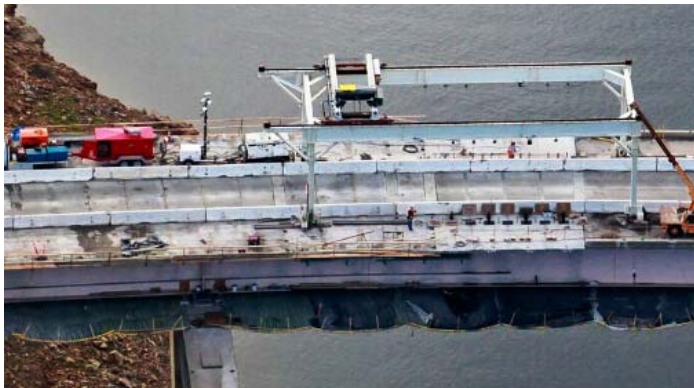


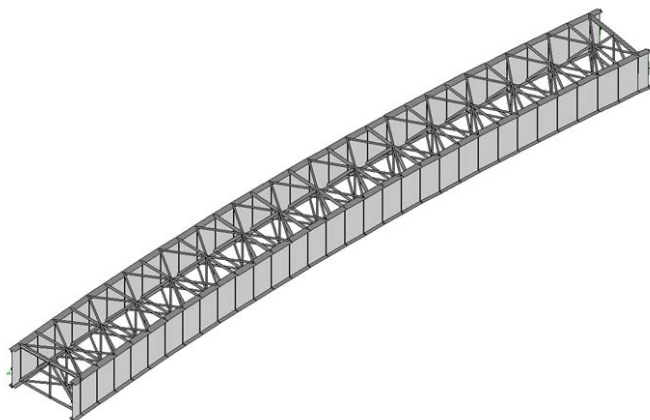
James E. Roberts Bridge | Tuolumne River Bridge

Complete Deck Replacement with Precast Panels



Structural analysis and verification of plate girder bridge during reconstruction.

- Developed capacity envelope for entire bridge
- Created 3D model of center span
- Checked Caltrans construction scheme
- Girders checked to AASHTO LRFD 2009 and BDS 2004
- Deck replaced in sections during nighttime
- Bridge open to traffic during the daytime
- Plate girders 14 ft deep, 1/2" web, 2-1/2" flanges
- Mono-symmetric section, 100 ksi flanges, 36 ksi web
- Longitudinal stiffeners added to stabilize web
- Checked moving gantry



Project	- Tuolumne River Bridge
Location	- Tuolumne County, California
Year	- 2016
Type	- Bridge Deck Replacement
Owner	- Caltrans
GC	- Golden State Bridge Inc.
Client	- Nutt, Redfield & Valentine