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## May 2015

### President's Report

By Duane Ratermann, PE  
Knox County, Illinois



#### It's My Honor to Serve As NACE President

To be installed as the President of the National Association of County Engineers (NACE) is an honor that I share with the 58 Past Presidents who have preceded me. To be installed by my father, Dan, and become the first second generation President of NACE is an unbelievable feeling that I share with no one.

Dan Ratermann was the NACE President in 1999. The evening of April 22, 2015, is one that I will never forget. I was fortunate that my wife, Diane, our two daughters, our son (via Facetime), two of my sisters, and many of my close friends from the Illinois Association of County Engineers were in attendance also. I want to extend a special thanks to the Florida Association of County Engineers and Road Superintendents (FACERS) for working diligently to put together a conference that will be talked about for years to come. Congratulations and thanks to Immediate Past-President Ramon Gavarrete for the many hours you dedicated to NACE over the past year. Hopefully your inbox will get a little break now. I look forward to working with Brian, Rebecca and Connie. Brian Roberts has assembled a great team for NACE in our Washington, DC, office.

#### Committee Service

I recently assembled the Committee assignments for the coming year. Those of you who volunteered will be contacted by the appropriate Committee Chairs. If you did not complete the Committee survey and would like to participate on one, please contact the NACE staff and we'll assist you.

#### Top Priorities

I and NACE have a couple of priorities in my first few months. We'll continue to monitor activity, or inactivity, in Washington, DC. Will Congress have the political courage to increase transportation investment or will they continue to kick the can down the road? The current version of MAP-21 was set to expire on May 31 with only short term extensions being discussed. HR 2353 to provide a two-month extension until July 31 was passed by both houses of Congress. NACE will continue to work with the National Association of Counties (NACo) and you, our members, must be ready to act when called upon.

We plan to reach out to the NLTAPA leadership and discuss potential training opportunities for the NACE membership. The LTAP/T2 people are so passionate about what they do, and we as engineers are always looking for new technologies and better ways to do things. It seems like a perfect fit.

Hopefully you're familiar with the National Association of Local Technical Assistance Program Association (NLTAPA), and you or your staff have utilized training opportunities that are offered by your state Local Technical Assistance Program (LTAP) center, or for us in Illinois, the Technology Transfer (T2) center. NACE and NLTAPA have had a formal partnering agreement since 1998.

In closing, I'd like to mention my attendance at the 101st Annual Spring Meeting of the Illinois Association of County Engineers on April 29–May 1 in Normal, Illinois. It was very neat to have my first state affiliate visit as NACE President to my home state. I'm not even sure I received an official invitation. I just showed up. The IACE is a great group of guys and gals that like to have a good time, but each and everyone is a dedicated public servant.

I look forward to the coming year and my opportunities to visit a few of the NACE state affiliates. I want to meet as many of our NACE members as possible. What an honor for me to serve you as the President of NACE!

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### Take a Survey of Sustainable Construction Practices

The National Cooperative Highway Research Program is conducting research on sustainable construction practices (NCHRP Project 10-91 "[Guidebook](#) for Selecting and Implementing Sustainable Highway Construction Practices") and they are interested in hearing from county road authorities about their practices.

The NCHRP contractor, Parsons Brinckerhoff, is surveying a variety of organizations to identify construction practices that could be categorized as sustainable, and to identify agencies and individuals for follow up information gathering. The survey should take about 5 minutes to complete.

[Take the Survey.](#)

For questions about the survey, please contact Eduardo Maeyama at [maeyama@pbworld.com](mailto:maeyama@pbworld.com).

For questions about the project, please contact Lori Sundstrom at [lsundstrom@nas.edu](mailto:lsundstrom@nas.edu) or 202-334-3034.

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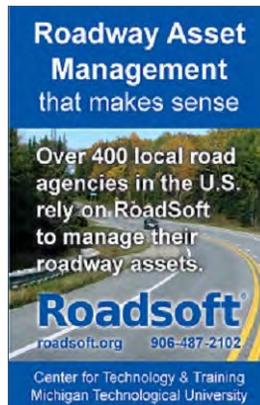


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### Let's Welcome Our New NACE Officers!

In case you missed it, the 2015-2016 NACE Officers were installed on April 22 during the Annual Banquet. Duane Ratermann, PE, became President and Brian Stacy, PE, was elected as President Elect. Brian Keierleber, PE, was elected as Secretary-Treasurer.

Duane said he'll continue to have NACE collaborate with the federal government on enacting safety and cost effective road measures. While doing so, they must rely on the expertise and experience of locals.

