

Project: Sexton Road Bridge Replacement - County of San Joaquin, Dept. of Public Works

CONSTRUCTION | Use of good construction management techniques and the completion of the project on schedule per the date contained in the contract. Address any time extension(s) granted.

The project was successfully completed within the contract schedule during a highly restrictive construction window. Because the bridge replacement required closure of the South San Joaquin Irrigation District Canal during a seasonally specific irrigation shutdown, construction of the new bridge had an inflexible deadline. To ensure success, the construction management team thoroughly reviewed the Contractor's live schedule and identified areas where it could be optimized. Potential conflicts associated with the drawings, specifications, sequencing, and construction activities were addressed proactively through robust coordination with the Contractor and all involved stakeholders, allowing uninterrupted field operations during the narrow construction window.

SAFETY | Safety performance and demonstrated awareness of the need for a good overall safety program for workers and the public during and after construction.

Safety remained a top priority throughout construction, demonstrating strong awareness and commitment to a comprehensive safety program that protects both workers and the public. Despite challenging winter conditions and complex construction activities, the project maintained an exemplary safety record. Daily construction inspections helped ensure the Contractor performed their work in accordance with project specifications while implementing safety measures to help protect both workers and the public. One of the project's most critical safety challenges involved the placement of the precast, prestressed bridge girders using cranes in proximity to overhead power lines. Detailed lift planning, careful crane positioning, and close coordination among the Contractor, the construction management team, and utility stakeholders ensured that each lift was executed safely and efficiently while maintaining the required clearances from energized lines. Additional safety measures were implemented during rainy weather and cold-temperature concrete operations to maintain safe working conditions. Through proactive planning, inspection, and coordination, the team successfully minimized risks associated with crane operations, adverse weather, and the compressed schedule for the irrigation canal closure without compromising safety.

COMMUNITY RELATIONS | Summary of the efforts to minimize public inconvenience due to construction, safety precautions to protect lives, and property, provision of observation areas, guided tours, or other means of improving relations between the agency and the public.

The bridge serves local residents, agricultural operations, and the transportation of goods, making schedule reliability and minimizing disruptions critical to the surrounding community. By completing the bridge replacement during the designated irrigation shutdown period, the project avoided impacts to irrigation deliveries while maintaining access for the local community whenever possible.

Early communication with the neighboring residents, proactive public engagement, and coordination between the Owner, Contractor, and construction management team helped minimize inconveniences and supported the construction progress, avoiding delays that could have affected local farming operations.

ENVIRONMENT | Demonstrated awareness for the need to protect the environment. This includes any considerations given to particular environmental concerns raised during the course of the project, as well as climate change and/or resiliency components for long-term community benefits.

The project incorporated improvements that enhance the long-term resilience of the crossing. The new bridge replaces an over-80-year-old structure with a modern bridge spanning a newly lined irrigation canal, reducing the potential for scour that threatened the previous shallow foundation system. Throughout construction, the team maintained compliance with the project's Stormwater Pollution Prevention Plan, implementing additional erosion and sediment control measures during winter rain events and controlling dust during dry periods to help protect water quality and surrounding environmental resources and agricultural fields.

UNUSUAL ACCOMPLISHMENTS | Accomplishments under adverse conditions, including but not limited to age or condition of the facility, adverse weather, soil or site conditions over which there is no control.

The project was completed under several challenging conditions. Construction activities were confined to a fixed winter irrigation canal closure with no opportunity for schedule extensions. Winter weather introduced periods of rainfall that affected earthwork and cold temperatures that impacted concrete placement, requiring additional planning and protective measures to maintain quality and schedule. The precast girder fabrication commenced early in the project to fit the fabricator's schedule. Through proactive schedule analysis, coordination, submittal prioritization, and field management, the project team completed the work within the limited construction window despite adverse weather and the inability to accommodate unforeseen delays.

ADDITIONAL CONSIDERATIONS | Additional conditions such as exceptional efforts to maintain quality control, and construction innovations developed and/or successfully utilized that resulted in time and/or money savings.

Exceptional quality control and proactive construction management contributed significantly to the project's success. Rather than waiting for field issues to arise, the construction management team established hold points and carefully evaluated the Contractor's detailed schedules to identify missing activities, sequencing concerns, contingent specification requirements such as cold weather concrete protection, necessary Quality Control/Quality Assurance tests to perform, and outstanding project

requirements before construction began. Detailed review of submittals, such as rejecting the proposed regular-length ferrule loops because they protruded into the slab void spaces, along with timely resolution of the Contractor's Requests for Information (RFIs) and specification questions, eliminated potential field disputes and allowed construction to proceed efficiently. This collaborative approach minimized delays, reduced risk, ensured quality, and supported successful completion within the limited canal closure period. Additionally, the project team's thorough record-keeping helped contribute to a quick and successful project audit conducted by the California Department of Transportation (Caltrans) as part of its administration of the Federal-aid Highway Program under the Federal Highway Administration's (FHWA) stewardship and oversight framework. The audit confirmed compliance with applicable federal-aid requirements and project documentation standards.

ALTERNATIVE MATERIALS/PRACTICES/FUNDING | Use of
alternative materials, practices, or funding that
demonstrates a commitment to sustainability, climate
change resiliency, and/or use of sustainable infrastructure
rating system or the equivalent.

While the project did not rely on alternative funding sources, it incorporated modern infrastructure improvements that provide long-term sustainability and resilience. The replacement bridge consists of thirteen precast, prestressed voided slabs supporting a wider and taller crossing over the lined irrigation canal. These improvements enhance structural durability, reduce vulnerability to scour, and provide a more resilient crossing for local transportation and agricultural access. The use of proactive construction management practices, detailed schedule planning, and strict environmental compliance further contributed to the long-term performance and sustainability of the project.