



Green Infrastructure & Stormwater Management CASE STUDY

Bayside Promenade Trail

Location: Bayside Neighborhood, Portland, ME

Client: City of Portland, Maine Department of Transportation, Portland Trails, and Trust for Public Lands

Design Firm(s): Terrence J. DeWan & Associates, AECOM, and Woodard & Curran Civil Engineers

Landscape architect/Project contact: Tom Farmer, RLA

Email: farmer@tjda.net

ASLA Chapter: Boston



Photo: The Bayside Trail website

Project Specifications

Project Description: The Bayside Promenade Trail is a 1.2-mile-long trail through Bayside connecting to the Eastern Promenade Trail and ultimately to Portland's Olmsted-designed Deering Oaks Park. As a winding, linear open space, the trail forms the "spine" of green space through the city, providing a pedestrian and bicycle path, as well as opportunities to access pocket parks along its route. Connections along its length will provide access to residential neighborhoods, other nearby trails such as the Back Cove Trail, and local businesses. The trail will also provide safe pedestrian access for students at nearby public schools such as East End and Portland High School.

Project Type:

Shared-use pathway
Part of a redevelopment project

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

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

State statute, local ordinance, 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: 1 acre to 5 acres. Other stormwater management devices included pervious concrete and pervious pavers.

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? Yes, usable green space was a big factor in the location and design of the stormwater devices.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Federal, state, 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: Cost was saved by keeping all excess soil material on site. Excess fill was used for earthen berms, buffers and screens, and green spaces. Where possible, rain gardens were designed into the green space to lessen the financial impact of upgrading the existing stormwater drainage system.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly reduced costs (10% or greater savings). The overall concept of converting the old railroad corridor into greenspace vs. developing it as parking or building was a significant costs savings. The bio-engineered stormwater features may have increase the initial construction cost slightly, but is seen as a long term investment in the Bayside neighborhood.

Number of jobs created: None.

Job hours devoted to project:

Planning and Design: 3,000 plus

Construction: 6,000 plus
Annual Maintenance: 100 plus
Other: improvements = 100 plus hours

Performance Measures

Stormwater reduction performance analysis:

No data available. Estimate 10% to 20%

Community & economic benefits that have resulted from the project: The City of Portland and many business, civic and political leaders see this as an unprecedented opportunity to incorporate open spaces, parks, and trails into the mixed-use redevelopment planned for the Bayside neighborhood, which has already benefited from significant business and retail investment. TPL, Portland Trails and the Bayside, East Bayside and Munjoy Hill Neighborhood Associations are partnering with the City of Portland and private developers to ensure that open space and recreational amenities are key components of the completed redevelopment.

Project Recognition

Additional Information

Links to images: <http://www.trails.org/baysidetrail/index.html>
<http://www.pressherald.com/news/bayside-trail-emerging-as-an-urban-oasis-2010-04-20.html>

Please refer to the Bayside Trail website, created by Portland Trails:
<http://www.trails.org/baysidetrail/index.html>