

 HARVARD UNIVERSITY

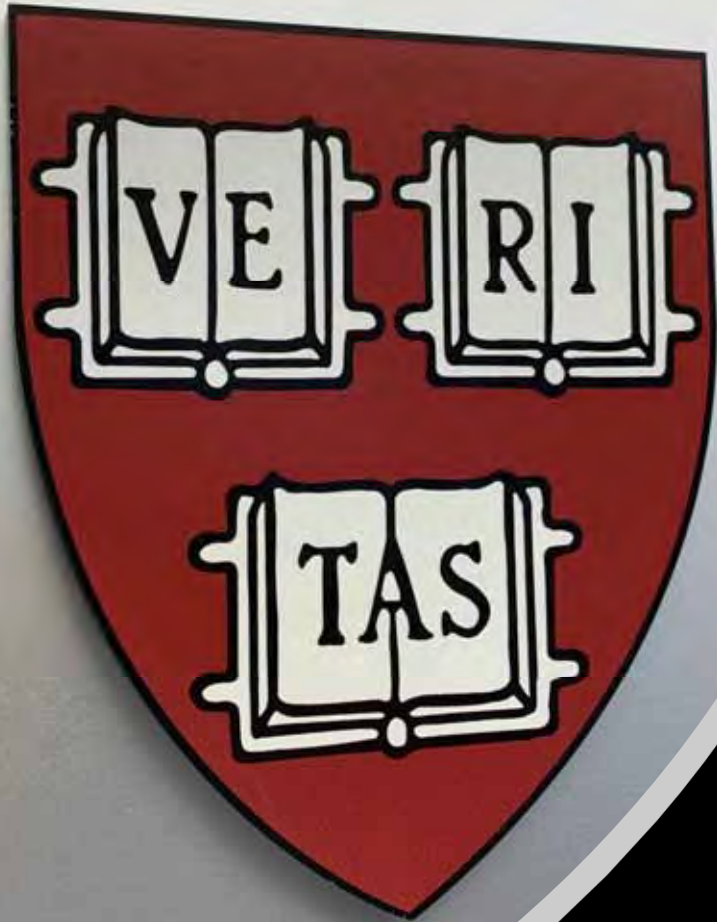
2018

# TOWN GOWN

CITY OF CAMBRIDGE  
PLANNING BOARD PRESENTATION

February 2019





- Excellence in teaching, learning, and research
- Pushing the boundaries of human knowledge
- Seeking to address the world's greatest challenges of the 21<sup>st</sup> century

# Key Programmatic Drivers

- Fostering Inclusion and Belonging
- Advancing Research and Scholarship
- Investing in Science and Engineering
- Supporting the Arts and Humanities
- Housing Harvard's Affiliates
- Enhancing the Campus Experience



