



MARYLAND TRANSPORTATION TECHNOLOGY TRANSFER CENTER

Local Technical Assistance
Program (LTAP)
University of Maryland at
College Park

www.mdt2center.umd.edu

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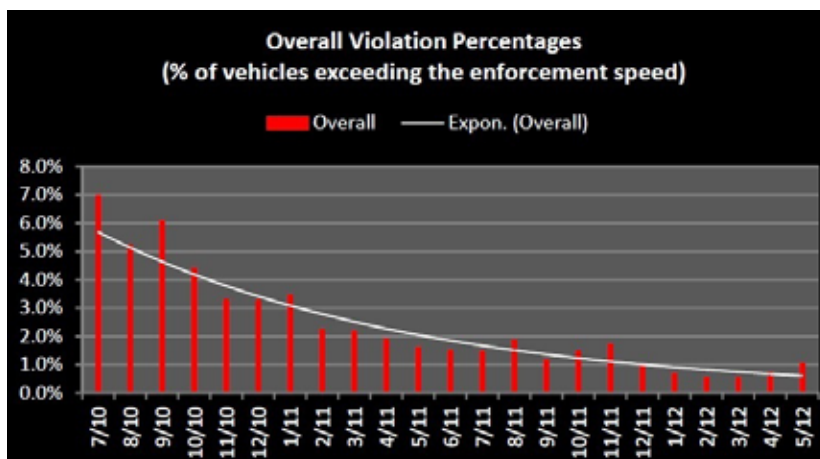
MARYLAND WORK ZONE FATALITIES AT LOWEST LEVEL IN MORE THAN A DECADE

SafeZones Automated Speed Enforcement Results in Fewer Aggressive Drivers/Speeders in Work Zones

The Maryland State Highway Administration (SHA) announced today that work zone-related crashes, fatalities and injuries are at a more than 10-year low according to its finalized 2011 crash data. Based on the last three years, fatalities in work-zone crashes decreased by more than half from nine in 2009 to three in 2011. In the same timeframe, the number of people injured decreased from 827 to 688 and overall work zone crashes decreased from 1,685 to 1,486.

SHA credited, in part, the Maryland SafeZones automated speed enforcement program. Since the program's official launch in 2010, speeding violations in SafeZones construction sites have decreased by more than 80 percent. When the program was first introduced, approximately seven out of every 100 drivers in a work zone were exceeding the speed limit by 12 mph or more; currently less than two drivers out of every 100 are receiving citations for excessive speeding.

"The decrease in work zone crashes and the reduction in citations tell us that the SafeZones cameras are effective and motorists are getting the message to slow down in our highway work zones," said State Highway Administrator Melinda B. Peters. "This is not only good news for workers but for motorists as well since the majority of those injured in work zone related crashes are drivers or occupants in passenger vehicles. SafeZones is a critical part of our overall work zone safety program, because education of the driving public combined with effective enforcement is a powerful traffic safety tool."



Work Zone Ahead

Check out our Work Zone Design Course
scheduled for March 6-7, 2013 on page 6.



"More drivers are recognizing the importance of being alert and slowing down in work zones, which is leading to enhanced safety in our work zones," said Office of Traffic and Safety Director Cedric Ward.

The SafeZones program formally launched in July 2010 after being authorized by the 2009 speed camera law and following an eight-month pilot program. Managed by SHA, in partnership with Maryland State Police and Maryland Transportation Authority Police, the SafeZones program

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Maryland Work Zone Fatalities at Lowest Level in More Than A Decade

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issues citations to drivers exceeding the posted speed limit by 12 mph or more in monitored work zones. A uniformed law enforcement officer reviews the details of each citation before it is mailed to the owner of the vehicle.

“Work zones present challenging conditions for even the most seasoned drivers,” Maryland State Police Sergeant Marc Black said. “The SafeZones enforcement program continues to be an effective way for us to increase safety for highway workers and law enforcement personnel in work zones, as well as the thousands of motorists who travel through these zones each day.”

