

technotes

Summer 2011 I Volume 28, No. 2

MARYLAND TRANSPORTATION TECHNOLOGY TRANSFER CENTER

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

www.mdt2center.umd.edu

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WHOSE LIFE IS ON THE LINE? SAFER DRIVING. SAFER WORK ZONES. FOR EVERYONE.

Warmer Weather Ushers in Start of Construction Season

Construction season is here with many active work zone sites that include major projects taking months to complete and mobile operations taking only minutes. Modify your driving behavior to help prevent crashes. Stay alert - look for reduced speed limits, narrow driving lanes and highway workers. Slow down and don't follow too closely.

Safer Driving. Safer Work Zones. For everyone.

Tou've seen the orange cones and barrels in Maryland's roadway work zones. You've probably seen our highway workers, too. They're out on the road every day mowing, repairing pot holes and repairing roads and bridges – making our State safer for you and your family.

Highway work zones can result in delays and frustrations. We realize your life is busy and your time is precious. Please understand when you drive dangerously through a highway work zone you're putting the lives of highway workers at risk, you're risking your life, and you're risking the lives of your loved ones. That's because four out of five people who die in highway work zones are either drivers or their passengers. Safer driving. Safer work zones. For everyone.

Scary Statistics

When it comes to work zones, even the smallest mistake can be deadly. Take a look at these numbers:

• Nationally, more than 700 people die in work zones each year.

 In Maryland, over the last ten years on average there have been more than 2,600 crashes, 1,400 people injured and 12 people killed each year in work-zone related crashes.

 Four out of five people killed in work zones are motorists – not highway workers.

- The single major crash type involves rear-end crashes (30 percent).
- While most major work occurs at night, the majority of work zone crashes occurred during daylight hours (68.5 percent).
- On average, most work zone crashes (more than 10 percent in each of the following jurisdictions) occurred in Anne Arundel, Baltimore, Montgomery and Prince George's counties, and Baltimore City.

Learn
more about
work zones,
check out our
Work Zone Design
course scheduled for
June 23 - 24 on page 8.

Targeted Areas Strengthen Bridge Oversight

S. Transportation Secretary Ray LaHood today announced a new and improved bridge oversight initiative that will enable the Federal Highway Administration to more closely monitor how states are performing their bridge inspections and maintenance.

"The safety of our nation's bridges is of paramount importance," Secretary LaHood said. "There is always room to do better, which is why we have launched this new safety initiative."

The new approach allows FHWA to more clearly and easily identify bridge issues in each state. Previously, FHWA prepared a written assessment of a particular state's bridge inspection program based on the outcome of a general review of key inspection areas. Under the new system, FHWA will replace the narrative with an actual grid of 23 specific inspection program areas to identify potential safety challenges more easily. Inspection areas include such items as bridge load limits, loss of sediment from the foundation due to erosion and inspection frequency by individual states. Because the new system is based on more objective data, it provides for more consistency in the bridge inspection program nationwide and more targeted approaches to identifying problem areas in specific states.



In addition, during the last year, FHWA performed supplementary error-checks on data submitted

by states, conducted workshops and created working groups with states, industry and academia to promote and share best practices in bridge inspection and preservation.

"We take our stewardship role very seriously," Federal Highway Administrator Victor Mendez said. "As part of our ongoing commitment to the bridge program, we have adopted these measures to ensure the continued safety of our nation's bridges."

President Obama's proposed Fiscal Year 2012 budget calls for \$70.5 billion to maintain and build roads and bridges, including \$320 million for bridge inspections. The proposal would reduce the backlog of bridge rehabilitation

projects first identified in 2006 by 50 percent by 2017. Since 1994, the percentage of bridges in the worst condition has declined from 19.4 percent to 12 percent.

The FHWA helps ensure the safety of our nation's bridges through federal inspection regulations and the oversight of state programs. It also provides funding to assist states in replacing and rehabilitating and preserving bridges.

Sign up now for our Bridge Maintenance Inspection course on May 24th! For more information, check out Our Currently Scheduled Courses on page 8.

