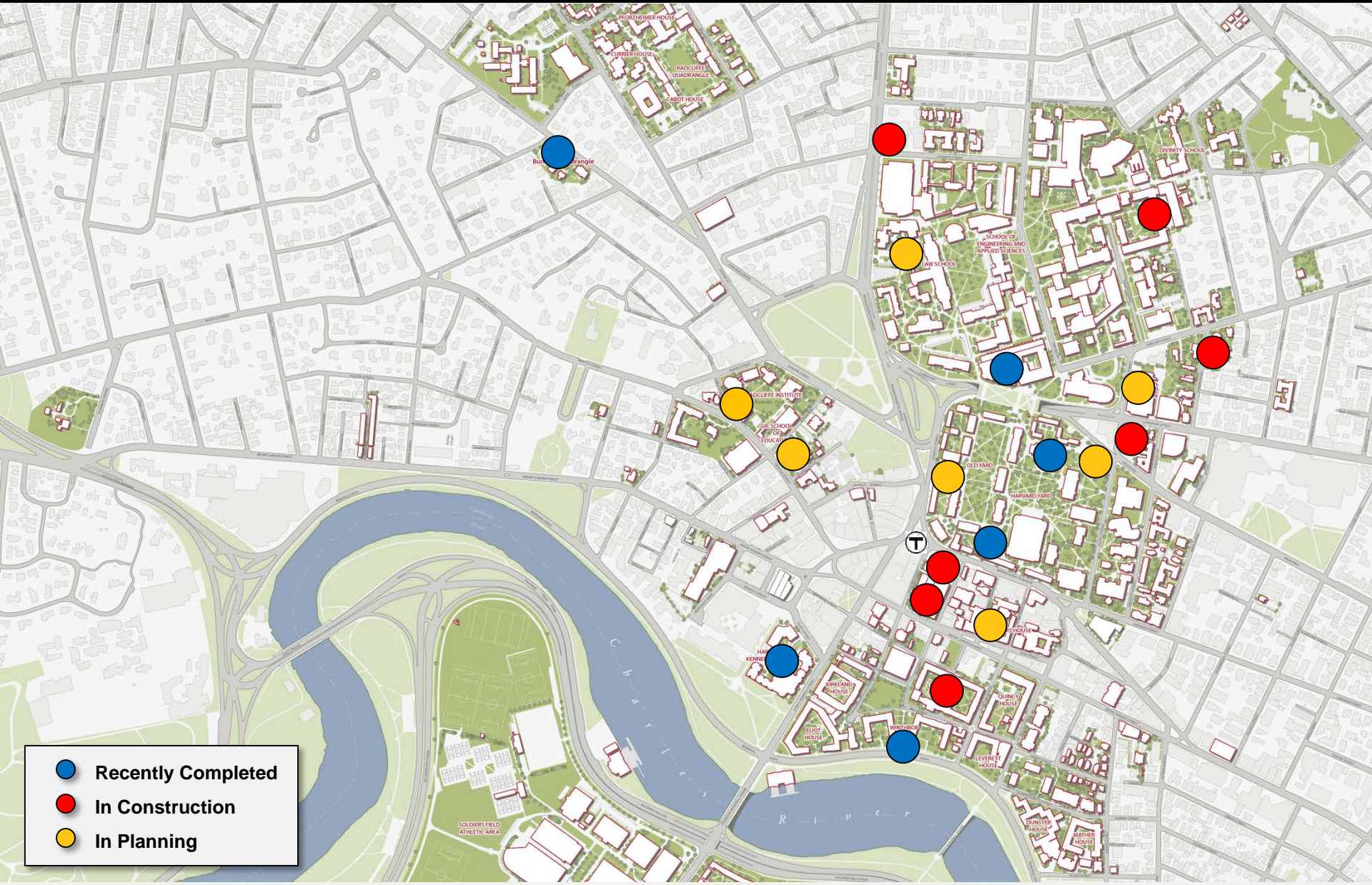


2017 Town Gown Report

City of Cambridge | Planning Board Presentation

February 6, 2018

Current Projects in Cambridge



Faculty of Arts and Sciences



Interior renovation and new accessible entrance | *Kennedy & Violich Architecture*



Building system upgrades, renovation of space, and accessibility improvements | *Payette*



Building system upgrades, renovation of space, and accessibility improvements | Payette



Exterior restoration, HVAC and building systems upgrades | *Baker/Wohl Architects*

