



CYPRESS

Transforms a Brownfield Site into the Award-Winning Trinity River Audubon Center

Locally sourced cypress is one of the sustainable building materials that has transformed a former illegal dump site into the Trinity River Audubon Center, an award-winning showcase of green building in the heart of a major Texas metroplex.

Situated just eight minutes from downtown Dallas and within the largest urban hardwood forest in the U.S., visitors would never guess the Trinity River Audubon Center resides on 120 acres of restored landfill. Brown Reynolds Watford Architects took the site, containing 1.5 million tons of debris, and remade it into an environmental wonderland capped with rolling hills and replanted native hardwood trees and prairie grass.

BRW's project manager Gary DeVries said the primary goal of the project was "to create a teaching tool to promote an appreciation of the surrounding ecosystems and an understanding of our impact on the environment." He touts the Audubon Center as a

reflection of its surroundings. "The building has three wings, each designed to express a different element of the site—forest, prairie, and water."

"The education wing is expressive of a tree house in the forest," explains DeVries. The exterior is clad in sustainably grown cypress siding, arranged in a horizontal tongue-and-groove pattern. "Cypress was selected for its beautiful appearance as well as its natural rot resistance and longevity," he adds. The interior features pecan paneling and millwork, and a suspended ceiling crafted from beech boards. Outdoor corridors connect the classrooms, helping to reduce the need for air-conditioned space.

True to its design inspiration, the administrative wing represents a prairie, including a vegetated "green" roof with native prairie grasses. They work with shading and light-colored paving to reduce the building's heat-island effect.



Visitors can stop by a cypress-clad bird blind or enjoy the many newly planted native trees and prairie grasses on the sites four miles of trails.

The exhibit wing pays homage to the ponds on the site. Displays begin inside and continue outside through the Children's Discovery Garden and culminate at a below-grade aquarium designed to look like part of the adjacent pond.

Regionally sourced, sustainable materials had a major influence on construction. Along with native wood, the gravel, sand and fly ash used in the concrete were locally sourced.



"Materials were selected to meet LEED criteria for recycled content, regional availability, rapidly renewable content, and certified wood," noted DeVries. "Because volatile organic compounds (VOCs) can be hazardous to human health, all adhesives, sealants, paints, flooring and wood products were selected to meet low-emitting criteria to improve environmental quality."

Other eco-friendly attributes include low-flow toilets and fixtures, and a rainwater harvesting system for watering plants. The Audubon Center also helps reduce local flooding and erosion through a series of cascading marshes and ponds that cleanse the runoff before returning it to the river.

The 22,000-square-foot facility was designed to achieve LEED (Leadership in Energy and Environmental Design) Silver certification and has received numerous awards, including the Best Green Building by *Texas Construction's* Best of 2009 Awards.

As the first in a series of planned Trinity River Corridor projects, the Audubon Center already has succeeded in bringing together the urban community and the environment. It's here, at this intersection of city and nature, where we learn people, forest, river and wildlife can coexist.

To learn more about the versatility, beauty, and durability of cypress, visit www.cypressinfo.org.

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Awards:

- 2009 *Texas Construction Magazine* - Best Architectural Design; Best Green Building Project in Texas
- 2009 Texas Society of Architects - Citation of Honor
- 2009 #1 Top Ten Dallas-Fort Worth Project
- 2009 *Recreation Management* - Innovative Architecture & Design Award
- 2009 *Dallas Business Journal* - Best Green Project
- 2009 North Texas U.S. Green Building Council Design Award
- 2008 Greater Dallas Planning Council's Built Environment Design Award

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