This article was reprinted from the United States Department of Transportation, Federal Highway Administrations' Office of Public Affairs, for more information visit: www.dot.gov/affairs/briefing.htm

 Not paying attention, going too fast for conditions, failure to yield the rightof-way and following too closely were major contributing factors in work zone crashes.

Driving Tips

These simple tips could save your life in a work zone:

- Stay alert! Look for reduced speed limits, narrow driving lanes and highway workers.
- Pay attention. Work zone signs will tell you exactly what to expect ahead.
- Merge early. If drivers merge as soon as they see the signs, traffic will flow more smoothly.
- Slow down. You may encounter slowed or stopped traffic in an instant.
- Don't follow too closely. Maintain a safe distance on all sides of your vehicle.
- Minimize distractions. Remember Maryland State law bans hand-held cell phones and texting.
- Plan ahead. Expect delays and allow extra travel time. Select an alternate route if you are running late. Learn about current and planned lane closures at www.roads.maryland.gov and then click on "CHART."

Our Safety Commitment to You:

- Working during nighttime and off-peak hours when possible.
- Installing concrete barrier walls on interstate construction projects where feasible.
- Communicating construction information to travelers and the media.
- Using electronic message and arrow boards.
- Wearing high visibility safety apparel and protective equipment.
- Cleaning up work zone crashes quickly and safely.

For more information about Work Zones in Maryland, visit: http://www.sha.maryland.gov/Index.aspx?PageId=403&d=91.



This article was reprinted from the Maryland State Highway Administration, for more information, visit: http://www.MarylandRoads.com

CITE Blended Courses for 2011

The Consortium for ITS Training and Education (CITE) announces its Blended Course schedule for 2011. 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:

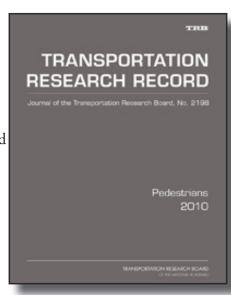
- Improving Highway Safety with ITS, June July
- Introduction to Systems Engineering, September October
- Traffic Signal Timing, September October
- Road Weather Information Systems (RWIS) Equipment and Operations, October December
- Configuration Management for Traffic Management Systems, October December

For more information about or to register for CITE's Blended Courses visit:

www.citeconsortium.org

RB's Transportation Research Record: Journal of the Transportation Research Board, No. 2198 contains 17 papers incorporating bicycle and pedestrian topics in university transportation courses, high-visibility school crosswalks, safety effectiveness of leading pedestrian intervals, driver and pedestrian behavior at uncontrolled crosswalks, pedestrian traffic flow in confined passageways, roadway intersection characteristics and pedestrian crash risk, and pedestrian-vehicle conflicts.

This issue of the TRR also examines pedestrian safety prediction for urban signalized intersections, real-time system for tracking and classification of pedestrians and bicycles, using pedestrian crash data to identify unsafe transit service segments, effect of street network design on walking and biking, multi-modal driveway design, shared-use paths adjacent to the roadway, signal timing optimization models for a midblock pedestrian



crossing, pedestrian safety retraining for elementary and middle school students, and modeling the evacuation of crowded pedestrian facilities.

This blurb was reprinted from the Transportation Research Board.

To view the full report visit: http://www.trb.org/Main/Blurbs/Pedestrians_2010_165054.aspx

Nation's Highway Traffic Reaches Highest Level Since 2007

Increase in U.S. Driving Underscores Need for Continued Investment in Roads, Bridges and Tunnels

mericans drove three trillion miles in 2010, the most vehicle miles traveled since 2007 and the third-highest ever recorded, U.S. Transportation Secretary Ray LaHood announced today. The increase in traffic volume comes as the U.S. in 2009 posted its lowest number of traffic fatalities and injuries since 1950.

"More driving means more wear and tear on our nation's roads and bridges," said Secretary LaHood. "This new data further demonstrates why we need to repair the roads and bridges that are the lifeblood of our economy."

