





2021 Harvard University Town Gown Report

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In collaboration with:

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HARVARD AND THE CITY OF CAMBRIDGE

The unique challenges created by the COVID-19 pandemic continued to directly influence the priorities of Harvard University throughout the past year. However, students, faculty, and staff remain deeply committed to health and safety of the University community as well as the surrounding host communities of Cambridge and Boston. The University continues to collaborate with state and local public health officials as we navigate the on-going pandemic by providing subject-matter expertise when needed, and when setting COVID-related health policy for the Harvard community. As students returned to campus and to in-person instruction in the fall of 2021, Harvard executed a multi-faceted COVID-19 safety plan, including requiring students, faculty, and staff to be vaccinated, to wear masks indoors, and to be tested frequently when on campus. Harvard's student and staff vaccination rates are over 97%.

Many student-facing staff returned to campus in the fall as well, while others remained remote.

The University's return-to-campus model is continuously evolving and seeks to align its mission of teaching, learning, and research with the most current public health data to ensure that the Harvard and Cambridge communities remain as safe and healthy as possible.

While the pandemic has directly impacted dayto-day life on campus, this past year was also marked by an urgent and challenging national conversation about race, equity, and inclusion. Also during 2021 the ever-present threat of climate change was again made apparent as the world continued to experience record-breaking temperatures and extreme weather events. The crises of the past year have served as stark reminders of the interconnectedness of our community and society, and the way our actions today can have an immediate effect on others and continued repercussions for generations to come.

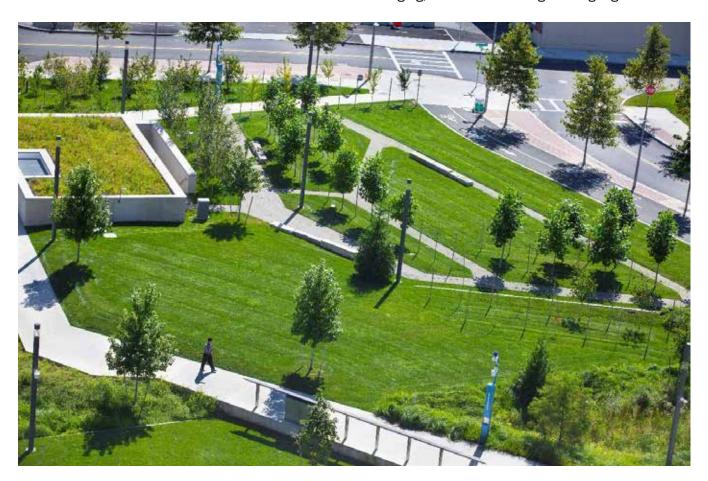


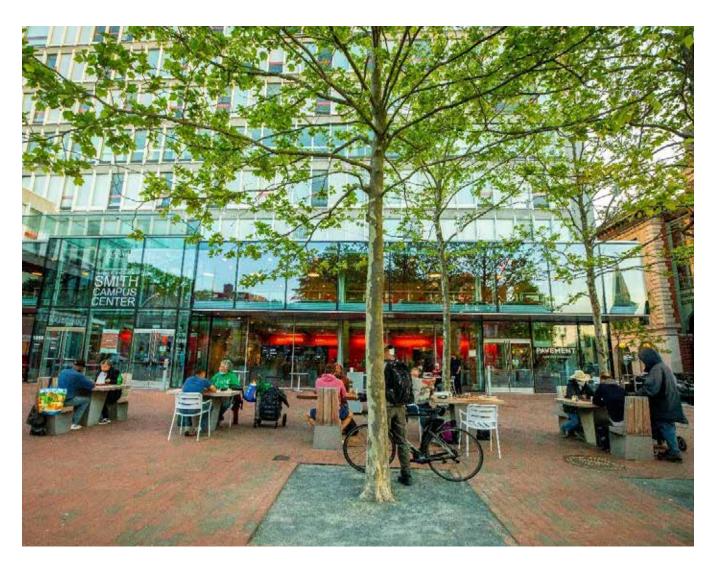
With those lessons in mind, in this year's Town Gown report, we reflect on the nearly 400-year partnership that Harvard has with the City of Cambridge, but also consider our larger responsibility to create a campus that continuously strives toward a better future for our local community, as well as our global community, particularly as it relates to the vital issues of environmental sustainability, and equity, inclusion, and diversity.

To further build on the Sustainability Plan originally adopted in 2014, and to help guide and support new strategies for advancing climate change research, Harvard is working to integrate the efforts of individual schools and researchers throughout the University to maximize the impact of their work. To facilitate this, Harvard recently announced James Stock as its new Vice Provost for Climate and Sustainability. Stock will work closely with faculty, students, staff, and academic leadership from across the University to guide and further develop Harvard's strategies for advancing climate research and its global impact.

A successful example of this cross-functional approach is Harvard's Healthier Building Academy. Since 2016 this program has transformed 41 major capital projects and has driven change by partnering with thousands of manufacturers to provide transparency around the components that make up building materials and to remove chemical classes of concern in these materials — a benefit for Harvard, the surrounding community, and all consumers. In conjunction with these research initiatives, Harvard continues to move toward achieving its campus sustainability goals, which includes being fossil fuel-neutral by 2026 and fossil fuel-free by 2050 and maintaining University-wide compliance with the Harvard Green Building Standards. To date, Harvard has more LEED certified building projects than any other higher education institution in the world.

With thousands of Harvard staff and faculty living in Cambridge, the University's work to create a culture of inclusive excellence is integral to the diversity and vibrancy of the Cambridge community as a whole. Through its Office for Equity, Diversity, Inclusion, and Belonging, Harvard is working to bring together both





existing and newly developed initiatives to create a framework to address urgent needs and long-term goals surrounding equity and inclusion.

This work includes striving to attract the widest possible pool of talent from varied backgrounds, cultures, races, identities, life experiences, perspectives, beliefs, and values which all contribute to Harvard's diverse and rigorous intellectual community. With nearly half of the retail tenants leasing space in Harvard-owned buildings in Cambridge being minority or women-owned - the University is working to extend these initiatives beyond the University itself. In addition, Harvard has partnered with the City of Cambridge to support a guaranteed income pilot program called Cambridge RISE, which provides a guaranteed \$500/per month payment to low-income families; Harvard Law School supports Cambridge residents through pro bono legal aid programs; and the University recently

recommitted \$20 million to fund affordable housing development in the greater Boston area through the Harvard Local Housing Collaborative. These are but a few examples of the meaningful initiatives, programs, and partnerships that can be found across the University.

This report details not only the work the University has undertaken in Cambridge over the last year, but also summarizes many of the long-standing community initiatives that may have been paused or reimagined during the pandemic. As we gradually transition to a post-pandemic world, Harvard looks forward to reinitiating many of its traditional community programs and to creating new opportunities for fostering collaboration and partnerships with community stakeholders in order to continue the necessary work to bring about meaningful progress in these and other critical societal challenges.

arvard's Cambridge campus has a population that includes over 26,000 students who are enrolled in undergraduate, graduate, and Extension School programs. The University also has nearly 12,000 FTE Cambridge-based faculty, staff, and post-doctoral scholars, making it the largest employer in the City of Cambridge.



2021 POPULATION UPDATE

The ongoing impacts of the COVID-19 pandemic are reflected in the employment and student enrollment numbers reported by Harvard this year.

A significant number of faculty and staff took advantage of the University's voluntary early retirement incentive program. Many of the positions vacated by retirements had not yet been filled as of June 30, when faculty and staff data is collected for Town Gown reporting purposes. In addition,

some programs of the John A. Paulson School of Engineering and Applied Sciences relocated to the new Science and Engineering Complex in Allston, resulting in a drop in the number of Cambridgebased faculty and staff.

Undergraduate student enrollments also declined for the 2020-21 academic year, as many first-year students elected to defer their enrollment for one year amidst the ongoing pandemic.



HARVARD EXTENSION SCHOOL

The Harvard Extension School is part of the Harvard Division of Continuing Education and offers Undergraduate and Graduate degrees, Graduate Certificates, online courses, and nonresidential academic programs primarily serving adult learners. The typical Extension School student is over 30, has previously completed one or two years of college, and works full time.

The average age of Extension School students is 35 years old and approximately 79% of students are over the age of 25. Recent high school graduates (students 17, 18 and 19 years old) make up approximately 3% of Extension School enrollment.

| FACULTY AND STAFF 1 | 2017 | 2018 | 2019 | 2020 | 2021 | 2026 |
|---|---------------|---------|---------|---------|---------|-----------------|
| Cambridge Based Staff | | | | | | |
| Head Count | 12,781 | 12,999 | 12,991 | 13,293 | 12,319 | 12,500 - 13,000 |
| FTEs | 10,404 | 10,698 | 10,636 | 10,938 | 10,129 | 10,000 - 11,000 |
| Postdoctoral Scholars ² | 1,093 | 1,176 | 1,162 | 1,052 | 929 | 900 - 1,200 |
| Cambridge Based Faculty | | | | | | |
| Head Count | 2,100 | 2,123 | 2,117 | 2,128 | 1,935 | 1,900 - 2,200 |
| FTEs | 1,884 | 1,898 | 1,929 | 1,919 | 1,737 | 1,700 - 2,000 |
| Cambridge Residents Employed at Cambridge Facilities | 4,190 | 4,243 | 4,104 | 3,769 | 3,243 | |
| Cambridge Residents Employed at Boston Facilities | 793 | 791 | 707 | 743 | 747 | |
| STUDENTS ³ | 2017 | 2018 | 2019 | 2020 | 2021 | 2026 |
| Total Undergraduate Degree Students | 7,447 | 7,544 | 7,587 | 7,557 | 6,099 | 7,400 - 7,600 |
| Day | 6,645 | 6,699 | 6,722 | 6,716 | 5,212 | |
| Evening | [802] | [845] | [865] | [841] | [887] | • |
| F.U. T | 6,391 | 6,950 | 6,982 | 6,987 | 5,503 | |
| Full-Time | [286] | [251] | [260] | [289] | [313] | |
| Part-Time | 516 | 594 | 605 | 570 | 596 | |
| | [516] | [594] | [605] | [570] | [574] | |
| Total Graduate Degree Students | 10,948 | 11,444 | 11,824 | 12,238 | 12,422 | 11,500 - 13,000 |
| Day | 9,231 | 9,372 | 9,480 | 9,661 | 9,679 | |
| Evening | [1,717] | [2,072] | [2,344] | [2.577] | [2,743] | ••••••••••• |
| F. J. T. | 9,470 | 9,816 | 9,915 | 10,135 | 9,800 | • |
| Full-Time | [366] | [569] | [557] | [615] | [590] | |
| Part-Time | 1,478 | 1,628 | 1,909 | 2,103 | 2,622 | |
| i ait-iiiie | [1,351] | [1,503] | [1,787] | [1,962] | [2,153] | |
| Total Non-degree Students | 7,417 | 7,621 | 8,065 | 7,707 | 7,949 | 7,400 - 8,400 |
| Day | 351 | 363 | 396 | 378 | 335 | |
| Evening | [7,066] | [7,258] | [7,669] | [7,329] | [7,614] | • |
| Total Number of Students in Cambridge- Based Schools | 25,821 | 26,609 | 27,476 | 27,502 | 26,470 | 26,300- 29,000 |
| | | 0.04 | | | • | |
| Cambridge Students Accepted to Harvard Co | ollege in 202 | 0-21 | | | 20 | |

Employment figures are as of May 31, 2021 and June 30, 2021 and include teaching assistants, graduate students, postdoctoral scholars, interns, and other staff.

Postdoctoral scholars are included in staff totals reported in Cambridge Based Staff.

Counts as of October 15, 2020 for 2021. Numbers in brackets represent students at the Extension School and are a subset of the total number of Full and Part Time students indicated.



arvard's academic programs and support services occupy over 16 million square feet of space in nearly 400 buildings located across the Cambridge campus. These facilities include classroom, laboratory, and library buildings that support core academic programs; dormitories and other residential buildings that house students and affiliates; and key infrastructure facilities which support the campus' day-to-day operations.

FACILITIES AND LAND OWNED 1

| | 2017 | 2018 | 2019 | 2020 | 2021 ² | 2026 |
|------------------------|-----------|-----------|-----------|-----------|--------------------------|---------------|
| Acres (Tax Exempt) | 191.8 | 191.8 | 191.8 | 191.8 | 191.8 | 191.8 |
| Acres (Taxable) | 22.1 | 22.4 | 22.4 | 22.4 | 22.5 | 22.4 |
| Number of Buildings | 391 | 392 | 393 | 394 | 390 | 391 |
| Dormitories | | | | | | |
| Number of Buildings | 75 | 75 | 75 | 75 | 75 | 75 |
| Number of Beds | 8,099 | 8,106 | 8,107 | 8,238 | 8,286 | 8,000 - 8,300 |
| Size of Buildings (SF) | 16.0M | 16.1M | 16.1M | 16.1M | 16.3M | 16.5M |
| Assembly/Museum | 1,026,278 | 1,026,278 | 1,026,278 | 1,026,278 | 1,026,278 | |
| Athletic | 210,780 | 210,780 | 210,780 | 210,780 | 210,780 | |
| Classroom | 877,524 | 958,214 | 958,214 | 958,214 | 982,379 | |
| Commercial | 185,453 | 185,453 | 185,453 | 185,453 | 68,562 | |
| Healthcare | 77,155 | 77,155 | 77,155 | 77,155 | 69,011 | |
| Laboratory | 2,587,479 | 2,587,479 | 2,587,479 | 2,587,479 | 2,587,479 | |
| Library | 1,097,644 | 1,097,644 | 1,097,644 | 1,097,644 | 1,097,644 | |
| Office | 3,164,256 | 3,164,256 | 3,164,256 | 3,164,256 | 3,329,753 | • |
| Residential | 5,908,866 | 5,913,443 | 5,914,261 | 5,914,261 | 5,980,807 | • |
| Support | 915,070 | 915,070 | 914,550 | 914,550 | 914,550 | • |

All space data as of June 30, 2021.

PROPERTY TRANSFERS

Since the filing of the previous Town Gown Report, Harvard has not acquired or sold any properties.

PARKING FACILITIES

Harvard University owns and maintains 4,591 non-commercial parking spaces in the City of Cambridge. These spaces constitute the University's parking inventory and are used to support institutional operations and accommodate faculty, staff, student, and visitor parking. The inventory is updated and approved each December as part of Harvard's annual Parking and Transportation Demand Management (PTDM) Progress Report.

Changes in number and size of buildings reflect updated accounting of area and the re-classification of space types at Smith Campus Center, Harvard Kennedy School, and Lowell, Dunster, and Winthrop undergraduate houses.





LEASED SPACE 1

| eal Estate Leased by Harvard | Sq. Feet | Use |
|--------------------------------|----------|-------------------|
| One Bow Street | 27,461 | Office |
| One Brattle Square | 75,576 | Office |
| One Story Street | 12,251 | Classroom |
| 8 Holyoke Street | 4,700 | Restaurant |
| 10 Ware Street | 3,738 | Office |
| 100 Edwin H. Land Blvd. | 3,365 | Office/Greenhouse |
| 104 Mt. Auburn Street | 34,187 | Office |
| 114 Mt. Auburn Street | 65,104 | Office/Healthcare |
| 125 Mt. Auburn Street | 36,564 | Office |
| 129 Mt. Auburn Street | 789 | Office |
| 1100 Massachusetts Avenue | 22,399 | Office |
| 1280 Massachusetts Avenue | 18,285 | Office |
| 1408-1414 Massachusetts Avenue | 49,522 | Office |
| 1430 Massachusetts Avenue | 11,265 | Office |
| 155 Fawcett Street | 37,500 | Warehouse |
| 160 Concord Avenue | 5,131 | Office |
| 20 University Road | 30,265 | Office |
| 25 Mt. Auburn Street | 8,729 | Office |
| 44R Brattle Street | 8,417 | Office |
| 50 Church Street | 6,705 | Office |
| 625 Massachusetts Avenue | 35,660 | Office |
| 784 Memorial Drive | 61,000 | Office |
| TOTAL | 558,613 | |

¹ Data as of Spring 2021.

HARVARD RETAIL TENANTS

The economic impacts of the COVID-19 pandemic has resulted in many changes in Harvard Square's retail landscape including Harvard's retail tenants. Recent retail vacancies in the Richard A. and Susan F. Smith Campus Center were filled with two new businesses: Sally's Sandwiches and Las Palmas restaurant. These new restaurants join Pavement Coffeehouse, Bon Me, Saloniki, Blackbird Donuts and Oggi Gourmet in providing a creative mix of dining options in Harvard Square. Outside of Harvard Square, the ground floor retail space at the Harvard Law School's building at 1607-1611 Massachusetts Avenue is now home to the Stoked Pizza Co., which opened in 2021.