#### NACE Officers 2015-2016



L-R: South Central Region VP Derin Campbell, PE (Boone County, Missouri)

President-Elect Brian Stacy, PE (Pierce County, Washington)

President Duane Ratermann, PE (Knox County, Illinois)

Western Region VP Julie Bueren (Contra Costa County, California)

Secretary/Treasurer Brian Keierleber, PE (Buchanan County, Iowa)

North Central Region VP Chris Isbell, PE (Stephenson County, Illinois)

Southeast Region VP Dennis McCall, PE (Butler County, Alabama)

Northeast Region VP David Brand, PE (Madison County, Ohio)

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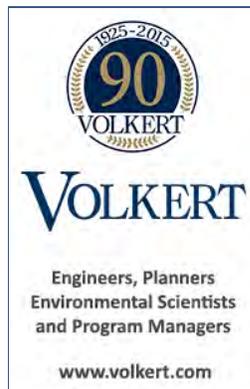


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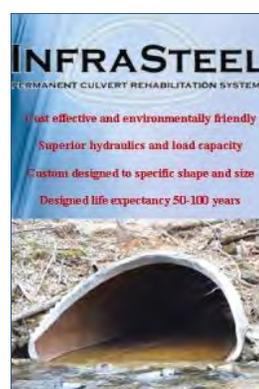


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### Communities Are Getting Ahead of the Driverless Curve

By Derek Prall, American City and County



*Driverless technology being tested at the new GoMentum station, located in Contra Costa County, Calif. Photo courtesy of CCTA.*

In March, engineers from Delphi Automotive set out to drive from San Francisco to New York City. The catch? No one would be driving the car.

The group's Audi SUV was outfitted with an array of sensors and computers allowing the vehicle to drive itself. While it may sound like science fiction, industry leaders say this future is rapidly approaching. However, despite this inevitability, many cities and counties are not yet considering how autonomous vehicles will benefit them.

#### Testing Tomorrow's Technology Today

"In five years, 50 percent of the things you do as a driver will be eliminated by technology."

That's according to Randy Iwasaki, executive director of California's Contra Costa (county) Transportation Authority (CCTA). That's why he is working to stay ahead of the autonomous vehicle curve.

Iwasaki calls his region the "hub of innovation for automated vehicles," as much of the technology behind the trend is currently being developed in nearby Silicon Valley. He says researchers and engineers there are working on the world's next generation of mobility, and the county is doing its best to facilitate this.

On March 31, CCTA and industry leaders came together for the Redefining Mobility Summit in Concord, Calif., to discuss the future of connected and autonomous vehicle technologies. There, the GoMentum Station project was unveiled. "We've created the largest secure autonomous vehicle test bed in the United States," Iwasaki says. "It's strategically located 38 miles north of the Silicon Valley, and about an hour to the west of Sacramento where all the [state's] regulations are going to develop."

He says the facility will provide a location for auto manufacturers and engineers to develop autonomous and connected vehicle technologies. With approximately 2,100 acres for testing, the facility provides a secure location for prototype vehicles to operate in real-world conditions. Converted from a now-obsolete military base, Iwasaki says the facility offers 20 miles of roadway for vehicles to navigate.

Not only will the facility provide a location to test new technologies, but Iwasaki says it will also help create jobs by attracting automotive and tech companies to the region. So far, Mercedes and Honda have announced they will be partnering with GoMentum Station, and Iwasaki says the insurance industry has also expressed interest in the program.

While Contra Costa County is at the forefront of the driverless vehicle revolution, Iwasaki says the majority of the nation is quickly falling behind. "A lot of times what happens is the cities and the counties... are developing long-range [transportation] plans, but they are always using today's technology," he says. "The 20 top MPOs (metropolitan planning organizations) in the nation haven't addressed autonomous vehicles and their impact on mobility in the future." But one region, Greenville County, S.C., is already thinking how autonomous vehicles can benefit them.

#### Greenville's Green Villages

"Greenville County is interested in promoting economic development," says County Councilman Fred Payne. "We believe that automated transport network systems are an innovation that will attract riders and economic development, and address many urban mobility problems in Greenville, across America and around the world."

What Payne is referring to is his proposal to build a network of driverless "podcars" in Greenville County to help propel his rapidly growing region into the future. There are only five such systems in the world, but where they operate, they have proven to be effective. "It's like a taxi on a monorail," Payne explains, "or like a horizontal elevator." Residents call for a vehicle to meet them at a station, select their destination, and are then shuttled there swiftly.

These systems complement traditional forms of public transit as they offer shared, lower-cost travel solutions, Payne says. Unlike buses or trains, which are often packed with strangers and stop every few blocks, podcars are more personal, on-demand, and go directly from origin to destination.

The Greenville County Economic Development Corporation, a non-profit county-created entity Payne chairs, has issued an RFP for the construction of the system. Four contractors qualified to submit a proposal for building the initial 20-mile network. Payne says the system will be privately financed and will not add any additional burden to taxpayers, and estimates construction could begin within a year.

Beyond boosting connectivity and alleviating traffic congestion, these networks are really a means to an end, Payne says – the end being the development of what he calls “GreenVillages.” “These are sustainable, livable, walkable communities that are connected,” he says. For decades, city planners tried to segregate different kinds of activities—where people lived was not where they worked, nor was it where they went for recreation. “When we did that, we created a transportation problem,” Payne says.