The Secretary noted that Americans drove 0.7 percent more, or 20.5 billion additional vehicle miles traveled (VMT), in 2010 than the previous year. Travel increased by 0.6 percent, or 1.4 billion VMT, in December 2010 compared to the previous December. It is the tenth consecutive month of increased driving.

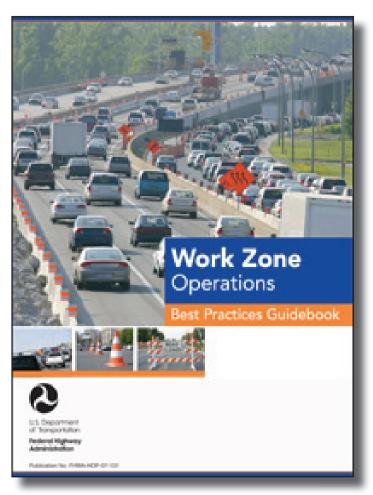
The new data, from the Federal Highway Administration's monthly "Traffic Volume Trends" report, show the South Gulf area, a bloc of eight states ranging from Texas to Kentucky, experienced the greatest regional increase in December 2010 at 46.6 billion VMT, an increase of 624 million miles traveled compared to the previous December.

With an increase of 11.1 percent, or 156 million additional miles traveled, Nebraska led the nation with the largest single-state increase that month, and rural driving outpaced urban driving across the country.

"These data are critical to identifying and evaluating patterns of use on America's road system, which help us to make decisions about investments in critical infrastructure," said Federal Highway Administrator Victor Mendez. "Repairing our nation's roads, bridges and tunnels will help us ensure safety, strengthen the economy and build for the future."

To review the VMT data in FHWA's "Traffic Volume Trends" reports, including that of December 2010, visit http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm.

This article was reprinted from the United States Department of Transportation, Federal Highway Administrations' Office of Public Affairs; for more information visit: www.dot.gov/affairs/briefing.htm



he Work Zone Best Practices Guidebook provides an easily accessible compilation of work zone operations best practices used by various States and localities around the country. The Guidebook is a reference document that can be updated with new approaches, technologies, and practices for effectively managing work zones and reducing the impacts of work zones on mobility and safety as they are identified. The best practices are descriptive not prescriptive. That is, they describe approaches that have been successfully used by transportation agencies, along with contact information to find out more from the agency using the practice. Each organization must determine which of these practices are best suited for its particular situation, considering all the site-specific factors that affect work zone operations.

The best practices are grouped into 11 major categories to help practitioners easily find practices that deal with a particular topic. Practices can also be found via seven cross-references that enable users to find best practices in several different ways, and a subject index that offers 50 topics and subtopics for more specific searches. The online version also has a search function for searching on a particular word or term of interest.

Each of the 11 sections begins with a description of the work zone practice category and a brief summary of the types of activities implemented. Following this overview of the category, each of the work zone best practices is described in the section.

The descriptions include:

- A Best Practice Reference Number
- The Best Practice Title
- Description of the Best Practice
- Reason(s) the Agency Used the Best Practice
- Primary Benefit(s) Being Realized from this Best Practice
- Most Applicable Location and Type(s) of Projects Where this Practice Is Most Effective
- Contact(s).

The cross-reference section of the Guidebook provides a variety of cross-references that allow practitioners to identify best practices based on where they were observed, project life cycle stage, nature of the work zone activity, traffic conditions in the work zone, geographic or demographic characteristics, and the type of roadway involved.

The reference numbers identify each practice by category and subcategory, so that as new best practices are added, they can be added to the appropriate section of the Guidebook and the cross-reference listings.

For a copy of the Guidebook, visit: http://www.fhwa.dot.gov/workzones or email us at mdt2@umd.edu and we'll be glad to send it to you!

This synopsis was reprinted from the Work Zone Operations Best Practices Guidebook, a publication of the United States Department of Transportation and the Federal Highway Administration.

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A Roadmap to Preserving Our Pavement Investments

Tith greater demands being placed on today's roadway networks, coupled with reduced funding levels at transportation agencies across the country, what will the next 10 years mean for your agency's pavement investments? The Federal Highway Administration's (FHWA) new Pavement Management Roadmap (Pub. No. FHWA-HIF-11-011) looks at the long-term vision for pavement management and the research, development, and technology transfer initiatives that are needed to help agencies realize that vision and preserve their valuable investments.

