## **Technology Transfer Quarterly**

Florida's Traffic Engineering and Safety Workforce Training Update



Florida Transportation Technology Transfer Center



Use a helper when loading heavy equipment. For more on safe loading and transporting equipment see pages 4 and 5.

Volume 25, Number 02 May 2010



Florida Transportation Technology Transfer Center

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## Florida Technolgy Transfer Quarterly Established 1984

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Interested parties may receive this publication at no cost by completing and returning the FaxBack form on the inside back cover. Newsletter content and accuracy is the exclusive responsibility of the Florida T<sup>2</sup> Center.

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# Florida's New Bicycle and Pedestrian Partnership Council

The Florida Department of Transportation (FDOT) Secretary Stephanie Kopelousos recently announced the formation of a new Bicycle and Pedestrian Partnership Council to address policy issues to FDOT and transportation partners to benefit the state's non-motorized transportation.

The Council will be comprised of representatives of appropriate state agencies, local planning organizations and advocacy groups. The new Council will meet quarterly and be lead by the Office of Policy Planning, in coordination with other relevant FDOT offices. Go to <a href="https://www.railstotrails.org/news/newsroom/pressReleases/archives/20100408\_FL\_Florida\_Bicycle\_Safety.html">https://www.railstotrails.org/news/newsroom/pressReleases/archives/20100408\_FL\_Florida\_Bicycle\_Safety.html</a> for more information.

Source: April 16, 2010 Florida Safe Routes to School (SRTS) Updates III

## Pedestrian Education Program Helps Reduce Crashes

The highest incidence of pedestrian injuries and fatalities in Florida is in Miami-Dade County. Over the past few years, the county has ranked first among the states in the number of crashes and per capital pedestrian crashes.

The City of Coral Gables recently received \$66,200 from the U.S. Department of Transportation to fund a Pedestrian Education Program to educate the public on how to avoid the most common behavior-related concerns such as motorists failing to yield to pedestrians in crosswalks and at intersections; motorists making right turns on a red light; unaccompanied children walking to school; and pedestrians crossing against the traffic signal or at midblock between parked cars. Studies indicate that implementing a comprehensive pedestrian safety program helps reduce pedestrian crashes, especially for adult and child pedestrians. A warning period will be followed by enforcement. Contact *TrafficEnforcement@coralgables.com* for more information.

## Maintenance of Signs and Sign Supports

#### A Guide for Local Highway and Street Maintenance Personnel

This updated Guide from the Federal Highway Administration covers a description of sign types, sign materials and sign supports; sign installation and the elements of a sign management system including inventory, inspection, preventive maintenance, repair and replacement, and recordkeeping. Available for download at: <code>safety.fhwa.dot.gov/local\_rural/training/fhwasa09025/</code> or can be provided on loan from the Media Center at the Florida T² Center. To borrow a copy fill out the FaxBack form on page 15 or call 352.392.9537 ext. 1544.



## **Safely Loading Heavy Equipment for Transport**

Safely loading and transporting equipment is a big responsibility. When loading equipment, drivers are responsible for making sure the truck, trailer and loaded equipment are safely secured for transporting and does not exceed the rated capacity. Loading and transporting equipment in an unsafe manner can cause injury, damaged property and even death. Good safety practices and laws should never be ignored. Sometimes it is tempting to push to get to the job site. Always slow down enough to address safety.

Never exceed the rated load capacity. Most trailers have a stamped plate located on the frame stating the rated trailer capacity. Incidents resulting from equipment failure or loads exceeding the rated capacity cannot be blamed on mechanical failure. You and your department assume all liability risk. Overloading will weaken or damage the trailer and can seriously affect acceleration, braking and the overall handling. Wet or windy conditions increase the danger even more.

Before loading the trailer, conduct a walk-around inspection. Check the tires for excess wear and proper inflation pressure. Check the lights to make sure they are in working order, including brake and turn signals. Examine the trailer bed to make sure it is free of dirt and mud. Laws are clear; nothing should fall from the truck, trailer or load, including sand, gravel or dirt chunks. Also, examine the trailer to make sure the tie-down rings are secure and the welds are not broken.

Prior to loading equipment, check to see that the trailer is on firm, level ground. Make sure brakes are set and/or wheels are chocked so the trailer will not move during loading operations. Wet and slippery conditions increase danger. Equipment being loaded can easily slip off ramps or trailer decks and roll over.

Consider the load to be transported. Walk around the equipment and check for tools that may have been carelessly left on the machine, unlatched doors or chock blocks that may fall during transport. Know the proper loading position on the trailer. There is not always someone to guide you on the trailer, but if there is the slightest doubt in your mind about the safety of loading equipment, get qualified help. Know how weight and balance affect safety and whether to drive or back a piece of equipment on the trailer. If in doubt, check the operators manual for proper loading positioning. Remember, too much weight on the trailer's tongue can affect the steering and too much weight on the rear of the trailer can decrease traction and braking ability, making steering less responsive. Also, too much weight on one axle or set of axles is an illegal overload even if the gross weight is within legal limits. Fines are very expensive.