Faculty of Arts and Sciences



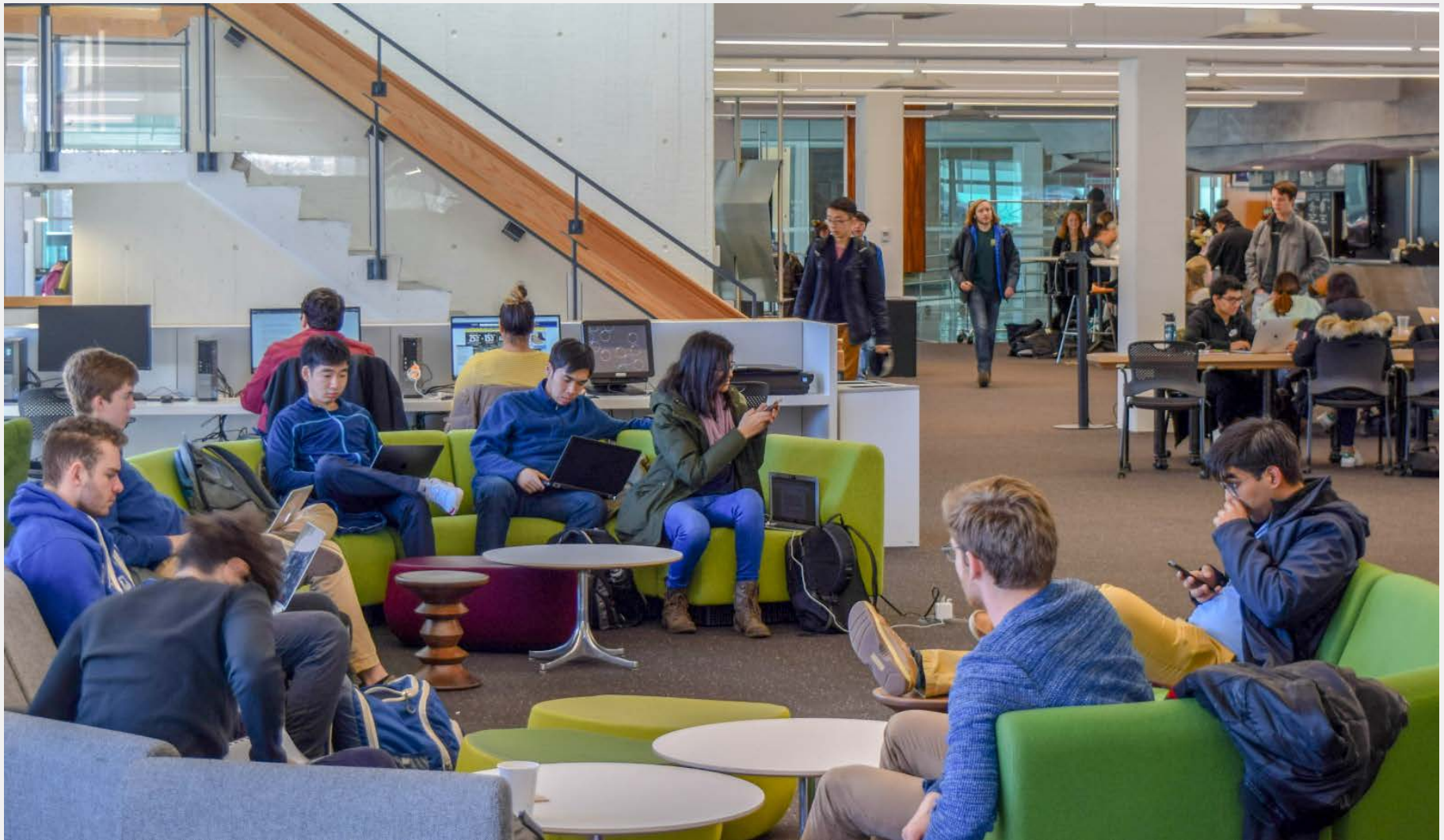
Improve accessibility and life safety systems | *Symmes Maini & McKee Associates*

Faculty of Arts and Sciences



Creation of collaborative learning environment | *Mack Scogin and Merrill Elam*

Faculty of Arts and Sciences



Creation of collaborative learning environment | *Mack Scogin and Merrill Elam*

Faculty of Arts and Sciences



Creation of collaborative learning environment | *Mack Scogin and Merrill Elam*



Renew building systems and accommodate new uses | *designLAB*



Renew building systems and accommodate new uses | *designLAB*

Graduate School of Design



Sustainable retrofit of wood-frame building | *Snøhetta*

Graduate School of Design



Renovation of teaching facilities | *TBD*

Harvard Law School



New space for HLS public service programs · NBBJ

Harvard Law School



Building maintenance and upgrades, create additional offices and meeting space | *Deborah Berke Partners*

Radcliffe Institute for Advanced Study



Improve library facilities and exterior restoration | *Kennedy & Violich Architecture*

Harvard Kennedy School



Construction of new academic space | *Robert A.M. Stern Architects*

Harvard Kennedy School



Construction of new academic space | *Robert A.M. Stern Architects*

Harvard Campus Services



Creation of a campus center | *Hopkins Architects*

Harvard College



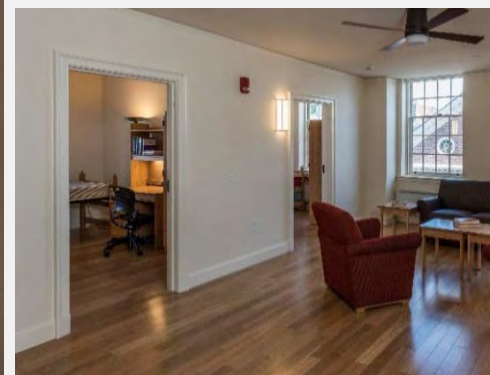
Comprehensive renewal of undergraduate House | *Beyer Blinder Belle*

