

Snyder Road, Low Volume Road Project

Design Features: Three new cross pipes with infiltration, and underdrain.

Date of Installation: 2023

Location: Snyder Road, Donegal Township, Westmoreland County

Client: Donegal Township

Cost: \$13,225.40 of Low Volume road funds were used with an In-Kind contribution of \$9,379.65 from the township. The total cost of the project was \$22,605.05.

Project Partners: Donegal Township, Westmoreland Conservation District, and the Center for Dirt and Gravel Road Studies.

Project Contact: Kelly Brestensky,
kelly@wcdpa.com



Newly added cross pipe to convey water from one side of the road to the other.

Project Specifications

The project includes installing a new cross pipe, as well as replacing existing cross pipes. The road intersects a spring that drains approximately five acres of land, so water flow in the ditches was a recurring maintenance issue. The high velocity and volume of flow in the ditch lead to increased erosion and sediment transport from the roadway.

Runoff from the PA Turnpike along with multiple springs drained toward Snyder Road. Multiple cross pipes were added to convey the runoff through the roadway. Underdrain was added to the ditch line to aid in drying the ditches to help stabilize Snyder Road.

Benefits/Performance Measures

By managing the drainage coming to the roadway through the use of cross pipes draining to a stable outlet, it does not allow the water to continually erode the ditch line. Instead the stabilized outlet is promoting infiltration before the drainage reaches the stream.

Installing multiple cross pipes and an underdrain reduces the township maintenance on the roadway. Previously the township would need to continually armor the ditch with larger stone in an attempt to stabilize the ditch line to convey water to a stable outlet. By conveying all the storm water through the cross pipes, it reduces the amount of materials and man-hours that need to be spent on protecting the roadway and adjacent property.



(Before) Sediment building up on the side of the road before underdrain with gravel was added.



(After) Underdrain on the side of the road with gravel overtop to reduce sediment pollution and flooding.