Only qualified operators should load and unload equipment on and off the trailer. The operator should be familiar with all controls of the machine. Make sure seat belts are fastened. Keep in mind the only safe place is in the Roll Over Protective Structure (ROPS) while moving equipment. When working with another individual, make sure hand signals are understood as this may be the only means of communication due to the equipment noise. Good operators can judge the center of the trailer but in most instances guidance is helpful.

Check overhead. Make sure there are no power lines in the area of the boom which could be struck when loading. Once loaded, lower all booms, buckets or attachments and remove the keys. It is wise to tape the exhaust stack opening to protect the turbo charger.

Secure the load. Check the operator's manual for correct tiedown points for the equipment being hauled.

Secure the load whether traveling a few feet or many miles. It is actually illegal to move a load without proper tie-downs. Safety standards require a minimum of two tie-downs, no matter how



Check to make sure the load is securely tied down.

small the load. Chains and slings are the most common means of securing a load to the trailer. Chains and load binders that are legal for transport tie-down use will have a load rating. Check them before use. Most binding applications require a transport grade 70 binder chain of adequate size. A load binder suitably matched to the size of the chain must be used.

Remember, if you are hauling it, it is your responsibility to make sure it is done correctly. Old chains and binders should be replaced. Ratchet binders are preferred over snapover-center binders. It is very inexpensive to replace chains and binders compared to the financial responsibility incurred if the restraint fails and serious consequences result.

When securing a load, visualize pulling in opposite directions. Pull towards the front and rear simultaneously as you pull from the sides. It is helpful to visualize chains as making a big "X" on the trailer deck. When hauling rubber-tired equipment, secure and then check the load a few miles down the road. Tires sometimes deflect while being transported and tie-downs can loosen. When hauling steel tracked equipment such as dozers and excavators, remember steel against steel can slip and shift while being transported. Some equipment needs to be secured with straps and not chains to avoid damaging the cargo. Again, use proper tie-down equipment.



Know the height and width of your vehicle. Legal width is 102 inches and legal height is 13 feet, 6 inches. Make sure you stay within these limits. If it is not possible, you will need a special permit to travel on most roadways. You must be aware of restricted height or width conditions such as bridges and overpasses. Your load may require one or more Pilot/Escort vehicles to transport an overdimensional load. Obtain requirement information and permits from the Florida Department of Transportation's Permit Office at www.fdotmaint.com/permit or 850.410.5777. Make a final walk-around inspection after loading. It is best to run with your headlights on when transporting.

Pictures, including front cover, and article adapted from The Connection Volume 20, Number 3 Fall 2007 by Don Hosek, South Dakota LTAP Technical Assistance Provider and Mass Interchange Volume 22, Number 1 Winter 2008.

## Safe Mobility for Life **Program: Planning and Designing for our Aging Population**

#### Free training opportunities for public and private organizations

Learn how to enhance the safety, access, and mobility of Florida's elderly population, mature drivers, and pedestrians by attending one of the free sessions provided by the Safe Mobility for Life Program (SM4L). This Florida-specific training was developed for planners, designers and engineers and is based on the Federal Highway Administration's (FHWA) Highway Design Handbook for Older Drivers and Pedestrians. The enhancements discussed in the course will benefit everyone with improved safety.

By 2020, one in four Florida residents will be over the age of 65, and half of them will be 75 or older. To meet this challenge the Florida Department of Transportation (FDOT) developed a strategic plan and training. The one-day course, designed to raise awareness of problems associated with mature drivers, presents options and alternative solutions to the planning, design, and operation of Florida roadways and associated facilities today and in the future. Engineers, planners, public works, transportation and associated personnel as well as elected officials should attend the training.

The topics covered in the workshop include:

- mature driver risk
- the FDOT initiative
- issues facing mature drivers
- tools that support new roadway development
- features to improve safety and mobility for older road users
- tools available to retrofit existing roadways
- · best practices for pedestrian safety features
- community success stories
- resources available to educate and assist mature drivers in Florida
- partnership opportunities

Throughout the workshop you will be encouraged to share your expertise for the benefit of all participants.

Remaining 2010 training opportunities:

Date	Location
May 26	Chipley
June 8	Fort Lauderdale
June 29	Miami
July 1	Tampa
July 14	Lake City
Aug 30	<b>O</b> coee
Sept 2	Sarasota
Sept 30	DeLand
Nov 18	Cape Coral

Register online at t2ctt.ce.ufl.edu or call 352.273.1670.

