

PROJECT DESCRIPTION

New Oregon Road – Slope Remediation

**Location:**

North Collins, Erie
County, New York

Client:

Greenman-Pedersen,
Inc. for Erie County
Department of Public
Works

Client Contact:

Mr. Glenn Blake,
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MSE Wall Construction

The site parallels the South Branch of Eighteen Mile Creek, and at this location a steep slope approximately 30 feet high existed between the creek bed and road surface. Over time this slope had experienced erosion, scour and surficial failures, which resulted in pavement failures along the adjacent road.

The geotechnical issue at this site was the topography of competent rock beneath the highway and around the sloughing area. Test borings and test pits were used to measure the edge of shale beneath the road and the inclination of the shale from beneath the highway to the creek bed below. The test pits also allowed for observation of the rock structure. The planned design focused on removing the overburden soils along the highway alignment down to the competent rock surface. A mechanically stabilized earth (MSE) wall was constructed on top of the rock surface to reestablish the road.



Completed MSE Wall

The MSE wall allowed for a near-vertical 12-foot high slope, which allowed the remainder of the lower slope down to creek to be flattened and covered with rip-rap. During construction, the shale bedrock was observed to establish the bedding and joint patterns. From these observations, bedrock at the site was found to have nearly horizontal bedding planes and a favorable vertical joint structure for supporting the MSE wall.