

Genessee River Bridge

The new Troup-Howell Bridge, a \$38.7 million signature project for the New York Department of Transportation, 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 Genessee 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.

OUR ROLE

McNary Bergeron & Associates provided construction engineering services including:

- Erection analysis of the arch structure.
- Analysis and modifications to existing structure for use as crane support for erection of arch.
- Development and design of temporary support system
- Arch rib lift rigging system and handling equipment.
- Erection sequences and procedures, existing structure demolition procedures, and design of misc erection equipment and temporary works.

CONSTRUCTION METHOD AND SPECIFICATIONS

- Three-member Steel Arch
- Erection Method: Incremental erection on temporary props
- Length: 433' main span Width: 130' wide
- Span Data: 433' main span over the Genessee River, 7 approach spans with average span length of 100'



OWNER

New York Department of Transportation

CONTRACTOR

Edward Kraemer & Sons, Inc.

DESIGNER

Erdman Anthony

TOTAL CONTRACT VALUE

\$39 Million

TIMELINE

2004 - 2007