



MARYLAND TRANSPORTATION TECHNOLOGY TRANSFER CENTER

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

mdt2center.umd.edu

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Season's Greetings

Introducing a New Feature of DLLR's Website: The Public Query Page

The Department of Labor, Licensing and Regulation (DLLR) has recently added a new search page to its website that allows users to access licensing information for all of the State's Occupational and Professional Boards and Commissions by licensee surname. The DLLR Boards & Commissions Public Query page contains license information for all 22 occupational and professional licensing boards, commissions and programs administered by the agency. When the user enters either a whole or partial last name into the search field, the results page will display every individual by that name with an active Maryland license, along with the license number, type of license, expiration date and license category, if applicable.

Previously, the public would have to visit each board's individual web page in order to find out if an individual held a valid State license. The new search feature is much more user-friendly and saves on research time. Presently, the query page will only display results for individuals who hold occupational or professional licenses. Other types of licenses, like those administered by DLLR's Division of Financial Regulation, are not covered by it.

Visit the [Public Query page](#).

New Course Announcement:

Highway Capacity Manual PE Review

This class is designed for individuals who want to review the Highway Capacity Manual in preparation for taking the PE Exam (which is scheduled for April 15th – visit the MD Department of Labor, Licensing and Regulation (DLLP) for more information). The three-day course will review traffic flow characteristics, interrupted, and uninterrupted flow. Sections cover will include the procedures for signalized and unsignalized (two way, all way, and roundabouts) intersections, freeway facilities, freeway, multilane, weaving, ramp, and rural highways. Emphasis will be placed on explaining the principles behind the HCM and making sure the participants are familiar with the Manual. The class will participate in a series of manual exercises and workshops to improve their familiarity with the procedures.

Audience: Engineers who are planning to take the PE Exam as well as staff who wish to become familiar with the Highway Capacity Manual.

For more information about this course, see page 3.

The [Maryland Department of Natural Resources](#) is seeking proposals from local governments and non-governmental organizations that will help reduce stormwater runoff in targeted areas. Funding will be awarded to the most effective projects through the [Chesapeake and Atlantic Coastal Bays Trust Fund](#).

“The trust fund is an innovative approach to Chesapeake Bay restoration that supports the most cost-effective, efficient projects aimed at improving our environment and water quality,” Natural Resources Secretary Mark Belton said. “In addition to drastically reducing the amount of polluted runoff entering our waterways, the projects have restored more than 300 acres of wetlands while engaging more than 32,000 students since the program began in 2009.”

The [application materials](#) are available, applicants must submit a letter of intent by January 15, 2016 and full proposals by March 31, 2016.

The trust fund has provided nearly \$300 million for nonpoint source pollution projects across Maryland, which have prevented an estimated three million pounds of nitrogen from entering state waterways and ultimately, the bay. From tree plantings to floating wetlands, more than 1,900 Chesapeake and coastal bay restoration projects have been funded through the program.

Visit the [trust fund restoration map](#) to view past projects.

This article was reprinted from the Maryland Department of Natural Resources, for more information visit, <http://dnr2.maryland.gov/>

Check out a couple of our upcoming drainage related courses:

Basic Drainage

This course is scheduled for March 3, 2016, 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.

Winter Maintenance

This course scheduled for October 6, 2016, covers all aspects of winter operations- planning and organizing, methods of snow and ice control, salt usage, and winter equipment maintenance. Instructed by Ed Stellfox this lesson will include usage of snow maps, formal snow plans, snow plow and salt spreader operation. This course is intended for municipal officials, road commissioners, supervisors, superintendents, public works and maintenance personnel, equipment operators, and city or town managers.

For more information, see pages 3-7.

Our Currently Scheduled Courses

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 301.405.6535 or register online by visiting us at www.mdt2center.umd.edu.

FLAGGER CERTIFICATION

Juan M. Morales, P.E.

February 16, 2016, 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.

BASIC DRAINAGE

Ed Stellfox

March 3, 2016, 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.

