Safety Edge being placed during regular resurfacing of Marion County Road 318
see pages 2 and 3 for the full article
A Greener Technology Transfer Quarterly

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To view past issues of Florida’s Technology Transfer Quarterly newsletter, visit: t2ctt.ce.ufl.edu/nl_archive

Invest in the Safety Edge to Reduce Crashes on Rural Roads and Increase Pavement Life

More than half of the national fatal crashes on rural roads are caused when vehicles run off the road. Studies have shown that pavement edge conditions are a major contributor to these crashes. Pavement edge drop-offs are a serious problem on Florida’s rural highways – especially on two-lane roads with unpaved shoulders. The Safety Edge has proven to be an effective, low cost measure that reduces serious crashes by providing an additional level of consolidation on the pavement’s edge, decreasing edge raveling, and contributing to longer pavement life.

The Safety Edge is formed during the paving operation by extruding a wedge that is shaped at an angle of approximately 30 degrees from horizontal at the pavement edge. This angle provides a ramp to allow vehicles to reenter the pavement without loss of control. For asphalt pavements, this wedge is created by a Safety Shoe, a simple device that attaches to the paver. The Safety Edge is also recommended for concrete pavement edges adjacent to graded material. Special considerations exist for this application.

Cost to construct the Safety Edge is minimal when included in regular asphalt paving projects. Several manufacturers now produce Safety Shoes and some are available to purchase for $5,000 or less. Operators report that constructing the Safety Edge does not significantly affect the paving operation’s production rate or efficiency and it can be placed with a minimal amount of additional asphalt. When the conventional paving process is used, cracks can appear on the edge of the pavement and the loose material begins sloughing off. The lateral confinement from
the Safety Edge produces greater compaction at the pavement edge, helping to protect the pavement edge from deterioration in areas where erosion of the adjacent shoulder is likely to occur.

To date, only a few agencies in Florida have used the Safety Edge. Since early 2010, Marion County has added the Safety Edge to approximately 35 miles of rural road resurfacing projects. Recently, the county road maintenance personnel installed and used a Safety Shoe on shoulder paving work. Hillsborough County has tested a Safety Edge device and expects to acquire one that can be used with their county’s paving equipment. Several other counties plan to specify the Safety Edge for future paving projects.

The Federal Highway Administration (FHWA) has initiated a national program to encourage highway agencies to incorporate the Safety Edge into rural road paving projects. As part of this initiative, FHWA has provided Safety Shoe devices to the Florida T² Center as well as several other Local Technical Assistance Program (LTAP) centers in other states to be made available on a loaner basis to cities and counties.

On June 6, FHWA conducted an Open House in Marion County to train LTAP and other personnel on Safety Shoe installation and use. Approximately 45 people, including representatives from several states, various Florida counties and cities, representatives of the contracting industry, the Florida Department of Transportation (FDOT), and FHWA participated in the training session. A site visit provided the opportunity for attendees to see the Safety Edge being placed on a regular county resurfacing project. A second site visit featured the Marion County crew placing a paved shoulder that included the Safety Edge for a maintenance project.

The Safety Shoe is a tool that has been demonstrated to produce an edge that provides long-term pavement protection and reduces crashes on rural roads. The Safety Edge can be integrated into regular paving operations at a very low cost with minimal impact on production. After paving is complete, shoulder material will be placed over the wedge. In areas where the shoulder erodes, the Safety Edge will help protect the pavement edge while allowing errant vehicles to reenter the paved roadway without losing control.

The Safety Shoe is now available on a loaner basis for use by public agencies or their contractors in Florida. To invest in safety and realize savings, contact David Page at the Florida T² Center at dkpage@ufl.edu or call 352.273.1685 to borrow the Safety Shoe. For more information about the design or construction of the Safety Edge, contact John Goodknight at jgoodknight@ce.ufl.edu or 352.284.5717.