Harvard College



Comprehensive renewal of undergraduate House | *Beyer Blinder Belle*

Harvard College



Comprehensive renewal of undergraduate House | *Beyer Blinder Belle*

Harvard College

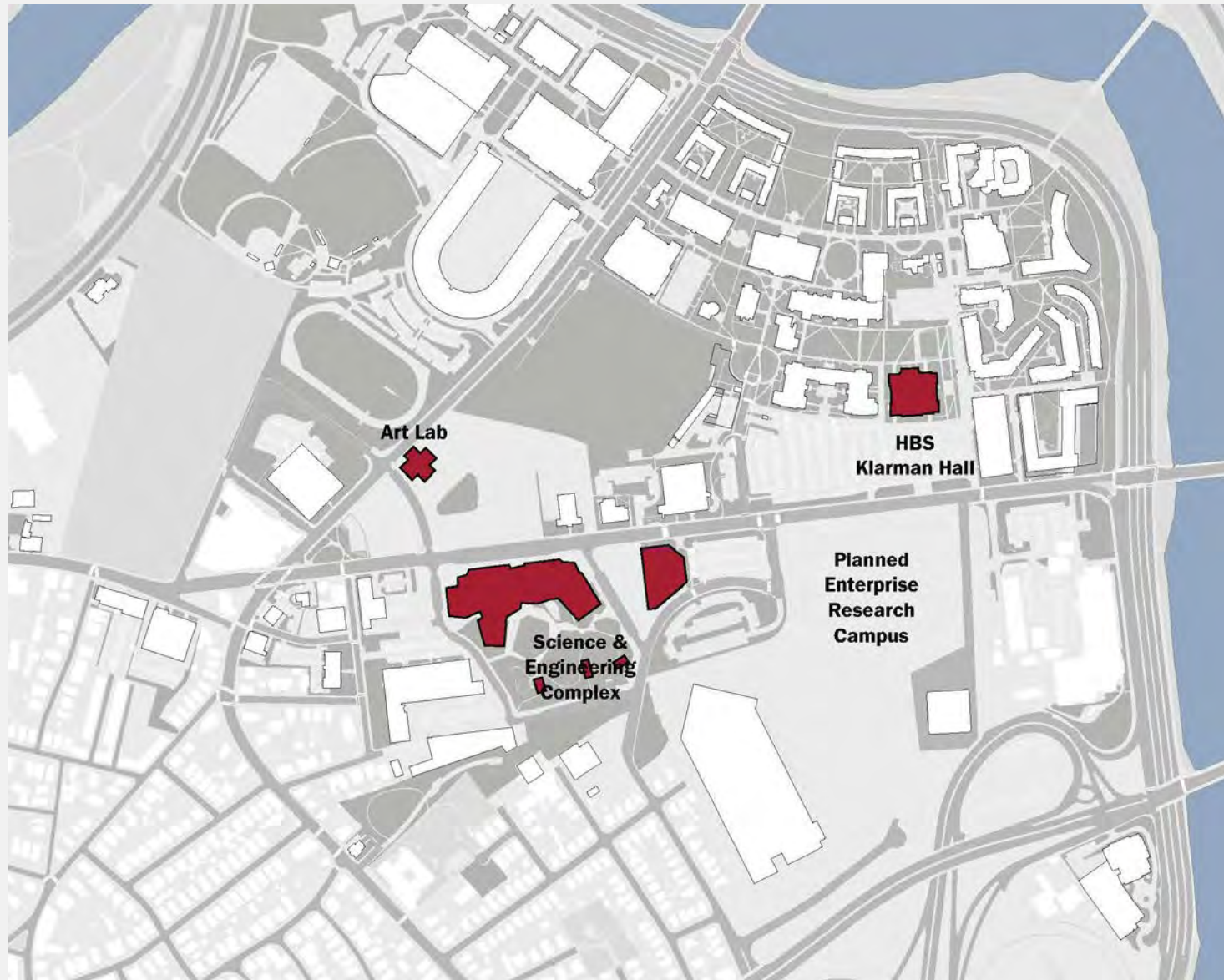


Comprehensive renewal of undergraduate House | *KieranTimberlake*

Harvard College

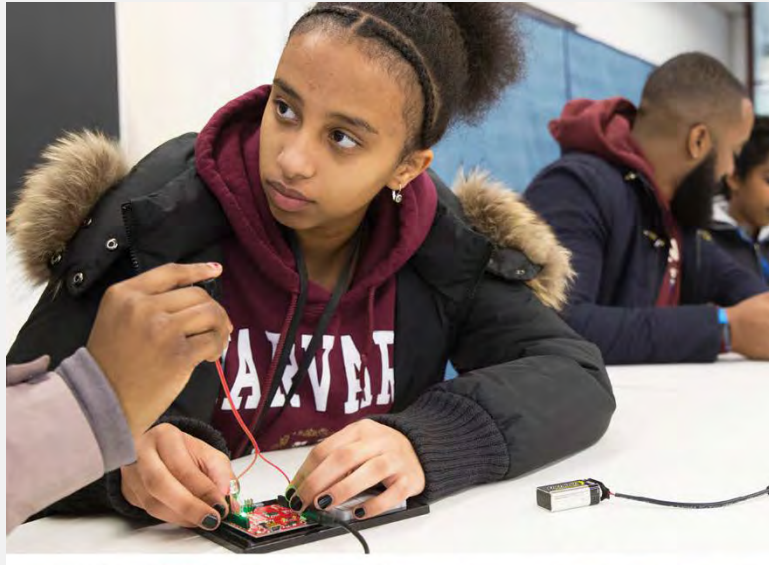


Comprehensive renewal of undergraduate House | *Beyer Blinder Belle*





Harvard in Cambridge Public Schools



Harvard programs available in every public school in Cambridge

- All CPS 7th graders participate in Harvard's college awareness program
- CPS students attend performances at the A.R.T.
- CRLS marine bio students intern in Harvard research labs
- Cambridge Harvard Summer Academy serves as the official CPS summer school
- All CPS juniors participate in a Harvard Life Science Program

CPS and Harvard work together to create opportunities for educators.

- Fellowship provides CPS teachers & administrators with full funding for a Master's degree
- CRLS and Harvard Art Museums partnership incorporates art into high school curricula



Modeling the
transition to
a healthier,
fossil fuel-
free future

Campus Sustainability

Focused on climate, health, and living lab



HARVARD UNIVERSITY SUSTAINABILITY PLAN

4 GOALS with a specific target and timeframe
8 STANDARDS to align our community around a consistent approach
33 COMMITMENTS to set strategic priorities where we want to lead into the future

