

Sustainability Celebrates Nature in the Heart of a Metropolis

Grange Insurance Audubon Center | Columbus, OH

RECREATION/EDUCATION

CHALLENGE

According to Wade Walcutt, who took on the job of facility operations manager for the Grange Insurance Audubon Center shortly before its opening in August 2009, the community's vision for this unique nature and education center in the heart of Columbus, Ohio, had four goals:

1. To reduce non-native invasive species
2. To increase water quality of the Scioto River
3. To restore the riverine flood plains
4. To increase the riparian edge, that is, the naturally wooded area along the river

Garland representative, Tim Gargas, was challenged by the center's architectural firm — DesignGroup of Columbus, Ohio and Covington, Kentucky — to come up with a roofing solution to achieve these goals.

SOLUTION

As the first Audubon center in the country to be built so close to the heart of a major city (the facility is only one mile from the center of downtown Columbus, Ohio's capital), the Grange Insurance Audubon Center is a model for sustainable design, educating its surrounding community to the economic, health, and aesthetic benefits of green buildings. Yanitza Brongers is the DesignGroup project architect who worked with project designer,

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Wade Walcutt
Facility Operations Manager
Grange Insurance

Michael Bongiorno to realize the Audubon Center vision. Brongers recalls, “Our goal was to have a building that could be a teaching tool without the need for signage; an urban ecology education facility that was a demonstration of the principles of sustainable design.”

that creatively channel water off the roof and scuppers that feed the birdbaths. Headquartered within 200 miles of the new center's location, high-performance roofing manufacturer, The Garland Company, Inc., worked with the architect to design a system that would advance the project's ambitious objectives.

The company's Columbus representative, Tim Gargas, recommended a StressPly® fiberglass-reinforced polymer-modified bitumen system incorporating recycled content, combined with the aesthetically pleasing GreenShield® vegetative rooftop and filtration system. He explains, “The building's architectural profile is a challenging one with several different angles, elevations, and slopes. Designing appropriate drainage, a sprinkler system to recapture rainwater, and a landscape of sedums native to this area were some of the many factors critical to meeting the Audubon Center's objectives.”

The green roof solution uses plants indigenous to the area and reduces storm water run-off to protect the river and its habitat. As a central design feature of the facility, the roof is an integral part of what has become a de facto science laboratory and classroom for Columbus City Schools. Walcutt explains, “We wanted a teaching tool that could be a model for habitat restoration in an urban area.”

For Walcutt, conserving the ecological health of the river is central to every aspect of the facility's design. He reports, “We've introduced all types of storm water run-off management systems to protect the river and the habitat native to it.” In addition to the green roof itself, these include through-earth filters, as well as native plants used as landscape elements (bioswales) to naturally remove silt and pollution from run-off water.

Ironically, as Walcutt explains, “The biggest threat [to the natural habitat] could have been the project itself, building anything in this area. All our efforts have been to create as little environmental impact as possible, while enhancing this area. The green roof, in particular, provides a number of ecologically beneficial functions and has been instrumental in helping the building achieve LEED® certification. A LEED Gold certification is currently in process.”

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Project: Grange Insurance Audubon Center
Location: Columbus, OH
Garland Rep: Tim Gargas
Type of Project: Modified/Vegetative
Materials: GreenShield®
StressPly®