“Enforcing the proper speed in work zones can be very difficult when lanes are narrowed and shoulders are unavailable,” said Maryland Transportation Authority Police Sergeant Kirk Perez. “The SafeZones cameras provide a deterrent to speeding and help avoid the apprehension of speed violators by police in the confined space within the work zone. The SafeZones cameras are a valuable tool for law enforcement in our drive to keep highways safe.

Details about the specific deployment sites, including the number of citations issued, are located on www.safezones.maryland.gov. In total, between fiscal years 2010 and 2012 (through June 30, 2012), 998,003 citations were issued, and \$21 million has been collected in net fines. The funding is transferred to the Maryland State Police.

This article was reprinted from Maryland Roads, for more information visit: <http://www.roads.maryland.gov>



Safe Zone Facts



The Maryland SafeZones program allows the Maryland State Police and Maryland Transportation Authority Police to enforce the speed limit in highway work zones with automated (cameras) equipment.



The Maryland SafeZones program was created to improve safety for workers and travelers since nationally, four out of every five people injured in highway work zone crashes are drivers or passengers.



Since law enforcement began using speed cameras in highway construction areas, work zone-related crashes, fatalities and injuries are at a more than 10-year low: fatalities in work-zone crashes decreased by more than half from nine in 2009 to three in 2011. In the same timeframe, people injured decreased from 827 to 688 and overall work zone crashes decreased from 1,685 to 1,486.



Speeding violations in SafeZones construction sites have decreased by more than 80 percent. When the program began, approximately seven out of every 100 drivers in the SafeZones construction areas were exceeding the speed limit by 12 mph or more; currently less than two drivers out of every 100 are receiving citations.

This article was reprinted from Maryland Roads, for more information visit: <http://www.roads.maryland.gov>

Every day transportation agencies across the country face the challenge of carrying out high quality construction projects on time and within budget, all while meeting the expectations of the traveling public.

As agencies contend with aging highway infrastructure, increased congestion, and shrinking budgets, they continue to look for new methods to meet these challenges and complete projects better, faster, safer, and more cost effectively.

Performance contracting offers agencies an alternative to standard low-bid contracts with detailed specifications, allowing for increased innovation and problem solving. Under a performance contract, agencies specify performance goals and contractors have flexibility in how they carry out the work to meet those goals.

“The agency can clearly communicate to the contractor what they are trying to achieve with the project, and the contractor shares the risks and rewards through incentives and disincentives,” said Jerry Yakowenko of the Federal Highway Administration (FHWA).

FHWA’s newly updated Performance Contracting for Construction: A Guide to Using Performance Goals and Measures to Improve Project Delivery offers State and local transportation departments a valuable reference, walking them through the process for using performance contracting on a typical reconstruction or rehabilitation project. Originally developed in 2006, the 2012 update includes lessons learned and sample materials from a successful performance contracting pilot project conducted by the Michigan Department of Transportation (MDOT).



Using performance contracting, the Michigan Department of Transportation rehabilitated an 8.9-km (5.56-mi) stretch of M-115 in Clare County. (Photo Credit: © MDOT).

The guide includes recommended processes and sample materials for:

- Project selection.
- Performance goals.
- Measurement methodology, including associated incentive and disincentive fee structures.
- Sample enhanced low-bid and best-value awards.
- Applications for FHWA’s SEP-14 program (special experimental projects using alternative contracting techniques).

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CITE Blended Courses for 2013

The Consortium for ITS Training and Education (CITE) announces its Blended Course schedule for 2013. A “blended” course combines the best features of both instructor-led and web-based instruction. Features include: live discussions through the use of conference calls, convenient, flexible web-based learning, a specific time schedule in which to complete the course, and student interaction through the use of a discussion board.

Scheduled courses include:

- Managing High Technology Projects in Transportation
February - March 2013
- Telecommunications and Network Fundamentals - February - March 2013
- Introduction to Systems Engineering - March - April 2013
- Network Design and Deployment Considerations for ITS Managers and Professionals - April - May 2013
- Improving Highway Safety with ITS - May - June 2013

For more information about or to register for CITE’s Blended Courses visit:
www.citeconsortium.org

Performance contracts that are awarded on a best-value basis (considering both price and non-price factors) must be approved under the SEP-14 program. This does not apply to performance based design-build contracts. For examples of SEP-14 best-value work plans, visit www.fhwa.dot.gov/programadmin/contracts/sep14list.cfm.

