|-------|-------|-------|
| Affiliate Housing - Tax Exempt | | | | | |
| Number of Units: | 1,047 | 1,047 | 1,047 | 1,043 | 1,043 |
| Number of Buildings: | 12 | 12 | 12 | 12 | 12 |
| Affiliate Housing - Taxable | | | | | |
| Number of Units: | 889 | 889 | 890 | 891 | 892 |
| Number of Buildings: | 53 | 53 | 54 | 55 | 55 |
| Other Housing - Tax Exempt | | | | | |
| Number of Units: | None | None | None | None | None |
| Number of Buildings: | None | None | None | None | None |
| Other Housing - Taxable | | | | | |
| Number of Units: | None | None | None | None | None |
| Number of Buildings: | None | None | None | None | None |

Property Transfers

Cambridge properties purchased since filing previous Town Gown Report:

None

Cambridge properties sold since filing previous Town Gown Report:

Harvard transferred 2 Mount Auburn to HRI in a preservation transaction that was structured to ensure that all units remain affordable and that all tenants were able to remain in their units.

Planned dispositions or acquisitions:

None

E. REAL ESTATE LEASED

| Real Estate Leased by Harvard | Sq Feet | Tenant | Use |
|-------------------------------|---------|---------|------------|
| One Bow Street | 19,011 | FAS | Office |
| One Brattle Square | 18,737 | HKS | Office |
| One Kendall Square | 27,000 | HMS | Laboratory |
| One Story Street | 6,125 | DCE | Classroom |
| 10 Ware Street | 2,000 | UIS | Office |
| 104 Mt. Auburn Street | 12,312 | FAS | Office |
| 104 Mt. Auburn Street | 7,166 | Provost | Office |
| 125 Mt. Auburn Street | 36,564 | HLS | Office |
| 1408-1414 Massachusetts Ave | 50,000 | FAS | Office |
| 1430 Massachusetts Avenue | 3,102 | FAS | Office |
| 155 Fawcett Street | 34,000 | FAS/ART | Warehouse |
| 20 University Road | 21,550 | GSE | Office |
| 25 Mt. Auburn Street | 7,732 | LASPAU | Office |
| 44 Brattle Street | 10,193 | GSE | Office |
| 50 Church Street | 22,680 | GSE | Office |
| 625 Massachusetts Avenue | 41,141 | FAS | Office |
| TOTAL | 319,313 | | |

F. PAYMENTS TO CITY OF CAMBRIDGE

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| Total Payments | \$13,366,092 | \$14,282,663 | \$15,987,554 | \$14,216,649 | \$14,120,766 |
| Real Estate Taxes Paid: | \$4,906,603 | \$5,065,482 | \$5,165,704 | \$5,336,783 | \$5,662,893 |
| Payment in Lieu of Taxes (PILOT): | \$2,248,730 | \$2,575,890 | \$2,709,788 | \$2,783,151 | \$2,845,406 |
| Water & Sewer Fees Paid: | \$4,994,405 | \$5,258,274 | \$5,564,756 | \$5,174,472 | \$4,919,274 |
| Other Fees & Permits Paid: | \$1,216,354 | \$1,383,017 | \$2,547,306 | \$922,243 | \$693,193 |

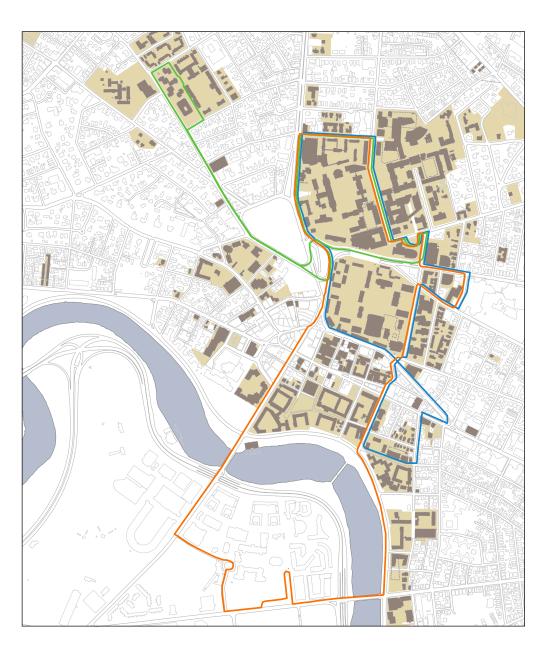
Ten-year projection:

In 2005 Harvard University and the City of Cambridge renewed the PILOT agreement for a fifty-year period with annual escalators.

G. INSTITUTIONAL SHUTTLE INFORMATION

| Route Name | Description | Frequency | Hours of Operation | | | | | |
|---------------------------------|---|------------|-----------------------|--|--|--|--|--|
| Weekday Service - Morning | | | | | | | | |
| Radcliffe Quad (Stadium) | Quad, Square, River Houses, Allston Campus | 30 minutes | 5:30 am to 7:15 am | | | | | |
| Soldiers Field Park (II) | Allston Campus, Square, Quad, Square, Allston Campus | 20 minutes | 7:15 am to 10:30 am | | | | | |
| Weekday Service - All Da | ay | | | | | | | |
| Mather Express | River Houses through Square to Kirkland St. | 10 minutes | 7:30 am to 4:30 pm | | | | | |
| Radcliffe Quad (Express) | Quad, Square, to Kirkland St. | 10 minutes | 7:30 am to 5:00 pm | | | | | |
| Allston Campus | Allston Campus, Square, Mass Ave, Oxford St., Square, Allston Campus | 15 minutes | 7:50 am to 4:00 pm | | | | | |
| Weekday Service - Eveni | ngs | | | | | | | |
| Extended Overnight | River Houses through Square, up Garden St. to Kirkland St. to River Houses | 30 minutes | 7:30 pm to 4:00 am | | | | | |
| Radcliffe Quad- Yard Express | Quad, Square, Quad (up Garden St.) | 25 minutes | 4:15 pm to 1:00 am | | | | | |
| River Houses A, B, & C | River Houses through Square, up Garden St., to Kirkland St., to River Houses | 35 minutes | 4:15 pm to 1:00 am | | | | | |
| Soldiers Field Park (III) | Allston Campus, Square, Kirkland St., Square, Allston Campus | 35 minutes | 4:00 pm to 9:00 pm | | | | | |
| Allston Campus | Allston Campus, Square, Mass Ave,Oxford St., Square, Allston Campus | 15 minutes | 4:00 pm to 12:30 am | | | | | |
| Weekend Service | | | | | | | | |
| Crimson Campus Cruiser | River Houses through Square, up Garden St. to Kirkland St. to River Houses | 35 minutes | 9:00 am to 4:30 pm | | | | | |
| 1636'er | River Houses through Square, up Garden St., to Kirkland St., to River Houses | 20 minutes | 4:00 pm to 1:00 am | | | | | |
| Soldiers Field Park (I) | Allston campus, Square, Quad, Square, Allston Campus | 30 minutes | 4:30 pm to 8:00 pm | | | | | |
| Extended Overnight | River Houses thru Square, up Garden St., to Kirkland St., to River Houses | 30 minutes | 12:00 am to 5:00 am | | | | | |

Harvard Campus Shuttle Routes



Legend Mather Express Quad Express Allston Campus Express

Notes:

This map shows the three principal academic year day-time shuttle bus routes. Harvard also runs evening and weekend shuttle services that cover these routes but on a different schedule.

Harvard's Passenger Transport Shuttle fleet includes seven 35-foot buses and five 29-foot buses (each of the twelve buses has a capacity of 37 passengers). During the academic year, two buses provide service for the River Houses area; three buses serve the Radcliffe Quad area; and two buses operate between Cambridge and Allston. In the summer, limited weekday Shuttle service is provided on the Soldiers Field Park route. Additionally, Harvard's Passenger Transport Van fleet includes five, ten-seat passenger vans and two wheelchair passenger vans. On weekdays, two of the vans run from 7:30 am-7pm; on weekends the vans run from 12pm-7pm. These vans provide service to individuals with mobility impairments or medical conditions on an as-needed basis. On weeknights, an evening van service is designed to transport faculty, staff and students safely about the campus area as a supplement to the shuttle bus system. The evening service operates between 7pm and 3am, seven days a week throughout the academic year and 7pm-12:30 am during the summer.

All of the shuttle vehicles operate on B-20 biodiesel. Using biodiesel is considered a best practice in this industry and has reduced emissions by 15 percent. On an annual basis, emissions are reduced by 96,725 lbs per bus fleet and 43,091 lbs per van fleet. Harvard's Transport Service Department practices proactive maintenance on all vehicles and keeps the fleet on a short life cycle to ensure that the shuttles use the best technology available.

Schedules are very precise and do not allow for more than three minutes of idling, less than the five minutes is allowed by anti-idling regulations.

Ridership data and efforts both to coordinate shuttle system with other institutions and to streamline shuttle services.

Total passenger ridership for all Harvard shuttle routes in FY2013 was 852,159.

Harvard's Passenger Transport Service (PTS) Department collaborates with the Cambridge Traffic, Parking and Transportation Department in the planning of University shuttle routes. Harvard also works closely with the Cambridge Department of Public Works during construction and events that may require re-routing of Harvard Shuttles.

Harvard has developed a good working relationship with the Cambridge Police Department in dealing with the safety needs of the streets shared by the University and the City, and have been partners in mitigating issues such as over-crowding caused by tourist buses on Massachusetts Avenue.

The University has partnered with the MASCO shuttle bus and, in addition to providing financial support for this system, shares ShuttleTracker technology (a real-time tracking system developed for PTS that shows the location of buses on their routes). This coordination has limited service overlap within Cambridge and eliminates the need for a dedicated Harvard shuttle traveling to the Medical Area in Boston. Opportunities for collaboration with other institutions have been limited due to the liability of having non-Harvard affiliated passengers riding on University vehicles.

