



Green Infrastructure & Stormwater Management CASE STUDY

North Center Medical

Location: Saginaw, MI

Client: Dr. James LaFleur

Design Firm(s): Designscares, Inc.

Landscape architect/Project contact: C. Patrick Sellenraad, ASLA

Email: dscapes@dscapes.com

ASLA Chapter: Michigan



Photo: Designscares, Inc.

Project Specifications

Project Description: This project treated rainwater as a resource, rather than a waste product. The landscape areas in the front and rear of the building were designed to detain, filter, and infiltrate stormwater from the roof and parking lot. Filled with blooming perennials, these biofiltration areas play a key role in the aesthetics of the building. Signage educates visitors,

explaining how the landscape is being used to clean stormwater and reduce runoff. Rain water from the roof also keeps a fountain at the entrance to the main courtyard filled.

Project Type:

Commercial

Part of a new development

Design features: Bioretention facility, rain garden, bioswale, and curb cuts.

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

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: 5,000 sq/ft to 1 acre

The regulatory environment and regulator was indifferent to the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? This landscape was designed to look like a sunken garden, rather than a stormwater detention area.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$10,000-\$50,000 (Public funding: No public dollars)

Was a green vs. grey cost analysis performed? No. The original stormwater management plan detained stormwater on the parking lot surface. In discussions with the owner, we decided that was not an appropriate solution for a doctors office. Using the landscape as a BMP for stormwater eliminated water

Cost impact of conserving green/open space to the overall costs of the site design/development project: This project re-programmed the area originally designated for conventional landscape. It made the green space a functional part of the stormwater management system.

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

Number of jobs created: Not available

Job hours devoted to project:

Planning and Design: 80

Construction: Not available
Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Adding the landscape areas to the stormwater management plan eliminated detention on the parking lot surface during intense rain events. As a result, patients did not need to walk through standing water to get to their cars after a thunderstorm.

Community & economic benefits that have resulted from the project: The landscape is truly an amenity for this office, as evidenced by the award it received.

Project Recognition

Michigan Nursery and Landscape Association; Grand Award winner, special projects

Additional Information

Links to images: www.dscapes.com/stormwaterdes.htm



Photo: Designsapes, Inc.