Additional information, including the Safety Edge Toolkit, sample specifications, research reports, evaluations, and other resources, is available at the FHWA’s website: safety.fhwa.dot.gov/roadway_dept/pavement/safedge/

Article provided by John Goodknight, PE, PHD

The Safety Shoe, provided by the Florida T² Center, was installed on Marion County’s pavement widener for use in conjunction with the county’s shoulder paving program.
FACERS Awards

The Florida Association of County Engineers and Road Superintendents (FACERS) recognizes excellent service in Florida’s public works agencies. The FACERS awards are the most prestigious professional recognition in Florida for public works and transportation personnel. This year, awards include the Public Works Employee of the Year, Team Project of the Year, Large Agency/Urban Agency Engineer of the Year, a tie for Small Agency/Rural Agency Engineer of the Year, and a new category: Local Agency/State Agency Project Collaboration.

Visit facers.org for more information. Nominees are not required to be FACERS members.

Public Works Employee of the Year

Don Rainard
Traffic Operation Superintendent
Plant City

Advanced Traffic Management System Upgrade

A modern Transportation Management Center (TMC) allows agencies to use real-time traffic data from cameras, speed sensors, and other equipment to increase transportation system efficiency, enhance mobility, improve safety, and reduce fuel consumption.

Don Rainard, Plant City’s Traffic Operations Supervisor, managed the city’s Advanced Traffic Management System (ATMS) upgrade for their TMC. The city’s outdated closed loop traffic system could only run on the old DOS computer system. Controllers were no longer available and the city was struggling to maintain operations. The city already used $300,000 for the system’s design. Under Don’s guidance, Plant City applied for and received a grant from the Federal Highway Administration (FHWA) for $2.1 million for the job to be completed in one year.

Don and city personnel worked with FDOT to classify the project as a Local Agency Project. Don and his team conducted the work in-house, using their own traffic personnel and equipment. They piggy backed on existing contracts to reduce costs, saving over 25% in contractor costs, and the saved funds were reinvested to add 10 more closed-circuit television cameras to enhance the TMC system.

City personnel had to learn the new system from the ground floor. Don was instrumental in the instructional process and led by example. The project was a success because of leadership and team work from city government to the project manager, from consultants down to field personnel. Everyone worked together on implementation, quality control, specifications, purchasing, installation, and testing, from the beginning of the project through turn-on.

The city now has a state of the art system with all 43 intersections linked together through a fiber network, with battery backup systems at all intersections to keep traffic signals operational for up to 8 hours if the power fails, reducing the chance of crashes and the need for police to direct traffic during power outages. The system is also traffic responsive which reduces congestion and saves fuel and time. The ATMS helps in traffic incident management with Interstate 4 running parallel to Plant City’s main corridors by detecting traffic volume increases due to diverted traffic and implementing a traffic pattern to help relieve congestion.

Congratulations, Don, for leading Plant City’s ATMS project and being named FACERS Public Works Employee of the Year!

Team Project of the Year

Orange County Traffic Engineering Division
Bithlo/Christmas Area Road Safety Audit
Team Leader: Christine Lofye, P.E., Engineer III

The Orange County Traffic Engineering Division recently performed several Road Safety Audits (RSA), including a comprehensive RSA in the Bithlo/Christmas area. The audit impetus was a lawsuit against the county related to a rural road stop sign obscured by vegetation. The county lost and the plaintiff was awarded $12 million by the jury.

In order to learn how to develop a comprehensive and proactive traffic safety improvement program for its rural areas, Orange County traffic engineers attended Federal Highway Administration’s RSA training.

The Bithlo/Christmas RSA included day and nighttime field data collection, a review of citizen concerns, crash data analysis, meetings with the public and a Commissioner to collect feedback, and report preparation.

Observed or reported safety concerns included speed issues, signalization and signage, sight distance issues, poor pavement conditions like drop-offs and pavement markings, damaged guardrail, sidewalk, and bike lane needs, and wildlife concerns.

The RSA team, consisting entirely of in-house Traffic Engineering staff, conducted 19 speed studies and analyzed different segments of 29 miles of rural road and 10 intersections. Eighty-nine public comments were reviewed. Evaluation resulted in 110 crew work orders for low-cost improvements. All were implemented by the Public Works Department. Residents expressed appreciation that their concerns were being considered by county government.
Higher-cost improvements, such as intersection signalization, new guardrail installation, and sidewalk/bike lane construction, were submitted to the capital improvement program and implemented by Public Works, Traffic Engineering, and Roads and Drainage. The county was awarded over $350,000 of High Risk Rural Road Program funds for an audit-identified intersection improvement.

