The Federal Highway Administration has developed a new list of what are called Proven Safety Countermeasures. Since there are nine of them, we will call them the “9 Proven Safety Countermeasures (9 PSC).”

FHWA created a list of these in 2008, but over the past year the agency went through a detailed vetting process to identify countermeasures for a new list. Of the nine original countermeasures, some were brought forward from the 2008 list, one of them was made more focused, and some are new. These represent great opportunities to improve safety as evidenced by good results already evident with implementation at various places throughout the country.

**Why Highway Safety?**

Unless you have been living the life of a hermit lately, you would know that highway fatalities have dropped dramatically in the past few years. Nationally, from 1995 through 2007, our country experienced between 41,000 and just over 43,000 deaths on our roads every year. Starting in 2008, these numbers have encountered historic declines.

This drop is remarkable. For over a decade, fatalities kept at about the same number (although the rate – fatalities per miles traveled – steadily declined). Then, WHAM!, in three years fatalities decreased by 20 to 25%. Of course, most consider that the poor economy contributed a fair amount (some say all) to this historic drop. Many believe that the economy, along with years of emphasis on better enforcement, education, emergency response, and engineering, all play a role for having less casualties on our roads.

Even with this decline, highway fatalities are the leading cause of death – by far – for teenagers in their driving years, and also for those in their 20’s and early teens. This is not to mention the life-altering injuries that add many tens of thousands a year to the impact of highway crashes on society. Bottom line: Safety is a good thing.

continued on page 2
The 9 Revealed
The 9 Proven Safety Countermeasures can be found at: http://safety.fhwa.dot.gov/provencountermeasures/

At this site, click on each of the icons or words and this will take you to a specific page for each type of improvement. These pages include some great information on that particular countermeasure such as studies, expected safety benefit, and tips on installation.

Application
These nine are by no means the only countermeasures to improve safety, but they have shown to be effective. As you read over them again, consider how and when to implement them.

The median refuge islands and pedestrian hybrid beacons are geared toward pedestrian safety, although others would help with pedestrian safety as well. These should be used where there are a number of crossings between the paths of pedestrian and vehicles.

Rumble strips/stripes and the SafetyEdge are great to be included in new paving projects as they are longitudinal-type improvements. Every new paving project without a curb should have the SafetyEdge, unless the situation makes it not possible, and every paving project should be considered as a candidate for rumble strips or rumble stripes along edgelines and/or centerlines.

One could use a system-wide approach of backing plates with retroreflective borders and horizontal curve treatments, along with putting these on new projects. These two countermeasures are generally meant to be low cost (compared to a full road project) and a jurisdiction could treat 20, or 50, or 100 sites all with one contract.

Under the right circumstances, and in conjunction with operational personnel, road diets and corridor access management should be considered. And any intersection should be a candidate for a roundabout.

Concluding Thoughts
Many, if not all, of the 9 Proven Safety Countermeasures have already been implemented somewhere in Indiana. But there are many other opportunities for use. As you consider the safety issues on the roads in your jurisdiction, think about countermeasures. Think about which of these 9 Proven Safety Countermeasures could be used to make your roads safer and bring down our fatalities and serious injuries even more.
The New List of Nine Proven Safety Countermeasures

Safety Edge

Roundabouts

Corridor Access Management

Backplates with Retroreflective Borders

Longitudinal Rumble Strips and Stripes

Enhanced Delineation and Friction on Curves

Medians and Pedestrian Crossing Islands

Pedestrian Hybrid Beacon

“Road Diets” (Roadway Reconfiguration)
The Right of Way (ROW) process is currently a major part of the project development process. Significant time savings can be achieved by employing flexibilities already provided for in statute and FHWA regulations. This initiative will underline opportunities for improved coordination of ROW activities with other key project development actions in preliminary design; land acquisition, relocation, utilities accommodation and ROW certification for a project; NEPA mitigation land needs; and a number of other areas where streamlined approaches may prove beneficial.

The proposed initiative deals only with flexibilities allowed under existing regulations and statutes. Legislative changes required for additional flexibilities will need to be addressed separately.

Unnecessary Caution Causes Unnecessary Delays
To ensure compliance with all relevant regulations, transportation agencies often approach the ROW process cautiously. State DOTs, MPOs, and local agencies may move elements of a project through the ROW process sequentially rather than concurrently. This can significantly lengthen the highway project development process.