HIGHWAY CAPACITY MANUAL PE REVIEW (NEW COURSE)

Dane Ismart

March 7-9, 2016, 8:30am - 4:00pm

College Park, Maryland

\$299 Local Agencies

\$320 for all other participants

PDHs: 18.0

This class is designed for individuals who want to review the Highway Capacity Manual in preparation for taking the PE Exam. The three-day course will review traffic flow characteristics, interrupted, and uninterrupted flow. Sections cover will include the procedures for signalized and unsignalized (two way, all way, and roundabouts) intersections, freeway

facilities, freeway, multilane, weaving, ramp, and rural highways. Emphasis will be placed on explaining the principles behind the HCM and making sure the participants are familiar with the Manual. The class will participate in a series of manual exercises and workshops to improve their familiarity with the procedures. Who Should Attend: Engineers who are planning to take the PE Exam as well as staff who wish to become familiar with the Highway Capacity Manual. Agenda:

Day 1

8:30 AM Introduction

9:00 AM Traffic Flow Characteristics

10:15 AM Break

10:30 AM Signalized Intersections

1:00 PM Signalized Intersections Continued

2:00 PM Manual Workshop

3:00 PM Break

3:15 PM Unsignalized Intersections

4:30 PM Adjourn

Day 2

8:30 AM Unsignalized Intersections Continued

9:45 AM Break

10:00 AM Manual Unsignalized Intersection Workshops

11:00 AM Multilane Highways

1:00 PM Freeway Basic Sections

2:15 PM Break

2:30 PM Multilane and Freeway Basic Section Manual Workshops

4:30 PM Adjourn

Day 3

8:30 AM Weaving

10:15 AM Break

10:30 AM Ramps

1:00 PM Weaving and Ramp Manual Workshops

2:30 PM Break

2:45 PM Freeway Facilities

3:30 PM Two Lane Rural Roads

4:30 PM Adjourn

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ASPHALT ROADS COMMON MAINTENANCE PROBLEMS

Ed Stellfox

March 10, 2016, 8:30am-12:30pm

College Park, Maryland

\$59 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.

ASPHALT RESURFACING

Ed Stellfox

March 24, 2016, 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.

ASPHALT RECYCLING

Ed Stellfox

April 14, 2016, 8:30am-12:30pm

\$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.

PREVENTIVE PAVEMENT MAINTENANCE

Ed Stellfox

April 28, 2016, 8:30am-3:30pm

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

TRAFFIC SIGNS

Ed Stellfox

May 12, 2016, 8:30am-12:30pm

\$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.

INTRODUCTION TO TEMPORARY TRAFFIC CONTROL

Juan M. Morales, P.E.

May 16, 2016, 8:30am-3:30pm

\$100 for Maryland local government participants

\$125 for all other participants

PDHs: 6.0

An introductory course to temporary traffic control (TTC) in highway work zones. This one-day course is designed to give participants a complete overview of TTC in work zones, including applicable standards, guidelines, traffic control devices, component parts and their requirements, installation/removal considerations, and pedestrian accessibility. This course will prepare participants to take the Maryland SHA Traffic Manager's course. Topics Covered/Agenda: Introduction to temporary traffic control (TTC); Quantification of the work zone safety problem; Standards and guidelines applicable in the State of Maryland (MD SHA); Fundamental principles of TTC; Component parts of the TTC zone; Temporary traffic control devices; Tapers and other transitions ; Installation and removal considerations; and Pedestrian accessibility. The course is intended for anyone whose actions affect safety on temporary traffic control work zones, including traffic managers, traffic technicians, inspectors and designers.

ROAD SURFACE MANAGEMENT

Ed Stellfox

May 19, 2016, 8:30am-3:30pm

\$89 for all participants

PDHs: 6.0

This course provides participants with the basic concepts of road surface management including inventory, distress identification, condition survey, strategies, programs, budgets, and field surveys. A Road Surface Management Systems software demonstration will also be conducted during this course.

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TRAFFIC ENGINEERING FUNDAMENTALS

Dane Ismart and Juan M. Morales, P.E.

May 23-26, 2016, 8:30am – 4:15pm

College Park, MD

\$399 for Maryland local participants

\$420 for all other participants

PDHs: 24.0

This course condenses what was the five-day Traffic Engineering Short Course into a new four-day course.