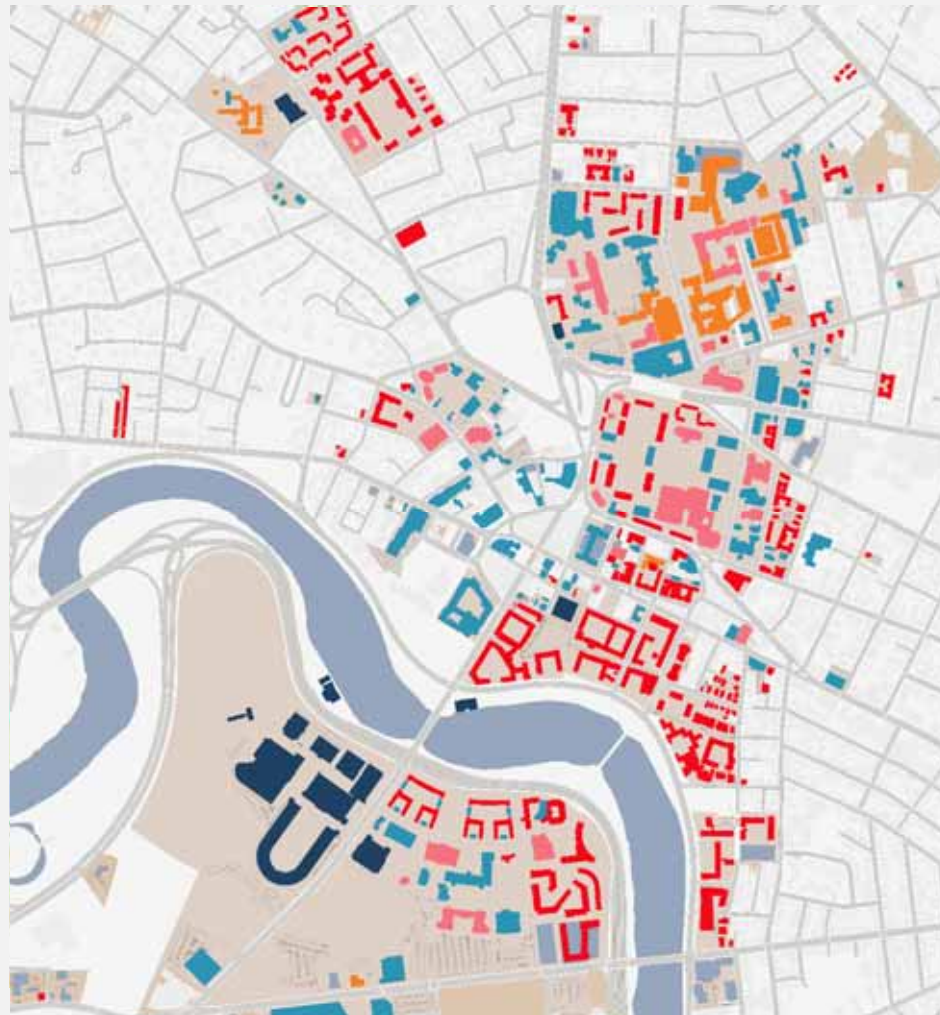
# Harvard's Campus Planning Principles

- Demonstrate a Commitment to **Design Excellence**
- Enhance **Campus Connectivity**
- Maintain and Enhance Campus **Open Space**
- Maximize the Utilization of Existing Facilities and Support Ongoing **Renewal**
- Preserve Harvard's **Historic Character**
- Promote Built Form in the Context of Existing **Campus Character**
- Create a **Sustainable** Campus
- Respect **Community Context**

# Campus Structure

## Schools

Faculty of Arts and Sciences  
Harvard Business School  
Harvard Kennedy School  
Harvard Law School  
Graduate School of Design  
School of Engineering and Applied Sciences  
Harvard Divinity School  
Harvard Art Museums  
Radcliffe Institute for Advanced Studies  
Graduate School of Education  
Harvard School of Public Health



## Uses

- Residential
- Libraries & Museums
- Academic
- Sciences
- Athletic

- Primary Connection
- Secondary Connection

# Open Space

CAMBRIDGE CAMPUS CONTEXT



- Harvard Open Space
- Non-Harvard Open Space
- Harvard Buildings

# Open Space Diversity

CAMBRIDGE CAMPUS CONTEXT



Open space on Harvard's Cambridge campus supports patterns of movement, diverse everyday activities and seasonal programming