Over the past decade, the transportation community has witnessed an increased emphasis on the use of asset management principles to better allocate resources and make decisions based on system performance objectives. Asset management provides a coordinated approach to managing infrastructure assets over the course of their entire life cycle, thus improving performance, increasing safety, and providing greater value to the community. With an asset management approach, optimal decisions on what would be the most effective mix of preserving, maintaining, renewing, or replacing infrastructure components are based on accurate data, economic analysis, and sound engineering. Decisions are also supported by performance measures and performance-based goals.



"The availability of quality data has had a tremendous impact on an agency's ability to compare different investment options and to make sound business decisions that consider both engineering and economic factors," said Nastaran Saadatmand of FHWA's Office of Asset Management.

"The implementation of the Pavement Management Roadmap will rely on the creativity and resourcefulness of all those working in the pavement management community." This new emphasis on asset management has meant a changing role for pavement management. While in the past, pavement management tools and techniques were primarily used to assess and report pavement conditions, prioritize capital improvements, and estimate funding needs, today's pavement management data can more broadly support an agency's asset management strategy by enabling the development of strategic performance objectives for the highway system.

To help agencies make this shift and more fully utilize their pavement management systems, the Roadmap identifies the steps needed to address current gaps in pavement management and establish research and development initiatives and priorities. FHWA developed the Roadmap through three regional workshops held in Phoenix, Arizona; Dallas, Texas; and McLean, Virginia, in 2010. Stakeholders participating in the workshops included representatives from State and local highway agencies, Canadian government agencies, academia, and private industry.

Twenty-three short-term needs (over the next 5 years) and 24 long-term needs (over the next 5 to 10 years) were identified and prioritized by participants. Meeting these needs would require more than \$14.5 million in funding. Needs were grouped by four theme areas:

- 1. Use of Existing Tools and Technologies
- 2. Institutional and Organizational Issues
- 3. The Broad Role of Pavement Management
- 4. New Tools, Methodologies, and Technology.

Top short-term needs outlined in the Roadmap include communicating pavement management information and benefits, developing and using effective performance measures, improving the skills of pavement managers, developing automated condition data processing tools, and developing methods to quantify the benefits of pavement management. "The short-term priorities emphasize the need for improved access to information about best practices and

Continued on Page 7

Pavement Management Roadmap (concluded from page 6)

better methods to communicate the importance of pavement management to transportation agencies," said Saadatmand. "Stakeholders also emphasized the importance of improving data quality and consistency."

The long-term needs include ones that will require research to improve existing practices. Priority long-term needs include identifying methods of defining and calculating the effect of pavement preservation treatments on pavement life, defining the impact of pavement management investment levels on benefits, using pavement management data to support design activities, developing performance models that consider a series of pavement preservation treatments, and developing a method for effective modeling of structural condition.

The Roadmap also looks at the steps required to make the identified pavement management priorities a reality, noting that "the successful implementation of the Roadmap demands a focused, cooperative approach among national and international organizations."

"The implementation of the Pavement Management Roadmap will rely on the creativity and resourcefulness of all those working in the pavement management community," said Saadatmand. Preliminary recommendations include establishing a Pavement Management Roadmap Steering Committee as a subcommittee under the Transportation Research Board (TRB) Committee on Pavement Management. Also recommended is that funding support be identified for two to three priority initiatives each year through the American Association of State Highway and Transportation Officials and TRB.

The Roadmap is available online at www.fhwa.dot.gov/infrastructure/asstmgmt/index.cfm, along with an accompanying Executive Summary (Pub. No. FHWA-HIF-11-014). For more information on the Roadmap, contact Nastaran Saadatmand, FHWA, at 202.366.1337 or by email at nastaran.saadatmand@fhwa.dot.gov.



This article was reprinted from the March 2011 issue of FOCUS, a publication of the United States Department of Transportation and the Federal Highway Administration

Like What You're Reading?

