

2006  
Harvard University's

## Town Gown Report



*for the*  
City of Cambridge

*Submitted by:*  
University Planning Office



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**Institution Name:** President and Fellows of Harvard College  
**Report for Time Period:** 2005-2006 Academic Year  
(unless otherwise noted, data reflects June 30, 2006)  
**Date Submitted:** December 20, 2006

## I. EXISTING CONDITIONS

Please provide the following information about the current conditions and population at your Cambridge campus. Add clarifying comments as needed.

### A. FACULTY & STAFF

	2003	2004	2005	2006
<b>Cambridge Based Staff</b>				
Head Count	8,388	11,094 <sup>1</sup>	11,202	10,901 <sup>2</sup>
FTEs	6,970	8,788	8,923	8,701
<b>Cambridge Based Faculty</b>				
Head Count	2,253	1,525	1,518	1,512
FTEs	1,757	1,355	1,359	1,367
<b>Number of Cambridge Residents Employed at Cambridge Facilities</b>				
	3,600	3,670	3,825	3,825
<b>Number of Cambridge Residents Employed at Boston Facilities</b>				
	665	620	645	637

#### *Ten-year projection*

Growth projections are influenced by many factors and no central University department has undertaken such projections for faculty and staff counts.

<sup>1</sup> In 2004, Harvard continued to employ approximately the same number of staff and faculty as the preceding year. However, staff counts appeared to have increased for two reasons. First, the University implemented a new payroll system that tracks certain sub-categories of staff employees who were not tracked in prior years. Secondly, some staff sub-categories were incorrectly classified in previous reports as faculty. This classification error also explains why faculty counts appear to have decreased in 2004.

<sup>2</sup> 2006 faculty and staff head counts and FTEs were measured in June. The 2006 Cambridge-based staff head count represents a 2.7% reduction from last year's figure and the FTE count represents a 2.5% reduction from last year. This is a temporary reduction caused by normal seasonal turnover and coincides with a rise of new positions that are posted for hiring.

## B. STUDENT BODY

Please provide the following statistics about your Cambridge-based student body:<sup>3</sup>

	2003	2004	2005	2006
<b>Total Undergraduate Degree Students</b>	<b>7,050</b>	<b>7,000</b>	<b>6,947</b>	<b>7,002</b>
Day	6,649	6,597	6,562	6,613
Evening	401	403	385	389
Full Time	6,822 (182)	6,767 (176)	6,722 (160)	6,792 (179)
Part Time	228 (219)	233 (227)	225 (225)	210 (210)
<b>Total Graduate Degree Students</b>	<b>8,895</b>	<b>9,139</b>	<b>9,223</b>	<b>9,221</b>
Day	8,224	8,463	8,631	8,622
Evening	671	676	592	599
Full Time	8,098 (148)	8,316 (140)	8,372 (87)	8,405 (94)
Part Time	797 (523)	823 (536)	851 (505)	816 (505)
<b>Total Non-degree Students</b>	<b>5,328</b>	<b>5,062</b>	<b>4,821</b>	<b>5,109</b>
Day	383	304	351	434
Evening	4,945	4,758	4,470	4,675
<b>Total Number of Students in Cambridge</b>	<b>21,273</b>	<b>21,201</b>	<b>20,991</b>	<b>21,332</b>

*Numbers in italics represent students in Extension School*

### *Ten-year projection*

As is the case with faculty and staff counts, no central University department has undertaken projections regarding future student population.

<sup>3</sup> Data as of October 15, 2005

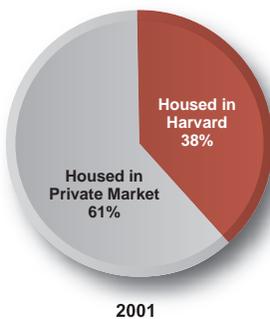
## C. STUDENT RESIDENCES

	2003	2004	2005	2006
<b>Number of Undergraduate Students Residing in Cambridge</b>				
In dormitories <sup>4</sup>	6,445	6,404	6,498	6,449
With cars garaged in Cambridge	113	128	67 <sup>5</sup>	20 <sup>6</sup>
In off-campus, affiliate housing	11	10	5	0 <sup>7</sup>
In off-campus, non affiliate housing	123	105	64	101
<b>Number of Graduate Students Residing in Cambridge</b>				
In dormitories	1,430	1,456	1,436	1,420
With cars garaged in Cambridge	174	172	97	86
In off-campus affiliate housing	1,081	1,268	1,356	1,385
In off-campus, non affiliate housing	3,086	3,123	3,135	3,267

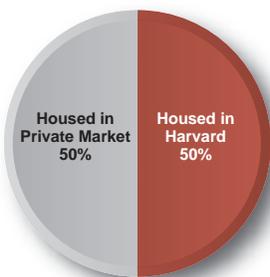
### *Ten-year projection*

Harvard's housing stock is managed as a University-wide resource to accommodate the needs of the larger University community, including students participating in executive education programs, junior faculty, and family members of affiliates. In addition to housing nearly 100% of its undergraduates, Harvard currently houses approximately 40% of its graduate students.

In 2001, the University established a ten-year goal of being able to house 50% of its graduate students in either dormitories or affiliated housing. The approximately 500 graduate student beds currently under construction in the Riverside Housing Projects and the 231 graduate student beds recently completed in the Fenway area of Boston will provide the University the capacity to house 50% of its graduate students well ahead of the targeted deadline.



2001



2011

### *Graduate Students Housed 2001 vs. proposed 2011*

<sup>4</sup> Data collected in May 2006 for period from September 2005 to August 2006. These figures represent beds available for undergraduate students in Cambridge and include 298 beds located at 10-20 DeWolfe Street. The actual number of students may differ from these numbers to some degree.

<sup>5</sup> In 2005, the number of cars garaged in Cambridge was reduced from previous years due to the relocation of some student parking to the One Western Avenue garage and limited availability of parking in the Peabody Terrace garage due to ongoing maintenance activities.

<sup>6</sup> In 2006, the total number of undergraduate students bringing cars to Harvard (whether garaged in Cambridge or Allston) has decreased significantly, likely due to increased awareness of transportation alternatives, the increased fees for University parking permits, and the high cost of gasoline.

<sup>7</sup> a) Until 2002, a minority of undergraduates, primarily non traditional-age students, were provided affiliate housing. After 2002, affiliate housing was no longer offered to undergraduates; however, students currently in housing were allowed to stay through graduation.

b) In the Town Gown reports for 2003, 2004, and 2005 the beds provided for undergraduates in the DeWolf Street housing were incorrectly counted in both dormitories and affiliate housing. (These figures have been corrected in the table above.) As of 2006, no undergraduates are living in affiliate housing.

## D. FACILITIES & LAND OWNED

	2003	2004	2005	2006
Acres (Tax Exempt)	190	194 <sup>8</sup>	198 <sup>9</sup>	198
Acres (Taxable)	33	29	29	28 <sup>10</sup>
Number of Buildings	301	302	302	303
<b>Dormitories</b>				
Number of Buildings	91	91	91	91
Number of Beds	7,933	7,950	7,950	8,007
<b>Size of Buildings (gfa)</b>				
	<b>12.94M</b>	<b>12.95M</b>	<b>13.4M</b>	<b>13.4M</b>
Assembly/museum	Not requested	901,412	871,100	889,052
Athletic	Not requested	217,799	217,799	217,799
Classroom	Not requested	636,701	520,370	520,370
Commercial	288,064	261,076	262,699	262,699
Healthcare	Not requested	78,850	78,850	78,850
Lab/studio	Not requested	2,125,015	2,165,610	2,238,209
Library	Not requested	1,177,675	1,193,939	1,175,987
Office	Not requested	1,922,309	2,140,725	2,398,688
Residential	Not requested	5,065,588	5,020,519	5,017,320
Support	Not requested	562,316	933,512	602,135

<sup>8</sup> In 2004 the Blackstone Station property was reclassified to tax-exempt based on its institutional use. Additionally, the property at 153 Mount Auburn Street, which was donated to Harvard, was added to Harvard's tax-exempt property.

<sup>9</sup> The increase in exempt land area from 2004 to 2005 is a result of changes in data maintained by the City's Assessor's Office and not the result of land acquisition or reclassification of tax status. Harvard's calculation of land area for the Town Gown Report is based on Tax Report 3ABC submitted to the City of Cambridge annually. To prepare the Tax Report 3ABC, the University reconciles its land area figures with land data maintained by the Cambridge Assessing Department. In 2003-2004, the Assessing Department conducted a relisting of exempt properties citywide. The process included review of lot lines and, in some cases, deed research that resulted in corrections to recorded square footage. The recorded land area for several Harvard-owned parcels has increased in the Assessor's database and therefore on the Tax Report 3ABC.

<sup>10</sup> The actual reduction of Harvard's taxable property since last year is 0.275 acre, but due to rounding conventions, it appears that Harvard's taxable property has decreased by a full acre. In 2005 Harvard owned 28.742 acres of taxable property. As a result of the purchase of one property and the sale of two properties (see "Property Transfers," page 6), Harvard now owns 28.467 acres of taxable property.

## Parking Facilities

This section refers to parking spaces maintained in Cambridge only. Provide figures for the Campus as a whole and for each sub-area/precinct. Attach additional information as necessary.

Harvard University owns and maintains 4,536 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. When Harvard submitted its Parking and Transportation Demand Management Plan, which was approved by the City of Cambridge in July 2003, it also submitted a detailed inventory of Harvard's parking spaces. Harvard updates this inventory annually in December.

## Housing (Do not include any information about dormitories in this table.)

	2003	2004	2005	2006
<b>Tax-Exempt–Affiliate Housing</b>				
Number of Units	880	880	880	880
Number of Buildings	8	8	8	8
<b>Taxable–Affiliate Housing</b>				
Number of Units	749	766	765	738
Number of Buildings	52	52	52	47 <sup>11</sup>
<b>Tax-Exempt–Other Housing</b>				
Number of Units	None	None	None	None
Number of Buildings	None	None	None	None
<b>Taxable–Other Housing</b>				
Number of Units	None	None	None	None
Number of Buildings	None	None	None	None

<sup>11</sup> The reduction in the number of taxable affiliate buildings is due to 1) the purchase of one property and the sale of two properties as reported in "Property Transfers" (next page); 2) the sale of two buildings (94 Hammond Street and 100-102 Hammond Street) that occurred after the January 1, 2006 submittal of the Tax Report ABC to the City of Cambridge; and 3) the destruction by fire of 47-49 Banks Street. Additionally, Beckwith Circle, which is located in Somerville, was incorrectly included in previous building counts.

**Property Transfers:<sup>12</sup>**

**Please list Cambridge properties purchased since filing your previous Town Gown Report:**

- 59 Banks Street

**Please list Cambridge properties sold since filing your previous Town Gown Report:**

- 74 Hammond Street
- 15 Robinson Street

**Please describe any planned dispositions or acquisitions:**

- None

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<sup>12</sup> Data as of January 1, 2006 as reported on Tax Report ABC submitted to the City of Cambridge.

## E. REAL ESTATE LEASED

Please attach to the report a table listing of all real estate leased by your educational institution within the City of Cambridge. Include the following for each lease:

- Street address
- Approximate area of property leased (e. g., 20,000 SF, two floors, entire building, etc.)
- Use (e. g., institutional/academic, student activities/athletic, housing, etc.)

If your institution does not lease any real estate within the City of Cambridge, you may omit this section.

Real Estate Leased by Harvard	Square Feet	Tenant	Use
One Bow Street	8,450	FAS	Office
One Brattle Square	18,737	KSG	Office
One Story Street	6,125	DCE	Classroom
10 Appian Way	800	GSE	Office
10 Ware Street	2,000	UIS	Office
104 Mt. Auburn Street	17,612	FAS	Office
104 Mt. Auburn Street	14,332	Provost	Office
124 Mt. Auburn Street	56,520	KSG	Office
124 Mt. Auburn Street	29,984	OHR	Office
124 Mt. Auburn Street	51,169	HUDO	Office
124 Mt. Auburn Street	9,765	GSE	Office
124 Mt. Auburn Street	2,499	SPH	Office
124 Mt. Auburn Street	698	G&CA	Office
124 Mt. Auburn Street	13,785	Alumni Affairs	Office
125 Mt. Auburn Street	36,564	Law	Office
1280 Massachusetts Avenue	7,483	HUL	Office
1408–1414 Massachusetts Avenue	50,000	FAS	Office
1430 Massachusetts Avenue	5,154	FAS	Office
155 Fawcett Street	14,246	ART	Warehouse
155 Fawcett Street	19,247	FAS	Warehouse
25 Mt. Auburn Street	10,162	LASPAU	Office
3 Bow Street	3,855	Parking Office	Office
320 Charles Street	9,762	HMS	Laboratory
44R Brattle Street	8,417	GSE	Office
5 Bennett Street	6,030	KSG	Office
50 Church Street	2,850	GSE	Office
625 Massachusetts Avenue	70,762	FAS	Office
77 Trowbridge Street	9,200	HRES	Residential
One Kendall Square	27,000	HMS	Laboratory
<b>Total:</b>	<b>487,424</b>		

**F. PAYMENTS TO CITY OF CAMBRIDGE:**

	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>
<b>Total Payments</b>	<b>\$11,965,986</b>	<b>\$12,083,442</b>	<b>\$13,771,156</b>	<b>\$14,592,500</b>
Real Estate Taxes Paid	\$4,475,919	\$5,090,960	\$5,178,746	\$4,642,265 <sup>13</sup>
Payments in Lieu of Taxes (PILOT)	\$1,807,269	\$1,772,264	\$1,751,204	\$2,056,671
One time Payment <sup>14</sup>			\$1,000,000	
Water and Sewer Fees Paid	\$4,759,736	\$4,612,894	\$4,336,267	\$5,328,965
Other Fees and Permits Paid	\$923,062	\$607,324	\$1,504,921	\$2,564,599 <sup>15</sup>

***Ten-year projection:***

Based on the renewed PILOT Agreement with the City of Cambridge and the payment schedules provided to the City, the amount that Harvard University will pay in PILOT to the City of Cambridge for the next 10 years is projected to be approximately \$25 million.