GreenVillage communities, he says, do the opposite. They are places where residents reside, work, dine, play and shop. And perhaps, most importantly, they have multi-modal connections to nearby neighborhoods with different attractions. Payne says this connectivity is critically important in attracting the next generation of urban dwellers. Greenville’s automated transport network, he says will be a big step in achieving this goal.

### Florida Leaders are Facing the Future

Florida views itself as being at the forefront of autonomous vehicle development, according to Florida Department of Transportation District 7 Secretary Paul Steinman. “From the DOT perspective, we view ourselves as the national leader,” Steinman says. There are two major reasons for this, he says. Florida has some of the best-rated infrastructure in the country, and the state legislature has passed several laws allowing for driverless technology testing.

But it’s not just facilitating testing that puts Florida on automation’s main stage. The state has become a think tank for automation’s key players, and holds annual conferences to discuss issues regarding driverless technologies. “Right now, there really is no exact answer to the question ‘What should we be doing [to prepare],’” Steinman says. “That’s exactly why Florida DOT, back in 2013, started our annual automated vehicle conference. We’re trying to start that conversation nationally.”

One thing is for sure, driverless technologies will affect transportation infrastructure. Lane width, striping and pavement practices will all likely change, Steinman says. Parking structures will be re-thought and much of the signage along roadways will be eliminated. Exactly how this will play out is yet to be determined, but Steinman encourages local leaders to be thinking proactively about it now, rather than scrambling as driverless cars hit the roads en masse.

A less obvious concern cities and counties will have to address, Steinman says, is cyber security. As autonomous vehicles emerge, so too will the concept of the connected vehicle, or vehicles that are able to communicate wirelessly with one another and their surrounding infrastructure. “We need dedicated frequencies [for this],” Steinman says. “When that data needs to go back and forth, it needs to be instantaneous. You can’t have that little blue [loading] circle on your screen.”

While Steinman sees this driverless future as inevitable, he feels the social acceptance of driverless vehicles will be a major hindrance to the technology’s growth. For every commuter who wants to hop in a driverless car tomorrow, there are an equal number of drivers who swear they will never get in a car controlled by a computer. Slowly though, he says, perceptions are changing.

“This is the future of transportation,” he says. “The autonomous vehicle is going to be the biggest change in transportation since the United States put the Interstates down.” Steinman says Florida will be at the forefront of this revolution. Last year the Automated Vehicle Conference had roughly 350 attendees from 22 states and nine countries. Government entities, auto manufacturers, engineers as well as key players in the insurance industry all attended the event. The next conference will be held in Jacksonville, Fla., on Dec. 1 and 2.

*Reprinted from American City and County, May 20 issue*

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## May 2015

Number of Deficient Bridges Down in 2014  
But 61,000 remain in USDOT listing

By Chris Hill, Better Roads

### Top 10 States for most structurally deficient bridges

1. Pennsylvania (5,050)
2. Iowa (5,022)
3. Oklahoma (4,216)
4. Missouri (3,310)
5. Nebraska (2,654)
6. California (2,501)
7. Kansas (2,416)
8. Mississippi (2,275)
9. Illinois (2,216)
10. North Carolina (2,199)

While there are approximately 2,000 fewer structurally deficient bridges in the US last year than in 2013, there are still more than 61,000 that fit that category, according to a recent American Road & Transportation Builders Association (ARTBA) review of the 2014 Department of Transportation National Bridge Inventory database.

The states with the most structurally deficient bridges are listed to the left. The District of Columbia has the least at 14, followed by Nevada (34), Delaware (48), Hawaii (61), and Utah (102).

ARTBA Chief Economist Dr. Alison Premo Black reviewed the report, which shows 61,064 structurally deficient bridges in the U.S. are crossed 215 million times every day, with the most travelled being on the Interstate Highway System.

"State and local governments are doing the best they can to address these significant challenges, given limited resources," Black said. "Many of the most heavily traveled bridges are nearly 50 years old. Elected officials can't just sprinkle fairy dust on America's bridge problem and wish it away. It will take committed investment by legislators at all levels of government.

"Without additional investment from all levels of government, our infrastructure spending will be a zero-sum game," she added. Citing USDOT data, Black also said there is a current backlog of over \$115 billion in bridge work and \$755 billion in highway projects.

Her analysis of the report also found:

The 250 most heavily crossed structurally deficient bridges are on urban interstate highways, particularly in California. Nearly 87% of these bridges were built before 1970.

At least 15% of the bridges in 8 states—Rhode Island (23%), Pennsylvania (22%), Iowa (21%), South Dakota (20%), Oklahoma (18%), Nebraska (17%), North Dakota (16%) and Maine (15%)—fall in the structurally deficient category.

View [A Map](#) to see your state's profile and most traveled deficient bridges.

*Reprinted from Better Roads, April 1 issue*

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### Could **Safe Phone Zones** Help Stop Distracted Driving?