Agenda Day One:

- 8:30AM Introduction
- 9:00AM Traffic Engineering Terms and Design Year Traffic
- 9:45AM Break
- 10:00AM Site Impact Analysis
- 12:00PM Lunch
- 1:15PM Safety Principles and Crash Principles
- 2:30PM Break
- 2:45PM Principles of Access Management
- 4:15PM Adjourn

Agenda Day Two:

- 8:30AM Intersection Analysis and Geometrics
- 10:00AM Break
- 10:15AM Signal Timing
- 12:00PM Lunch
- 1:15PM Arterial and Freeway Analysis
- 2:45PM Break
- 3:00PM MUTCD
- 4:15PM Adjourn

Agenda Day Three:

- 8:30AM Roundabout Basics
- 9:30AM Break
- 9:45AM ITS Overview
- 10:45AM Break
- 11:00AM Traffic Calming
- 12:15PM Lunch
- 1:30PM Pedestrian Safety
- 2:45PM Break
- 3:00PM ADA Accessibility
- 4:15PM Adjourn

Agenda Day Four:

- 8:30AM Temporary Traffic Control Standards and Guidelines
- 9:30AM Break
- 9:45AM Component Part of a TTC Zone
- 10:45AM Break
- 11:00AM Traffic Control Devices
- 12:15PM Lunch
- 1:30PM Traffic Control Devices, continued
- 2:45PM Break
- 3:00PM Work Zone Impact Analysis
- 4:15PM Adjourn

This course is geared towards anyone with an engineering background and/or traffic engineering responsibilities in a related field. Also junior level traffic engineers, transportation planners, highway designers and city/county engineers.

ROAD SAFETY 365: A SAFETY WORKSHOP FOR LOCAL GOVERNMENTS

Juan M. Morales, P.E.

June 1, 2016, 8:30am-3:30pm

\$100 for all participants

PDHs: 6.0

This course is designed to provide local and rural agencies with practical and effective ways to mainstream safety solutions into their day-to-day activities and project development process. This one-day workshop focuses on processes for incorporating safety into all aspects of local and rural projects, and on making safety a priority through inclusion in the traditional decision-making process - 365 days a year. The course stresses the importance of road safety, and illustrates how it can be integrated into rural/local transportation project development at all stages: planning, design, construction, implementation, operations, and maintenance. Through practical exercises and facilitator-led discussions, the emphasis is on operations and maintenance to reflect the predominant, day-to-day responsibilities of rural/local transportation agencies. The benefits and potential cost savings of safety initiatives are shown using examples from rural/local agencies. The workshop audience ranges from decision-makers to road crews. It is aimed primarily at local and rural road and public works supervisors. Others who would benefit include: elected officials, public safety advocates, State DOT personnel, law enforcement, consultants, regional and rural development organizations, municipal associations.

FLAGGER CERTIFICATION

Juan M. Morales, P.E.

June 8, 2016, 8:30am – 12:30pm

College Park, Maryland

\$100 for all participants

PDHs: 4.0

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GRAVEL ROAD MAINTENANCE

Ed Stellfox

June 9, 2016, 8:30am-3:30pm

College Park, Maryland

\$89 for all participants

PDHs: 6.0

This course addresses basic maintenance techniques for unpaved and gravel roads. Topics include road materials, blading or dragging, reshaping or regrading for proper crown, regravelling, stabilization or full-depth reclamation, and dust control, with an introduction to road management techniques.

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INTRODUCTION TO GEOSYNTHETICS

Ed Stellfox

June 23, 2016, 8:30am-3:30pm

College Park, Maryland

\$89 for all participants

PDHs: 6.0

This course is an introduction to geosynthetics, beginning with a discussion of geosynthetics, what they are, how they are made and how they can be used in a road maintenance program. The course then looks at other geosynthetics and their road system uses, including geogrids, geocells and geoweb, presenting new materials with new applications. Designed for municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers. This course will cover the following topics: history; materials (geotextile fabrics, geogrids, geocells and geoweb); uses and applications of drainage, erosion control, reinforcement, separation, and reflective crack control.

