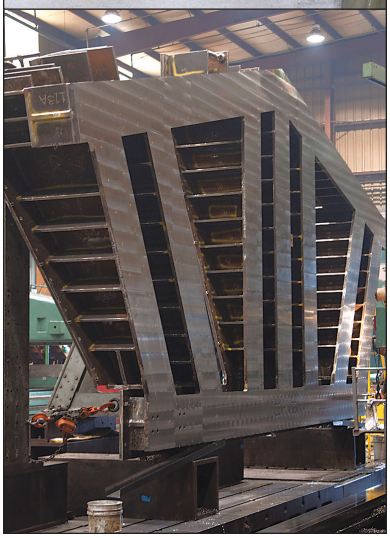
DJC
2014 TopProjects

FIRST PLACE
INFRASTRUCTURE

PROJECT TEAM + STATS:

Location: Sandy, Oregon
Cost: $31 million
Start date: February 2012
Completion date: November 2013
Owner/developer: Portland Water Bureau
Engineer: Black & Veatch
General contractor: Advanced American Construction Inc.



Bull Run Dam 2 Tower Improvement

SUBMITTED BY: ADVANCED AMERICAN CONSTRUCTION

Less was more for the team that worked on the Bull Run 2 Tower Improvement project for the Portland Water Bureau.

The team, with Advanced American Construction as general contractor, was tasked with installing a new selective withdrawal structure on an existing dam tower in order to continue providing Portland residents with fresh drinking water while also protecting salmon in the watershed.

The project challenges were complex and multilayered. Crews had to tackle heavy marine, civil, dive and dredge work in an environmentally sensitive area without interrupting the city's water services.

Working with the water bureau and Black & Veatch Engineering, Advanced American tapped into solutions that brought environmental sensitivity to all aspects of the construction work.

Key to the project's success was the creation of an underwater retaining wall – 125 feet deep and nearly one-quarter-mile long – that encircled the foundation point of the tower. This allowed dredging to occur without stirring up sediment and clouding the surrounding water. Real-time monitors ensured turbidity did not reach undesirable levels throughout the project.

Crews adhered to a strict code of conduct that ensured no exterior contamination from human activity. Wherever possible, machines were converted to electric. Drip pans caught fluids beneath heavy equipment and biodegradable lubricants replaced petroleum products. Synthetic and wood fiber BMPs were used to control erosion, thereby avoiding potential contamination from straw bales and waddles.

"Everyone was excited to come to work," project manager Jake Duyck said. "It's a remote location and everything we did was designed to tread lightly.

"The fun part was that we could see wildlife the whole time. Deer were at the site every day. Bear, mountain lions, eagles – they all came and watched us. That doesn't happen on most construction sites, and I think it affected our appreciation for what we were doing."