Upcoming Webinar
On April 19, FHWA will broadcast a webinar that provides more information about this initiative. This broadcast will be aired at each of the INDOT District offices:

- Crawfordsville
- Fort Wayne
- Greenfield
- LaPorte
- Seymour
- Vincennes

Visit the Indiana LTAP team’s website at www.purdue.edu/inltap for more information about this webinar and to register for the event. There is no fee to participate.

Coordinating ROW with Project Development
Coordinating ROW activities more successfully with other key project development actions can substantially shorten project delivery. Areas in which streamlined approaches can be employed include:

- Preliminary design
- Land acquisition, relocation, and utilities accommodation
- NEPA mitigation land needs

This initiative deals only with flexibilities allowed under existing regulations and statutes. Additional flexibilities that require new legislative changes will need to be addressed separately.
Memorandum

Subject: INFORMATION: Status of MUTCD Compliance Dates Rulemaking

Date: JAN 20 2012

From: Jeffrey A. Lindley
Associate Administrator for Operations

In Reply Refer To:
HOTO-1

To: Directors of Field Services
Federal Lands Highway Division Engineers
Division Administrators

On August 31, 2011, FHWA published a Notice of Proposed Amendment (NPA) that proposed to eliminate, revise, or extend existing compliance dates for traffic control devices in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). The comment period for the NPA closed on October 31, 2011. The FHWA is currently analyzing the comments received and expects to publish the final rule in the summer of 2012.

Until then, State and local agencies should focus their efforts on long-range planning for the maintenance and upgrade of existing traffic control devices, rather than focusing on compliance dates that may be extended or eliminated.

In advance of the publication of the final rule, FHWA Division Offices are likely to receive inquiries from the public concerning the status of this rulemaking. Please use this memorandum to further clarify the status of the MUTCD compliance dates rulemaking.

In the NPA, FHWA proposed to eliminate the compliance dates for 46 items (8 that had already expired and 38 that had future compliance dates) and to extend and/or revise the dates for 4 items. The vast majority of the comments that FHWA received were supportive of the NPA proposal, particularly the proposal to eliminate or revise certain compliance dates. The changes proposed in the NPA were intended to provide State and local governments with the flexibility to allocate scarce financial resources based on local conditions and the useful service lives of traffic control devices. The changes also were intended to reduce the costs and impacts of compliance dates on State and local highway agencies and to streamline and simplify the information in the 2009 MUTCD.

The FHWA is completing its analysis of the comments received and intends to provide flexibility and reduce costs and impacts as we prepare the final rule for publication this summer. It is important to note that the Fiscal Year 2012 Appropriations Act prohibits the U.S. Department of Transportation from using funds to enforce compliance dates for certain requirements related to sign retroreflectivity and minimum letter heights for street name signs.

For further information, please contact me at Jeffrey.Lindley@dot.gov or 202-366-9210.

cc:
Associate Administrator for Safety
Associate Administrator for Federal Lands Highway
Director of Technical Services
This year, the city of Hobart, Indiana, stands to save tons in its battle against snowy roadways. These savings aren't coming just because winter is off to a slow start, or because this city in the northwestern corner of Indiana is privy to the latest anti-icing technologies. To the contrary, Hobart expects to save more than 1,000 tons of salt this year because it is introducing an idea that has been around for decades: calibration.

“In all my years at the city, we had never calibrated the trucks,” explains John Dubach, Public Works Director for Hobart. “We estimated by feel and looked at the numbers we used, as far as what we were putting down in a year.”

When comparing Hobart’s numbers to other cities, however, Dubach, who has been in public works for 36 years, knew the totals were a little off. “Last year, we decided to set up a program so that we knew what we were doing. We really wanted to know where we were,” he says.

He had been hearing the merits of calibration for several years and decided to implement at home what he learned at the Indiana LTAP Transportation Expo and Snow Plow Roadeo last fall. “The Indiana LTAP did a demonstration of the benefits of calibrating your equipment. We had heard about it before, but really took an interest at that point,” Dubach says.

John VanVleet, mechanic for the city of Hobart, was one of about five or six public works professionals who accompanied Dubach to that event. He says the calibration explained during the Roadeo was not complicated, especially in conjunction with a simple table provided by Indiana LTAP that prescribes an application rate based on miles per hour.

“LTAP taught us to calculate shaft revolutions per minutes (which controls the speed of the auger) on each salt spreader, for each control setting (1-11) and make a record of it. Then, you weigh the salt that comes out per revolution and enter the numbers into a simple math equation that will provide your discharge rate per lane mile,” says VanVleet.

