



Green Infrastructure & Stormwater Management CASE STUDY

Village East at Washington University

Location: St. Louis, MO

Client: Washington University

Design Firm(s): EDAW - SWT Design

Landscape architect/Project contact: Herb Schaal, FASLA and Hunter Beckham, ASLA

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ASLA Chapter: Saint Louis



Photo: David Kilper

Project Specifications

Project Description: The residential student building was constructed with the LEED guidelines and the majority of the stormwater that hits the site flows through a rain garden. It is planted with regionally appropriate material, provides a very nice aesthetic at a public intersection with the University and provides ample free board to slow and clean the water that passes through.

Project Type:

Industrial

Part of a new development

Design features: Bioretention facility, rain garden, and downspout removal.

This project was designed to meet the following specific requirements or mandates:

Local ordinance, developer/client preference

Impervious area managed: 5,000 sq/ft to 1 acre

Amount of existing green space/open space conserved or preserved for managing stormwater on site: There was no existing green/open space to preserve.

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? Again, these conversations probably happend but unfortunately I was not part of them. Upon further study the documentation could reveal insight into this topic.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Unknown but would assume it is all private funds)

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: By maintaining open space in the plan significant costs were saved because the space would have been consumed by high cost building structure. The result is an aesthetically pleasing residential park-like setting for students.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly reduced costs (1-9% savings). This is an estimate as no calculations are available for this.

Number of jobs created: 50

Job hours devoted to project:

Planning and Design: 1,500 est

Construction: 2,000 est

Annual Maintenance: 2,000 est

Performance Measures

Stormwater reduction performance analysis:

It is not readily available however when the LEED documentation is made available this question should be answerable.

Community & economic benefits that have resulted from the project: The facility is always full and a desired location to live by students. It provides the aforementioned aesthetic enhancement to the campus as well as the adjacent community. The project has also inspired

further enhancements along this very important corridor of Parkway. Finally, it is not being monitored but the improvements to stormwater quantity and quality are present for everyone to see.

Project Recognition

LEED Certification, Silver

Additional Information

Links to images: <http://news.wustl.edu/news/Pages/14372.aspx>