

## Stormwater Retrofit - Scottdale Parking Lot

**Design features:** Rain garden and bioretention facility; structural soil containment system (Silva Cell™) supporting trees and permeable paving in a parking lot.

**Date of Installation:** 2011

**Location:** Borough of Scottdale, Westmoreland County PA

**Client:** Jacobs Creek Watershed Association, Borough of Scottdale, Southwest Regional Tax Bureau

**Installation cost:** \$98,000, PA DEP Growing Greener / EPA 319

**Partners:** Westmoreland Conservation District, Jacobs Creek Watershed Association, Borough of Scottdale, Scottdale Regional Tax Bureau, Roger Suter and Son

**Project contact:** Kathryn Hamilton RLA; kathyh@wcdpa.com



*Trenches were cut and excavated across a parking lot and filled with a soil containment system, covered with permeable concrete and planted with trees.*

### Project Description

This project is a central business district stormwater management retrofit project to capture and treat stormwater in a parking lot that floods the office building at the low end of the site. Three 6-foot wide by 120-foot long sections of existing asphalt paving were removed across the parking lot and replaced with an underground soil containment system to support trees and a permeable concrete overlay. The system captures and retains stormwater runoff from a 76-car parking lot and reduces the volume of runoff and provides water quality improvements. No parking spaces were lost as a result of the project.

### Benefits/Performance Measures

**Impervious area managed:** 0.67 acres

**Stormwater reduction performance analysis:** Runoff from 1" storm event on 0.67 acres of impervious area is managed by 10 canopy trees. 2200 sq/ft porous concrete, 8,640 cu/ft structural soil containment

bio-infiltration system, and 180 sq/ft rain garden. 2,400 cu/ft total runoff captured.

**Benefits that have resulted from the project:** The project provides shade to an impervious area and parked cars with no net loss of parking spaces. Landscaping enhances the central business district. The underground infiltration system provides stormwater management for volume reduction and water quality improvements in an area where little currently exists.

**Related information:** The project costs include pavement demolition, excavation, installation of soil cells and soil mix, underdrain system, permeable concrete, standard curbs, and landscaping.

### Recommended Maintenance

Link to maintenance guidelines for similar projects

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### Additional Information



*Wheel stops allow surface water to flow onto the permeable concrete providing water for canopy trees.*