With planning now underway for the American Repertory Theater's new home on Harvard's Allston campus, it was announced in October that Oberon, the ART's performance venue at Zero Arrow Street in Harvard Square was closing at the end of 2021. Recognizing the important legacy of performing arts in Harvard Square, and the cultural vitality this use brings to the community, the former Oberon space is being marketed by Harvard for other arts and cultural uses.

In addition to proactively responding to these recent changes in its retail tenant portfolio, Harvard maintains an ongoing commitment to support a diverse business community in Harvard Square. This commitment is reflected in its leases with 25 businesses in the Square, nearly half of which are minority or womenowned, including new retailers in Harvard's Smith Campus Center like Las Palmas, Mother Juice (opening in January 2022), and Sally's Sandwiches/Blackbird Doughnuts.

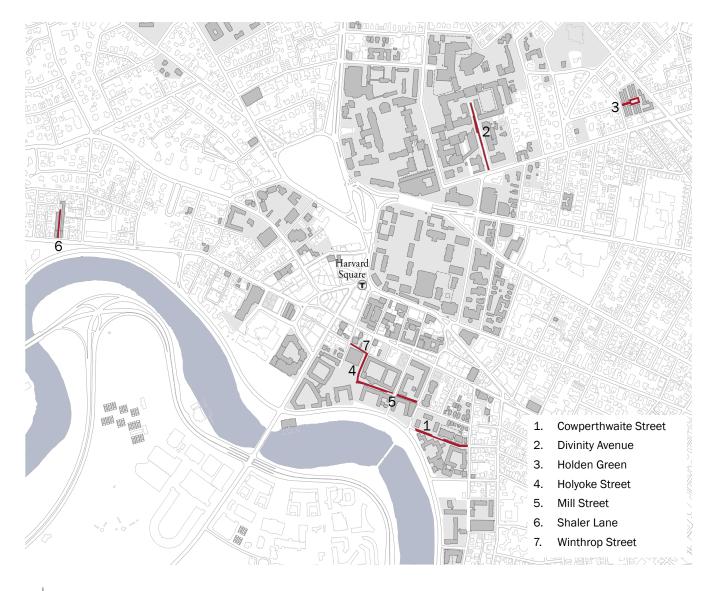
HARVARD STREETS

Harvard University owns several streets and private ways on its Cambridge campus (see map below). These streets are maintained in good condition, and the University has made ongoing improvements to streets and sidewalks as part of multiple construction projects that have been undertaken on adjoining properties.

In recent years, Mill Street and portions of Holyoke Street have been upgraded through the installation of new sidewalks, repaving and new or rebuilt curbing as part of House renewal projects in the vicinity. Harvard Campus Services performs maintenance, repairs and snow removal on Harvard-owned streets, or subcontracts out this work as necessary. Temporary street closures (for maintenance or

other activities including student move-in/out or commencement events) are coordinated with Cambridge DPW through the Harvard Parking Office.

Harvard also contributes to the ongoing maintenance and improvement of both private and public streets and sidewalks adjacent to Harvard properties across the Cambridge campus, and closely coordinates this work with Cambridge DPW. When feasible, Harvard provides the city's contractors with laydown areas to facilitate public realm construction projects. During winter snow events, Harvard makes off-street parking available to residents and has also provided space for the City to unload plowed snow.



HOUSING





Photos: Peter Vanderwarker

Harvard University's extensive residential facilities are a critical element in supporting a vibrant living-learning campus experience for students and other affiliates. Harvard's residential campus comprises over 13,000 beds in 8,000 units in a range of building types, from dormitories to fully furnished apartments. Half of the buildings on Harvard's Cambridge campus are devoted to housing, comprising approximately 37% of all campus space. Founded as a residential campus, Harvard continues to support its broad housing portfolio through programming, policies, and facility investments.

Undergraduate Student Housing

Living on-campus is a cornerstone of the Harvard College experience for undergraduate students. First-year students live in one of the dormitories in or adjacent to Harvard Yard. Self-selected groups of students are assigned to one of 12 residential Houses for the final three years of undergraduate study. About 350 to 500 students live in a House, each of which is a singular dormitory or collection of buildings that include its own dining hall, library, advising staff, and many other resources. Under normal operations, Harvard College houses more than 98% of its undergraduate population on campus, promoting a residential campus as part of its core educational mission.

This strong culture of undergraduate housing is firmly established, with four years of guaranteed housing for all undergraduates and an expectation that students will live on campus. As the House system is central to the College, the University is prioritizing efforts to update and modernize the residential Houses through the ongoing House Renewal program. Through this effort, Harvard's goal is to maintain the housing capacity while addressing code compliance, incorporating sustainability upgrades, and meeting programmatic needs.

Historically, only a very small number of Harvard College undergraduate students have lived off campus in Cambridge (29 in Fall 2018, 28 in Fall 2019). In Fall 2020, Harvard's COVID-19 safety protocols resulted in nearly all classes being held remotely and only a fraction of undergraduates living on campus due to dedensification. These anomalous circumstances shifted the typical undergraduate living arrangements and led to an increase in the number of undergraduates living off-campus in Cambridge (287 in Fall 2020).

Graduate Student and Affiliate Housing

While undergraduates are expected to live on campus, graduate students and other affiliates have a choice to live either on- or off-campus. Often, they have personal, professional, lifestyle, and other reasons for requiring more flexibility in their housing options. For those graduate students and other affiliates choosing to live on campus, Harvard University owns and operates approximately 6,500 beds in Cambridge, Somerville, and Boston. Approximately a third of these beds are operated by Harvard's graduate and professional schools and the remaining twothirds are managed centrally by Harvard University Housing (HUH). The provision of graduate student and affiliate housing not only supports the University's academic mission, but also relieves some pressure on the local housing market.

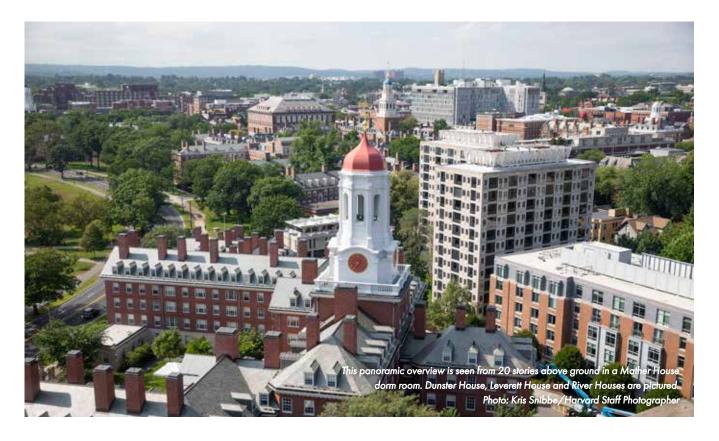
From 2001-2008, the University embarked on an initiative to expand its graduate student housing stock. The Graduate Student Housing Initiative added more than 1,000 beds in Cambridge and Boston in multiple facilities including 10 Akron Street and 5 Cowperthwaite Street. The new beds developed through this campaign allowed the University to meet its goal of establishing a capacity to house 50% of graduate students, which remains the University's benchmark.

Harvard has also implemented other programs and policies to support graduate student housing. HUH established the Graduate Commons Program within its residential portfolio to bring together Harvard affiliates from across disciplines and cultures to create a more meaningful residential experience through community building and co-curricular programming. HUH has implemented new leasing practices that encourage apartment sharing to increase the efficient utilization of housing inventory. HUH also maintains prevailing market rates, consistent with the University's affiliated housing rent policy, which are amenable to graduate student budgets and are considered when financial aid is determined by each academic unit. Harvard will

continue to conduct ongoing studies on graduate student housing requirements and preferences to inform housing policies and practices.

Demand is strong for Harvard's housing, which is usually at or near full occupancy at the beginning of each academic year. Graduate housing during the 2020-2021 academic year was atypical as part of the COVID-19 response. Some of Harvard's graduate student residential facilities were closed or operating at a reduced capacity, which resulted in fewer on-campus residents. With remote teaching and learning, many graduate students stayed in their home location outside of metro Boston. Others opted to live off campus in response to the heightened on-campus protocols.

As Harvard returns to a fully occupied residential campus, the University seeks to address the ongoing housing needs of graduate students and to reduce pressure on the market. To that end, Harvard is in the planning stages of several new graduate student and affiliate housing projects. Two of these projects – 5 Sacramento Street and 13 Kirkland Place - are located in Cambridge and are anticipated to begin construction in 2022. These two projects,



which repurpose and rehabilitate existing University facilities, will provide larger units to meet the growing demand for family units and roommate sharing in highly environmentally sustainable buildings.

Harvard University Housing's Faculty Real Estate Services provides a range of programs for prospective faculty and administrators to help them find and afford the community and home that meets their housing needs. Faculty are not only eligible to live in the rental units available through HUH, but they alternatively can purchase a homeownership condominium at below market rates at one of two Harvard-affiliated complexes in Cambridge.

Commitment to Affordable Housing

In 2019, Harvard University recommitted \$20 million to the Harvard Local Housing Collaborative, an initiative aimed at increasing the amount of affordable housing across Boston and Cambridge. By partnering with three local nonprofit communitydevelopment lenders. Harvard seeks to create and preserve affordable housing, build and revitalize healthy communities, and create economic opportunities for low- and middleincome residents throughout the Greater Boston region. Over the past two decades, the program has financed more than 7,000 units of affordable housing, including 1,600 units in Cambridge.

| STUDENT AND AFFILIATE HOUSING | 2017 | 2018 | 2019 | 2020 | 2021 | 2026 |
|---|--------------------|-------|-------|-------|-------|---------------|
| Number of Undergraduate Students Residing in Camb | ridge ¹ | | | | | |
| In dormitories | 6,023 | 6,020 | 5,969 | 6,136 | 1,531 | 6,000 - 6,400 |
| With cars garaged in Cambridge | 6 | 3 | 8 | 11 | 10 | |
| In Harvard affiliate housing ² | 650 | 648 | 655 | 528 | 0 | 400 - 700 |
| In non-affiliate housing | 99 | 115 | 188 | 159 | 287 | |
| Number of Graduate Students Residing in Cambridge | 3 | | | | | |
| In dormitories | 1,338 | 1,348 | 1,337 | 1,186 | 391 | 1,100 - 1,400 |
| With cars garaged in Cambridge | 99 | 94 | 84 | 87 | 60 | |
| In Harvard affiliate housing | 1,355 | 1,305 | 1,221 | 1,462 | 1,062 | 1,200 -1,600 |
| In non-affiliate housing | 3,290 | 3,225 | 3,206 | 3,149 | 2,549 | |
| Affiliate Housing - Tax Exempt ⁴ | | | | | | |
| Number of Units: | 1,036 | 1,035 | 1,036 | 1,036 | 1,032 | |
| Number of Buildings: | 12 | 12 | 12 | 12 | 12 | |
| Affiliate Housing - Taxable | | | | | | |
| Number of Units: | 889 | 889 | 889 | 889 | 889 | |
| Number of Buildings: | 54 | 54 | 54 | 54 | 54 | |

Undergraduate housing data represents Fall 2020, where primarily only first-year students were invited to live on campus due to COVID-19 protocols.

The number of undergraduate students residing in Harvard affiliate housing includes 10-20 DeWolfe Street and students temporarily residing in "swing housing"

Graduate housing data represents Spring 2021, where many graduate housing facilities were either de-densified or closed due to COVID-19 protocols.

Decrease reflects updated accounting of beds, not an actual decrease.

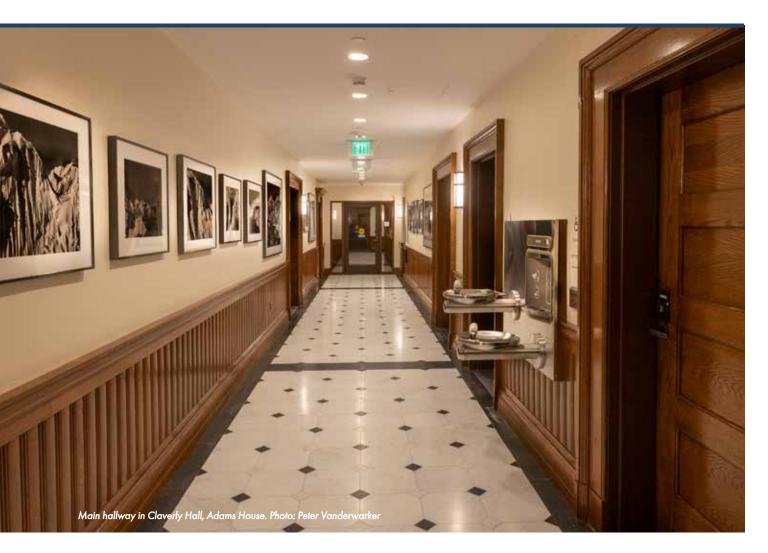
HOUSE RENEWAL UPDATE

Harvard University continues to advance its systemwide renewal of the undergraduate Houses which serve as the cornerstone of the living-learning educational experience. The House Renewal program seeks to preserve the historic character of the Harvard Houses and to sustain their original vision while transforming them to meet the needs of today's students. House Renewal has been implemented in phases beginning with the neo-Georgian River Houses along the Charles River, the majority of which were constructed in the 1920s and 30s. Until the House Renewal program began, these buildings had only modest upgrades over the ensuing years.

Throughout the House Renewal process, Harvard is striving to maintain the same or greater bed capacity within the Houses while accommodating the many building upgrades that require the

allocation of additional space. The long-term vision for undergraduate housing at Harvard remains centered on the First-Year dorms in Harvard Yard and the Harvard Houses along the Charles River and the Radcliffe Quadrangle.

House Renewal design standards incorporate strong sustainability measures that have dramatically improved the sustainability of the renewed Houses. Renewal projects feature high performance insulation and windows, and energy efficient heating and lighting to reduce energy loads. Buildings feature individually controlled temperature controls and provide fresh air ventilation and ceiling fans in student rooms. Low emitting construction materials and furnishings create healthy interiors. Water use is reduced through low-flow plumbing fixtures, and construction waste is diverted to recycling.



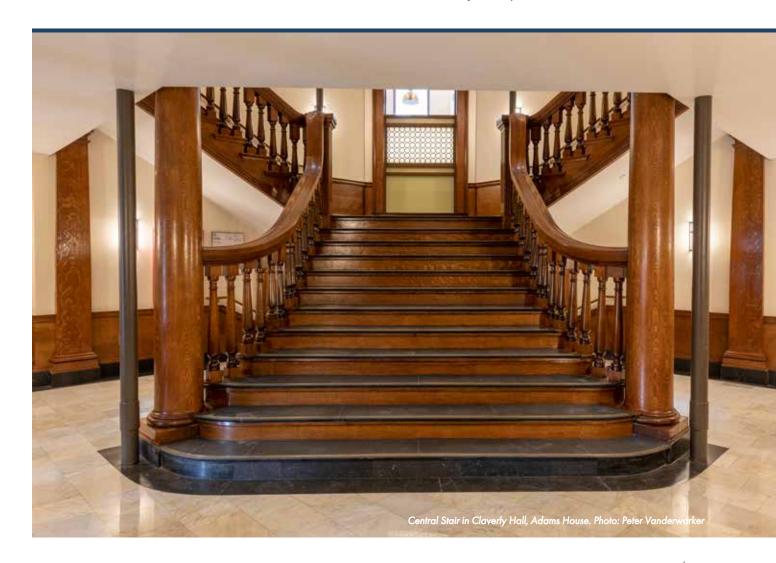
Harvard-owned buildings continue to provide temporary accommodations to students displaced by House Renewal construction. 1201 Massachusetts Avenue serves as the central hub of the "swing house" accommodating the dining, meeting, social, academic and a portion of the residential spaces for Houses undergoing renewal. This is supplemented by several Harvard-owned residential buildings in the area: 8 Plympton Street and 1306 Massachusetts Avenue, as well as 20-20A and 22-24 Prescott Street and 65 Mt. Auburn Street, which are available to provide additional residential space as needed. The Faculty Dean's temporary accommodations are located at 8 Prescott Street.

Together these properties 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 are used as residences for other Harvard affiliates.

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 graduate students and other affiliates. The long-term use of 1201 Massachusetts Avenue has not yet been determined, but it is anticipated to remain in institutional use.

Renewal projects are fully completed at Stone Hall, McKinlock Hall, Dunster House, Winthrop House, Lowell House, and two buildings at Adams House -Claverly Hall and Apthorp House. Renovation work at Adams House, the sixth full House undergoing renewal, continues with Randolph Hall currently and subsequently at Russell Hall, Library-Commons, and Westmorly Court. The pace and sequence of House Renewal is subject to periodic review.





hanges to Harvard's Cambridge campus respond to the University's chief programmatic drivers, respect the distinct physical planning context, and are guided by campus planning principles.