<sup>13</sup> The fact that the amount paid in Real Estate taxes in FY2006 is less than the amount paid in Real Estate taxes in FY2005 is mainly attributable to property sales and reductions in the tax rates.

<sup>14</sup> One time payment per renewed PILOT agreement between the City of Cambridge and Harvard University.

<sup>15</sup> The increase in Other Fees and Permits is largely attributable to building permits for a number of major projects.

## II. FUTURE PLANS NARRATIVE

On page 12 of the 1991 Report of the Mayor's Committee on University-Community Relationships, the members of the Town-Gown Committee agreed that "Universities should offer statements of their future needs to the city and plans responding to those needs. These plans should include specific statements about known development projects and their status; forecasts of faculty, staff or student population growth; and identified needs that do yet have solutions . . . These plans should address known concerns of the community, such as parking and/or tax base erosion."

Describe your institution's current and future physical plans:

- Employ a planning horizon of ten years;
- How do you see your campus evolving to address your institution's strategic goals and objectives;
- Describe the goals and needs that you address through your plans;
- Identify and describe plans for future development of the sub-areas/precincts of your campus, being certain to address the institution specific information requests and questions found in Section VI (coordinate with Map 4 in Section IV);
- Identify future development sites on your campus (coordinate with Map 4 in Section IV);
- Include in your discussion the relationship of planned and projected institutional development to adjacent residential districts within Cambridge and any impacts that might result;
- Include in your discussion the relationship of planned and projected institutional development to adjacent retail and commercial districts within Cambridge and significant impacts that might result (e. g., loss or relocation of retail space, etc.);
- Include in your discussion efforts to support and encourage "green" development on your campus.

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## PLANNING CONTEXT

The University's teaching and research mission drive Harvard's physical plans. Current planning and building address programmatic needs in the following areas:

### *Drivers of University Growth*

#### Interdisciplinary Pursuits in the Sciences

It is Harvard's intent to maintain excellence in the basic sciences far into the future. All four campuses – Cambridge, Allston, Longwood Area, and Arnold Arboretum – will be locations for cutting-edge work in the sciences and technology. The Northwest Science Building, currently under construction above the 52 Oxford Street Garage, will accommodate collaborative research and teaching efforts of researchers from many different disciplines. When completed in 2007, the Laboratory for Integrated Science and Engineering (LISE) will house the Center for Nanoscale Systems (CNS) and will bring together faculty and researchers from the physical sciences, including material science, physics, chemistry, and engineering.

#### Improved Undergraduate Student Experience

To maintain competitiveness with comparable universities, Harvard is planning to improve academic environments and develop additional student social space. The recently converted Hilles Library offers excellent study spaces, a modified collection of books and journals, and space for student activities.

#### Housing for Harvard Affiliates

Harvard has established a goal of housing at least 50% of its graduate, professional, and medical students, and this new residential development will take pressure off the private housing market and will increase housing availability for Cambridge residents. Affiliated housing currently under construction at Grant/Cowperthwaite Streets and at 10 Akron Street (870-888 Memorial Drive) will serve Harvard graduate students, faculty, and staff, as well as provide several units of community affordable housing.

#### Professional Schools

The world needs, and will continue to need, outstanding ministers, lawyers, doctors and educators and the University's professional schools will continue to play an important role in educating these new generations of leaders. Harvard is exploring three potential models to maintain and improve excellence in its graduate school programs: one that enables schools to pursue a more robust portfolio of executive programs; one focused on the principles and practice of leadership; one that provides a framework of issues that leaders face to generate collaborative work, programs, and conferences. A planning framework for the Law School campus and an architectural design for the initial development on the Everett Street and Massachusetts Avenue corner site are currently being prepared.

## Arts and Culture

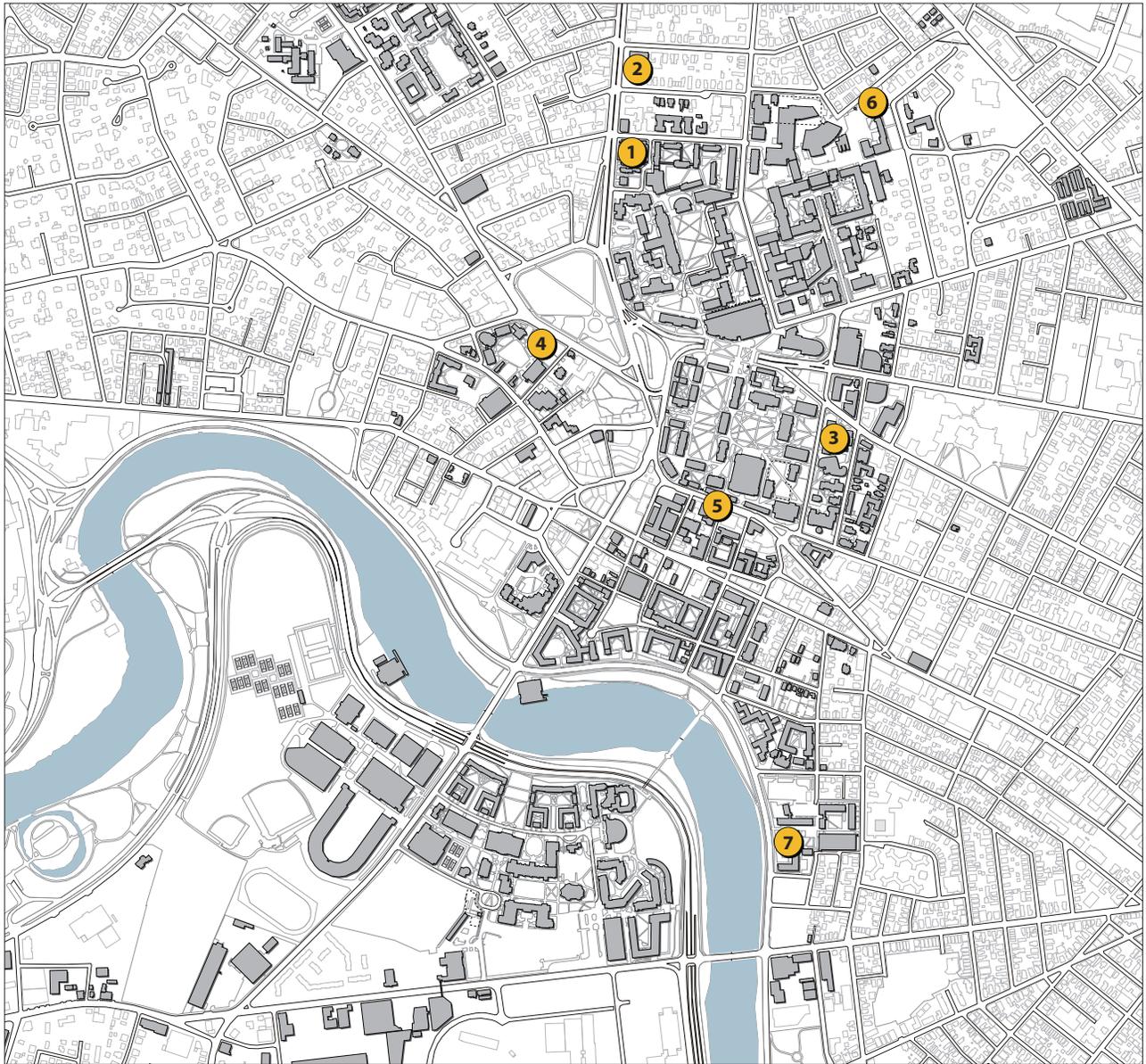
Cultural activities are an integral part of a vibrant urban campus. Ideally, they can serve both the community and the University, and enrich the life of each constituency. Renovations are currently underway at the Hasty Pudding Building (The New College Theatre), the long time home of the Hasty Pudding Theatricals and other Harvard student organizations.

### *Planning Principles*

As Harvard continues to develop the campus in Cambridge, it is guided by a set of general planning and design principles. As the University maintains and develops its built environment, it aims to:

- Enhance human health and foster a transition toward **environmental sustainability**;
- Employ building massing that promotes a **human scale environment**;
- **Pedestrian orientation and open space**;
- **Transition development** at the campus edges so that it responds to the existing patterns of development;
- Demonstrate a commitment to **design excellence**;
- Preserve **historic character**;
- When feasible, meet program needs through **reuse of existing space**;
- Maintain a sense of open space, support academic activities and improve access to the campus by locating new **parking facilities underground**;
- Foster a sense of **University community** and facilitate **collegial collaboration**.

## PROJECTS IN PLANNING



 **Will Require City Permits or Approvals Within Three Years**

1. Harvard Law School Northwest Corner Building
2. Partial demolition of North Hall and Relocation of Baker House and 1581-1583 to North Hall site
3. 32 Quincy Street (Harvard University Museums)
4. Byerly Hall
5. 1306 Massachusetts Avenue
6. Rockefeller Hall
7. Peabody Terrace



### Northwest Corner Building (Harvard Law School)

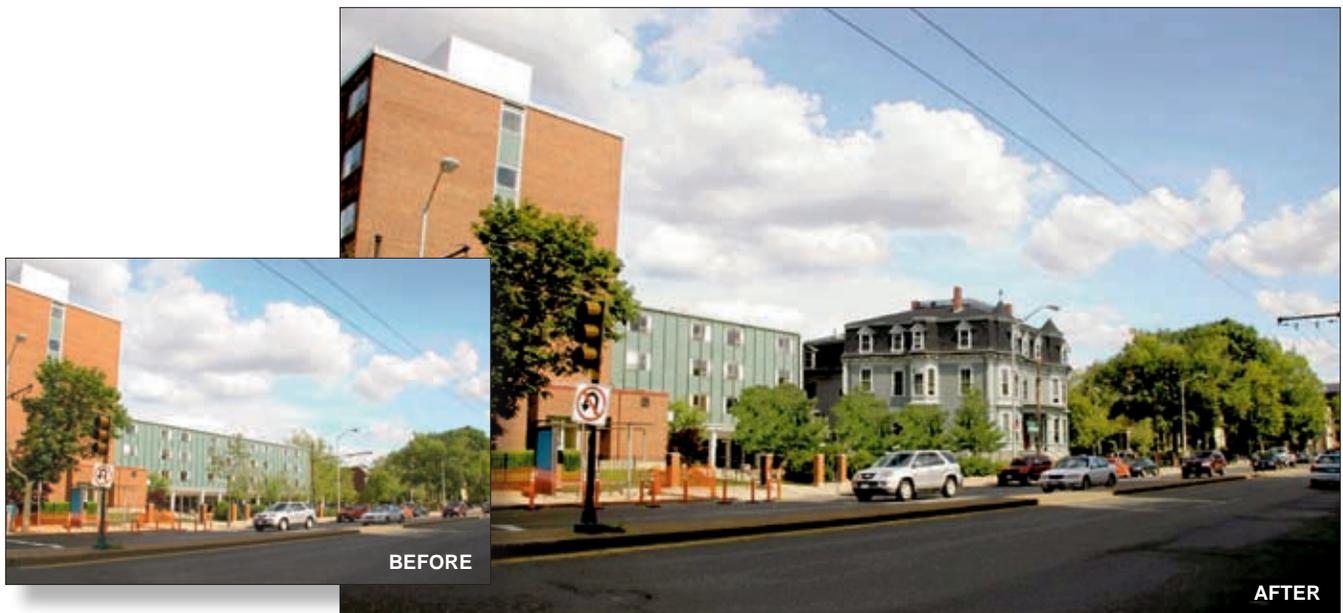
The proposed Northwest Corner Building will be a 234,000 gross square foot institutional building for academic use, such as a student center, classrooms, and clinical and academic office space. The building is proposed to connect to the service side of the existing Harkness Commons. The project aims to: make Everett Street partially two-way from the existing Everett Street garage curb cut to Massachusetts Avenue; eliminate Jarvis Street (a Harvard-owned right-of-way) and the access driveway connecting to it; and create a new main pedestrian access way into the campus from Massachusetts Avenue. In addition, Harvard proposes to construct a below-grade parking garage with up to 700 parking spaces to replace the spaces in the current Everett Street garage, as well as surface parking spaces relocated from elsewhere in the north campus.

The project site, located at the northwest corner of the Harvard Law School campus, is bounded by Pound Hall in the south, Massachusetts Avenue in the west, Everett Street in the north and Story Hall and Harkness Commons in the east. To facilitate development of the site, HLS will tear down the Everett Street garage, Wyeth Hall, and the east additions on the back of Baker House, and relocate two 19th century mansard houses and original carriage house. (See the North Hall description for additional information regarding relocation of the two wood frame houses and carriage house.)

On this corner of the Law School, the proposed building will replace the existing garage, dormitory, and offices with more active uses. It will also bring campus activities to the street fronts and function as a welcoming new entry to the Law School campus.

Harvard is committed to environmentally sustainable practices and efficient use of energy and natural resources in the design, construction, maintenance, and long-term operation of the Northwest Corner Building. The project will be LEED Certified and will comply with its standards. Consistent with this certification, and Harvard's sustainability principles, the project includes the following measures:

- The building massing has been developed to allow for thin floor plates, which let daylight penetrate as many interior spaces as possible. This, in turn, minimizes the need for artificial electric powered lighting and improves the interior environment for the occupants.
- The project has upgraded the lighting controls package with occupancy and daylighting sensors. Many spaces have dimmers that automatically dim the lights during the day when the spaces are occupied. This reduces electric powered lighting without compromising interior lighting standards.
- All offices and classrooms have lighting occupancy sensors, in order to reduce lighting loads when those spaces are not in use.
- Harvard has invested in heat/enthalpy recovery systems for its larger air handling units. These systems recover energy from exhausted air and reintroduce it to the supply side airstream, which improves energy efficiency.
- Harvard is investigating displacement ventilation systems and chilled beam cooling systems in selected areas of the building, such as classrooms, in order to further minimize energy usage.
- The fourth and fifth floors of the building, which contain offices, will have operable windows. This increases occupant comfort and decreases reliance on mechanical ventilation systems, which saves energy.
- Harvard is investing in additional insulation and vapor barriers, over and above what is required by code, in order to further minimize energy usage.
- Harvard has upgraded the exterior glazing to one that is low emissivity, and is argon filled. Similar in appearance to ordinary windows, they minimize solar heat gain which in turn minimizes reliance on energy using mechanical systems.
- Selected spaces in the building will have carbon dioxide occupancy sensors, which shut down mechanical systems when the rooms are not occupied.
- The project will recycle grey water for irrigation on the site. Other water conservation measures include dual-flush toilets.
- Consistent with Harvard practice on other projects, the building includes parking spaces for "zipcars," carpool cars, and covered bicycle parking, all part of Harvard's effort to encourage use of alternative forms of transportation.



