



Changes to LEED™ Incorporate the Sustainable Benefits of Historic Buildings

“The Greenest Building Is...One That Is Already Built”—Carl Elefante

Though often overlooked in the discussion of “green” construction, the rehabilitation of historic buildings demonstrates sustainable design and thought. Historic buildings already feature energy-efficient elements in their design, including passive heating and cooling systems. In addition, the rehabilitation or adaptive reuse of an historic building uses the structure’s embodied energy—the amount of energy used in the harvest, manufacture, and transportation of materials, and in the construction of a building—and requires and produces less waste than new green construction. Despite these sustainable benefits, the rehabilitation of historic buildings has been somewhat neglected in the green construction movement.

A widespread shift in thought may occur in 2009, however, as the United States Green Building Council (USGBC) has incorporated changes in their LEED™ Green Building Rating Systems that reflect the sustainable benefits of historic preservation.

Spearheading the green construction revolution was the USGBC, formed in 1993. In 1998, the USGBC introduced the Leadership in Energy and Environmental Design (LEED) Green Building Rating System in order to encourage the use and prevalence of sustainable design principles in construction and development. Its success has been truly remarkable, with the architecture and construction industries increasingly adapting to meet the growing demand and recognition of the need for sustainable design in building construction.

While the first iterations of LEED did not exclude existing buildings in their rubrics, the benefits of rehabilitating historic and existing structures were not fully recognized in the rating criteria. In 2006, the National Trust for Historic Preservation created the Sustainable Preservation Coalition to encourage the USGBC to incorporate more points related to the rehabilitation of existing buildings into the LEED rating system.

In partnership with the American Institute of Architects, Association for Preservation Technology International, National Park Service, General Services Administration, and National Conference of State Historic Preservation Officers, and with the invitation of the USGBC, the Sustainable Preservation Coalition has worked with the USGBC’s president and director of LEED Technical Development in preparing the preservation metrics for the newest versions of LEED.

Through all of their efforts, more weight has been put on the sustainable benefits of historic preservation in both LEED 2009, and in LEED’s newest rating system, LEED-Neighborhood Development (LEED-ND). See www.usgbc.org for more information.

LEED 2009 presents many changes to the rating system. The Green Building Certification Institute, an offshoot of the USGBC, will now handle all certification and accreditation. LEED 2009 features credits weighted according to Life Cycle Assessment (LCA) criteria. LCA is a holistic, scientific approach that evaluates a building’s energy intake and expenditure over the course of its lifetime. With regard to incorporating the sustainable benefits of historic preservation, LEED 2009:

- Includes changes that benefit rehabilitation projects, particularly in the LEED for New Construction & Major Renovation, most often used for large-scale rehabilitation projects



- Increases Credit 2-Development Density & Community Connectivity (under Sustainable Sites) from 1 to 5, and Credit 4.1-Alternative Transportation-Public Transportation Access from 1 to 6, encouraging the adaptive reuse of buildings within dense communities with access to public transportation in an effort to prevent sprawl
- Will include the Alternate Compliance Path for projects to use the Materials & Resource Credits, based on the LCA concepts of durability of materials and embodied energy in historic buildings

Formulated by a coalition of three organizations, including USGBC, Congress for New Urbanism, and the Natural Resources Defense Council, LEED-ND approaches construction projects in a different way than LEED 2009, in that buildings are evaluated as one component of a green-designed neighborhood. LEED-ND addresses the rehabilitation of historic buildings by:

- Recognizing historic preservation laws and core concepts by using terminology established by the National Historic Preservation Act of 1966
- Allowing the exemption of historic districts if the historic design does not follow the guidelines outlined in Neighborhood Pattern & Design: Prerequisite 1-Walkable Streets
- Prohibiting the demolition of part or all of any federal-, state-, or locally-listed historic building unless the demolition has been approved by the local historic preservation review board, or similarly-empowered entity – in Green Infrastructure & Building Credits 4 and 5: Existing Building Reuse and Historic Building Preservation & Reuse

While these developments present exciting opportunities for rehabilitation projects in the present, the Sustainable Preservation Coalition will continue their relationship with the USGBC in efforts to include other preservation-related metrics—social and cultural sustainability, neighborhood density, health benefits, and the sense of place—into the future versions of LEED.

For more information about LEED, sustainability and preservation, or the sponsors of tonight's panel, please see:

- **United States Green Building Council** at www.usgbc.org
- **Trust for Architectural Easements' Sustainability Page** at www.architecturaltrust.org/preservation/inthecommunity/preservationandsustainability.asp
- **Island Press** at www.islandpress.com
- **The American Institute of Architects' Committee on the Environment** at www.aia.org/cote_default
- **Association for Preservation Technology's Technical Committee on Sustainable Preservation** at www.apti.org/about/technical.cfm#A5A3
- **General Services Administration** at www.gsa.gov/historicpreservation
- **National Conference of State Historic Preservation Officers** at www.ncshpo.org/current/leed.htm
- **National Trust for Historic Preservation's Sustainability Initiative** at www.preservationnation.org/issues/sustainability/