



BEREA COLLEGE LINCOLN HALL RENOVATION BEREA, KENTUCKY

First

LEED certified building in Kentucky

over **75%** of construction and demolition
debris diverted from the landfill

35% of new building materials
manufactured regionally

LEED® Facts

Lincoln Hall Renovation - Berea College
Berea, Kentucky

LEED for NC 2.0
Certification awarded October 19, 2004

Silver **35 points***

Sustainable Sites	7/14
Water Efficiency	3/5
Energy & Atmosphere	10/17
Materials & Resources	5/13
Indoor Environmental Quality	7/15
Innovation & Design	3/5

*Out of a possible 69 points

The information provided is based on that stated in the LEED® project certification submittals. USGBC and Chapters do not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.

LINCOLN HALL RENOVATION - BEREA COLLEGE

From Code Red to Green

Interior Collapse of Historic Building Leads to Kentucky's First LEED Certified Building

PROJECT BACKGROUND

Originally constructed between 1885 and 1887, Lincoln Hall is the second oldest permanent structure on Berea College's campus and is listed on the National Register of Historic Places. It originally housed classrooms, a library, science laboratories and meeting rooms. In more recent years Lincoln Hall housed the administrative offices of Berea College, including the President's office. In May of 2001, the central interior of the building, including the second and third floor central corridor, collapsed during a minor interior remodel project. Berea College decided to fully renovate the then uninhabitable building and to incorporate the building's historic past with an eco-friendly design consistent with Berea College's commitment to sustainability. The renovation of Lincoln Hall was designed and completed to become the first LEED Certified building project in Kentucky.

STRATEGIES AND RESULTS

The Lincoln Hall renovation is an example of building reuse in that at least 75% of the building's structure and exterior shell were maintained. Building reuse extends the life cycle of existing building stock, conserves resources, retains cultural resources, reduces waste and reduces the environmental impact of new buildings as they relate to materials manufacturing and transport. A dramatic three story atrium, which fills the space opened up by the structural collapse, brings daylight into the heart of the building. This provides occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and exterior views into a high percentage of occupied spaces.

The project was designed to include water use reduction devices, such as dual-flush control water closets, that will allow for a 30% reduction in occupancy based potable water consumption as compared to the baseline fixture performance requirements of the Energy Policy Act of 1992.

Building systems commissioning was provided to review the design and verify that fundamental building elements and systems were designed, installed and calibrated to operate as intended. The building's heating, ventilation and air conditioning systems were designed to use no CFC refrigerants, HCFC's or Halons. The building's energy use performance has been optimized to achieve a 25% reduction in energy costs. The primary method used to achieve this energy use reduction is automatic mechanical system shutdown. The building automatically senses when the outside temperature and humidity conditions are within a specified "comfortable" range. A green light then comes on in all occupied spaces indicating that the mechanical system is being turned off and that occupants can open their windows. Interior operable transom windows, in conjunction with the full height atrium space, allows for the free circulation of outside air throughout the building. The building lighting system utilizes occupancy sensors for most spaces that automatically turn lights on when the room is occupied and off when unoccupied.

Additionally, the Lincoln Hall project is being used by the Berea College Sustainability and Environmental Studies Program to teach about and promote green building practices and environmental sustainability to students.

ABOUT BEREA COLLEGE

Berea College was founded in 1855 as the first interracial and coeducational college in the South. The college charges no tuition and admits only academically promising students who have limited economic resources. All students work at least ten hours per week in campus and service jobs in more than 130 departments.

In 1996, Berea College made a commitment to embody sustainability in various aspects of its overall operation with a goal of achieving 45 percent reductions in campus energy use by 2015.

"The Lincoln Hall Renovation project was both challenging and exciting. The sudden and unexpected structural failure within the historic building necessitated immediate and extensive... renovation work. No one associated with the owner, architect, engineers or construction manager had any LEED experience; even so, it was decided that the Lincoln Hall project would be the first in Kentucky to pursue LEED certification."

Richard Polk, Jr., AIA, LEED AP
Principal, EOP Architects



Architect: EOP Architects
Commissioning Agent: ARUP Engineers
Landscape Architect: McIlwain + Associates
MEP Engineer: CMTA
Structural Engineer: BFMJ
Project Size: 23,440 sf

Photographs Courtesy of: Tim Arvin Photography

ABOUT KENTUCKY USGBC

Our goal is to improve the health and welfare of all Kentucky citizens through a sustainable and responsible built environment. Through education and awareness we encourage the use of sustainable practices that provide our residents with a healthy environment in which to live, work and learn.



KENTUCKY CHAPTER
Greening the Bluegrass

www.usgbkentucky.org
888-KY-USGBC