### Partial Demolition of North Hall and Relocation of Baker House and 1581-1583 Massachusetts Avenue (Harvard Law School)

Harvard Law School (“HLS”) proposes to relocate two 19th century wood-frame buildings and an original carriage house from the site of the Law School’s proposed Northwest Corner Building to the site of the existing North Hall dormitory. North Hall is located at 1637-1653 Massachusetts Avenue, and will be partially demolished to accommodate the wood-frame buildings. The larger of the two buildings, presently located at 1581-83 Massachusetts Avenue, is proposed to face Massachusetts Avenue at Mellen Street. Baker House, which is the smaller of the two, is proposed to face Mellen Street immediately to the east of the relocated 1581-83 Massachusetts Avenue. The Law School proposed that the carriage house connect to the rear of Baker House adjacent to North Hall. While the front entry will not front directly on Massachusetts Avenue, the entry porch will be visible from the Avenue.

The relocations proposed by HLS will enhance the corner which features two other houses of similar style and period, and Mellen Street which also features a number of houses of similar scale as Baker House and of the same period. In their new location, the houses will complete the historically residential context of Massachusetts Avenue and complement the other wood-frame buildings of similar scale on Mellen Street.

Harvard Law School will renovate all three buildings, and use them as graduate student housing.



### Byerly Hall Renovation (Radcliffe Institute for Advanced Studies)

A major goal of the Radcliffe Institute for Advanced Study's 2002 campus plan is to centralize all intellectual activities of the Institute in Radcliffe Yard. To achieve this goal, the Institute is planning a major renovation of Byerly Hall to create a new home for the Institute's Fellows. The planned renovation is designed to foster collegiality among the Fellows and support their individual work by providing new and improved work spaces, meeting and support spaces. The project, which will involve a complete interior renovation, will also include life safety and building systems improvements.

A key component of the project includes making the building fully accessible. Improvements include the creation of an accessible public entrance from Radcliffe Yard, installation of a new elevator, new accessible toilet rooms, and compliance with MAAB requirements. The project will also address deferred maintenance repairs and improvements to the building's exterior envelope. This work will include repair of existing windows, masonry repointing and repair, and painting. Recognizing Byerly Hall's prominent location on Radcliffe Yard, all of the proposed exterior work will seek to maintain the historic character of both the building and the Yard. In December 2006, the Cambridge Historical Commission will review the project.

The project's life safety improvements will include the creation of new fire detection and alarm systems, and installation of a new sprinkler system. It will also update the building's heating, cooling, electrical, and telephone/data systems, greatly improving the building's comfort and efficiency.

The project seeks to obtain a minimum 'LEED Certified' rating from the United States Green Building Council. A few of the project's 'green' features include dual-flush toilets, point-of-source water heating, maximized use of daylighting, daylight dimming controls for light fixtures, managed growth sources for wood, low VOC finishes, and restoration of existing windows.

In early December 2006, the Radcliffe Institute will begin the Byerly Hall renovation with interior demolition and abatement, with construction starting in the Spring of 2007. The renovation is scheduled to be completed by the Fall of 2008.



### Rockefeller Hall Renovation (Harvard Divinity School)

The Harvard Divinity School (HDS) is planning an extensive renovation of Rockefeller Hall to make the building accessible, to update all systems, and to provide improved student amenities. As part of this renovation, HDS is planning to convert the residential portion of the building to administrative offices and to improve existing teaching space and community gathering areas. On the exterior, HDS is planning to upgrade the window systems and roof for improved energy efficiency and to undertake limited masonry restoration. In addition, HDS will transform much of the former parking area west of Rockefeller Hall into a landscaped green space to create a more cohesive HDS campus. HDS has engaged the services of Venturi, Scott, Brown and Associates to design this renovation. Construction is anticipated to occur from Summer 2007 to Summer 2008.



### 32 Quincy Street (Harvard University Art Museums)

The Harvard University Art Museums (HUAM) plan to increase and improve access to its collections, promote outreach to new audiences, and foster collaboration among the curatorial departments of its three museums (Fogg, Busch-Reisinger and Arthur M. Sackler). Through these initiatives, an enhanced and expanded role for the Art Museums is envisioned at Harvard University and the community. Over the past several years, HUAM and University administrators have undertaken a strategic planning process to address these goals and needs of the Art Museums. The process reaffirmed the urgent and long-standing acknowledged need to renovate the aging facilities of the 32 Quincy Street building, which houses the Fogg Art Museum, and the Busch-Reisinger Museum. HUAM has hired Pritzker Prize-winning architect Renzo Piano to design the renovation and reconfiguration of 32 Quincy Street to bring its three museums together under one roof, while each will remain a distinct institution. Each museum will have its own dedicated exhibition galleries and an object-based, multimedia study center. In order to accomplish the renovation of the 32 Quincy Street facilities in Cambridge, HUAM has recently focused on creating a facility in Allston where public galleries and other museum operations will be housed during and after the renovations in Cambridge. Following the reopening of the Quincy Street site, the Allston location will continue to provide HUAM with gallery space primarily for modern and contemporary art, as well as teaching and research facilities, and offices. HUAM hopes to begin renovations at 32 Quincy Street at the end of the academic year in 2008, with the goal of reopening by 2012.



### 1306 Massachusetts Avenue Renovation - Fairfax Hall (Harvard Real Estate Services)

Construction will begin in January 2007 to improve the life safety requirements and condition of Fairfax Hall, located at 1306 Massachusetts Avenue and built in the 1880's. Commercial tenants occupy the ground floor and 41 residential units occupy the four floors above. Improvements will:

- Bring the building into compliance with the requirements of the Massachusetts Architectural Access Board (MAAB)
- Upgrade the ground floor and basement commercial spaces to comply with current fire, life safety, and building code requirements
- Upgrade the infrastructure systems associated with the commercial space
- Upgrade the fire alarm and sprinkler systems throughout the building

In August 2006, the project received a Certificate of Appropriateness from the Cambridge Historical Commission. Construction is planned to be complete in September 2007.



### Peabody Terrace Facade Restoration (Harvard Real Estate Services)

Harvard is planning an exterior facade restoration of the Peabody Terrace residential complex. The project scope includes the repair and patching of deteriorated concrete, failed sealant joints, and restoration of exterior balconies. Construction is scheduled in three phases beginning in Summer 2007 and continuing over the subsequent two summers. Project consultant is Simpson Gumpertz and Heger.

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## IMPLEMENTING HARVARD'S SUSTAINABILITY PRINCIPLES

The University has adopted Sustainability Principles (see Appendix I) to support planning decisions that reflect a balance of economic, environmental, and socially responsible values.

In 2000, the Harvard Green Campus Initiative (HGCI) was established to lead a concerted effort to “green” Harvard’s campus. The HGCI works across the University to implement projects, programs, standards, and processes related to campus sustainability.

The following narrative highlights some of the programs and activities that Harvard has undertaken to implement its Sustainability Principles.

### *Environmental Inquiry and Institutional Learning*

#### Harvard Sustainability Conference

To capitalize on the growing momentum behind campus environmental sustainability at Harvard and to highlight successes to date, the HGCI, administrators and student groups worked together to bring the first Campus Sustainability Conference to the Harvard community. During the three-day event, 116 speakers presented a wide variety of topics to over 600 participants. Feedback following the conference was overwhelmingly positive.

#### Sharing the Lessons of Sustainability

This January will mark the start of the fourth semester of the HGCI course offered at the Harvard Extension School, “Sustainability: The Challenge of Changing Our Institutions,” run by Leith Sharp, Director of the HGCI, and Professor Jack Spengler. Last year the course had sixty registered students, undergraduates made up one half, while graduate students made up the other. The course is also offered online and for noncredit students.

#### Dining Services Gets Competitive

Harvard University Dining Services (HUDS) has partnered with the HGCI to pilot inter-kitchen conservation competition this spring called “Green Skillet.” The competition and training program, involving around 500 kitchen staff, will focus on promoting tangible conservation practices, such as minimizing oven preheat times, implementing green procurement policies, and engaging in creative campaigns to encourage students to use resources more conservatively.

#### Residential Green Living

Residential Green Living Programs encourage Harvard’s residential population to change behaviors to reduce the unnecessary consumption of resources (energy and water), to minimize waste (through recycling, reuse and procurement) and to take greater personal responsibility in reducing University-related environmental impacts. The results so far have been impressive, including a 15% reduction in electricity use and 40% increase in recycling rates at the College.

## *Planning Tools*

### **Life Cycle Costing**

The HGCI is working across Harvard to provide training and resources to staff who wish to adopt life cycle costing as their preferred way to evaluate cost comparisons when making financial decisions. Life cycle costing accounts for the initial up front cost of an option, in addition to the resulting operating and maintenance costs over a set period of time, usually twenty years. Life cycle costing allows decision makers to consider operating costs at the same time they make plans regarding building technology and design. This reduces the possibility of inheriting significant and often avoidable, environmental and economic costs throughout the life of the project.

### **High Performance Building Website**

Over the past six years, Harvard has experienced a significant boom in green design and construction. To date, sixteen projects have either registered or are certified under the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) standard, and countless others that have adopted green building strategies. The HGCI is planning to continue this momentum by developing a website resource designed to provide access to green technologies, materials, and strategies that will save Harvard project teams significant time, money, and effort associated with achieving high-performance building design and construction.

## *Institutional Practices*

### **Green Campus Loan Fund**

The Green Campus Loan Fund provides interest-free capital for high-performance campus design, operations, maintenance, and occupant behavior projects. Basic project eligibility guidelines for renovations of existing buildings state that projects must reduce environmental impacts and have a payback period of five years or less. Basic project eligibility guidelines for new construction state that projects must reduce environmental impacts and have a payback period of ten years or less. For new construction, the loan fund covers only the cost difference between a base case design and the high-performance option. To date, the fund has loaned over \$6.5 million to 92 projects across the University.

### **Purchasing Green Power**

Harvard's 2006 purchases of green power maintain the University's presence on the EPA's Green Power top 10 list of universities nationwide. Significant champions of green power at Harvard include the Divinity School that has committed to offsetting 100% of its electricity use and the School of Public Health that offsets 50% of its electricity use through the purchase of renewable energy certificates. To see the other schools on the Green Power top 10 list, go to [www.epa.gov/greenpower/partners/top10ed.htm](http://www.epa.gov/greenpower/partners/top10ed.htm).

### Diesel Emissions Reductions

Last year, Harvard Transportation Services switched to biodiesel in all 56 campus diesel vehicles. This plant-based fuel reduces greenhouse gas emissions, and it also reduces the emissions of other pollutants, like particulate matter and hydrocarbons. Harvard's recycling truck is now using straight vegetable oil (SOV) for its fuel. Two other trial projects underway include installing filters on construction vehicles to reduce diesel pollution and possibly making bio-diesel fuel from the University's waste kitchen grease.

### Recycling

The University Operations Services group provides a comprehensive waste and recycling service. Over the last ten years Harvard has consistently worked to increase its recycling rates to the current level of 45% and has set the goal of achieving 50% within the next few years.

### Cogeneration

Cogeneration (also known as combined heat and power) is the creation of useful thermal energy and electricity from the same fuel source. The result is very high efficiency and significantly reduced emissions compared with conventional power plants. Harvard's Blackstone Station, which supplies steam for heating and hot water to a large portion of the campus, will begin cogeneration during 2007 by using the flow of steam to spin a small turbine generator, thereby producing electricity.

### Reducing Energy Consumption in Laboratories

Laboratories account for almost 40% of Harvard's greenhouse gas (GHG) emissions, due to their inherently high energy use. Work is now underway to reduce the energy consumption in Harvard's laboratories through laboratory upgrades, occupant education, guidelines for green laboratory renovations, and a wide array of new laboratory controls.

## *Green Buildings*

### Harvard Continues to LEED by Example

Harvard University continues to show its commitment to the environment and to the occupants' health and comfort, as it renovates its existing buildings while constructing new ones. This is best demonstrated by the sixteen Harvard projects already registered with the United States Green Building Council (USGBC), six of which have already received a Leadership in Environmental and Energy Design (LEED) Certification.

The LEED Certification recognizes buildings that have selected a sustainable site, improved water efficiency, minimized energy use, selected environmentally preferred building materials, provided an improved indoor environmental quality, and utilized innovative strategies to improve building performance.



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## BLACKSTONE STATION

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<b>Department:</b>	University Operations Services
<b>Building Type:</b>	Office Space
<b>LEED Status:</b>	Registered, aiming for LEED Gold
<b>Completion Date:</b>	May 2006

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### **Energy Performance:**

- 30-35% more efficient than code in the winter
- Enthalpy wheels for sensible and latent heat recovery pass the heat and moisture of the outgoing exhaust air to the incoming fresh air, saving energy
- Energy efficient lighting fixtures include daylight sensors and occupant sensors, compact fluorescent bulbs, and LED exit signs
- Geothermal system and valence units for heating and cooling. Geothermal takes advantage of the constant (52°F at -20 ft to 57°F at -1500 ft) temperature of the ground making it a heat sink in the summer.

**Water Efficiency:** Water use is reduced by 43% through the use of dual-flush toilets, waterless urinals, and low-flow sinks and shower heads.

**Renewable Energy:** 100% of electrical load is offset by purchasing renewable energy certificates

**Site:** An innovative landscape design, including plant species native to New England that do not require more water than the average rainfall provides in the area, transformed an asphalt parking lot to green space and a bio-retention system. The bioswale system filters solids and phosphorous from storm water before releasing it to the Charles.