II. FUTURE PLANS

A. DEVELOPMENT OVER THE PAST 5 YEARS

Harvard's development activity over the past five years has continued to focus on projects that advance the University's academic mission and improve the quality of life on campus. A growing priority for the University is meeting the facility and space needs of the evolving landscape of higher education, which impacts both the types of spaces required for teaching and research, and the infrastructure that supports them.

The primary programmatic drivers of physical planning and development on the Cambridge campus continue to be: supporting academic programs and research; housing Harvard affiliates; enhancing the campus experience; promoting campus sustainability; and improving campus infrastructure.

Supporting Academic Programs and Research Support for Harvard's academic and research programs continues to be the foremost driver of physical planning and development. The University has sustained investment in new and renovated facilities that support core academic programs and research, including the renovation of science and engineering facilities which advance research and teaching in the life sciences, chemistry, and bio-engineering. As higher education becomes increasingly cross-disciplinary, interconnected and collaborative there is a growing need for facilities and campus infrastructure that support new curricula, teaching pedagogies and new learning initiatives such as HarvardX. Significant projects include:

- Nocera Lab Creation of state-of-the-art laboratory space for inorganic chemistry and optical research in Conant Laboratory, supporting advanced research in renewable energy.
- Tozzer Library Renovation and expansion to enable the consolidation of Anthropology Department programs and foster the creative integration of departmental teaching and research activities.
- Technology Improvements Across Harvard's campus, spaces are being renovated
 and modified to provide adaptive and flexible learning environments. Projects have
 included upgrades to technology and infrastructure such as audio visual systems; new
 recording capabilities to support distance learning initiatives, such as the creation of a
 video capture studio in Widener Library; and improvements to wireless connectivity.

Housing Harvard's Affiliates

The University has continued to make capital investments in its housing portfolio which contains over 13,000 beds in 8,000 units, ranging from dormitories to fully furnished apartments. Priority projects include life safety and building system upgrades, interior renovations, and sustainability measures. Most notably, Harvard's House Renewal program is now well underway with the first pilot project completed, and several others under construction or in planning. Significant projects include:

 Stone Hall (Old Quincy) – The completed renewal of this undergraduate dormitory provides renovated living spaces, new common areas, and a state of the art seminar room.

- **Peabody Terrace** Multi-phased project to rehabilitate the exterior concrete façade of this modernist residential complex.
- Cronkhite Graduate Center Upgrade of building systems and interior renovations to support the Graduate Commons program.

Enhancing the Campus Experience

Harvard has made significant investments in projects that contribute to the quality of campus life for students, faculty and staff. Projects have included enhancement of the campus landscape, improvements in non-academic facilities for students and affiliates, and re-imagining existing facilities to provide new amenities to the University community. Significant projects include:

- Cambridge Street Overpass Harvard partnered with the City of Cambridge to
 repair the Cambridge Street tunnel structure. As part of this renovation project,
 Harvard undertook improvements to the plaza atop the structure which has
 transformed this space into a vibrant meeting and activity space for the community,
 students, faculty and staff.
- **Hilles** The first floor of the former Hilles library was repurposed into a new social space as part of the Student Organization Center at Hilles.

Promoting Campus-Wide Sustainability

Harvard continues to build on over a decade of work making the campus a greener, healthier and more sustainable place to learn, work and live. Harvard's students, faculty and staff are collaborating across disciplines to advance innovative and cost-effective solutions to the global challenges of climate change and sustainability. Recent highlights include:

- Collaborations for Change In confronting challenges of climate change and
 sustainability, Harvard is partnering with government, non-profit organizations,
 and private business to identify solutions and shared opportunities that will lead to
 lasting change. A centerpiece of this effort is the Cambridge Community Compact
 for a Sustainable Future, of which Harvard is a founding signatory.
- Greener, Healthier Buildings With 88 LEED certified projects and 25 registered
 projects, Harvard remains a leader in LEED building projects among institutions of
 higher education. In addition, the University has institutionalized Green Building
 standards such as life cycle costing, integrated design and energy modeling as part of
 the capital planning process.
- Climate Preparedness Harvard is actively preparing for the impacts that climate change will have on our communities. Recent activities have included hosting a Climate Preparedness Summit for University emergency teams and administrators, peer higher educations institutions and local, state, and federal officials.

Improving Campus Infrastructure

To support Harvard's expansive physical campus and the ever-changing needs of higher education, the University has continued to make major investments in critical campus infrastructure, including the following projects:

- Cellular Enhancements Harvard has begun the implementation of a multi-phased project to improve cellular signal strength across its campuses. The distributed antenna system (DAS) will enhance cellular coverage in University buildings and adjacent outdoor spaces and will enable many wireless service providers to utilize the system for future improvements.
- **Chilled Water Distribution** Several projects have upgraded and extended the University's chilled water system to support existing campus buildings.
- **Blackstone Steam Plant** Multiple projects that have upgraded equipment, making steam production more energy efficient, enabling electric cogeneration and significantly reducing emissions.

B. CAPITAL PROJECTS

Projects Recently Completed

Pound Hall(Partial Demolition and Crossroads Project)



Architect: Finegold Alexander & Associates, Inc.

Total Square Feet: 39,000 GSF demolition

Programmatic Driver: Create campus gathering space

Green Attributes: Incorporating sustainable materials and methods

Harvard Law School completed exterior modifications to Pound Hall as part of a major re-landscaping effort to create a "Crossroads" for the Harvard Law School campus. This project re-envisioned what was a residual space into a vibrant landscape that functions both as a major campus pedestrian route and as a gathering space. The project, which was conceived as part of the larger Harvard Law School campus master plan, began upon completion of the adjacent Wasserstein Hall Caspersen Student Center Clinical Wing (WCC) building. Collectively, the project creates a new "heart" of the Harvard Law School campus, and connects Massachusetts Avenue to the route to Harvard Yard via a series of linked landscaped areas through the interior of the campus.

To accommodate programming goals and better facilitate the Crossroads' connections to surrounding buildings, the project involved the partial demolition of approximately one-third of Pound Hall. The classroom and meeting spaces eliminated through the removal of this wing have been replaced in the WCC. A new façade, designed to complement the distinct modernist architecture of the building, re-clads Pound Hall's remaining wing and incorporates a new entry to the building. Together with the entries for the WCC, this new entry to Pound Hall fronts the Crossroads directly, activating its role as a campus hub.

Gannett House

(Renovation)



Architect: Austin Architects
Total Square Feet: 8,660 GSF

Programmatic Driver: Improve building infrastructure and accessibility **Green Attributes:** Incorporating sustainable materials and methods

Harvard Law School has recently completed a renovation of Gannett House, a three-story Greek Revival house built in 1830. The project addressed a number of deferred maintenance issues, including envelope stabilization and updated building systems. The project also resulted in improvements to the building's overall accessibility and sustainability. Gannett House continues to serve as the home of the Harvard Law Review, as it has since 1925.

Cambridge Street Overpass

(Restoration and Renovation)



Landscape Architect: StossLU

Total Square Feet: Approx. 52,000 SF

Programmatic Driver: Improvement of landscape and pedestrian circulation **Green Attributes:** Storm water management, reclaimed paver material, energy

efficient LED lighting

Harvard partnered with the City of Cambridge to repair the Cambridge Street tunnel structure. As part of this renovation project, Harvard undertook improvements to the plaza atop the structure which has transformed this space into a vibrant meeting and activity space for the community, students, faculty and staff.

The renovated plaza features a hard paved surface throughout that provides flexibility for a wide range of uses and activities while creating an impervious surface to protect the tunnel structure from water infiltration. Other landscape improvements include a new grove of trees in front of the Science Center, new moveable seating and tables, and lighting. These enhancements have improved access and safety for pedestrians and cyclists.

Since its completion, the plaza has been host to numerous community and University gatherings including the Harvard Farmer's Market, CPS events such as the Grade Eight Science Exposition, free arts performances, and the Cambridge Open Market.

House Renewal

The long-planned systemwide effort to renew Harvard's undergraduate Houses is well underway. The House system forms one of the most distinctive and important features of a Harvard College education. In the late 1920's, President A. Lawrence Lowell envisioned a House system that would serve students of different backgrounds, resulting in learning that extended beyond the classroom. Today, more than 98 percent of Harvard College students live on campus. First-year students live in freshman dorms, located in and around Harvard Yard. The overwhelming majority of sophomores, juniors, and seniors live in one of twelve undergraduate Houses, which are located alongside the Charles River or at the Radcliffe Quad, along Garden Street.



The House Renewal program will focus first on the original Neo-Georgian Houses along the Charles, most of which were constructed in the 1920s and '30s and have been little upgraded since. The Houses were also built at a time when building standards and the needs of the student body were different. A comprehensive physical assessment of the Houses indicates that they have been well-maintained over the years, but require significant renovation. The intent of the House Renewal program is to preserve the historic character of these buildings and to sustain President Lowell's original vision of the Houses, while simultaneously transforming them to support a twenty first-century intergenerational learning community that meets the needs of today's students.

Construction on Stone Hall, the first House Renewal test project, was completed in the summer of 2013. McKinlock Hall, the Neo-Georgian portion of Leverett House, is currently being renewed, and is expected to reopen in August 2014. Stone Hall and McKinlock Hall were designed as test projects to assess design, construction, and financing concepts before undertaking the renewal of a full House. Dunster House is the first full House scheduled for renewal, beginning in June 2014, with Winthrop House slated to follow. The pace and sequence of House Renewal is subject to periodic review.

Stone Hall

At Stone Hall (formerly Old Quincy), Harvard's intent was to carefully restore the historic exterior while fundamentally reconfiguring the interior to meet the changing needs of students. On the upper levels, new room configurations led to the creation of updated living spaces, new common spaces and study nooks. The traditional vertical entryways have been preserved, but new horizontal corridors allow tutors to have a closer connection to the students in their charge and provide accessibility.





The basement, formerly used only for storage, has been transformed into a series of common spaces for the Quincy House community. A new, fully furnished terrace lounge provides a comfortable place to gather, and opens to an outdoor sunken patio. A state-of-the art seminar room with video screens, tablets, mondo pads, and additional cutting-edge technology brings core academic activities into the House. Stone Hall is also equipped with private practice rooms for musicians, study alcoves with skylights, and other gathering spaces.





