



Green Infrastructure & Stormwater Management CASE STUDY

The Kresge Foundation Headquarters

Location: Troy, MI

Client: The Kresge Foundation

Design Firm(s): Conservation Design Forum, Valerio Dewalt Train, Farr Associates, ARUP

Landscape architect/Project contact: David Yocca, ASLA

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ASLA Chapter: Illinois



Project Specifications

Project Description: Conservation Design Forum helped the 80-year-old Kresge Foundation expand their 3-acre headquarters site in Troy, Michigan. The new building and site provide natural light, clean air, and a strong connection to water and plants from the offices and meeting rooms, and model for grant recipients to learn about sustainable design practices. A series of naturalized plantings evoke a stylized sense of the Midwestern prairie: an ornamental prairie garden, a naturalized grass zone with grade transitions into a green roof, prairie landscape, and aquatic wetland garden. All rainwater is treated on site: rainwater falls onto planted surfaces or porous paving while surplus water collects and compensates for evaporation in the aquatic water feature, and irrigates green roofs.

Project Type:

Commercial

A retrofit of an existing property

Design features: Bioretention facility, rain garden, bioswale, green roof, cistern, downspout removal, porous pavers, and curb cuts.**This project was designed to meet the following specific requirements or mandates:**

Local ordinance, developer/client preference, LEED criteria

Impervious area managed: 1 acre to 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 client sought a high-performance demonstration of integrated green practices for the building and site.**Cost & Jobs Analysis****Estimated Cost of Stormwater Project:** \$1,000,000-\$5,000,000 (Public funding: None)**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:** Did not affect the overall costs.**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Did not influence costs.**Number of jobs created:** Data not available.**Job hours devoted to project:**

Planning and Design: 1,000

Construction: Not available

Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Detailed data not available. All rainwater is treated on site. Small rain events are detained on site with 0% discharge. Larger events overflow into the city sewer system.

Community & economic benefits that have resulted from the project: The Kresge Foundation Headquarters is used as a teaching tool for staff, visitors, all who seek funding support from the Kresge Foundation, and the community.

Project Recognition

Michigan Chapter ASLA Merit Award, 2009; American Council of Engineering Companies (ACEC) NY Honor Award, 2007, AIA Chicago Distinguished Building Award, 2006; Michigan Barn Commission Award for Innovative Use of Barn Reuse, 2007; LEED Platinum, 2007



Additional Information

Links to images: All photos from Conservation Design Forum:

http://www.cdfinc.com/Project?project_id=86

<http://www.kresge.org/index.php/headquarters/index/>

The Kresge Foundation funds sustainable design projects worldwide. Their high-performance green facility has been widely used to illustrate the benefits of integrated green infrastructure and green practices, including the American Society of Landscape Architect's Sustainable Landscapes (<http://www.asla.org/sustainablelandscapes/kresge.html>), the Sustainable Sites Initiative (<http://www.sustainable-sites.org/cases/show.php?id=14>), and the U.S. Green Building Council.