



Green Infrastructure & Stormwater Management CASE STUDY

Mount Tabor Middle School, Phase II and the SE 57th Avenue Green Street

Location: Portland, OR

Client: City of Portland, Bureau of Environmental Services

Design Firm(s): City of Portland, Bureau of Environmental Services

Landscape architect/Project contact: Kevin Robert Perry, ASLA

Email: kevin@nevuengan.com

ASLA Chapter: Oregon



Photo: Kevin Robert Perry, ASLA

Project Specifications

Project Description: Phase II of the Mount Tabor Middle School stormwater improvements included a large parking lot swale retrofit adjacent to the school's rain garden as well as a green street application. The parking lot was retrofitted to allow for a 1,400 sq/ft stormwater swale that captures approximately 12,000 sq/ft of runoff. The more efficient site design allowed for a

reduction of only 3 parking spaces. The green street includes a narrow 4' wide stormwater curb extension that captures 6,000 sq/ft of runoff. All of the green infrastructure efforts are used to help eliminate local neighborhood basement sewer backups.

Project Type:

Institutional/education

A retrofit of an existing property

Design features: Bioswale and stormwater curb extension.

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

Relieve local basement sewer backups

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: less than 5,000 sq/ft

The regulatory environment and regulator was supportive of the project.

Cost & Jobs Analysis

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

Was a green vs. grey cost analysis performed? Yes, the green solution was cheaper than upsizing the underground pipe infrastructure.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly reduced costs (1-9% savings).

Number of jobs created: Not available

Job hours devoted to project: Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Detailed data can be found at:

<http://www.portlandonline.com/bes/index.cfm?c=36055&a=343463>

Additional Information

Links to images: Pictures can be available by contacting Kevin Robert Perry at 503-239-0600 or email at kevin@nevuengan.com