

## Project Delivery Through Integrated Construction Management Services

Carollo led a joint venture project to provide construction management services for the \$145 million Southern Nevada Water System (SNWS) Facility Improvements Project. The team managed 20 individual construction and material contracts on a tight project schedule in order to meet the increasing water demands of metropolitan Las Vegas, Nevada. The timely completion of each construction project was critical to the overall success of the total expansion project. This required the construction management team to provide well-coordinated, integrated, and timely service under Carollo's manager.



*The team managed 20 individual construction contracts including four miles of 12-foot-diameter tunnel bored through the River Mountains.*

### Project Elements

Significant project elements included:

- ▼ Expansion of the Alfred Merritt Smith (AMS) Water Treatment Plant from 400 to 624 mgd.
- ▼ Four miles of 12-foot-diameter tunnel through the River Mountains.
- ▼ A 55-million-gallon reservoir.
- ▼ 33,000 feet of 60-inch transmission pipeline.
- ▼ 2,500 feet of 96-inch inlet/outlet piping.
- ▼ A flood control detention basin and flow dissipation structure.
- ▼ A 2,000-cfs flood control channel.
- ▼ Seven hot tap connections to steel and prestressed concrete pipe ranging in size from 24 to 72 inches in diameter.
- ▼ Micro-tunneled and bored-and-cased crossings of highways/major arterials.

### Shared Software System

The application of a distributive computer-based software system shared among ongoing projects

greatly enhanced construction management architecture. The resident engineering (RE) subteams at each major site handled all document flow and, depending on the site, handled up to six projects. All documents flowed through the REs to the construction manager's central office in Henderson, Nevada, providing the construction manager's central team real-time access to each individual project's status and document load. The construction manager and REs shared requests for information (RFIs) and submittals almost instantly through the scanning and transfer/logging of files using Expedition software. The team used Primavera to track individual and combined project schedules.



*Efficient communication and document management helped keep the projects on track, a critical aspect in the overall success of the expansion project.*

### Team and Services

The team provided a full-time construction coordinator, three construction managers, three assistant construction managers, and 14 construction inspectors. Construction management services for these projects included all field inspection, resident engineering, shop drawing and RFI review/response, partial payment request processing, contracting plan development, overall project scheduling, change order review and negotiation, and claims management.

### Highlights

- ▼ \$145 million water system improvement project.
- ▼ Management of 20 separate construction contracts and three prepurchase contracts on a tight schedule.
- ▼ Facility operation maintained during construction.
- ▼ All claims successfully negotiated.
- ▼ Completed on time and within budget.

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