The Indiana LTAP recommends that the appropriate amount of salt to apply is 300 to 400 pounds per lane mile. VanVleet and Dubach were not surprised to discover that they were applying in excess of those numbers; however, they never predicted by how much.

“Before, truck 91 was putting down 1,170 pounds per lane mile,” Dubach says. “We’ve got it knocked down to 340 right now.”

In Hobart’s case, it wasn’t only that the previous method was...
resulting in the considerable overage, but also that their equipment wasn’t operating the way it should—something they discovered through the calibration process. In fact, some of the city’s spreaders were putting out double what they should have been based on the control setting, signifying a problem with the control boxes in that equipment.

“We had a sneaking suspicion that we were likely to save a lot, but it was an extra benefit to find and fix the problems with our equipment,” Dubach added. The city currently operates nine salt spreaders and 20 plows to apply salt treated with beet juice, a product they’ve had really good luck with, according to Dubach.

Their newest truck is eight years old, but some of their equipment is as much as 15 years old. With equipment that old, calibration is even more essential, he’s learned. Where newer equipment can feature a more computer-driven, automated calibration, older equipment like Hobart’s requires mechanical calibration.

“Nothing came with this (older) equipment that says how to calibrate it, and cities generally don’t have the money to upgrade to newer equipment. You don’t turn over salt spreaders that quickly because they don’t get the mileage that other equipment gets,” he says. This low usage is seen even in Hobart, which sits on the edge of the Snowbelt and averages 50 inches of snow each year.

Dubach and VanVleet were so impressed with the results demonstrated on the big equipment that they have even begun to calibrate smaller, electrically operated pickup-mounted units as well. “Most people wouldn’t do that,” says Dubach. But again, their efforts were rewarded as they discovered these spreaders were putting out “way too much salt.” As a result, VanVleet is currently working with SnowEx to devise a system modification that will help these units deliver salt in quantities more in line with recommended application rates.

“They are working to make a controlled feed gate so that you can control what’s coming out instead of being stuck with the standard, which in our case is way too much salt,” says Dubach. Right now, Dubach estimates that Hobart’s savings over the course of the season will be approximately 30 percent. As of publication, they had seen only three snow events this winter.

“It’s a whole program. We’re educating our guys from the bottom up and they are already buying into it,” says Dubach. “It’s the first time we’ve attacked it. I would recommend that other cities really get into it and try it.”

Dubach and his team also are working to help local contractors in the private sector implement calibration into their clearing of commercial and private properties.

“People shouldn’t be afraid of it because, if you’re doing it right, it doesn’t take much time and the benefits are outstanding,” he says. “Not just in terms of cost and savings, but also environmentally.”

The city was ordering 3,500 tons each year, so the savings could be significant.

Dubach and VanVleet are planning a program of calibration in which they calibrate at the beginning of the season and then again halfway through to make sure their numbers are holding up, a process that takes only about 15 minutes to do on each piece of equipment.

“We had a sneaking suspicion that we were likely to save a lot, but it was an extra benefit to find and fix the problems with our equipment.
At your Indiana highway garage it’s all hands on deck: a big winter storm is scheduled to hit your area just in time for morning rush hour. The roads have been pre-treated and your garage is packed with a full crew ready to hit the road. There’s just one problem: The storm is moving more slowly than predicted, and now you have two hours to wait before the snow arrives. What do you do?

Previously, these situations may have been filled with chatting and coffee drinking, but times have changed. With tightening budgets and decreased manpower, local highway departments are taking advantage of every minute – and every dollar - that comes their way. In situations like a winter-storm delay, savvy managers are using the extra time to fire up an online training or webinar so crews can learn while they wait. It’s one of the many reasons travel-free training is surging in popularity.

“Everyone’s budgets are stretched extremely thin and agencies must save money, but at the same time employees need to be trained,” says American Traffic Safety Services Association (ATSSA) Director of Training Donna Clark. “Having alternative delivery methods for training helps employees train at the lowest possible cost and at the greatest convenience.”

Choosing Travel-Free Training
For local highway departments interested in conducting training without the cost and time commitments of off-site conferences and seminars, travel-free training is the way to go – and there are plenty of options to choose from. No-travel training choices include webinars, online training, teleconferences, online degrees, videos, and on-site training. Many of these training options can be found at low cost – or even free – through reputable transportation associations and groups, state and federal highway departments, transportation equipment and materials vendors, and your Indiana LTAP.

