



"An Embarrassment of Riches..."

John S. Dick, *Executive Editor*

Photo: Ted Lacey Photography.

Some of the excitement of being involved with *ASPIRE*[™] magazine is receiving information about the unique and sometimes daring bridges that are being built around the country. Many of these designs would have been thought to be unbuildable a decade ago. Most of the solutions incorporate notable aesthetic provisions and long-term performance enhancements, and some are located where gaining access becomes one of the major engineering accomplishments. This issue features a mixture of such projects.

As an example of the wonderful projects being presented, we asked Fred Gottemoeller to review the projects worthy of his insightful "Aesthetics Commentary." He responded that the issue contains "an embarrassment of riches." You can read his note in the Reader Responses on page 4.

We endeavor to bring you the best and most innovative projects. We consider it our privilege to deliver the "riches" that are increasingly gracing the nation's landscape. Further, we find it gratifying that the innovative designers, the owner agencies, and the builders eagerly share the designs and construction details that make these projects so interesting and the information so valuable.

A firm that is creating such lasting designs is International Bridge Technologies (IBT) in San Diego, Calif. Just 10 years old, but originating from deeper roots, this group operates from six international offices and has already left its mark among noteworthy bridges. The designer FOCUS begins on page 8.

The Hoover Dam Bypass, Colorado River Bridge is taking shape to be one of the country's most recognizable bridges and most amazing recent engineering accomplishments. David Goodyear of TY Lin International explains that, with an arch span of 1060 ft, the project had many design and construction challenges to overcome. The article begins on page 16.

Not far from Los Angeles, the Angeles Crest Bridge 1 was required to span a mountain wash.

But, to get 208-ft-long girders to the site required innovation every step of the way. Jose Higareda of the California Department of Transportation explains the development of the project beginning on page 20.

The state of Oregon boasts some of the nation's most scenic roads and bridges. Its history with concrete bridges goes back to the early part of the twentieth century. The history is chronicled starting on page 48 by Ray Bottenberg with the Oregon Department of Transportation.

"If we could just curve those precast concrete girders..." Well, the state of Colorado is doing just that. Together with innovative techniques brought to the challenge by Gregg Reese of Summit Engineering, the state is making use of curved girders to create durable, high-performing, cost-effective bridges and ramps. One of the latest, I-70 to SH58 Interchange Ramp A, is described beginning on page 28.

Innovation can be found in many quarters. The Federal Highway Administration's (FHWA)'s "Bridge of the Future" initiative has identified promising materials and technology. A material undergoing more development is ultra-high-performance concrete (UHPC). In the first of a two-part article, FHWA explains what UHPC is, how it may be useful in the future and where it has been used for bridges to date. See the article that starts on page 46.

And there are more very interesting projects. The Elwha River Bridge in Washington State (page 24), the Pacific Street Bridge in Oceanside, Calif. (page 34), and the Auction Road Bridge in Pennsylvania (page 40) round out this issue's impressive bridges. Don't pass up the profile of Grant County, Wash. (page 53) and its experience with concrete solutions as well.

Be sure to tell us about your projects. We would love to hear about them. It's easy to drop us a line from www.aspirebridge.org. You can help also by completing a brief survey there that will give us guidance about *ASPIRE*. All previous issues of *ASPIRE* can be viewed or downloaded from the website.

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Send address changes to *ASPIRE*:

200 W. Adams St., Suite 2100

Chicago, IL 60606

Standard postage paid at Chicago, IL, and additional mailing offices.

ASPIRE (Vol. 4, No. 2),

ISSN 1935-2093 is published quarterly

by the Precast/Prestressed Concrete Institute

200 W. Adams St., Suite 2100

Chicago, IL 60606.

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Otay River Bridge, San Diego County, California

Photo: Mike Palhegyi.



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