# Buildings by Style

CAMBRIDGE CAMPUS CONTEXT

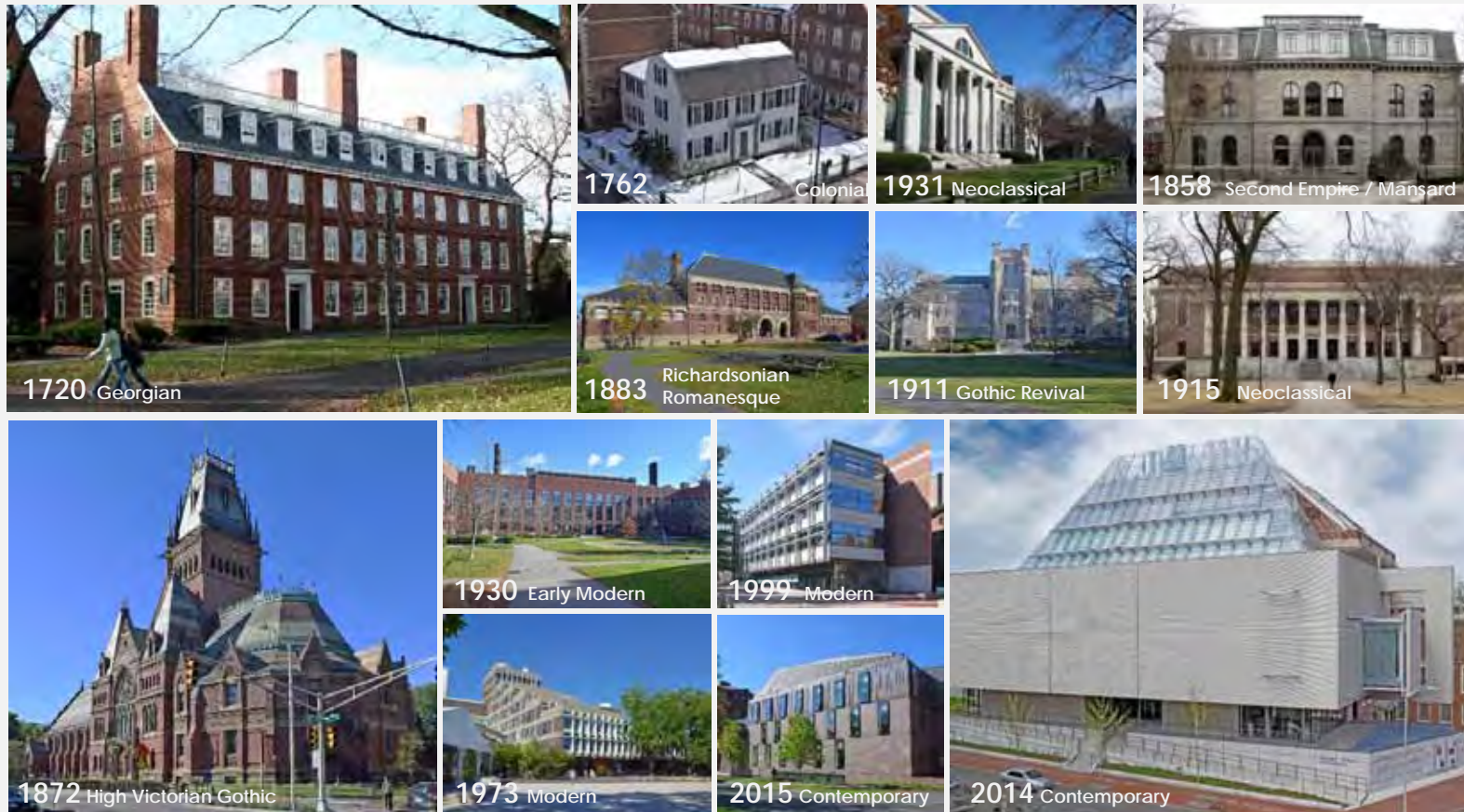


- Colonial and Georgian
- Greek Revival and Neoclassical
- Victorian / Romantic Revival
- Colonial Revival and Georgian Revival
- Modern
- Post Modern and Historicist
- Contemporary
- Vernacular / Utilitarian



