



Green Infrastructure & Stormwater Management CASE STUDY

Old Brownsboro Crossing Low Impact Development Plaza

Location: Louisville, KY

Client: McMahan Group

Design Firm(s): Gresham, Smith and Partners and Verdant Design

Landscape architect/Project contact: John Pacyga, ASLA

Email: john.pacyga@verdantky.com

ASLA Chapter: Kentucky



Project Specifications

Project Description: A 100-acre regional marketplace lays out a pattern of development fixed on activity centers, focal points and multi-modal traffic connections. The Low Impact Development Plaza encompasses 8 of the lots: the parking lots and buildings are joined to reduce their size, the parking lots are used by the banks during the day and the restaurants at night, and the parking lot drainage is filtered and infiltrated through a series of bio-detention swales.

Project Type:

Commercial

Part of a new development

Design features: Rain garden, bioswale, and curb cuts.**This project was designed to meet the following specific requirements or mandates:**

Developer/client preference. The plaza contributed to the approval of the commercial development.

Impervious area managed: greater than 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?** No requests made.**Cost & Jobs Analysis****Estimated Cost of Stormwater Project:** \$100,000 - \$500,000 (Public funding: None. All privately funded as a part of the landowners association.)**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:** Landscape buffers for the commercial lots are required by local landscape code. Instead of a berm to screen, the buffer strip was depressed. The plaza itself is used as a site amenity. The cost of the project for all eight of the lots is estimated at \$250,000.**Cost impact of conserving green/open space for stormwater management over****traditional site design/site development approaches (grey infrastructure)?** Slightly increased. Much of the costs dealt with expectations of a native landscape in a commercial area and the change in maintenance needed.**Number of jobs created:** 5**Job hours devoted to project:**

Planning and Design: 45

Construction: 500

Annual Maintenance: 60



Performance Measures

Stormwater reduction performance analysis:

Site was not monitored.

Community & economic benefits that have resulted from the project: The project is the largest of its kind in the metropolitan region since its installation in 2007. It continues to be the touchstone project for bio-infiltration. It also offers an landscape amenity to the neighboring properties.

Additional Information

Links to images: <http://www.verdantdesignky.com/2011/03/old-brownsboro-crossing-low-impact-development-plaza/?pid=78>