PROGRAMMATIC DRIVERS

Response to the COVID-19 pandemic has necessitated a shift in Harvard's recent short-term planning and development priorities to ensure the health and safety of our students and affiliates. Several key programmatic drivers and objectives will continue to influence how the University meets its diverse facility and space needs over a longer time horizon.

Fostering Inclusion and Belonging

Harvard's core values of equity, diversity, inclusion, and belonging inform all aspects of University life, including campus planning and development. These activities seek to involve a broad range of campus constituencies with diverse backgrounds.

Advancing Research and Scholarship

As a modern research university in the 21st century, Harvard must continually strengthen its core academic and research mission through initiatives that support cross-disciplinary research, respond to changing pedagogies and technological innovations, and foster collaborative teaching and learning.

Investing in Science and Engineering

Recognizing the increasingly integrated and collaborative nature of scientific research, Harvard continues to support a wide array of interdisciplinary initiatives. The University's ongoing investment in capital projects supporting the sciences includes both new construction and the renovation of existing facilities to respond to new initiatives in scientific research.

Supporting the Arts and Humanities

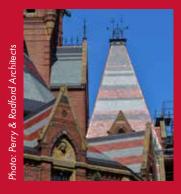
Harvard remains committed to a strong liberal arts education which goes beyond delivering a body of knowledge but seeks to cultivate a deeper intellectual transformation of each student. This commitment is demonstrated across a range of academic programs which support art-making, performance, and media-based disciplines.

Housing Harvard's Affiliates

Harvard was founded as a residential campus and continues to be a living-learning academic environment today. In addition to the ongoing effort to revitalize the Harvard Houses for undergraduates, the University also remains committed to maintaining, improving, and expanding its housing portfolio for graduate students and other affiliates.

Enhancing the Campus Experience

Harvard recognizes that the experience of campus life is greatly enhanced by its common spaces, landscape, and cultural amenities. Campus hubs such as the Richard A. and Susan F. Smith Campus Center and the Plaza bring the diverse Harvard and Cambridge community together. Harvard will continue to enhance the quality of campus life through future planning and development projects.



PRESERVING HARVARD'S HISTORIC RESOURCES

Memorial Hall Roof

The Faculty of Arts and Sciences recently completed the second phase of a multi-year project which began in 2018, to replace the slate roof at Memorial Hall. The slate roof, which dates to the building's original construction in 1878, has reached the end of its useful life and has experienced numerous leaks in recent years.

In addition to replacing the roof's polychromatic slate tiles, work has also included the installation of new copper flashing and ridge caps, and the refabrication and installation of ornate ironwork cresting on the transept roof and towers. The final phase of the project, which will replace the slate roof over Annenberg Hall is planned to begin in the spring of 2022.

The roofing project at Memorial Hall is being undertaken in close consultation with the Cambridge Historical Commission.

PHYSICAL CONTEXT

To support the University's academic mission, Harvard seeks to preserve its strong sense of place and provide a welcoming environment. This is achieved by implementing campus-level planning strategies that respect the existing physical context while acknowledging the need for flexibility and adaptability to accommodate future change.

These strategies include the coordination of campus systems and networks (such as connectivity, open space, infrastructure, and sustainability); the balance of renewal and deferred maintenance priorities (facility condition assessments); and the careful study of existing conditions (urban design guidelines and site-specific planning principles) which ensure that future development continues to produce a coherent, attractive, sustainable, and well-maintained campus.

CAMPUS PLANNING PRINCIPLES

The University implements its plans through development that strives to meet the following planning principles in a balanced way:

- Create a sustainable and resilient campus
- Respect community context
- Support ongoing facility renewal
- Maximize the utilization of existing facilities
- Enhance campus connectivity
- · Preserve Harvard's historic character
- Demonstrate a commitment to design excellence
- Maintain and enhance campus open space
- Promote built form in the context of existing campus character
- Create campus environments that promote inclusivity, diversity, and interaction

COVID-19 IMPACTS ON PLANNING & DEVELOPMENT

Harvard has implemented a rigorous set of workplace and job-site public health measures to ensure that the University's capital project planning and development activities were able to proceed during the ongoing COVID-19 pandemic. During the past year, Harvard University completed work on several significant projects on the Cambridge campus including the renewal of Claverly Hall, the renovation of Swartz Hall at Harvard Divinity School, and the Reginald F. Lewis Law Center project at Harvard Law School.

As emergency health measures began to be eased over the past year, many other capital projects that had been paused in 2020 re-started or commenced construction activity. Critical projects such as life safety improvements, addressing deferred maintenance, and lab renovations that support essential research also continued.

A NEW HOME FOR DEPARTMENT OF ECONOMICS

In September Harvard announced a generous gift made by philanthropist Penny Pritzker to support the creation of a new home for the Department of Economics at the Faculty of Arts and Sciences. The gift will support the development of a new building on Harvard's Cambridge campus that will enable the department to consolidate research, enrich undergraduate engagement and graduate education, and allow for new collaborations and partnerships. Harvard has begun preliminary planning for the new facility to be located near the department's current home.

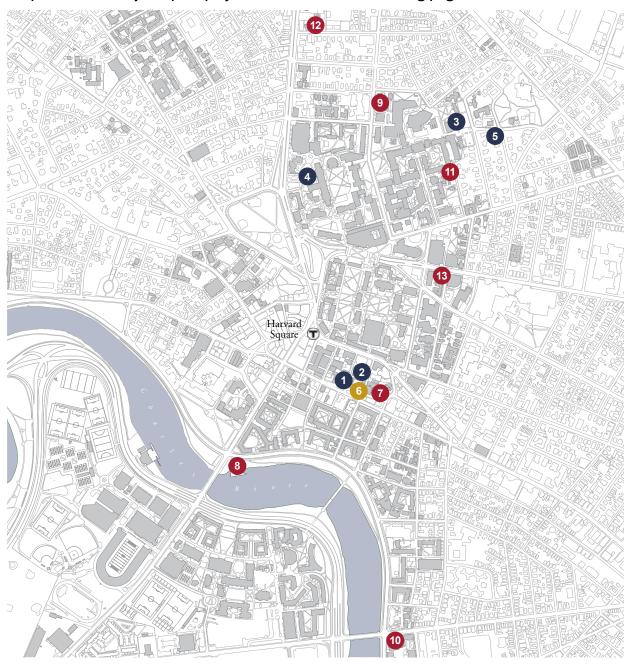
Harvard continues to focus some of its planning and development resources to address its direct impacts; this has included the development of physical space planning guidelines for safely returning Harvard affiliates to the campus, retrofitting existing facilities and spaces to ensure occupant safety, and operating new on-site viral testing facilities to allow the continued on-campus presence of students and other affiliates. Harvard has also added furniture and tents to campus open spaces to support safe gathering locations outdoors as affiliates returned to campus

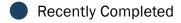
Harvard continues to assess the potential long-term ramifications of the COVID-19 pandemic on the University's planning and development activities and more broadly, including how institutions of higher education will operate in a post-pandemic world.



HARVARD CAPITAL PROJECTS

Harvard's programmatic drivers, physical context, and planning principles help shape the University's capital projects outlined on the following pages.





Currently in Construction

- 1. Claverly Hall
- 2. Apthorp House
- 3. Swartz Hall
- 4. Reginald F. Lewis Law Center
- 5. 109 Irving Street

6. Randolph Hall

Projects in Planning

- 7. Russell Hall/Westmorly Court
- 8. Weld Boathouse
- 60 Oxford Street
- 10. Blackstone Steam Plant
- 11. 13 Kirkland Place
- 12. 5 Sacramento Street
- 13. 1746 Cambridge Street

PROJECT LIST

| | pject | Programmatic Goal | Sustainability Features ¹ |
|-----------|--|---|---|
| Re | cently Completed | | |
| 1. | Claverly Hall | Renew undergraduate House life | Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot |
| 2. | Apthorp House | Renew undergraduate House life | Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot |
| 3. | Swartz Hall | Facility renewal | Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot |
| 4. | Reginald F. Lewis Law Center | Facility renewal, accommodate growth in research programs and improve accessibility | Targeting LEED NC v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot |
| 5. | 109 Irving Street | Renovate for continued residential use | Targeting LEED Homes certification; Harvard Green Building Standards |
| Cu | rrently in Construction | | |
| 6. | Randolph Hall | Renew undergraduate House life | Targeting LEED CI v4 Gold; Harvard Green Building Standards |
| Pro | ojects in Planning | | |
| | Jects in Flaming | | |
| 7. | Russell Hall / Westmorly Court | Renew undergraduate House life | Targeting LEED CI v4 Gold; Harvard Green Building Standards |
| 7. | | Renew undergraduate House life Facility renewal | |
| | Russell Hall / Westmorly Court | - | Building Standards Enhanced on-site stormwater management, window restoration, new energy-efficient |
| 9. | Russell Hall / Westmorly Court Weld Boathouse | Facility renewal | Building Standards Enhanced on-site stormwater management, window restoration, new energy-efficient boilers, and new low-flow toilet fixtures Energy efficient mechanical systems, water |
| 9. | Russell Hall / Westmorly Court Weld Boathouse 60 Oxford Street | Facility renewal Facility renewal for new academic use | Building Standards Enhanced on-site stormwater management, window restoration, new energy-efficient boilers, and new low-flow toilet fixtures Energy efficient mechanical systems, water conservation measures Resiliency measures to building exterior Targeting LEED Gold (Certifiable), Passive |
| 9. 10. | Russell Hall / Westmorly Court Weld Boathouse 60 Oxford Street Blackstone Steam Plant | Facility renewal Facility renewal for new academic use Facility resiliency | Building Standards Enhanced on-site stormwater management, window restoration, new energy-efficient boilers, and new low-flow toilet fixtures Energy efficient mechanical systems, water conservation measures Resiliency measures to building exterior Targeting LEED Gold (Certifiable), Passive House Certification - PHIUS+, Living Buildin |

Harvard Green Building Standards include process-oriented requirements to ensure that all sustainable design and operations opportunities are vetted and that performance requirements are achieved in a cost-effective manner. They apply to all capital projects (new construction and major renovations) over \$100,000. For more information, see: https://green.harvard.edu/sites/green.harvard.edu/sites/green.harvard.edu/files/HarvardGreenBuildingStandards2017.pdf



Recently Completed

CLAVERLY HALL, ADAMS HOUSE

Renovation

Architect

Beyer Blinder Belle

Total Square Feet

Approximately 59,000 GSF (renovation)

Programmatic Driver

Renew undergraduate House life

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot Harvard commenced the renewal of Adams House with a full renovation of Claverly Hall, which was originally constructed in 1892 as off-campus student housing. The project involved a comprehensive renovation of the interior spaces and a restoration of the exterior, with entrances sensitively altered for accessibility. Updates included new residential layouts, a secondary entrance on Linden Street, and new common spaces for students. Two new elevators and one lift provide accessibility to all levels. Significant historic interiors, such as Claverly's main entry lobby and main stair hall, were carefully preserved and restored. The sustainability goals for the project included an energy efficient envelope and windows, new MEP systems, and LEED certification.

Work at Claverly Hall received public approvals from the Cambridge Historical Commission and the Cambridge Board of Zoning Appeal. The project was completed in 2021. Claverly Hall was awarded a 2020 Preservation Award from the Cambridge Historical Commission.



A former squash court has been transformed into this new multipurpose space. The contained seating area in the back corner is called the "The Keep," and incorporates the exposed stone foundation of the building turret.





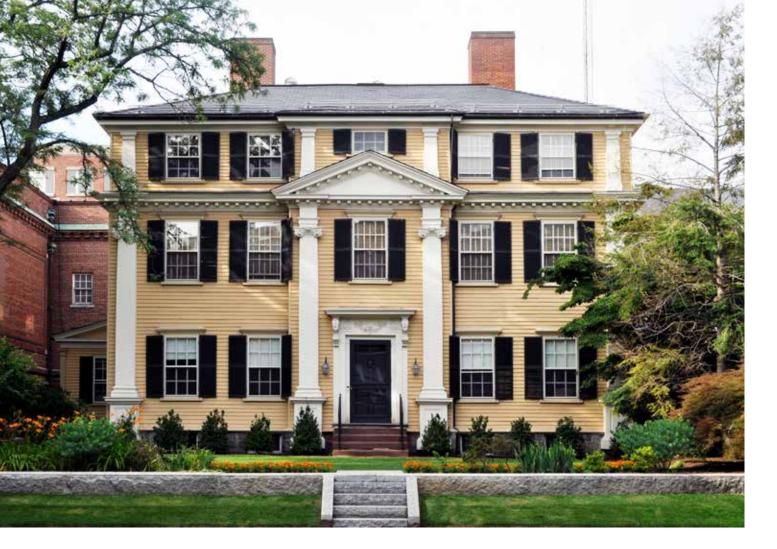


INTERIOR VIEWS

Top left: The East Entry Lobby, a newly created space, marries an original mantle and fireplace surround from a Claverly student suite with replicated paneling from that suite and new mosaic floor tiles.

Top right: The design of this multipurpose space celebrates its original use as a swimming pool utilizing original marble, lion head fountain and new lighting evocative of water.

Bottom left: This common room is part of a 6-bedroom student suite that includes a restored, but nonoperating, fireplace.



Recently Completed

APTHORP HOUSE, ADAMS HOUSE

Renovation

Architect Beyer Blinder Belle

Total Square Feet

Approximately 11,000 GSF (renovation)

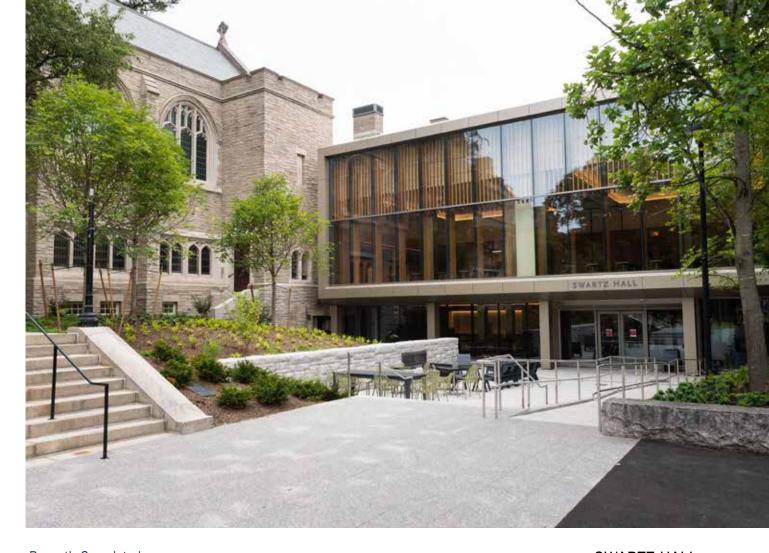
Programmatic DriverRenew undergraduate House life

Sustainability Features

Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot Harvard recently completed the restoration and renovation of Apthorp House as part of the second phase of Adams House Renewal. This significant example of high-style Georgian architecture was originally built in 1760 as the private residence of Reverend East Apthorp, the first Anglican missionary to Cambridge. This Colonial era house notably served as lodging for troops and the headquarters of American General Putnam during the Revolutionary War. Its use as a private residence transitioned to student renters in 1902, until its current use as the Adams House Faculty Deans' Residence was established in the 1930s.

The renovation included the repair and restoration of the building's historic exterior including windows, envelope, chimneys, slate roof, and copper gutters and downspouts. A new accessible entrance was added to the north elevation. The landscaped pathways were modified to improve accessibility through the courtyard shared with Randolph Hall.

Work at Apthorp House received a Certificate of Appropriateness from the Cambridge Historical Commission. Construction concluded in summer 2021.



Recently Completed SWARTZ HALL

Renovation and Addition

Architect

Ann Beha Architects

Total Square Feet

53,327 GSF (renovation) 3,723 GSF (addition net new)

> **Programmatic Driver** Renew building

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot

Harvard Divinity School has completed the renovation of Swartz Hall (previously Andover Hall), which serves as the school's center of academic, administrative, and student life. The project improved the connections and functional relationships between a complex of buildings that includes the original Andover Hall, constructed in 1911 and the Harvard Divinity School Library, formerly called Harvard-Andover Theological Library, constructed in 1961. A new two-story addition linking these buildings contains student common space on the ground level and a multi-purpose classroom and convening space at the first level to accommodate school gatherings, teaching, and instruction. A new multi-faith worship space and offices for student services were created by reconfiguring the south wing of Swartz Hall. In addition to these programmatic improvements, the project also included long-needed repairs to the building's exterior envelope, upgrades to mechanical systems, and improvements to physical accessibility.