By Ernie Smith, Associations Now



*Illinois Secretary of State Jesse White, second from left, helps launch the state's Safe Phone Zone program.*

The Governors Highway Safety Association has given a thumbs-up to plans by Illinois and other states to create designated zones for drivers to use their cellphones.

If you can't beat 'em, give 'em a spot to tweet.

That appears to be the strategy that the state of Illinois is taking as it adds six **Safe Phone Zones** to the Illinois Tollway in the coming weeks. The effort, conducted in cooperation with Travelers Marketing, is designed to give motorists designated spots to look at their phones, so they don't do it while they're stuck in traffic.

The new zones, which piggyback off the system's existing traffic oasis locations, include free WiFi and places to sit.

The initiative is getting some big-time love from the Governors Highway Safety Association (GHSA), which represents state highway-safety groups nationwide.

Executive Director Jonathan Adkins said that the strategy is smart because it discourages distracted driving while conceding that there are legitimate reasons for using mobile phones on the road.

"You can't just have an educational approach or a law enforcement approach to combat distracted driving," Adkins told the Chicago Sun-Times. "You have to have engineering as well, and that's what this is, because by creating these Safe Phone Zones it acknowledges that drivers need or want to communicate while on trips."

Illinois isn't the first state to try phone zones. Travelers Marketing has also worked on similar systems in Virginia and Arizona. And a network of "Texting Zones" showed up in New York state in 2013.

Distracted driving is becoming an increasing concern nationwide. In 2013 A GHSA found that 43 states and the District of Columbia were treating the issue more seriously than they had in the past. At the time of the survey, 47 states and Washington, DC, had laws banning mobile phone use while driving, with many states specifically banning texting and 11 specifically banning hand-held cellphone use on the road.

"Driving is a complex task that requires mental, physical, visual, and auditory attention," the study states. "Whether the driving activity occurs on a congested urban roadway or a deserted rural highway, doing anything but concentrating on the driving task puts a driver, passengers, and other road users at an increased risk of being involved in a crash."

It's not clear whether specific zones will be enough to balance the need for communication with the need for safety, but GHSA's Adkins is hopeful. "It's not a magic bullet, but it's part of the solution," he told the Sun-Times.

*Reprinted from Associations Now, April 2 issue*

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### Capitol Hill Update

- Extension of MAP-21
- Waters of the US Rule

#### Congress Passes Two-Month Extension of MAP-21

By Jessica Monahan, NACo Associate Legislative Director

Last week, the Senate passed HR 2353, the Highway and Transportation Funding Act of 2015, which had cleared the House on May 19. This legislation extends MAP-21 through July 31, 2015. Following the Senate's passage of the extension, Senate Environment and Public Works Committee leadership Sens. James Inhofe (R-Okla.) and Barbara Boxer (D-Calif.) urged adoption of a long-term funding solution and passage of a six-year surface transportation reauthorization bill. Sens. Inhofe and Boxer remain dedicated to marking-up legislation next month, specifically stating that the committee's goal is to mark up legislation on June 24.



Read how you can influence a permanent fix to the [Highway Trust Fund](#).

#### House Passes Bill That Would Restart "Waters of the US" Rulemaking Process

by Austin Igleheart, NACo Legislative Assistant

On May 12, the House of Representatives passed the Regulatory Integrity Protection Act of 2015 (HR 1732) by a vote of 261-155. The bill would require the US Environmental Protection Agency (EPA) and the US Army Corps of Engineers (Corps) to withdraw the proposed "waters of the US" rule within 30 days and restart the rule-making process. Agencies would have to consult and collaborate with state and local governments on the waters of the US rule development process. The agencies would also document the interactions, including those areas where consensus was reached and not reached, and submit a final report to Congress.

In April the White House issued a veto threat for HR 1732, arguing that it would decrease the Administration's ability to protect water sources and create uncertainty for stakeholders. Also in April, a similar bill, the Federal Water Quality Protection Act (S 1140), was introduced in the Senate that would also stop and restart the rule-making process and require the agencies to work more closely with state and local governments in rewriting a rule. S 1140 contains a list of principals the agencies should consider when rewriting the rule including types of water features that can be jurisdictional or exempt under the proposal.

The House's FY 2016 Energy and Water Appropriations bill also targets the "waters of the US" rule by prohibiting the use of any Corps funding for developing, implementing and administering the proposed rule. The House's FY 2016 Interior appropriations bill is expected to contact similar restrictions on EPA funding.

The proposed "waters of the US" rule, jointly released in April 2014 by the EPA and Corps, would amend the definition of "waters of the US" within the Clean Water Act and dramatically expand the range of public safety infrastructure that falls under federal permitting authority. NACo has expressed concerns about the scope of the proposed rule and called for the proposed rule to be withdrawn until further analysis and more in-depth consultation with state and local officials could be completed. The proposed rule was sent to the Office of Management and Budget (OMB) for a final interagency review. The rule is likely to be finalized within the next month.

