

Western Michigan University – Chemistry Building
 1903 W Michigan Ave, Kalamazoo, MI
PROJECT PROFILE

LEED v2 O+M
LEED SILVER
 November 2012

The College of Arts and Sciences at Western Michigan University relocated chemistry teaching laboratories, classrooms and related support spaces into a new state-of-the-art facility in 2012, meeting academic laboratory standards, teaching practices and environmental health and safety requirements.

The chemistry building is an 83,000-square foot, four story, \$22 million facility. It is connected to Wood Hall via a bridge and the Dalton Center via a service tunnel. The site and building design preserves open spaces enhancing the existing pedestrian circulation on campus.



The bulk of what earned LEED points involved improving existing practices, policies, and systems. For example, the HVAC system is programmed to provide several levels of ventilation, based on the amount of CO2 sensed. With the “full on” or “full off” settings previously used, the HVAC would use the same amount of energy whether there was one cleaning person in a room, or a classroom full of people.

The Chemistry Building uses 40 percent less energy than a conventional building of comparison. In addition to automatic lights, low-flow sinks and dual flush toilets, the green maintenance practices include everything from an award-winning storm water retention system to spreading beet juice before snowy days as an alternative to salt.

The Chemistry Building’s green features include:

- underground service tunnel that preserves green space around the building
- energy-efficient site lighting controlled by the building automation system
- bike racks incorporated into site design
- an ozone free cooling system

LEED Facts

Chemistry Building

Location.....Kalamazoo, MI
 Rating System.....LEED-EB (O+M)
 Certification Achieved.....Silver
 Points Achieved.....50/85

Sustainable Sites.....19/26
 Water Efficiency.....3/14
 Energy and Atmosphere.....15/35
 Materials and Resources.....2/10
 Indoor Environmental Quality.....9/15
 Innovation and Operation.....6/6

PROJECT METRICS

- 90%** sustainable purchasing of reduced mercury lamps
- 63%** reduction in conventional commuting trips
- 15%** reduction in indoor potable water use
- 87%** Energy Star performance rating