

LITTAUER LIBRARY
76 JFK STREET
PROJECT PROFILE

LEED FOR COMMERCIAL INTERIORS V.2009
LEED GOLD
2012

Built in the late 1970's, the Littauer Library is centrally located within the Harvard Kennedy School Littauer Building. The Littauer building also houses classrooms and offices that were designed to encourage interaction between the students, faculty, and administration. The library is located on the first floor and primarily serves the research purposes of students, faculty and staff of the Harvard Kennedy School and the surrounding Harvard community. The library collection covers issues confronting government today including international affairs, social policy, the economy, national security, the environment, the electoral process and more with an emphasis on public policy and management in the public and nonprofit sectors. In addition, the Littauer Library is committed to supporting the knowledge growth of the Harvard Kennedy School and hosts a Speaker Series and library training sessions.

Prior to this renovation project, the library saw minimal improvements since its opening. While library administration worked hard to keep the facility up-to-date with current operation trends, the library facility was at a point which required a major program change. The Littauer Library renovation incorporated two program changes: additional space for students to use their laptops and an area for group study discussions.



Individual Study

Photo: Harvard Green Building Services, 2012

Libraries have transformed in this current age of technology into areas where students can use the library as quiet study space while performing research on their personal laptops. Due to the abundant amount of resources available electronically, less books are required to be accessible by students. For this reason, 40% of the collection was moved to the Harvard central library making room for more laptop touchdown spaces. The project also provided students with more collaboration space. The renovation of the library included additional group study areas for students to collaborate while having access to the library resources. These new group study areas are isolated from the rest of the library so that the quiet individual study areas will not be disrupted by the group study areas.

LEED® Facts
Harvard University
Littauer Library



Location.....	Cambridge, MA
Rating System.....	LEED-CI v2009
Certification Achieved.....	Gold
Total Points Submitted.....	61/110

Sustainable Sites.....	18/21
Water Efficiency.....	0/11
Energy and Atmosphere.....	27/37
Materials and Resources.....	6/14
Indoor Environmental Quality.....	6/17
Innovation and Design.....	5/6
Regional Priority.....	3/4

PROJECT METRICS

46%	Reuse of interior nonstructural elements
87%	Construction waste diverted from landfill
21%	Materials that contain recycled content
100%	Renewable energy provided through purchasing Renewable Energy Credits



ENERGY EFFICIENCY

The Harvard Kennedy School of Government (HKS) has committed, along with Harvard University as a whole, to reduce greenhouse gas emissions 30% below 2006 levels by 2016, inclusive of growth. Therefore, the following energy conservation measures (ECMs) were implemented as part of the HKS Littauer Library project.

MECHANICAL SYSTEMS

- ECM 1: Direct Digital Controls** - All automatic temperature controls in the building are operated by a Siemens Apogee Direct Digital Controls (DDC) system.
- ECM 2: Variable Air Volume Control** - Carrier Moduline Weathermaster Air VAV Terminals were installed with a Master Controller as part of the renovation. Master Controllers enable each room's VAV terminal to control the amount of air delivered to that room and offers the occupants of each room the desired space comfort conditions dependent upon if an office is occupied or not, and to offer the small group study rooms the ability to provide for a thermal comfort level dependent upon the number of occupants.
- ECM 3: Air Economizer** - The AHU is configured to operate in 100% outside air economizer cycle so that from mid-October through mid-April when the outside air temperature is 60°F and below, cooling is provided via air economizer and the building's electric centrifugal chiller/VFD is shut off for the spring/fall months as well as the winter months.
- ECM 4: Enhanced Commissioning** - The mechanical and electrical systems were fully commissioned by a third-party Commissioning Authority, which ensured that all energy-related systems were installed as designed, and operating efficiently prior to occupancy.



Group Study

Photo: Harvard Green Building Services, 2012



Individual Study

Photo: Harvard Green Building Services, 2012

ELECTRICAL SYSTEMS

- ECM 1: Occupancy Sensors** - Occupancy sensors are installed in all spaces to turn the lights on, or off, based on actual occupancy. In addition to wall mounted infrared occupancy sensors, dual technology ceiling sensors were installed. These occupancy sensors combine the benefits of passive infrared (PIR) and ultrasonic technologies to detect occupancy. In total, occupancy sensors control 77% of the lighting load.
- ECM 2: Reduction in Lighting Power Density** - 41% reduction in Lighting Power Density (watts/square foot) when compared to ASHRAE 90.1-2007 baseline. Reduction was achieved through the use of LEDs and high efficiency linear fluorescent lamps..
- ECM 3: Plug Loads** - When applicable, Energy Star equipment was selected for Energy Star-eligible equipment in the space. This includes LCD screens and other office and lab equipment.