*Reprinted from the NACo Washington Watch, May 17 issue.*

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## May 2015

### Contact Congress to Fix the Highway Trust Fund



Another short-term transportation spending authorization has passed Congress, but NACE members are needed to keep pressure on lawmakers to fix the Highway Trust Fund (HTF) before the latest extension expires July 31.

Jessica Monahan, NACo Associate Legislative Director, has put together some additional information and talking points to help with messaging.

View the NACo [Highway Trust Fund Toolkit](#)

#### Highway Trust Fund Info and Talking Points

##### How does the trust fund work?

The Highway Trust Fund was established by Congress in 1956 as a dedicated funding source for highway construction and maintenance projects. In 1982, Congress created a second account within the Highway Trust Fund to pay for mass transit capital costs. Currently, the Highway Trust Fund collects 18.4 cents per gallon of gasoline, a rate that was set in 1993, along with 24.4 cents per gallon tax on diesel and other transportation fees to pay for federal highway, transit and transportation safety programs. The revenue collected is divided between the Highway and Mass Transit Accounts, with 83.9 percent of gas tax revenue going to the Highway Account and 15.5 percent going to the Mass Transit Account. Diesel fuel tax revenue is similarly divided with 87.9 percent going to the Highway Account and 11.7 percent going to the Mass Transit Account.

##### What caused this crisis?

Several factors have contributed to the current funding crisis facing the Highway Trust Fund. One of those reasons is that spending has outpaced revenue coming into the trust fund since 2000, primarily due to the dynamics plaguing the federal gas tax. Since the gas tax constitutes almost two-thirds of the Highway Trust Fund's total revenues, the rate at which Americans purchase and use gasoline greatly influences the solvency of the trust fund. With greater fuel efficiency standards and more gasoline-independent vehicles on the roads, the rate of gasoline consumption has decreased. In addition, the last time the gas tax was raised occurred over two decades ago and it was not indexed to inflation at that time. So, while construction and labor costs increased at a rate that exceeded regular inflation, the gas tax remained fixed. As a result, those 18.4 cents per gallon have decreased in purchasing power. If the gas tax had been indexed in 1993, it would be equal to 29 cents today or in other words, the trust fund has lost about 38 percent of its purchasing power. In sum, we are trying to run a 2015 transportation system on 1993 dollars that are not being collected at a rate to meet demand.

##### How much money do we need?

The amount of money needed to keep the Highway Trust Fund solvent for the near and long-term varies based projected spending levels. For example, if Congress merely tried to maintain spending at current levels with an increase for inflation, the Highway Trust Fund would need an additional \$170 billion over the next 10 years. In order to fill this gap, Congress would need to increase the taxes on motor fuels (both gas and diesel) by about 10 cents per gallon. Raising the federal gas tax 10 cents per gallon would cost the average driver about \$1 per week or \$4 per month.

However, the Department of Transportation has estimated that simply maintaining the current performance of nation's surface transportation system would require at least \$13 billion per year more in spending and that funding for all highway projects whose benefits exceeded their costs would require even more spending—up to \$83 billion per year more than current spending.

##### How are counties impacted?

Uncertainty in the Highway Trust Fund means counties cannot invest in the kinds of infrastructure projects that benefit families, businesses and the economy. In fact, many counties have already started operating under a "worst-case scenario," in which the Highway Trust Fund is unable to reimburse the cost for projects. In numerous counties, current projects have been stalled and projects in counties' long-term plans are facing an unclear future due to the uncertainty in future federal investment. This uncertainty stymies job growth and makes transportation projects more costly for counties and less dependable and safe for families and businesses.

##### How does the Gas Tax compare then and now?

In 1993, the price of a gallon of gas averaged \$1.12. Today, it averages \$2.62, but just last year the average price was much higher at \$3.53.

A new car averaged \$12,750 in 1993. In 2014, the average new car cost \$30,748.

A loaf of bread in 1993 would have cost \$0.75. In 2014, it would have cost about \$1.38.

According to the Oregon Department of Transportation, the cost of concrete has doubled, the cost of rebar has more than doubled, and the cost of Asphalt has nearly tripled since 1993. This means that, given equal funding, for every mile of road that Oregon could build in 1993, they could only build half a mile in 2014. This is the reality for states and counties nationwide struggling with aging infrastructure

#### What is the economic impact of inaction?

Transportation costs are expected to increase roughly \$430 billion between now and 2020. The American Society of Civil Engineers estimates that the economic impact of America's failing transportation infrastructure by 2020 will cost:

American Families: \$1,060 per year for each family's budget in lost earnings and increased spending.

American Businesses: Between 877,000 and 1.111 million jobs and \$430 billion in increased transportation costs.

American Economy: US exports would drop by \$28 billion and America's GDP would underperform by \$897 billion.

#### What is the personal impact of inaction?

American families and businesses are already paying for our inadequate infrastructure. Driving on roads in need of repair costs motorists \$94 billion a year in extra vehicle repairs and operating costs, equaling about \$444 per motorist. In addition, the average American commuter spends 38 hours a year stuck in traffic. The more time we sit in traffic, the more we spend on gas. These costs are going to only increase if Congress fails provide long-term funding certainty.

