### **CONTRIBUTING AUTHORS**



Frederick Gottemoeller is an engineer and architect, who specializes in the aesthetic aspects of bridges and highways. He is the author of Bridgescape, a reference book on aesthetics and was deputy administrator of the Maryland State Highway Administration.



Dr. Benjamin A. Graybeal is the team leader for bridge and foundation engineering within the U.S. Federal Highway Administration's Office of Infrastructure Research. He also leads the structural concrete research



Dr. Dennis R. Mertz is professor of civil engineering at the University of Delaware. Formerly with Modjeski and Masters Inc. when the LRFD Specifications were first written, he has continued to be actively involved in their development.

# **MANAGING** TECHNICAL EDITOR



Dr. Henry G. Russell is an engineering consultant, who has been involved with the applications of concrete in bridges for over 35 years and has published many papers on the applications of highperformance concrete.

Ted Lacey Photography.

#### Correction

#### Spring 2014

On page 13 of the Spring 2014 issue, the post-tensioning material supplier was inadvertently left off the profile listing. The post-tensioning material supplier was DSI/Dywidag-Systems International, Bollingbrook, IL.

We regret this error. An updated PDF of this article has been uploaded to the ASPIRE™ website at www.aspirebridge.org.

## **CONCRETE CALENDAR 2014/2015**

For links to websites, email addresses, or telephone numbers for these events, go to www.aspirebridge.org and select "EVENTS."

July 21-25, 2014 PCA Professors' Workshop PCA Campus, Skokie, Ill.

#### July 27-August 1, 2014 AASHTO Subcommittee on Materials

The Depot Renaissance Minneapolis Hotel Minneapolis, Minn.

## September 6-9, 2014 PCI Annual Convention and **Exhibition and National Bridge** Conference

Gaylord National Resort and Convention Center National Harbor, Md.

### October 26-30, 2014 ACI Fall Convention

Hilton, Washington Washington, D.C.

## October 27-28, 2014 ASBI 26th Annual Convention

Hartford Marriott Downtown Hartford, Conn.

### December 4-5, 2014 2014 National Accelerated **Bridge Construction Conference** Hyatt Regency, Miami, Fla.

### January 11-15, 2015 94th Annual Meeting

Transportation Research Board Walter E. Washington Convention Washington, D.C.

#### February 2-6, 2015 World of Concrete 2015

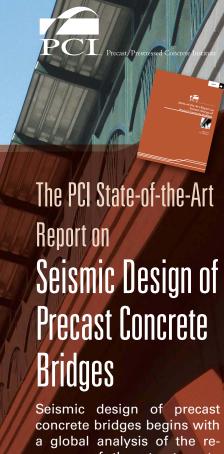
Las Vegas Convention Center Las Vegas, Nev.

### April 6-7, 2015 **ASBI 2015 Grouting Certification Training**

J. J. Pickle Research Campus The Commons Center Austin, Tex.

#### June 8-11, 2015 International Bridge Conference

David L. Lawrence Convention Center Pittsburgh, Pa.



sponse of the structure to earthquake loadings and a detailed evaluation of connections between precast elements of the superstructure and substructure. Because modeling techniques have not yet been implemented for jointed details, the focus of this report is on procedures for the evaluation of system response and the detailing of connections for emulative behavior.

Seismic analysis procedures are discussed with the primary emphasis on forcebased analysis procedures. Displacement-based analysis and computer modeling are also discussed. Relevant seismic design criteria of early vears are summarized along with the current criteria of the AASHTO Specifications, Caltrans criteria, Japan's bridge design, and the New Zealand Bridge Manual requirements.

This ePubulication is available on line at http://www.pci.org/epubs