



Green Infrastructure & Stormwater Management CASE STUDY

Railroad Park

Location: Birmingham, AL

Client: City of Birmingham / Railroad Park Foundation

Design Firm(s): Macknally Ross Land Design

Landscape architect/Project contact: Lea Ann Macknally, ASLA

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ASLA Chapter: Alabama



Project Specifications

Project Description: Nineteen acres of abandoned / neglected brownfield in downtown Birmingham has been converted into a green space amenity for residents, workers, and visitors to the area. The park promotes and educates visitors about sustainable practices while recognizing the natural resources that Birmingham was founded around (iron ore). Stormwater used to runoff an essentially flat wasteland of asphalt and dirt contributing to the flooding in adjacent low points in downtown. Now approximately 70% of the stormwater is collected and filtered on-site via a lake and stream system that recirculates all runoff through a created wetland vegetated with native plants. Also providing a recreational amenity for the downtown, interpretive signage is incorporated throughout the park explaining the natural systems and how these are interpreted within the park systems. Slopes are planted with an extensive variety of native grasses and wildflowers to minimize maintenance and provide habitat for wildlife.

Project Type:

Open space - park

Part of a redevelopment project

Design features: Downspout removal, porous pavers, curb cuts, native grass & wildflower slope stabilization, wetland creation, lake / stream collection system, and filtration areas.

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

Developer/client preference

Impervious area managed: greater than 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? Yes, the design was influenced by all the above factors.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$1,000,000-\$5,000,000 (Public funding: Federal, state, regional, local - numerous partners were involved for the development of the park.)

Related Information: We have all breakdown information and can provide if needed.

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: The development of the green space in the city has initiated several development projects on adjacent properties, all of which are focused on reinvigorating the downtown.

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). If this property had been developed for a building use, the stormwater would most likely have been pipe & parking for those areas would have been sent to traditional storm systems.

Number of jobs created: Numerous / we can provide as requested

Job hours devoted to project:

Planning and Design: 4 1/2 years in design and construction oversight

Construction: 2 years in construction

Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Not available

Community & economic benefits that have resulted from the project:

Too many to list here. The park has been an enormous catalyst for the downtown area for development, recreation (promoting healthier living), and education in sustainable initiatives.

Project Recognition

Chapter Honor Award; 2011 Nominee for Heart of Green Best Park

Additional Information

Links to images: <http://www.railroadpark.org/gallery.html>

More images & information can be provided as requested.