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### An Innovative, Sustainable Steel Solution Saves \$51,000



Even with tight budgets and aging infrastructure, safety is still paramount, so county engineers must find innovative ways to repair or replace their structurally deficient and functionally obsolete short span bridges. They must also adhere to strict environmental requirements, so their solutions need to be sustainable as well as cost-effective.

scheduled to be replaced.

The Muskingum County (Ohio) Engineer's Office has come up with an innovative solution that meets the goals of safety, cost-effectiveness and sustainability. County Engineer Doug Davis, PE, PS, uses recycled steel bridge beams for his projects whenever possible. When the span length, beam size and hydraulic opening allow, his team always considers the use of previously removed beams or beams that are currently in service as part of structures that are

The Green Valley Road Bridge near Zanesville is a recent example of this strategy. The bridge's superstructure was repurposed with W33x141 beams salvaged from a previous bridge replacement in the county. It is 52 feet long and 20 feet wide. Davis estimates that he saved \$51,000 in taxpayer costs by using the repurposed steel beams. This is the fifth bridge to be replaced in this way, and more will follow.

The design and construction of the Green Valley Road Bridge using steel allowed Doug to save costs, including the use of materials from local businesses and the use of local work crews to construct the bridge. An added benefit—recycled steel provides superior durability with minimal impact to the environment.

#### Is Using Steel Really More Cost-Effective for Repairing or Replacing Bridges Under 140 Feet?

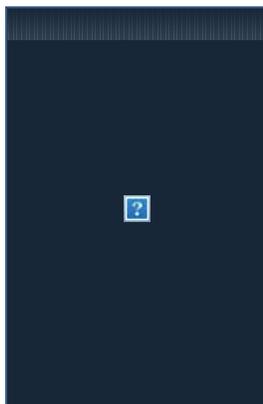
Doug also prefers to use his own crew and his own equipment, and he strives to keep his costs down, which is why he likes to use steel. For five of the bridges he's built, he has used recycled steel beams, saving the county thousands of dollars.

Using recycled steel beams for these projects is a good sustainable practice. What are the steps involved in planning which structures will be repurposed? What are the steps involved in disassembling one bridge and preparing the recycled material for a new bridge?

This is the fifth bridge in Muskingum County to be replaced with repurposed steel. Doug's team replaced a much larger bridge, the 327-foot, five-span bridge on Pleasant Valley Road over the Licking River, with repurposed steel. What did Doug learn from that project and how was it different from his short span projects?

Read the complete [Case Study](#).

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### Feds Launch Audit of State Highway Spending

By Keith Laing, The Hill



The Department of Transportation is launching an audit of state highway spending. Officials with the agency's inspector general (IG) said the review is intended to make sure federal funding that is allocated to states is being properly used.

The IG noted that the Federal Highway Administration's State Transportation Improvement Program (STIP) provides more than \$37 billion annually for road and bridge construction. "The objective of this audit is to assess FHWA policies, procedures, and guidance for ensuring that STIPs receive comprehensive, consistent reviews and meet federal requirements, including coordination with the Federal Transit Administration."

The audit comes as lawmakers are struggling to come up with a way to pay for an extension of the current transportation funding measure, which is scheduled to expire in May. The looming transportation funding has been a source of consternation in Washington, and transportation advocates have said states are already beginning to cancel construction projects in light of the rapidly approaching deadline.

Lawmakers in both parties say they want to prevent an interruption in transportation funding to states, but have yet to reach consensus on how to pay for an extension of the spending.

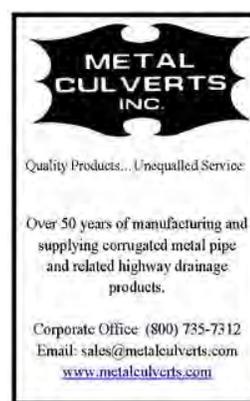
The 18.4 cents-per-gallon federal gas tax has been the main source of federal transportation funding since the 1930s but it has not been increased since 1993. Revenue has also been sapped in recent years by improvements in auto fuel efficiency. The federal government typically spends about \$50 billion per year on transportation projects, but the gas tax only brings \$34 billion annually at its current rate.

Lawmakers have turned to other areas of the federal budget in recent years to close the \$16 billion gap. Federal transportation advocates have pushed for an increase in the gas tax to make up the difference, but lawmakers have been reluctant to ask drivers to pay more at the pump to help pay for road projects.

Some groups, meanwhile, have pushed to eliminate the gas tax and turn responsibility for construction projects over to states.