### What's New with Planning for Bicycle and Pedestrian **Traffic**

#### **USDOT** Policy Statement on Bicycle and Pedestrian Accommodation Regulations and **Recommendations Announced**

In March of this year U.S. Department of Transportation (USDOT) Secretary Ray LaHood issued a USDOT Policy Statement outlining Bicycle and Pedestrian Accommodation Regulations and Recommendations. The statement reads:

"The (US)DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including USDOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide - including health, safety, environmental, transportation, and quality of life - transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

According to the Statement "...The establishment of well-connected walking and bicycling networks is an important component for livable communities, and their design should be a part of Federal-aid project developments. Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use. Legislation and regulations exist that require inclusion of bicycle and pedestrian policies and projects into transportation plans and project development...USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate..."

For Florida, recommended actions include:

- · Consider walking and bicycling as equals with other transportation
- Ensure that there are transportation choices for people of all ages and abilities, especially children
- Going beyond minimum design standards
- · Integrate bicycle and pedestrian accom-

- modation on new, rehabilitated, and limited-access bridges
- Collect data on walking and biking trips
- Set mode share targets for walking and bicycling and track them over time
- Improve non-motorized facilities during maintenance projects The appendix includes key statutes and regulations regarding walking and bicycling such as planning requirements; prohibition of route severance; project documentation and additional resources such as information on the Federal Highway Administration's Bicycle and Pedestrian Program Resources, Accessibility, Pedestrian and Bicycle Safety, Context Sensitive Solutions, and State Bicycle and Pedestrian Contacts.

Visit www.dot.gov/affairs/2010/bicycle-ped.html to review the complete Bicycle and Pedestrian Accommodation Regulations and Recommendations and USDOT Policy Statement.



### Free Materials for Safety **Activities** from the Florida Pedestrian/ Bicycling Safety Resource Center

Check out the Pedestrian/Bicycling Safety Resource Center materials when your organization conducts ped/bike events and educational activities to teach safe walking and bicycling practices. Materials are free to qualifying organizations.

Visit www.pedbikesrc.ce.ufl.edu for a list of what's new, descriptions, illustrations and ordering information. Our current inventory includes:

#### **Wristlets:**

Be Safe Be Seen

#### Pamphlets, Booklets and Brochures:

Bicycle Safety

Bicycle Safety: What Every Parent Should Know Parent's Guide - Child Safety on Your Street

Crosswalk Safety

How To Fit & Wear Your Bicycle Helmet

Kids Physical Activity Road Riders Are Drivers

Stepping Out

#### Flyers, Checklists and Tip Sheets:

Easy Steps to Properly Fit a Bicycle Helmet

Know the Rules - Going To & From School (English and Spanish)

Road Riders Are Drivers

Laws for Bicyclists Sharing the Roadway

Neighborhood Safety

Tips for Parents and Other Adults for Teaching Pedestrian Safety to Children

Tips for Walking Safely to School

Bikeability Checklist

Peligro en el Camino (Spanish)

#### **Punch Cards:**

Walk - n - Roll To School

#### **Posters:**

Pedestrian Poster: Caution (Spanish)

Bicyclist Poster (Spanish)

Pedestrian Poster: Crosswalks and Signals (Spanish)

Pedestrian Poster: Sidewalks (Spanish) Pedestrian Poster: Intoxicated (Spanish)

#### **Bookmarks:**

I'm A Safe Walker

Top Ten Rules of Bicycle Safety

Wear Your Helmet

#### **Activity Books and Comic Books:**

I'm Safe - On My Bike (English and Spanish)

I'm Safe! Walk With Me Activity Sticker Book (English and

Spanish)

#### **Safety Fun Activity Book:**

Walk 'n Roll Activity Book (English and Spanish) Sprocket Man Comic Book (English and Spanish)

#### Stickers:

Walking School Bus

#### **Questionnaires:**

Walkability Survey

#### Reports:

Pedestrian Safety Guide for Transit Agencies A Resident's Guide for Creating Safe and Walkable Communities

How to Develop a Pedestrian Safety Action Plan How To Fit & Wear Your Bicycle Helmet

#### Books:

The Guide to Bicycle Rodeos

Florida Bicycle/Pedestrian Law Enforcement Guide

Florida Bicycling Street Smarts

Laws for Pedestrians

Teacher's Guide - Walk With Me

#### Toolkits:

Safe Ways to School Toolkit

#### Videos (DVDS):

Pedestrian Law Enforcement Training

I'm Safe - Walk With Me

I'm Safe - On Wheels

Disney's Safety Hits Volume 1 available for loan only Disney's Safety Hits Volume 2 available for loan only

Elementary School Helmet Safety Program

Step to Safety with ASIMO

#### Videos (VHS):

Bike 'n Ped Driver Ed

Middle School Helmet Safety Program

Courtesy Promotes Safety

Bicycle Safer Journey

Safer Journey

Walk Smart & Bike Smart

#### **Zipper pulls**



## **Celebrating National Bike Month in May**

Please visit www.bikeleague.org/programs/bikemonth/ for more information.

### **Ask Geo**

#### A Place for Q&A and Comments about Florida Bicycling Laws and to Help Identify Training Topics

Cycling laws are sometimes confusing and often misunderstood. Multiple statutes must be considered in most roadway interactions involving motorists and cyclists to fully comprehend enforcement ramifications. For example, the Ask Geo article about substandard-width lanes refers to four Florida statutes, Florida Department of Transportation Plans Preparation Manual (PPM), the American Association of State Highway and Transportation Officials (AASHTO), the Manual on Uniform Traffic Control Devices (MUTCD), and safe cycling practices.

Although excellent national programs are available through organizations such as the National Highway Traffic Safety Administration (NHTSA), the detail needed by officers to enforce laws in respective states is not provided. Thus, the Palm Beach County Law Enforcement Planning Council asked the Florida Bicycle Association to develop such an education program for law enforcement officers to provide the critical link between education and enforcement.

The Bicycle Law Enforcement Program is being developed with the advice and assistance of an Officer Advisory Panel to insure that officer and law enforcement agency needs are met.



The program will contain twenty individual modules each 5-10 minutes long, and will be available to all officers and the police academies as web-based or in DVD format for roll call and other training opportunities. A one-day course will also be developed to provide in-depth knowledge of the laws and safe cycling practices to selected officers who will be able to act as resources.

As a part of the program, a website, Ask Geo, at flbikelaw.org has been established so cyclists and officers can ask questions and comment on the laws related to bicycling. The questions are being used to identify training topics. Each topic contains quotes from the actual statutes, with an interpretation of the meaning of the statutes.

Visit the site to participate in discussions about laws pertaining to bicycling in Florida and other states. Since similarities exist in laws between states, sharing this website with both in-state and out-of-state interested parties would be beneficial for all.

Contact George Martin at flbikelaw@gmail.com or go to flbikelaw.org to post your comments or questions.

Article submitted by George Martin, Florida Bicycle Association

## **Local Agency Program** (LAP)/Local Public Agency (LPA) Website Launched

The Federal Highway Administration (FHWA) has a new website for the Local Public Agency (LPA) which is also known as Local Agency Program (LAP) in Florida. The website, www.fhwa. dot.gov/federalaid/lpa/index.cfm, offers information on references, contacts, and training, etc. as well as other aids to assist public officials in meeting Federal-aid program/project requirements. Please visit the website and submit your suggestions for improvement. If you have questions or comments, please direct them to Robert (Bob) Wright, FHWA, at robert.wright@dot.gov or 202.366.4630.

## **Crash Modification Factors Clearinghouse Established Online**

Identify, implement, and evaluate cost-effective roadway safety improvements with the Federal Highway Administration's new Crash Modification Factors (CMF) Clearinghouse.

Using this tool will allow you to obtain an estimate of the change in crashes expected after implementing a countermeasure. At CMF Clearinghouse website www.cmfclearinghouse.org you can access more than 1,800 CMFS for over 400 countermeasures. Users can use the "quick search" and an "advanced search" to locate factors or search by keyword, countermeasure, crash type, crash severity, and roadway type. The site will be updated regularly and users can submit their own data.

Contact Karen Yunk at Karen. Yunk@dot.gov or 609.637.4207 for more information. 📗

## **Great Resources for Road Safety News**

#### Roadway Safety E-Reporter

The Roadway Safety E-Reporter is full of important information on safety campaigns, safety projects, publications and other materials. It is published by the Roadway Safety Foundation, a 501(c)(3) nonprofit charitable and educational organization dedicated to reducing the frequency and severity of motor vehicle crashes by improving the safety of America's roadways. Find out more about the Foundation's latest activities at www.roadwaysafety.org/reporter-newsletter/ and to sign up for their newsletter.

#### Safety Compass Newsletter

The Safety Compass Newsletter is a publication of the Federal Highway Administration that provides best practices, regulations, legislation designed to help improve national and local safety programs, and much more. Recent articles include announcements on the availability of the Highway Safety Improvement Program Manual; 3rd Edition of Intersection Safety Briefs; Implementing the High Risk Rural Roads Manual; Local Roads Resource CD; Maintenance of Signs and Sign Supports A Guide for Local Agencies; Recognize, React, Recover Educational DVD; Updated Transportation Planner's Safety Desk Reference; events calendar and many other interesting topics.

Go to safety.fhwa.dot.gov/newsletter/safetycompass/ to view online or subscribe to receive your electronic copy.

#### More Safety News

Visit safety.fhwa.dot.gov/esubscribe.cfm#newsletters to review and sign up for electronic delivery of dozens of helpful publications for subjects like Local and Rural Road Safety, Intersection Safety, Pedestrians and Bicycles, Roadway Departure, and Speed Management.

### **FDOT Adopts the New MUTCD**

The Florida Department of Transportation (FDOT) Roadway Design Bulletin 10-05, dated April 15, 2010, reports that FDOT has adopted the 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD). Florida's official effective date is January 1, 2011 which should provide adequate time for FDOT and local governments to prepare and begin incorporating new 2009 MUTCD requirements in design, construction, operations and maintenance. Implementation before January 1, 2011 is encouraged. Visit mutcd.fhwa.dot.gov/kno2009.htm to view the 2009 MUTCD and related information.

