



Green Infrastructure & Stormwater Management CASE STUDY

Fox Square

Location: Oakland, CA

Client: Forest City Enterprises, Inc

Design Firm(s): PGAdesign Landscape Architects

Landscape architect/Project contact: Christopher Kent, ASLA

Email: kent@pgadesign.com

ASLA Chapter: Northern California



Photo: PGAdesign Landscape Architects

Project Specifications

Project Description: The runoff water from the hard surfaces of the park's plaza are caught in drain inlets and released in a large bioswale that runs through a portion of the park. The bioswale plants filter out trash and other impurities. The porous soils allow water to infiltrate back into the ground which in turn helps the growth of the parks trees. The bioswale cleans the

water, limits the run off, helps more water become available to the park trees, and is an attractive asset to the park.

Project Type:

Open space - park

Part of a redevelopment project

Design features: Bioswale and porous pavers.

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

State statute, local ordinance, developer/client preference

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.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? Yes, goal of LEED platinum.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$10,000-\$50,000 (Public funding: State, local, City and State redevelopment funds)

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 site was previously all hardscape. The new park provided green space where there once was none.

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). Treating stormwater runoff is part of California's state requirements. It is mandatory but it also save the project money. Planting runs \$5 sq/ft, concrete is \$15 sq/ft, any place you can use plants in lieu of concrete you will save money.

Number of jobs created: Not available

Job hours devoted to project:

Planning and Design: 280 (entire park)

Construction: 17,000 (entire park)

Annual Maintenance: 400 (entire park)

Performance Measures

Stormwater reduction performance analysis:

The project is designed for a 2-year storm event. Larger events will flow through but not flood the site.

Community & economic benefits that have resulted from the project: The park is an attractive open space that helps the neighboring apartment building rent out their units. There has been an increase of 1,800 people living within one block of the park over the last two years. Several restaurants, stores, and night clubs have started up to cater to these new residents as well as to people who work in downtown Oakland and now stay late to enjoy the night life.

Project Recognition

The National Association of Home Builders (NAHB) Platinum Award, Best in American Living Awards; State of California

Additional Information

Links to images: <http://pgadesign.com/urban-design/fox-square-park.php>