**Building Materials:** 99.5% of the construction and demolition waste diverted from landfills.



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## 90 MT. AUBURN STREET

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<b>Department:</b>	Harvard University Library Service
<b>Building Type:</b>	Special Collections Library
<b>LEED Status:</b>	Registered, aiming for LEED Silver
<b>Completion Date:</b>	May 2006

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### **Energy Performance:**

- 30% more efficient than code
- Geothermal heat pumps for heating and cooling
- Energy Star cool roof (white) reduces solar heat gain and consequently energy use

**Water Efficiency:** Water use is reduced by 30% using dual-flush toilets, which provide an option for a 0.8 gallon flush, and by using low-flow 0.5 gallon per minute sinks

**Renewable Energy:** 100% of electrical load is offset by purchasing renewable energy certificates

**Site:** Native/adapted plantings that rely on local rainfall require no permanent irrigation system

### **Building Materials:**

- 95% of construction and demolition waste diverted from landfills
- Recycled content and local materials

### **Indoor Environmental Quality:**

- Low VOC-emitting adhesives, sealants, paints, and carpets
- Green cleaning



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### 10 AKRON STREET (888 MEMORIAL DRIVE)

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<b>Department:</b>	Harvard Real Estate Services
<b>Building Type:</b>	Graduate Student Housing
<b>LEED Status:</b>	Registered, aiming for LEED Silver
<b>Completion Date:</b>	July 2008

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#### **Energy Performance:**

- No ozone-depleting substances used in heating, ventilation, and air-conditioning systems
- Daylighting reduces use of electric lights

#### **Water Efficiency:**

- Water-efficient drip irrigation reduces irrigation water use by 50%
- Water-efficient plumbing fixtures provide more than 20% water use reduction

#### **Site:**

- “Cambridge Green” light-colored roofing reduces urban heat island effect
- Stormwater quality and quantity improvements reduce combined sewage overflows to the Charles River

#### **Building Materials:**

- Over 90% of construction waste recycled and diverted from landfill
- More than 5% of project materials will consist of recycled materials

**Indoor Environmental Quality:** Low-emitting adhesives, sealants, paints, coatings, composite wood, and agrifiber products



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**BANKS, COWPERTHWAIT & GRANT**

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<b>Department:</b>	Harvard Real Estate Services
<b>Building Type:</b>	Graduate Student Housing
<b>LEED Status:</b>	Registered, aiming for LEED Silver
<b>Completion Date:</b>	August 2007

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**Energy Performance:**

- 20.6% more efficient than code
- No CFCs, HCFCs or Halons in refrigeration and fire suppression systems

**Water Efficiency:**

- Rainwater catchments collect water for site irrigation
- Low-flow 0.5 gallon per minute sinks; 2.0 gallon per minute shower heads; dual-flush toilets in selected locations

**Site:**

- Redeveloped site previously used for parking was greened, thereby reducing heat island effect (37% shaded after 5 years) and imperviousness (25% decrease in storm water runoff)
- Storm water is collected on site and stored in underground tanks for use by the irrigation system

**Building Materials:**

- 98% of construction waste recycled or salvaged
- 25% of building materials are recycled materials

**Indoor Environmental Quality:**

- Low-emitting adhesives, sealants, paints, and carpet
- Operable windows provide controllability of system comfort



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## DUNSTER-MATHER DINING HALL

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<b>Department:</b>	Harvard Dining Services
<b>Building Type:</b>	Kitchen and Servery
<b>LEED Status:</b>	Silver, First LEED certified kitchen in the nation
<b>Completion Date:</b>	Summer 2005

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### **Energy Performance:**

- Lighting power density is reduced to 16% below the standard
- Installed range hood sensors that adjust variable speed drive exhaust fans according to actual conditions, thereby allowing significant energy savings

### **Water Efficiency:**

- Reduced water usage by 32% through the use of low-flow faucets and dual-flush toilets that use 0.8 gallons per flush rather than 1.6
- Installed Hobart “Opti-Rinse” dishwashers expected to save over 500,000 gallons of hot water and all the associated steam to annually heat it

**Renewable Energy:** 100% electrical load offset by purchasing renewable energy certificates

### **Building Materials:**

- 95% of Construction and Demolition waste diverted from landfills
- Recycled-content and local materials
- Installed Somat Pulper and Hydra-Extractor that grinds organic wastes for compost. The system is expected to divert over 240,000 pounds of organic waste from landfills each year.
- Installed Frontline International Waste Oil Tank, a 150 gallon stainless steel storage tank for collecting waste vegetable oil; Vegetable oil being investigated for on-site conversion into biodiesel

**Indoor Environmental Quality:** Low-VOC adhesives, sealants, paints and primers and composite wood without added urea formaldehyde



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## SCHLESINGER LIBRARY

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<b>Department:</b>	Radcliffe Institute
<b>Building Type:</b>	Library
<b>LEED Status:</b>	Certified
<b>Completion Date:</b>	February 2005

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**Energy Performance:** Energy use reduced by 25%

**Water Efficiency:** Water consumption reduced by 22% using low-flow lavatories

**Renewable Energy:** Purchasing renewable energy certificates offsets 50% of electrical load

**Building Materials:** 90% of the construction and demolition waste diverted from landfills

**Indoor Environmental Quality:**

- Low-emitting paints, coatings, furniture, and carpets improve indoor air quality and protect the collections
- Green cleaning



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## 60 OXFORD STREET

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<b>Department:</b>	University Information Services
<b>Building Type:</b>	Information Technology
<b>LEED Status:</b>	Certified
<b>Completion Date:</b>	December 2002

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### **Energy Performance:**

- 26% more efficient than code
- Raised access flooring, or under-floor air distribution (in data center)
- Rooftop garden and EnergyStar cool roof reduce solar heat gain in the summer
- No CFCs, HCFCs or Halons in refrigeration and fire suppression systems
- Exterior metal scrim reduces solar gain and allows daylight to penetrate interior

### **Water Efficiency:**

- Storm water retention tank system
- Efficient irrigation technology reduces potable water consumption by 18% over conventional means; rain sensors stop irrigation during periods of rain

**Renewable Energy:** Renewable energy certificate purchases offset 100% of electrical load

**Site:** Redeveloped site previously used for parking was “greened,” thereby reducing heat island effect (37% shaded after 5 years) and imperviousness (25% decrease in storm water runoff)

### **Building Materials:**

- 75% of construction waste recycled or salvaged
- Salvaged cubicle workstations and work surfaces from other Harvard buildings
- 51% of wood certified as sustainable by Forest Stewardship Council

**Indoor Environmental Quality:** Low-emitting adhesives, sealants, paints, carpet, and composite wood

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## ALLSTON UPDATE

Harvard's draft Master Plan for Allston is expected to be finalized early in 2007. The Plan will define a framework that provides the University with a way to predict outcomes while proceeding in an organized manner. It also provides the flexibility needed for a dynamic institution to grow and change in response to unexpected needs. To accomplish this, the Plan will focus on establishing key parameters that will act as the framework for future physical development and as a rationale for placing proposed programmatic components. These parameters include the Allston campus street grid, the pattern of land development sites, the utility infrastructure systems, and the open space system.

The Plan is based on a preliminary "test program" that includes science research facilities, the relocation of the Graduate School of Education and the School of Public Health, new riverfront undergraduate houses, graduate housing, cultural facilities, retail and conference space, and a large amount of new open space. Considerable effort has gone into ensuring that transportation plans not only provide automobile access and parking, but that they also provide aggressive bicycle, shuttle, and public transit programs aimed to reduce the use of automobiles and to promote a pedestrian-oriented campus. A broad range of sustainability initiatives has been defined, which are expected to distinguish Harvard's Allston Master Plan as one of the most environmentally sensitive of its kind. These initiatives involve matters such as efficient energy systems (notably cogeneration), reduced emissions, water quality, resource conservation, alternative modes of transportation, and creation of natural open space systems.

The Master Plan is a starting point for many years of regulatory submissions and public review. Initial submissions to the City of Boston are scheduled for late 2006 and early 2007. As such, the Master Plan will play an important role in providing the public with information about Harvard's aspirations in Allston. The regulatory process triggered by these submissions will involve significant environmental impact analysis and extensive community review.



*See map on facing page.*

 <b>Recently Completed</b>	 <b>Currently in Construction</b>	 <b>Will Require City Permits or Approvals Within Three Years</b>
1. Center for Government and International Studies (CGIS Phase 1)	11. Northwest Science Building	17. Harvard Law School Northwest Corner Building
2. 90 Mount Auburn Street	12. New College Theatre (Hasty Pudding)	18. Partial demolition of North Hall and Relocation of Baker House and 1581-1583 to North Hall site
3. Biological Research Infrastructure Building (BRI)	13. Laboratory for Integrated Science and Engineering (LISE)	19. 32 Quincy Street (Harvard University Museums)
4. Blackstone Station Renovations	14. Riverside Graduate Housing: Grant/Cowperthwaite	20. Byerly Hall
5. Hemenway Gymnasium	15. Riverside Graduate Housing: 10 Akron Street	21. 1306 Massachusetts Avenue
6. 23 Everett Street	16. Switch House Affordable Housing	22. Rockefeller Hall
7. 17 Sumner Road and 38 Kirkland Street (CGIS Phase 2)		23. Peabody Terrace
8. Radcliffe Gym		
9. Hilles Reuse		
10. Cronkhite Graduate Center		

### III. LIST OF PROJECTS

List all development and public improvement/infrastructure projects completed within the past year, currently in construction or which will require City permits or approvals during the next three years (coordinate with Map 3 in Section IV);

- Indicate how each project meets the programmatic goals of your institution discussed in Section II;
- Indicate how each project fits into the physical plans for the immediate campus area;
- Indicate the “green” attributes, if any, of the project;
- Indicate identified future development sites on your campus (coordinate with Map 4 in Section IV).

#### Projects Completed, in Construction, and in Planning



## Project List

### Completed Within the Past Year

Project	Pragmatic Goal	Green Attributes
90 Mount Auburn Street	Administrative offices for Harvard libraries with first floor retail	LEED registered
Blackstone Station Renovations	Consolidation of University Operations Services	LEED registered
Radcliffe Gym	Improved safety and accessibility; reconfigured internal space	Geothermal heat pumps Dual-flush toilets and water-free urinals Occupancy sensors to turn off lights Diversion of roof water runoff
Hemenway Gymnasium	Improved student life; recreational facilities	Reuse of existing structure Use of recycled construction wood Energy recovery in locker rooms Drywells
23 Everett Street	Administrative office space	Significant increase of permeable surface
Cronkhite Graduate Center	Relocation of Undergraduate Admissions	Adaptive reuse of existing structure
Hilles Re-use	Deferred maintenance; consolidation of library space on first floor; student activities space on upper floors	Automatic controls and dimmers on lighting
Biological Research Infrastructure Building (BRI)	Interdisciplinary research and teaching in the sciences	Energy efficient lighting systems
Center for Government and International Studies	Academic and administrative space for international studies; restoration of historic properties	Reuse of existing structures

## Project List (cont.)

### Currently in Construction

Project	Pragmatic Goal	Green Attributes
Riverside Graduate Student Housing: Grant/Cowperthwaite	University goal of housing 50% of graduate students	LEED registered
Riverside Graduate Student Housing: 10 Akron Street	University goal of housing 50% of graduate students and providing affordable community housing	LEED registered
Switch House Affordable Housing	Creation of community affordable housing	Adaptive reuse of existing industrial building Energy Star appliances and fixtures Variable bathroom fans Storm water retention system
New College Theatre (Hasty Pudding)	Improved student life; reconstruction of theater and support space	87% of construction debris recycled Low-flow plumbing fixtures Energy efficient lighting and ballasts
Laboratory for Integrated Science and Engineering (LISE)	Interdisciplinary research and teaching in the sciences	Storm water management systems Green, vegetated roof (over below-grade space) Natural ventilation / openable windows
Northwest Science Building	Interdisciplinary research and teaching in the sciences	Energy efficient lighting systems

## Project List (cont.)

### Will Require City Permits or Approvals within Three Years

Project	Pragmatic Goal	Green Attributes
Harvard Law School Northwest Corner Building	Replacement of inadequate academic facilities and student activity space; relocation of underground parking	Will be LEED registered
Byerly Hall	Relocation of Radcliffe Fellows programs to Radcliffe Yard	Will be LEED registered
Partial Demolition of North Hall and Relocation of Baker House and 1581-1583 Massachusetts Avenue	Create needed academic and dormitory space	Reuse of existing structures
Rockefeller Hall	Significant interior renovations to create more classrooms, faculty offices, student support spaces; improved accessibility	Dual-flush toilets and waterless urinals 95% of exterior walls, interior floors, and roofs maintained Diversion of construction debris Indoor air quality management plan Low-emitting materials
32 Quincy Street (Harvard University Museums)	Address critical deficiencies in the Harvard Art Museums complex and expand to meet increased space needs	To be determined
1306 Massachusetts Avenue - Fairfax Hall	Accessibility and building code upgrades	Not applicable
Peabody Terrace	Significant exterior concrete repairs	Not applicable

## IV. MAPPING REQUIREMENTS

Please attach to the report maps of the following (these may be combined as appropriate):

1. **Map of all real estate owned in the City of Cambridge. Categorize properties by use as appropriate (e. g., institutional/academic, student activities/athletic, dormitory/nontaxable residential, investment, etc.).**

*Map 4.1 shows property owned by Harvard and property leased by Harvard for University use.*

2. **Map of real estate leased. Categorize properties by use as appropriate (e. g., institutional/academic, student activities/athletic, housing). This map can be combined with the one above.**

*Map 4.2 shows Harvard-owned property leased to third parties.*

3. **Map of development projects completed within the past year, now underway, proposed or planned within the next three years.**