Bolstering Harvard's commitment to sustainability, this project was completed with a focus on preservation and energy efficiency. Better-insulated walls and windows will significantly reduce the energy used to heat the building, and a water-retention tank will help to reduce waste by recycling rainwater for use in irrigation systems and toilets. Much of the original wood flooring, marble walls, and mantles and fireplaces were among the materials reused, a sustainable practice that preserves the building's character.

Stone Hall (Old Quincy) - House Renewal

(Renovation)



Architect: KieranTimberlake
Total Square Feet: 58,000 GSF

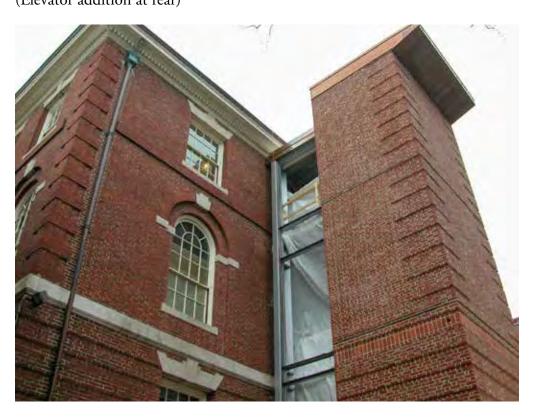
Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

In August, Harvard completed the first test project of the House Renewal program, the comprehensive renovation of Stone Hall (Old Quincy), a 5-story brick dormitory, part of the larger Quincy House. The project architect, Kieran Timberlake, developed designs that preserve and sustain the historic character and culture of the House, while renewing the House life experience as part of a twenty-first century education. Changes to Old Quincy include the creation of single rooms; the addition of elevators for accessibility, vertical entryways connected horizontally by internal corridors; new seminar rooms and new music practice spaces; and the addition of a large common room that leads to an open-air terrace. In addition to being fully accessible, the building has been designed to achieve LEED Gold.

Projects Currently in Construction

Semitic Museum (Elevator addition at rear)



Architect: SMMA
Total Square Feet: 1,000 GSF

Programmatic Driver: Improve accessibility **Green Attributes:** Efficient elevator design

The Faculty of Arts and Sciences is nearing completion on the construction of an external elevator addition at the east facade of the Semitic Museum located at 6 Divinity Avenue. The new elevator will provide access to all floors of the building and significantly improve accessibility within the building. The project will also improve site and building access by reorganizing landscape elements at the rear of the site. The Semitic Museum was constructed in 1903 and houses public exhibits, collections and associated work areas, classrooms and offices for the Department of Near Eastern Languages and Civilizations and the Center for Jewish Studies.

McKinlock Hall - House Renewal

(Renovation)



Architect: KieranTimberlake
Total Square Feet: 100,800 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

Harvard's second House Renewal test project is the renovation of McKinlock Hall at Leverett House. This six-story Neo-Georgian dormitory, built in 1925 and 1930, is located along Memorial Drive, serving as a key component of the iconic view of the Houses from the Charles River.

The project's aim is to improve the residential, dining, and social and academic spaces for today's needs while preserving their essential historic character. The project calls for new room layouts and dramatically improved circulation through new elevators and internal corridors. Underutilized spaces will be transformed into student social and academic spaces for the residents. Upon completion, McKinlock Hall will be a more comfortable, accessible, and environmentally sustainable dormitory.

Construction on McKinlock Hall began in June 2013, with completion planned for summer 2014.

1201 Massachusetts Avenue - House Renewal



Architect: Beyer Blinder Belle
Total Square Feet: ~90,000 GSF

Programmatic Driver: Support undergraduate House life

Green Attributes: Targeting LEED Gold

Harvard is renovating 1201 Massachusetts Avenue, formerly the Inn at Harvard, to transform it into the hub of "swing housing" for students temporarily displaced by House Renewal construction on their individual House. This interior renovation will be complete in the summer of 2014 with the first students moving into the facility that fall.

When constructed in 1991, the Inn at Harvard facility was intended to be used temporarily as a hotel until it was converted to University use. Consistent with that plan, the hotel, which is owned by the University and had been operated by an independent contractor, closed in July 2013. To prepare 1201 Massachusetts Avenue to serve as a central hub for students displaced by House Renewal, alterations to the facility are underway to incorporate spaces and amenities that are integral to every house, including student beds, a dining hall, and other social and program spaces. The intent is to ensure that students living in swing housing continue to be fully integrated into their House community, with access to similar types of facilities, programs, and opportunities. The Cambridge Planning Board approved this project in June 2013.

32 Quincy Street, Harvard Art Museums

(Renovation and Expansion)



Photo credit: Peter Vanderwarker

Architect: Renzo Piano Building Workshop

(Architect of record: Payette Associates)

Total Square Feet: 204,000 GSF (includes 50,000 GSF demolition,

104,000 GSF renovation, 100,000 GSF new construction)

Programmatic Driver: Address facility deficiencies; expand and restore to meet

Harvard Art Museums' programmatic needs

Green Attributes: Targeting LEED Gold

Harvard Art Museums' project to substantially renovate and expand its facilities located at 32 Quincy Street has recently been completed. The project brings together Harvard Art Museums' three constituent museums—the Fogg Museum, the Busch-Reisinger Museum, and the Arthur M. Sackler Museum—into one state-of-the-art facility. The new facility will enhance the teaching and research mission of the Harvard Art Museums and create far more accessibility to their renowned collections through additional exhibition space, as well as an expanded object-based Art Study Center. Visitor amenities such as a café and museum shop will also be included. Spaces on the new lower level will provide vibrant spaces for public programs.

Architect Renzo Piano, with local design partner Payette Associates, developed a design that respectfully preserves the original 1927 building, including its historic façades on Broadway and Quincy Street and the iconic interior Calderwood Courtyard. The design required the removal of later additions to the original 1927 structure to allow for new construction that will provide functional space for a world-class art institution.

The expansion is designed to minimize impact upon the historic structure, is distinct in its architectural expression, and respects the residential neighborhood and the historic Carpenter Center. New landscaping will also enhance the public realm with more usable green space, reconstructed sidewalks, new street trees, and bicycle parking.

Upon completion of the construction by the end of 2013, Harvard Art Museums staff will then need several months to condition the facility for climate control and reinstall the collections. The new Harvard Art Museums are slated to open in fall 2014.

Tozzer Anthropology Building

(Renovation and Addition)



Architect: KVA

Total Square Feet: 35,000 GSF

Programmatic Driver: Consolidation of Anthropology Department

Green Attributes: Targeting LEED Gold

The Faculty of Arts and Sciences has made considerable progress on its renovation and addition project at Tozzer Library. The project, which includes the full renovation of the building and a one-and-one-half story addition, will enable the consolidation of the Anthropology Department currently housed in three separate locations across the Harvard campus. The consolidation will create a vibrant center for the Department of Anthropology and foster the integration of departmental teaching and research activities. The renovated building will also provide additional department-wide resources, including improved teaching facilities, graduate student workspaces and a central gathering space.

Over the past year, Tozzer's distinctive new addition and roof form have taken shape and construction of the building's new entrance and connection with the adjacent Peabody Museum is well underway. The project is expected to be completed by the spring of 2014.

Projects in Planning

Longfellow Hall

(Renovation and Addition)



Architect: Baker Design Group

Total Square Feet: 14,250 GSF renovation, 4,600 GSF addition

Programmatic Driver: Improve building infrastructure and accessibility, relocation of

academic programs

Green Attributes: Targeting LEED Gold

The Harvard Graduate School of Education (HGSE) is planning a partial renovation and addition to Longfellow Hall located at 13 Appian Way. The building was constructed in 1929 and houses classrooms, offices and meeting spaces. The project will upgrade the mechanical, electrical, plumbing, and life safety systems for much of the building and make accessibility improvements. The renovation also includes the re-programming of the 4th floor and the addition of a new penthouse, which will create additional space for the School's programs. The project will enable the HGSE to relocate research and administrative programs currently housed in leased space to Longfellow Hall, which will further the School's goal of creating a more cohesive campus centered on Appian Way.

The planned penthouse addition has been designed to be complementary to the existing building in its scale, façade organization and materials, and to be in keeping with the character of neighboring buildings in Radcliffe Yard. Construction is planned to begin in December 2013, with completion scheduled for late 2014.

Hutchins Center / Cooper Gallery

(Renovation)



Architect: Adjaye Associates

Total Square Feet: 4,000 SF renovated space

Programmatic Drivers: Creation of new research center and art gallery

Green Attributes: TBD

The Faculty of Arts and Sciences is planning the renovation of existing leased space at 102 Mt. Auburn Street to provide a home for the new Hutchins Center for African and African American Research. The Hutchins Center will house several leading research institutes and programs dedicated to the creation of cutting-edge knowledge in the field of African and African-American research, including the W.E.B. Du Bois Research Institute. The center will also house several new entities, among them the Ethelbert Cooper Gallery of African and African American Art.

The new Ethelbert Cooper Gallery of African and African American Art will occupy space on the ground floor of 102 Mt. Auburn Street. The gallery will feature contemporary African and African American art in exhibitions and installations and programming such as workshops, artist talks and lectures. The opening of the Hutchins Center and the Cooper Gallery will create a dynamic new cultural institution in Harvard Square.

As part of the project, the existing store front at 102 Mt. Auburn Street is being renovated to provide a welcoming and elegant new entry for the Hutchins Center and Cooper Gallery. The new gallery is expected to open in fall 2014.

Dunster House - House Renewal

(Renovation)



Architect: KieranTimberlake
Total Square Feet: 170,000 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

Constructed in 1930, Dunster House is one of the earliest of the seven Houses built under President A. Lawrence Lowell. This six-story brick and limestone Neo-Georgian building has a domed clock tower that forms a key element of the House presence along the Charles River. Dunster House is one of the smallest and oldest Neo-Georgian river Houses, which makes it a good candidate to be first full House for renewal.