CONSTRUCTION MATH

Ed Stellfox

July 14, 2016, 8:30am-3:00pm

College Park, Maryland

\$89 for all participants

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, ratio and proportion, percentage, hints for problem solving, useful formulas, square and square roots, conversion, and transportation construction examples. *Participants should bring a calculator, scale and straight edge; notebooks will be provided.

DESIGNING PEDESTRIAN FACILITIES FOR ACCESSIBILITY

Juan M. Morales, P.E.

August 16-17, 2016, 8:30am-3:30pm

College Park, Maryland

\$199 for Maryland local government participants

\$225 for all other participants

PDHs: 10.0

Upon completion of this course the participant will be able to identify applicable laws, regulations, guidelines, and standards pertaining to accessibility for persons with disabilities. Know the requirements for ensuring accessibility in existing facilities vs. work in new construction and alterations. Identify some of the challenges in the Public Right-of-Way (PROW) faced by persons with disabilities. Review design elements necessary for achieving accessibility in the PROW, including work zones. Identify best practices. There will be (weather permitting) a field visit to a nearby intersection to assess its design and accessibility. Topics

covered in the course include: Laws, Regulations, and Pedestrian Characteristics; Pedestrian Access Routes; Curb Ramps and Other Transitions; Detectable Warning Surfaces; Pedestrian Crossings; Accessible Pedestrian Signals; Pedestrian Facilities and Temporary Pedestrian (TPAR) in Work Zones; and a Field Visit.

WORK ZONE DESIGN

Juan M. Morales, P.E.

August 30-31, 2016, 8:30am-3:30pm

College Park, Maryland

\$199 for Maryland Local Government Participants

\$225 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 inspection of temporary traffic control for highway work zones. Issues regarding planning, design, review, and operation of temporary traffic control are covered, including pedestrian accessibility, worker safety, human factors, and legal aspects. The material is based on Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and are modified to address Maryland State Highway Administration (SHA) TTC standards and guidelines. Topics Covered: Introduction to TTC; TTC Standards and Guidelines (MUTCD and MD SHA); Fundamental Principles of Traffic Control; Human Factors; Component Part of the TTC Zones; Traffic Control Devices; The Typical Project: Planning; Design, Installation, Inspection, Enhancements and Modifications, Constructability Reviews and Removal; Traffic Control Plan Strategies; MD SHA Standards, Guidelines and Practices; Legal Aspects of TTC; and Workshops. The course is aimed at individuals who are responsible for the design, review, or modification of temporary traffic control for work zones adjacent to and within roads and highways. The course will also be of interest to those responsible for installation, operation, and inspection.

FLAGGER CERTIFICATION

Juan M. Morales, P.E.

September 15, 2016, 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.

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**DESIGNING SAFER ROADS FOR PEDESTRIANS
AND VULNERABLE ROAD USERS**

Juan M. Morales, P.E.

September 20-21, 2016, 8:30am - 3:30pm

College Park, Maryland

\$199 for Maryland Local Government Participants

\$225 for all other participants

PDHs: 12.0

Vulnerable road users (VRU) are susceptible to traffic injuries and fatalities, perhaps more so than drivers. Yet we design highways for the mobility of cars sometimes neglecting the needs of the most vulnerable, such as pedestrians, bicyclists, motorcyclists, transit users and others. This course will teach participants how to diagnose pedestrian (and other VRU) safety deficiencies and select the appropriate countermeasures to make conditions safer for all users including an overview of the American with Disabilities Act (ADA) accessibility requirements. Engineering countermeasures will be emphasized but education and enforcement countermeasures will also be covered. Upon Completion of the Course, Participants Should be Able to: Define vulnerable road users, Describe VRU needs, Diagnose crash causes and select proper countermeasures, Identify safety-related geometric design elements, and Discuss VRU safety issues and how to address them.

WINTER MAINTENANCE

Ed Stellfox

October 6, 2016, 8:30am – 3:30pm

College Park, MD

\$89 for all participants

PDHs: 6.0

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 is intended for municipal officials, road commissioners, supervisors, superintendents, public works and maintenance personnel, equipment operators, and city or town managers.

Wishing you a season of gladness,
a season of cheer and to top it off
a wonderful new year!



Thank you for your continued support, we look forward to seeing you in 2016



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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 301.405.6535 and she'll be glad to assist you.