*See map on page 36.*

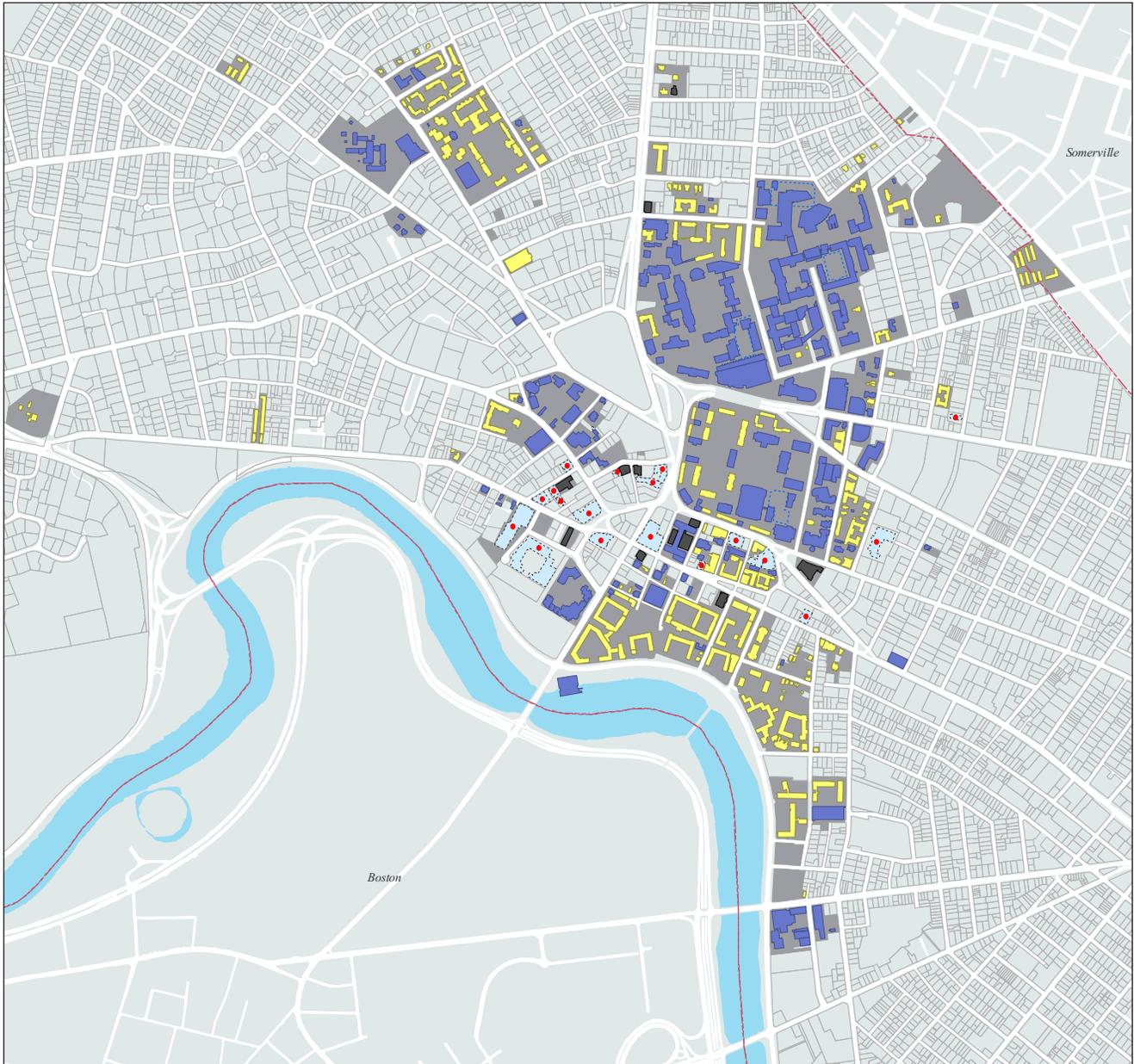
4. **Map the sub-areas/precincts of your campus, indicating the location of future development areas and projects. If appropriate, include detailed maps of sub-areas/precincts where significant changes are anticipated to occur over the next five years.**

*See map on page 36.*

5. **Map of all regularly scheduled campus shuttle and transit routes.**

*Map 4.3 shows Harvard's campus shuttle and transit routes.*

## Map 4.1 Real Estate Owned and Leased by Harvard for University Use



### Legend

#### Buildings by Ownership Status and Primary Use <sup>(1)</sup>

-  Harvard Owned - Institutional <sup>(2)</sup>
-  Harvard Owned - Residential
-  Harvard Owned - Other <sup>(3)</sup>
-  Leased <sup>(4)</sup> - Institutional <sup>(5)</sup>

#### Land Parcels

-  Harvard Owned
-  Non Harvard Owned

#### Notes:

- (1) Primary Use reflects predominant building use.
- (2) The Rowland Institute located at 100 Edwin Land Blvd is located outside the map coverage area.
- (3) See Map 2, next page.
- (4) Buildings may be leased by Harvard in whole or in part.
- (5) All buildings leased from a third party are used for institutional purposes, except 77 Trowbridge Street, which is residential.  
  
The following buildings leased by Harvard for Institutional Use are located outside the map coverage area:  
  
155 Fawcett Street  
One Kendal Square  
320 Charles Street

## Map 4.2 Real Estate Leased to a Third Party in Cambridge



### Legend

#### Buildings by Ownership Status and Use

- Leased to 3rd Party <sup>(1)</sup> - Commercial <sup>(2)</sup>
- Leased to 3rd Party <sup>(1)</sup> - Other <sup>(3)</sup>
- Harvard Owned - Other

#### Land Parcels

- Harvard Owned
- Non Harvard Owned

### Notes:

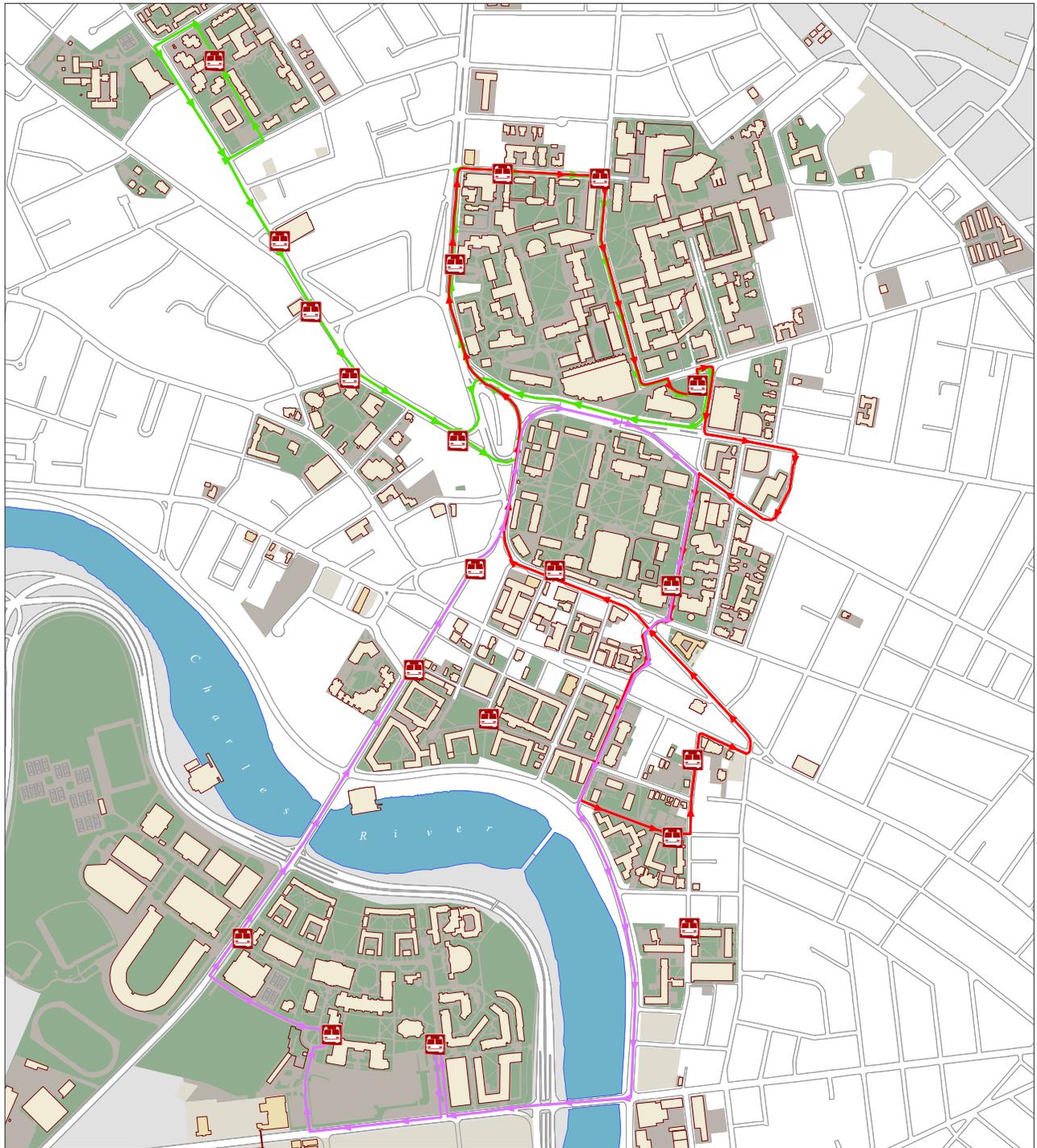
- (1) Buildings may be leased in whole or in part. For locator purposes, entire buildings have been shaded.
- (2) All buildings with commercial uses leased to a third party are Harvard owned, except for the following buildings which Harvard controls through lease agreements:

8 Holyoke Street  
 14 Story Street  
 124 Mount Auburn Street

- (3) Includes 52-60 Mount Auburn Street which is leased to Harvard-Radcliffe Hillel

*This map does not highlight affiliate residential property. Affiliate residential is included in the "Harvard Owned - Residential" category on Map 1.*

Map 4.3 Harvard Campus Shuttle and Transportation Routes



**Basic Shuttle Routes**

-  Carrier House - Memorial Hall via Harvard Square
-  Mather House - Memorial Hall via Harvard Square
-  Soldiers Field Park - Business School - Harvard Square
-  Shuttle Stops

## V. TRANSPORTATION DEMAND MANAGEMENT

Please provide the following information. You may summarize the information below or attach documents to this report, as appropriate. If your school has not updated information since submitting the 2004 Annual Report, you may so indicate in the appropriate space below.

- A. Results of surveys of commuting mode choice for faculty and/or staff and/or students.
- B. Information on the point-of-origin of commuter trips to Cambridge for faculty and/or staff and/or students.
- C. Have there been any changes in your TDM plan or strategy since submitting your 2004 Town Gown report? If so, please describe briefly. (Your PTDM plan is on file at CDD.)

Harvard University is the largest employer in the City of Cambridge, and is a complex decentralized educational institution naturally geared toward flexible work and academic schedules. Therefore, it is a less intensive traffic generator than other traditional businesses. For example, a quarter of Harvard's Cambridge-based employees and students are nontraditional peak hour commuters. The rest of Harvard's commuters spread throughout the day, reducing transit, vehicular and pedestrian congestion. In addition, the University announced a goal of increasing the percentage of graduate students housed in on-campus facilities to 50%. The University believes this will further reduce transportation impacts by reducing the number of commuting students.

### PTDM Plan

Harvard's Parking and Transportation Demand Management ("PTDM") Plan was approved in 2003. The PTDM Plan provided the City of Cambridge with a baseline assessment of Harvard's parking supply as well as detailing how the University manages its vehicle trips through the transportation demand ("TDM") measures and strategies offered by the *CommuterChoice* Program. The PTDM Plan describes a menu of transportation services and incentives that Harvard has in place to reduce its single occupancy vehicle ("SOV") rate by 10%, from 27.4 % of the commuting population to 24.7 %.

Since the PTDM Plan was approved, Harvard remains a leader of Cambridge-based employers of its size and geographic location in maintaining an exceptionally low SOV. In fact, the results of the 2006 PTDM survey document Harvard's SOV rate at 15.1% for Cambridge-based employees and graduate students. This sharp reduction reflects Harvard's ongoing commitment to the extensive programs and measures contained in Harvard's PTDM Plan. In comparison, the overall SOV rate nationally is 77%<sup>16</sup> and for Middlesex County is 73.6%<sup>17</sup>.

Harvard's ongoing commitment to the extensive programs and measures contained in Harvard's PTDM Plan. In comparison, the overall SOV rate nationally is 77%<sup>16</sup> and for Middlesex County is 73.6%<sup>17</sup>.

Beginning in September 2004, monthly MBTA pass sales have been available to affiliates online, providing the convenience of receiving a monthly pass at home. This allows employees to avoid the lines at pick-up sites on campus. Furthermore, Harvard University's employees must only sign up once to receive a monthly pass in the mail on a recurring basis. Employees may change the pass type they wish to order or cancel their online at any time. Harvard recently announced that it will begin subsidizing all transit passes for faculty and staff by 50% beginning in January 2007, to lessen the impact of the imminent MBTA fare increase. As an added bonus, the price for the pass is deducted from an employee's paycheck before taxes.

Other programs and incentives in Harvard's PTDM Plan since its approval in 2003 have had the following results:

- An increased number of sheltered bike parking spaces in the planning stage;
- The number of registered Zipcar™ affiliates has increased from 2,500 to over 3,500;
- Additional signed parking spaces for use by carpoolers and vanpoolers;
- Harvard continues to be recognized as a member of the EPA's National Best Workplaces for Commuters Initiative since 2002.
- The following sustainable transportation modes have increased from 2005 to 2006:
  - 5% increase in walking as a commute mode;
  - 3% increase in bicycling as a commute mode;
  - 9% increase in Rideshare Matching program.

### *CommuterChoice Program*

Harvard University's *CommuterChoice* Program is committed to tracking and monitoring the various TDM programs and incentives it provides, and to improving its programs based on annual survey data and other program feedback. Surveys indicate that the numbers of employees and students have remain relatively consistent over time and changes in modes of travel have reduced the SOV rate and increased the number of people using public transit. For the results of surveys of commuting mode choice for faculty, staff, and students and for information on the point-of-origin of commuter trips to Cambridge, please refer to the University's annual PTDM Progress Report, on file with the City.

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<sup>16</sup> National Census data

<sup>17</sup> Commonwealth of Massachusetts Census data

The following is a list of current *CommuterChoice* Program offerings:

- Information on local transit options
- MBTA monthly pass subsidy and pre-tax savings
- Information on safe bicycle routes and general bicycle safety
- Departmental Bike Program  
(see [www.commuterchoice.harvard.edu/dept\\_bikes.shtml](http://www.commuterchoice.harvard.edu/dept_bikes.shtml))
- Carpool partner matching and carpool registration
- Discounted and preferential parking for carpools and vanpools
- Assistance with vanpool formation
- Discounted Zipcar™ membership
- Emergency Ride Home Program for carpool participants
- Park and Ride information
- Walk to Work programs and information
- Assistance with transportation information as it relates to moving to the area or relocation
- Outreach to the University's Transportation Coordinators, representing all of the University's Departments.

