



Green Infrastructure & Stormwater Management CASE STUDY

Queens Botanical Garden Visitor and Administration Center

Location: Flushing, Queens, New York City, NY

Client: Queens Botanical Garden

Design Firm(s): Conservation Design Forum, Atelier Dreiseitl, BSK Architects

Landscape architect/Project contact: David Yocca, ASLA

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ASLA Chapter: Illinois



Project Specifications

Project Description: In accordance with the dictum “where people, plants, and cultures meet”, the Queens Botanical Garden (QBG) offers a place of quiet respite and communion with nature in the heart of downtown Flushing. The QBG Master Plan, completed by CDF in 2002, guided the first step of its implementation – The Visitor & Administration Center and associated water gardens, horticultural and maintenance facilities, and relocated parking area. The Center received a LEED Platinum rating in 2008.

Water is the creative force that defines the new center — always considered as a resource, and never squandered. The water elements make use of harvested rainwater, reducing pollution in

Long Island Sound. It is cooled and filtered with bioswales that mimic the function of natural ecosystems in lush, colorfully planted gardens with open water surfaces. The water feature flows through the center of the building – so that one simply cannot avoid the experience of water. A circular cascading fountain feeds a water channel that visitors cross to enter the gardens.

Project Type:

Open space - garden/arboretum
A retrofit of an existing property

Design features: Bioretention facility, rain garden, bioswale, and green roof.

This project was designed to meet the following specific requirements or mandates: State statute, local ordinance, to meet funding criteria, LEED criteria



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

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, providing a learning environment was a part of the Botanical Gardens' sustainable message. The client sought to maximize the ecological/environmental performance.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$1,000,000-\$5,000,000 (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: Did not affect the overall costs.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Did not influence costs.

Number of jobs created: Data not available.

Job hours devoted to project:

Planning and Design: 3,350
Construction: Not available
Annual Maintenance: Not available

Performance Measures**Stormwater reduction performance analysis:**

Detailed data not available. All rainwater is treated on site. Small rain events are detained on site with 0% discharge. Larger events overflow into the city sewer system.

Community & economic benefits that have resulted from the project: As the garden has transformed in accordance with the master plan over the past 10 years, adjacent vacant properties have been redeveloped, including a hotel and restaurants.

Project Recognition

Illinois ASLA Merit Award, 2009; AIA COTE Top Ten Award, 2008; New York Green Building Design Award, 2004; LEED Platinum, 2008

Additional Information

Links to images: All photos credited to Conservation Design Forum:

http://www.cdfinc.com/Project?project_id=32

The Queens Botanical Garden is a model for green infrastructure/water quality enhancement and as a public institution is visited annually by over 250,000 people. QBG provides a visible example of the integration of these practices for multiple benefits. The Visitor and Administration Building was one of the first LEED Platinum public buildings in New York City, and the project has received numerous other accolades, including a 2008 Committee on the Environment (COTE) award.