Green Infrastructure & Stormwater Management
CASE STUDY

Greenstreets - Colfax St & Murdock Ave, Queens

Location: Colfax St & Murdock Ave, Queens, New York City, NY
Client: NYC Parks & Recreation
Design Firm(s): NYC Parks & Recreation
Landscape architect/Project contact: Adriana Jacykewycz
Email: Adriana.Jacykewycz@parks.nyc.gov
ASLA Chapter: New York

Project Specifications

Project Description: The Greenstreet at Colfax St & Murdock Av, Queens is a bioretention area that actively captures stormwater with one curb cut allowing runoff to enter from the street. The profile of the bioretention area, installed in 2010, consists of three inches of mulch and two feet of bioretention soil mix, situated on top of a well-drained native sandy soil. The bioretention area is planted with a variety of trees, shrubs and grasses. The site disconnects a total of 1,995 sq/ft of impervious area from the sewer system. The site is the first of a series of stormwater capture Greenstreets, funded through the American Recovery and Reinvestment Act, to be equipped with intensive monitoring setups supported through NSF. The performance of the bioretention area is being monitored through collaboration between Drexel University, NYCDPR, NYCSWCD and Brooklyn College, with regards to the hydrology, water quality and soil chemistry of the site.

Project Type:
Transportation corridor/streetscape
A retrofit of an existing property

Design features: Bioretention facility and curb cuts.

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

Impervious area managed: less than 5,000 sq/ft

Amount of existing green space/open space conserved or preserved for managing stormwater on site: Not applicable

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? No.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: $50,000-$100,000 (Public funding: Federal - ARRA Stimulus Funds)

Was a green vs. grey cost analysis performed? Not available

Cost impact of conserving green/open space to the overall costs of the site design/development project: Not applicable – the site was located on existing impervious roadbed.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Not applicable - no existing green space

Number of jobs created: 0.27

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:
Disconnected 1,995 sq/ft of impervious surface from sewers

Community & economic benefits that have resulted from the project: Greenstreets not only beautify the urban landscape, but also calm busy traffic, clean the air, cool the city, sequester carbon, increase pedestrian safety, provide environment for wildlife, mitigate flooding, and

capture stormwater for irrigation.

Additional Information

Links to images: http://www.nycgovparks.org/sub_your_park/trees_greenstreets.html

http://www.nycgovparks.org/sub_your_park/trees_greenstreets/images/NYC_Greenstreets-Green_Infrastructure_for_Stormwater_Management.pdf