The *CommuterChoice* Program also began a series of walking events this year, beginning on April 7th with National Walk to Work Day. Events included a spring and fall "Walk to Work Breakfast," two separate "One Stop Walk" events (in which employees were asked to get off the subway or bus one stop early, and then walk the remaining distance to work), and a walking tour of the "Construction of Commencement" in Harvard Yard. All events were open to City of Cambridge staff.

The programs and measures in Harvard's PTDM Plan are extensive, as are those of Harvard's Fleet Management and Shuttle Services Department, which has converted its fleet of shuttles and buses, as well as any diesel university vehicle, to an 80/20 biodiesel mix. The Fleet Management Department is testing a new diesel exhaust filter that will further reduce vehicle emissions, while working with Harvard's Green Campus Initiative and Dining Services to convert a recycling truck to run on the waste vegetable oil from Annenburg Hall's dining facility. In addition, Harvard has been recognized as a member of the EPA's National Best Workplaces for Commuters Initiative since 2002. These efforts, and countless more (see [www.greencampus.harvard.edu](http://www.greencampus.harvard.edu)), demonstrate that the University is acting responsibly to maintain and improve the quality of life within the City of Cambridge.

### Additional Information

Additional information on sustainable transportation options is available online at [www.comuterchoice.harvard.edu](http://www.comuterchoice.harvard.edu). For additional information about Harvard Fleet Management and Shuttle Services' commitment to alternative fuels and other sustainability initiatives, please visit [www.uos.harvard.edu/transportation/fle.shtml](http://www.uos.harvard.edu/transportation/fle.shtml).

A copy of Harvard University's PTDM Plan is available by contacting Jean Clark, City of Cambridge PTDM Planning Officer, at 617-349-4673 or [jclark@cambridgema.gov](mailto:jclark@cambridgema.gov). Harvard submits annual PTDM updates which are on file with the City's Community Development Department.

## VI. INSTITUTION SPECIFIC INFORMATION REQUESTS

### 1. Provide an update on planning and construction activities in the North Yard and Law School areas, including plans for the Massachusetts Avenue frontage.

See Future Plans

### 2. Provide an update on the conversion of the Hilles Library to student services related uses.

In early September 2006 conversion of the former Hilles Library to a home for student group organizations was completed. The building renovation was confined to the interior and involved no exterior changes. Harvard College's plans to consolidate library holdings and decrease duplicate reserves made it possible to create much needed student space. The new design for the Hilles Center for Student Organizations provides space for student organization "collaborative zones," a coffee bar and lounge, a performance and rehearsal space for student groups, and other space for students to work or socialize. In addition, the recently renovated Quad Library on the first floor serves as a study space for students. Together, the library and student organization spaces complement one another for curricular and cocurricular learning.

### 3. Provide an update on any anticipated change in the quantity of space leased to commercial tenants (retail and office), with particular attention paid to any ground floor retail activity currently accessible to the public.

Harvard has recently completed construction of 90 Mount Auburn Street. Approximately 1,000 square feet on the ground floor is leased to the Globe Corner Bookstore.

Harvard has begun a two-phase renovation of 1306 Massachusetts Avenue. The first phase, which will begin in January 2007, will renovate the first floor commercial tenant spaces, including sprinkler installation and other code upgrades. Harvard is working with retail tenants of 1306 Massachusetts Avenue to retain these businesses in the Square during and after the renovation.

- Gnomon Copy will be temporarily relocated to the first floor of Holyoke Center on Holyoke Street
- Zinnia will relocate to 26 Church during construction and will return to 1306 Massachusetts Avenue
- Felix Shoe currently located in the basement of 1306 Massachusetts Avenue is considering temporary space in the Holyoke Center Arcade
- Toscanini is considering other options within Harvard Square since the renovated space at 1306 Massachusetts Avenue does not meet their needs
- Ferrante Dege has decided to retire and close its business

With regard to Harvard's other retail properties in Harvard Square, Harvard endeavors to maintain full occupancy and will, when vacancies occur, strive to bring in businesses that serve the needs of the surrounding community and contribute to Harvard Square's vibrant retail environment. Harvard University strives to maintain and attract unique, independently owned businesses to its properties whenever possible. Almost all of the 35 retail businesses in Harvard-owned buildings are small, independently owned businesses.

**4. Provide an update of the plans for Allston as they affect the Cambridge campus and the City of Cambridge. Address the proposals described by the recent "Interim Report."**

See Future Plans

## Appendix I



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## Campus-wide Sustainability Principles

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Harvard University contributes to the global environment and human well-being in several important ways. Through its primary mission of research, education, and outreach, Harvard's faculty have made significant advances in science, economics, public policy, design, medicine, and public health. The University's academic preeminence and respect throughout the world also provides a considerable opportunity and responsibility to consider the example set by the economic, human health, and environmental performance of its campus. Harvard also influences generations of students whose future behaviors and decisions are shaped by what they learn from their campus experience and the actions of the University's leaders.

The University has an affirmative record of responsible compliance with environmental and safety regulations and a proven effective system of environmental management accountability. As Harvard plans its future growth, these considerations should support planning decisions that reflect a balance of economic, environmental, and socially responsible values.

The following principles are intended to guide Harvard's practices toward sustainability through the management of building design, construction, renovation, procurement, landscape, energy, water, waste, emissions, transportation, human health, and productivity.

### Sustainability Principles

Harvard University is committed to developing and maintaining an environment that enhances human health and fosters a transition toward sustainability. Sustainability should be advanced through research, analysis, and experience gained over time. To that end, Harvard University is committed to continuous improvement in:

- **Demonstrating institutional practices that promote sustainability**, including measures to increase efficiency and use of renewable resources, and to decrease production of waste and hazardous materials, both in Harvard's own operations and in those of its suppliers.
- **Promoting health, productivity, and safety** of the University community through design and maintenance of the built environment.
- **Enhancing the health of campus ecosystems** and increasing the diversity of native species.
- **Developing planning tools** to enable comparative analysis of sustainability implications and to support long-term economic, environmental and socially responsible decision-making.
- **Encouraging environmental inquiry** and institutional learning throughout the University community.
- **Establishing indicators for sustainability** that will enable monitoring reporting and continuous improvement.

## Implementation Framework

In order to be successful over the long term, decisions concerning human health and sustainability must be economically sound and seamlessly integrated with established management and financial systems. The initial implementation plan for the University's Sustainability Principles is based on four closely related tracks:

- **Capital Planning and Construction** - The University's capital planning and approvals process for new construction and major renovation of existing campus facilities will be expanded to incorporate the Sustainability Principles in its review. Each school and administrative department proposing a capital project will be required to establish specific objectives consistent with the principles as part of the formal approval process for capital projects. Currently this is done for numerous other financial, technical and regulatory issues.
- **Annual Financial and Budget Planning** - The University's annual budget planning process will include explicit recognition of the Sustainability Principles in the commitment of operating funds. As part of its internal annual financial plan, each school and department will be requested to set specific goals and to report on how expenditures for facilities, support services, procurement and other activities are consistent with the University's commitment to continuous improvement towards campus sustainability.
- **Supporting the Schools and Departments** - The University will continue to invest in support systems for sustainability, such as the Harvard Green Campus Initiative (HGCI), to implement the Sustainability Principles by providing schools and administrative departments with: a clearinghouse of proven planning tools, guidelines, preferred technologies, products and design solutions; campus specific research and innovation; cost effective financial incentives; training and expertise; assistance in meeting planning and reporting requirements; and a means of facilitating broad community engagement.
- **Broad-based Continued Review** – Recognizing that the concepts of sustainability will evolve over time through experience, research, economic analysis, and technological advances, the University will continue the work that led to the development of the Sustainability Principles by appointing a standing sustainability advisory group consisting of members of the faculty, administration, and student body. This group will aid in the development of sustainability indicators, monitor progress, and provide recommendations for improving the Sustainability Principles and Implementation Framework.

## Appendix II



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## Resources for Planning Information at Harvard

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Harvard University maintains a number of websites that provide updated information about University planning and construction.

### **OFFICE OF GOVERNMENT, COMMUNITY, AND PUBLIC AFFAIRS**

The Office of Government, Community, and Public Affairs maintains a web page called “Harvard in the Community - Planning for the Future” which provides information about important construction projects, including quarterly updates on projects in construction in Cambridge.

**[www.community.harvard.edu/development](http://www.community.harvard.edu/development)**

### **HARVARD UNIVERSITY PLANNING OFFICE**

The University Planning Office provides planning services for the University including land use, urban design, transportation and infrastructure, housing, regulatory review, finance, project management, and community process to support the physical planning needs of individual faculties and across the University. The goal is to create an integrated campus that serves Harvard’s future academic needs and is an asset to the broader urban community.

**[www.upo.harvard.edu](http://www.upo.harvard.edu)**

### **HARVARD GREEN CAMPUS INITIATIVE**

The Harvard Green Campus Initiative is an interfaculty organization that works to address the real life challenges of achieving campus environmental sustainability within Harvard University. The website provides information about a number of University programs that support sustainable practices.

**[www.greencampus.harvard.edu](http://www.greencampus.harvard.edu)**

### **ALLSTON DEVELOPMENT GROUP**

The Allston Initiative is the planning effort to create the framework for the University’s physical development in Allston. The goal is to plan in a way that best supports Harvard’s academic mission and growth while ensuring that the new campus is an integral part of the broader urban community. The Allston Development Group provides planning expertise, analytical support, and project management to help the University develop and implement a vision for an integrated campus in Allston that will be an asset to the community and the City of Boston.

**[www.allston.harvard.edu](http://www.allston.harvard.edu)**

### **CONSTRUCTION MITIGATION**

The University maintains a web page devoted exclusively to updates on major projects in the North Campus, Harvard Square, Riverside, and the Law School. The site also provides contact information for Harvard’s Construction Mitigation Team.

**[www.construction.harvard.edu](http://www.construction.harvard.edu)**

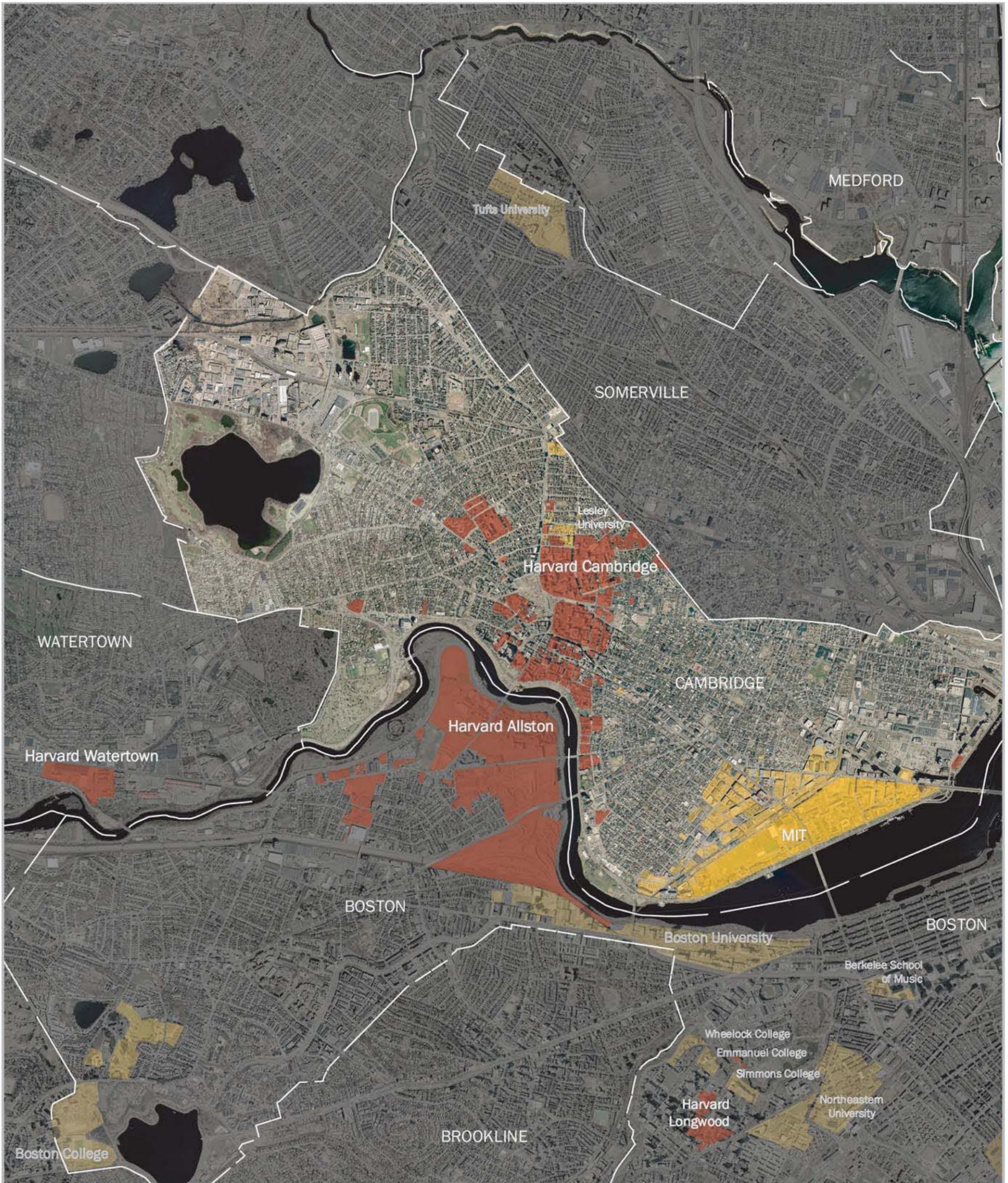


## Appendix III

### *Existing Conditions*

*Planning for Harvard's Cambridge campus takes place within a framework of existing conditions. Understanding the varied patterns that make up the campus's physical fabric provides a framework for understanding the Cambridge campus as a whole and helps shape future planning efforts. University planners have analyzed existing conditions from a number of perspectives as illustrated on the following maps.*