BY 2016



Goal: **EMISSIONS** 30%



Standards for climate preparedness and campus resilience

BY 2020



Sustainable Landscaping Standards

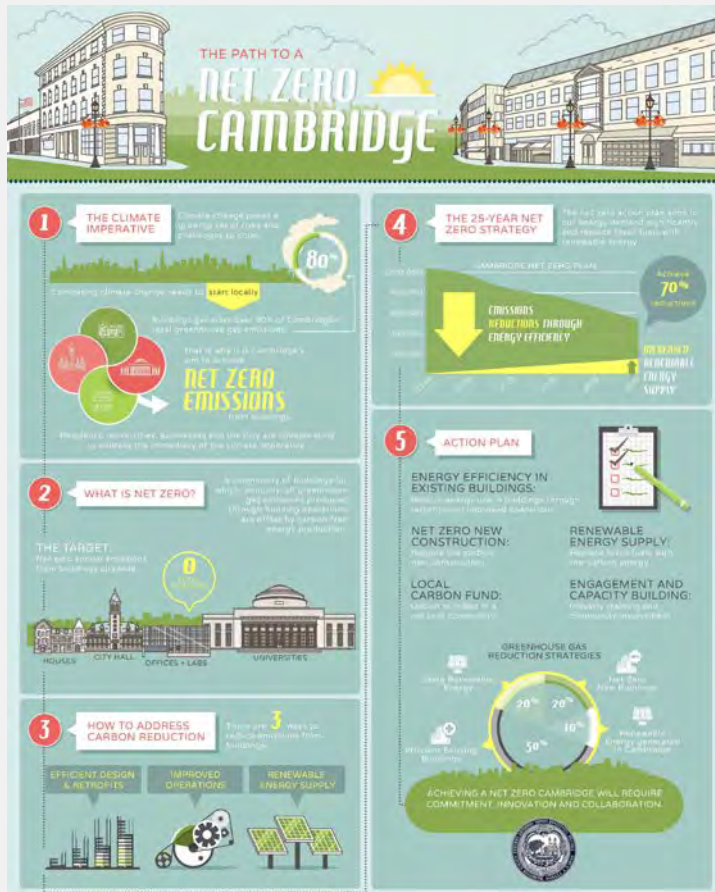
an

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2023 2024 2025 2026 2027



Green Building Standards reviewed annually and revised every four years

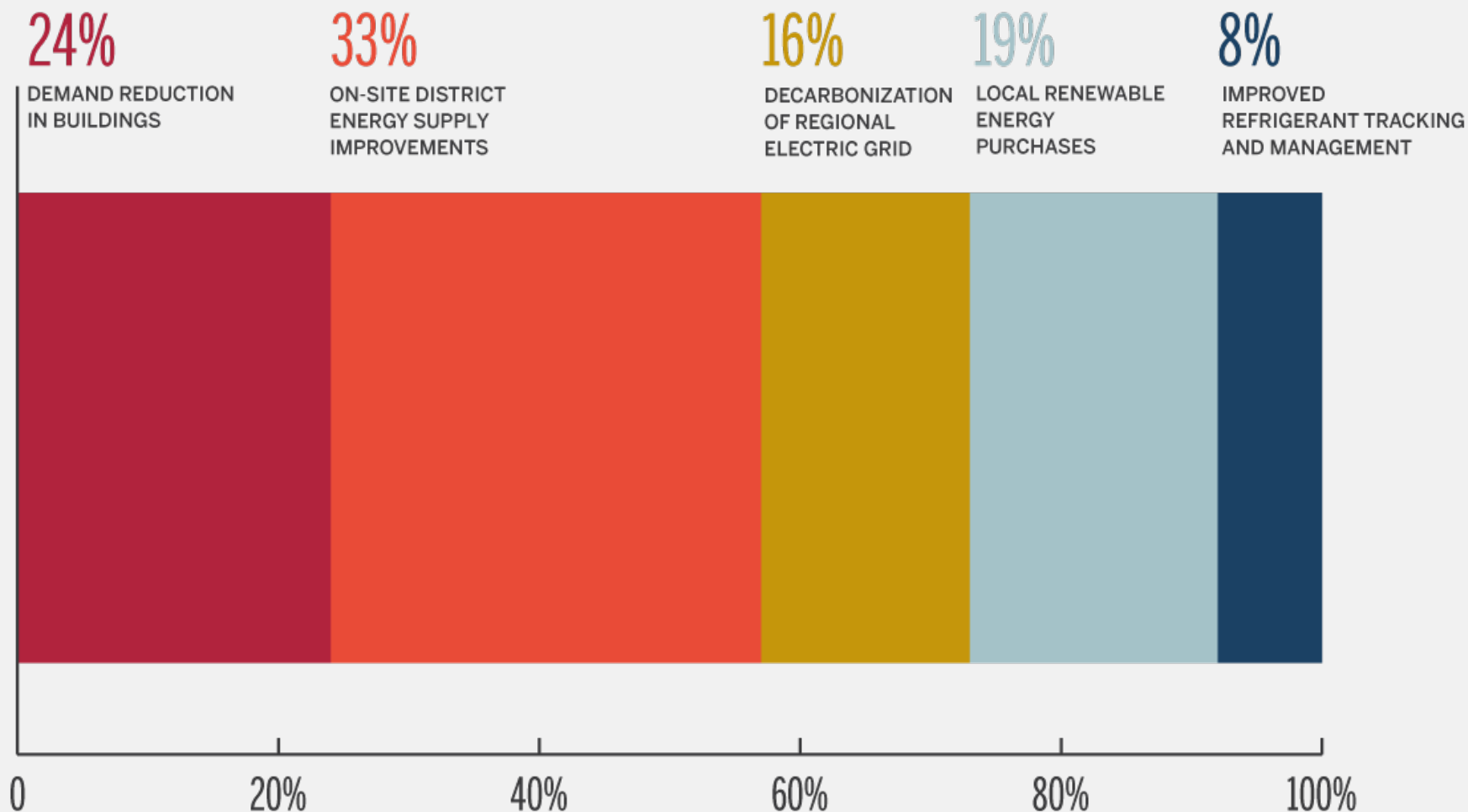
Accelerating solutions through multi-sector partnerships



- Vice-chair, **Cambridge Compact for a Sustainable Future**.
- Chair of **Net Zero Labs Working Group** – first corporate/ university lab benchmarking study.
- Recruited and manage two student fellows working on **Energy Storage and Market-based Incentives** in support of City's Net Zero goals.
- Served on **Net Zero Task Force**
- Dedicated advisors on **Low Carbon Energy Supply** group and **Local Carbon Offsets** group.
