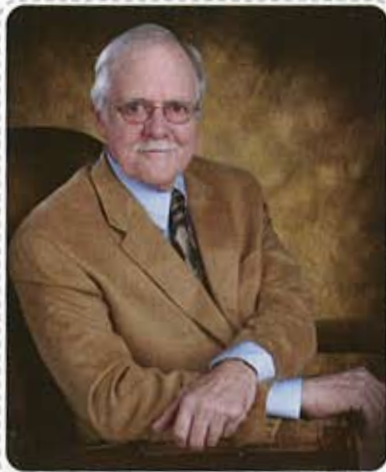


Much is at stake in building green schools

The “greenest” school in Wisconsin could well be the new Paul J. Olson Elementary School in Madison, and there’s more than just bragging rights at stake here.



Pupils, teachers and even property taxpayers will benefit long term from the school board’s decision to build the environmentally friendly school. Most green buildings cost more initially than conventional ones, so it’s sometimes difficult for school boards attempting to minimize property taxes or for a business with its eye on the bottom line to justify the extra initial costs. But as Doug Pearson, the school district’s director of building services, points out, studies are showing that kids learn better, teachers and pupils have fewer absences and morale is higher in an environmentally sound facility.

And a cost-benefit study of 33 green buildings for the Massachusetts Technology Collaborative in 2003 found the average cost increase for green buildings compared to conventional ones is less than expected, under 2% or \$3.50 per sq. ft. The study also found that the cost of green buildings has fallen in recent years as the number of such projects has increased.

The \$12.9 million, 87,000-sq.-ft. Olson School is seeking to be the first in Wisconsin to receive certification under the new, more stringent, LEED (Leadership in Energy and Environmental Design) for Schools rating system of the U.S. Green Building Council.

When the school district picked Miron Construction Co. of Neenah to build the school, it made a good choice. Miron, voted as the “Most Admired Wisconsin Company” and the “Best General Contractor” in Corporate Report Wisconsin’s 2008 awards competition, has completed 21 LEED projects and has 36 LEED accredited professionals on its staff. Miron had sales of \$510 million last year.

As part of its sustainability initiative, Miron hired Theresa Lehman this year as its director of sustainability services. Lehman has worked on more than 40 LEED projects, successfully documenting and obtaining certification for LEED certified, silver, gold and platinum projects. She is on the faculty of the U.S. Green Building Council.

The LEED for Schools system takes into account the unique nature of design and construction of kindergarten through 12th grade schools. Like other LEED ratings, it evaluates projects on sustainability of site, water efficiency, energy and atmospheric, materials and resources, indoor environmental quality and innovation and design process. In addition, LEED for Schools also addresses such things as classroom acoustics, master planning, mold prevention and environmental site assessment.

One of the more innovative features of the school is the geothermal heat pump, which uses the constant energy of the earth to reduce the energy needed to heat and cool the building. The school also uses a water-to-water heat exchange system to heat water, according to Jon Mathu, Miron’s project manager for the school.

Photovoltaic solar panels on the school’s roof are producing 25 kilowatts of electricity, the excess of which the school district can sell to Alliant Energy as green power, Pearson, said. Electrical sensors in each room automatically shut off lights when no one is present. “We’ll use almost no natural gas at that building,” Pearson said.

Lehman said the school is 27% more energy efficient than a conventional facility.

Other green features include:

- Site alignment is in a north-south orientation, which, along with the large number of windows, allows for a high level of natural lighting.
- A ventilation system that provides for six complete air exchanges of outside air each hour.
- Flooring from recycled rubber that requires less maintenance and better acoustics.

Pearson said the building’s features will be part of the environmental curriculum of Madison students. Students will have on-line access to data from the solar panels.

The school seems like a fitting memorial to Paul J. Olson, a teacher and principal with the district for more than 40 years, who was deeply interested in the environment, served on the former Wisconsin Conservation Commission and was instrumental in creation of the school district’s forest.

“It’s a healthy place to learn,” Lehman concluded. **CHW**

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CORRECTION: In my November column, I mis-reported the name of the Midwest Renewable Energy Association, a group that helps with renewable energy alternatives.