If you're interested in learning more about what you've read so far in our newsletter, try one of the following courses available through the Maryland T2 Center:

Bridge Maintenance Inspection - This one day course will cover inspection of bridge maintenance. A brief summary of the topics to be covered are as follows: approach, deck maintenance, deck joints, deck drains, bearing maintenance, concrete beams, steel beams, timber beams, bridge seats and caps, piles and bents, truss maintenance, painting, and winter maintenance. The class is for the actual field maintenance worker who has to do the repairs. Don't miss out, this course is scheduled for May 24, 2011.

Work Zone Design - 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. While the functions of planning, design, review, and operation of temporary traffic control are covered in detail, issues concerning safety of pedestrians and highway workers, human factors, and legal responsibility are also addressed. Don't miss out, this course is scheduled for June 23 - 24, 2011.

Preventive Pavement Maintenance - 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. Don't miss out, this course is scheduled for July 26, 2011.

Take a look on the next page for more of our currently scheduled courses and we hope to see you soon at one of them!

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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.

BRIDGE MAINTENANCE INSPECTION

John Hopkins
May 24, 2011, 8:30am – 3:00pm
College Park, Maryland
\$110 for Maryland local government participants
\$125 for all other participants

This one day course will cover inspection of bridge maintenance. A brief summary of the topics to be covered are as follows: approach, deck maintenance, deck joints, deck drains, bearing maintenance, concrete beams, steel beams, timber beams, bridge seats and caps, piles and bents, truss maintenance, painting, and winter maintenance. The class is for the actual field maintenance worker who has to do the repairs. It is mostly concerned with what to look for from a maintenance standpoint not a structural rating perspective.

CONSTRUCTION INSPECTION FOR LOCAL AGENCY EMPLOYEES

John Hopkins
May 25, 2011, 8:30am – 3:00pm
College Park, Maryland
\$110 for Maryland local government participants
\$125 for all other participants

This one day session will cover some of the major duties and responsibilities of an individual responsible for the quality of a project. It will address the importance of understanding the plans, the contract, the order of operations, the materials to be used and the various quality control tests used in project inspection. This course is presented in a straight forward manner and deals with the reality of everyday factors involving contractors and agencies. Qualified field inspection personnel with one to three years of field experience are encouraged to attend; participants must possess basic math skills in geometry and algebra. *Participants should bring a calculator, scale and straight edge; notebooks will be provided.

INTRODUCTION TO TEMPORARY TRAFFIC CONTROL

June 22, 2011, 8:30am - 3:00pm College Park, Maryland \$110 for Maryland local government participants \$125 for all other participants

An introductory course to temporary traffic control in work zones, TCC is a one-day course designed to give participants a complete overview of traffic control in work zones, including applicable standards, devices used, component parts and their requirements, and installation/removal considerations.

This is intended for anyone whose actions affect safety on temporary traffic control work zones, including traffic managers, traffic technicians, inspectors and designers; and will prepare participants to take the Maryland SHA Traffic Manager's course. The following topics will be covered: definition of temporary traffic control (TTC), quantification of the safety problem, manuals and standards applicable in the State of Maryland, fundamental principles of TTC, component parts of the TTC, introduction to traffic control devices, tapers and other transitions, and installation and removal considerations.

WORK ZONE DESIGN

Juan Morales
June 23 - 24, 2011, 8:30am – 3:00pm
College Park, Maryland
\$220 for Maryland local government participants
\$250 for all other participants
CEUs: 1.2

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. While the functions of planning, design, review, and operation of temporary traffic control are covered in detail, issues concerning safety of pedestrians and highway workers, human factors, and legal responsibility are also addressed. 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 (ADD and other local jurisdictions).