- Hosted two **regional climate resiliency tabletop exercises** (2013 & 2018).
- Faculty advising city staff on **climate vulnerability, Net Zero planning & sustainability**.

Acting on climate with ambitious goals

30% reduction by 2016 from a 2006 baseline, including growth



Campus as a test bed

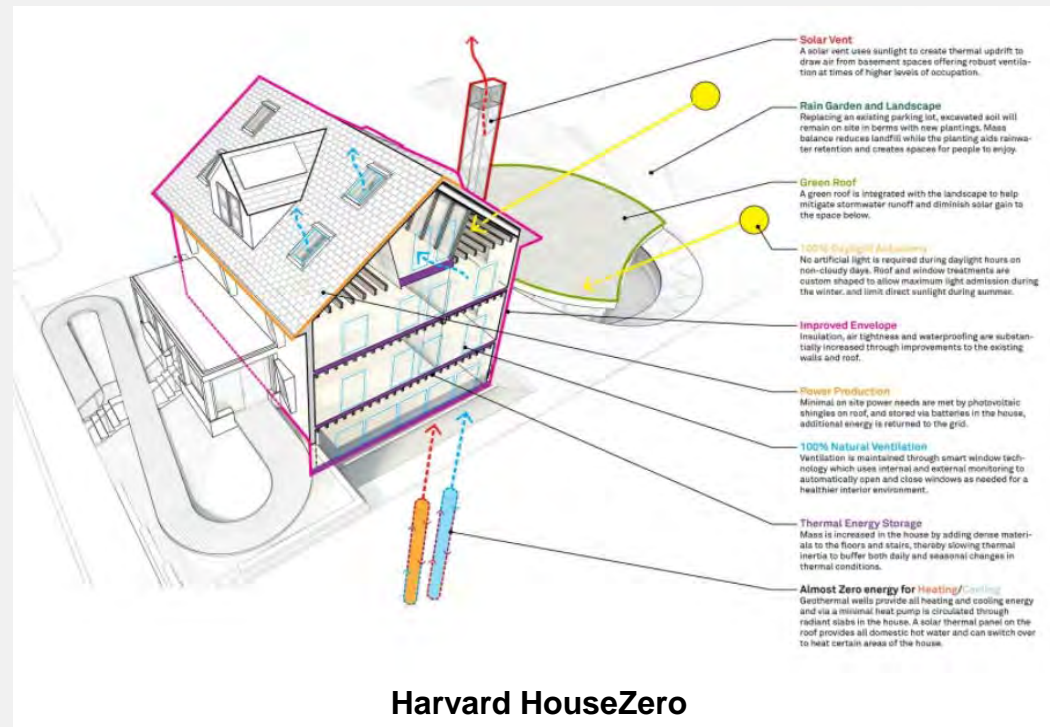
- \$700,000 **Campus Sustainability Innovation Fund** launched October 2016.
- Second year offering an interactive, multi-disciplinary (6 Harvard graduate schools) **Climate Solutions Living Lab Course** led by Harvard Law School's Emmett Environmental Law and Policy Clinic in partnership with Office for Sustainability. Featuring leading companies and experts.
- The **Healthier Building Materials Academy**, a formal partnership between the Office for Sustainability and Harvard faculty from three graduate schools.

