The NEWS

State Library of Ohio

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Ritter Public Library's Award-Winning Green Design

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Ritter Public Library

Ritter Public Library is the first public library in Ohio to earn a gold award for Leadership in Energy and Environmental Design. The U.S. Green Building Council announced the award last month for a building expansion that was completed in 2010.

Ritter is located on the shores of Lake Erie in Vermilion, a small town with a population of about 10,000. The library's 18,000 square-foot addition, which nearly doubled the size of the building, includes a green, vegetative roof; a porous parking lot and rain garden; a cistern and low-flow plumbing fixtures; and more.

"We're thrilled," said Lyn Blackman, president of the library board of trustees. "The board is extremely happy for the library, the staff and the city of Vermilion. This shows the whole state how very committed Vermilion is to leading the way in environmental issues."

The building project was approved by voters in 2007. CBLH Design of Cleveland drew up the plans and construction got underway in 2009. The project took one year to complete and cost about $4.8 million, coming in under the projected budget of $4.9 million.

The three-level addition provides the community with a new 26-station computer lab, expanded teen and children's departments and additional public meeting space.

Director Janet Ford said, "Even before we went to the voters, even before we hired an architect, Janet Springer and I knew we wanted an environmentally friendly building, not just for the short term, but for future generations." Springer, who is Ritter's fiscal officer, also serves as the facility manager.

Trustees committed early on in the project to follow LEED guidelines, knowing it would require an initial investment of both time and money – to hire professional, technical advice and to purchase special materials and systems.

But they were dedicated to the effort, not just to build an environmentally sustainable space, but also to create a model for the community that could serve as a teaching tool, to educate others about how a building can be made without harming its surroundings, and to help raise consciousness about environmental issues.

"We are all proud of the collaborative efforts of everyone involved," said Rick Van Den Bossche, who was board president during construction. He credits trustees, the construction and design team, staff and residents for supporting the effort.

"Through the efforts of all of these people, we have been able to provide the community with a first-class educational facility, while making the library an environmentally friendly learning center – the first of its kind in Ohio," he said.

Earth-friendly features at Ritter begin outside, with a rain garden and porous parking lot. When rain falls, instead of running off a slab of concrete to flood into the city sewer system, the rainwater percolates through porous pavers into a bed of gravel below.




Overflow drains into the rain garden, where some of it is absorbed by water-loving plants. The rest is held until it can soak naturally back into the earth.

An underground cistern also collects rainwater from rooftop drains. This water is used to flush toilets inside the building, saving energy that might have been spent processing clean water.

Decorative stone panels on the sides of the building are another example of earth-friendly design: Using regional materials – such as sandstone from nearby Amherst and bricks and steel from Ohio – saves on the pollution and fuel-use associated with transporting building materials cross-country by truck.

Plants, too, were chosen because they are native to the area, reducing the need for special fertilizing or watering. Special parking spots for fuel-efficient cars and for people who carpool reward and promote energy-saving habits.

Inside the building, lots of windows mean plenty of natural lighting. Windows along an interior hallway draw natural light into the building, while window shades and energy-efficient glass block unwanted heat from the sun. A lighting-control system uses high-efficiency bulbs and is designed to make maximum use of daylight.

Ritter trustees also chose a cutting-edge heating and cooling system called "variable refrigerant flow." About 40 individual compressors are placed in separate zones throughout the addition. Air is drawn up in each individual zone and is heated or cooled right there, according to directions from the thermostat, before being returned to that particular zone.

Conserving water is another way Ritter is going green. Low-flow fixtures in the bathrooms use about half as much water as traditional fixtures. An employee shower has been installed to encourage the staff to use alternative means of transportation – such as biking or walking to work.

Interior finishes such as paint, fabrics, carpet and ceiling tiles are made with recycled content, and they are also "low-emitting." This means they give off fewer chemical pollutants, making the interior atmosphere here a safer place for patrons and employees.

Ritter's green, vegetative roof, which covers a portion of the expanded first floor, contains sedum, water-loving plants that help manage storm water and also filter pollution. Evaporation from the rooftop garden helps cool the building, and in the winter the bed serves as insulation. Other areas of the roof have been covered with a thin layer of white rubber material which cools the building and reduces energy costs.

Energy-efficient and sustainable designs at Ritter have made the library an award-winning and earth-friendly space.

Ritter's earth-friendly designs include:

- Rain garden
- Porous parking lot
- Cistern
- Regional materials
- Native species
- Special parking spots to reward and promote fuel efficiency
- Natural lighting
- Low-e glass and window shades
- Efficient lighting system
- Variable-refrigerant flow heating and cooling system
- Low-flow plumbing fixtures
- Recycled-content materials
- Low-emitting finishes
- White roofs
- Green roof
- Recycling center and recycling trash containers
- Exterior window shades

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The Ritter Public Library website features a video tour of the building: