

Genesee River Bridge

Rochester, NY

Project Description

The new Troup-Howell Bridge is a triple-member steel arch bridge that rises 70 feet above the road surface. It is the widest three-member pure arch bridge in the country. Edward Kraemer & Sons, Inc. constructed the main span over the Genesee River and the 7 approach spans as a replacement to the original cantilevered multi-girders structures built in 1953. The structure upgrades an important transportation link in the city of Rochester in addition to dramatically changing the city skyline.

The new structure follows the same alignment as the existing bridge. Traffic was diverted to half of the existing structure while the other half was demolished and the new structural steel constructed. This involved erecting two of the three arch ribs on a series of temporary props, installing hanger strands and floor beams, and casting a concrete deck. Traffic was then diverted to the new arch structure, and the third arch erected. The existing structure was left in place and utilized for the crane staging area for erection of the structure.

Owner

New York State Dept. of Transportation

Contractor

Edward Kraemer & Sons, Inc.

Designer

Erdman Anthony

Our Role

Erection analysis and procedures for the arch structure, temporary works designs, arch rib rigging system and handling equipment, analysis and modifications to the existing structure for use as a crane support, existing structure demolition procedures.

Total Contract Value

\$38.7 million

Timeline

2004-2007

Construction Method and Specifications

Erection Method: Incremental arch erection on temporary tower props

Main Span: 433' Long, 130' wide

Approach Spans: 7 total, each roughly 100' spans