Recently Completed

REGINALD F. LEWIS LAW CENTER

Renovation and Addition

Architect

Deborah Berke Partners

Total Square Feet

37,959 GSF (renovation) 12,489 GSF (addition)

Programmatic Driver

Reprogram spaces in the building, address deferred maintenance, accommodate growing research programs, and improve accessibility

Sustainability Features

Targeting LEED NC v4; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot Harvard Law School has recently completed the renovation of the Reginald F. Lewis Law Center (previously the Lewis International Law Center), creating an updated learning and work environment for HLS students, faculty, staff, as well as law clinic clients and research affiliates. The project included an improved building entrance, a new circulation system, increased teaching and office space, and a high-performance façade. The renovation also addressed deferred maintenance, including improvement to major building systems and upgrading of all utility infrastructure. This renewed HLS academic building now accommodates flexible meeting rooms, collaborative areas, offices, and spaces for the Berkman Klein Center on Internet & Society, Harvard Law School Cyberlaw Clinic, and Library Innovation Lab.

The Lewis International Law Center was originally constructed in 1957 and designed by Shepley Bulfinch Richardson & Abbott.



Recently Completed 109 IRVING STREET

Renovation

Architect

Austin Architects

Total Square Feet

7,440 GSF (renovation)

Programmatic Driver

Renovation of historic house for continued residential use

Sustainability Features

Targeting LEED Homes certification; Harvard Green Building Standards Harvard recently completed renovation of historic house at 109 Irving Street for continued residential use for the Harvard Law School. The project included restoration and renovation of the interior spaces, installation of new utility services restoration of the building's exterior and roof, and replacement of the rear addition with a one-story porch.

109 Irving Street was designed by William Pitt Wentworth and constructed in 1893.



Currently in Construction

RANDOLPH HALL, ADAMS HOUSE

Renovation

Architect Beyer Blinder Belle

Total Square Feet

Approximately 66,000 GSF (renovation)

Programmatic Driver

Renew undergraduate House life

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot Adams House Renewal includes a comprehensive renovation of Randolph Hall which was constructed in 1897 as a Gold Coast private student residence before it was incorporated into Harvard's Adams House in the 1930s. This eclectic 5-story brick and granite Jacobean Revival building is distinguished by its bays, shaped gables, turrets, and chimneys.

Renewal at Randolph Hall will fully restore the building's exterior envelope while making targeted modifications to create accessible entries. A new mid-block entrance on Plympton Street will also be introduced. The interior renovation will include new residential layouts and student common spaces, enhanced circulation, and restoration of traditional interior spaces.

The Cambridge Historical Commission granted a Certificate of Appropriateness for the work at Randolph Hall. Construction at Randolph began in summer 2021 and is scheduled for completion in early 2023.



Projects in Planning

RUSSELL HALL - WESTMORLY COURT, ADAMS HOUSE

Renovation

Architect

Beyer Blinder Belle

Total Square Feet

Approximately 106,000 GSF (renovation)

Programmatic Driver

Renew undergraduate House life

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards Harvard is planning for the third and final phase of its Adam House Renewal project which will address the east block located between Plympton and Bow Streets. Three connected buildings - Russell Hall (1931), the Library-Commons Building (1930), and Westmorly Court (1898 - 1902) provide residential and common spaces for the Adams House community. The project scope will include a comprehensive renovation of the interior spaces and a restoration of the exteriors in a manner that respects the buildings' historic character, improves their overall accessibility, and supports a twenty-first century educational experience.

This project will require approval from the Cambridge Historical Commission. Construction is anticipated to begin sometime after the Randolph Hall renovation is completed.



Projects in Planning WELD BOATHOUSE

Renovation

Architect

Bruner / Cott & Associates

Total Square Feet

Approximately 25,000 GSF (renovation)

Programmatic Driver

Renewal of boathouse to support Harvard rowing programs

Sustainability Features

Enhanced on-site stormwater management, window restoration, new energy-efficient boilers, and new low-flow toilet fixtures Completed in 1907, Weld Boathouse is the home of the Radcliffe Heavyweight and Lightweight Rowing programs and provides dock access for special community events such as The Head of the Charles Regatta. To meet the current programmatic needs of these programs, Harvard is planning a renewal project which includes interior renovations for new training facilities, new locker and toilet rooms, significant interior and exterior accessibility improvements, repair and restoration of the building's envelope, and the full replacement of the existing Weld ramps and docks which have reached the end of their useful life.

The project's extensive exterior restoration scope includes the replacement of the terra cotta roof tiles, masonry cleaning and repair, the repair and refabrication of terra cotta sculptural elements over the building entrance, and window repairs and replacement. The exterior scope of work has been developed in consultation with the staff of the Cambridge Historical Commission.

The Weld Boathouse renovation is being planned in conjunction with a similar project at the Newell Boathouse located across the Charles River in Allston. The projects are being carefully timed to ensure that Harvard's rowing programs have uninterrupted water access and can continue operation during construction. The Weld Boathouse project is expected to commence work in June 2022, with completion targeted in early spring 2023.



Projects in Planning 60 OXFORD STREET

Renovation

Architect Payette

Total Square Feet Approximately 60,000 GSF (renovation)

Programmatic Driver

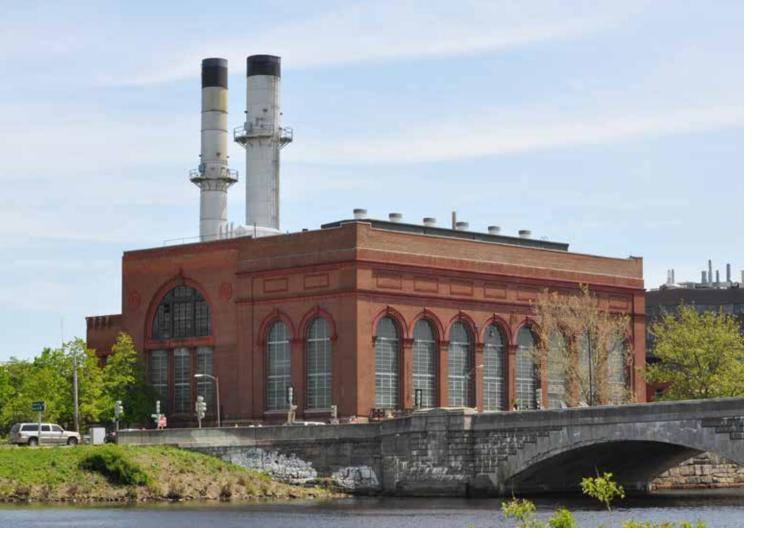
Building renovation to house the Harvard Quantum Initiative (HQI)

Sustainability Features

Energy efficient mechanical systems, water conservation measures

The Faculty of Arts and Sciences is planning a renovation of 60 Oxford Street to create a new home for the Harvard Quantum Initiative in Science and Engineering (HQI) and other academic uses. HQI is an interdisciplinary academic initiative which blends research in the study of subatomic particle behavior with solution-driven applied science and engineering applications. HQI will provide new resources to measure, engineer, and control matter at the single-atom level presenting new opportunities to transform ideas into new technologies.

60 Oxford Street, which has previously housed a Harvard data center and space for Harvard's School of Engineering and Applied Sciences, will be converted to a laboratory building with high-performance optics labs, an undergraduate teaching lab, meeting rooms and office space. The project's new laboratory spaces will require building systems that provide fine environmental controls, and structural modifications to minimize vibration. In addition to the creation of high-performance laboratory space, the renovation project will also establish a new center for interdisciplinary research which will bring together scientists and engineers across sectors - universities, the private sector, and government. Construction at 60 Oxford Street is expected to begin in spring 2022, with completion anticipated in spring 2024.



Projects in Planning

BLACKSTONE STEAM PLANT

Renovation

Architect

Bruner / Cott & Associates

Total Square Feet

Programmatic Driver

Storm-hardening improvements to building façades

Sustainability Features

Resiliency measures to building exterior

The Blackstone Steam Plant was built in 1903 with additions in 1930 and 1962 and has been owned by Harvard University since 2003. The plant provides steam heat and power to buildings on the Cambridge and Allston campuses.

Harvard is planning a project that will storm-harden the Blackstone Steam Plant against future extreme weather conditions and protect the plant from any resulting operational disruptions. The project plans to replace existing windows and louvers, repair and restore exterior masonry, infill basement windows, and provide moveable storm barriers. These resiliency measures will enable the building to withstand future storms and other severe weather conditions.

The project team is consulting with the Cambridge Historical Commission regarding exterior changes to the building. Project construction is anticipated to begin in spring 2022 and be completed by spring 2023.



Projects in Planning 13 KIRKLAND PLACE

Renovation and Addition

Architect

Kelly Boucher Architecture

Total Square Feet

Approximately 5,606 SF (renovation) 398 SF (addition)

> Programmatic Driver Housing Harvard affiliates

Sustainability Features

Targeting LEED Gold (Certifiable), Passive House Certification - PHIUS+, Living Building Challenge Core Certification – LBC Cores

Built in 1857, 13 Kirkland Place is a residential structure of Bracketed Italianate style and is a contributing building within the Kirkland Place National Register District. This building has recently transitioned into Harvard University Housing's portfolio of affiliated housing. To ready it for graduate student and faculty residential use, Harvard is planning an historically sensitive restoration of the exterior, a comprehensive interior renovation, and a reconstruction of the rear ell. The project will include a new accessible entry ramp, the removal of the fire escape, and covered bike parking in the back yard.

The Cambridge Historical Commission's Executive Director has consulted on the project. HUH anticipates the construction start in early 2022, for a late 2022 completion.



Projects in Planning

5 SACRAMENTO STREET

Renovation

Architect

Kelly Boucher Architecture

Total Square Feet

Approximately 9,000 GSF

Programmatic Driver

Housing Harvard affiliates

Sustainability Features

Targeting LEED Gold (Certifiable),
Passive House Certification PHIUS+, Living Building Challenge
Core Certification – LBC Cores

After serving for more than four decades as a health clinic, the building at 5 Sacramento Street (1891) is poised to transition to use as housing for Harvard graduate students and faculty. Harvard University Housing is planning a renovation of this large Queen Anne Victorian, which Harvard has owned since 1964. With sensitive historic preservation and sustainability goals in mind, the proposed project scope will repurpose the building for housing use and upgrade it to meet code requirements for building code, accessibility, and life safety. The renovation includes two new dormers, a reconfiguration of the accessible ramp, new window wells, the removal of the fire escape, and covered bike parking.

The proposed project has been positively reviewed by the Executive Director of the Cambridge Historical Commission. It secured zoning approvals from the Cambridge Zoning Board of Appeal. Construction is anticipated to begin in early 2022 and be completed later that year.



Projects in Planning

1746 CAMBRIDGE STREET

Renovation

Architect **RODE** Architects

Total Square Feet Approximately 4,700 GSF (renovation)

> **Programmatic Driver** Deferred maintenance, improved accessibility

Sustainability Features TBD The Harvard Art Museums has begun planning for a renovation of the Queen Anne building at 1746 Cambridge Street (1887) that serves as H/AM's administrative offices. The renovation will update the building's infrastructure, provide a more effective layout, and create an accessible entrance and elevator in a rear addition. The project is anticipated to begin construction in spring 2022.

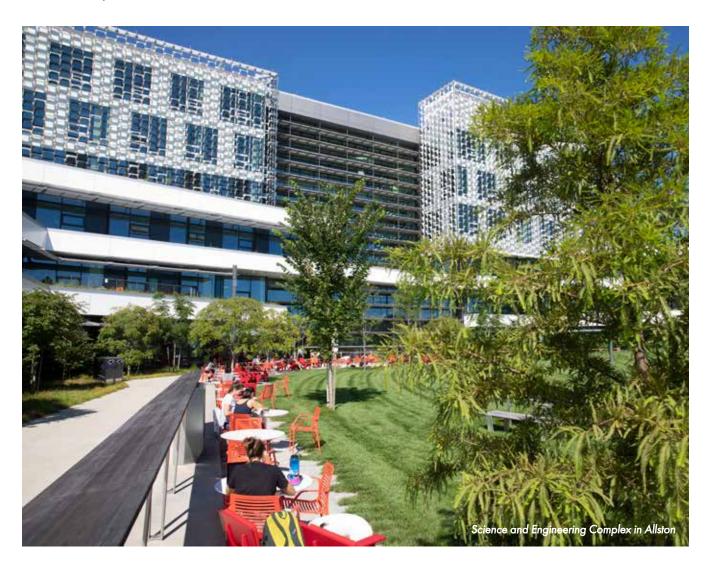
ALLSTON UPDATE

Harvard's vision for its campus in Allston is linked to the University's mission of teaching and learning and is grounded in a commitment to making the world a better place through innovation, research, and discovery. The University continues to work with the City of Boston and community stakeholders to develop a clean, welcoming, and sustainable environment, featuring healthy buildings, opportunities for translational engagement between academic and commercial ventures, new and inspiring open spaces, activation and pedestrian activity, rich and diverse economic development, and a high quality of life for all.

Project and Planning Updates

Science and Engineering Complex (SEC)

Harvard's new Science and Engineering Complex, which is home to a portion of the Harvard John A. Paulson School of Engineering and Applied Sciences, opened to students, faculty, staff, researchers, and the community this past year. It has been recognized as one of the healthiest, most sustainable, and energy-efficient laboratory buildings in the world, receiving both LEED Platinum Certification and Living Building Challenge Petal certification in Materials, Beauty, and Equity, the first building of its kind, and the largest, to do so. The building incorporates energy efficiency, advanced solar shading strategies, healthier building materials, and a high-tech water management system that minimizes water consumption and mitigates downstream pollution.



Enterprise Research Campus

Harvard's Enterprise Research Campus (ERC) will complement the cutting-edge institutional research taking place on its campus and throughout the region. Planning continues for the ERC's Phase A development which focuses on the portion on Western Avenue, adjacent to the new Science and Engineering Complex, and across the street from Harvard Business School. This Phase is proposed to contain approximately 900,000 square feet of mixed-use development consisting of residential, office/lab, a hotel, a Harvardowned institutional conference center, restaurant and retail use, and nearly three acres of public open space. The ERC will be a cornerstone of Harvard's commitment to enhance the area in support of its teaching and research mission. It will increase the interconnectivity between the Harvard campus, the neighborhood, and the Greater Boston region.

I-90 Allston Interchange Project

In the fall of 2021, the Commonwealth announced plans to move forward with the "at grade" design option for the Mass Pike. The project is a generational opportunity to transform and modernize neighborhood circulation, create an urban street grid, introduce new urban and regional rail service, remove obstacles that have divided communities for decades, and create new mixed-use development. Among the many important elements of the project, Harvard maintains that West Station is a critical element to the Interchange project, supports its inclusion in the MassDOT plan, and has committed financial support to help ensure its implementation.

Transportation Links

The University is committed to providing safe and accessible bike and pedestrian pathways between the Cambridge and Allston campuses. Harvard Transportation Services continues to implement a flexible and responsive shuttle solution providing service to the Allston campus. In 2021, shuttle routes and schedules were adjusted to better align with class schedules and to reflect the opening of the new Science and Engineering and Complex (SEC). Other recent transportation improvements on the Allston campus include the establishment of an Allston Mobility Hub near the SEC which adds over 280 secure bike parking spaces to the campus, and the installation and expansion of Bluebike facilities.

American Repertory Theater

Harvard is continuing planning for the new home of the American Repertory Theater. The new building - to be located adjacent to the athletic facilities on North Harvard Street in Allston - will provide a state-of-theart research and performance center complementing existing arts programming at Harvard as well as in Greater Boston.

CONSTRUCTION MITIGATION

Harvard recognizes the interconnectedness of its Cambridge campus with Harvard Square and its surrounding neighborhoods. In order to minimize potential construction impacts resulting from University projects, Harvard develops and implements comprehensive construction mitigation programs. Harvard has a robust construction mitigation office that works closely with local businesses and neighborhood representatives, as well as the City of Cambridge, to help minimize any disruptions on each project across campus. Depending on the nature of the construction project and its location, the mitigation measures for projects may include the following:

- Relocating existing retail and commercial tenants impacted by construction in Harvard-owned buildings to other Harvard Square locations so they can continue operating during construction.
- Minimizing impacts to retail businesses that remain in Harvard buildings during construction.
- Maintaining access to Harvard-owned commercial parking areas as much as possible to continue to provide parking for visitors to the University and Harvard Square.
- Maintaining existing loading zones wherever possible and working with local businesses to accommodate deliveries during scheduled street closures.
- Ensuring compliance with the City of Cambridge noise ordinance's provisions pertaining to

- construction sites and developing additional noise mitigation measures as may be necessary.
- Installing perimeter protection and ample directional signage to facilitate continued pedestrian access to adjacent sidewalks and local business.
- Keeping street and sidewalk closures to a minimum to ensure that vehicular and pedestrian access is maintained on streets surrounding the project site.
- Installing signage or banners at the perimeter of project sites impacting commercial areas to highlight that local businesses remain open during construction.
- Working with Harvard's Office of Environmental Health and Safety to develop appropriate pest control programs that may be necessary.

