

## KEY FACTS

*Architects: Ellenzweig,  
OPN Architects, Inc*

*Civil Engineer: Snyder & Associates, Inc*

*Structural Engineer: M2B Structural  
Engineers*

*MEP/IT: Henneman Engineering Inc.*

*Energy/LEED Consultant: The Weidt  
Group*

*Acoustical Consultant: Acentech*

*Code Consultant: Code Consultants*

*Elevator Consultant: Lerch Bates*

*Environmental engineer: RWDI*

*Construction Management: Mortensen*

*Occupancy Date: August 2010*

*Square Footage: 136,287 gsf.*

*Project Cost: \$78,100,000*



## LEED

### Leadership in Energy and Environmental Design

LEED is an internationally recognized green building certification system, providing third-party verification that a building was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Iowa State University is committed to incorporating LEED principles when undertaking new construction and major renovations with the goal of obtaining certification at the Gold Level. Currently, ISU has four LEED certified buildings with many others in the process of applying for Certification. The Hach Hall project attained Gold LEED-NC certification.

PROJECT MANAGEMENT SERVICES  
FACILITIES PLANNING AND  
MANAGEMENT

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## Hach Hall



STATE OF THE ART  
TEACHING AND  
RESEARCH FACILITY



LEED Brochure

IOWA STATE UNIVERSITY  
FACILITIES PLANNING AND MANAGEMENT

# Hach Hall—A sustainability tour



Laboratories feature daylight and views to the outdoors.

Hach Hall provides vital infrastructure for the future growth and success of the Chemistry Department, enhancing

ISU's competitive position. It expands the scope of research to meet the distinct challenges of tomorrow's technological breakthroughs, while training the next generation of scientists.

The building form reflects a central lab block articulated by punched window openings topped with a metal clad penthouse. The office wing, at the west end, houses the lobby and commons on the first floor, with faculty offices, meeting areas and conference rooms on the upper floors. Treated as a separate form, it reflects the importance of the corner as well as the public nature of the building.

The main lobby opens directly to the pedestrian way featuring a canopy on the west that shelters arriving visitors.



The Northeast Elevation is articulated by the brick clad laboratory wing and zinc clad mechanical penthouse.

## Reclaimed Water

The building features one of the first reclaimed water systems on the campus.

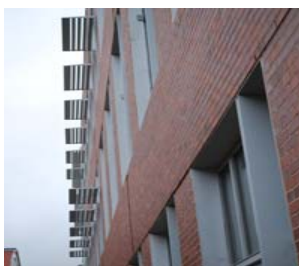
Rainwater from the roof is captured and diverted into a 10,000 gallon tank where it is stored and then used for flushing toilets and urinals, thus eliminating the planned use of nearly 270,000 gallons of potable water annually. In addition to low flow fixtures in the building, this results in a decrease of nearly 74% of the expected water usage for a building of this size.



The reclaimed water system collects storm water before distributing to the toilets and urinals.

## Energy Savings

Fume hoods are one of the largest consumers of energy in a laboratory facility. Through the use of occupancy and proximity sensors in the hoods, air exchanges in the laboratory spaces



Sun Shading devices on the South facade

can be reduced in the building when the labs are not in use. The result is a building that is calculated to be 47.7% more efficient than a similar building designed to merely meet energy



Sophisticated mechanical systems support research and teaching labs.

code minimum requirements. This provides an estimated annual savings of nearly \$500,000, which means the University Power Plant reduces

their need to burn an additional 3.55 tons of coal to provide heating and cooling.

The designers utilized windows in labs and offices to reduce energy usage for interior lighting of spaces. Highly efficient light fixtures and motion sensors add to the energy savings.

## Daylight and Views

From teaching laboratories for students, to research laboratories for faculty, and faculty and staff offices, the building affords views to the surrounding campus. Daylight infuses spaces allowing for the connection to the outside and providing a restive work environment for staff.



Conference rooms provide views to the campus and an abundance of natural daylight.