

TR NEWS

ABCs of Bridge Renewal

Plus:

Clear and Safe Winter Roads

State Agency Innovations

Long Beach Megaproject

Energy Sector Road Impacts

Diluted Bitumen in Pipelines



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TR NEWS

NUMBER 290

JANUARY–FEBRUARY 2014

3 Snow States Pool Funds to Solve Winter Maintenance Challenges: Clear Roads Research Produces Immediate, Practical Applications

Wes Alwan and Patrick Casey

Every winter, transportation agencies face the logistical challenge of clearing ice and snow to keep roads passable and safe. The Clear Roads program leverages state member contributions to fund research into new techniques and technologies, avoid duplication of effort, influence the private sector, engage in technology transfer, inform the public, partner with other research groups, and more.



3

11 Partners in Performance Management: Findings from the Transportation Research Board's 2013 State Partnership Visits Program

U.S. transportation organizations, leaders, and innovators are working to enhance the performance of transportation systems and services, fulfilling and complying with requirements in the Moving Ahead for Progress in the 21st Century Act. A summary of findings from the TRB annual state partnership visits offers details and highlights.



11

25 Innovative Bridge Designs for Rapid Renewal: SHRP 2 Project Develops and Demonstrates a Toolkit

Bala Sivakumar

To encourage states to implement accelerated bridge construction (ABC) techniques, a project of the second Strategic Highway Research Program developed standardized design approaches for constructing complete bridge systems under renewal with minimal disruptions to traffic. Pilot projects in Iowa and New York State have successfully applied the guidance in the ABC Toolkit.



34

30 Bridging a Creek, Entering the Mainstream

Ahmad Abu-Hawash

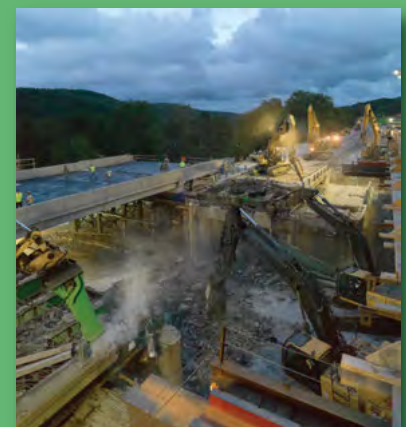
33 Innovations Slide into Place in New York State

William J. Gorton and Nicolas A. Choubah

34 Bridging Long Beach into the Future: Planning, Financing, and Building a Transportation Megaproject

Eric C. Shen

The State of California is replacing the Gerald Desmond Bridge, a steel-arch structure over the main channel of the Port of Long Beach, with the state's first cable-stayed bridge. The author explores the bridge's national and local significance, describes the features of the new design, and presents the megaproject's funding, policy, and engineering challenges.



39 Energy Sector Impacts on Road Infrastructure in Texas: Wind Power, Natural Gas, and Oil Production Driving Traffic

Jolanda Prozzi, Ambarish Banerjee, Sergey Grebenshikov, and Jorge Prozzi

Increased production of oil, natural gas, and wind energy has placed demands on the Texas transportation system. Roads facilitate the moving of components during the construction and development of an energy source and subsequently of some of the products. The authors present findings from a study for the Texas Department of Transportation that illustrate and quantify the impacts.

44 Ethanol Production and Wind Energy: Challenging Low-Volume Roads in Iowa

Mark J. Nahra

46 Repairing Damaged Rural Roads in Pennsylvania: Gas Companies Learn to Add Environmental Sensitivity to Durability

Tim Ziegler

COVER: States are implementing research findings to improve infrastructure performance and safety and reduce expenditures. New York State Department of Transportation piloted accelerated bridge construction techniques on I-84. (Photo: Copyright Andy Ryan, courtesy of HNTB)

TR NEWS

features articles on innovative and timely research and development activities in all modes of transportation. Brief news items of interest to the transportation community are also included, along with profiles of transportation professionals, meeting announcements, summaries of new publications, and news of Transportation Research Board activities.

TR News is produced by the Transportation Research Board Publications Office

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TR News (ISSN 0738-6826) is issued bimonthly by the Transportation Research Board, National Research Council, 500 Fifth Street, NW, Washington, DC 20001. Internet address: www.TRB.org.

Editorial Correspondence: By mail to the Publications Office, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001, by telephone 202-334-2972, by fax 202-334-3495, or by e-mail jawan@nas.edu.

Subscriptions: North America: 1 year \$60; single issue \$12. Overseas: 1 year \$85; single issue \$12 plus shipping. Inquiries or communications concerning new subscriptions, subscription problems, or single-copy sales should be addressed to the Business Office at the address below, or telephone 202-334-3216, fax 202-334-2519. Periodicals postage paid at Washington, D.C.

Postmaster: Send changes of address to *TR News*, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001.

Notice: The opinions expressed in articles appearing in *TR News* are those of the authors and do not necessarily reflect the views of the Transportation Research Board. The Transportation Research Board and *TR News* do not endorse products or manufacturers. Trade and manufacturers' names appear in an article only because they are considered essential.

Printed in the United States of America.

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48 NEW TRB SPECIAL REPORT Effects of Diluted Bitumen on Crude Oil Transmission Pipelines

Thomas R. Menzies, Jr.

The Pipeline and Hazardous Materials Safety Administration requested a study to examine the chemical and physical properties of bitumen diluted for pipeline transportation and any evidence that diluted bitumen would increase the likelihood of a pipeline failure and release. The findings suggest that diluted bitumen will not cause pipeline releases at a rate higher than that of other crude oils.

ALSO IN THIS ISSUE :



51 Research Pays Off Effective Use of Chip Seals in Minnesota

Melissa K. Cole and Thomas J. Wood

51

53 Calendar

54 Profiles

Transit researcher and institute director Dennis P. Hinebaugh and traffic operations and safety consultant Wayne Kittelson

56 TRB Highlights

Cooperative Research Programs News, 58

59 News Briefs

60 Bookshelf

COMING NEXT ISSUE



A photographic essay highlights TRB's 93rd Annual Meeting, which featured a major policy address by U.S. Secretary of Transportation Anthony Foxx and set new attendance records. A related article reviews the history and legacy of the TRB Annual Meeting, which is moving to the Washington Convention Center in 2015 and beyond. Other articles offer insights into performance management issues and practice, new applications of research on bridge scour, enhancing research report distribution through social media, and more.

Anthony Foxx, U.S. Secretary of Transportation, addresses a standing-room-only audience at the TRB Annual Meeting, January 15. He noted the need for an "integrated national transportation plan" and reminded the attendees, "All of you are doers....Make our case to stakeholders and communities."