



# Green Infrastructure & Stormwater Management CASE STUDY

## Jewish Primary Day School Greenspace

**Location:** 6045 16th Street, NW Washington, DC

**Client:** Jewish Primary Day School of the Nation's Capital

**Design Firm(s):** Carla Ellern Landscape Architecture

**Landscape architect/Project contact:** Carla Ellern, ASLA

**Email:** [carla\\_ellern@yahoo.com](mailto:carla_ellern@yahoo.com)

**ASLA Chapter:** Potomac



JPDS Play Field  
Washington, DC

Photo: Carla Ellern Landscape Architecture

### Project Specifications

**Project Description:** An elementary school demolished a neighboring single family home to provide the students with needed outdoor space. The school built a turf play field, amphitheater, memorial garden for a child and a rain garden.

**Project Type:**

Institutional/education

A retrofit of an existing property

**Design features:** Rain garden and porous pavers. The play field must be used for parking occasionally, so the driveway was constructed out of Grasscrete.

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

Developer/client preference, the rain garden was for educational purposes.

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

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 5,000 sq/ft to 1 acre. By removing the existing house, driveway and parking area, the project increased the green space by 50%.

**The regulatory environment and regulator was** apprehensive about the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** The location is under the design guidelines of the US Commission of Fine Arts. There were numerous meetings to make sure the project fit into the 16th Street corridor architecturally. The client was very concerned that the project be integrated into the neighborhood.

**Cost & Jobs Analysis**

**Estimated Cost of Stormwater Project:** \$100,000-\$500,000 (Public funding: None)

**Related Information:** Can provide additional information.

**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:** Preserving existing green space and adding to it was the goal of the project so it was part of the overall cost of the project.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Slightly increased. The rain garden was an additional +-\$15,000.

**Number of jobs created:** 4

**Job hours devoted to project:**

Planning and Design: 200

Construction: 200  
Annual Maintenance: +\_\$2,000

## Performance Measures

### Stormwater reduction performance analysis:

Estimation is that 100% of a 2-year storm event is retained on site.

**Community & economic benefits that have resulted from the project:** The community benefits include increased green space, children playing along 16th street, and increased wildlife in a site located directly across from Rock Creek Park. Increasing green space in the city increases property values and helps bring the neighborhood together.

## Project Recognition

State of Maryland

## Additional Information

### Links to images:

<https://picasaweb.google.com/ellencarla/CarlaEllernLandscapeArchitecture?feat=directlink>

This project now serves as a teaching tool for the school to learn about rain gardens and native plants. Interestingly, during permitting, DDOE was very suspicious of the rain garden and was afraid of too much water infiltrating the rain garden. This has not proved to be the case and the children enjoy the space immensely.