LIVING
LAB

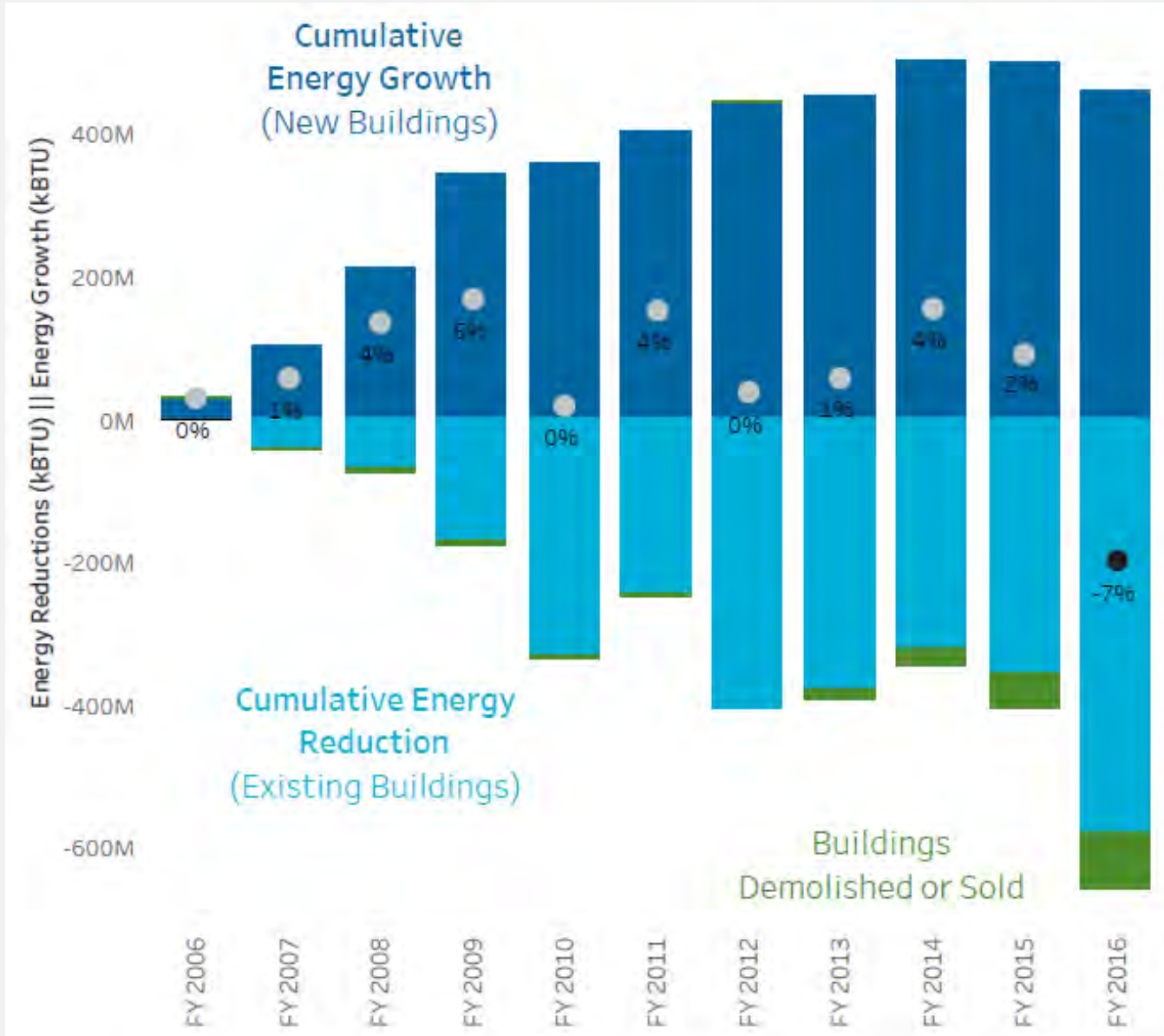


Climate action innovations

- GSD **HouseZero** in Cambridge – targeting the most rigorous efficiency standards ever achieved by a retrofit.
- One of the first Universities to complete a **GHG inventory using real-time energy production data** from ISO NE.
- **Partnering with innovators** like Watt Time to study how this data can inform building operations and renewable procurement.
- **First University to join the Rocky Mountain Institute Business Renewables Center (BRC)**, a group that is working to streamline corporate renewable purchasing.