The county obtained cooperation from the Sheriff, Public Schools, Environmental Protection, FDOT, and the Community Traffic Safety Team.

Orange County proved that small, low-cost improvements can make a big difference in rural road safety. Congratulations for a job well done and receiving the FACERS Team award!

Large/Urban Agency Engineer of the Year

George Recktenwald
Director of Public Works
Volusia County Public Works Department
Operational Assessment Project

Creating long-term efficiencies and sustainability is a huge focus in today’s public sector. Every day, the charge of public works leaders is to do more with less. Under George Recktenwald’s leadership, the Volusia County Public Works Department conducted an operational assessment to implement cultural change and process improvement to maximize department effectiveness. The assessment included Road and Bridge, Traffic Engineering, Mosquito Control and Vegetation Control, Water Resources and Utility Operations, Solid Waste, and Stormwater divisions. A new Computerized Maintenance Management System (CMMS) helped identify and implement long-term efficiencies and sustainability.

The assessment produced 91 recommendations for planning. }

Orange County accepts Team Award. Left to right: Commissioner Scott Boyd, Orange County District 1; Andy Dermer, Sign Shop Forman; Ruby Rozier, Manager; Christine Lofye, Engineer III; Krista Barber, Engineer I; Darryl Johnson, Assistant Project Manager; Ching Yang, Senior Engineer; and Hector Bertran, FACERS President.

George Recktenwald, Volusia County, received the Urban Engineer of the Year Award.
and budgets, resources and organization, directing and scheduling, and work tracking and control. Most have been implemented, creating over $5 million in savings to department and county budgets with higher quality and more consistent services delivery to taxpayers.

George believes data should be used for accountability, continuous improvement, and to make meaningful decisions for positive change. Sound business management practices, training and systems tools, and incentives result in more work achieved with existing resources.

Resulting budget savings include eliminating equipment, reassigning and/or co-locating staff, outsourcing some duties, reducing travel, and standardizing work and analysis routines. Even with reduced budgets, the county continues to increase services. Future budget, funding options, and service levels can be better addressed with improved planning and organization.

Following the success, five other departments/divisions are undertaking the process. George Recktenwald has shown the public that they can trust government to best manage limited resources and protect the public’s infrastructure investment. George, congratulations on being recognized as the FACERS Large Agency/Urban Agency Engineer of the Year!

Small/Rural Agency Engineer of the Year
Bill Steves, P.E.
County Engineer of Record
Madison County Road Department
Northeast Myrrh Street Project

Bill Steves serves as the county consulting engineer and senior project manager for the Madison County Road Department. He has a wide variety and decades of experience. Working closely with Madison County and other local and state governmental agencies, Bill has been instrumental in developing and preparing numerous land-development regulations, codes, and ordinances.

Mr. Steves was responsible for finding and implementing a solution to the roadway flooding on Northeast Myrrh Street, located in Madison County. The roadway serves as a critical link between Madison, Hamilton, and Suwannee counties. For decades, the road has been plagued with Suwannee and Withlacoochee river flooding occurring during severe storm events.

On numerous occasions, the roadway had to be closed for extended periods of time, requiring residents of the counties to detour many miles around the problem area in order to complete their commute. The roadway was permitted to be raised above the 15-year flood elevation to maintain the physical connection between the counties. The construction included asphalt roadways and stabilized roadside swales, drainage structures and outfall ditches designed to improve existing stormwater and environmental conditions, all of which transformed the roadway from a rural county-maintained dirt road into a paved roadway elevated above the historical floodplain.

Bi-weekly resource planning, monthly performance cost, and work monitoring are conducted. Using CMMS, dashboards track performance against benchmarks. Benchmarks are viewed by management and lower level staff for current status and will be updated annually for performance measurement and accountability. These data help identify activity changes to assist divisions in increasing production and work quality.