Each section in the guide describes a suggested process to follow, presents lessons learned from real-world contracts, and provides sample materials for project solicitations. When selecting performance contracting projects, for example, considerations include whether an agency can legally use an award process other than low-bid, if a contractor will be allowed flexibility in its approach to the project, if an agency has adequate resources to conduct performance measurement, and whether the project risks are balanced by adequate rewards. As noted in the guide, performance contracting can be applied to any size contract, not just large projects.



The mid-section of the precast superstructure for a bridge on M-115 is placed as part of the Michigan Department of Transportation's performance contracting project.
(Photo Credit: © MDOT).

The guide includes sample performance measures developed for use on highway construction projects. Categories include safety, construction congestion, quality, time, cost savings, customer satisfaction, environmental sustainability, and innovation. Each performance measure has five levels of performance. "While agencies will need to develop a set of goals that suit their specific project, this sample menu will provide a head start and help to accelerate the process," said Yakowenko.

Also featured are details on the process used for MDOT's \$3.8 million pilot project on M-115 in Clare County. The pavement on this rural 8.9 km (5.56 mi) stretch of a two-lane highway was in poor condition, and two bridges needed significant reconstruction. Michigan received \$1 million in project funding from FHWA's Highways for LIFE (HfL) program and used HfL's Performance Contracting for Construction Implementation

Framework. This framework was developed with input from several State highway agencies, the Associated General Contractors of America, and the American Road and Transportation Builders Association.

Performance goals for the 2008 project focused on the measures MDOT and its stakeholders wanted the project to achieve in the following categories: date open to traffic, completion of construction and related cleanup, pavement performance, worker safety during construction, work zone crashes, and motorist delay.

MDOT awarded the project to the contractor whose proposal represented the best value considering price, goals, and proposed innovations. Contractor innovations used for the project included prefabrication of the new bridge decks and installation of a 3.3 m (11 ft) wide temporary traffic lane that provided two-way traffic during major construction stages. A 24-hour roadside patrol also offered motorist assistance within the construction zone. Project successes included reopening the roadway to traffic 20 days early.

To download a copy of Performance Contracting for Construction: A Guide to Using Performance Goals and Measures to Improve Project Delivery, visit www.fhwa.dot.gov/construction/contracts/pcf00.cfm. The HfL Performance Contracting for Construction Implementation Framework is available at www.fhwa.dot.gov/hfl/framework.

This article was reprinted from the November 2012 issue of FOCUS, a publication of the United States Department of Transportation and the Federal Highway Administration

The following courses are currently scheduled and we are still adding to the list! For more information or to schedule a class, contact Janette Prince at 301.403.4623 or register online by visiting us at www.mdt2center.umd.edu.

BASIC DRAINAGE

Ed Stellfox

January 15, 2013, 8:30am - 3:30pm

College Park, Maryland

\$89 for all participants

PDHs: 6.0

This course emphasizes the importance of good drainage with discussions of water and its effects on roads, problems caused by improper drainage, and ways to handle these problems. It covers types of drainage facilities, ranging from ditches, culverts, subdrains, inlets and end structures. Their uses, materials, installation and maintenance as well as erosion control are addressed. It also introduces geosynthetic drainage applications. The following topics will be covered: importance of drainage, characteristics of water, system maintenance, drainage principles, surface and subsurface drainage, ditches, driveways, drainage culverts – materials and placement, headwalls, endwalls and inlets, erosion control, and geosynthetics in drainage.

ASPHALT ROADS - COMMON MAINTENANCE PROBLEMS

Ed Stellfox

January 29, 2013, 8:30am - 12:30pm

College Park, Maryland

\$59 for all participants

PDHs: 4.0

Municipal employees with road maintenance responsibilities should understand the causes of common maintenance problems on asphalt roads and be familiar with proper repair materials and methods. This course discusses causes and repair procedures for common problems such as cracking, potholes, rutting, corrugations, etc. The procedures cover materials, equipment, and techniques for lasting repairs. Also included, a brief discussion of surface treatment.

