

LEED-CI

LEED® FOR COMMERCIAL INTERIORS

Harvard School of Public Health

Landmark Building, Boston, MA
Office Renovation
LEED-CI Pilot Project

BUSINESS BENEFITS

- 20% reduction in water use.
- 40% reduction in lighting demand.
- Estimated savings in energy coupled with productivity gains resulted in ten-month payback for green features.

The Harvard School of Public Health's new offices receive high marks for efficiency.

"...the Council really has made a difference because people understand the concept of sustainable design; they can work with checklists. That's a very important first step."

- John Spengler, PhD, in *Architecture Boston*

PROJECT BACKGROUND

In keeping with its mission and in order to provide a living laboratory, Harvard School of Public Health (HSPH) leased 40,000 sq. ft. of commercial office space in the historic Landmark Building, which was originally a Sears-Roebuck warehouse. The HSPH partnered with the Harvard Green Campus Initiative to make this office renovation Harvard's first LEED® project with a certification goal of gold. As of October 2001, 170 members of the Environmental Epidemiology and Environmental Science and Engineering groups, as well as the Department of Health and Social Behavior, enjoy a healthy workspace with daylighting and views, reduced energy and water usage, and access to alternative transportation.

Building Owner: Abbey Group, Boston

Architect/Interior Designer: Janovsky/Hurley Architects, Lexington, MA

Mechanical Engineer: SEi Companies, Boston, formerly Shooshanian Engineering Inc.

Contractors: Bond Brothers, Everett, MA and Office Environments of New England, Boston



THE CASE FOR GREEN BUILDING

“The most important endeavor for any university to undertake is to become skillful in the process of changing itself. That [means] to become a learning organization capable of engaging in continuous improvement, whereby each building design process informs improvements in both the process and the product of the next building design effort,” said Leith Sharp, B.E., M.Ed Director of the Harvard Green Campus Initiative. “Harvard’s LEED efforts so far provide learning examples that can be used by others at Harvard and beyond,” said Jessica Woolliams, M.A. Longwood Coordinator.

PROJECT GOALS AND RESULTS

HSPH’s Landmark Building office renovation is used as a living laboratory for graduate research, as an educational tool for staff, students and faculty, and as a market transformation vehicle—an example for the building industry.

The building is situated in a dense urban area with ample access to public transportation. To take full advantage of the location, the project team incorporated bicycle storage and changing rooms into the space design to accommodate people using alternative transportation.

A combination of building strategies was employed to conserve energy and water – an explicit project goal. Water use was reduced by 20% below average flow through low-flow technologies; and lighting power was reduced by 40% over standard through T5 lights, occupancy programming and sensors. An under-floor ventilation system contributes to the HVAC performance being 15% better than average. In addition, half of the electricity consumed is supported through the purchase of renewable energy certificates.

Because the existing building was listed on the National Register of Historic Places, 75% of the “non-shell” systems (ceilings, flooring, walls and wall panels) were reused. Over 50% of construction waste was diverted from the landfill; many of the building products (including the furniture, lighting, carpet and flooring) contained recycled materials; 20% of the materials were manufactured locally, and 10% of the materials were extracted regionally. Rapidly renewable bamboo flooring was specified as well.

In order to support the high IAQ and the long-term comfort and well being of occupants, the team chose to install continuous CO₂ monitors, use low-emitting adhesives and sealants, paints, carpet and furniture, and have access to daylight and views in over 75% of spaces.

“Incorporating USGBC LEED standards into University practices makes sense from all angles: financial, environmental, and human health.” – Daniel Beaudoin, CEM, Manager of Operations, Energy & Utilities, Harvard School of Public Health

“Incorporating USGBC’s LEED standards into University practices makes sense from all angles: financial, environmental, and human health,” said Daniel Beaudoin, CEM, Manager of Operations, Energy & Utilities, Harvard School of Public Health. As a side benefit, it dovetails quite nicely into acquiring an EPA/DOE Energy Star recognition award for building energy efficiency, which we also achieved.”

ABOUT HARVARD SCHOOL OF PUBLIC HEALTH

Harvard School of Public Health, established in 1922, is comprised of 373 faculty, 600 researchers, 800 staff and 972 students. In keeping with HSPH’s mission of “devising new strategies for a healthier environment, a safer workplace, and fewer injuries,” the Landmark office renovation presented an opportunity to develop a living laboratory for assessing the health and environmental impacts of its own space.



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Build green. Everyone profits.

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