Source: Harvard University's 2004 Town Gown Report

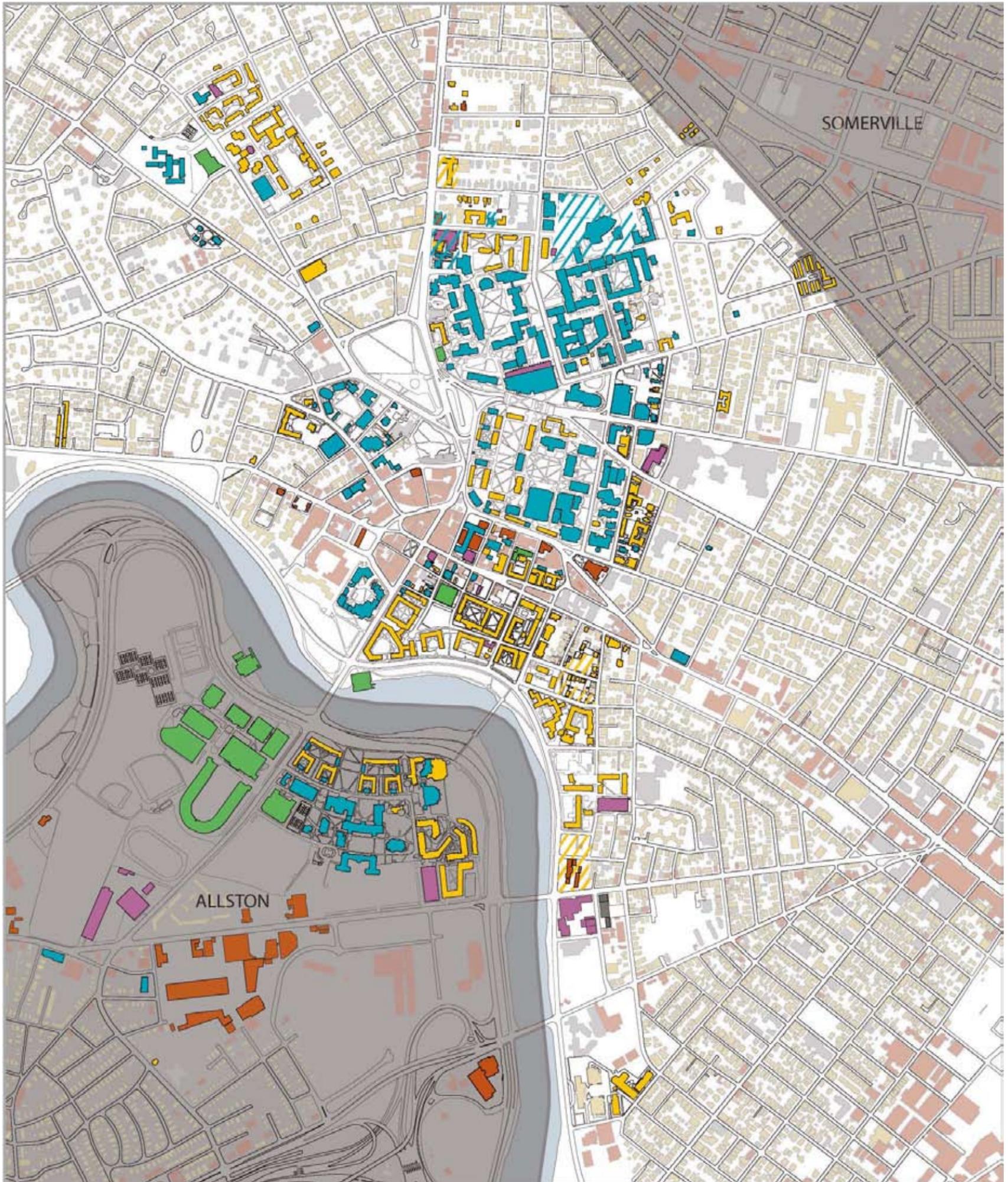
## Map A - REGIONAL SCALE

Harvard's real estate encompasses five non-contiguous campuses in three different municipalities. Like other key institutions in the Boston metropolitan area, Harvard is located within mature urban neighborhoods. In addition, Harvard, MIT and Boston University are adjacent to the Charles River.

### LEGEND

#### Institutional Land Holdings

- Harvard University
- Other Colleges
- City Boundaries



Source: Harvard Patterns, January 2002  
 Updated for Harvard University's 2005 Town Gown Report

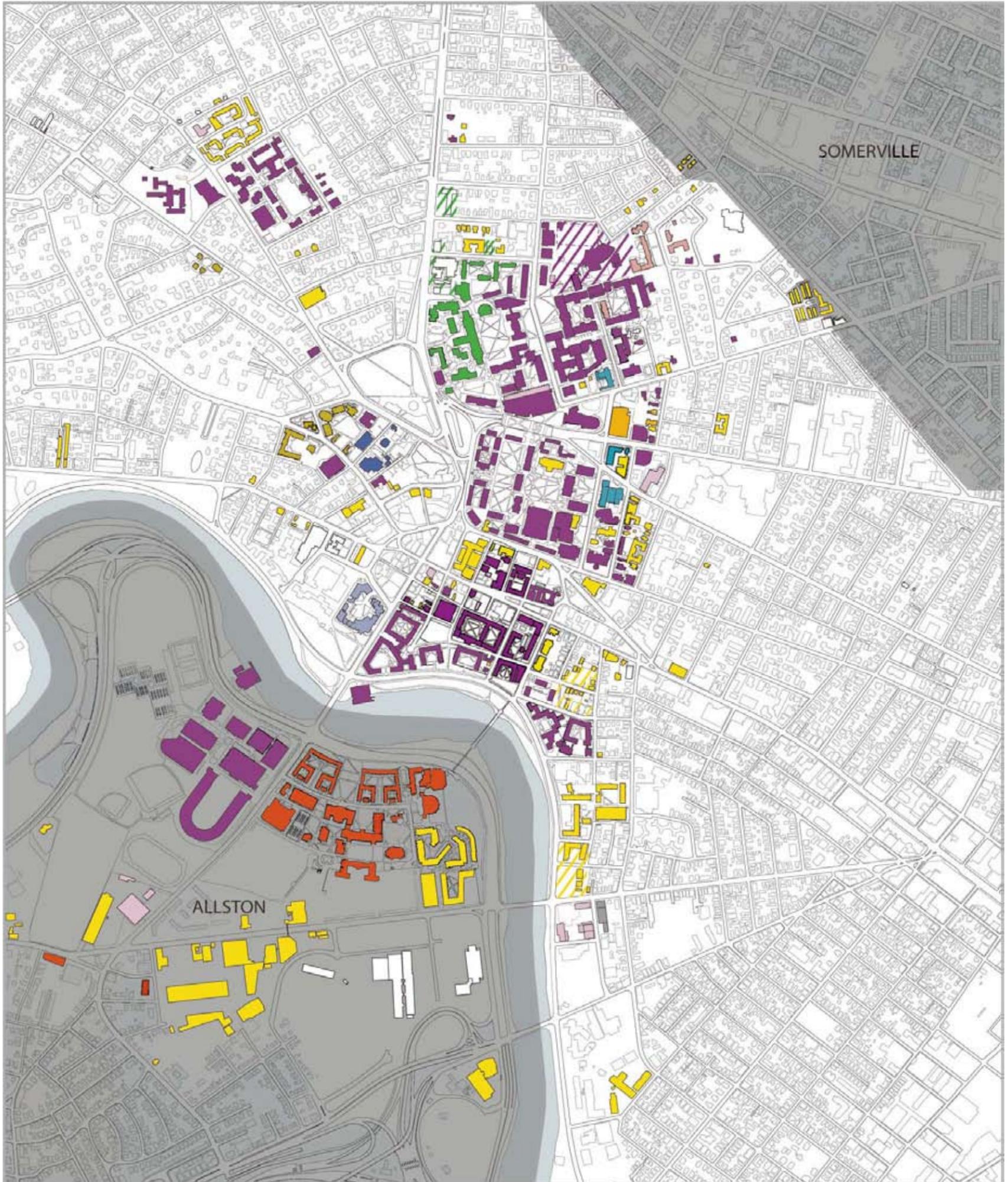
## Map B - LAND USE

Harvard is an urban campus where University and urban land uses intermingle, largely at the campus edges where most residential and commercial University functions are located. Innovative planning and design can minimize impacts and enhance opportunities at these campus edges. Appropriate density and height, adequate open space and sensitive architectural design are tools to create positive transitions between institutional and non-institutional uses.

### LEGEND

#### Building by Primary Use

- |   |  |
|---|--|
| <span style="color: blue;">■</span> Academic/Administration       | <span style="color: blue;">▨</span> Academic/Administrative Planning |
| <span style="color: brown;">■</span> Harvard Commercial           | <span style="color: yellow;">▨</span> Harvard Residential Planning   |
| <span style="color: lightbrown;">■</span> Non-Harvard Commercial  |  |
| <span style="color: grey;">■</span> Non-Harvard Institutional     |  |
| <span style="color: yellow;">■</span> Harvard Residential         |  |
| <span style="color: tan;">■</span> Non-Harvard Residential        |  |
| <span style="color: green;">■</span> Athletic                     |  |
| <span style="color: purple;">■</span> Parking/Service and Support |  |
| <span style="color: grey;">■</span> Community Housing/Turnkey     |  |



Source: Harvard Patterns, January 2002  
 Updated for Harvard University's 2005 Town Gown Report

## Map C - ADMINISTRATIVE STRUCTURE

Harvard has a long-standing tradition of decentralized planning. Different schools and administrative entities have historically managed their own physical assets. As we move into the future, planning across school boundaries is becoming critical for optimizing University and City resources.

Note: Harvard Medical School is not listed because it does not occupy buildings in the Cambridge or Allston campus.

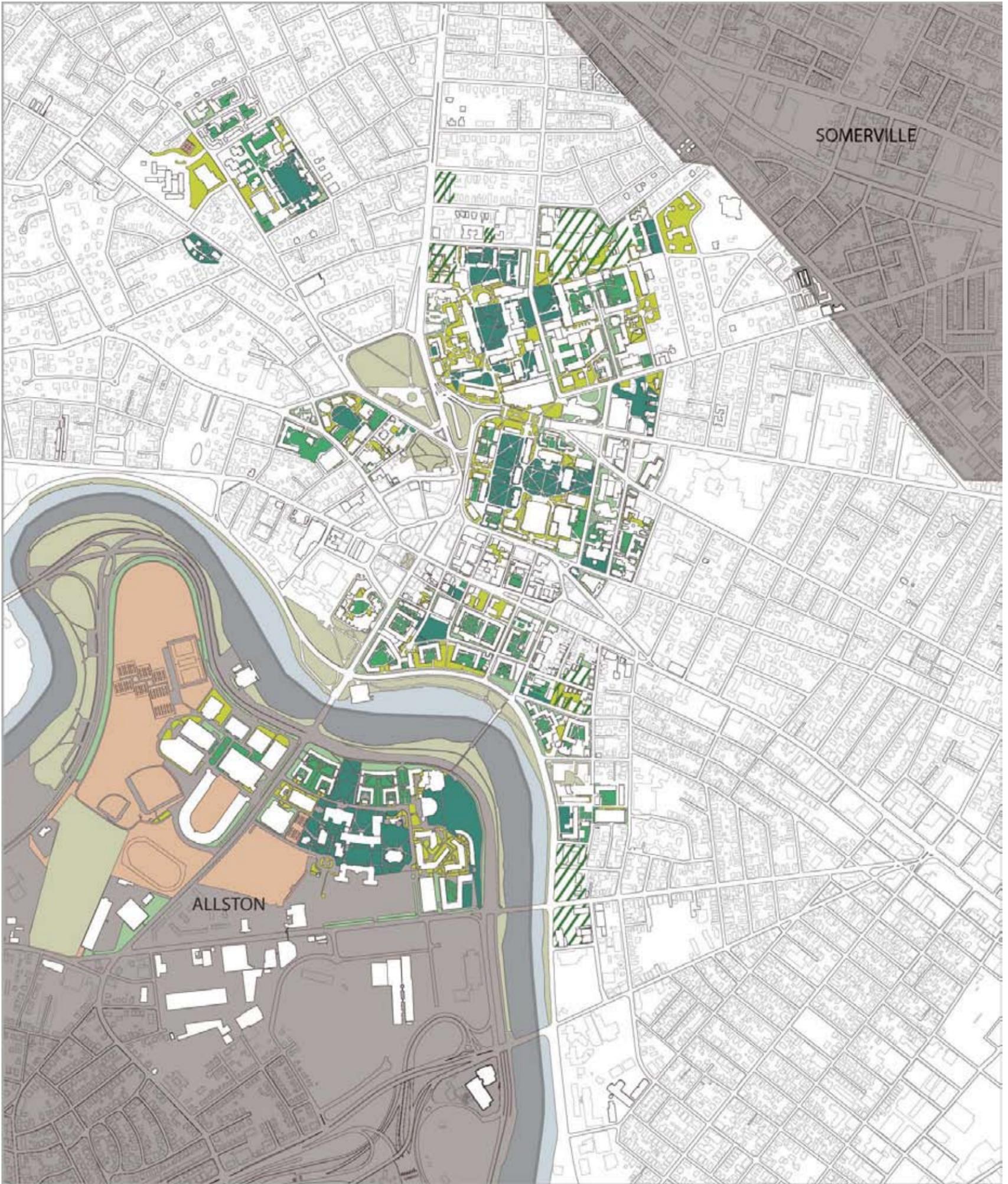
### LEGEND

#### Building Affiliation

- Faculty of Arts & Sciences
- Graduate School of Design
- Graduate School of Education
- Harvard Business School
- Harvard Divinity School
- Harvard Law School
- Kennedy School of Government
- Radcliffe Institute
- School of Public Health

#### Non-Faculty

- Harvard University Art Museums
- University - General
- Harvard Real Estate Services
- Non-Harvard buildings on Harvard Land
- Faculty of Arts & Sciences Planning
- Harvard Law School Planning
- Harvard Real Estate Svcs Planning



