

I-90 BRIDGE OVER THE GRAND RIVER



The Ohio Department of Transportation, District 12-0 retained Richland Engineering Limited (REL), a WallacePancher company to prepare preliminary design plans, financial management analysis, and construction plans for the bridge replacement of twin 870-foot-long steel deck truss structures.

Sixteen improvement alternatives were developed ranging from maintenance to complete replacement, coupled with a financial analysis of each alternative for a 50-year life cycle. Costs that were considered include inspection, routine maintenance, new construction, rehabilitation projects, right of way, user costs during construction, permit and superload detour costs and residual value.

Final plans were completed for a 5-span continuous hybrid steel beam structure and a 5-span prestressed concrete I-beam structure to realize the competitive cost savings of different material suppliers. Two lanes of traffic in each direction were maintained during construction.

SERVICES PROVIDED:

- **Field Survey**
- **Maintenance of Traffic**
- **Roadway Design**
- **Pavement Design**
- **Drainage Design**
- **Bridge Structural Design**
- **Erosion Control**