

Repair, retrofit, and rehabilitation

This issue is dedicated not to new construction but to the repair, retrofit, and rehabilitation of existing structures. In the United States much of our infrastructure, including the vast interstate highway system, has aged beyond its design life. Often the necessary maintenance has been neglected. The American Society of Civil Engineers' (ASCE's) *2013 Report Card for America's Infrastructure* says, "one in nine of the nation's bridges are rated as structurally deficient, while the average age of the nation's 607,380 bridges is currently 42 years." ASCE's most recent overall rating of America's infrastructure is D+, while its rating of bridges is C+.

The steel bridge featured in our cover story was being properly maintained and had been rated as safe but functionally obsolete in August 2012. On May 23, 2013, a semitrailer truck carrying an oversized load hit several of the overhead truss members, causing the entire north span to collapse into the Skagit River in seconds, as can be seen in a security video shot from the south bank of the river (http://www.goskagit.com/skagit-river-bridge-collapse/collection_3c2868a2-c4a1-11e2-949f-0019bb2963f4.html). Amazingly, all three people who fell into the icy water escaped with minor injuries. The Washington State Department of Transportation set up alternative routes for the 71,000 vehicles per day that normally cross this bridge and worked out how best to replace the collapsed span. Lightweight concrete girders and diaphragms kept the weight of the superstructure within 5% of the weight of the original steel truss structure, allowing reuse of the original concrete piers without modification. The permanent replacement structure was opened to traffic on September 15, 2013, 115 days after the collapse and 88 days after the contractor received notice to proceed.

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In the first issue of the year, we thank all those who have served as reviewers for *PCI Journal* during the previous 12 months. Peer reviewers are anonymous to the authors and to one another, but we list them by name here to thank them for their valuable service. Every unsolicited manuscript we receive undergoes a review by at least three people knowledgeable in its subject matter. If even one reviewer has serious concerns about the substance of the manuscript that go beyond the need for editorial changes, it is either rejected outright or the authors are asked to make the necessary changes and submit it for a second review. I am often amazed at the thorough, conscientious reviews provided by these volunteers. Their comments give valuable guidance to our authors and editors in making the papers clearer, more thorough, and more accurate. They help make *PCI Journal* the reliable source of information that it is. ■