The intent of the comprehensive renovation of Dunster House is to restore the building's historic character while updating it to the requirements of a twenty-first century living and learning environment. Harvard plans to improve circulation both vertically and horizontally through the buildings with new hallways and elevators. New student room layouts will provide more privacy and comfort, with common rooms to build communities within the larger House. The lower levels will be updated to include new meeting rooms, fitness facilities, music practice rooms, and social spaces.

Construction will begin at Dunster House in June 2014 and continue to summer 2015. Harvard began the exterior rehabilitation of Dunster House with roof, masonry, and window work in summer of 2013 to provide a significant head start to the full renewal project.

Winthrop House - House Renewal

(Renovation)



Architect: Beyer Blinder Belle
Total Square Feet: 180,000 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

Harvard recently began planning for the renewal of the second full House, Winthrop House. Standish Hall and Gore Hall were each originally constructed in 1913 as freshman dormitories until they were unified to become Winthrop House in 1931 as one of the seven original Harvard Houses. These neighboring brick and limestone Neo-Georgian courtyard buildings overlook the Charles River. Consistent with past projects, Harvard envisions undertaking a comprehensive renovation project, which will focus on restoring the building's historic character while updating it to the contemporary requirements. Under the plan, which requires final approval by the Harvard Corporation, Winthrop House would be taken offline for 15 months (one academic year and two summers), beginning in June 2016. Harvard is also planning to undertake advance construction in the summer of 2015.

Harvard Kennedy School

(New Construction)



Architect: Robert A.M. Stern Architect

Total Square Feet: TBD

Programmatic Driver: Foster interaction and collaboration; improve physical campus

and facility functionality

Green Attributes: TBD

The Harvard Kennedy School (HKS) is undertaking planning and programming for new academic space to more effectively fulfill its mission of training future public leaders and bringing together scholars and policymakers to tackle critical world problems. Planning Goals include creating a more physically cohesive campus, improving the central courtyard as a campus amenity, and enhancing campus circulation and connections to Harvard Square and the Charles River. Academic program goals include providing new spaces to foster active learning, student interaction, faculty collaboration, and to improve facility services.

Any proposed project will be built within the existing core HKS campus which currently consists of four Harvard-owned buildings located at the corner of John F. Kennedy and Eliot Streets. HKS will be engaging stakeholders in the planning process in the coming months with ground breaking expected in the summer of 2015.

Smith Campus Center

(Renovation)



Architect: Hopkins Architects

(Architect of Record: Bruner/Cott)

Total Square Feet: TBD

Programmatic Driver: Foster collegial interaction; improve physical campus and

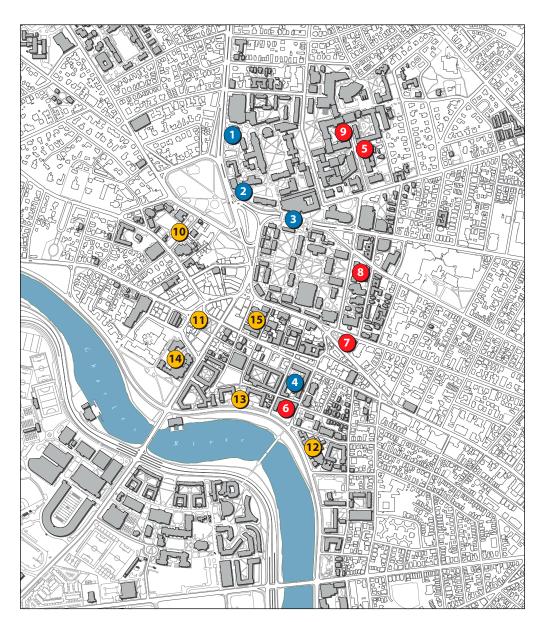
facility function

Green Attributes: TBD

Harvard has begun preliminary planning for the creation of a new campus center, named the Richard A. and Susan F. Smith Campus Center. Located in the former Holyoke Center, the campus center will provide an important common space for the entire Harvard community, bringing individuals from across the University together and fostering new connections and collaboration. The project will also include the renewal of the exterior building envelope. The Smith Campus Center will be designed by Hopkins Architects, with local design partner Bruner/Cott.

1. PROJECT MAP

Projects Completed, in Construction, and in Planning





Recently Completed

- 1. Pound Hall
- 2. Gannett House
- 3. Cambridge Street Overpass
- 4. Stone Hall (Old Quincy)

Currently in Construction

- 5. Semitic Museum
- 6. McKinlock Hall
- 7. 1201 Massachusetts Avenue
- 32 Quincy Street
 (Harvard Art Museums)
- 9. Tozzer Library



In Planning

- 10. Longfellow Hall
- 11. Hutchins Center Cooper Gallery
- 12. Dunster House
- 13. Winthrop House
- 14. Harvard Kennedy School
- 15. Smith Campus Center

2. PROJECT LIST

| Pro | oject | Programmatic Goal | Green Attributes | |
|--------|------------------------------|---|---|--|
| • | Recently Completed | | | |
| 1. | Pound Hall | Improvement of campus open space | Recycled landscaping materials | |
| | | | Water efficient plantings | |
| | | | Reduced storm water run-off | |
| | | | Increased rainwater infiltration | |
| | | | Low-flow/dual-flush plumbing fixtures | |
| | | | Sub-metered utilities to monitor energy use | |
| | | | Low VOC emitting adhesives, sealants, paints, wood and agrifiber products | |
| | | | 75% of construction waste recycled or reused | |
| 2. | Gannett House | Improve academic experience | Energy efficient HVAC systems | |
| | | | Improved thermal performance | |
| | | | Reduced lighting power density | |
| | | | Occupancy controls for lighting | |
| | | | High efficiency/low-flow plumbing fixtures | |
| | | | Low VOC-emitting sealants, paints, adhesives, and wood products | |
| | | | Energy Star appliances | |
| 3. | Cambridge Street Overpass | Improvement of landscape and pedestrian circulation | Reduction in use of potable water and complete rainwater harvesting | |
| | | | Reduced storm water run-off | |
| | | | Reclaimed porcelain aggregate in pavers | |
| | | | FSC-certified Alaskan Yellow Cedar for benches | |
| | | | Energy-efficient LED lighting | |
| | | | Improved and expanded bicycle parking facilities | |
| | | | Improved storm water management | |
| | | | Low-maintenance plantings with minimal irrigation requirements | |
| 4. | Stone Hall (Old Quincy) | Renew undergraduate House life | LEED registered; targeting Gold | |
| | | | Recycle demolition and construction debris | |
| | | | Building and material reuse | |
| | | | Recycled and regional materials, including certified lumber | |
| | | | Low VOC emitting adhesives, sealants, paints, wood and agrifiber products | |
| | | | Low lighting power density | |
| | | | Regenerative drive elevators | |
| | | | Reduction in use of potable water and complete rainwater harvesting | |
| | | | Reduced storm water run-off | |
| | | | Ventilation system with heat recovery to reduce energy consumption | |

(Continued on next page)

Project List (cont'd)

| | Project | Programmatic Goal | Green Attributes | |
|----|---|---|--|--|
| 4. | Stone Hall (Old Quincy) (Cont'd) | Renew undergraduate House life | 24/7 building management system to respond immediately to changing weather and occupancy | |
| | | | Water efficient plantings | |
| | | | Low-flow/dual-flush plumbing fixtures | |
| | | | Ceiling fans and natural ventilation in lieu of air conditioning | |
| | | | Enhanced commissioning, measurement and verification of systems | |
| | | | Envelope commissioning | |
| • | Currently in Constructi | ion | | |
| 5. | Semitic Museum | Improve building accessibility | Energy efficient equipment | |
| 6. | McKinlock Hall | Renew undergraduate House life | LEED registered; targeting Gold | |
| | | | Recycle demolition and construction debris | |
| | | | Building and material reuse | |
| | | | Recycled and regional materials, including certified lumber | |
| | | | Low VOC emitting adhesives, sealants, paints, wood and agrifiber products | |
| | | | Low lighting power density | |
| | | | Regenerative drive elevators | |
| | | | Reduction in use of potable water for irrigation via rainwater harvesting | |
| | | | Reduced storm water run-off | |
| | | | Ventilation system with heat recovery to reduce energy consumption | |
| | | | 24/7 building management system to re- spond immediately to changing weather and occupancy | |
| | | | Water efficient plantings | |
| | | | Low-flow/dual-flush plumbing fixtures | |
| | | | Ceiling fans and natural ventilation in lie of air conditioning | |
| | | | Enhanced commissioning, measuremen and verification of systems | |
| | | | District chilled water system for McKin- lock Hall & Dunster House | |
| | | | Enhanced emission controls for emergency generator | |
| 7. | 1201 Massachusetts Ave | Support undergraduate House life | LEED registered; targeting Gold | |
| 8. | 32 Quincy Street (Harvard Art Museums) | Improve access to collections, promote outreach to new audiences, foster collaboration and interdisciplinary work across the university, and enhance the museums' role in Harvard's undergraduate curriculum educational mission. | LEED registered; targeting Gold | |
| | | | Recycle demolition debris | |
| | | | Reduction in use of potable water and complete rainwater harvesting | |
| | | | Energy-efficient building envelope | |
| | | | Automated systems to balance natural lighting and improve energy efficiency | |
| | | | Heating and cooling systems with heat recovery to reduce energy consumption | |

(Continued on next page)