FLAGGER CERTIFICATION

Juan Morales

February 7, 2013, 8:30am - 12:30pm

College Park, Maryland

\$100 for all participants

PDHs: 4.0

The safety of workers, motorists and pedestrians is dependent upon the flaggers' performance. Since the flagger position involves safety, proper training is vital; flaggers are expected to pass a test to prove their proficiency and competence level. A MD SHA-approved ATSSA (American Traffic Safety Services Association) flagger card will be issued upon satisfactory completion of this course. This will be valid for 4 years and is acceptable in several states, including MD, VA and DC.

The class is presented in PowerPoint© and will include a 25-question multiple choice exam and a flagger demonstration

(dexterity test). Students will receive their ATSSA Flagger Certification card the day of the course (upon passing the exam). The course is intended for anyone whose actions affect safety of contemporary traffic control work zones, including traffic managers, traffic technicians, inspectors and designers.

ASPHALT RESURFACING

Ed Stellfox

February 12, 2013, 8:30am - 12:30pm

College Park, Maryland

\$59 for all participants

PDHs: 4.0

This course reviews the various asphalt mixes, their components and their uses. Asphalt resurfacing procedures are covered, including preparation, material, equipment, operation and safety. Special emphasis is placed on proper rolling and compaction of the asphalt overlay. Superpave mix design is discussed as well. Municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers are encouraged to attend.

CONSTRUCTION MATHEMATICS

Ed Stellfox

March 5, 2013, 8:30am - 3:00pm

College Park, Maryland

\$89 for all participants

CEUs: 0.6

PDHs: 6.0

Construction inspectors may need to brush up on math skills specifically related to construction inspection, especially basic geometry, fractions, area, volume and conversions. The class is a good refresher, and excellent preparation for the construction inspection class. The course was designed for road workers, foremen, superintendents, construction inspectors and supervisors in need of a refresher, especially in preparation for the Construction Inspections class. Depending on the interest of the participants, the course may cover: whole number and fractions, decimals (for measurement and payment), mixed operation fractions and decimals, formula evaluation, techniques of algebra, ration and proportion, percentage, hints for problem solving, useful formulas, square and square roots, conversion, and transportation construction examples.

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WORK ZONE DESIGN

Juan Morales

March 6-7, 2013, 8:30am – 3:30pm

College Park, Maryland

\$199 Maryland local government participants

\$235 for all other participants

PDHs: 12.0

The course will give participants knowledge of the entire temporary traffic control (TTC) process: planning, design, review, installation, maintenance, and evaluation of proper maintenance of traffic (MOT) controls for work zones. The procedures and devices covered are generally taken from Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and are modified to meet practices and standards in Maryland.

Site Impact Analysis

Dane Ismart

March 12-13, 2013, 8:30am - 4:00pm

College Park, Maryland

\$199 for Maryland local government

\$225 All other participants

CEUs: 1.2

PDHs: 12.0

Participants will learn the standard techniques for estimating the traffic impacts of both small and large site developments. Content includes procedures for land use forecasting, trip generation, trip distribution and assignment, site impact layout design, and level of service designation. The workshop will be conducted with manual procedures, but computer software packages suitable for site impact will also be demonstrated. Participant's will receive a workbook, traffic access and impact studies, evaluating traffic impact studies, and a site impact handbook are provided.

TRAFFIC SIGNS

Ed Stellfox

April 2, 2013, 8:30am - 12:30pm

College Park, Maryland

\$59 for all participants

PDHs: 4.0

This half-day course will cover the regulations and guidelines for traffic signs including; regulatory signs, warning signs, and guide signs. A review of the Manual on Uniform Traffic Control Devices (MUTCD) will also be covered. An in depth discussion of sign examples, installation and maintenance, as well as sign management will be covered.

LOW COST SAFETY IMPROVEMENTS

Mark Hood, P.E.

April 9, 2013, 8:30am - 3:30pm

College Park, Maryland

\$100 for Maryland local government

\$125 All other participants

PDHs: 6.0

This course provides participants with methods for implementing effective, low cost safety improvements targeted at high crash areas. It emphasizes the basic and enhanced application of traffic control devices, low cost safety improvements, and their specific safety benefit. Traffic

crash data

collection,

identification

of hazardous

locations, and engineering study procedures are also discussed.

