



Green Infrastructure & Stormwater Management CASE STUDY

Robinson Park Pervious Concrete Parking Lot

Location: Mossville Road, Peoria, IL

Client: Peoria Park District

Design Firm(s): Peoria Park District

Landscape architect/Project contact: Michael Friberg, RLA, ASLA

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ASLA Chapter: Illinois



Photo: Michael Friberg

Project Specifications

Project Description: 14-space parking lot for nature trailhead in sensitive river bluff area.

Parking spaces constructed of pervious concrete, aisle constructed of regular concrete. Project completed in Fall 2007. Pervious pavement remains in good shape and drains water well.

Project Type:

Open space- park
Part of a new development

Design features: Pervious concrete pavement.

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

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: It was a parking lot in a park, so it was actually a net loss of green, but added access at minimum impact.

The regulatory environment and regulator was indifferent to the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? I am the owner's representative as an employee, and also the designer. My Superintendent and Executive Director gave me free reign as long as I stayed within budget.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$50,000-\$100,000 (Public funding: Federal, state, local, Illinois DNR managed RTP program (trailhead))

Related Information:

- pervious concrete plus installation: \$24,000
- regular concrete, earthwork, permits, culverts, base: \$36,000
- total cost \$60,000

Was a green vs. grey cost analysis performed? Yes, the lot was 19% more expensive (in 2007) in strict concrete terms. However, if factoring in the stormwater inlets, piping, and rip rap needed to bring stormwater to the base of the bluff to avoid erosion that weren't needed because of the pervious pavement.

Cost impact of conserving green/open space to the overall costs of the site design/development project: Not applicable

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly reduced costs (10% or greater savings).

Number of jobs created: 0

Job hours devoted to project:

Planning and Design: ~100 hours

Construction: ~900 hours

Annual Maintenance: ~ 3 hours

Performance Measures

Stormwater reduction performance analysis:

All of it! It goes right through, limited only by native soil absorption rates.

Community & economic benefits that have resulted from the project: I think it helped bring awareness to the community and bring the topic into public discussion. 3 years later Peoria's first commercial pervious paver lot was constructed.

Project Recognition

Local newspaper

Additional Information

Links to images:

<http://s1134.photobucket.com/albums/m604/mikeinapark/pervious%20concrete%20parking%20lot/>

happy to provide any additional info needed.