Project List (cont'd)

| | Project | Programmatic Goal | Green Attributes | |
|----------|-------------------------------------|--|--|--|
| 8. | 32 Quincy Street (Cont'd) | Improve access to collections, promote outreach to new audiences, foster collaboration | 24/7 building management system to respond immediately to changing weather and occupancy | |
| | | and interdisciplinary work across the university, and enhance the museums' role in Harvard's | Custom designed and energy-efficient gallery lighting systems | |
| | | undergraduate curriculum educational mission | Use of certified renewable lumber | |
| 9. | Tozzer Library | Consolidation of Anthropology Department | Targeting LEED Gold; energy efficient building systems; energy recovery system; passive lighting and cooling and ventilation | |
| <u> </u> | In Planning | | | |
| 10. | Longfellow Hall | Improve building infrastructure and accessibility, relocation of academic programs | Targeting LEED Gold | |
| 11. | Hutchins Center - Cooper Gallery | Creation of new research center and art gallery | TBD | |
| 12. | Dunster House | Renew undergraduate House life | LEED registered; targeting Gold | |
| | | | Recycle demolition and construction debris | |
| | | | Building and material reuse | |
| | | | Recycled and regional materials, including certified lumber | |
| | | | Low VOC emitting adhesives, sealants, paints, wood and agrifiber products | |
| | | | Low lighting power density | |
| | | | Regenerative drive elevators | |
| | | | Reduction in use of potable water and rainwater harvesting | |
| | | | Reduced storm water run-off | |
| | | | Ventilation system with heat recovery to reduce energy consumption | |
| | | | 24/7 building management system to respond immediately to changing weather and occupancy | |
| | | | Water efficient plantings | |
| | | | Low-flow/dual-flush plumbing fixtures | |
| | | | Ceiling fans and natural ventilation in lieu of air conditioning | |
| | | | Enhanced commissioning, measurement and verification of systems | |
| | | | Envelope commissioning | |
| 13. | Winthrop House | Renew undergraduate House life | Targeting LEED Gold | |
| 14. | Harvard Kennedy School | Foster interaction and collaboration; improve physical campus and facility function | TBD | |
| 15. | Smith Campus Center | Foster collegial interaction; improve physical campus and facility function | TBD | |

C. OTHER PLANNING PRIORITIES

Allston Planning



In October, the Boston Redevelopment Authority approved Harvard's Institutional Master Plan (IMP) for Allston, and subsequently, zoning approvals were received in November. The IMP outlines a Ten-Year Plan for development on Harvard's campus in Allston, and provides a Long-Term Vision to guide future development. The approval was a key step in the realization of a transformative vision in Allston for both Harvard and the University's neighbors.

In addition to advancing the University's critical teaching and research mission, the Plan's overarching objectives are the continued activation of Barry's Corner, creating a network of green spaces for the campus and the community, enhancing the public realm, promoting environmental sustainability, strengthening pedestrian connections and improving transportation. Within the new IMP's ten-year development time-frame are nine projects and 1.9 million square feet of new construction, building replacement, and renovation.

Three of the new construction projects are within the Harvard Business School (HBS) campus, of which two are replacements. The Chao Center, planned for the existing site of Kresge Hall, will contain approximately 90,000 square feet of new dining, classrooms, offices, and common spaces that will serve HBS's Executive Education program. A new classroom and academic building containing 140,000 square feet is currently envisioned to replace Burden Hall, just south of the existing building. A new Faculty & Administrative Office Building with approximately 110,000 square feet is proposed in the northeast corner of what is now Ohiri Field.

Two major projects for Harvard Athletics are also included in the IMP. Harvard Stadium Addition/Renovation will restore areas of the existing structure, provide new program space, and improve accessibility to visitors with disabilities. Harvard also plans to build a Mixed Use Facility & Basketball Venue at the junction of the Soldiers Field Athletics Area and Barry's Corner. The new complex is planned to contain 270,000-340,000 square feet, including a new 3,000 seat basketball venue, ground floor retail, and affiliate housing and/or office space.

On the site of the existing Charlesview Apartments, Harvard is proposing the Gateway Project a mixed use development of approximately 300,000 square feet. This project will feature ground floor uses which will help to enliven Barry's Corner, and upper floors containing academic and administrative space.

The University plans to develop a Hotel and Conference Center on the south side of Western Avenue, across from the Spangler parking lot, framing the northern edge of a future greenway. As currently envisioned the development will contain approximately 250,000 square feet and encompass a 200-room hotel and approximately 26,500 square feet of meeting space.

The IMPs planned renovation projects include HBS's Baker Hall Renovation (to be renamed Esteves Hall) and Soldiers Field Park Housing Renovation.

Currently underway are several significant projects that were previously approved outside of the IMP. These projects include program development for a new Science Building that is planned to provide space for the School of Engineering and Applied Sciences (to be relocated from Cambridge) as well as a significant area of flexible lab space dedicated to cross-faculty collaborations and experiments.

The Barry's Corner Residential and Retail Commons which will contain 325 marketrate housing units and ground floor retail is being undertaken with a real estate partner, Samuels and Associates. Enabling projects for the development began this summer, and the project is expected to be completed in 2015.

Construction of Tata Hall along the Charles River, which will serve the Harvard Business School's Executive Education Program, is expected to be completed in December 2013.

The Ten-Year Plan includes expansion of Harvard's Allston Express shuttle service into Barry's Corner; the service operates as a one-way looped route that originates at Soldiers Field Park and travels clockwise as far north as Everett Street in Cambridge. The Allston Express service would be supplemented by a new Barry's Corner to Harvard Square service that would travel continuously along North Harvard Street and JFK Street (the Anderson Bridge corridor).

The Anderson Bridge is currently being reconstructed as part of MassDOT's Accelerated Bridge Program. The improvements on the bridge are multimodal in nature and will greatly improve pedestrian and bicycle mobility by eliminating a southbound traffic lane on the bridge and replacing it with two bike lanes.

Harvard has continued to work with and support the Department of Conservation and Recreation (DCR) in its efforts to make improvements to the Weeks bridges. The DCR is currently working to improve accessibility on the historic John Weeks Footbridge (spanning the Charles River) by replacing the stairs with ramps and providing handrails on the steeper sections of the bridge. These improvements will allow bicyclists to cross the river without carrying their bikes up and down sets of stairs. Accessibility improvements to the Sinclair Weeks Footbridge (spanning Soldiers Field Road) are currently under study. The Institutional Master Plan aims to strengthen pedestrian connections coming to and from the Weeks bridges along East Drive.

For additional information on Allston planning visit: http://evp.harvard.edu/allston

Planning for Bicycle Facilities

Cycling is recognized as an integral component of the University's transportation system and is part of the University's commitment to building a healthy, more sustainable campus. Harvard's twelve Schools and various administrative units have long supported the strengthening of the cycling network and facilities across our campuses. The University continues to make significant investments in new bicycle facilities on campus and in the collaborative planning and implementation of local and regional cycling initiatives.

New Bicycle Facilities

Over the past several years Harvard has made considerable improvements and enhancements to bike facilities on the Cambridge campus. Recent investments include:

- Sheltered bike-parking facilities in the North Yard (Francis Avenue), Harvard Law School, Broadway Garage, Harvard Graduate School of Design, and Riverside housing. These stations provide more than 400 sheltered parking spaces.
- New or improved bike racks, throughout the Cambridge campus that allow cyclists to lock their bikes while at class or work. Recently, 64 new bike racks (for a total capacity of 133 bicycles) were installed at the Science Center by Transportation Services in conjunction with the Faculty of Arts and Sciences.
- Bicycle repair stations allow cyclists from across the Harvard community to
 pump air into their tires, make adjustments and perform minor bike repairs.
 This year two stations were installed at the Science Center Plaza and at 46
 Blackstone St. Additional stations are located at Pound Hall (Harvard Law
 School) and at the i-lab in Allston as well as the city owned station at the corner
 of Eliot and Brattle Street.

An interactive map of all existing bike facilities on Harvard's Cambridge campus is available on the CommuterChoice website (www.commuterchoice.harvard.edu). The map provides locational information on bike routes, parking areas, and key attributes such as rack type and whether parking is sheltered.

Bicycle Facility Guidelines

Harvard University's Cambridge Campus Transportation Guidelines (2006) include considerations for the provision of bicycle parking and other facilities as part of Harvard's commitment to strengthening its campus bicycle network. The University works with individual campus project proponents and broader groups of stakeholders to implement recommendations for:

- Siting of bicycle facilities as part of Harvard's overall campus transportation network.
- Provision of long and short-term bicycle parking.
- Provision of covered or weather protected parking where feasible.
- Appropriate bike rack design consistent with the City of Cambridge standards.
- Provision of building amenities such as interior bike parking and changing, locker and shower rooms to encourage bicycle commuting.

Bike Sharing Programs

Harvard's Cambridge campus is served by several bike sharing programs which provide cycling transportation alternatives without owning a bicycle. These programs include:

Hubway

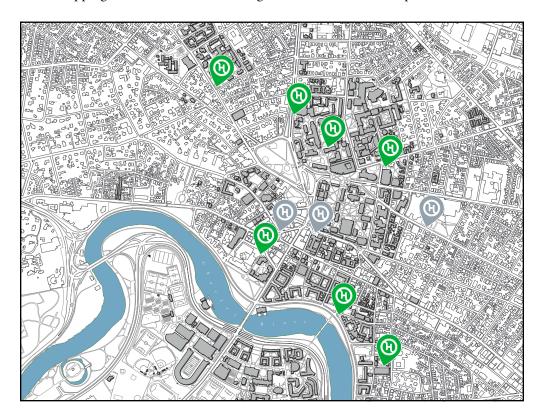
Harvard continues to collaborate closely with the cities of Cambridge and Boston to support the regional bike-sharing program, Hubway, around its main campuses. The University supports seven Cambridge stations, at Peabody Terrace, the River Houses, the Kennedy School, the Law School, the School of Engineering and Applied Sciences, Gund Hall and the Radcliffe Quad. Boston supported stations include four along Western Avenue (at Soldiers Field Park, the i-lab, Barry's Corner and at the Brighton Mills Shopping Plaza) and one in the Longwood Medical Area Campus.



Hubway Locations in Cambridge Supported by Harvard



Other Hubway Locations in Cambridge



The Hubway bike-sharing system provides an exciting transportation alternative for faculty, staff, students, and visitors. The 12 Harvard supported stations along with the 100+ stations in the network connect all of Harvard's undergraduate and graduate Schools, providing an alternative to driving between the Cambridge, Allston, and Longwood campuses as well as destinations across Boston, Cambridge, Somerville and Brookline. The system provides Harvard the ability to better connect areas of the campus not as well served by existing transit systems and enable more transit connections between existing public and private transit modes for Harvard affiliates and the general public. This program will also help to contribute to the University's sustainability goals by reducing inter- and intra-campus vehicle trips.