## **Intersection Safety Case Study Success Stories** Available for Review

Technical summaries, PowerPoint slides, and newsletter articles for nine intersection safety case study success stories are available. They describe the purpose and details of the treatment, evaluation methodology, cost and implementation time frame, any implementation issues, crash reductions achieved, and state or local contact information. Visit safety.fhwa.dot.gov/ intersection/resources/casestudies/ to browse the Federal Highway Administrations (FHWA) Office of Safety website.

The nine case studies are:

- 1. STOP-Sign Controlled Intersections: Enhanced Signs and Markings – A Winston-Salem Success Story (FHWA-SA-09-010)
- 2. Retroreflective Borders on Traffic Signal Backplates A South Carolina Success Story (FHWA-SA-09-011)
- 3. Removal of Signal Flashing Mode During Late-Night/Early-Morning Operation (FHWA-SA-09-012)
- 4. Minnesota Roundabout A Scott County Success Story (FHWA-SA-09-013)
- 5. Improving Safety by Providing All-Red Clearance Intervals and Larger Signal Lenses (FHWA-SA-09-014)
- 6. Permissive/Protected Left-Turn Phasing (FHWA-SA-09-015)
- 7. Continuous Green T-Intersections (FHWA-SA-09-016)
- 8. Reducing Late-Night/Early-Morning Intersection Crashes by Providing Lighting (FHWA-SA-09-017)
- 9. Roundabouts The Maryland Experience (FHWA-SA-09-018) Summaries provide information to practitioners and decision makers on treatments that have been successful in reducing crashes at specific intersection(s). The crash reductions are typically based on before-after studies, and are not necessarily statistically significant.

### **Free Transportation Safety** Courses

Qualifying local agency personnel can receive tuition waivers to attend or host one or more of the following courses:

Road Safety Audits (RSAS) for Local Governments Low Cost Safety Improvements for Rural Roads Intersection Safety

Course sessions are currently being scheduled through September 30, 2010. Please contact David Page at 352.273.1685 to see if your agency qualifies for this assistance. Visit our website at t2ctt.ce.ufl.edu and click on "Training" for course listings and information. These opportunities have been made possible by a grant from the Florida Department of Transportation Safety Office. III

Making Your Roads Safer

### New at the T<sup>2</sup> Media Center

Our Media Center offers more than 7,000 publications, 1,000 videos, and 175 CDS for loan. To request any of the items on these pages, please mark the items you want to borrow and fax with the FaxBack form on the inside back cover to 352.392.3224. Descriptions can be found on our website: t2ctt.ce.ufl.edu where you can also request a full catalog on CD, or browse the electronic catalog. Call 352.392.9537 ext. 1544 for assistance.

#### **New Publications**

- ☐ Joint Report on the Mobility Fee Methodology Study P8209.01
- Hazardous Materials Transportation Incident Data for Root Cause Analysis

P8225.01 TRB

■ Non-Toll Pricing

P8231.01 FHWA

	Income-Based Equity Impacts of Congestion Pricing		A Quick Check of Your Highway Network Health		Traffic Control Devices, Visibility, and Highway Rail Grade Crossings
_	P8233.01 FHWA	_	P8251.01 NCPP	_	TRB2122.01 TRB
	Applying Analysis Tools in	ш	Technologies that Enable	ш	Traffic Flow Theory,
	Planning for Operations		Congestion Pricing - A Primer		Characteristics, and Simulation
	P8234.01 FHWA		P8256.01 FHWA		Models 2009
	Traffic Analysis Toolbox Volume		Economics: Pricing, Demand, and		TRB2124.01 TRB
	VIII		Economic Efficiency - A Primer		Bituminous Materials and
	P8235.01 FHWA		P8272.01 FHWA		Mixtures 2009
	Traffic Analysis Toolbox Volume IX		<b>High Performance Concrete Bridge</b>		TRB2126.01 TRB
	P8236.01 FHWA		Deck Investigation		Traffic Signal Systems
	Recommended Performance		P8273.01 FHWA		TRB2128.01 TRB
	Guideline for Micro Surfacing		Simulator Evaluation of Low		<b>Highway Capacity and Quality of</b>
	P8237.01 INT'L SLURRY SURFACING		Cost Safety Improvements on		Service
	ASSOC		Rural Two Lane Undivided Roads:		TRB2130.01 TRB
	Design and Evaluation of Jointed		Nighttime Delineation for Curves		Structures
	Plain Concrete Pavement with		and Traffic Calming for Small		TRB2131.01 TRB
	Fiber Reinforced Polymer Dowels		Towns		Travel Demand Forecasting
	P8238.01 FHWA		P8274.01 FHWA		Volume 1
	Recommended Performance		Evaluation of Lane Reduction		TRB2132.01 TRB
	Guideline for Emulsified Asphalt		"Road Diet" Measures and Their		3
	Slurry Seal		Effects on Crashes and Injuries	-	Volume 2
	P8241.01 ISSA		P8296.01 FHWA		TRB2133.01 TRB
	Annual Report Local Roads		Concrete Materials 2009		Travel Behavior Volume 1
	Intersection and 10% Sample		TRB2113.01 TRB	_	TRB2134.01 TRB
	P8242.01 FDOT		Behavioral and Social Factors		• •
	Technologies that Complement		TRB2118.01 TRB	_	TRB2137.01 TRB
	Congestion Pricing - A Primer		Highway Design 2009		3,
	P8243.01 FHWA		TRB2120.01 TRB		Pedestrians, Bicycles, and Motorcycles
	Linking Transportation		Data Systems and Travel Survey		•
_	Performance and Accountability		Methods 2009		TRB2140.01 TRB
	P8247.01 NCHRP		TRB2121.01 TRB		
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## **FDOT Summary of Final Reports**