Emphasis is placed on low cost solutions that may be made at the local level.

Preventive Pavement Maintenance

(Learn about seal coats, slurry seals and micro surfacing)

Ed Stellfox

April 16, 2013, 8:30am - 3:00pm

College Park, Maryland

\$89 for all participants

PDHs: 6.0

This course is the first step in making your asphalt pavements last longer at lower costs. The course covers preventive maintenance treatments such as chip seals, slurry seals, and micro-surfacing and discusses when and where each technique could be effective. It presents application methods, including preparation, materials, equipment, operations and safety, along with practical tips on how to avoid trouble.

Asphalt Recycling

Ed Stellfox

April 30, 2013, 8:30am - 12:30pm

College Park, Maryland

\$59 for all participants

PDHs: 4.0

This course discusses the advantages of asphalt recycling as part of your road maintenance program. It covers techniques for recycling asphalt pavement, including surface recycling, hot mix recycling (both in plant and on-site), and cold mix recycling. The course emphasizes cold mix recycling, full depth reclamation, reviewing materials, equipment and operations. It also presents recent examples of asphalt recycling projects in several states. The following topics will be discussed: advantages; review of techniques -materials, equipment, and operations for surface recycling, hot-mix recycling, cold-mix recycling, and full depth reclamation.

Roadway Safety Fundamentals

Mark Hood, P.E.

June 20, 2013, 8:30am - 3:30pm

College Park, Maryland

\$100 for Maryland local government

\$125 All other participants

PDHs: 6.0

This one-day course will cover the following topics:

- Basics of road safety: why, when, and where crashes occur
- Solving fundamental traffic safety problems
- Using traffic control devices to improve safety: signs, signals, pavement markings, and maintenance
- Common roadway safety issues: curves, stopping sight distance, edge drop-offs, etc.
- Basic Intersection Safety

Our Currently Scheduled Courses
(concluded from page 5)

Pavement preservation just became more efficient, thanks to a free mobile application released by the Federal Highway Administration (FHWA). FHWA's Pavement Preservation Checklists are now available on smart phones that use the Android™ operating system and BlackBerry® phones. They will soon be available on iPhones®.

The 14 checklists were created to help guide State and local highway maintenance and inspection staff in the proper use of pavement preservation processes. Users can find checklists on topics ranging from using thin hot-mix asphalt overlays to performing full-depth repair of concrete pavements to applying crack seals to pavements. The new application provides highway agencies and contractors with all of the checklists in an easy-to-use mobile format, ensuring that highway workers have the information they need on the job site.

To obtain the free app, visit the Android Market or BlackBerry App World on a smart phone and enter "FHWA" into the search field. For additional information on the Pavement Preservation Checklists, visit www.fhwa.dot.gov/pavement/pub_details.cfm?id=350. To learn more about pavement preservation, visit www.fhwa.dot.gov/preservation.



This article was reprinted from the October 2012 issue of FOCUS, a publication of the United States Department of Transportation and the Federal Highway Administration

Not App Savy Yet?

Try one of these courses on Asphalt and Pavement Maintenance and we're sure you'll learn the latest techniques and how to save your department money!!

- **Asphalt Roads - Common Maintenance Problems** - scheduled for January 29, 2013
- **Asphalt Resurfacing** - scheduled for February 12, 2013
- **Preventive Pavement Maintenance** - scheduled for April 16, 2013
- **Asphalt Recycling** - scheduled for April 30, 2013

For full course descriptions, please view our Currently Scheduled Courses on pages 5 and 6.



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Need training but budget cuts won't allow travel? Request a class and we'll bring it to you!

We understand your training needs and the tremendous budget cuts everyone is dealing with in this economy. By logging on to www.mdt2center.umd.edu and requesting a course that 10 or more of your employees need, we'll bring our course to you. We'll need a room where your employees can learn and either a white board or bare wall for our projector and a pot of coffee for our instructor.

Requesting a course is simple, visit www.mdt2center.umd.edu and fill out our request training form or call Janette Prince at 301.403.4623 and she'll be glad to assist you.

MD T² Advisory Board Committee

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