

Wisconsin Green Building Project Profile

WDNR Northeast Regional Headquarters
2984 Shawano Ave.
Green Bay, WI 54307

BACKGROUND

The Wisconsin Division of Natural Resources site was previously home to a farm and agricultural land, surrounded by existing commercial, residential and green space.

Since the building was proposed in 2000, sustainability has always been the intent, by consolidating sites it allowed public access to all DNR staff and programs at one location as well as allowing cooperating programs to be managed from a single facility.

The designer and contractors focused on five main areas to realize the goal of creating a sustainable structure:

1. Making the best use of the building site
2. Incorporating natural light
3. Minimizing, reusing, or recycling construction waste
4. Selecting appropriate materials to construct the building and outfit the interior
5. Using smart energy sources for efficient heating and cooling

RESULTS

Recognized for its minimal footprint on the landscape, the 34,560 square-foot building houses up to 156 people.

Designed as a three-level structure and built on a slope, the building materials are highly energy efficient, with energy savings at +50% better than a typical code compliant building. This reduces the DNR's operation and maintenance costs greatly, with an approximate payback of only 2.8 years.

The metal standing seam roof material has both high reflectance and high emissivity values which reduces the urban heat island effect.

The facility was constructed with 66% of building materials manufactured regionally (within a radius of 500 miles).

For the project, construction waste was reduced by 86.6% (by weight) resulting in over \$3500 in project savings.

For a minimum period of two years, 100% of this building's electrical consumption is being supplied from renewable energy through Wisconsin Public Service's "Nature Wise" program. Recent calculations show the building is easily achieving goals of meeting an Energy Star rating of 85 or better.

The large south facing roof form on the main office building was set up with the anticipation that photo voltaic could be added in the future.

This facility reduced its water consumption by almost 90,000 gallons annually. The reduction of potable water use in this building through the use of low flow fixtures for toilets, shower heads, faucets, and water-less urinals

The office systems furniture was a salvaged product that was refurbished and reupholstered using 100% recycled fabric saving around \$250,000 compared to new furniture.

PROJECT INFORMATION

Date of Completion: February 2005
Architect: Ian Griffiths, Berners Schober Associates, Inc.

Owner: State of Wisconsin DNR
General Contractor: Boldt Construction
Consultants:

- Energy: Prasad Vaidya, Weidt Group
- Structural: Jamison White, Berners Schober Associates, Inc.
- Mechanical: Joe Dettlaff, Berners Schober Associates, Inc.
- Civil: Terry Peterson, STS
- Landscape: Lisa Geer, Schreiber Anderson Assoc.. Inc.
- Environmental: Ian Griffiths, Berners Schober Associates, Inc.
- Electrical: Dan Hanson, Lang Association
- Plumbing: Ashok Tannan, Tannan Engineering
- Interior: Wendy Thorson, Berners Schober Associates, Inc.
- Commissioning: Chad Grindle, Farnsworth Group

Green Building Awards

- 2006 Certified LEED-NC Gold
- 2006 Wisconsin Builder "Top 20 Projects"
- 2006 Sustainability and Energy Efficiency (SE2) Leadership Award
- 2005 Midwest Construction "Best of 2005 Award of Merit"
- 2005 Governor's Award for "Excellence in Sustainable Design & Construction"
- 2005 Brown County Business Recycling Award for Innovation
- 2005 American General Contractors "Build Wisconsin" Award



For more information about the building please check out the DNR website <http://dnr.wi.gov/org/land/facilities/greenbldg/gbhq.html> or the USGBC website <http://leedcasestudies.usgbc.org/overview.cfm?ProjectID=684>