The project was funded through a FDOT Transportation Regional Incentive Program or TRIP grant obtained with Mr. Steves’ assistance that involved a massive coordinated effort between the three counties and their government representatives, FDOT, and the Suwannee River Water Management District.

Madison County Road Department is fortunate to have a professional like Mr. Steves working with them and assisting the county in resolving engineering and construction issues for the past 15 years. Congratulations, Bill, on being named a FACERS Small Agency/Rural Agency Engineer of the Year!

Small/Rural Agency Engineer of the Year
Shane Whittier, E.I., Engineer II
Nassau County
Thomas Creek Restoration

Nassau County residents had complained for years about unusual amounts of flooding that had occurred on their Thomas Creek properties, even from small rain events. The creek had not been maintained for decades and when Tropical Storm Faye hit, it caused an even greater flooding problem. The county had to take action and developed a plan to restore Thomas Creek. Shane Whittier, who joined the Nassau County staff in the early 2010, was asked to head up the restoration project consisting of three phases.

Whittier successfully acquired and administered a Community Development Block Grant to help fund the project. The first phase included cleaning approximately 3000 feet of a tidally-influenced creek by removing large woody debris and living riparian vegetation. Shane worked tirelessly and with numerous organizations including the Florida Department of Environmental Protection (DEP), the Fish and Wildlife Conservation Commission, the Florida Department of Community Affairs, the Board of County Commissioners, and the property owners during Phase One. Shane also investigated many acceptable and innovative construction options with DEP. He proposed the use...
Shane’s exemplary and innovative leadership was key to the successful relationships and trust he built with numerous governmental agencies, Nassau County’s Board, and, most importantly, the residents. His leadership assured that the first project phase was completed on time and within budget.

Although only one phase is complete, the residents are very happy with the status of the creek and have reported that recent storm events that previously would have flooded their property no longer do so. Residents that live closer to the area where Phase Two will occur have also stated that it floods less and that the water recedes more quickly.

Whittier accomplished in 10 short months what some of us may never get the chance to do in an entire career. Innovation, diligence and willingness to take a difficult and tedious project head on are what public works engineers are all about. Nassau County is lucky to have such a talented engineer in Shane Whittier. Congratulations on being named a FACERS Small Agency/Rural Agency Engineer of the Year!

Local/State Agency Project Collaboration

Faith Alkhatib, Flagler County, accepts the Local Agency/State Agency Collaboration Award from FACERS President Hector Bertran.

Ms. Faith Alkhatib was assigned the project and acquired federal funds for the study. Federal criteria to grant access to the Interstate must prove that the new interchange improves traffic conditions. It required an Interchange Justification Report (IJR), which involved a complex state and federal review and approval process which necessitated technical analysis of travel demand forecasting and traffic operations. Faith also acted as a liaison between multiple consultants, all related state and federal agencies, the county commission, and the public.

Meeting the deadline was a challenge which required finishing the technical analysis and obtaining stakeholder input. Faith, discovering that the forecasting and operations model was a regional model and did not depict the real area demand, worked with the Florida Department of Transportation to correct the problem. Thanks to her efforts, the initial IJR scope was reduced and still met regulations. A new contract was negotiated, resulting in a 65% fee reduction, saving tax payer money which will be applied to subsequent phases. The new interchange was justified and is scheduled to open in 2015.

The strong professional relationships developed during the project will serve county citizens in the future. Congratulations, Flagler County and Faith Alkhatib for being named the FACERS Local Agency/State Agency Project Collaboration winner!
Free Research Results Webcasts

In order to make research more accessible to a broader audience, the Center for Urban Transportation Research (CUTR) at the University of South Florida is providing free biweekly webcasts of current or recently completed research results.

The purpose of these free webcasts is threefold:
1. Increase the knowledge base of transportation professionals and policymakers in Florida and the rest of the country by sharing the latest findings in transportation research.
2. Increase the reach of technology transfer, especially to those transportation professionals who are unable to travel to state and national conferences due to time and cost constraints.
3. Encourage discussion among participants and receive input on subjects requiring future research.