The Harvard Mitigation Office implements these measures and serves as the key liaison to those potentially affected by University construction projects. The office communicates on a regular basis with project abutters about any expected construction impacts and serves as the point of contact for registering complaints or concerns. The office addresses abutter concerns promptly and to the best of its ability.

In addition to the mitigation measures designed to minimize impacts to local business, Harvard projects support commercial areas by bringing many construction workers to Harvard Square and its vicinity on a daily basis who frequent local restaurants, stores, and services.



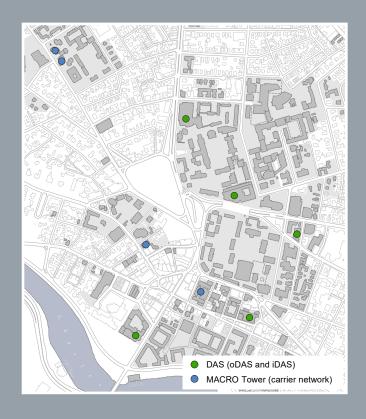
ANTENNA INSTALLATIONS

The use of wireless, web-based, and remote platforms for instruction and collaborative research continues to increase demand for cellular and wireless services, resulting in the need for improved coverage, signal strength, and capacity. To meet this technological demand, the University must continue to coordinate system improvements across multiple cellular and wireless service provider platforms.

DISTRIBUTED ANTENNA SYSTEM

Harvard continues to implement its neutral host Distributed Antenna System or DAS that enables the University to provide better coverage within its buildings and campus, and which facilitates the coordination of antenna system improvements across multiple service providers. Because the DAS network can serve multiple carriers, it allows the University to significantly reduce the number of antenna installations typically required to provide high-quality coverage across multiple providers' systems.

The DAS network is comprised of strategically located antenna nodes connected to a common signal source accommodating multiple service providers. Each antenna node distributes carrier signals to clusters of campus buildings, providing high quality micro level coverage to the University's end users. To date, Harvard has completed five DAS installations in Cambridge, with additional potential sites under consideration.



MINIMIZING VISUAL IMPACTS

Where exterior antenna and equipment installations are required, the University works with its DAS consultants to minimize their visual impacts to the greatest extent possible. Harvard has generally sought to exclude exterior antenna installations from its most architecturally significant and iconic campus buildings. Where possible, antennas are mounted on mechanical penthouses, chimneys, vents, or other existing building rooftop elements that can help to conceal or minimize the visibility of exterior equipment.

In some instances, antennas and other required equipment can be camouflaged to visually blend in better with its surroundings. This can include creating the appearance of brick or other building materials on antenna panels; enclosing equipment in false chimneys, vents, or other rooftop elements that simulate existing building features; or screening the equipment in extensions of existing mechanical penthouses.

In meeting its regulatory obligations, Harvard and its consultants work with City of Cambridge planning and design staff to review proposed installations to identify appropriate locations and visual treatment options. Installations proposed within historic districts or neighborhood conservation districts are also reviewed with the staff of the Cambridge Historical Commission.

he day-to-day function of Harvard's campus requires a high degree of connectivity which encompasses pedestrian networks, public transportation, bicycle networks, and the accommodation of vehicles. Harvard seeks to enhance and improve connectivity through projects that incorporate a multi-modal approach to connecting the people, places, and activities on its campus.



COVID-19 TRANSPORTATION IMPACTS

Harvard's return to campus is still a work in progress, correspondingly commuting modes and transportation usage on campus continue to change rapidly. This year's mode split reflects that change and represents a snapshot of commuting behavior that is still evolving. (see table below). While Harvard's shuttle system is now operating all of its routes on a regular schedule, ridership numbers have not returned to pre-pandemic levels given that a significant number of affiliates continued to work remotely in 2021.

In response to ongoing changes in commuting patterns, Harvard's CommuterChoice Program began offering a set of benefits that provide more flexibility for employees who may be returning to campus on a hybrid work model.

COMMUTING **MODES** 2021



44.6%



18.0%



13.9%



11.8%



9.6%



2.0%



0.2%

PTDM PLAN

Harvard's proactive Parking and Transportation Demand Management (PTDM) Plan, which was first approved by the City of Cambridge in 2003, includes programs and incentives offered through the University's CommuterChoice Program that encourage alternatives to private automobile trips to campus.

COMMUTERCHOICE PROGRAM

As employees are steadily returning to campus after working from home, commuting patterns and habits are changing. While many employees have returned to campus fully, many others continue in hybrid work models. In response to these changing commuter dynamics, Harvard Transportation Services implemented the following programs and services in 2021 to meet the evolving commuting needs of the Harvard community:

- **Transit:** Flexible pre-tax transportation debit card for staff who wish to alternate between parking or transit commuting and pre-tax savings on 7-day bus/subway passes.
- Parking: New hourly and daily parking options with reduced rates and flexible 3-day annual parking permits to accommodate hybrid work needs.
- Harvard Shuttles: New PassioGo app displays live bus-crowding information for riders.
- **Digital Tools**: During the fully remote work months of the pandemic, the CommuterChoice office phased out paper forms and applications and implemented virtual platforms in order to accommodate remote work environments and employee safety.

In addition to the new programs begun in 2021, the CommuterChoice Program continues to provide Harvard affiliates with commuter information and resources across multiple transportation modes including public transit, cycling, walking, and ride share programs.

Interactive Campus Map

In January 2021 Harvard introduced a new <u>interactive campus map</u>. The user-friendly webbased map is designed to be compatible with current browsers and devices. In addition to providing detailed wayfinding information for navigating Harvard's campuses, the new map also has several interactive features allowing users to customize the map to meet their individual needs. Features include interactive pedestrian routing for shortest walking routes on campus, links to real time information on events, the Harvard Shuttle, and Bluebike availability.



SHUTTLES SERVING THE HARVARD CAMPUS

Harvard Transit operates shuttle and van services that offer safe, reliable, and convenient transportation across Harvard's Cambridge and Allston campuses. Harvard's Shuttle fleet includes seven 35-foot buses and five 29-foot buses, each with a capacity of 37 passengers. During the academic year, shuttles provide regularly scheduled service connecting the River Houses, the Radcliffe Quad area, and Harvard's Allston campus. With the opening of the new Science and Engineering Complex (SEC) in Allston, a new Quad - SEC shuttle route has been implemented to provide transportation aligned with class start times.

Harvard Transit also operates five, ten-seat passenger vans providing on-call service to individuals with special mobility needs and a late evening weeknight van service which transports faculty, staff, and students safely around campus as a supplement to the shuttle bus system.

Prior to the COVID-19 pandemic total shuttle and van ridership was approximately 657,000 passengers annually. However, from March-December 2020, shuttle ridership was reduced by more than 75%. Ridership is continually tracked on all routes in order to maximize efficiency and align ridership with the size of shuttle vehicles used and the frequency of service during different times of the day. In 2018 Harvard launched a new Evening Van app to provide a more efficient and convenient rider experience. The University is currently exploring how similar apps can be utilized to maximize the efficiency of peak time shuttle services.

The University continues to partner with MASCO in providing the M2 shuttle bus, linking Cambridge and the Longwood Medical Area in Boston. In addition to serving Harvard affiliates, this shuttle is available

to others, including members of the public, with the pre-purchase of a ticket.

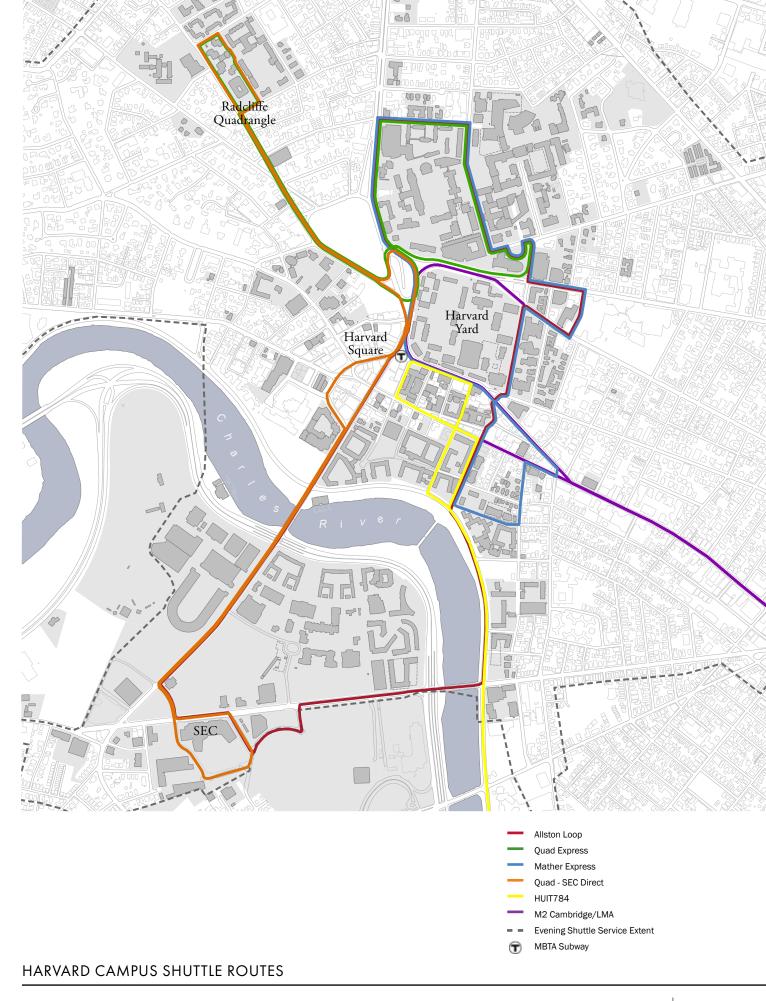
www.masco.org/directions/m2-cambridge-harvard-shuttle

Harvard University Information and Technology offices at 784 Memorial Drive are also served by a landlord-operated shuttle service (HUIT 784) that provides building tenants with regular service to Harvard Square.

New Electric Buses

In October 2021, four new electric buses joined Harvard's Shuttle fleet replacing four bio-diesel-fueled vehicles. The 35-foot buses seat 29 passengers and run on a 450 kWh battery. A Massachusetts Department of Environmental Protection grant program funded the purchase, part of a larger effort to electrify transportation in the Commonwealth. Harvard loan funds paid for fast-charging stations for the buses' batteries, so the vehicles can be recharged in three hours nightly, at a facility in Allston. The electric vehicles are expected to reduce emissions of greenhouse gases by 220,000 pounds annually.





HARVARD CAMPUS SHUTTLE - ACADEMIC YEAR ROUTES & SCHEDULES

| Route Name | Description | Frequency | Hours of Operation | |
|--|--|------------|---------------------------|--|
| WEEKDAY SERVICE - DAY | ГІМЕ | | | |
| QUAD – SEC DIRECT | Quad, Harvard Square, Stadium, Barry's Corner, SEC | 20 minutes | 7:00 am – 7:50 pm | |
| QUAD EXPRESS | Memorial Hall via Harvard Square | 10 minutes | minutes 7:40 am – 4:15 pm | |
| QUAD STADIUM | Quad, River Houses, Harvard Square | 25 minutes | ninutes 5:15 am – 7:40 am | |
| MATHER EXPRESS | Memorial Hall via Harvard Square | 10 minutes | es 8:20 am – 3:00 pm | |
| ALLSTON LOOP | Allston Campus, Harvard Square, Memorial Hall | 15 minutes | 7:00 am – 3:15 pm | |
| WEEKDAY SERVICE - EVE | NING | | | |
| ALLSTON LOOP | Allston Campus, Harvard Square, Memorial Hall | 30 minutes | 3:00 pm – 11:45 pm | |
| EXTENDED OVERNIGHT | Quad, Mather House via Memorial Hall | 35 minutes | 12:40 am – 3:45 am | |
| QUAD YARD EXPRESS | Quad, Lamont, Harvard Square | 25 minutes | 4:45 pm – 12:30 am | |
| WEEKEND SERVICE | | | | |
| CRIMSON CRUISER | Quad, Mather House via Memorial Hall | 35 minutes | 8:30 am – 4:30 pm | |
| 1636'er | Quad, Peabody Terrace, Mather House via Memorial Hall | 20 minutes | 4:20 pm – 12:25 am | |
| ALLSTON LOOP | Allston campus, Quad, via Harvard Square | 15 minutes | 7:30 am – 10:15 pm | |
| QUAD STADIUM (Sat morning only) | Quad, Lamont, Winthrop, Mather, Stadium | 35 minutes | 5:30 am – 7:50 am | |
| EXTENDED OVERNIGHT (Fri/Sat night only) | Quad, Mather House via Memorial Hall | 35 minutes | 3:55 am – 4:45 am | |

BICYCLING

Cycling is a significant part of Harvard's campus transportation system and the University supports a range of programs that encourage cycling as a healthy and sustainable transportation choice. Harvard also continues to make investments in its bicycle facilities on campus and to participate in collaborative planning efforts for local and regional cycling initiatives. Ongoing efforts include the following:

Bicycle Facilities

Harvard continues to improve existing facilities through upgrade and replacement of racks and to identify opportunities to add additional cycling amenities to the Cambridge campus.

- Bicycle Parking Harvard's parking inventory has approximately 5,700 outdoor rack spaces and 1,300 secure spaces (located inside buildings or bike lockers) serving the Cambridge campus.
- Repair Stations Eleven bicycle repair stations are located across the campus.
- Bike Facility Map An updated interactive map of Harvard's bicycle facilities is available on the CommuterChoice website (www.commuterchoice. harvard.edu). The map provides location information on bike routes, parking areas, and key attributes such as rack type, number of spaces, and whether parking is sheltered.
- DeWolfe Bike Corridor The Quincy-Bow-DeWolfe corridor was identified as a priority street in the
- Cambridge Bicycle Plan's vision for a safe and connected bicycling network. In partnership with the City, Harvard University funded and constructed a new north-south bike route along this corridor that connects Harvard Square to the Allston Campus via the Weeks Footbridge. These one-way streets now have a protected contraflow bike lane to allow for northbound access for bicycle users. Other improvements include wider sidewalks, raised crosswalks, and a two-way cycle track connection to the Weeks Footbridge.
- Allston Connectivity New bicycle facilities including secured and covered bike parking and a new Bluebikes station were added in 2021 to strengthen cycling between Harvard's Cambridge and Allston campuses.

Bicycle Programs

The CommuterChoice Program offers a range of programs to promote cycling on campus:

- Bicycle Benefit Enhancements Bluebikes memberships have been added as an eligible expense for reimbursement. Student workers who are members of the Harvard Graduate Student Union became eligible for the bicycle benefit for first time - 366 participants were reimbursed \$45,400 in 2020.
- Events special events such as workshops on visibility and safety; bike maintenance and winter cycling; and community gatherings during Bike Week that celebrate cyclists and cycling.
- Safety and Repair Classes employee reimbursement of expenses associated with taking bicycle safety or repair classes at local bike shops.
- Cycling Gear discounts on cycling helmets and bike light sets through the Campus Service Center.



Rose Lincoln/ Harvard University

Bluebikes

Harvard continues to collaborate closely with the cities of Cambridge and Boston to support the regional bike-sharing program, Bluebikes. The University currently supports seven Cambridge stations. Harvard offers its affiliates a 30% discount on annual membership. In 2021, Harvard had over 1,500 Bluebikes members who have taken over 100,000 trips and traveled an estimated 436,000 miles this year!

