



# Green Infrastructure & Stormwater Management CASE STUDY

## Town of Speedway Combined Sewer Separation Project

**Location:** Speedway, IN

**Client:** Speedway Utilities, Town of Speedway, IN

**Design Firm(s):** Civil Engineering, Landscape Architecture, Soils Scientist

**Landscape architect/Project contact:** Remenschneider Associates, Inc.; Ken Remenschneider, ASLA, CLARB

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**ASLA Chapter:** Indiana



### Project Specifications

**Project Description:** A combined sewer separation project primarily utilizing existing ROW for bioswales populated with native plant communities to treat storm water runoff that will no longer overwhelm the combined sewer system. Another component of the project is a rather large demonstration installation at a local elementary school which includes rain gardens, bio-retention basins and sustainable landscapes.

**Project Type:**

Other (please specify)

A retrofit of an existing property

**Design features:** Bioretention facility, rain garden, bioswale, and porous pavers.**This project was designed to meet the following specific requirements or mandates:**

State statute, Federal NPDES

**Impervious area managed:** greater than 5 acres**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 1 acre to 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?** We were directed to accomplish stormwater goals within existing ROW.**Cost & Jobs Analysis****Estimated Cost of Stormwater Project:** >\$5,000,000 (Public funding: State, local)**Related Information:** Currently in bidding phase, construction 2011**Was a green vs. grey cost analysis performed?** Yes**Cost impact of conserving green/open space to the overall costs of the site****design/development project:** Lawn areas are being converted to native plant communities dominated by sedges and and enhanced with forbs. Cost not a factor, existing ROW used for entire project with the only exception being green infrastructure at the school property.**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). Utilization of free draining soils has made green infrastructure the least expensive alternative when compared to grey.**Number of jobs created:** 12 - estimated: project goes to construction summer 2011**Job hours devoted to project:**

Planning and Design: 300

Construction: Currently in bidding phase, construction summer 2011

Annual Maintenance: Currently in bidding phase, construction summer 2011

## Performance Measures

### **Stormwater reduction performance analysis:**

Project designed to capture and treat storm events up to 1" rainfall events, which in Central Indiana is approximately 88% of all rainfall events.

**Community & economic benefits that have resulted from the project:** Currently in bidding phase, construction summer 2011. The above benefits are yet to be determined. Anticipated benefits: elimination of sewer backups into homes, improved stormwater quality.

## Additional Information

Currently in bidding phase, construction in 2011.