BLUEPRINT READING FOR HIGHWAY WORKERS

Glynn Stoffel

July 12, 2011, 8:30am – 3:00pm

College Park, Maryland \$110 for Maryland local government participants \$125 for all other participants

Today's highway workers use a variety of blueprints and drawings to guide them in accurately performing the construction and maintenance of roadways and related components. Upon successful completion of this course, the student will be able to read and interpret many of these blueprints as well as demonstrate the ability to produce accurate and legible field sketches. At the conclusion of the course, the student will be able to: Recognize and define the various lines and symbols used in plan construction; Describe and discuss the characteristics of plans, plats, profiles, views, details and other drawings found in a set of working plans; Demonstrate the ability to use engineer's and architect's scales; Demonstrate the ability to read and interpret the different blueprints and plans used in highway construction and maintenance; Describe how to effectively use plans in the field; Draw legible field sketches and asbuilt drawings; and Obtain a score of at least 70% on the review test.

Our Currently Scheduled Courses

CONSTRUCTION INSPECTION-INTERMEDIATE **LEVEL**

John Hopkins

July 13-14, 2011, 8:30am – 3:00pm

College Park, Maryland

\$215 for Maryland local government participants

\$245 for all other participants

CEUs: 1.2

An intermediate class focuses on the construction, inspection, measurement and testing of materials associated with road way construction. Includes real-life scenarios and problems faced on the job, and covers general practices and MD standards. Qualified field inspection personnel with one to three years of field experience are encouraged to attend; participants must possess basic math skills in geometry and algebra. A test will be administered to acquire class credit. Participants should bring a calculator, scale and straight edge; notebooks will be provided.

TRAFFIC SIGN INSTALLATION & INSPECTION

Mark Hood

July 20, 2011, 8:30am – 3:00pm

College Park, Maryland

\$110 for Maryland local government participants

\$125 for all other participants

This one-day course will cover the basics of traffic signs: using the appropriate rules and regulations to select and apply appropriate traffic signs, as well as proper installation and maintenance techniques. Participants will learn the importance of and the basic rules for signing, inspection techniques for sign installations, and maintenance procedures for sign faces and supports. This course was designed for technicians, supervisors, & crew involved in sign assembly, installation, maintenance, inspection, or management.

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

Ed Stellfox

July 26, 2011, 8:30am – 3:00pm

College Park, Maryland

\$89 for all registrants

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. This course is open to municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers.

NEW 2010 HIGHWAY CAPACITY MANUAL

Dane Ismart

August 30 - September 1, 2011, 8:30am - 3:30pm

College Park, Maryland

\$315 for Maryland local government participants

\$395 for all other participants

This three-day workshop has been developed for transportation professionals interested in the latest updates and software applications to the 2010 HCM. In addition to a general overview, each procedure will be presented to highlight the changes in the 2010 HCM in comparison with the HCM2000. A detailed demonstration of the HCS 2010 will be included to illustrate how the new methods will be implemented in software. Special attention will be given to those procedures that will change most, including Signalized Intersections, Urban Streets, Roundabouts and Freeway Weaving. The Highway Capacity Software (HCS) will be previewed to demonstrate the new features being implemented in the 2010 version.

LOW COST SAFETY IMPROVEMENTS

Mark Hood

September 14, 2011, 8:30am – 3:00pm

College Park, Maryland

\$110 for Maryland local government participants

\$125 for all other participants

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 (crash reduction factors). 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.

WINTER MAINTENANCE

Ed Stellfox

October 4, 2011, 8:30am – 3:00pm

College Park, Maryland

\$89 for all registrants

This course covers all aspects of winter operations- planning and organizing, methods of snow and ice control, salt usage, and winter equipment maintenance. This lesson will include usage of snow maps, formal snow plans, snow plow and salt spreader operation. This course in intended for municipal officials, road commissioners, supervisors, superintendents, publics works and maintenance personnel, equipment operators, and city or town managers.

SITE IMPACT ANALYSIS

Dane Ismart

October 17-18, 2011, 8:30am – 3:00pm

College Park, Maryland

\$220 for Maryland local government participants

\$250 for all other participants

CEUs: 1.2

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. Participants will receive a workbook, traffic access and impact studies, evaluating traffic impact studies, and a site impact handbook are provided. This course is designed for transportation engineers, traffic engineers, and planners concerned about the impacts of site development. Previous experience in traffic capacity or planning procedures is useful.











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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.

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