

# green business awards



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COURTESY OF CINCINNATI ZOO AND BOTANICAL GARDEN

The Harold C. Schott Education Center was designed to be as people-friendly as it is environmentally friendly. Hundreds of thousands use the space each year.

## Zoo's education center leads the way in green building initiative

### Schott Center planning shifted process on design culture

BY KRISTY CONLIN  
Courier Contributor

When the Harold C. Schott Education Center at the Cincinnati Zoo and Botanical Garden was in its earliest planning phases, Glaserworks architects suggested building to LEED-certification standards.

In 2000, there were no LEED-certified buildings in the city, said Mark Fisher, facilities director at the zoo, and "not a person in the room had heard of it."

Times, though, have changed.

The zoo now boasts four LEED-certified structures and is considered the "greenest zoo in America." It brings green education to hundreds of thousands of people each year, in part through the Schott Education Center, the LEED Silver-certified multi-use building that is the People winner in the 2010 Green Business Awards.

But the process wasn't easy. In fact, Glen Schulte, a Cincinnati Public Schools and Zoo Academy teacher, was involved in the project from the start. He said that at times, the process was torturous.

CPS, which started the Zoo Academy in 1975, witnessed its obligation balloon from an informal estimate of \$250,000 to an actual \$1.5 million.

Funding was the major obstacle to construction. The costs of steel skyrocketed; the final project cost was \$8.7 million. The overall lack of LEED experience also con-

Glaserworks changed that mind-set.

Architect Paul Duffy wanted a building that was as people-friendly as it would be environmentally friendly. The center hosts 400,000 student visitors annually; 11,000 students participate in the zoo's overnight programs each year and 50 Zoo Academy students study there every day.

The center's final design incorporated sustainable features such as the use of recycled materials and solar panels; waterless urinals and low-flow plumbing;



the use of low-VOC emitting paints and sealants and daylighting.

Schulte describes the Zoo Academy as a typical high school in what happens to be a very atypical setting. By being on site, "the students are exposed to a lot." They learn about the zoo's other green initiatives - rain gardens, green roofs, recycled plastic decking, pervious pavement.

The education center's 200-seat theater is a hot meeting space. It has hosted events for the Sierra Club, the Rain Garden Alliance and the Metropolitan Sewer District, among others.

"What better place to go than the zoo, right?" Fisher said. "(The center) is snaz-

# Innovations that push sustainable envelope pay big dividends

## Being 'as green as you can get' makes financial sense

BY ANDY BROWNFIELD  
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Some nonprofits might feel it isn't practical or affordable to go green. After all, there is a premium charged for things like geothermal heat pumps, porous stone pavers to collect storm water and super-efficient insulation.

Mark Fisher, senior director of development and planning at the Cincinnati

lot. The project is the Planet winner in the 2010 Green Business Awards.

Fisher also pushed for energy efficiency and storm water management to be included in the design. All buildings are super-insulated and use geothermal technology for heating and cooling.

To put that in perspective, ASHRAE 90.1 is the energy efficiency code standard for buildings. To get all the LEED credit for optimal energy performance, buildings must be 42 percent more efficient than code. The Historic Vine Street Village is 78 percent more efficient.

"That's the workhorse in terms of energy efficiency," Fisher said. "That saves us about half on our utility costs."

The bathrooms also seek energy efficiency. Solar panels heat the water, and the urinals use a scented, lightweight gel to trap urine beneath it.

"You'd think that would cause a problem in terms of smell, but these are the best-smelling in the zoo," Fisher said.

To combat excess storm water runoff, 90,000 square feet of porous stone walkways capture rain water, which is filtered to the elephant yard moat and a 10,000-gallon tank hidden in a floral planter at the zoo's entrance. The reclaimed water irrigates the gardens and diverts 1 million gallons of sewage from the Ohio River.

Dean Violetta of Cornette/Violetta was the lead architect for the Historic Vine Street project, and it was the firm's



COURTESY OF CINCINNATI ZOO AND BOTANICAL GARDEN

**The Historic Vine Street Village is packed with energy-efficient systems that reduce storm water runoff and lower heating and cooling bills for the Cincinnati Zoo.**

first LEED-certified effort.

"The biggest challenge is that we were a pretty young team, all trying to feel our way through the LEED process," Violetta said. "Mark was one of our biggest champions, pressing the team to be innovative in our approach."

The innovation paid off. The team sought LEED Gold certification, but after adding up all of its points, realized that with a small push it could achieve LEED

Platinum. It ended up with 55 points, above the 52 needed for Platinum certification.

And it will all pay off in the relatively short term. Fisher said that within 4 1/2 to 5 years, the investments in energy efficiency will have paid for themselves.

"All of this, 'I can't afford to go green,' and 'wee is me, we're a nonprofit,' is BS," he said. "We're living proof that it can work and makes sense."

# Green business

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## PLANET WINNER

Zoo and Botanical Garden, doesn't buy those excuses. He took a project that started as a solution to a persistent parking problem and turned it into one of the zoo's greenest efforts.

The Historic Vine Street Village is a new main entrance for the zoo, connecting to the expanded Vine Street parking