



Replacement of Browns Hill Road Bridge

Structural Engineering

The existing bridge on Browns Hill Road restricted the water flow of Cranberry Creek (a high-water-quality stream) during periods of high water flow. The condition resulted in severe localized flood conditions causing damage to the road, bridge, and surrounding area.

The original bridge consisted of two reinforced, segmented concrete culvert-type pipes with cover and two corrugated plastic overflow pipes as a backup system to assist during high water flow conditions.

Hanover Engineering evaluated the existing bridge and developed replacement bridge designs, project drawings, specifications, and all bid documents in order for the township to attain a replacement bridge. Contractor bids were solicited through the PennBid system.

In July 2017, work began to demolish the existing bridge after soil and erosion controls were in place. The total scope of the

project included: temporary cofferdams, bridge foundations, a new concrete culvert-type bridge, new bridge wing walls, new bridge guide railings, reconstruction of water embankments, traffic control, site restoration, and new stone veneer to improve bridge aesthetics. Hanover Engineering also provided construction observation and project management services during the construction period.

Maintaining traffic flow via the bridge was critical due to the amount of residential development in the area. During the course of the project, a minimum of one lane of vehicular traffic was maintained at all times assisted by an automated traffic control system.

The project was completed in less than five months, on budget, without any accidents, and with no environmental impact to Cranberry Creek.

PROJECT DETAILS

- **Location**
Paradise Township, Monroe County
- **Client**
Paradise Township
- **Completion Date**
November 2017
- **Total Project Cost**
\$699,400

