



Lower Middle Creek Road Culvert Replacement

Municipal Engineering & Planning / Structural Engineering

In 2012, Hanover Engineering assisted Polk Township in the replacement of the existing culvert crossing of Middle Creek (shown below) along Lower Middle Creek Road. The dual culverts were undersized and in considerable disrepair, as well as impeded fish passage during low flows. Flooding and damages that occurred to the roadway prompted the Township to proceed with the replacement project.

Hanover Engineering conducted a detailed evaluation and survey of the existing culvert crossing and, taking into account the need to increase the waterway opening while maintaining the existing road elevation, determined that the existing culverts should be replaced using a pre-fabricated open bottom concrete arch culvert (shown to the right). This structure was chosen since it would significantly improve flow conditions, pass the design storm without overtopping, and improve fish passage.

Understanding the Township's need to replace the crossing as quickly as possible to accommodate local traffic and provide access to residents, Hanover Engineering selected a structure and designed the project, specifically for ease of construction that required no special equipment for site preparation and installation.

Following removal of the original structure, Hanover Engineering inspected the existing site conditions and reviewed all project requirements. In addition to providing the design drawings for culvert replacement, Hanover Engineering obtained the required environmental permits, prepared cost estimates, and provided construction consultation during the course of the project.

PROJECT DETAILS

- **Location**
Polk Township, Monroe County
- **Client**
Polk Township
- **Completion Date**
Spring 2012
- **Total Project Cost**
\$200,000