# Architectural Diversity

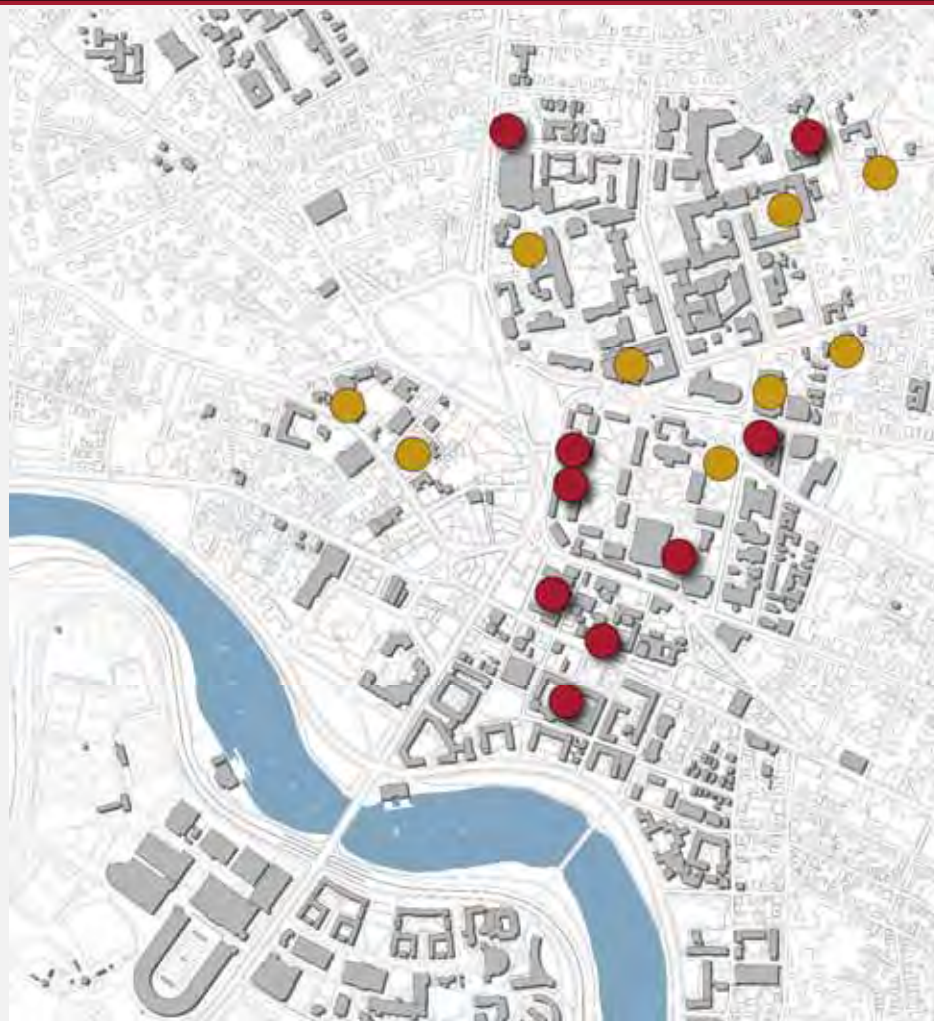
CAMBRIDGE CAMPUS CONTEXT



Harvard's Cambridge campus is architecturally diverse, with each building being a product of a particular time and place.

# Current Projects

- Current Projects
- Current Projects Discussed Tonight







Richard A. and Susan F. Smith Campus Center



Richard A. and Susan F. Smith Campus Center







Richard A. and Susan F. Smith Campus Center





## Richard A. and Susan F. Smith Campus Center



## Houghton Library





Harvard Hall



Sackler Building



Sackler Building



House Renewal









# Allston

CAMBRIDGE CAMPUS CONTEXT



**A** Art Lab



**C** Klarman Hall



**B** Science & Engineering Complex



**D** District Energy Facility

## Translating research into practice for a healthier, sustainable built environment and community

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### HARVARD'S CLIMATE ACTION PLAN:

**FOSSIL FUEL-FREE BY 2050**

**FOSSIL FUEL-NEUTRAL BY 2026**

[green.harvard.edu/climate](https://green.harvard.edu/climate)

## Climate and Health in the Built Environment

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- **130 LEED certified building projects**
- Harvard had the **1st and 4th LEED v4 certified projects** in Massachusetts
- **Harvard Green Building Standards** created in 2009 and updated in 2014 and 2017, to incorporate the latest science to address climate and health
- **Healthier Building Materials Academy launched 2016**—partnership with Harvard Office for Sustainability and faculty from three graduate schools.

## Smith Campus Center Healthier Building Materials Academy: Highlights



- No cost impacts
- No schedule impacts

- **100% of furniture** meets HI/Harvard's furniture standard
  - **3,000 pieces of furniture, 22 manufacturers: for ~75% manufacturers it was 1<sup>st</sup> time they met standard**
- **100% of carpet** without targeted chemical classes
- **100% of paint** achieved LEED v4 healthier requirements
- Remaining Interior products **Red List-free**
- **Transparency: 45 New Health Product Declarations (HPDs)** (only 20 needed for LEED v4 credit)
- **8 Green Walls:** 18 feet high & up to 19 feet wide, **1000's of interior plants**

## Translating research to enhance health in the built environment

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- “Sensors for Health” was a project funded by the Campus Sustainability Innovation Fund
- Conducted real-time monitoring and sampling of indoor environmental quality to identify opportunities to optimize for health
- Scaling research across Harvard and beyond



# House Zero

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HARVARD  
CENTER  
FOR GREEN  
BUILDINGS  
AND CITIES



CREATE A SUSTAINABLE CAMPUS



# Harvard's Commitment to Affordable Housing

1,600

units of affordable housing created and preserved by working in partnership with the City of Cambridge