PRODUCTS AND MATERIALS

Highlights

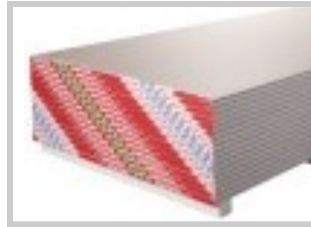
- **21% Recycled Content** value as a percentage of total materials cost.
- **Only Low-VOC, or No-VOC** adhesives, sealants, paints and coatings were used.



Clear Tile

Shaw Contract Group

- ✓ Recycled Content
 - 13% Post-consumer
 - 28% Pre-consumer
- ✓ Green Label Plus
- ✓ NSF140 Platinum
- ✓ Cradle to Cradle Silver Certified



Drywall

USG

- ✓ Recycled Content
 - 5% Post-consumer
 - 95% Pre-consumer
- ✓ Regionally Extracted
 - Ontario, Canada - 308 miles



Light Gauge Metal Frame

Dietrich

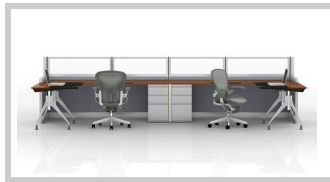
- ✓ Recycled Content
 - 37% Post-consumer
 - 17% Pre-consumer
- ✓ Regionally Extracted
 - Sparrows Point, MD - 354 miles
- ✓ Regionally Manufactured
 - Booton, NJ - 198 miles



Performa2

Izzy

- ✓ GREENGUARD Certified
- ✓ Upholstery selections from Momentum Textiles' collections of recycled fabric and PVC-free vinyl
- ✓ Interchangeable components extend the life of the product



Action Office System

Herman Miller, Inc

- ✓ Consists of 40% Recycled Content
- ✓ GREENGUARD Certified
- ✓ Cradle to Cradle Certified
- ✓ No VOC's
- ✓ FSC Wood



Tu Pedestal Files

Herman Miller, Inc

- ✓ Contains 98% recycled steel
- ✓ GREENGUARD Certified
- ✓ Cradle to Cradle Silver Certified



Adhesive 5000

Shaw Contract Group

- ✓ VOC Content = 0 g/L vs. 50 g/L VOC Limit



367 Clear Thin-Spread Adhesive

Advanced Adhesive Technologies, Inc

- ✓ VOC Content = 0 g/L vs. 50 g/L VOC Limit



Aura Waterborne Interior Paint

Benjamin Moore

- ✓ VOC Content = 48 g/L vs. 150 g/L VOC Limit

Please note that while many products are described in this project profile, these are provided for informational purposes only, to show a representative sample of what was included in this project. Harvard University and its affiliates do not specifically endorse nor recommend any of the products listed in this project profile and this profile may not be used in commercial or political materials, advertisements, emails, products, promotions that in any way suggests approval or endorsement of Harvard University.

LIGHTS AND CONTROLS



PureFX
Ledalite

- ✓ 20% increased efficiency and 35% energy cost-savings over conventional recessed lighting systems
- ✓ .43 W/sq. ft. less than conventional recessed lighting systems



Wall Switch Decorator Sensor

- SensorSwitch
- ✓ PIR Occupancy Detection
 - ✓ No Power Packs Needed
 - ✓ 2-POLE
 - 1st Pole Auto-On,
 - 2nd Pole Manual-On



Extended Range 360 Sensor
SensorSwitch

- ✓ Combines 100% digital Passive Infrared (PIR) detection and Microphonics™ to hear sounds that indicate continued occupancy
- ✓ Push-Button Programmable
- ✓ Adjustable Time Delays



Circulation Desk

Photo: Harvard Green Building Services, 2012

PROJECT TEAM

Owner	Harvard Kennedy School
Architect	Baker Design
MEP Engineer	ESI Engineering Solutions, Inc.
Construction Manager	Shawmut
Commissioning Authority	MAW Consulting, Inc
Sustainability Consultant	Harvard Green Building Services

MORE INFORMATION

- >Harvard Kennedy School: <http://www.hks.harvard.edu/>
- >HKS Littauer Library: <http://www.hks.harvard.edu/library/>
- >Harvard - Green Building Services: <http://green.harvard.edu/green-building-services>
- >Harvard - Green Building Resource: <http://green.harvard.edu/theresource>
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