



Green Infrastructure & Stormwater Management CASE STUDY

St. Landry Parish Visitor's Center

Location: St. Landry Parish, LA
Client: St. Landry Parish Tourist Commission and Ashe Broussard Weinzette Architects
Design Firm(s): Jeffrey Carbo Landscape Architects
Landscape architect/Project contact: Project Manager - Kevin Neal, ASLA
Email: kneal@jeffreycarbo.com;
jcarbo@jeffreycarbo.com
ASLA Chapter: Louisiana



Project Specifications

Project Description: The design draws inspiration from the local interaction of natural ecosystems and agricultural history of the region. The site showcases sustainable stormwater practices with a series of bog ponds, filled by water runoff from the roof and parking lot, that serve as a bio-filter to cleanse the water, as well as an attractive landscape feature. All the elements of design serve both aesthetic and functional purposes. The interior of the building provides flexible exhibit space for promoting cultural and tourism opportunities in St. Landry Parish. Sustainable materials such as recycled asphalt, fly ash, and salvaged brick are used throughout. The structural and mechanical systems of the building are not concealed resulting in the building composition and support systems becoming an educational feature itself. The project was recently completed in 2011.

Project Type:

Transportation corridor/streetscape
Part of a new development

Design features: Bioretention facility, rain garden, bioswale, cistern, downspout removal, and porous pavers.

This project was designed to meet the following specific requirements or mandates:
County ordinance, local ordinance



Impervious area managed: 1 acre to 5 acres

Amount of existing green space/open space conserved or preserved for managing stormwater on site: 1 acre to 5 acres

The regulatory environment and regulator was supportive of the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? The clients requested the project built as a LEED NC certified project.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Federal, parish)

Related Information: Total site/landscape cost +/- \$330,000.00 parking + \$130,000.00 (sitework, walks, bioswales) landscape + \$100,000.00 utilities, drainage, gabion walls, dirtwork +/- \$100,000.00

Was a green vs. grey cost analysis performed? No

Cost impact of conserving green/open space to the overall costs of the site

design/development project: We were efficient in our planning of needed parking and vehicular circulation, using recycled asphalt and porous surfaces for all, and allowing more open meadow and landscape space.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?

Significantly reduced costs (10% or greater savings).

Number of jobs created: +/-30

Job hours devoted to project:

Planning and Design: 2
 Construction: 20
 Annual Maintenance: 2
 Other: 3

**Performance Measures****Stormwater reduction performance analysis:**

Data not available. But all stormwater is retained on site via cisterns, bioswales and rain gardens.

Community & economic benefits that have resulted from the project: Data not available

Additional Information

Links to images: www.jeffreycarbo.com

The core design approach was to closely integrate the new Visitor Center with the site, so that each reinforces the other and works together to incorporate a wide variety of sustainable strategies. The design incorporates traditional building responses commonly found in Louisiana such as deep porches that temper the heat, elevating the building for protection from high water, and pitched roofs that shed rainwater quickly, but these are reconsidered and implemented in fresh and inventive ways. An eye-catching steel tower accommodates a wind turbine that provides electricity to the building. A series of bog ponds, filled by water runoff from the roof and the parking lot, serve as a bio-filter to cleanse the water, as well as an attractive landscape feature. Native plants were selected for their low maintenance requirements. Sustainable

features: permeable recycled asphalt, run-off from parking lot surface drains into bog ponds, irrigation free landscape, rainwater collection via cistern, wind turbines, photovoltaic film, use of 30% fly ash in foundation, salvaged brick and wood siding, FSC certified lumber, high recycled content materials, daylighting, low E insulated glazing, short west and east exposures, personal temperature controls, dual flush toilets, on-site sewage treatment, energy star rated appliances, increase public awareness of sustainable building issues.