Access the FDOT web site www.dot.state.fl.us/research-center/ for these summaries. Go to the Research Center Topics drop down menu in the lower left corner of the page and click on Completed Research. Summaries are listed by category.

#### **Materials**

- BDK05 Using High-Speed Ground Penetrating Radar for Evaluation of Asphalt Density Measurements
  - Turnpike
- □ BDK75-977-18 A Comprehensive Solar Power System for the Turkey Lake Service Plaza

**Structures** 

BD545-85 Static Analysis Method for Barge-Impact Design of Bridges with Consideration of Dynamic Amplification

## More on Retroreflectivity Requirements

## plus a new workshop and equipment loan program

Traffic signs provide important information to drivers both day and night. To be effective, their visibility must be maintained. Language in the Manual for Uniform Traffic Control Devices (MUTCD) describes assessment and management methods for agencies to maintain traffic sign retroreflectivity at or above the minimum levels.

All public or private property signs were mandated to conform to MUTCD standards by January 2009. Agencies have until January 2012 to establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity. The compliance date for minimum reflectivity standards for regulatory, warning, and ground-mounted guide signs is January 2015. For overhead guide signs and street name signs, the compliance date is January 2018.

The only reliable method to obtain the retroreflectivity level of a sign (a value measured in units of candelas per lux per square meter) is to use a retroreflectometer. Retroreflectometers, while being highly accurate and easy to operate, are also very costly and may be financially out of reach for many agencies.

To assist agencies, a retroreflectivity workshop and an equipment loan program are currently being developed by the Florida  $T^2$  Center and should be available by summer.

Some of the workshop topics include changes to the MUTCD, basic retroreflectivity science, retroreflective materials, assessment and measurement techniques including nighttime inspection, calibration, expected sign life, and managing data. Training will also feature an equipment demonstration and hands-on session. Agencies participating in the training will be eligible to borrow a retroreflectometer for a limited time to conduct data collection.

If your agency is interested in the retroreflectivity training and equipment loan program, contact David Page at *dpage@ufl.edu* or 352.273.1685.

The following web sites contain additional information regarding the Minimum Reflectivity Ruling and the materials for compliance.

#### Federal Highway Administration (FHWA)

www.fhwa.dot.gov/retro

Manual on Uniform Traffic Control Devices (MUTCD)

mutcd.fhwa.dot.gov

**Understanding Minimum Reflectivity** 

www.minimumreflectivity.org

## FACERS Annual Conference

#### June 30 - July 2, 2010 Marriott Waterfront, Tampa

The Florida Association of County Engineers and Road Superintendents (FACERS) invite you to join them for their annual conference and awards ceremony. Some of the agenda topics are:

- Beyond Pavement: Extending the Service Life of Public Works Infrastructure
- FDOT Statewide Crash Data & Safety Program Update and Panel Discussion
- · Sinkholes: New Remediation Methods
- Using Social Networking as a Professional Tool
- Roundtable Discussion of Topics: Budget Strategies, Stimulus Projects, LAP, Open Floor
- Prefabricated Bridges: Modified Florida Double T
- · General Membership Meeting
- FACERS Awards Presentation
- FACERS Constitution changes discussion
- Election and Installation of new Officers and Board of Directors

There is no fee to attend the FACERS meeting. However you must register on the FAC website www.fl-counties.com to participate in the Florida Association of Counties (FAC) meeting activities. Hotel information is also available on the site.



## **Consultant's Competitive Negotiation Act (CCNA)**

Government officials are often responsible for projects that require the services of consulting engineers, such as erecting a building, widening a highway, expanding a utilities system, planning a new housing or educational facility, improving a runway, or creating a city park. At the outset of such projects, selecting a qualified consulting firm becomes a crucial decision. The consulting firm's performance, frequently in conjunction with other professional firms, determines the entire course of the project—feasibility, planning, location, design, plans and specifications, construction costs, and the operating and maintenance costs over the project's lifetime.

