



Green Infrastructure & Stormwater Management CASE STUDY

Minnetonka Community Center

Location: Minnetonka, MN

Client: City of Minnetonka

Design Firm(s): Martin & Pitz Associates, Inc.

Landscape architect/Project contact: Marjorie Pitz, FASLA

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ASLA Chapter: Minnesota

Project Specifications

Project Description: The City wanted to build a new community center, and hired Martin & Pitz to create a master plan of their land. Marshy land that fed a creek became an attractive civic pond to improve the campus amenities. The pond was designed to dramatically bounce in elevation after an event, and slowly release the water via a dam structure, into the urban creek. Many storm sewers enter the pond, and mini-ponds were created to trap sediment and floatables before the water entered the major pond. Decks surround one edge of the pond, allowing people to access it safely. A fountain aerates the water. It was the first storm pond in Minnesota (1986) that was designed to be an amenity. Water is cleaned before it eventually enters the creek.

Project Type:

Government complex

A retrofit of an existing property

Design features: Bioretention facility. Creation of a pond that could bounce in elevation to retain flood waters. Small ponds at each storm sewer inlet trapped floatables, and made sediments drop before water entered the major pond. If water topped the dam, it would release slowly to minimize.

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

Local ordinance, watershed ordinances

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? The owner was mostly interested in aesthetics. They refused to let the parking lot islands absorb run-off, and wanted drainage from the lots piped into the pond. The project was too early for the community to appreciate environmental benefits.

Cost & Jobs Analysis

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

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: The decision to create a pond raised project costs, but gave the city positive identity. No effort was made to figure out savings from flooding expenses that did not occur. Mostly, the pond reduced downstream flooding, as flooding on site was not a problem.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly increased. No other options were available.

Number of jobs created: 20

Job hours devoted to project:

Planning and Design: 100

Construction: 2,000

Annual Maintenance: 80

Performance Measures

Stormwater reduction performance analysis:

100% of a 2-year event kept on site. It was designed to bounce up to a 100-year storm.

Community & economic benefits that have resulted from the project: The pond transformed the civic campus from a podunk, rural-suburban character into an artsy, sophisticated urban character. This helped the city attract quality developments, and hold

developers to a high standard of environmental health.

Project Recognition

ASLA Chapter Honor Award for Master Plan, and Honor Award for Site Design

Additional Information

This project was the first stormwater pond that was not surrounded by chainlink fencing and ripped in Minnesota. It was the first use of native grasses in an urban setting. It was a groundbreaking project that said "Stormwater can be an amenity".