

Sedley Bridge, Porter County, Indiana



Project: Sedley Bridge over the Norfolk Southern/CSX Railroads

Contract Entity: Porter County

Governing Body: Porter County

Construction Cost: \$2,300,000 for the bridge, 1,000 feet of approaches and relocation of ¼ mile of railroad tracks.

Development Date: 1997 to 2000

Team Involvement:

Stephen F. Weintraut, P.E., Project Manager
Mark W. Neal, L.S., Survey Services
Gary L. Pohl, P.E., Construction Services Manager



Contact Information:

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Summary: The Sedley Bridge railroad overpass and its approaches incorporate two design elements which are the first of their kind to be used for a bridge project in the State of Indiana. They are as follows:

First bridge structure in the state, and possibly the nation, to use post-tensioned, precast, concrete through girders with precast, post-tensioned concrete deck panels as a part of its main structural support system.

First publicly owned bridge project in the state to use mechanically stabilized, steepened side slopes instead of mechanically stabilized earth walls.

The use of a "concrete through girder" design saved approximately \$1,000,000 as opposed to a more conventional steel girder bridge with concrete deck on top of the beams. Most of this savings was due to decreased approach work as a result of reducing the effective structure depth from approximately 4 feet to 14 inches.

The use of geogrid reinforced, steepened sideslopes (1:1) reduced the impacts to houses located along the south approach to the bridge.