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## Green roof planned for Kentucky Center

The Kentucky Center is hoping to go green, planning to spend millions of dollars for what could become Louisville's largest and most visible environmentally friendly roof.

Center officials have been working with an architectural firm on the design, costs and expected energy savings of a new roof covered with water-storing sedum plants, possibly even on the curving vertical section.

The so-called barrel vault section of the roof would be a real prize, officials said, because unlike most flat green roofs, it can be easily seen from the ground in a well-trafficked part of downtown Louisville on Main Street. It is also visible from the Belvedere, a popular site for outdoor events.

It could cost as much as \$3.5 million to redo the 76,000-square-foot roof, said Abby Shue, executive projects director for the arts center. The green design would cover about 51,000 square feet and could add as much as \$1.5 million to the cost, while saving energy, she said.

"They will find a significant savings over the life of the roof," said Cash Moter, architect with the Louisville firm Joseph & Joseph, which is working on the project. Just how much savings is still being calculated, he said.

The center's roof needs repairs, Shue said. It's 15 years old and five years past warranty, and it has been leaking. "We've been doing patch jobs," she said.

The new roof would be covered with a special type of soil and sedum plants, which soak up water and provide insulation that can lower air-conditioning bills, Moter said.

The barrel vault section poses the biggest challenge, he said. It arcs downward, becoming vertical at the bottom. He said he's not aware of a green roof designed for such a steep pitch, so his firm and the center are looking at different options, including a system of trellises that might feature hanging ivy.

Shue said the center, which is owned by the state, will request \$3.5 million in funding from the Kentucky General Assembly, which reconvenes in January. Aware that state funding is tight, she said center officials are also exploring pursuing grants from foundations and support from the

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Metropolitan Sewer District, which has a program to subsidize projects that reduce sewage overflows.

MSD has promised to share some of the costs because the green roof would capture at least 1.7 million gallons of storm water every year, preventing it from running into sewers and contributing to contaminated overflows into the Ohio River, said Wesley Sydnor, a senior technical services engineer at MSD.

On Nov. 14, MSD committed to spending \$114,523 to help offset the costs of the project. Sydnor said other funding is likely, including money to launch a public-education project at the Kentucky Center.

"It will be our biggest opportunity to educate the public about green roofs," he said, noting the visibility of the barrel vault section.

As many as 500,000 people a year visit the center for concerts and other cultural events, Shue said. Many others will be able to look down on the roof from office towers nearby, she added.

And it provides a backdrop to festivals held at the Belvedere, which is getting its own \$200,000 green makeover funded by MSD, including a butterfly garden, green roofs and porous paving.

"It's so important for the Kentucky Center to continue improving its footprint and building for a sustainable future," Shue said. "We have to show (our visitors) we're

not only a leader in the arts, but a socially and environmentally responsible leader as well."

So far this year, MSD has approved more than 40 green infrastructure projects, totaling about \$8 million, with at least \$38 million remaining to be allocated, said MSD spokesman Steve Tedder.

Green roofs are relatively new to Louisville. Chris Poynter, spokesman for Mayor Greg Fischer, said he knows of at least five local green roofs, all built in the last few years.

"Louisville continues to find ways to embrace sustainability and innovation," Fischer said in a statement. "The Kentucky Center's decision to explore a living roof is an example of this and is applauded and supported wholeheartedly by Louisville Metro."

The idea to install a living roof came from the center's Green Team, formed two years ago, with encouragement from some of the center's board members, Shue said.

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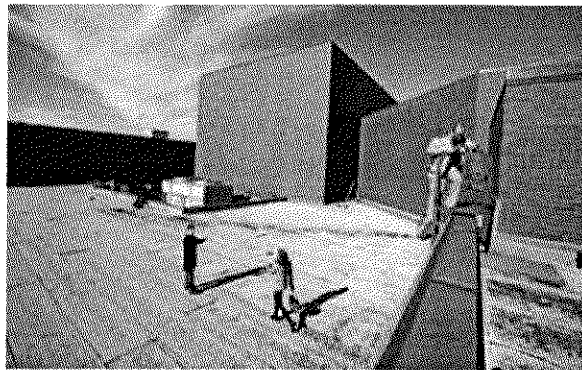
It is part of an environmental sustainability program that has ramped up recycling and installed water-saving faucets and more energy-efficient lighting, she said.

She said her inspiration to work on shrinking the center's environmental footprint came from participating in the Bluegrass chapter of Net Impact, a global organization of students and professionals using business to improve the world.

Net Impact's niche is engaging "professionals in how to make a difference," said Katie Greene, who works in corporate responsibility at Louisville Gas and Electric Co. and Kentucky Utilities and who helped launch the local chapter.

The center's green-roof project is the most ambitious so far to be inspired since the Bluegrass Chapter formed two years ago, she said.

Greene said she hopes it will, in turn, inspire others to "do something green."



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Rob Thomas, director of marketing and Communications, left, Abby Shue, Director of Executive Projects and Bego Hanzic, from maintenance, walk on possible future green roofs. The Ky. Center for the Arts might have the flat roofs replaced with new green roofs. November 18, 2011 / Pam Spaulding/The Courier-Journal

### On the web

For more information on Net Impact activities in Louisville, write to [bluegrass@netimpact.org](mailto:bluegrass@netimpact.org).

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