*Reprinted from the The Hill, March 24 issue*

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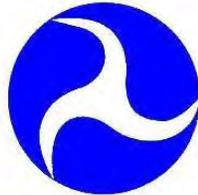
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## May 2015

### Free FHWA Webinar : Local Labor Hiring Preference Program



June 18 ~ 12:00 PM – 1:00 PM EDT

#### Register for the Webinar

The Federal Highway Administration (FHWA) will host an outreach web meeting to provide an overview of a new “Contracting Initiative” pilot program. Staff are invited from any public transportation agency, including local agencies who are involved in the Federal-aid Highway program and have an interest in using local, economic, or veterans labor hiring preference provisions.

#### Background

On March 3 US Transportation Secretary Anthony Foxx announced a proposal for a new pilot program that will explore new ways to make it easier for states and cities to promote the hiring of local residents to work on local transportation construction projects.

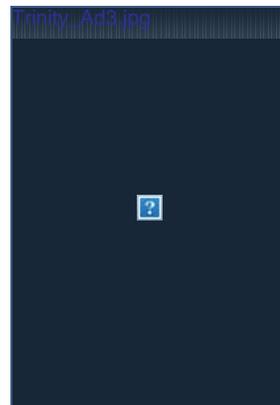
A March 6 Federal Register Notice formally announced that that the FHWA and the Federal Transit Administration are conducting a “Contracting Initiative” pilot program that will allow recipients and subrecipients to utilize social and/or economic contracting requirements (such as a local or other geographic labor hiring preferences, economic-based labor hiring preferences, and veteran’s labor hiring preferences) to evaluate the impacts to the competitive bidding process.

The USDOT published a Notice of Proposed Rule Making to propose amending the adoption of the Common Grant Rule to permit all recipients and sub-recipients to utilize geographic hiring provisions for labor on DOT-assisted projects when such use is otherwise consistent with applicable statutory authority.

For FHWA, the year-long pilot is proposed as an experiment under FHWA’s “Special Experimental Project No. 14 (SEP-14) provisions made possible by Congress to allow the agencies leeway in finding new and more effective means of building, maintaining and managing federal transportation projects.

Questions regarding the Pilot Program may be directed to your local FHWA Division Office or Jerry Yakowenko (202-366-1562) or John Huyer (651-291-6111).

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### EDC Exchange: Data-Driven Safety Analysis



June 25

2:00 pm – 4:00 pm EDT

For specific locations, check with your local Federal Highway Administration [Division Office](#).

There is no charge to attend these sessions.

Data-Driven Safety Analysis builds upon decades of work and collaboration to promote the integration of safety performance into all highway investment decisions. Broader implementation of quantitative safety analysis, so that it becomes an integral component of safety management and project development decision-making, will lead to better-targeted highway investments, resulting in fewer fatal and serious injury crashes on our nation's roadways.

While quantitatively estimating location-specific safety performance on an agency's road network is challenging, recent advances in highway safety analysis can provide transportation agencies with the reliable information they need to make effective investments in improving the nation's roads.

This EDC-3 effort focuses on applications of predictive and systemic analysis in safety management processes and project development decision-making.

Predictive analysis uses crash, roadway and traffic volume data to provide reliable estimates of an existing or proposed roadway's expected safety performance in terms of crash frequency and severity. These methods can help state and local agencies quantify the safety impacts of transportation decisions, similar to the way agencies quantify traffic growth, construction costs, environmental impacts, pavement life, and traffic operations to come up with the best overall solution. Systemic analysis screens a roadway network to identify high-risk features correlated with severe crash types. Once identified, agencies can target locations containing high-risk features with low-cost treatments system-wide. This approach is particularly applicable when a significant number of severe crashes occur over a wide area, such as on rural and local roadways.

#### Predictive Analysis in Practice

The Arizona Department of Transportation (ADOT) employed predictive analysis to select a cost-effective safety solution for a 25-mile stretch of two-lane, undivided rural road. The analysis resulted in a benefit-to-cost ratio of lives and injuries saved per dollar invested for three design alternatives: widening the shoulders to 5 feet, widening the shoulders to 8 feet, and superelevation improvements. Based on the analysis outcome, ADOT found that the 5-foot shoulder would provide the greatest safety benefit per dollar spent.

#### Systemic Analysis in Practice

As part of a 2008 edgeline striping program for High Risk Rural Roads, the Missouri Department of Transportation (MoDOT) evaluated crash data for all state-owned roadways without a painted edgeline, over 18,000 centerline miles, and found that more than two-thirds of severe crashes were occurring on roadways carrying 400 to 1,000 in annual daily traffic (ADT). This amounted to about 7,500 centerline miles. Historically, routes with 1,000 or greater ADT received an edgeline stripe, however MoDOT took a proactive safety approach and painted an edgeline on all 7,500 centerline miles, even though many of these roads had never had a severe crash. The result: a 15.2 percent decrease in total crashes for all crash types (significant at 95 percent confidence level) and a 19.3 percent decrease in severe crashes (no statistical significance due to small sample size).

#### Benefits

**Informed Decision-Making.** By quantifying the safety impacts associated with roadway planning and design, transportation professionals and the general public can make more informed decisions weighing safety with other project goals.

