



# Green Infrastructure & Stormwater Management CASE STUDY

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## Naper Settlement Outdoor History Museum

**Location:** Naperville, IL

**Client:** Naperville Heritage Society

**Design Firm(s):** Wight & Company

**Landscape architect/Project contact:** Jay Womack, ASLA, LEED AP

**Email:** [jwomack@wrdenvironmental.com](mailto:jwomack@wrdenvironmental.com)

**ASLA Chapter:** Illinois

### Project Specifications

**Project Description:** Naper Settlement, an outdoor history museum, was looking to replace every walking surface in the site with new asphalt. They also needed to be responsible for their own stormwater. The project will use interlocking concrete permeable pavers for all walking paths and a visitor parking lot, rain gardens and/or infiltration trenches at each historic site, and rain barrels and/or cisterns to collect rain for re-enactment of historical rain collection.

**Project Type:**

Outdoor history museum

A retrofit of an existing property

**Design features:** Rain garden, bioswale, cistern, rain barrels, porous pavers, and curb cuts.

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

Local ordinance

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

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** greater than 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?** Historically correct plants and material were important to the client.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$1,000,000-\$5,000,000 (Public funding: Federal, state, local - nearly the entire project will be funded through grants awarded to the project.)

**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:** This project was not about conserving open space, it was about the replacement of a mile worth of walking trails that are on average 10 feet wide with permeable pavers, installing rain gardens and infiltration trenches at appropriate locations to work with the historical homes and re-enactments on site, and solving a serious runoff problem on the site.

**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:** Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

## Performance Measures

**Community & economic benefits that have resulted from the project:** Naper settlement will see an economic benefit through the reduction of maintenance of existing trails.