As part of Harvard's support for Hubway, the University was able to offer the first ever Champion level membership, allowing affiliates to enroll in a discounted Hubway Annual Membership for only \$50 – over 40% off the regular price. Since this program was launched in May 2013, over 800 community members have enrolled under this membership.

CrimsonBikes

This student-initiated bike sharing program began operating as LevBikes in 2009 with a modest fleet of six bikes at Leverett House using a simple honor-based checkout system. In May 2010 LevBikes was awarded a grant from Harvard University's Office for Sustainability that provided necessary capital for development of the program including the creation of a website that enabled and monitored reservations at any time of day. These changes greatly increased its usage.

In 2010 LevBikes and VeriFast Cycles, a bike-share program piloted by Harvard's Environmental Action Committee, merged their efforts to create CrimsonBikes. CrimsonBikes was Harvard's first campus-wide bike share, testing an innovative model through the set-up of multiple checkout stations throughout campus.

Read & Ride Bikeshare

A collaborative effort of the Harvard Law School Library and the HLS Green Living Program, the Read & Ride Bikeshare, whose bikes are maintained by CrimsonBikes, is an innovative program that provides free short- and long-term bike loans to all HLS community members.

The program was envisioned by HLS library staff looking for a way to help their document delivery assistants get around campus more easily. Recognizing that they could use existing library loan technology to loan out bikes the same way they loan out books, the vision was expanded to provide a bike sharing service to the entire HLS community.

The current fleet of 4 bikes (all donated by graduating students) can be checked out for 3-hour or 24-hour periods at the Langdell Library circulation desk. The program is supported and co-maintained by students in the HLS Green Living Program who encourage using bikes as an emissions-free transportation alternative for getting around campus and Harvard Square.

Departmental Bike Program

CommuterChoice offers a subsidy to University departments for the purchase of one or more bicycles to support department members' travel around campus in an environmentally sustainable and healthy manner during the work day. CommuterChoice orders bikes, registers them with the Harvard University Police Department (HUPD) and labels them with the department name. The program also assists with purchasing needed accessories, coordinating regular maintenance, and establishing a monitoring system for the bikes. This year the CommuterChoice program worked with the Arnold Arboretum to implement a dynamic departmental bike system with four bicycles and helmets for use by staff on site.

CommuterChoice Cycling Initiatives

The University's CommuterChoice Program also sponsors several initiatives that promote cycling at Harvard. These efforts include:

- **Bike Week** As part of Bike Week activities in 2013, 131 Harvard cyclists rode over 3,533 miles as part of the Mass Commute Challenge, a friendly competition between Massachusetts businesses, institutions and municipalities to encourage bike commuting during the week. The challenge culminated in the annual Bike Bash hosted by CommuterChoice at Harvard's Queen's Head Pub, which attracted hundreds of cyclists to congratulate group and individual competition award winners.
 - Other events included the CommuterChoice Bike Breakfast outside the Holyoke Center Arcade, which attracted 250 cyclists and featured free bike safety checks, a raffle for cycling equipment, and giveaways including Hubway memberships.
- Bicycle Safety and Repair CommuterChoice encouraged employees interested
 in learning about bicycle safety or repair techniques to take classes at Quad
 Bikes and be reimbursed for expenses. Harvard affiliates were also encouraged
 to participate in classes held through the City of Cambridge focusing on urban
 cycling, bike repair and maintenance techniques, and women powered cycling.
- **Discounted Helmets** Through funding from the Boston Public Health Commission, Harvard, in an effort to encourage safe cycling, offers \$7.50 \$9.00 helmets for sale at the CommuterChoice office. Over 320 have been sold this year alone, nearly doubling helmet sales from the previous year.
- **Bike Benefit Program** A new initiative this year to reward cyclists, the benefit provides up to \$240/year for the purchase, repair, maintenance or storage of a bicycle for benefits eligible employees.

Planning for Cycling Networks

Harvard continues to support the improvement and growth of local and regional bike networks that connect the campus with the City of Cambridge and the greater Boston area. These efforts include:

- Examining Harvard's existing bicycle network on the central campus and identifying areas for potential improvements.
- Collaborating with the City of Cambridge on municipal bicycle planning initiatives.
- Working with the City of Boston on the installation of bike lanes on Allston roadways that connect the Allston and Cambridge campuses and extend the bike network to the south and west.
- Advocating for the inclusion of new bike lanes on the river bridges that connect Boston and Cambridge as part of planning for MassDOT bridge renovation projects.

The Harvard Campaign

The recently launched Harvard Campaign recognizes the connection between the University's physical environment and success in implementing its academic vision. A key component of the Harvard Campaign is to create a campus that will meet Harvard's academic needs, goals and aspirations for the coming decades.

As the landscape of higher education continues to evolve, the role and function of Harvard's physical campus and facilities can also be expected to change. The University can anticipate the need for re-imagined or repurposed facilities, increased flexibility in existing spaces, facilities that can support multiple disciplines, and the continuing transformation of core academic spaces such as libraries and classrooms. In addition, the University remains committed to implementing its vision of Common Spaces that provide spaces for collegial interaction and collaboration and which strengthen the social connections among students, faculty, and staff.

Harvard Square Placemaking

Harvard is participating in a collaborative public process with the City of Cambridge and the Harvard Square Business Association to develop recommendations for the public open space in the center of Harvard Square. This area includes the space around the MBTA subway entrance, Forbes Plaza, and the sidewalk in front of the Coop and Bank of America.

A public workshop facilitated by the organization Project for Public Places was held in September to discuss what makes great public spaces and to generate ideas and recommendations for actions and activities that could occur in this part of Harvard Square. Harvard will continue to be an active participant in this collaborative effort to improve Harvard Square.

D. SUSTAINABILITY

A Shared Commitment to a Healthier, More Sustainable Future

The health and well-being of people and the environment that surrounds them affects everyone's collective ability to thrive, innovate, and lead. Building on over a decade of work, Harvard's students, faculty and staff are collaborating across disciplines to advance innovative and cost-effective solutions to the global challenges of climate change and sustainability.

University-wide Vision and Goals

Sustainability Principles adopted in 2004 define Harvard's institutional vision for a greener, healthier campus and fostering a transition toward sustainability. Driven by science and an accountability to the future, university-wide goals and commitments have been established that lay out a clear roadmap for building a healthier, more sustainable campus.

- Goal to reduce greenhouse gas emissions 30% by 2016, including growth. From Fiscal Year 2006 to Fiscal Year 2012 Harvard experienced a 16% decline in the University's overall greenhouse gas emissions, including growth of approximately 3 million square feet, with a 24% decline in emissions if growth is excluded.
- **Green Building Standards** ensure that all sustainable design and operations opportunities are carefully reviewed and that aggressive environmental targets are achieved in a cost-effective manner.
- **Sustainability Strategic Plan**, currently being developed, will lay out a long-term vision and action steps for building a healthier, more sustainable future.

Partnerships To Amplify Our Impact

Confronting the global challenges of climate change and environmental sustainability requires a response across disciplines and organizations. In addition to collaborating with other higher education institutions, Harvard is partnering with government, non-profit organizations, and private business to identify solutions and shared opportunities that will lead to lasting change.

The centerpiece of this effort is the Cambridge Community Compact for a Sustainable Future. Harvard was proud to be a founding signatory of the Compact, which was created to leverage the intellectual and entrepreneurial capacity of the public-and private sectors in Cambridge to build a healthy, livable, and sustainable future. The compact lays out a clear framework for how Harvard, MIT, and Cambridge, along with other partners, will collectively improve the health and well-being of the Cambridge community by addressing nine key areas of collaboration, including energy efficiency, renewable energy, climate mitigation and preparedness, storm water management, and green tech incubation.



Harvard's President Drew Faust, MIT's President Rafael Reif, Mayor Davis, and City Manager Robert Healy sign the Community Compact for a Sustainable Future.

Generating New Solutions

Harvard's Office for Sustainability (OFS) leads efforts to integrate sustainability into the way we work and live. In addition, the team works to bring the university community together to fuel innovation, develop new policies, and share best practices.

OFS convenes working groups and committees representing hundreds of stakeholders from across the university. These teams meet regularly to brainstorm strategies and goals that will drive continuous improvement over the long term.

By creating opportunities to work across disciplines and between sectors the entire University is focused on creating solutions for a more sustainable future that can be replicated at Harvard and beyond.

A Greener, Healthier, More Efficient Campus to Support Harvard's Research and Teaching Mission

Harvard's comprehensive Green Building Standards ensure that all sustainable design and operations opportunities are carefully reviewed and that environmental targets are achieved in a cost-effective manner. In addition, under the leadership of the Executive Vice President, Harvard Planning & Project Management, and Office for Sustainability, the University has institutionalized sustainability and energy efficiency into established internal practices, including capital planning and construction.

Green Building Highlights

- As of October 2013, Harvard had achieved 88 LEED certified building projects with an additional 25 registered projects. There are 64 LEED certified projects and 18 LEED registered projects in Cambridge.
- Harvard's Radcliffe Institute for Advanced Study is home to the oldest LEED certified building in the United States. Originally constructed in 1807, Fay House received LEED-NC Gold certification for green technology including ground source heat pumps and lighting linked to the security alarm system so when the alarms are turned on, hallway and stairway lights turn off automatically to save money.



Fay House

 In October 2013, the Massachusetts Green High Performance Computing Center (MGHPCC) located in Holyoke, Massachusetts, received LEED Platinum certification. The MGHPCC is the result of a strong partnership with five universities, including Harvard and MIT, state government and the private sector. The 10 megawatt facility was completed in November 2012 and contains the infrastructure to house 10,000 high-end computers to support innovative computationally intensive research.

