Green Infrastructure & Stormwater Management CASE STUDY

State Street Reconstruction

Location: Portsmouth, NH
Client: City of Portsmouth
Design Firm(s): CMA Engineers, Ironwood design group (landscape architects)
Landscape architect/Project contact: Jeffrey R. Hyland, ASLA
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ASLA Chapter: Boston

Project Specifications

Project Description: The primary goal of this project was to transform State Street, a major vehicular artery of downtown Portsmouth into a pedestrian friendly and culturally and economically vibrant corridor reflecting Portsmouth character.

Project components: traffic calming measures, sidewalk enhancements, and roadway rehabilitation, utility improvements, bioretention stormwater treatment, lighting, and landscaping.

Project Type:
Transportation corridor/streetscape
Part of a redevelopment project

Design features: Bioretention facility, rain garden, and sand filter.

This project was designed to meet the following specific requirements or mandates: To meet funding criteria, developer/client preference

Impervious area managed: 1 acre to 5 acres

Amount of existing green space/open space conserved or preserved for managing stormwater on site: less than 5,000 sq/ft

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? yes, maintenance

Cost & Jobs Analysis

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

Was a green vs. grey cost analysis performed? No

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: Not available

Job hours devoted to project:

Planning and Design: 450
Construction: Not available
Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:
85% of stormwater captured and filtered through rain garden, bioretention tree wells, or sand filter before release.

Community & economic benefits that have resulted from the project: The project is 90% complete. The effects will surelly be more evident as soon as the 2011 tourist season begins. It has be observed that several propertys on the market for some time have recently sold.

Additional Information

Links to images: http://fewood.blogspot.com/