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City considers routes toward sustainability

IMA's green roof offers a case study; recycling program also gets second look

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Most people strolling on the manicured lawn in front of the Indianapolis Museum of Art don't realize they're walking across a roof.

It's not just a grass-covered roof, either.

Flowers, shrubs and about five-dozen Red Sunset maple trees have all been planted atop a massive underground parking garage.

City officials hope the rooftop can help inspire a larger movement toward more environmentally friendly building practices in Indianapolis as part of Mayor Bart Peterson's pledge to push a "sustainable" city agenda.

Following in the footsteps of cities like Chicago and Seattle, city officials are exploring various measures. Under consideration: switching to alternative fuel sources, planting more trees, upgrading walkways, overhauling the city's recycling program and cutting government energy consumption.

After Mayor Richard Daley created a rooftop garden on Chicago's City Hall in 2000, the city skyline has literally bloomed with more than 200 green rooftops, covering about 2.5 million square feet. Chicago officials are now considering green-roof technology at O'Hare International Airport, as well as requiring that new public buildings be certified as environmentally friendly.

Indianapolis is further behind.

"City Hall can only lead by example," Deputy Mayor Steve Campbell said. "We won't really make a dent until the public takes it up. But we don't want to pass a whole bunch of regulations. We want to help people see the benefits."

The potential is enormous, because about 30 percent of any urban footprint is rooftops, said Jeffrey L. Bruce, owner of a landscape architecture firm and the keynote speaker of a green roof symposium planned for Thursday in Indianapolis.

Bruce's company helped design the world's largest green roof, Millennium Park in Chicago, which like the IMA project sits above a parking garage. In a phone interview, Bruce said green roofs cut down on pollution, lower urban temperatures, help preserve a roof's membrane and are simply more attractive.

The cost can be twice as high as a conventional roof, he said, but the price can be offset by government incentives and the long-term benefit of prolonging the life of a roof for many years.

What's really bringing political leaders around, Bruce said, is the decrease in storm-water runoff. He said that as a rule of thumb, a green roof retains 75 percent of the water that lands on it.

"A lot of cities are spending millions to dig big tunnels to capture the storm water," Bruce said. "The

thought is we can defer some of that runoff before it happens."

At the IMA, excess water runs through the roof's growing medium to drainage pipes that replenish a nearby wetland area.

Green building goes beyond green roofs. It encompasses ways to build that save water, optimize natural light and decrease maintenance and energy costs.

For instance, Chicago's green agenda notes that considering the interaction between windows and lighting can reduce the heat from light fixtures and allow for a smaller air-conditioning system.

Campbell said Indianapolis plans to develop its own green plan.

Past efforts have included switching city buses to clean-burning fuels and prohibiting government vehicles from idling for more than a few minutes.

Now those efforts include an overhaul of the city's recycling effort. The Department of Public Works is holding public forums to consider how to boost recycling participation.

Elsewhere, Metropolitan Development is leading efforts to plan a pedestrian-friendly Downtown cultural trail with private donations.

The city has also begun its NeighborWoods program. The goal is to plant 100,000 trees in city neighborhoods within a decade. The idea is that beautifying neighborhoods helps create pride that has a positive ripple effect on everything from housing values to crime.

Mayor Bart Peterson recently signed the U.S. Mayors' Climate Protection Agreement with more than 400 others committed to look for ways to reduce greenhouse gas emissions.

Andy Fraizer, the city's director of community development and a point person for the environmental effort, said Indianapolis is just "beginning a conversation about how far we want to go."

Seattle is recognized as a leader in efforts to make cities more sustainable. It has created a \$37 million climate-action plan to reduce greenhouse gas emissions to 7 percent below 1990 levels by 2012.

Peterson hasn't spelled out exactly what the city will do. But he promised in his recent State of the City address to do just that in the next few months.

"It is becoming ever more clear that our city and our country must act now to ensure that our future is sustainable," Peterson said.

Additional Facts

Green ideas

What Indianapolis is thinking about to become more environmentally friendly.

- **Purchasing.** The city has begun efforts to buy more environmentally conscious goods, such as computers and appliances that meet Energy Star efficiency ratings, recycled building materials and nontoxic cleaning supplies.
- **Alternative fuels.** The city has retrofitted some city and school buses with converters to reduce diesel pollution and maintains others that run on biodiesel or mostly ethanol fuel.
- **NeighborWoods.** In a partnership with Keep Indianapolis Beautiful and corporate sponsors, the city aims to plant 100,000 trees in city neighborhoods over the next 10 years.
- **Recycling.** The city is holding a series of public forums to get comments on how to improve its recycling program and encourage participation.

- **Green roofs.** Green roof projects are under way at the Moon Block Building in Fountain Square and the Clarian Cancer Center.

If you go

The city is co-sponsoring a full-day symposium on green roofs starting at 8:30 a.m. Thursday at the University Place Conference Center and Hotel, 850 W. Michigan St. The cost is \$195.

The keynote speaker will be Jeffrey L. Bruce, owner of a national landscape architectural firm and board member of the American Society of Irrigation Consultants and Green Roofs for Healthy Cities.

For more information, go to www.greenroofs.org or contact Tim Method, Indianapolis Department of Public Works, at (317) 327-4949 or via e-mail at tmethod@indygov.org.
