



Green Building Services Overview

Contact

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Sustainability Planning and Consulting

All large capital projects at Harvard are required to use an integrated design process which GBS supports by working with teams to develop sustainability goals and the strategies necessary to meet them. These consulting services include helping teams identify and prioritize strategies related to energy efficiency, healthy materials, occupant engagement and other sustainability initiatives. Our longest running service, GBS can provide context and familiarity with Harvard standards and initiatives that complements that larger design and construction team.

LEED Certification Assessment and Administration

Many projects at Harvard are required to achieve LEED certification as part of the Harvard Green Building Standards. GBS has experience with over 100 LEED projects at Harvard, including LEED for New Construction, LEED for Commercial Interiors, LEED for Homes, and LEED for Existing Buildings: Operations and Maintenance. Ninety-eight of these projects are certified, which is more certifications than any other higher education institution on the world.

Energy Auditing

Green Building Services, in partnership with Facilities Maintenance Operations (FMO), has completed over seventy-five (75) energy audits on Harvard's campus resulting in estimated savings for our clients exceeding \$1.75 million annually. GBS and FMO staff ensure all cost assumptions are accurate and comprehensive. Typical Audits performed by our team meet or exceed ASHRAE Level II standards and thus include a report outlining potential energy efficiency strategies and using life cycle cost analysis to prioritize ECMs, though streamlined audit services are available as appropriate to project scope. We also offer a streamlined audit service to reduce reporting costs and ensure maximum value in identifying key ECMs for smaller buildings.

Commissioning

The GBS team has acted as the Commissioning Authority for over sixty (60) LEED fit-out and renovation projects on Harvard's campus, ensuring that the in the field conditions of building systems are functioning to the specifications desired by our clients and their consultants. We are in the process of spearheading implementation services for Automated Continuous Commissioning or Monitoring-Based Commissioning for diverse clients throughout the Harvard community.

Measurement and Verification

Once ECMs have been implemented or a new project is completed, GBS is able to compare actual consumption post-renovation with weather normalized baselines to determine the effectiveness of the project in the field. Should a system not match expected savings, GBS can investigate and recommend operational changes to improve results.



Lighting Audits

Green Building Services has developed the capabilities to evaluate interior and exterior areas for code compliance with respect to lighting levels, and then model and recommend potential fixture replacements that both meet code and contribute to greenhouse gas reduction efforts. All suggestions undergo Life Cycle Costing to ensure that project teams understand the long-term financial impacts of their lighting choices.

Life Cycle Cost Analysis (LCCA)

Green Building Services, in collaboration with Harvard Engineering & Utilities (E&U) and the Office for Sustainability (OFS), is responsible for updating, supporting, and training Harvard staff in the use of the Harvard Life Cycle Calculator (LCC). GBS supports OFS by providing technical reviews of the LCC application component of any project applying for the Green Revolving Fund, and frequently develop our own for energy auditing and capital projects that GBS has been contracted to complete.

Utility Incentive Management

GBS staff have developed and submitted several successful applications for Eversource and other utility incentives, which is expected to provide clients with over \$250,000 in rebates. We are a preferred vendor for Eversource, which allows for a discount on energy analysis and preparing submissions. This experience also allows us to provide effective and streamlined consulting into the implementation phase.

Harvard Green Building Standards Compliance Support

GBS is the primary party responsible for assisting project teams to understand and implement the Harvard Green Building Standards. The Green Building Standards will apply to all projects developed within the scope of a campus master plan, and our detailed knowledge of the most effective strategies and best practices University-wide for meeting these goals will help inform any decisions surrounding compliance.

Energy Star and Municipal Utility Disclosure Compliance

GBS currently has access to 180 Harvard campus buildings within its Energy Star portfolio, accounts developed both to aid with Energy Star certification and compliance with Boston and Cambridge municipal utility disclosure ordinances. As we have direct access to Harvard's Energy Witness and Hara reporting platforms, we are uniquely able to manage data for project's seeking Energy Star certification with minimal effort required by our client Schools and Departments.

Direct Digital Control Analysis and Management

GBS staff are trained in the use and analysis of complex digital control systems that are now the cornerstone of efficient building operational practices. With permission from our clients, we are uniquely able to easily and remotely tie into campus systems to review setpoints, schedules, and other related control data that will allow GBS to identify operational changes that can have a large impact on both cost and GHG savings.

Education, Outreach, Marketing and Communications

GBS staff have extensive experience in developing case studies, articles, and presentation materials related to sustainable design, construction, and operations strategies. The Harvard Green Building Resource that is maintained by GBS is a highly visited and well respected resource in the sustainability community. Our management of student led ECM implementation projects such as the PBHA Weatherization has won a national award for its ability to teach and engage students with relation to sustainable construction practices. GBS collaborates closely with the Office for Sustainability for any project involving direct connections with students.