Tools and Resources

University-wide tools and resources have been created to help Harvard Schools and administrative departments meet the GHG Reduction Goal and Green Building Standards. Many of these resources were developed as part of a community-driven, collaborative process in which representatives from across the University had the opportunity to create, review and revise the tools. Resources include:

- **Green Revolving Fund** provides a no-interest source of capital for high performance campus design, operations, maintenance and occupant behavior projects that generate clear environmental impact reductions. Loans are repaid based on the anticipated annual savings with a maximum payback of 11 years.
- Life Cycle Costing Policy that provides clear financial and GHG reduction metrics
 to ensure long-term financial impacts are included in decision-making and capital
 planning. It includes a Life Cycle Costing Calculator designed to aid project
 managers in considering all present and future costs.
- Green Building Resource website that provides LEED case studies and other sample documentation to assist project managers.
- The Green Building Services team within Harvard Campus Services Energy and Facilities, supports University Schools and units in efforts to design, build, and operate their buildings more sustainably.

In addition to targeting construction and renovation with green building standards, Harvard's facilities leaders and building managers are increasingly working behind the scenes to optimize building energy systems and performance to improve efficiency. The energy conservation measures, commissioning and retro-commissioning projects are delivering greenhouse gas reductions, cost savings and more efficient buildings for researchers and other occupants.

Energy Efficiency Highlights

- To date, Harvard has implemented over 1,000 energy conservation measures
 resulting in annual savings of \$9 million. In FY12 and FY13 Harvard's Schools
 completed 375 energy conservation measures resulting in an estimated \$2.3 million
 in utility savings annually and 5,600 metric tons reduction in carbon dioxide
 equivalent (MTCDE) annually.
- At the Faculty of Arts and Sciences Laboratory for Integrated Science and Engineering (LISE) building an ongoing retro-commissioning project has resulted in over \$3.15 million in cumulative savings since 2009. The facilities team monitors over 3,400 data points from equipment such as air handling units, and chilled and hot water pumps. Reductions in airflow have had greatest impact, while additional actions like identifying leaks that are wasting energy have also contributed.
- At Harvard Business School, an ongoing commissioning project underway since 2008 has covered 14 buildings, yielding more than \$320,000 in savings that have contributed to a 3.6 percent reduction in greenhouse gas emissions. The simple payback (when the costs are made up for by the savings) for the projects that have been implemented is well under two years (1.51 years).

 Harvard Athletics used a loan from the Green Revolving fund to upgrade the lighting in four major facilities, including the Bright Hockey Center, Lavietes Pavilion, and Gordon Indoor Track, to super-efficient LED bulbs.

Transportation Highlights

Harvard is focused on providing students, faculty and staff with safe, healthy and sustainable transportation options that provide alternative to automobile use and build better connectivity between campuses.

- Harvard is one of the region's strongest and earliest supporters of the Hubway
 regional bike share program, supporting 12 Hubway stations throughout Cambridge
 and Boston. Seven of those stations are located in Cambridge and are available to
 Cambridge residents. Harvard also provides discounted Hubway memberships to all
 affiliates. Since the discounted rate went live in May, over 800 students, faculty and
 staff have already signed up to receive discounted membership.
- The national advocacy organization League of American Bicyclists recognized Harvard as a silver-level Bicycle Friendly University in April 2013. Harvard is the highest-ranked Bicycle Friendly University in New England and the Ivy League. The silver award recognizes Harvard's commitment to improving conditions for bicycling through investment in promotion, education programs, infrastructure, and supportive policies.



HUPD Goes Hybrid

In April 2013, the Harvard University Police Department (HUPD) converted their entire fleet of marked patrols cars to new 47 mpg, gas-electric hybrid patrols cars. Six new Ford Fusion hybrid patrol cars have replaced the oldest and least fuel-efficient cars in HUPD's fleet (some of which have more than 100,000 miles on them). HUPD collaborated with the Office for Sustainability to fund the fleet conversion with a Harvard Green Revolving Fund interest-free loan. The Loan Fund is administered by the Office for Sustainability and Campus Services.



The move is expected to cut costs for the department by increasing the fleet's fuel economy by a factor of 10. The switch also will dramatically reduce the amount of greenhouse gas pollution released into the air by HUPD vehicles. HUPD has also directed its officers to reduce idling when possible, and has already reduced its vehicle fleet by increasing walking and bicycling patrols.

One of the most visible changes has occurred around Harvard Yard and on the Allston campus, where HUPD officers use fully electric, three-wheeled vehicles during regular patrols and at special events. The smaller, more agile electric vehicles increase visibility and allow officers to respond to emergencies more quickly than they would in standard cars.

Climate Preparedness

Harvard is confronting the challenge of climate change not only by reducing emissions and energy consumption but also by actively preparing for the impacts that climate change will have on its communities.

The Harvard Climate Preparedness Working Group is focused on preparing the Harvard campus for the impacts of climate change. The group has four major goals:

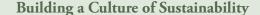
- **1. Vulnerability Assessment** to determine impacts of climate change on critical infrastructure.
- 2. Preparedness Policies & Standards for facilities and infrastructure in high risk
- 3. Severe Weather Emergency Preparedness Initiatives.
- **4. Connection Points** with local, state & federal agencies and regional higher education institutions.

The working group is comprised of partners from the following departments:

- Energy & Facilities (Critical Infrastructure)
- Emergency Management/Environmental Health & Safety
- Office for Sustainability
- Planning & Project Management
- Risk Management & Audit Services
- Information Technology
- School representatives

In September 2013, Harvard hosted a Climate Preparedness Summit attended by emergency teams from Schools and administrative departments across the university, peer higher education institutions, and local, state, and federal officials, including officials from the City of Cambridge.

In addition to this work, Harvard faculty serve as advisors to the City of Cambridge's Climate Change Vulnerability Assessment and through the Office for Sustainability, Harvard is partnering with the City of Boston, business and peer higher education institutions to share best practices in the area of climate preparedness



Peer-to-peer outreach and community engagement campaigns foster a culture of sustainability by educating and mobilizing thousands in our community to act for change. University-wide tools and resources like the Green Office Program and Student Sustainability Grants, fuel on-the-ground action and problem-solving that makes a positive difference for the future. Recent highlights include:



The Climate Preparedness Summit hosted by Harvard included panel discussions on addressing the effects of climate change.

Community Gardens

Three community gardens have been established across Harvard's Cambridge campus, the result of a collaborative effort between students and staff. Together, the network of gardens serve to engage the community in growing healthy, organic food and herbs, and each garden represents the unique mission and character of its host School.



- Faculty Club Garden surrounding
 the historic Faculty Club is Harvard's newest community garden. The on-site organic
 garden has been providing herbs and vegetables for the Club's kitchen to deliver
 fresher-tasting dishes. It saves money and even provides a therapeutic break for chefs
 who harvest the crops.
- Harvard Community Garden, located on Mt. Auburn Street outside Lowell House, is managed by a team of undergraduate students in collaboration with the Center for Health and the Global Environment. The undergraduate-run garden hosts weekly events and gardening parties for students and other Harvard affiliates.
- Harvard Divinity School Garden, located near the Center for the Study of World Religion, serves the needs of the HDS community while educating its members on individual, communal, and global ethical issues that surround sustainable food production and consumption. The garden donates its harvest to Faith Kitchen, a local food kitchen.

Student Engagement and Leadership

Harvard is focused on preparing the next generation of environmental leaders by giving students the tools and resources to integrate sustainability into what they are passionate about and studying on campus. OFS also fosters opportunities that involve students in the practice and implementation of Harvard's sustainability goals.

- The Student Sustainability Grant Program has provided micro-loans to 51 student-led projects over the last four years, including the creation of the Harvard Community Garden, Harvard Undergraduate Beekeepers group, pilot laboratory programs to reduce waste through the use of reusable containers, and innovative stormwater modules on the roof of Gund Hall. These projects have brought students together across disciplines and given them the resources to act on their creative ideas.
- Created in 2011, the Council for Student Sustainability Leaders (CSSL) brings together leaders from student-led undergraduate and graduate environmental groups to advise the University on its sustainability commitment and to share best practices among Schools. The 20 student leaders meet quarterly to collaborate, generate recommendations and produce an annual report. Select CSSL students are also given the opportunity to participate on high-level task forces including the Greenhouse Gas Emissions Reduction Task Force and the Sustainability Strategic Plan Subcommittee.

- For over two years, the Freshman Green Orientation program, conceived by students and managed by the FAS Green Program, educates and engages each year's incoming first year students in the University's sustainability goals and commitments. This effort is made possible through a strong partnership with the Freshman Dean's Office and the Harvard College Dean.
- The **Resource Efficiency Program** (**REP**) incorporates sustainability into the House living experience and green living programs at Harvard University Housing, Harvard Law School, Harvard Business School and Longwood integrate sustainability into the graduate-level student experience.

Student Engagement Highlights

- The first "brain break" of the year in Annenberg dining hall is environmentally themed. Over 1,400 reusable mugs are handed out and students sign a pledge to use their mugs instead of disposable cups. An environmental fair educates students about academic and on-campus environmental organizations and initiatives.
- Super-efficient LED bulbs are handed out to incoming students during move-in across Harvard's Schools.
 - Over 500 LEDs handed out to undergraduates and 2,000 installed into standard issue room lamps by the campus operations team.
 - Harvard Housing handed out 1,500 welcome bags and swapped 200 bulbs.
 - HLS Green Living Program has swapped over 280 bulbs.
- Information on living a sustainable lifestyle is included in orientation materials. A green tour and other events are also integrated into welcoming days activities. At the Harvard Law School and Harvard College, tutors and resident advisors are trained in sustainable living prior to orientation.
- Student involvement in the annual undergraduate Green Cup Competition continues to grow. The winning House reduced their energy use 13% in 2013.