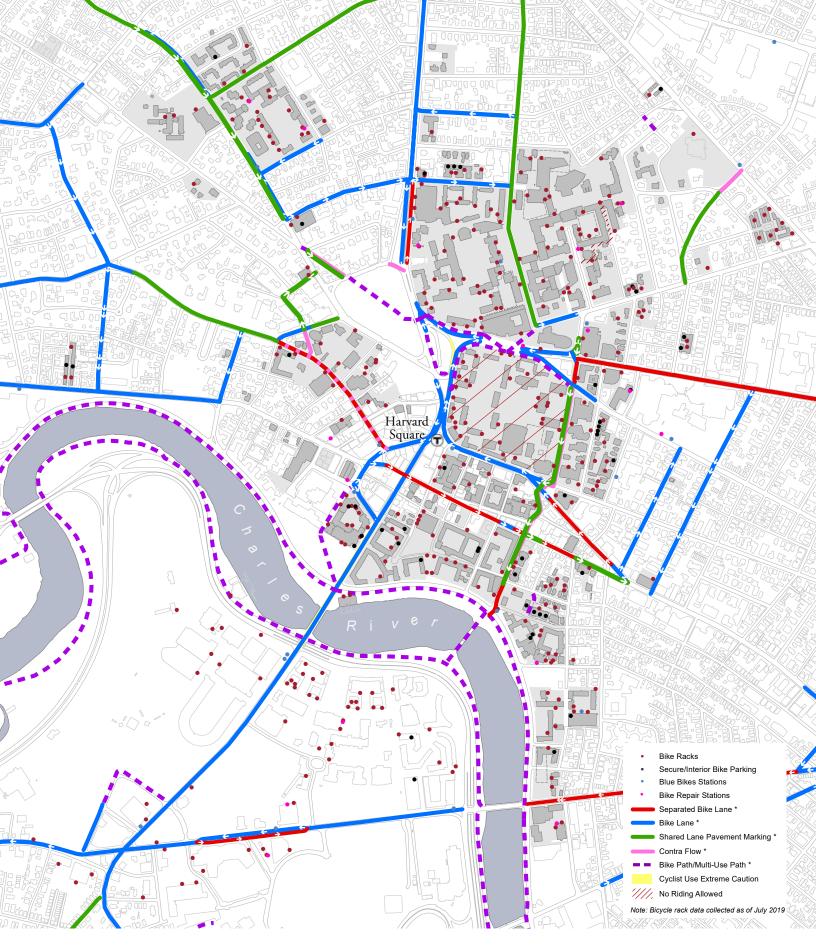


Planning for Cycling Networks

Harvard is committed to improving its existing campus bicycle network and to identifying opportunities to work with local and state governments to strengthen regional networks. These efforts include:

- Campus networks Examining Harvard's existing bicycle network on the central campus and identifying areas for potential improvements. Current efforts include planning for additional bicycle parking facilities on Harvard's north campus in Cambridge.
- Municipal efforts Harvard provided financial and technical support to the City of Cambridge in establishing a new bicycle corridor connecting Quincy Street, Bow Street, and DeWolfe Street. The new corridor, completed in November 2020, provides a safer cycling route between the Cambridge and Allston campus.
- State projects Working with MassDOT to plan for new bike facilities as part
 of the Allston Interchange project and advocating for inclusion of new bike
 lanes as part of bridge renovation and other state projects.





HARVARD CAMPUS BICYCLE FACILITIES



arvard continues to be a leader in advancing campus sustainability, seeking to transform the University into a healthy, thriving, sustainable community that contributes positive social, economic, and environmental benefits both locally and globally. The University's vision is grounded in a shared responsibility to build and operate a campus that contributes to the well-being of our community, as a model to pilot and scale solutions that contribute to sustainable development.

A FOSSIL FUEL-FREE FUTURE

In 2016, Harvard achieved its first-generation climate goal to reduce absolute greenhouse gas emissions by 30%, even as square footage increased 12% (3 million square feet) since 2006. This equated to an overall 40% reduction in our existing buildings without factoring in growth. Of the 30% net reduction, 6% was met through the purchase of offsite renewable energy purchases.

Harvard was one of the first organizations, in February 2018, to set a second-generation, sciencebased climate goal to be fossil fuel-free by 2050. To achieve this 2050 goal, the University needs to transition its district energy systems to be free from using any fossil fuels, all purchased electricity must come from renewable sources, and Harvard's vehicle fleet must be free of fossil fuels.

At the same time, the University established a short-term goal, as a bridging strategy, to be fossil fuelneutral by 2026, a unique approach where Harvard will address both greenhouse gas emissions and health impacts from air pollution caused by fossil fuels, with a focus on investing in projects that benefit vulnerable populations.

In 2020, the Harvard Presidential Committee on Sustainability (PCS) convened a subcommittee of faculty, researchers, students, and the Office for Sustainability that defined fossil fuel neutrality, determined how to track the University's air pollution and greenhouse gas emissions, and recommended the University invest in projects that demonstrate how to credibly reduce emissions while also benefiting human health, social equity, and the planet, such as large-scale solar or wind renewable energy. The resulting report is available on the Harvard Office for Sustainability website as the University seeks to share its knowledge to help other scale research-backed solutions.

While working toward these new goals, the University continues to track greenhouse gas emissions against the original 2006 baseline and maintain the 30% net reduction achieved in its first-generation goal. Harvard's emissions inventory was one of the first in higher education to be third-party verified by The Climate Registry (TCR).

These science-based climate action goals – along with Harvard's University-wide Sustainability Plan released in 2015 - provide the framework for collective action. These commitments provide a unique opportunity to use the campus to engage faculty, students, staff, and other community members in addressing the difficult and unanswered questions and pressing challenges posed by climate change and sustainable development. This work seeks to serve as a model for others to learn from, including our local partners, as we continue to work together for a brighter future.

HARVARD'S CAMPUS AS A LIVING LAB

Translating Research into Practice

Harvard is using its campus as a Living Lab to serve as a model for how organizations can help accelerate the transition to a healthier, fossil fuel-free future. Faculty and students are collaborating with staff to translate research into practice by piloting and proving exciting new solutions that can be scaled up on the local, regional, and global levels.

Harvard's Healthier Building Academy (HHBA)

Harvard is partnering with its researchers, businesses, manufacturers, and non-profit organizations to reduce exposure to harmful chemicals found in everyday products by making it easier for people to identify and purchase healthier building products. Since 2016, HHBA, a partnership between the Office for Sustainability and faculty from the Harvard T.H. Chan School of Public Health, Harvard Medical School, and the John A. Paulson School of Engineering and Applied Sciences, is using the latest available science to optimize decision-making for long-term health in the built environment. The Academy follows an approach of requiring product ingredient transparency, identifying and addressing

specific chemical classes of concern, and working toward health optimization in the built environment. The upstream impacts of these chemicals of concern can be significant and often disproportionately impact vulnerable populations. The HHBA seeks to foster pilot projects on-campus to demonstrate scalable solutions with the goal of transforming the global marketplace for healthier spaces, products, supply chains, and communities.

HARVARD'S HEALTHIER BUILDING ACADEMY



Climate Change Solutions Fund (CCSF)

Nine research teams shared \$1 million in the seventh round of grants awarded by CCSF in 2021, an initiative encouraging multidisciplinary research projects that seek creative solutions to climate change. Since 2014, nearly 60 CCSF projects received more than \$7 million. Projects include studying the implications of geographic and administrative boundaries on groundwater extraction in India, to identifying sources of methane in China, to examining natural structures with useful properties at Harvard's Museum of Comparative Zoology.

Campus Sustainability Innovation Fund (CSIF)

CSIF is a donor-funded \$700,000 fund established in 2016 to encourage teams of students, faculty, and staff to test new technologies and ideas on campus to solve global sustainability challenges. To date, 17 projects, spanning seven of Harvard's schools have been funded, leading to peer-reviewed publications, dissertations, start-up businesses, and new impactful knowledge that will influence decision-making at Harvard and beyond.

Climate Solutions Living Lab Course

Formed in partnership with the Office for Sustainability, this multi-disciplinary course led and designed by HLS faculty brings together students from seven graduate schools. Interdisciplinary teams apply their legal, business, public policy, public health, medical, engineering, and design training to propose innovative renewable energy and other impactful climate mitigation strategies that can help expedite the transition to a fossil fuel-free future economy.

HARVARD NAMES VICE PROVOST FOR CLIMATE AND SUSTAINABILITY

James H. Stock, Harold Hitchings Burbank Professor of Political Economy, known for his expertise on energy and environmental policy, was named the University's inaugural vice provost for climate and sustainability. Stock, who served on President Obama's Council of Economic Advisers, will work closely with faculty, students, staff, and academic leadership from across the University to guide and further develop Harvard's strategies for advancing climate research and its global impact. He will also support the achievement of the University's sustainability goals in partnership with the Office for Sustainability and the Presidential Committee on Sustainability. His office will oversee ongoing collaborations, as well as new opportunities, among existing units at Harvard including the Harvard University Center for the Environment.

CONTINUED SUSTAINABILITY PLAN PROGRESS

Harvard's 2020 Sustainability Report details the progress made toward the goals, standards, and commitments in the University's Sustainability Plan adopted in 2015. Harvard is committed to transparency in its sustainability reporting. The Harvard Office for Sustainability employs interactive graphs with cuttingedge data analytics and visualization software. A public, interactive dashboard aggregates internal data sets to visualize and track Harvard's sustainability progress. The underlying robust datasets are available to students, faculty and staff for use in research projects and benchmarking, to inform decision-making, and to drive continual improvements in how Harvard operates its campus

SUSTAINABLE FACILITIES AND OPERATIONS

Harvard continues to make its buildings and operations more sustainable through the continued University-wide application of its Sustainable Building Standards and Sustainability Guidelines. Significant achievements include the following:

LEED and Living Building Challenge (LBC) Projects

Harvard has 143 LEED-certified spaces across campus, including the first and second LEED v4 commercial interiors projects in Massachusetts. Harvard has had Sustainable Building Standards since

INTERACTIVE SUSTAINABILITY DASHBOARD



2009. The Harvard Science and Engineering Complex (SEC) is the largest building and first research laboratory building to achieve the International Living Future Institute's LBC Petal certification in Materials, Beauty, and Equity. LBC certification defines the highest measure of sustainability possible in the built environment based on the best current science and holds organizations accountable to an exceedingly high standard while recognizing that true sustainability is an ongoing journey. The SEC also achieved LEED Platinum certification.

Solar Power and On-Campus Renewables

Over Over 2.5 MW of on-site solar projects have been installed on Harvard's rooftops, including 0.45 MW installed storage. In addition to on-campus solar installations, Harvard has implemented other types of on-campus renewable energy sources including roof-mounted wind turbines and solar hot water.

Reducing Lab Energy Use

Harvard's Office for Sustainability continues to further advance lab sustainability efforts through its Green Lab Program established in 2008. Together, Harvard Faculty of Arts and Sciences (FAS), the Office for Sustainability, Environmental Health & Safety, and Energy & Facilities created the Lab Inhalation Risk Assessment (LIRA) to right-size laboratory ventilation using equipment that measures and analyzes chemical exposure. Harvard also developed a Lab Ventilation Management Plan (LVMP), which saves energy through optimizing air change rates and keeping researchers safe during experiments.

FAS's Sherman Fairchild Laboratory, a LEED Platinum certified building, is saving approximately 413,000 KWH and 130 MTCDE per year with LIRA.

The Harvard SEC, a LBC Petal and LEED Platinum certified building, operates on an LVMP, which allows the building to adjust the airflow to different spaces based on usage and activities. This saves energy – more than 30% of a typical lab in New England – and creates healthier conditions for researchers.



TRANSFORMING HOW WE WORK AND LIVE

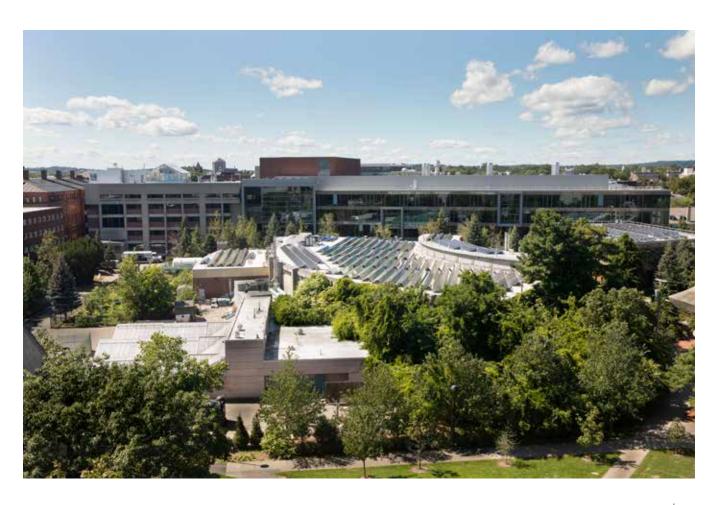
A multi-disciplinary Harvard faculty committee, together with the Office for Sustainability, the Council of Student Sustainability Leaders, and experts in the field, developed and launched Harvard's innovative Sustainable and Healthful Food Standards in April 2019. The standards are designed as a model to measurably increase access to sustainable and healthful food offerings, reduce wasted food, enhance food literacy, and optimize the impacts of food choices on people, animals, and the planet. Major food vendors on campus are making significant strides in all areas and are committed to continuous improvement and innovation.

Harvard is an inaugural signatory of the Cool Food Pledge, a global coalition of organizations committed to reducing food-related greenhouse gas emissions collectively by 25 percent by 2030. The Cool Food Pledge, launched by the World Resources Institute (WRI) at the 2019 United Nations Climate Action Summit, includes diverse organizations such as major cities (e.g., the City of Milan), global companies (e.g., IKEA, Hilton), higher education institutions (e.g., New York University, Brandeis University), and the World Bank. Together, the Cool Food Pledge signatories serve over 940 million meals annually - and the coalition continues to grow.

BUILDING A MORE RESILIENT CAMPUS

Harvard's Resiliency Working Group is developing a process for continual assessment and planning for risks and vulnerabilities associated with future climate changes such as extreme heat, stormwater surge from increased rainfall events, and sea-level rise. This work is being closely coordinated with local, state, and federal agencies.

Climate resiliency planning has been integrated into business continuity planning as well as major capital projects on-campus, most notably in the Harvard SEC, the Harvard Kennedy School expansion, and the House Renewal initiative.



CREATING TRANSFORMATIONAL OPPORTUNITIES

A few examples of Harvard's collaboration with the City of Cambridge and Cambridge-based non-profits include:

- Harvard staff actively participate in many sustainability-related stakeholder groups, meetings, and volunteer efforts through the year, including:
 - Cambridge Compact for a Sustainable Future
 - Cambridge Net Zero Task Force
 - Building Energy Use Disclosure Ordinance stakeholder sessions
 - Cambridge Climate Resiliency Zoning Task Force
 - Net Zero Action Plan, Article 22 Green Building Requirements and other stakeholder meetings
 - Renewable Energy Pathways stakeholder sessions and interviews
 - Charles River Conservancy Clean-Up

On the Harvard campus, students creatively and collaboratively advanced sustainability in service to the community:

Harvard Presidential Committee Advise on Sustainability Goals

Harvard President Larry Bacow created a Presidential Committee on Sustainability (PCS) managed by the Harvard Office for Sustainability in 2019 to advise the University's leadership on Harvard's sustainability vision, goals, strategy, and partnerships. The committee leads the work toward reaching Harvard's sustainability goals, including being fossil fuel-free by 2050 and fossil fuel-neutral by 2026, while leveraging University strengths to catalyze solutions that have meaningful benefits beyond Harvard's campus. PCS subcommittees, which include additional faculty and student members, focus on advancing Harvard's Climate Action Plan, reducing Scope 3 greenhouse gas emissions, and creating Harvard's second-generation Sustainability Plan. The PCS is chaired by Jody Freeman, the Archibald Cox Professor of Law at Harvard Law School; Mike Toffel, the Senator John Heinz Professor of Environmental Management at Harvard Business School; and Katie Lapp, Executive Vice President of Harvard University.

Harvard Electric Buses Put the University on the Road to a Fossil Fuel-Free Future

Harvard introduced four 100% electric buses and electric infrastructure in 2021. The new buses, which represent more than 30% of Harvard's fleet, are expected to lower greenhouse gas emissions by more than 220,000 pounds annually while reducing air and noise pollution. With this transition, Harvard seeks to demonstrate that electric vehicles can address climate change and improve public health in New England while helping the University meet its goals to be fossil fuel-free by 2050 and fossil fuel-neutral by 2026. The University's electric buses were made possible through a Massachusetts Department of Environmental Protection grant and a loan from the Harvard Green Revolving Fund. Harvard also joined Recharge Massachusetts in 2021.

Harvard Continues to Expand Cycling Infrastructure and Services

In a partnership between the City of Cambridge and Harvard University, 2,269 feet of separated bike lanes were added on Quincy and Dewolfe streets, establishing a new north-south bike route that connects Harvard Square and Allston.