20/20/2000

PROGRAM

- \$20 million affordable housing revolving low-interest loan program
- utilized in 31 development projects
- \$17.3 million in financing
- leveraging \$206 million in investment
- \$1 million in grants to local community development corporations to study innovative approaches to creating affordable units

139

units of affordable housing preserved in Harvard Square through work with the City of Cambridge and the Cambridge Housing Authority





# Supporting Educational Excellence in Cambridge Public Schools

- Harvard has programs available at every Cambridge public elementary and upper school, as well as at the Cambridge Rindge and Latin School. Harvard works closely with leaders of CPS to address academic goals for the school district.
- Harvard's programs include curriculum based initiatives that enhance the educational experience for all, as well as programs that give students access to Harvard resources such as museums, theaters, laboratories, classrooms, faculty and classes.
- Students in the Cambridge Public School system experience/take part in Harvard programs and initiatives throughout every step of their journey from preschool/kindergarten all the way through high school.





# Supporting Educational Excellence in Cambridge Public Schools

## Elementary School:

- The **Mind Matters: Families Make a Difference** hands-on learning series, developed by Harvard, equips families and caregivers of 3-8 year-olds with practical tools to help build their child's social, emotional and intellectual skills, and gives them an understanding about current research surrounding childhood brain development.
- The **Alewife Stormwater Wetland Field Study** allows CPS 5<sup>th</sup> graders the opportunity to use mobile devices to deepen their understanding of scientific concepts. Harvard Graduate School of Education researchers recently began collaborating with the CPS Maynard Ecology Center to develop virtual science experiences that allow students to explore an engineered wetland designed to address polluted stormwater in Cambridge. Additionally, Harvard provided Apple iPods to CPS in order to allow more students to take part in this interactive study.



# Supporting Educational Excellence in Cambridge Public Schools

## Upper School:

- Harvard Museums of Science & Culture field trips and curriculum alignment and support.
- CPS 6<sup>th</sup> graders attend the Foragers to Farmers school program at the Harvard Semitic Museum and Peabody Museum of Archaeology & Ethnology to learn about the rise of agriculture.
- Every CPS 7<sup>th</sup> grader is invited onto campus to participate in the Harvard developed Project Teach program, which works to show students that college can be an affordable, accessible and attainable opportunity.
- CPS 8<sup>th</sup> graders utilize integrated research-tested curriculum co-developed by the Harvard-Smithsonian Center for Astrophysics and the CPS Science Department to deepen their understanding of the four seasons.
- All CPS 8<sup>th</sup> graders also participate in the annual Science & Engineering Showcase, a program co-developed by the Harvard John A. Paulson School of Engineering and Applied Sciences, and the CPS Science Department.



# Supporting Educational Excellence in Cambridge Public Schools

## Cambridge Rindge and Latin School:

- CRLS students are able to participate in various internships at Harvard. From working with marine biology postdocs, to working on projects under astrophysicists, CRLS students gain valuable, hands-on experiences in labs and departments across Harvard's campus.
- Each year more than 500 CRLS students visit Harvard teaching labs through a partnership with Harvard's Life Sciences Outreach Program. CRLS biology teachers utilize Harvard space, equipment, and expertise to lead students through various wet lab lessons. This program is further supported by the Amgen Biotech Experience Program.
- CRLS students visit the Harvard Art Museums, and Harvard Graduate School of Education (HGSE) student teachers work closely with CRLS teachers and classrooms on gallery lessons that integrate works of art in the museum with high school class curricula.
- Each summer, more than 300 students participate in Cambridge-Harvard Summer Academy, a partnership between CRLS and HGSE. This program, funded by Harvard, offers high school students both remedial and enrichment classes led by teaching teams that include veteran teachers, as well as students from the HGSE's Teacher Education Program.
- The Harvard Crimson Summer Academy has been bringing academically gifted, economically challenged students from Cambridge, Boston and Somerville to Harvard since 2004. Funded entirely by Harvard, this program provides students with academic enrichment that helps them prepare for college. Participants receive free tuition, year-round mentoring from Harvard students, a laptop computer, a stipend, and a \$3,000 scholarship for college upon completion of the program.

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