



# Green Infrastructure & Stormwater Management CASE STUDY

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## Syncline Residence

**Location:** Boulder, CO

**Client:** Private client

**Design Firm(s):** K. Dakin Design

**Landscape architect/Project contact:** Karla Dakin

**Email:** [karla@kdakindesign.com](mailto:karla@kdakindesign.com)

**ASLA Chapter:** None

## Project Specifications

**Project Description:** The project is at the base of the Colorado Rockies, in the foothills, adjacent to open space, designated wetlands, and a natural drainage coming from above. The site is tiny and collects a lot of water. In addition to sump pumps in the basement, the surface drainage terminates in a detention area at the street. This detention area is designed to be an rain garden or beautiful amenity, the highlight of a small entry court. In addition, a small green roof above the garage collects and filters drainage from the roof before exiting the property.

### Project Type:

Single family residential

Part of a new development

**Design features:** Rain garden, green roof, porous pavers.

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

County ordinance, local ordinance, developer/client preference, LEED certification

**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:** 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?** Property value enhancements and design aesthetics.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$10,000-\$50,000 (Public funding: None)

**Related Information:** Green roof: \$6,000 Rain gardens: \$6,000

**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 did not change pricing, infact it enhance the entire project.

**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:** Not available

**Job hours devoted to project:**

Planning and Design: 100

Construction: 100

Annual Maintenance: 100

## Performance Measures

**Community & economic benefits that have resulted from the project:** The community benefits are mostly to show that we can deal with stormwater in beautiful ways, turning problems into artful amenities that not serve to enhance the value of stormwater but enhance the overall look of the landscape. If we can do more prototypes for others to see, they will imitate and try their own solution. These designs also give landscape contractors the experience to repeat these design moves with other clients, to spread the word, so to speak.