Harvard Students Bring Rain Gardens to Campus to Improve Water Quality and Prevent Flooding

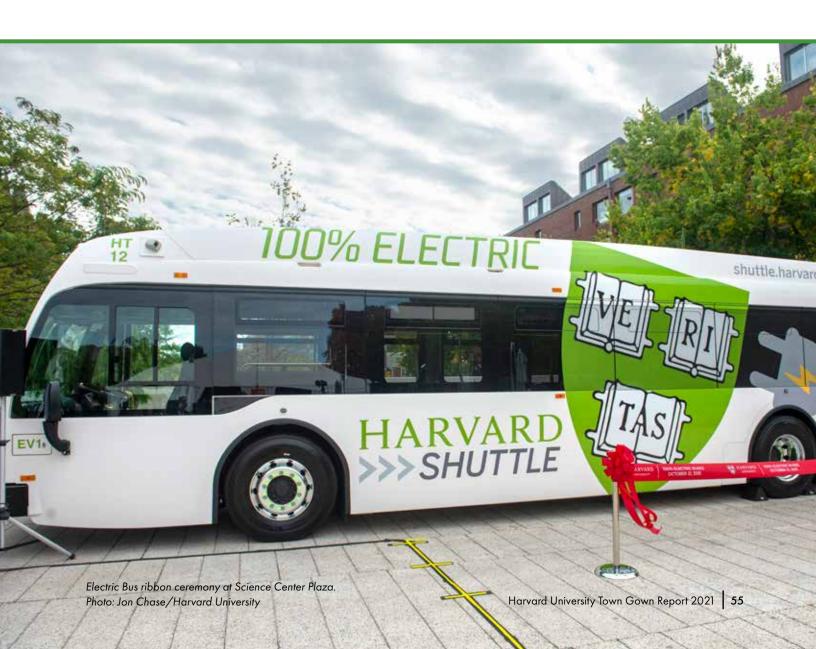
Student-led efforts to implement rain gardens continued in 2021. Rain gardens alleviate stress on storm drains, promote native flora, contribute to water conservation, and absorb harmful chemicals in an inexpensive and low-maintenance way. This year, Harvard's Rain Garden Initiative joined forces with Harvard's Micro-Prairie Project to extend the initiative to more spaces on campus.

Bio-friendly Fertilizer Prevents Harmful Runoff on Harvard's Campus

Harvard piloted a carbon negative biofertilizer, developed in the Nocera Lab, on its campus. The study continued in 2021 and showed a reduction in harmful runoff compared to the standard fertilizer, as well as signs of a positive impact on plant health. This is just one example of Harvard's researchers partnering with operational staff to pilot innovative solutions to global sustainability challenges right here in Cambridge.

Harvard Assesses Healthier Indoor Spaces

Research at Harvard linked chemical flame retardants and highly fluorinated stain-repellants like Perand Polyfluoroalkyl Substances (PFAS) to hormone disruption, neurodevelopment effects, and immune dysfunction. Motivated by the work of Harvard scientists, the HHBA is driving research into practice by renovating buildings and requiring furniture, carpet, and other materials to be free of certain chemical classes included flame retardants, fluorinated chemicals, and antimicrobials. To demonstrate that these decisions led to spaces with a lower overall toxic load, Harvard Postdoctoral Research Fellow Anna Young, PhD, MS, with faculty and staff advisors, compared 22 'healthier' renovated spaces to 22 'control' spaces. Significant reductions (78%) were observed in rooms with full healthier materials interventions.



Harvard Students Attend COP 26

Harvard students attended the 2021 United Nations Climate Change Conference (COP26). COP26 brought world leaders from nearly every country together along with nearly 30,000 delegates representing governments, civil society, and media to accelerate action toward the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

Harvard American Repertory Theater (A.R.T.) Inspires Climate Action

WILD: A Musical Becoming opened in 2021 at the Harvard A.R.T. The new musical is a fable about a single mother struggling to hold on to her family farm and connect with her teenage daughter, whose determination to save the planet endows her and her friends with powers they never knew they had.





CAMPUS TREE RESOURCES

A key element of Harvard's Cambridge campus is the diversity of trees woven into the campus landscape that creates a unique space within the urban context of Cambridge. The type and placement of trees help to define campus spaces through their canopy, spatial structure, and visual characteristics. Harvard has long recognized the importance of its tree resources not only as a character-defining element but for its critical role in ensuring the broader liveability and resiliency of the campus and City of Cambridge.

Harvard is the steward of nearly 23,000 local trees, more than 5,000 of which are on the Cambridge campus. The University maintains an inventory of tree resources, which contains information on the 8,000+ trees which are located on our campuses in Cambridge and Boston. (Trees at the Arnold Arboretum are separately managed.) This comprehensive inventory, completed in 2019, tracks a range of information including tree location, species, general condition, approximate age, height, and diameter at breast height (DBH). Harvard also maintains a tree data layer as part of its GIS system.

The University's tree inventory confirms that Harvard meets the industry best practices for managing tree resources.

| BEST PRACTICES | HARVARD'S TREES | | | | |
|--|---|--|--|--|--|
| 50%+ trees on an urban campus should be in good condition | More than 60% of Harvard's trees in Cambridge are in good health. | | | | |
| Remove trees that pose unacceptable risk or are beyond remediation | In the instance of a tree that poses a high risk, Harvard will remove the tree, and carefully plan for replacement trees that will contribute to the overall landscape design and are well suited to the environment. | | | | |
| Promote diversity of age and climate appropriate species | Harvard's trees have a distribution of ages. A balance between young and mature trees helps to ensure future succession. | | | | |
| | Harvard's campus has 126 species of trees. This diversity helps to minimize the impacts of disease, pests, and the effects of climate change. Of note, many species of oak, Chinese elm, Japanese maple, and gingko are doing very well on campus, while others, such as sugar maple, white ash, flowering dogwoods, and black cherry, are faring less well. | | | | |
| Have a prioritized plan for the care of each tree | Harvard's Landscape Services department works with a team of professional arborists and horticulturists who maintain campus trees, shrubs and other plantings. Their work, and those of Harvard's landscape contractors, includes scheduled pruning and other maintenance, ongoing assessment of tree condition, health, and recommended care. | | | | |
| Have a long-term strategy for tree management | The long-term viability of Harvard's trees relies on careful maintenance of existing trees and planning for the future. In addition to maintaining its existing tree resources, the University seeks to increase the number of trees on its campus through ongoing landscape maintenance and as part of capital projects. The many new trees that have been planted in Harvard Yard in recent years represent succession planting to ensure a mature tree canopy in the Yard well into the future. Harvard evaluates new landscape designs to ensure that they advance the University's sustainability goals by incorporating tree and plant species that are more adaptive to future environmental change, foster biodiversity, assist with stormwater management, and contribute to the reduction of the urban heat island effect. | | | | |



HARVARD CAMPUS TREE LOCATIONS



arvard University is committed to championing and supporting inclusive excellence by helping to foster a campus culture where everyone can thrive

THE OFFICE OF EQUITY, DIVERSITY, INCLUSION & BELONGING (OEDIB)

The Office of Equity, Diversity, Inclusion & Belonging (OEDIB) is the University's central office for diversity, inclusion, and belonging tasked with helping set the strategy and steer Harvard towards inclusive excellence. This effort involves convening stakeholders, serving as a catalyst for strategic efforts, analyzing University-level progress, facilitating University-wide coordination, and building community across campus.

OEDIB is led by Chief Diversity and Inclusion Officer (CDIO) Sherri Charleston, one of the nation's leading experts in diversity and higher education, who began her role as the CDIO at Harvard in the Summer of 2020. Since that time Charleston and her team have been working to identify key areas for long-term strategic planning that would allow OEDIB to have the broadest impact. They developed a five-year strategic model to guide Harvard in its ongoing pursuit of inclusive excellence.

Simultaneously, efforts to create greater equity, diversity, and inclusion are continuing to take place in schools, departments, and offices all across the University. These efforts include re-affirming Harvard's foundational values and developing new and engaging initiatives for fostering equity and diversity.

In October 2021, OEDIB released its first ever community update, which details the University leadership's commitment to EDIB work, and highlights the important work of various campus partners throughout the previous year. Specifically, the community update provides an overview of OEDIB's initiatives in key areas aligned with three strategic priorities—organizational excellence, community engagement, and shared leadership.

HARVARD'S CORE VALUES

All members of the Harvard community are encouraged to embrace five core values that provide a framework for organizing actions to create an inclusive and hospitable University culture.

- Respect the rights, differences, and dignity of others
- 2. Demonstrate honesty and integrity in all dealings
- 3. Pursue excellence conscientiously in one's work
- 4. Be accountable for actions and conduct in the community
- 5. Cultivate bonds and bridges that enable all to grow with and learn from one another



INCLUSIVE EXCELLENCE

Harvard is continually working to create and maintain a community that draws on the widest possible pool of talent to unify excellence and diversity - one that fully embraces individuals from varied backgrounds, cultures, races, identities, life experiences, perspectives, beliefs, and values.

The aspiration to achieve inclusive excellence moves beyond the goal of nondiscrimination and toward an embrace of the value that flows from bringing diversity of experience and thought to campus, and the rich forms of excellence that can emerge from that diversity. The policies and programs presented on the following pages are not exhaustive but are intended to represent the broad spectrum of actions that Harvard is undertaking to create a campus culture where everyone can thrive.



UNIVERSITY-WIDE RESOURCES & INITIATIVES

Over the past year OEDIB has tackled a variety of issues, including focusing on two key areas of concern: anxiety caused by the multiple pandemics (COVID-19, racial injustice, and polarization) and promoting dialogue across differences. In partnership with practitioners from Harvard University Health Services and the Harvard Chaplains, OEDIB hosted Community Spaces to support members of our community who were experiencing heightened anxiety in response to the issues of the time, including the ongoing pandemic, racial injustice, and a contested election.



- It also hosted a Community Dialogues series in partnership with the Office of the President and several schools, which featured a conversation with former Massachusetts Gov. Deval Patrick, and an event with Ted Olson and David Boies, the attorneys who argued Bush v. Gore. These events were designed to bring people into dialogue across difference.
- OEDIB also co-hosted a variety of events over the past year which included Harvard's first weeklong celebration of Juneteenth, the second annual Black, Indigenous, and people of color virtual welcome event, and a celebration of the 31st anniversary of the Americans with Disabilities Act.
- Harvard also operates many specific issue-based offices to assist faculty, staff, and students. Offices such as the Office for Dispute Resolution (ODR), Office of Sexual Assault Prevention and Response (OSAPR), University Disability Resources (UDR), and the Title IX Office are able to answer questions and help faculty, staff, and students address their particular concerns.
- Harvard's Committee to Articulate Principles on Renaming recently released its final report containing recommendations on general principles for determining when the names of historical figures should or should not continue to be associated with structures, spaces, and other namesakes at Harvard.



Harvard Human Resources has developed an inclusive hiring initiative to disseminate guidelines and trainings on compliant and inclusive hiring practices that align with the University's commitment to diversity and inclusive excellence. These resources seek to support efforts to reaffirm the university's commitment to inclusive hiring and to building an increasingly diverse workforce.

SCHOOL-BASED PROGRAMS AND INITIATIVES

Schools and units across Harvard also have dedicated offices and teams that advance the University's goals for diversity, inclusion, and belonging, and which offer a wide range of programs and initiatives. More information about these specific initiatives can be found at https://edib.harvard.edu/ schools-units





ambridge is the historic heart of Harvard University, and we are proud to be part of this community, and to contribute in ways that make Cambridge a stronger, more vital and vibrant city. To this end, Harvard has developed extensive and ongoing community partnerships that advance educational opportunities, support economic development, and address a range of community needs in Cambridge.

SUPPORTING CAMBRIDGE PUBLIC SCHOOLS

Harvard is committed to initiatives and partnerships designed to ensure that all Cambridge Public Schools (CPS) students have opportunities to achieve academic success. Harvard educational programs are available in every CPS school, including elementary schools, upper schools, and the Cambridge Rindge and Latin School (CRLS). University programming ranges from curriculum-based programs, to summer school, to enrichment programs for all grade levels and interests. In addition, Harvard works to create opportunities for CPS educators to access professional development, academic coursework, and workshops.

HARVARD'S EDUCATIONAL PROGRAMS ACROSS CPS

Due to many of the public health restrictions necessitated by the COVID-19 pandemic, Harvard began to reimagine the delivery of mission-driven programs over the course of 2021. Some programs were moved online, while others were postponed. The following are examples of some of these programs, as well as programs and initiatives that reflect a more traditional, in-person year.

PROGRAMMING FOR ELEMENTARY SCHOOL STUDENTS & FAMILIES

Mind Matters: Families Make a Difference

Developed by Harvard University, Mind Matters: Families Make a Difference is a 20-hour, hands-on learning series which gives Cambridge parents practical skills and understanding related to early childhood development. With a particular focus on children aged 3 to 9, the program provides resources to support children emotionally, socially, and academically. This past year, Harvard's Public School Partnerships team developed Families and Children as a way to introduce Mind Matters material in one-hour online sessions, where family members and children team up to explore new skills in a fun and engaging virtual learning environment.

PROGRAMMING FOR MIDDLE SCHOOL STUDENTS

Project Teach: Harvard's College and Career Awareness Program

Project Teach is one of the cornerstones of the CPS college awareness curriculum that support students in developing a "college-going identity." The program focuses on communicating college and career goals, sharing resources, developing partnerships between students and colleges, and engaging families. It is based on the research of Dr. Mandy Savitz-Romer from the Harvard Graduate School of Education. Project Teach is offered to all Cambridge public school students, grade 6–8, as research has indicated that these are the crucial years where students should start considering attending college. During the 2020-2021 academic year, 213 seventh grade students from the Amigos School, Cambridge Street Upper School, and Vassal Lane Upper School took part in the virtual program.

A summary of Project Teach programming by grade includes:

6th Grade – students attend Harvard Athletics Education Day where they participate in conversations with student athletes about playing sports and being a student.

7th Grade – students are invited to participate in Harvard programming for a day, tailored to their academic interests. Additionally, the Project Teach website provides teachers access to pre- and post-visit activities to use in the classroom.

8th Grade – programming includes helping students in their transition to high school. Harvard College students visit local schools and discuss identity, self-advocacy, study skills, and strategies for next steps on their pathway to success.



CPS 8th Grade Science and Engineering Showcase

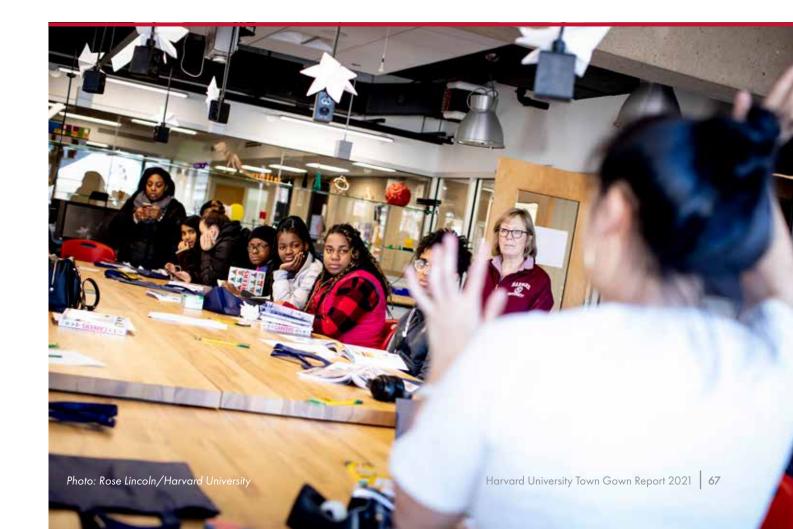
In a program co-developed by the CPS Science Department and Harvard John A. Paulson School of Engineering and Applied Sciences, all CPS 8th grade students develop a science project during a semester long class which culminates in a <u>spring showcase hosted on Harvard's campus</u>.

EcoMUVE

Utilized as part of CPS 6th grade science studies, EcoMUVE is a curriculum that was developed at the Harvard Graduate School of Education that uses immersive virtual setting to teach middle school students about ecosystems and causal patterns, allowing them to learn science by exploring and solving problems in realistic environments.

Foragers to Farmers

<u>Foragers to Farmers</u> is a program that teaches students about the rise of agriculture. Classroom teachers introduce the impact climate change had on food resources. Students then examine artifacts from a mock dig to determine whether foragers or farmers were in residence. Education materials are provided by Harvard's Peabody Museum of Archaeology & Ethnology. The project culminates with a field trip to the Museum. *All CPS 6th graders take part in the program.*



PROGRAMMING FOR HIGH SCHOOL STUDENTS

Crimson Summer Academy at Harvard University

The Crimson Summer Academy (CSA), which started in 2004, is an innovative program for academically talented but economically challenged high school students. Over the course of three consecutive summers, students engage in a stimulating mix of classes, projects, and cultural activities on Harvard's campus as they prepare for success in college and beyond. Each student is given a laptop, a stipend, and a small scholarship upon completion. They also receive assistance in identifying and applying to college. Ninety-four percent of CSA graduates go on to complete college in four years.

Reimagining Identity, Self, and Excellence (RISE) Programming

The RISE program, a component of Project Teach for high schoolers, works with *CRLS students* to discuss what life after high school might mean for them. They discuss racial identity, securing financial aid, and how to handle adversity. Programming took the forms of workshops, events, academic tutoring, and paid internships, all held in the virtual space. In 2021, the online program was attended by *13 students from Cambridge*

Summer Youth Employment Program

The Summer Youth Employment Program (SYEP) provides valuable work experiences to local youth from Cambridge and Boston. SYEP offers a unique six-week experience which assists local youth in developing positive work habits, gaining professional experience, and increasing their motivation to further their education and pursue career options. This year, 26 students participated in the program – 13 from Cambridge. Harvard is one of the largest employer of students in Cambridge.