Public entities hire consulting firms long before construction begins on a project. These trained professionals translate their clients' needs and concepts into detailed project plans. Despite the important contributions these consultants make to the success of a project, many clients harbor misconceptions about the best way to select such a firm and the laws that exist related to the selection process. The Florida Institute of Consulting Engineers (FICE) has provided the following information to help clarify some of these misconceptions.

What is the Consultant's Competitive Negotiation Act (CCNA)?

Adopted by the Florida Legislature in 1973, Florida Statute 287.055 (CCNA) requires state government agencies, municipalities or political subdivisions, school boards and school districts, to select a consulting firm\* based on qualifications rather than on a lowest bid basis.

Why is selecting a firm based on CCNA better than lowest bid selection?

A Qualification-based selection elevates this competitive process to its proper plane—qualifications, competence, track record, and availability. Successful projects warrant the time and expense of:

- · Hiring qualified staff paid at competitive wages
- Giving technical matters the scrutiny that they deserve
- Estimating crucial data that the firm should collect, refine, and crosscheck to ensure accuracy
- · Applying situation specific answers to technical questions
- Thoroughly evaluating applicability of standards
- Considering the long term cost-benefits to the owner/operator of various options and emerging technologies

Bidding professional consulting services causes disadvantages to the owner as the firm attempts to make a profit despite their lowest bid fee. The resulting work product, which may include inadequate drawings and indefinite specifications, may result in:

- Increased construction costs and project durations
- Increased change orders and cost overruns during construc-
- Increased operating costs after the engineer and contractor have completed their work
- Increased right-of-way requirements and costs for roadway projects

The unscrupulous professional can find endless ways to cut

their costs. Unjustified cost cutting may prove difficult to detect; is generally detrimental; undermines the quality of the finished product; may increase the total cost of the project; and essentially works against the client's best interests.

How does a public agency choose a consultant, based on CCNA?

A The method of procuring professional services applies to a planning or study activity where compensation exceeds \$25,000 and in projects where the basic cost of construction, as estimated by the agency, will exceed \$250,000.

A simple and effective four step process for choosing a consultant:

- Public announcement of the contract. A public notice of requirements for professional services is advertised, including a description of the project and application process information.
- Qualification and certification of firms. Consulting firms submit qualifications indicating their interest in the contract. The agency certifies qualified firms.
- 3. Selection of certified qualified firms. The agency rates and compares the qualifications of the certified firms, then selects and ranks no less than three firms in order of preference, based on those qualifications.
- 4. Negotiation of professional service contracts. The agency



negotiates a contract with the firm ranked as the most qualified, at a compensation which the agency deems fair, competitive, and reasonable. The firm and the agency hold detailed discussions to establish a clear project scope and the exact services the consultant will provide. Such negotiations usually succeed. Should the two parties fail to agree upon the level of compensation, however, the agency ends negotiations with the first firm and begins negotiations with the second-ranked firm. If again unsuccessful, the agency repeats the process with the next highest-ranked firm.

Evaluation forms commonly used in this procurement process can be found and downloaded from the FICE website at: www.fleng.org/fice/CCNAevaluation.cfm

Does CCNA allow continuing contracts?

Yes. Florida Statute 287.055 specifically states that noth $oldsymbol{A}$  ing in the act shall be construed to prohibit a continuing contract. Equally important to note is that firms providing professional services under continuing contracts shall not be required to bid against one another. A continuing contract is defined by the statute as a contract for professional services entered into in accordance with all the procedures of this act whereby the firm provides professional services to the agency for which the estimated construction cost of each individual project



under the contract does not exceed \$2 million, the fee for professional services for each individual study under the contract does not exceed \$200,000, or for work of a specified nature as outlined in the contract required by the agency, with the contract being for a fixed term or with no time limitation except that the contract must provide a termination clause.

Does CCNA apply to design-build contracting?

Yes, but indirectly. The design criteria package must be prepared and sealed by a design criteria professional employed by or retained by the agency. If the agency elects to enter into a professional services contract for the preparation of the design criteria package, then the design criteria professional must be selected and contracted with under the requirements of subsections (4) and (5). A design criteria professional who has been selected to prepare the design criteria package is not eligible to render services under a design-build contract executed pursuant to the design criteria package. If the procuring agency elects the option of qualifications-based selection, during the selection of the design-build firm the procuring agency shall employ or retain a licensed design professional appropriate to the project to serve as the agency's representative.

\* – As used in this document, the word firm refers to those trained professionals who are permitted by Florida law to provide engineering, architectural, landscape architecture, and surveying and mapping services.

View the whole CCNA statute at www.fleng.org/fice/ficeccna.cfm Source: adapted from the Florida Institute of Consulting Engineers (FICE) brochure Winter Edition, February 2010

## **Traffic Incident** Management (TIM) **Performance** Measurement **Knowledgebase**

http://www.ops.fhwa.dot.gov/eto\_tim\_pse/preparedness/tim/ knowledgebase/index.htm

The Traffic Incident Management (TIM) Performance Measurement Knowledgebase is an online reference that provides transportation and public works professionals the knowledge and tools to successfully implement program-level TIM performance measures. Search keyword or browse by event, resource type (guidance, sample document or template, presentation, lessons-learned, etc.), program-level performance measure, or state. III

## **Upcoming Workshops**

#### through 2010

For a list of all courses or to register, visit our website at t2ctt.ce.ufl.edu or for T2 workshops, email t2workshops@ce.ufl.edu or call 352.273.1670 and for CTT and CTQP courses, email ctt@ce.ufl.edu or call 352.273.1669. We look forward to serving you.