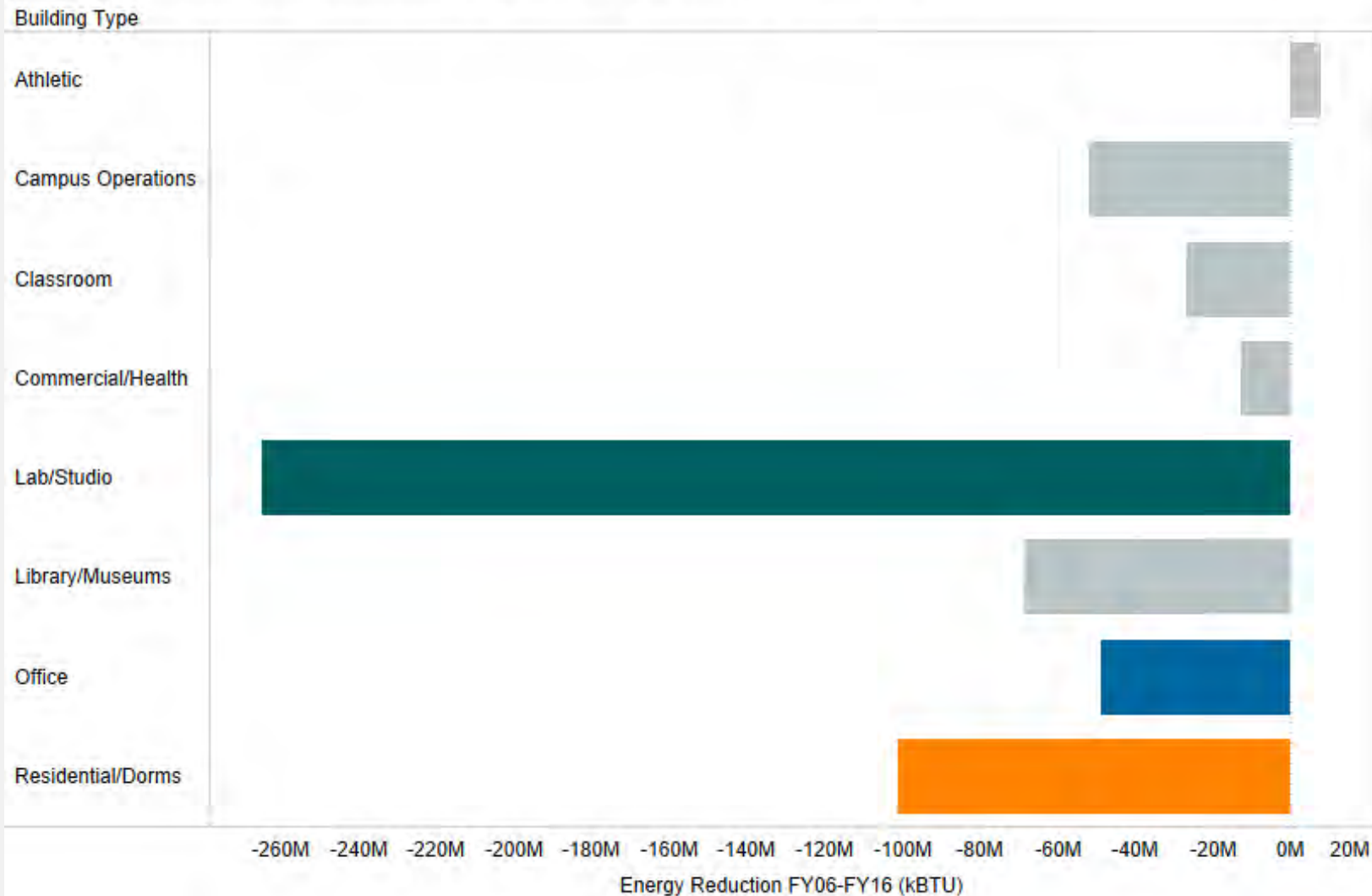


Reducing energy even as demand grows



Targeting reductions in energy intensive labs pays off

Measured Energy Reduction in Baseline Buildings FY06-16

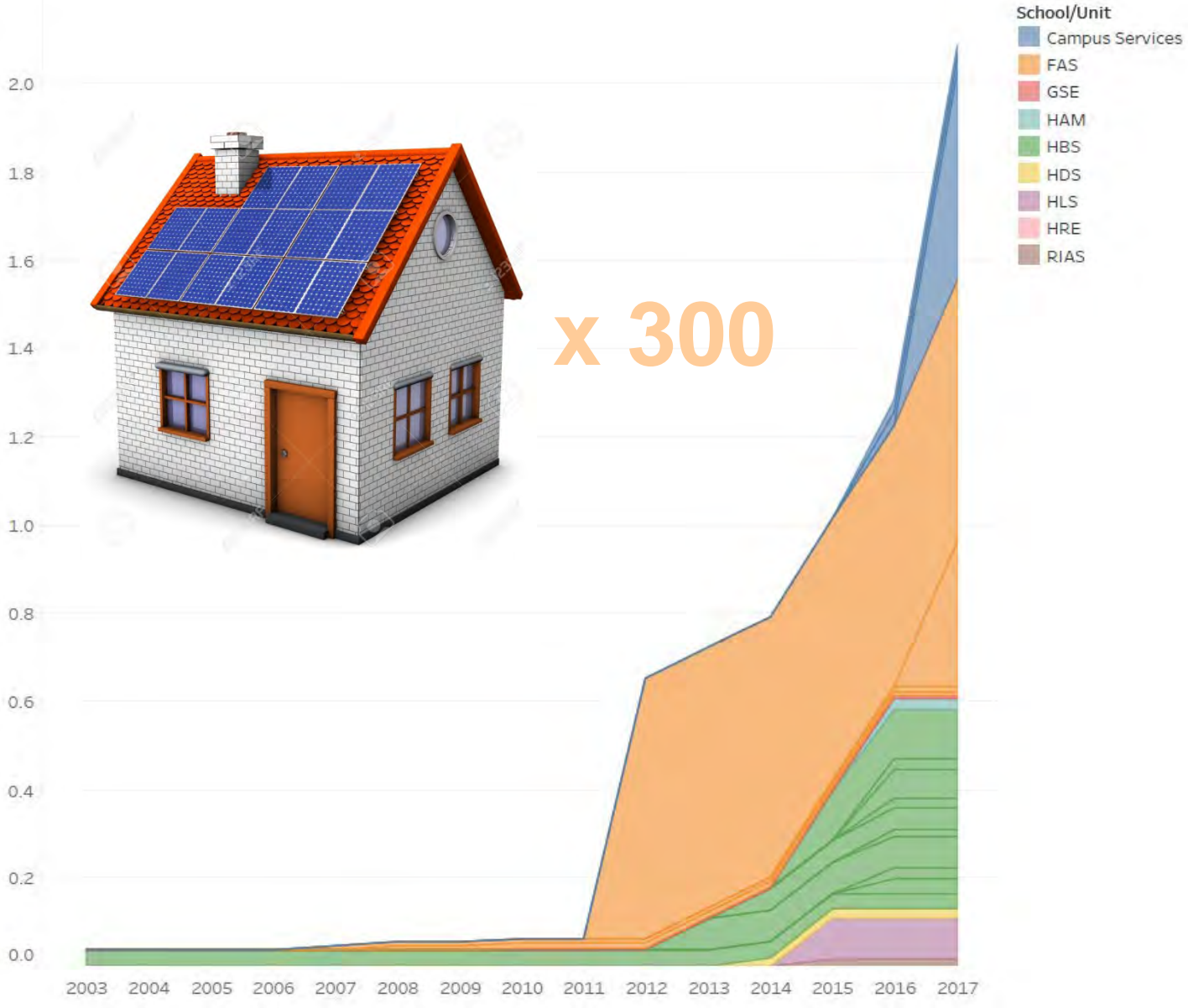


Over 1.5 MW of installed rooftop solar

MW of PV Capacity

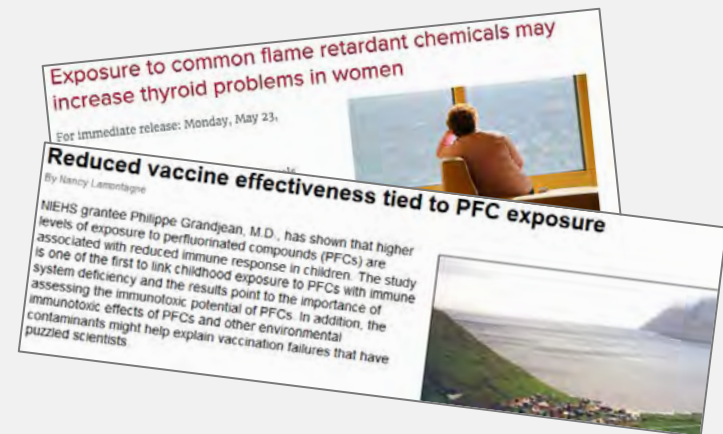


x 300



Healthier Building Materials Academy

- **Partnership between faculty** at Harvard Center for Health and Global Environment and Office for Sustainability.
- **Twenty major capital project pilots underway**, including new construction and renovation.
- Collaborate with 50+ manufacturers for **increased transparency and proven change** in material ingredients.
- **Integrated healthier building material requirements** into Green Building Standards.
- **Founding partner of Google's Portico tool**. OFS has a formal partnership with Google.



Climate resiliency and preparedness planning

- Climate Preparedness Working Group.
- Hosted two regional tabletop resiliency and emergency management exercises (2013 & 2018).
- Pilot climate resiliency study of Allston campus.
- Allston District Energy Facility relocated to above-grade location to improve reliability and resiliency.
- Resiliency strategies incorporated into major capital projects including House Renewal and Harvard Kennedy School transformation project.



Resources for Additional Information

PLANNING

Harvard Planning Office

www.planningoffice.harvard.edu/

Construction Mitigation

www.construction.harvard.edu

HARVARD IN THE COMMUNITY

www.community.harvard.edu

SUSTAINABILITY

Office for Sustainability

www.green.harvard.edu

Harvard University Sustainability Plan

www.green.harvard.edu/plan

Sustainability Report

www.green.harvard.edu/report