Vegetated Water Quality Swale
Conz Street, Northampton, MA

As part of a road reconstruction project on Conz Street, the City installed a vegetated water quality swale along 110 feet of the street edge to capture, filter, and convey stormwater moving off the road through three curb cuts. The swale also allows for infiltration of some stormwater, helping to mitigate peak flows. The swale is currently planted with grass due to vehicle site distance requirements, but shrubs, trees and other deeper rooted vegetation may be added at some point. Soil in this facility is composed of 40 percent sand, 40 percent compost and 20 percent topsoil.

Because part of the swale grade involved the property of the Daily Hampshire Gazette, the City worked with newspaper representatives to obtain permissions and to ensure that the project addressed concerns.

Purpose: To mitigate peak flows from the roadway during storm events. Also, to test how to best integrate a green infrastructure stormwater management solution into an existing road reconstruction project and develop a design template to use green inftrastructure for future road development.

Designers: Northampton Department of Public Works (Felix Harvey, Engineer, and Doug McDonald, Stormwater Coordinator)

Stormwater Capacity: The project receives stormwater from 8,300 square feet of pavement.

Permitting: No permitting involved (voluntary project)

Construction Costs: $7,000 estimated cost for water quality swale

Funding Source(s): Chapter 90 transportation funding

Lessons Learned:

- Simpler than DPW thought it would be to build
- Project bid as lump sum, not itemized like other projects
- Soil mix had to be prepared on site by the contractor. Local sources of the correct soil mix would make it easier to construct these facilities.

Decision Makers: Director of Public Works (City of Northampton)

Completed: August 2011