



Archer Western Contractors

A MEMBER OF The Walsh Group

May 20, 2011

Project Reference Letter: US-281 over the Colorado River, Marble Falls, Texas

On behalf of Archer Western Contractors, Ltd., I am writing this letter of reference for Finley Engineering Group, Inc. (FINLEY).

FINLEY was hired by Archer Western as the Design and Construction Engineer for the \$30 million Lake Marble Falls Bridge Replacement Project in Burnett County, Texas. Population growth and bridge inefficiencies were the driving forces behind the construction plans. The FINLEY staff and their practical construction approach to the design exceeded my expectations.

The bridges are each 3-span variable depth cast-in-place segmental structures. The structures are being built utilizing the balanced cantilever construction method with end spans constructed on falsework. The box depth varies from 23'-0" at the interior piers, to 9'6" at the end spans, and variable super elevation up to 5.5%. The spans measure 274'-0", 410'-0", and 274'-0", with a bridge deck width of 47'.

FINLEY helped reduce costs and construction time by revising the segment layout and optimizing the post-tensioning and erection sequence by eliminating a stability prop from each pier. They performed a time-dependent staged analysis of the structure to monitor stresses and anticipate deflections during construction. Using this information, FINLEY provided Archer Western with a Geometry Control Manual and Software, which supplied the casting elevations and geometry for each segment. Their Bridge Information Modeling (BRIM) allowed the synchronization of the CADD shop drawings with the analysis model to produce the details quickly to meet our fast-paced construction schedule. The first bridge is under construction and scheduled to be completed in 2012. The second bridge will be completed in 2013.

The FINLEY team has been professional, efficient and on target. It's been a pleasure to work with them on this great project.

Sincerely,
Archer Western Contractors, Ltd.

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