

LEED Experience

LEED is the acronym for Leadership in Energy and Environmental Design and is the Green Building Ratings System developed by the U.S. Green Building Council. The system was developed to encourage environmental awareness from architects, engineers, government agencies, developers and builders.

A project can be LEED certified if it can document that it was designed and built using environmentally friendly building practices during construction or remodeling. There are four different levels of LEED certification: Certified, Silver, Gold and Platinum.

Designing for energy conservation has always been smart design and smart design continues to be more than meeting state and local codes. Our HVAC designs encompass a cost/energy analysis with an understanding of the computer control systems and the people that will operate them as well as issues such as acoustics, heat reclaim and the overall energy management system.

We implement this approach by constantly analyzing new technologies and equipment as they become available which allows us to choose the best applications for each individual building we design. A few of the technologies we have implemented include: geothermal heat pump, high efficiency boilers, wood fired boilers, variable air volume systems, ventilation air heat recovery, decoupled ventilation with terminal heating/cooling, displacement ventilation, heat recovery chillers, variable speed pumping and innovative control strategies. All are viable HVAC solutions with their own advantages.

The quantification of "green building design" under the LEED certification process is a welcome development in our view. Most, if not all of the buildings we have designed for many years would have met or exceeded the intent for LEED certified HVAC systems. Our buildings consistently exceed national energy efficiency standards.

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The environment strives to maintain a balance. A balanced building respects the needs of the owners and the people who will occupy the building with energy conservation and the initial cost of construction. That's just smart design.

Fredericksen Engineering projects with LEED awards:

- Holy Wisdom Monastery Platinum 2010
- Goodwill Store Antigo, WI Certified 2008
- Concordia College Environmental Center Mequon, WI Gold 2008
- WPS Service Center Rhinelander, WI Gold 2008
- Lake Mills Middle School Lake Mills, WI Gold 2008
- Wausau Windows Office and Manufacturing Center Wausau, WI Silver 2007
- Citizens First Credit Union Oshkosh, WI Silver 2007
- Rivercrest Elementary School Hudson, WI Gold 2007
- Lawrence University Campus Center Appleton, WI Gold 2005
- Northland Pines High School Eagle River, WI Gold 2004