Green Infrastructure & Stormwater Management CASE STUDY

219th Street

Location: Shoelace Park at 219th St., The Bronx, New York City, NY
Client: NYC Parks & Recreation
Design Firm(s): James Mituzas, NYC Parks & Recreation
Landscape architect/Project contact: Nette Compton
Email: nette.compton@parks.nyc.gov
ASLA Chapter: New York

Project Specifications

Project Description: Stormwater runoff from the intersection is channeled to the Park through curb cuts to raingarderns

Project Type:
Open space - park
A retrofit of an existing property

Design features: Rain garden, porous pavers, curb cuts, and porous sub-surface storage tank.

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

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 - safety, asthetics, maintenance.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: $500,000-$1,000,000 (Public funding: 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: It probably increased the construction and design costs, compared to a traditional design, since the long-term incremental costs of traditional designs are not assessed.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly increased.

Number of jobs created: 4 on average for 2-year project duration

Job hours devoted to project:

Planning and Design: 480
Construction: 640
Annual Maintenance: 24

Performance Measures

Stormwater reduction performance analysis:
The project was designed to capture a 10-year storm flow from the contributing area.

Community & economic benefits that have resulted from the project: Aesthetics, reduced erosion and downslope degradation, increased access