**Optimizing Investment.** With limited resources, agencies need to maximize the safety benefit of every transportation investment. By applying the most current analytical methods, agencies have powerful tools to optimize investments and the safety of all users.

**Improved Safety.** States and other transportation agencies can proactively apply safety countermeasures at roadway locations identified as having the highest potential for improvement, effectively reducing fatalities and serious injuries.

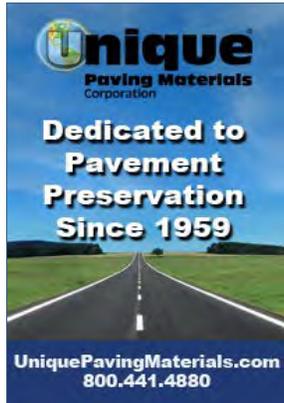
#### Current State Of The Practice

The EDC-3 effort builds on collaborative work done by the American Association of State Highway and Transportation Officials (AASHTO), FHWA, the Transportation Research Board and industry over the past two decades. Many agencies are

already implementing these safety analysis approaches in their safety management processes, and FHWA is promoting these tools to state and local agencies for use throughout project development.

Champion states in predictive safety analysis include Illinois, Louisiana, New Hampshire, Ohio and Washington. Missouri, Minnesota, and Thurston County, Washington, are leaders in implementing the systemic approach to safety.

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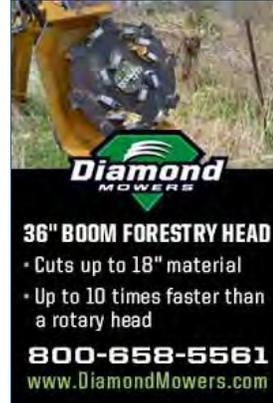


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### DOT Tiger Grants Available

The Department of Transportation Transportation has funding available. The Consolidated and Further Continuing Appropriations Act of 2015 (Pub.L. 113-235, December 16, 2014) (FY 2015 Appropriations Act) appropriated \$500 million to be awarded by the Department of Transportation for National Infrastructure Investments. This appropriation is similar to the program funded and implemented under the Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grants program.

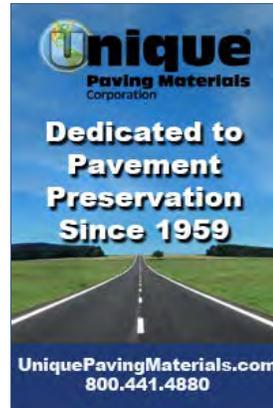
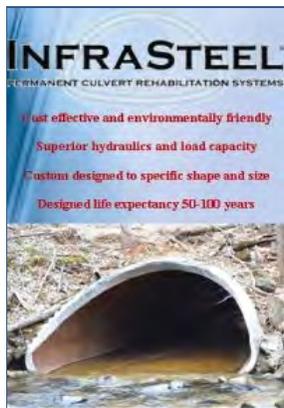
Because of the similarity, DOT will continue to refer to the program as TIGER Grants. Funds for the FY 2015 program are to be awarded on a competitive basis for projects that will have a significant impact on the Nation, a metropolitan area, or a region.

Final applications must be submitted by June 5.

For further information concerning this notice, please contact the TIGER Discretionary Grant program staff at [TIGERGrants@dot.gov](mailto:TIGERGrants@dot.gov), or call Howard Hill at 202-366-0301.

[View Further Information.](#)

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### Register for the National ABC Conference

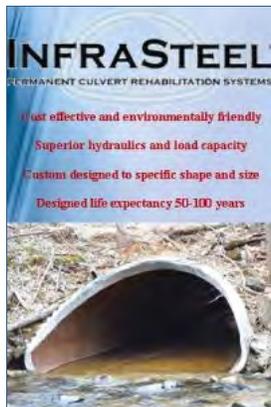
The 2015 National Accelerated Bridge Construction Conference will be held Dec 6-8 in Miami, Florida. Please [visit the website](#) to find more information.

The 2015 Conference promises to be even bigger and better. In 2014 more than 750 attended the conference, including more than 150 state bridge engineers, more than 40 FHWA bridge engineers, and many consultants and bridge officials. FHWA Acting Administrator Gregory Nadeau was the keynote speaker. More than 160 technical presentations were made and 9 workshops were held.

The conference will recognize the best ABC projects in several categories as well as the ABC person of the year, an individual who has contributed most to the cause of ABC. The deadline to submit your nominations is September 15.

If you need additional information, please contact Conference Chair Dr. Azizinamini at [aazizina@fiu.edu](mailto:aazizina@fiu.edu).

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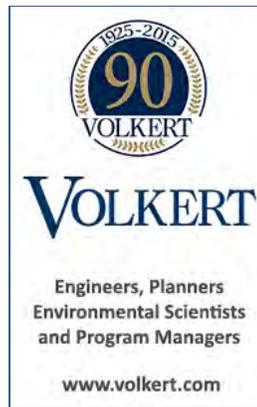


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