III. TRANSPORTATION DEMAND MANAGEMENT

Harvard University remains a leader among Cambridge's large employers for consistently reducing its exceptionally low Single Occupancy Vehicle (SOV) rate. When it was approved in 2003, Harvard's Parking and Transportation Demand Management (PTDM) Plan targeted a goal of reducing the University's Single Occupancy Vehicle (SOV) rate by 10% (from 27.4% to 24.7%). This goal was surpassed the following year when Harvard achieved an SOV rate of 17.0%. According to the latest PTDM survey results, Harvard's SOV rate has continued to remain low and is now at 12.8% for Cambridge-based employees and graduate students. Harvard's proactive Transportation Demand Management programs and incentives offered by the CommuterChoice Program continue to provide the incentive necessary to encourage commuters to leave their cars at home. Harvard's low SOV rate and the reduction of trips to Cambridge reflect the University's ongoing commitment to the programs and measures contained in Harvard's PTDM Plan. Harvard's CommuterChoice Program tracks and monitors the transportation demand management programs and incentives that it provides, and is committed to improving the University's programs based on annual survey data and program feedback. CommuterChoice Program offerings include:

CommuterChoice Program

- MBTA monthly pass subsidy and pre-tax savings.
- Pre-tax savings on purchase of private transit passes and commuter checks.
- Carpool and vanpool subsidy and partner matching.
- Preferential parking for carpools and low-emission vehicles.
- Emergency Ride Home Program for green commuters.
- Discounted Zipcar[™] membership.
- Discounted annual Hubway memberships.
- Information on safe bicycle routes and general bicycle safety.
- Departmental Bike Program.
- Walk and Bike to Work programs and information.
- HarvardWalks a walking map of the Harvard campus (3rd printing).
- Bicycle Commuter Benefit.
- Information on local transit options including assistance on moving, relocation and Park and Ride locations.
- Outreach to the University's Transportation Coordinators, representing all of the University's Departments.

Highlights from the past year include:

T Pass Program

• Sold on average 7,000 MBTA monthly passes each month.

Ridesharing/Car-Sharing

Promoted Zimride, on-line ride matching software for carpools and one-time rides.

- Increased Zipcar membership to approximately 10,000 registered participants.
- Promoted Zipcar for Harvard affiliates under 21 years of age first university in Greater Boston.
- Added 8 Zipcars to Harvard's fleet (totaling 28), including a van.
- Supported RelayRides, neighbor-to-neighbor carsharing, by dedicating spaces on campus.
- Partnered with MassRIDES to offer NuRide, a rewards program for sustainable travel.
- Installed Electric Charging Stations (ECS).

Bicycles

- Supported Hubway Regional Bike Share expansion into Cambridge with 7 stations.
- Produced a *How to Use the Hubway Bike Share Program* video.
- Installed 64 new bicycle racks at the Science Center for a total capacity of 133 spaces.
- Taught Safe Cycling Classes: One hour of in-class instruction and one hour of onthe-road practice.
- Offered discounted bike helmets for purchase.
- Held Bicycle Repair clinics.

Commuting Awards

- Awarded 2012 Boston Bike Friendly Business Gold Level Award.
- Participated in Bay State Bike Week with 133 Commuter Challenge registrants.
- Won MassRIDES Car Free Week Commuter Challenge (Sept. 2011) with approximately 520 participants.
- Awarded a Massachusetts Excellence in Commuter Options (ECO) Award, Pinnacle Level.

Parking and Transportation Demand Management Plan Harvard's Parking and Transportation Demand Management (PTDM) Plan, approved by the City of Cambridge in 2003, provides a baseline assessment of Harvard's parking supply and management of vehicle trips through the transportation demand measures and strategies offered by the CommuterChoice Program.

The PTDM Plan describes the transportation services and financial incentives that Harvard offers its students, staff, and other affiliates. Harvard's PTDM programs, which are administered by CommuterChoice, are having a direct positive effect on greenhouse gas emissions by reducing employee and student automobile trips to campus.

A copy of Harvard University's PTDM Plan is available at: http://www.upo.harvard.edu. Harvard submits annual PTDM updates which are on file with the City's Community Development Department.

IV. INSTITUTION SPECIFIC INFORMATION REQUESTS

1. Provide an update on plans for Harvard's Allston campus and any anticipated impacts on the City of Cambridge.

See Future Plans narrative page 38.

2. Include in your discussion a review of the extent to which open spaces on the Harvard campus are permeable to the public. Provide information on open spaces on your campus that are open to public use. Indicate the times when these spaces are accessible to the public and the range of activities that are permitted.

Harvard's open space provides a connective organizational structure to the campus. This open space is comprised of a diverse collection of quadrangles, courtyards, gardens, and pathways that not only connect Harvard's buildings and facilities but also provide a great natural amenity within Harvard Square. As such, many campus open spaces are commonly visited by the public including Harvard Yard, Radcliffe Yard, and the Radcliffe Quadrangle. These open spaces are usually open and accessible to the public, although access may be limited from time to time, as is the case during Harvard's annual Commencement ceremonies. Some spaces, such as the courtyards and gardens associated with Harvard's residential Houses, have limited access given the specialized nature of their use by students who reside in the Houses, and are generally not open to the public.

Because most of the campus open spaces are passive in nature, and are surrounded by academic, residential, and other institutional uses, organized recreational activities or other high intensity uses are not generally appropriate to these spaces.

Harvard recognizes the importance of its campus open space to Harvard Square and the broader Cambridge community and has sought to improve such spaces particularly where they abut surrounding city neighborhoods. Recent improvements include the Hammond Street frontage at the Northwest Science Building, the quadrangle at Harvard Divinity School and the recently completed project undertaken in coordination with the City of Cambridge to refurbish the surface of the Cambridge Street Overpass. As part of the agreement between the City and Harvard that enabled the University to construct housing in the Riverside neighborhood, Harvard provided an open-space easement for the Riverside Community Park along the Charles River.

3. What is Harvard's strategy in selecting tenants for retail sites? How is retail used to enhance the urban experience. Describe plans for properties currently held by the University on or abutting Massachusetts Avenue. Particular attention should be paid to a description of the uses intended for the ground floor of these sites, as related to community concerns about maintaining an active retail environment.

Harvard shares the community's interest in maintaining a unique retail environment in Harvard Square. When selecting tenants for available retail spaces, Harvard seeks tenants that will have active ground floor uses, offer goods or services that complement the retail mix in Harvard Square, and that are compatible with other University uses in the building. Harvard's ongoing commitment to maintaining a vibrant Harvard Square is illustrated by its leases with over 30 businesses in the Square, including long-time retailers such as the Grolier Book Shop, Leavitt & Peirce, Harvard Bookstore, and Bartley's Burger Cottage.

Most of the campus properties that are located on or which abut Massachusetts Avenue are expected to continue in their current institutional academic and residential uses. As part of its House Renewal plan, the Inn at Harvard is currently being converted from hotel use to serve as a swing house enabling ongoing House Renewal projects (see page 24). Harvard has also begun preliminary planning for the Smith Campus Center to be located in the former Holyoke Center (see Projects in Planning page 33). The building will continue to have mix of uses that contribute to ground floor activity.

Other Massachusetts Avenue properties located in commercial areas in Harvard Square (for example those across from Harvard Yard) contain ground floor retail uses with housing for Harvard affiliates on upper stories. Harvard will continue to seek active retail or service uses on the ground floor of these buildings.

4. Discuss planning for bicycle facilities on campus, including Hubway stations.

See Future Plans narrative page 40.

5. Provide more detail on the House Renewal Program, particularly where it involves converting graduate student housing, affiliate housing, or other facilities, including the Inn at Harvard, to temporary undergraduate housing. Include information on how the conversion may create additional demand for housing or hotel uses and how these impacts will be mitigated. Discuss the long term plans for such temporary facilities, after the House Renewal Program is complete. How does zoning relief granted for hotel use at the Inn at Harvard site transfer to dormitory or related institutional uses?

Harvard will utilize existing Harvard-owned buildings in and around Harvard Square to provide temporary accommodations to students displaced by House Renewal construction. The central hub of the "swing house" will be at 1201 Massachusetts Avenue, the former Inn at Harvard, which will accommodate the dining, meeting, social, academic, and a portion of the residential spaces for the House. The building at 1201 Massachusetts Avenue is particularly well suited to this role given its pre-existing layout as a hotel and its location adjacent to Harvard Yard and close to the other Harvard Houses. Several Harvard-owned residential buildings in the area will supplement 1201 Mass. Ave. to provide residential space for displaced students: 8 Plympton Street, 1306 Massachusetts Avenue, 65 Mt. Auburn Street, 20-20A and 22-24 Prescott Street. The House Master's temporary accommodations will be at 8 Prescott Street, which currently contains institutional academic and office uses. Together, these will meet the program needs of all the Houses, even those with the largest student populations. During academic years when these buildings are not needed for swing use, they will be used as residences for other Harvard affiliates.

Harvard houses 99% of the undergraduate population on campus, promoting a residential campus as part of the core educational mission. In recent years Harvard has added nearly 1,000 beds in Cambridge and Boston, increasing the University's capacity to house 50% of the graduate, professional, and medical students. This increased capacity will help to mitigate the temporary reduction of up to 240 beds available to graduate students during the House Renewal program. Upon completion of the House Renewal program, the five Harvard-owned residential buildings will continue their long-standing role in providing housing to Harvard's students, faculty, and staff. The long term use of 1201 Massachusetts Avenue has not yet been determined, but it is anticipated to remain in institutional use.

In June 2013, Harvard received approval from the Planning Board to change from hotel to dormitory use at 1201 Massachusetts Avenue. Harvard understands that any subsequent change of use may require additional public approvals.

6. Provide an updated on the Fogg Museum Project, with particular attention to effects on the surrounding community and streetscape.

See Future Plans narrative page 25.

7. Report on neighborhood concerns about Harvard students using the Flagg
Street recreational facility to the exclusion of other neighborhood residents.

Is this accurate and if so, what steps can Harvard take to provide more active recreational activities?

Harvard University has a variety of athletic facilities on the campus available for recreational use by Harvard affiliates, including the Malkin Athletic Center, the Hemenway Gymnasium, indoor basketball and fitness facilities in the River Houses, as well as the athletic campus in Allston. Harvard is not aware of any reports, complaints or anecdotal information regarding student use of the Flagg Street recreational facility.



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