



MISSISSIPPI STATE UNIVERSITY™

EXTENSION SERVICE

# Bay St. Louis Downtown Parking Garage

Bay St. Louis, MS

## Project Highlights:

- Recycled concrete from the previous structure
- Vines growing on the greenwalls shade the structure and provide a visual amenity
- 10,000 gallon cistern reduces site water runoff and is be used for irrigating plants
- Low level down lighting provides for safety and security needs while promoting dark-sky initiatives
- Solar photovoltaic system provides energy for the facility, and LED lights reduce overall energy needs

## Dark Sky Initiative



Lighting energy needs are provided by solar collectors, and outdoor lamps are directed downward to minimize light pollution.

## Project Overview

Completed in 2011, the Bay St. Louis downtown parking garage is a model of sustainable design. The two level 120 space concrete parking structure serves the adjacent Hancock County courthouse and commercial district. It comprises nearly 32,000 square feet and cost \$3.2 million.

## Smart landscape features and practices

Dark Sky Initiative. Light pollution occurs when excessive artificial lights in urban areas point skyward instead of at the ground where it is most needed. Light pollution results in extra electricity costs to illuminate where it is not needed and an increase in the excess use of fossil fuels. Brightly lit environments have been found to interrupt sleep cycles in a community's plants, animals, and humans. As a result, the Dark Sky Initiative was born to educate homeowners and communities about reducing the use of lighting fixtures that waste light skyward. The Bay St. Louis downtown parking garage solves this problem of excessive lighting by placing lights underneath overhangs and eaves where they are most needed, and use outdoor area lighting structures that utilize shielded reflectors to point downward.

Vines, such as this bougainvillea, shade the parking structure and provide a summertime display.



## Project designers:

unabridged Architecture, Architect

Walker Parking, Structural, MEP Engineer, Parking Consultant

The Landscape Studio, Landscape Architecture

White Spinner, Contractor

Context: downtown, urban

Award: AIA/Mississippi Honor Award, 2011



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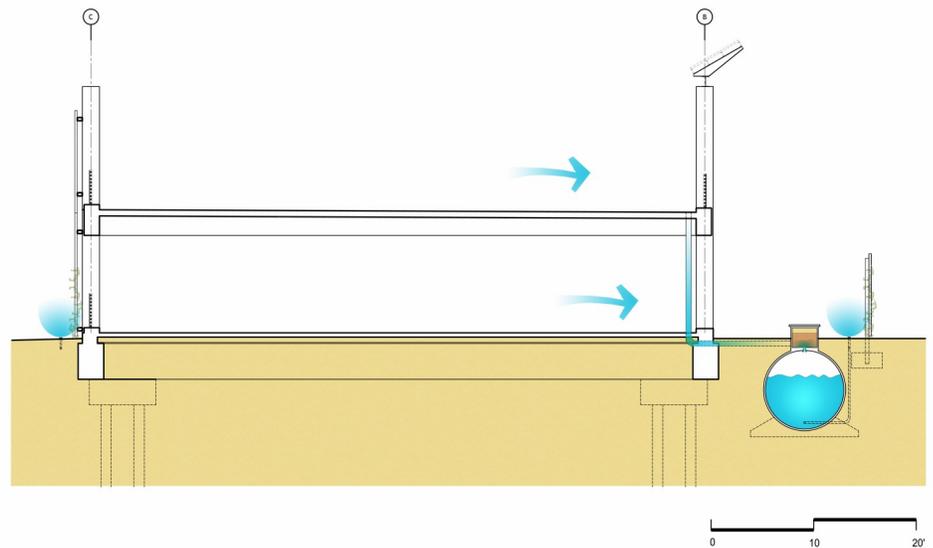
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Allison Anderson, of unabridged architecture, states that the “12 KW solar photovoltaic system offsets over 45% of the garage’s power requirements”, and that “a bi-directional meter tracks excessive power supplied to the grid.”



As this section drawing shows, rainwater that falls on the parking structure is directed by gravity flow to a subterranean 10,000 gallon cistern. The stored rainwater prevents excessive flooding to the city’s stormwater system and can be reused for irrigating landscape plants.



Written by Robert F. Brzuszek, Associate Extension Professor, The Department of Landscape Architecture, Mississippi State University. All images are the property of unabridged architecture and were used with permission.