

## NELSON ROAD BRIDGE REPLACEMENT



 *Geauga County*  
*Ohio*

Geauga County, Ohio retained Richland Engineering Limited (REL), a WallacePancher company to perform preliminary design studies and final plan development for a new bridge over the Grand River on Nelson Road.

The former bridge was a narrow reinforced concrete deck arch constructed about 1930 that was in poor condition. The bridge was situated between two curves; at the forward end, Nelson Road made a sharp left curve adjacent to the hillside to parallel the river.

The new bridge is on a new alignment to better fit the site and reduce the approach curvature. The new two-span bridge begins on a tangent alignment, then curves left in the second span to line up with the forward approach roadway. The curved welded plate beams are fabricated using weathering steel.

### SERVICES PROVIDED:

- **Field Survey**
- **Hydraulic Analysis**
- **Roadway Design**
- **Drainage Design**
- **Bridge Structural Design**
- **Right-of-Way Easements**
- **Utility Easements**