Green Infrastructure & Stormwater Management
CASE STUDY

Nannie Helen Burroughs Avenue

Location: Washington, D.C.
Client: District of Columbia Department of Transportation
Design Firm(s): Low Impact Development Center, RMA, EEK
Landscape architect/Project contact: Meredith Upchurch, ASLA
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ASLA Chapter: Potomac

Project Specifications
Project Description: The Nannie Helen Burroughs Ave. project is both a D.C. Great Streets project and a green street. The Great Streets project promote economic development through
streetscape improvements and this 1.5-mile project included as a primary goal to manage stormwater from the street using Low Impact Development. Stomwater management includes bioretention areas, bioretention planters, bioswales, permeable paving, soil amendments, and improved street tree planting. Stormwater runoff from the street is reduced significantly before it flows into Watts Branch, the Anacostia River, and the Chesapeake Bay.

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

**Design features:** Bioretention facility, bioswale, porous pavers, and curb cuts.

**This project was designed to meet the following specific requirements or mandates:**
Local ordinance, developer/client preference

**Impervious area managed:** 1 acre to 5 acres

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 5,000 sq/ft to 1 acre.

**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?** In this currently disadvantaged neighborhood, the LID is intended to be an enhancement to the neighborhood and this was a primary consideration during design.

**Cost & Jobs Analysis**

**Estimated Cost of Stormwater Project:** $100,000-$500,000 (Public funding: Federal, District)

**Related Information:** I can provide more detailed information.

**Was a green vs. grey cost analysis performed?** No

**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:** Not Available

**Job hours devoted to project:**
Planning and Design: 2,000 estimate
Construction: 2,500 estimate
Annual Maintenance: 90 estimate

Performance Measures
Stormwater reduction performance analysis:
LID captures and treats 25% of project area (2.15 of 8.44 acres). SWMM Modeling shows LID reduces runoff by 12%. LID fully captures & treats the 1” rain event and the 1-year, 24 hour (2.7”) rain event.

Community & economic benefits that have resulted from the project: Project is under construction in 2011.

Project Recognition
EPA Green Highways Initiative project

Additional Information
Links to images:  http://www.lowimpactdevelopment.org/nhb/