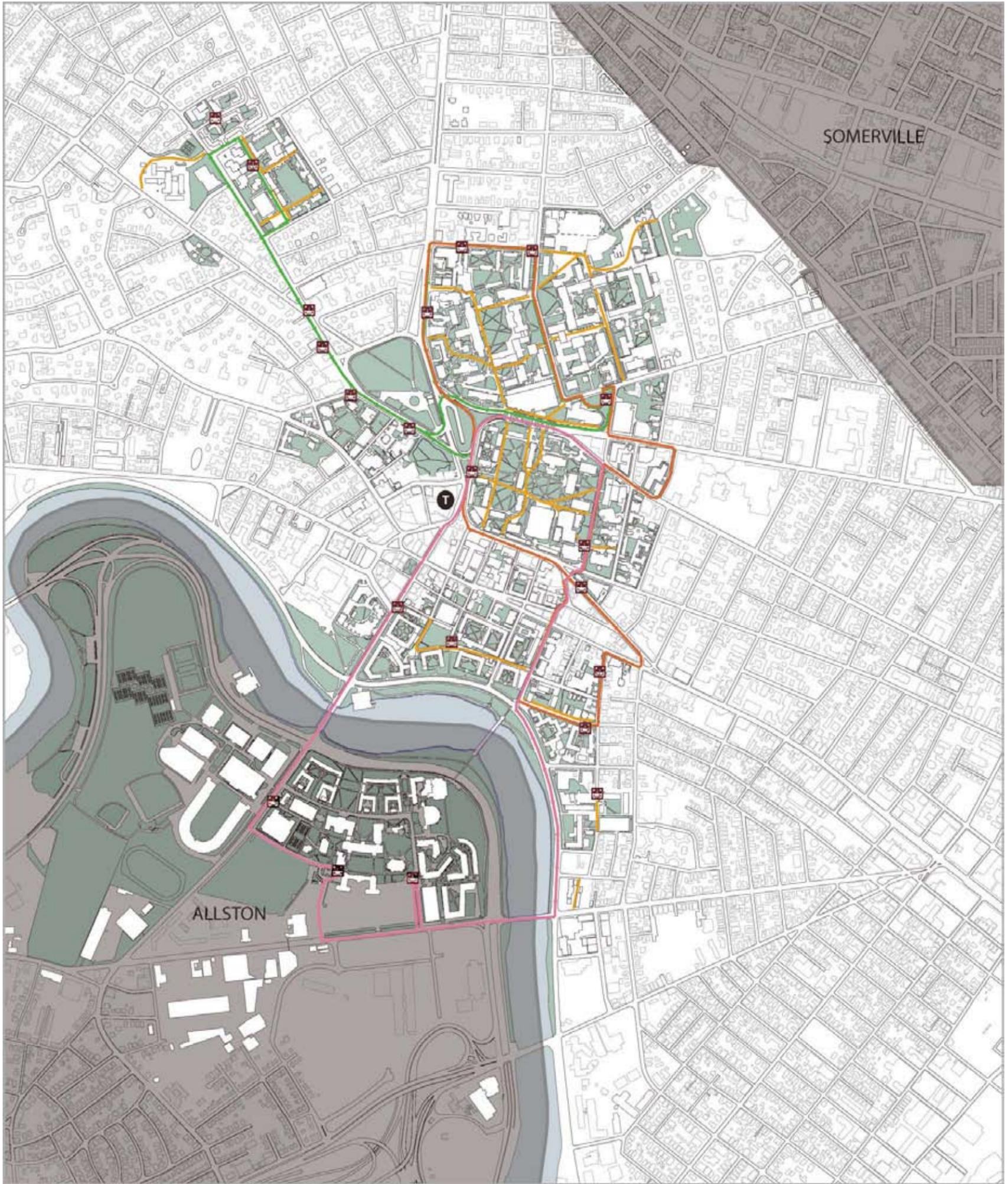
Source: Harvard Patterns, January 2002  
 Updated for Harvard University's 2005 Town Gown Report

## Map D - OPEN SPACE

Harvard's open space in Cambridge is comprised of a diverse collection of quadrangles, courtyards, gardens and pathways that provide the physical core and structure to the campus. This open space network connects to the city street system and contributes to the creation of a vibrant pedestrian-oriented environment shared by city residents and the campus community.

### LEGEND

- Yards/Greens
- Gardens/Courts
- Interstitial Areas
- Frontages
- Athletic Fields
- Publicly Owned Open Space
- Future/Improved open Space



Source: Harvard Patterns, January 2002  
 Updated for Harvard University's 2005 Town Gown Report

## Map E - TRANSPORTATION

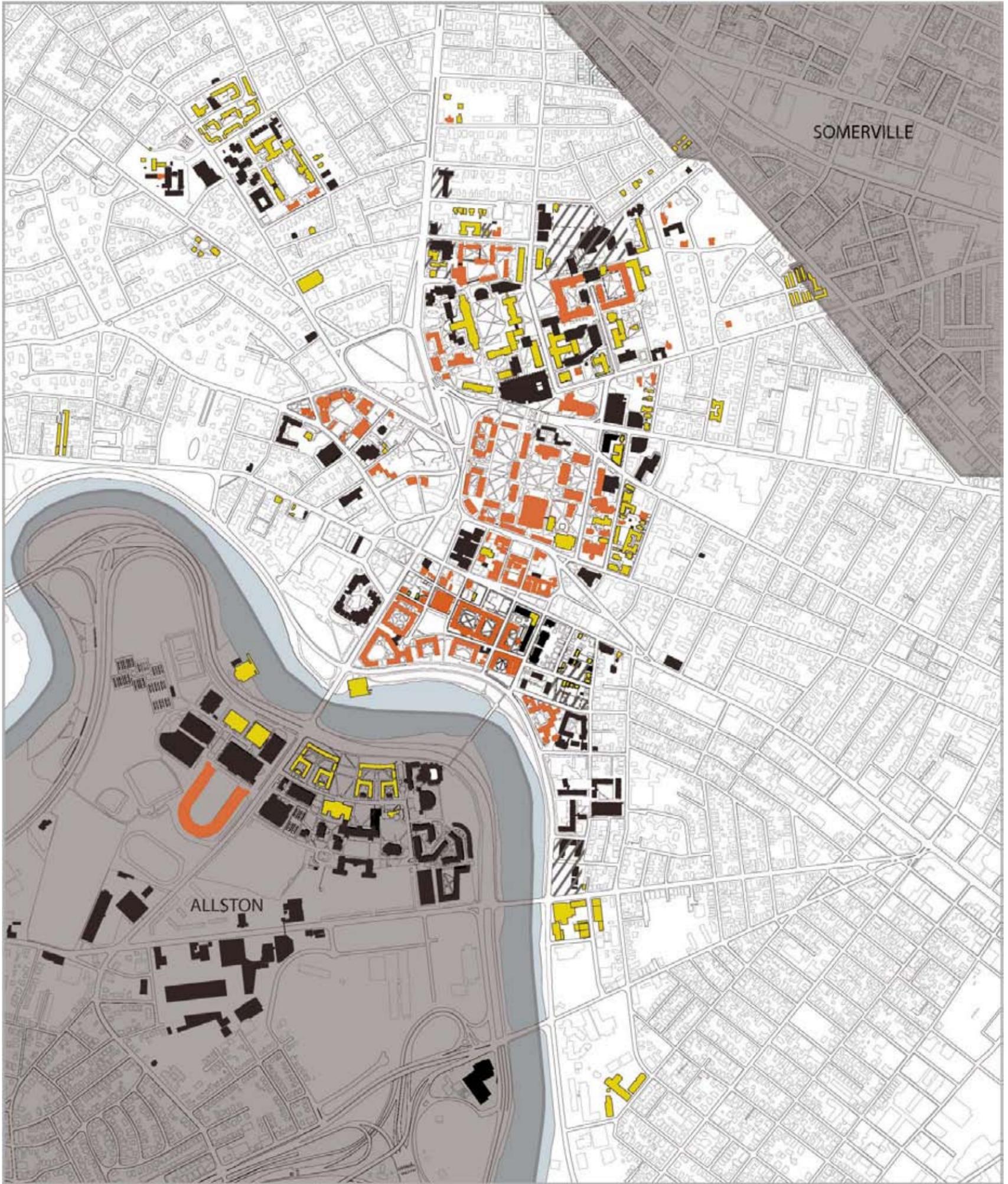
Harvard in Cambridge is primarily a pedestrian campus. Harvard's shuttle system and the public transit system connect the Cambridge campus with the other Harvard campuses and affiliate institutes. This extended network decreases the University population's reliance on the automobile.

### LEGEND

**Pedestrian Routes**  
 — Campus Pathways

**Basic Shuttle Routes**  
 — Carrier House - Memorial Hall via Harvard Square  
 — Mather House - Memorial Hall via Harvard Square  
 — Soldier Field Park - Business School - Harvard Square

 Shuttle



Source: Harvard Patterns, January 2002  
 Updated for Harvard University's 2005 Town Gown Report

## Map F - HISTORIC RESOURCES

Harvard is the oldest university in North America. Many of Harvard's buildings have historic designations. These historic buildings present great opportunities for the preservation and enhancement of the unique character of Harvard. Harvard's historic buildings also contribute to the urban design character of the City.

### Harvard Buildings with Historic Designations

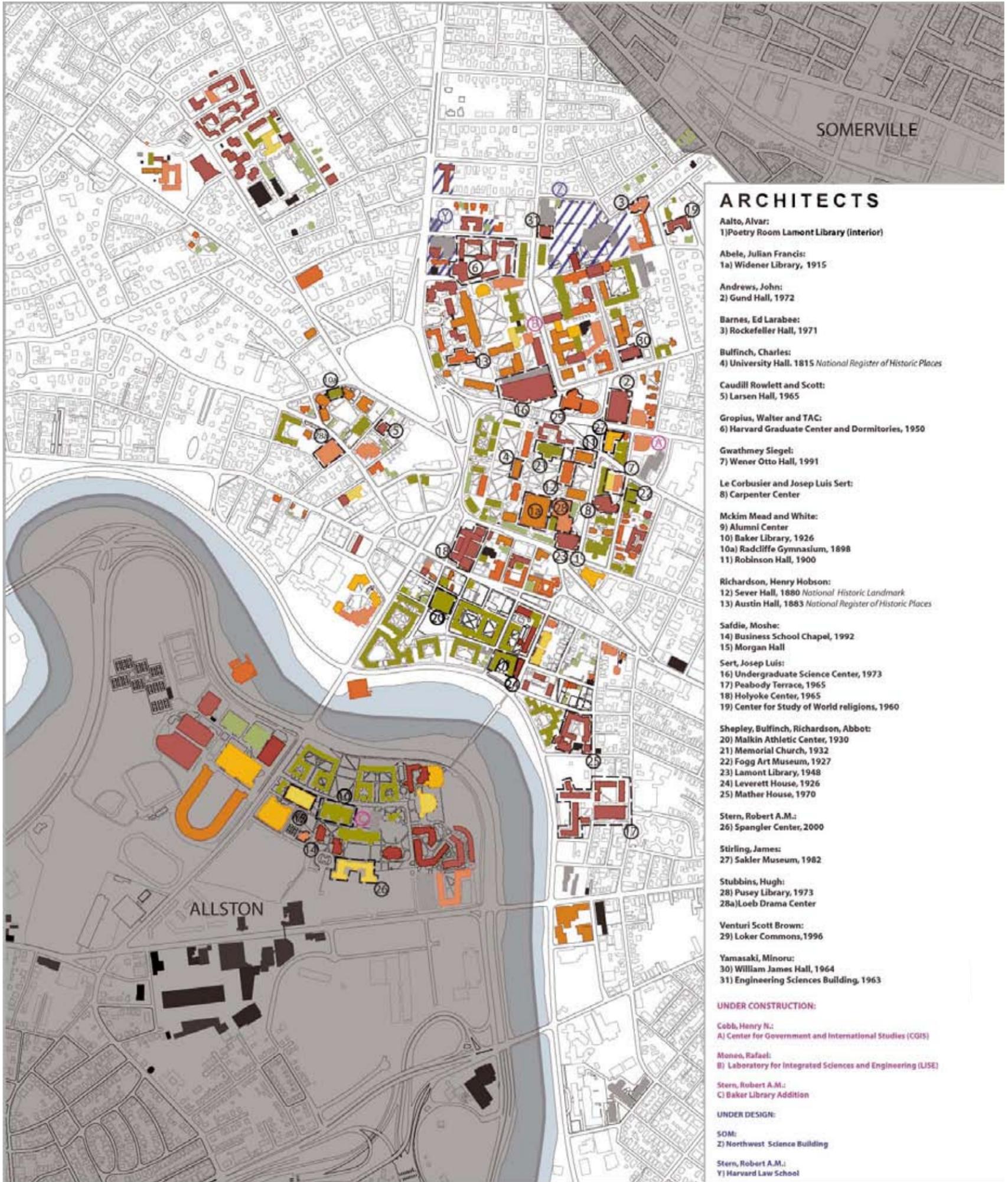
- Local Historic Landmark
- National Historic Landmark
- National Register District (Contributing Buildings Only)
- National Register Determination of Eligibility
- National Register Individual Property
- Preservation Restriction

### Harvard Buildings without Historic Designations

- Building Over 50 Years of Age
- Building Under 50 Years of Age

### Development

- Proposed Area for Development



Source: *Harvard Patterns*, January 2002  
Updated for Harvard University's 2005 Town Gown Report

## Map G - HARVARD BY ARCHITECT

Harvard has a long-standing commitment to design excellence demonstrated by the large number of buildings designed by "famous" architects. The design innovation implied with architect selection often involves risk-taking.

Sources for identification of "famous architects":

<http://www.greatbuildings.com/architects.html>  
Dictionnaire des architectes, by Emard Oudin, Nouv. ed. Paris: Seghers, c.1994  
Encyclopedia of 20th Century Architecture. Ed. by Vittorio Magnago Lampugnani. NY: H.N. Abrams

### Primary Style

- Colonial/Colonial Revival
- Georgian/Georgian Revival
- Neoclassicism
- Romantic Revival
- Modernism
- New Modernism
- Post Modernism
- New Historicism
- Other/Unclassified
- No Data

Under Design by "Famous Architects"