

Derry Community Pool – Infiltration Parking Lot

Design features: Porous pavement, rain garden, trees

Date of Installation: 2015

Location: Derry Area Community Pool, Derry Borough, Westmoreland County PA

Client: Derry Borough

Installation Cost: \$150,000 from PA DCED Watershed Restoration and Protection Program

Partners: Westmoreland Conservation District, Derry Borough, Derry Water Authority

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An aerial view of the project site before construction

Project Description

This project is a stormwater management retrofit to capture and treat stormwater from a parking lot at a recreation complex. Pollutants and runoff were being discharged into a storm sewer system which outlets to McGee Run. A 120-foot wide by 120-foot long area of existing asphalt paving, formerly a tennis court, was removed in the park and replaced with permeable paving, trees and lawn. A 100-foot x 7-foot paved traffic control island in the existing parking lot was replaced with a curbed rain garden with trees and native seeding. The combined systems capture and retain stormwater runoff from the two parking lots, reducing the volume of runoff and providing water quality improvements.

Benefits/Performance Measures

Impervious area managed: 1/3 acres

Stormwater reduction performance analysis: Runoff from a 1/2" storm event on the new 30 car parking lot is fully managed by 5,400 square foot permeable

paving which captures 333 cu/ft total runoff. And approximately half of the existing 32 car lot is managed by a 700 square foot rain garden.

Community and economic benefits that have resulted from the project: The porous pavement and the rain garden provide catchment for stormwater runoff and pollutants, provides cooling for heated runoff, and provides volume reduction and water quality improvements to McGee Run and the McGee Run Watershed in an area where little currently exists.

Related Information: The project costs included pavement demolition, excavation, installation of permeable paving and standard paving, underdrain system, curbing, rain garden soil mix and landscaping.

Recommended Maintenance

Link to maintenance guidelines for similar projects

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Unused tennis court at the Derry Area Community Pool before construction



The tennis court area after the permeable parking lot with an asphalt driving lane and turfstone parking spaces was installed



The new parking lot two years after the retrofit

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The traffic control island in the parking lot before construction



The new curbed rain garden with curb cuts, trees, and native seed mix



The new traffic control island a year after installation