But while there are plenty of options, it’s also wise to carefully evaluate the quality of any training program before you participate or offer it to your staff. According to Clark, questions to ask include:

1. Will the training be recognized and approved by a state agency?
2. Is there a challenging examination that one must pass to graduate?
3. Does the instructor or organization have credibility in the field?
4. Is there a recognized and respected certification program associated with the training?
5. Can students earn CEUs following successful completion of the course?

Being able to answer “yes” to one or more of these questions will help you easily identify the training opportunities that will make the best use of your staff’s time and your organization’s resources.

Staging a Successful Training
Though travel-free training is convenient, it can also be challenging because there is no instructor in the room to command the group’s attention. To get everyone in the right mindset, it’s crucial to reinforce the importance of the training and give staff advance notice that downtime will be used for training. It also pays to set some ground rules for training, such as “cell phones should be off, email shut down, and full attention should be paid to the instruction to ensure successful completion of the course,” says Clark. Preparing a small quiz or worksheet to be completed during the training can also help keep the group focused on the information being delivered.

With some research, preparation and leadership, it’s easy to take advantage of the multitude of travel-free training options available to local transportation agencies today. When done right, it’s an ideal way to maximize your agency’s limited time and resources while increasing the knowledge within your organization to better meet your agency’s goals.
Resources for Travel-Free Training

**American Public Works Association (APWA) | www.apwa.net**

Training options include their popular Click, Listen & Learn webinar series conducted by top experts. Each two-hour seminar costs under $200 and can be viewed live or pre-recorded. Recent offerings include low-cost safety measures, pavement management, and liquid usage in winter maintenance.

**American Traffic Safety Services Association (ATSSA) | www.atssa.com**

ATSSA’s training offerings include their once-monthly Webinar Wednesday training series on topics related to roadway safety such as OSHA considerations, worker protection, and pedestrian safety in work zones. Each webinar costs just $119 and can be broadcast to an entire room of people. ATSSA also has a FHWA grant to provide travel-free Traffic Control Technician and Traffic Control Supervisor training for $25 per student – a significant savings on the normal registration fee.

**Indiana Association of Cities and Towns (IACT) | www.citiesandtowns.org**

IACT is offering several webinars this spring that will address topics such as public record laws, redistricting, and municipal purchasing. These sessions are available at $15 each for IACT members and $45 for non-members. Visit the IACT website for more details about registration and for information about additional webinars offered throughout the year.

**National Highway Institute (NHI) | www.nhi.fhwa.dot.gov**

An excellent resource for travel-free training can be found in the archives of this federal organization’s free monthly Real Solutions Seminar Series (available at http://www.nhi.fhwa.dot.gov/about/realsolutions.aspx). Here there are links to webinars on topics such as road safety audits, best practices for bridge preservation, the new highway safety manual, and much more.

**Indiana Local Technical Assistance Program (LTAP) | www.purdue.edu/INLTAP**

Indiana LTAP hosts a number of free training programs that can be conducted on-site, including sessions in work zone traffic control, snow and ice control, chainsaw safety, and flagger training. Additionally, in response to the growing demand for online training programs, the team will add to the collection of free pre-recorded training available through its website. Currently, a recorded session on gravel road maintenance is available, with more to come soon.

For a listing of additional web-based training opportunities for local transportation agencies, visit the “External Training” page on the Indiana LTAP website at http://goo.gl/hVddG.
## Classifieds

### Equipment Loan

Indiana LTAP’s Equipment Loan Program continues to be one of the most popular activities of the LTAP Center.

The following equipment is available for loan:
- Traffic counters (magnetic and tube type)
- Laser speed and distance measurement instruments
- Sign retroreflectometer
- Radar speed display signs
- Safety Edge boot
- Digital camera
- Cones and barricades (emergency use only)

Request equipment by calling the LTAP Center at (800) 428-7639 or emailing inltap@ecn.purdue.edu

### New Publications

- **2011 Indiana Manual on Uniform Traffic Control Devices for Streets and Highways** (CD - Item # 7011)
- Recycled Materials Resource Center and the New Hampshire T2 Center (DVD - Item # 7014)

For more information on either of these resources, or to request a copy, email inltap@ecn.purdue.edu

### Conferences

- **IACHES 2012 Summer Conference**
  - June 6-7, 2012
  - Indianapolis
  - Embassy Suites North Hotel
  - 3912 Vincennes Road
  - (317) 872-7700

For information regarding registration, session agendas, and hotel reservations, visit www.iaches.org/Forms.htm

### On-Site Training

The Indiana LTAP team offers several training courses available to host on-site at your location:
- Temporary Traffic Control
- Snow and Ice Control
- Chainsaw Safety
- Flagger Training

To schedule your agency for a course, call (800) 428-7639 or (765) 494-2164.

