

CASE STUDY



PROJECT DETAILS

Project Name:

Eisenhower Bridge of Valor

Location:

Red Wing, MN

Owner:

MnDOT

General Contractor:

Zenith Tech, Inc

Product Manufacturer:

County Materials Corporation

Date:

2019

Key Products:

Prestressed Bridge Girders

Prestressed Concrete Girders Prove to be Most Economical Solution for Iconic Minnesota-Wisconsin Border Bridge

Solutions: Historic bridge reconstruction; prestress girders offer an economic advantage

Since President Eisenhower cut the ribbon to his namesake bridge in Red Wing, MN more than 60 years ago, the steel cantilever structure experienced increasing traffic demands and decades of inclement weather. The Minnesota Department of Transportation inspected the aging bridge and coordinated its prompt replacement.

In 2017, Zenith Tech planned the Eisenhower Bridge of Valor's reconstruction. The firm relied on County Materials to manufacture and deliver 28 prestress bridge girders, each 175' long, 82" tall, and 202,000 pounds. At the time of production, these were the largest concrete girders in Wisconsin.

County Materials' Prestressed Bridge Girders were chosen for their economic advantage. "Based on the span lengths on the Wisconsin side of the project, concrete beams were an economical solution for the superstructure," stated MnDOT Construction Manager, Terry Ward.

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As planning continued, Zenith Tech constructed a technique shaft. The final design required four 9' diameter and two 10' diameter drilled shafts for the pier foundations. Permanent casings for the technique shaft were 96 feet in length. Meanwhile, County Materials began girder production at its Janesville, WI facility.

By 2018, County Materials' experienced dispatchers and drivers, in coordination with Zenith Tech and Wisconsin State Patrol, began completing timely deliveries across the state that kept the project on schedule.

County Materials' Prestressed Bridge Girders were used to reconstruct the eastern part of the bridge, which rises above ground until the structure reaches the Mississippi River, where the bridge was completed with three spans of steel girders. The massive prestress girders were set within 45 minutes each using two cranes.

The new Eisenhower Bridge of Valor opened to traffic in November 2019. Over the next few months, the former structure was removed and crews finalized the new bridge with decorative spires and a multi-use recreation path.



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- MnDOT Construction Manager, Terry Ward

