

Pioneer Crossing Bridge Replacements

Salt Lake City, UT

Project Description

The Pioneer Crossing interchange with I-15 is a diverging diamond interchange (DDI), only the third such interchange in the US, designed to replace an existing diamond interchange. The four spans were constructed on temporary falsework, supported by large concrete spread footings in adjacent staging areas less than a quarter mile from the bridge site. Lane closures on I-15 were limited to 10-hr periods during the night on two weekends, plus a 30-minute full closure of I-15 per span to move the bridge segment into place using Self Propelled Modular Transporters (SPMT).

Owner

Utah Department of Transportation

Contractor

Kiewit

Designer

Parsons

Our Role

McNary Bergeron & Associates provided construction engineering services to the Self Propelled Modular Transporter (SPMT) contractor, including independent review of the plans & procedures, and coordination of the interface requirements between the temporary works and permanent structure. The Project involved erection of two (2) bridges utilizing SPMTs as part of Utah DOT's accelerated bridge construction program. The conventional concrete, two (2) span bridges were constructed in nearly their entirety off line and transported directly into position using SPMTs.

Total Contract Value

\$172 million

Timeline

2009-2010

Construction Method and Specifications

191-ft long and 69-ft wide single-span bridge roll-in; 2,300-ton self-weight (longest and heaviest multi-girder spans moved with SPMTs in the US at the time)