### H.E.L.P.E.R.S.

The Hazard Elimination Project for Existing Roads and Streets Program aims to increase safety on local roads for counties, small cities, and towns.

HELPERS offers the following assistance as part of its services:
- Crash Analysis
- Road Safety Audits
- Traffic Volume Counts
- Signal Warrant Analysis
- Ball Bank Studies
- Low Cost Improvement Ideas
- HSIP Application Assistance

For more information, email ltaphelpers@ecn.purdue.edu

### Job Openings

**Title:** Decatur City Engineer  
**Posted Date:** 3/13/2012

**Description:**
The City Of Decatur is taking applications for the position of “City Engineer.” Interested applicants need to have a current PE license in the State of Indiana.

Application and job description forms are available at Decatur City Hall, 225 West Monroe Street, Decatur, IN, 46733. All questions should be directed to Mayor John Schultz at (260) 724-7171 or e-mail at decaturmayor@onlyinternet.net

### To Submit an Ad

Interested in submitting a classified ad for your agency?  
Visit www.purdue.edu/inltap, email inltap@ecn.purdue.edu, or call the Indiana LTAP office at (800) 428-7639 or (765) 494-2164.
Association Information

**Indiana Association of County Commissioners (IACC)**

Spring District Meetings
North - June 13
Central - June 20
South - June 27

For more information, visit: indiana county commissioners.org/Events/events.htm

**Indiana Street Commissioners Association (ISCA)**

Association Meeting
August 14-16, West Lafayette
Four Points by Sheraton West

Visit www.indianastreets.org for more information on events and membership.

**Asphalt Pavement Association of Indiana (APAI)**

APAI Shooting for Scholarships Fundraiser
April 19, Fortville
Indiana Gun Club

Save the Date!
Winter 2012 Conference & Trade Show
co-hosted with Indiana LTAP
December 13-14
Indianapolis, Marriott East

For more information: www.asphaltindiana.org

**Indiana Association of Cities and Towns (IACT)**

Mayors Roundtables
April 19 - North Central
April 27 - Southern

International Municipal Lawyers Association
Mid-Year Seminar
April 22-24, Washington DC

Indiana Mayors Assistants Annual Conference
April 26-27, Indianapolis

**IACT Webinars**

Let the Sunshine In!
Complying with Public Access and Public Records Law
April 19

Mapping our Future:
Mandatory Municipal Redistricting
April 26

Understanding the Complexities of Municipal Purchasing
May 10

View additional information and more events at: www.citiesandtowns.org

**Association of Indiana Counties (AIC)**

District Meetings
April 3 - Northwest
April 4 - Northeast
April 10 - West Central
April 11 - East Central
April 17 - Southwest
April 18 - Southeast

Recorders Conference
April 24-26, Indianapolis

Auditors Conference
May 15-18, Elizabeth, Indiana

AIC Budgets and Finance Level I Institute Class
May 17-18, Webinar

AIC Budgets and Finance Level II Institute Class
May 24-25, Webinar

For details, visit: www.indianacounties.org

**Institute of Transportation Engineers (ITE) Indiana Section**

Great Lakes District/Southern District Joint Annual Meeting
April 15-18, Lexington, KY

For more details visit: www.indianaite.org

**Transportation Research Board**

Managing Gravel Road Maintenance
April 10, Webinar
12:00pm - 2:00pm EDT

Practices and Examples to Manage Sign Retroreflectivity in Compliance with the MUTCD
May 2, Webinar
2:00-3:30pm EDT

For more information visit: http://www.trb.org/Calendar/Calendar.aspx
Indiana Local Technical Assistance Program (LTAP) was established by the Federal Highway Administration (FHWA). The purpose of the LTAP program is to translate the latest, state-of-the-art road, highway and bridge technologies into systems usable by local highway agencies. LTAP is funded by FHWA, the local agency distribution of the Motor Vehicle Highway Account and Purdue University. A newsletter is published quarterly by the Indiana LTAP office at Purdue University. It is distributed free to county, city or town road and street personnel, and others with transportation responsibilities.

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