Advanced Maintenance		Asphalt Plant Level 2		Pilot/Escort Flagging	
June 2 - 4, 2010		June 2 - 4, 1010	Gainesville	June 5, 2010	Tallahassee
June 2 - 4, 2010	Tallahassee	<b>Drilled Shaft Inspection</b>		June 18, 2010	Leesburg
June 16 - 18, 2010	Pompano Beach	July 19 - 21, 2020	Miami	July 10, 2010	Tampa
July 14 - 16, 2010	Orlando	• •		July 12, 2010	Milton
July 28 - 30, 2010	Naples	Laithwork Construction	Level 1	<b>Retaining Wall Fundan</b>	nontale/
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August 11 - 13, 2010		July 26 - 27, 2010	Oviedo	June 29 - 30, 2010	Orlando
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September 15 - 17, 2010	Orlando	Earthwork Construction		Julie 30 - July 1, 2010	Orialido
October 5 - 7, 2010	Gibsonton	June 16 - 17, 2010	Gainesville	Safe Mobility for Life F	Program:
October 20 - 22, 2010	Pompano Beach	July 28 - 29, 2010	Oviedo	Planning and Designin	•
November 3 - 5, 2010	Naples	Final Estimates Level 1		Population Population	8
November 17 - 19, 2010	Orlando	June 18, 2010	Fort Myers	June 8, 2010	Fort Lauderdale
December 15 - 17, 2010	Pompano Beach	June 21, 2010	Tampa		Miami
Advanced Maintenance	of Troffic		1	July 1, 2010	Tampa
Advanced Maintenance	or traffic -	Final Estimates Level 2		July 14, 2010	Lake City
Refresher		June 22 - 23, 2010	Tampa	August 30, 2010	Ocoee
June 1, 2010	Gainesville	Intermediate Maintenan	ce of Traffic	September 2, 2010	Sarasota
June 1, 2010	Tallahassee	July 20 - 21, 2010		September 30, 2010	DeLand
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July 27, 2010	Naples	•	Cape Coral	<b>Traffic Engineering Fur</b>	ndamentals
August 2, 2010	Gibsonton	August 4 - 5, 2010	Gainesville	June 9 - 11, 2010	Coconut Creek
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November 2, 2010	Naples	July 19, 2010	Saint Petersburg		
November 16, 2010	Orlando	July 20, 2010	Gainesville		
December 14, 2010	Pompano Beach	July 26, 2010	Port Charlotte		
Asphalt Paving Level 1		August 3, 2010	Cape Coral		
June 8, 2010	Tampa	August 31, 2010	Gainesville		
July 12, 2010	Orlando		Saint Petersburg		
July 12, 2010	Offafido	November 16, 2010	Saint Petersburg		
<b>Asphalt Paving Level 2</b>		,			
June 9 - 11, 2010	Tampa	<b>Limerock Bearing Ratio</b>	(LBR)		
July 13 - 15, 2010	Orlando	Technician			
•		June 24 - 25, 2010	Gainesville		
Asphalt Plant Level 1	0 : "	Dila Driving Inanastica			
July 7 - 9, 2010	Gainesville	Pile Driving Inspection	*** . D 1 . D . 1		

## Florida escort rules changed February 1, 2010 Florida Administrative Code rules for escorting over dimensional loads have been updated and are effective February 1, 2010. View

June 7 - 9, 2010

the changes and the final rule at firules.org and type "14-26.012" into the "By Rule Number" search box.

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## **Upcoming Workshops**

For the dates and locations of these upcoming workshops, see page 14.

Advanced Maintenance of Traffic  14 Classes	Earthwork Construction Level 1 2 Classes	Pile Driving Inspection
Advanced Maintenance of Traffic - Refresher	Earthwork Construction Level 2 2 Classes	Pilot/Escort Flagging 4 Classes
14 Classes Asphalt Paving Level 1	Final Estimates Level 1  2 Classes	Retaining Wall Fundamentals/ Inspection
2 Classes	Final Estimates Level 2	2 Classes
Asphalt Paving Level 2  2 Classes	1 Class Intermediate Maintenance of Traffic	Planning and Designing for our Aging
Asphalt Plant Level 1	7 Classes	Population 8 Classes
Asphalt Plant Level 2	Intermediate Maintenance of Traffic - Refresher 7 Classes	Traffic Engineering Fundamentals  1 Class
Drilled Shaft Inspection	Limerock Bearing Ratio (LBR) Technician	
	1 Class	