

# Barto Hollow Bridge Replacement

Penn Township

Lycoming County

**Bassett Engineering Inc.**

The bridge replacement included demolishing a timber deck bridge and replacing it with a 32' long x 15' wide x 7' high aluminum box culvert on Barto Hollow Road over Greg's Run. The new culvert has a larger cross-section opening that increases hydraulic capacities. The road was closed less than three weeks from the day the old bridge was demolished until traffic resumed. The non-corroding aluminum has a very long life comparable to cast-in-place concrete. Aluminum box culverts are assembled on top of the ground (can be done before the old bridge is removed) then a backhoe lowers them into place. Work included improving the stream channel, stabilizing the bank with riprap and restoring the asphalt roadway. The culverts are buried at least 18" below the stream bed, providing a natural stream channel. Engineering included stream hydrology and culvert hydraulic capacity calculations, obtain a DEP General Permit GP-11, design, bidding, and construction phase engineering.

**PROJECT COST:**  
\$105,000

**COMPLETION:**  
April 2012

Project Team:  
Project Manager  
Bill Scott, PE, CME

**Near Approach**



**Far Approach**



**Downstream Elevation**



**Upstream Elevation**



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