CRLS Marine Science Internship

The Marine Science Internship program at Harvard provides a hands-on lab experience for CRLS students, who work alongside Harvard graduate students and researchers on projects with real-

world applications. The program was created by CRLS marine biology teacher Paul McGuinness who forged partnerships with Harvard faculty including Peter Girguis, the John L. Loeb Associate Professor of the Natural Sciences in the Harvard Department of Organismic and Evolutionary Biology. One of the goals of the program is to expose more women and minorities to science and biology areas of study and careers.

Harvard Life Sciences Outreach Program

In partnership with Harvard's Life Sciences
Outreach Program, nearly 500 CRLS students visit
Harvard teaching labs each year. CRLS biology
teachers utilize Harvard laboratories, equipment,
and expertise to deepen students' scientific literacy
in an environment that fosters scientific curiosity.
In addition to Harvard, the program is supported by
the Amgen Biotech Experience (ABE) Program.

Life Science Lab Apprenticeship Program

This program introduces students to laboratory work and possible career opportunities associated with biotechnology and research science. Students attend weekly, two-hour, hands-on sessions at the Harvard Ed Portal, where they deepen their knowledge of biology and lab techniques. After the 12-week program, students are placed in labs for a six-week paid summer internship.

Harvard Smithsonian Center for Astrophysics (CfA)

CfA partners with CPS in developing programs for a variety of grade levels. Programs include: ThinkSpace – Thinking Spatially about the Universe – a program which blends the use of hands-on and computer-based tools in the classroom. Additionally, the Harvard-MIT Science Research Mentoring Program (SRMP) provides an opportunity for high-school students to work on a year-long independent research project in astrophysics under the guidance of a Harvard or MIT scientist. Students learn what it is actually like to conduct real, cutting-edge research and work closely with scientists from diverse backgrounds. Their work culminates in a poster presentation symposium in May. This year, SRMP provided 13

CRLS students with the opportunity to learn from mentors and the presentation garnered close to 100 attendees, including Mayor Sumbul Siddiqui.

Cambridge Housing Authority Goes to Harvard

The CHA Work Force initiative serves teens ages 13-18 who live in Cambridge public housing and are enrolled in school, providing support for creating and exploring individual paths to educational and economic success. In a typical year, Harvard welcomes CHA teens to campus for a day of hands-on, experiential learning/exploration of possible educational and career paths after they graduate from high school.

Project Success for High School Students

Project Success is a paid internship program for junior and senior high school students, particularly for those that are underrepresented in medical fields. The program allows students to work at Harvard Medical School and its affiliated institutions and provides mentoring, seminars, workshops, and career guidance counseling. Students can return to the program for multiple years - high school through college.

Design Discovery: Young Adult

Design Discovery: Young Adult is an intensive fourweek summer architecture and design program that seeks to immerse local high school students in the world of design. Developed by Harvard Graduate School of Design students, the program introduces teenagers to architectural design and alternative perspectives of landscape design; urban planning; and graphic, industrial, and fine arts design. The program strives to foster a passion for design in local communities and to develop the skills to put students on track for exploring these ideas at the collegiate level. More than a dozen local students participate in the program every year.

Fellowships & Professional **Development for Educators**

CPS educators are able to access a wide-range of professional development opportunities, academic coursework, and workshops across the University.

James Bryant Conant Fellowship

The James Bryant Conant Fellowship fund was established to support the professional growth of outstanding teachers and administrators from Cambridge and Boston Public Schools who are accepted to Harvard Graduate School of Education (HGSE) degree programs. Fellows are required to return to or remain in their school systems for a minimum of one year after completing the HGSE program.

Scholarships for Cambridge Students and **Teachers**

The Harvard Division of Continuing Education provides secondary school students from Cambridge, as well as CPS middle and high school teachers, with scholarships to take coursework at the Harvard Extension School. These credits help teachers further professional development goals and allow students to take college coursework while in high school.

Out-of-School Time Learning Community (OSTLC)

The OSTLC program provides a series of workshops for Cambridge out-of-school time educators that highlight promising practices and tools for engaging students and families. Workshop topics include supporting social, emotional, and intellectual growth, immigration, race and equity, and project management. Recently, Harvard's Public School Partnerships team offered two two-day workshops for local OSTLC educators who work with students in grades K-12. Family Engagement in Education supported educators in gaining a better understanding of the importance of family engagement in student academic success and socio-emotional wellbeing. Boosting the Social and Emotional Health of Youth through Summer Programming was offered to support OSTLC educators' skills and fluency in the emotional development of youth.

Supporting the CPS Superintendent

Harvard provides funding for a doctoral student from the Harvard Graduate School of Education to work in the office of the Cambridge Superintendent to assist with advancing district goals and priorities.

Connecting CPS and Harvard Museums

Harvard University partners with Cambridge Public Schools to deepen students' understanding of the arts through skill-building workshops and classes by offering learning opportunities in arts and culture.

Harvard Museums of Science & Culture

Each year, thousands of CPS students and teachers visit the Harvard Museums of Science & Culture, and all CPS schools have access to free programing. Educators from the museums routinely work with members of the CPS Department of Science on ways to best align museum programs with curriculum standards.

American Repertory Theater (A.R.T.)

The American Repertory Theater at Harvard University catalyzes discourse, interdisciplinary collaboration, and creative exchange among a wide range of academic departments, institutions, students, and faculty members, acting as a conduit between its community of artists and the University. Harvard's Public School Partnerships team collaborates with the A.R.T.

to provide free tickets and events for Cambridge public school students.

Cambridge Students Attending Harvard College

Twenty students from Cambridge, including 14 from CRLS, were accepted to Harvard College for 2020-2021 academic year. Cambridge schools have historically been pipelines to Harvard, as 109 Cambridge residents, 73 of them CRLS graduates, were admitted during the last five years.

COMMUNITY ENGAGEMENT

Harvard works closely with the City of Cambridge and nonprofit partners to deliver programs that connect residents to programming, timely resources, and help respond to regional challenges.

Cambridge Senior Luncheon

Traditionally, Harvard welcomes hundreds of senior citizens to Harvard Yard for the annual Harvard Cambridge Senior Luncheon. Guests enjoy dancing and mingling with friends in Harvard's historic Tercentenary Theatre.

Science and Cooking for Kids

This two-week day camp offered by the John



A. Paulson School of Engineering and Applied Sciences is built on the idea that time in the kitchen and the laboratory is a great opportunity for children to explore their natural curiosity and to learn science, math, and healthy habits. The kids get the opportunity to work hands-on with renowned chefs, scientists, and experts in fitness and nutrition.

Year Up, Harvard University

Year Up is a one-year intensive training program that provides low-income young adults, ages 18 to 24, with a combination of hands-on skills development, course work eligible for college credit, and corporate internships. Since Harvard first partnered with Year Up more than 15 years ago, the University has hosted more than 265 interns and hired approximately 140 of them into permanent or temporary positions.

Clinical and Pro Bono Legal Programs

Harvard Law School (HLS) serves the community through 23 in-house clinics and 11 student-run volunteer groups (known as student practice organizations). HLS students - under the supervision of faculty and experienced attorneys - provide free legal help to residents on issues ranging from housing, family law, domestic violence, taxes, consumer protection, government benefits, criminal defense, special education, immigration, and bankruptcy.

Harvard Dental Center Teaching Practice

The Harvard School of Dental Medicine (HSDM) provides a public facing dental practice where care is provided by pre-doctoral students under the supervision of HSDM faculty. Services in the teaching practice are open to the public and subsidized by HSDM, costing patients approximately 30-40 percent less than fees typical of a private dental practice.

Gutman Library Book Talks

Free and open to the public, including Cambridge residents, the Gutman Library Book Talks series connects the scholarship of Harvard Graduate School of Education to the community and provides a venue for critical discussion and engagement with current issues in the field of education.

Some of the recent topics include:

- Broader, Bolder, Better: How Schools and Communities Help Students Overcome the Disadvantages of Poverty
- Unconscious Bias in Schools: A Developmental Approach to Exploring Race and Racism
- Schooling for Critical Consciousness: Engaging Black and Latinx Youth in Analyzing, Navigating, and Challenging Racial Injustice
- Fulfilling the Promise: Reimagining School Counseling to Advance Student Success
- Where Teachers Thrive: Organizing Schools for Success
- Natural Allies: Hope and Possibility in Teacher-Family Partnerships

SUPPORT FOR CAMBRIDGE-BASED NONPROFIT ORGANIZATIONS

Partnering with Food for Free

Harvard partners with Cambridge nonprofit Food for Free to address chronic hunger in the Greater Boston area. Through the Harvard Food Donation Program and the Harvard Family Meals Program, any untouched, surplus food is donated to Food for Free, which distributes it to local families. During a typical year, Harvard donates approximately 2,500 pounds of nutritious food or 2,000 meals to families in need each week. In addition, the University support the mission of Food for Free through direct financial contributions.

Direct Contributions to Cambridgebased Nonprofit Organizations

Harvard supports the work of a number of nonprofit organizations that serve residents in the City of Cambridge. Most recently, the University's support included nonprofits focused on economic and community development, youth programming, health and wellbeing, as well as services for families.

Cambridge-based nonprofits:

- Cambridge Camping Association
- Cambridge Community Center
- Cambridge Family and Children's Service
- Cambridge Jazz Festival Inc
- Cambridge School Volunteers
- Cambridge Young Women's Christian Association (Cambridge YWCA)

Cambridge-based nonprofits (cont'd):

- Cambridge Youth Baseball
- Cambridgeside Partners
- Charles River Conservancy
- · Citizens of The World
- First Parish Church in Cambridge
- Food for Free Committee
- Friends of Cambridge Rindge and Latin School
- Just A Start Corporation
- On the Rise Inc
- Riverside Boat Club
- Saints Cosmas And Damian Society

Community Service Fellowship

Fellows of the Community Service Fellowship program are students from the Harvard Graduate School of Design placed with local nonprofits and government agencies. While working for these organizations, students help to advance projects that address public needs and community concerns. This funding allows fellows to provide design services to the community — accounting for work that organizations would otherwise need to fund through their own budgets. Some of the recent work includes students placed at three Cambridge-based nonprofits: humanID, LivableStreets Alliance, and Processing Foundation.

Harvard Joint Center for Housing Studies Summer Fellowship Program

The Harvard Joint Center for Housing Studies supports community service fellowships for Harvard students obtaining internships or other volunteer opportunities with nonprofit organizations focused on housing, the built environment, and/or community development. Some of the recent fellowship funding supported students who worked at two Cambridge-based nonprofits: Lincoln Institute of Land Policy and Powerful Pathways.

SUPPORTING THE CAMBRIDGE PUBLIC HEALTH DEPARTMENT

Leaders in Health Community Training Program

The eight-week Leaders in Health program of the Harvard T.H. Chan School of Public Health provides

training in public health research and science to strengthen existing community health initiatives. The program is designed to build the concrete skills of community activists, local health department employees, and practitioners from community-based organizations through discussion-based activities. Participants attend interactive training sessions, complete assignments, and receive support to create an action plan to enhance their work. To date, the program has trained more than 50 community practitioners.

Rose Service Learning Fellowship

The Rose Service Learning Fellowship supports students and postdoctoral fellows at the Harvard T.H. Chan School of Public Health in service learning projects. Students use academic knowledge and skills to address community needs, working in partnership with local organizations. Recently, the Harvard T.H. Chan School of Public Health funded two students who worked at the Cambridge Public Health Department.

Student Field Practice

As part of the Master of Public Health program, Harvard T.H. Chan School of Public Health students are required to complete a field practice experience, designed jointly by the students and their preceptors at a host organization, to advance the work of the organization as well as provide a real-world learning experience for students. Some of the students' work includes support for the Cambridge Public Health Department.

COVID-19 Collaboration

Through its mission of teaching and learning, Harvard is committed to supporting local communities managing the COVID-19 pandemic. Whether it be through cutting-edge research, support for healthcare workers, resources for neighbors, local business and nonprofits, or the sharing of best practices, Harvard is grateful to work alongside the City of Cambridge to respond to critical needs in the face of the ongoing pandemic.

ECONOMIC IMPACT

As an anchor institution, Harvard University is a robust contributor to Cambridge's economy—attracting tourism, providing jobs, generating local spending, and supporting Cambridge-based businesses and organizations.

Research Funding and Local Spending (FY20)

- Approximately \$900M in research funding attracted to Massachusetts by Harvard
- Approximately \$440M of research funding received was spent on purchases and salaries in Massachusetts
- **Approximately \$340M** supported researchers and staff
- Approximately \$96M used to purchase goods and services from businesses and organizations in Massachusetts
- Approximately \$18M supported Cambridge-based businesses and organizations

Local Impact (FY20)

- \$1.56B was spent on construction and to purchase supplies and services in Massachusetts
- \$138M was spent on construction and to purchase supplies and services in Cambridge
- Harvard University's stable presence has been cited by bond rating agencies as contributing to the City of Cambridge's AAA bond rating.
- Harvard has been the largest employer in the City of Cambridge for the past 21 years.
- Harvard is the 6th highest taxpayer in the City of Cambridge.
- Harvard remains one of the top tourist destinations in Massachusetts, stimulating the local economy and cultural life. As an anchor of Harvard Square, the University's historic campus helps to draw more than 8 million visitors each year, second only to Faneuil Hall in Massachusetts. Harvard's museums attract more than 650,000 local, national, and international visitors.

PAYMENTS TO CITY OF CAMBRIDGE 1

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|--------------|--------------|--------------|--------------|--------------|
| Total Payments | \$18,677,526 | \$16,899,350 | \$23,338,790 | \$19,964,349 | \$17,118,461 |
| Real Estate Taxes Paid | \$5,834,926 | \$6,010,184 | \$6,179,991 | \$6,497,715 | \$6,951,425 |
| Payment in Lieu of Taxes (PILOT) | \$3,955,056 | \$4,131,391 | \$4,274,476 | \$4,345,647 | \$4,392,207 |
| Water & Sewer Fees Paid | \$6,157,131 | \$5,620,934 | \$6,595,420 | \$6,774,658 | \$4,294,422 |
| Other Fees & Permits Paid ² | \$2,730,413 | \$1,136,841 | \$6,288,904 | \$2,346,329 | \$1,480,407 |

¹ Payments made FY2021 (July 1, 2020 to June 30, 2021).

² Amounts reported include some but not all building permit and other construction related fees paid by Harvard to the City of Cambridge.

ACCESSING HARVARD RESOURCES

As one of the world's pre-eminent institutions of higher-education and research, Harvard offers a vast constellation of resources that are available to the larger community. To help navigate the myriad opportunities for accessing the University, the following websites provide great starting points for exploring all that Harvard University has to offer!

Arts & Culture

Office for the Arts at Harvard
 Upcoming arts events across the University

plus links to the Harvard Box Office and other campus box offices.

www.ofa.fas.harvard.edu/events

Athletics

Harvard Athletics - Ticketed Events
 Cheer on the Harvard Crimson football, basketball, hockey, and lacrosse teams!

 tickets.gocrimson.com

Event Calendars

Harvard University Events

Highlighting upcoming events across the University with links to Events Calendars at Harvard's schools, research centers, and academic departments.

www.harvard.edu/events

Harvard in the Community Events

Upcoming events on Harvard's campus that are open to the public. Use the filters to search by location, event type, interest, and free or paid admission.

www.community.harvard.edu/events

Libraries

Harvard University Library Visitor Access
 There are many opportunities for visitors to experience our collections.

library.harvard.edu/visitor-access

Public Events and Exhibits

Harvard's libraries host numerous public events and exhibits throughout the year.

<u>library.harvard.edu/events</u> <u>library.harvard.edu/collections-exhibits/exhibits</u>

Museums

Harvard Art Museums

The Fogg Museum, Busch-Reisinger Museum, and Arthur M. Sackler Museum

Free to Cambridge residents, the collections and public programs of the Harvard Art Museums are dedicated to advancing the understanding and appreciation of art. www.harvardartmuseums.org

Harvard Museums of Science and Culture
 Peabody Museum of Anthropology & Ethnology,
 Harvard Museum of Natural History, Semitic
 Museum, and Collection of Historical Scientific
 Instruments interdisciplinary exhibitions, events
 and lectures, and educational programs on the
 natural world, science, and human cultures.
 www.hmsc.harvard.edu

Tours

Student Led Walking Tours
 www.harvard.edu/on-campus/visit-harvard/tours

- Harvard Women's History Tour Virtual Tour www.harvard.edu/on-campus/visitharvard/ tours
- Harvard College Admissions Virtual Tour college.harvard.edu/admissions/exploreharvard/virtual-tour













2021 Town Gown Report

for the City of Cambridge



Submitted by:

Harvard University Planning and Design (HUPAD)

In collaboration with:

Harvard Public Affairs & Communications (HPAC)