The webcasts are held biweekly from noon to 1 pm (EDT) using the same connection information (same time, same channel) each time.

You can find more information at www.cutr.usf.edu/events_news/webcast.shtml
You can also view previous webcasts for free at the above web address.

For applicable webcasts, CUTR will seek approval from the American Planning Association to offer Certification Maintenance credits to meet continuing education requirements for the American Institute of Certified Planners.

Currently, the webcasts are scheduled through the end of August on the CUTR website, however the fall schedule will be posted soon.

Warm Mix Asphalt Update
An Every Day Counts Initiative

Warm Mix Asphalt (WMA) is a term used to describe a variety of technologies that allow asphalt plants to produce and place material at lower temperatures (lower, in some cases, by 50 to 100 degrees Fahrenheit). Benefits include large reductions in fuel costs, decreased greenhouse gas emissions, higher Reclaimed Asphalt Pavement (RAP), better compaction/workability on the road, the ability to haul paving mix for greater distances, and the ability to pave at lower air temperatures.

Since July 2010, the Florida Department of Transportation (FDOT) has placed over 300,000 tons of WMA on dozens of projects. FDOT specification allows WMA to be used at the contractor’s option after normal Hot Mix Asphalt (HMA) mixture design and evaluation. FDOT engineers are monitoring WMA mix properties of the materials produced and placed on their projects. Monitoring data will help with decisions to use WMA on future jobs. Local agencies are also using WMA. Learn more about WMA by:

- taking a free, online course at www.pavi systems.com/warmmix/package/player.html
- viewing the FACERS 2011 presentation, “Thinking Green for Black Roads” by Matthew LaChance (VHB) at facers.org

Past webcasts include
- Transit GIS Clearinghouse
- Location Aware Technology
- Organizational Structure of MPO
- Vehicle Assist and Automation Technologies in Bus Revenue Service
- Motorcycle Crash Trends in Florida
- Green Transit Toolkit - Helping Systems Turn the Corner
- The Airport Cooperative Research Program - Practical Solutions to Airport Problems
- Managing During Tough Times: Lessons Learned in Transit Efficiencies and Revenue Generation
- Alternative Fuels and Public Transportation Evaluating the Economic Impacts of Transportation
- Capital Investments
- Trends in Travel Behavior
- The American Community Survey (ACS) Statistical Analyzer
- Walk Wise: A Grassroots Pedestrian Safety Campaign
- Mobility Planning Strategies and Concepts
- Trip Reduction Impacts for Mobility Management Strategies
- Evaluation of Camera-Based Systems to Reduce Transit Bus Side Collisions
- Transit Improvements from the Urban Partnership Agreement Program: What Have We Seen So Far?
- Moving the Bus Safely Back Into Traffic
- Transit Boardings Estimation and Simulation Tool (TBEST)
- The Impacts of the Census on Urbanized Areas and Your MPO
- Transit Technician Certification: Leveraging Technology for State of the Art Training
- Planning for Changing Travel Behavior

FACERS 2011 Technical Program Online

Go to facers.org to view these recorded presentation subjects from the 2011 FACERS Annual Meeting technical sessions:

Red Light Camera Experience
Railroad Agreements
Subsurface and Drainage and Litigation
ITS Adaptive Signal Control
Geosynthetic Reinforced Soil Integrated Bridge System
Thinking Green for Black Roads
Eminent Domain and Business Damages
ADA: “Dos and Don’ts”
A Traffic Calming Stalemate
NPDES MS4, New EPA Policies
Florida’s Pedestrian and Bicycling Safety Resource Center has what you need to make your safety event successful

Is your organization thinking about hosting a pedestrian and/or bicycling safety event? Items listed below are available at no charge to qualifying organizations. Make your ped/bike events and educational activities more successful by providing items to reinforce safe walking and bicycling practices. Catch up with us on Facebook at facebook.com/flpedbikesrc

Visit pedbikesrc.ce.ufl.edu for descriptions, illustrations, and ordering information. Currently our inventory includes:

Crayons and Pencils
- Safe Routes To School (SRTS) Pencils
- Crayon 4 Pack

Passive Reflectors
- Safe Routes To School (SRTS) Lanyards
- Safe Routes To School (SRTS) Wristbands
- Be Safe, Be Seen Reflective Wristlet
- Reflective Zipper Pull

Active Reflectors and Walking Tool
- Safe Routes To School (SRTS) Blinkie lights
- Safe Routes To School (SRTS) Pedometers

Posters
- Hispanic Bicyclist Poster
- Hispanic Pedestrian Poster: Crosswalks and Signals
- Hispanic Pedestrian Poster: Sidewalks
- Hispanic Pedestrian Poster: Intoxicated
- Hispanic Pedestrian Poster: Caution

DVDs
- I’m Safe - On Wheels
- I’m Safe - Walk With Me
- Pedestrian Law Enforcement Training
- Step to Safety with ASIMO

CDs
- Bicycle Safer Journey
- Safer Journey
- Walk Smart & Bike Smart

Stickers
- Use Your Head (Dog)
- Use Your Head (Moose)
- Walk Safely!
- Walking School Bus

Books
- I’m Safe! Walk with Me Activity Sticker Book (English)
- I’m Safe! Walk with Me Activity Sticker Book (Spanish)
- I’m Safe! On my Bike Activity Sticker Book (Spanish)
- Pedestrian Safety Guide for Transit Agencies
- Pedsafe: Pedestrian Safety Guide and Countermeasure Selection System
- A Resident’s Guide for Creating Safe and Walkable Communities
- Walk ‘N Roll
- The Guide to Bicycle Rodeos
- How to Develop a Pedestrian Safety Action Plan

Publications
- Bikeability Checklist
- Bicycle Safety: What Every Parent Should Know (English)
- Bicycle Safety: What Every Parent Should Know (Spanish)
- Crosswalk Safety (English)
- Crosswalk Safety (Spanish)
- Easy Steps to Properly Fit a Bicycle Helmet
- Florida Bicycle/Pedestrian Law Enforcement Guide
- How To Fit & Wear Your Bicycle Helmet (English)
- How To Fit & Wear Your Bicycle Helmet (Spanish)
- I’m Safe! Paint Sheet - Bike (English)
- I’m Safe! Paint Sheet - Bike (Spanish)
- Kids Physical Activity (English)
- Kids Physical Activity (Spanish)
- Know the Rules - Going To & From School (English)
- Know the Rules - Going To & From School (Spanish)
- The Top Ten Rules of Bicycle Safety
- Neighborhood Safety (Spanish)
- Paul’s A-Maze-ing Trip
- Peligro en el Camino (Spanish)
- Road Riders Are Drivers
- Safety Fun Activity Book (English)
- Safety Fun Activity Book (Spanish)
- Sprocket Man Comic Book
- Tips for Parents and Other Adults For Teaching Pedestrian Safety to Children (English)
- Tips for Parents and Other Adults For Teaching Pedestrian Safety to Children (Spanish)
- Tips for Walking Safely to School (English)
- Tips for Walking Safely to School (Spanish)
- Walk ‘N Roll Punch Cards
Our Media Center will print non-copyrighted materials for loan. If you find a document online that your organization would like to see in print, let us know and we will print a copy for you to check out of our Media Center. Just send the name and link to the document to mediacenter@ce.ufl.edu or contact our Media Center Coordinator at 352-392-9537 EXT. 1544 for assistance.

New Publications

- Quantifying the Benefits of Coordinated Actuated Traffic Signal Systems: A Case Study
  P8504.01  VTRC
- Highway Safety Improvement Program Assessment Toolbox
  P8505.01  FHWA
- Distracted Driving and Driver, Roadway, and Environmental Forces
  P8506.01  NHTSA
- Study of Public Acceptance of Tolling with New Capacity and Credits: Concepts of FAST Miles and P2 Miles
  P8507.01  MN DOT
- Addressing Safety on Locally-Owned and Maintained Roads
  P8508.01  FHWA
- Validation of Nondestructive Testing Equipment for Concrete
  P8511.01  FDOT
- Statewide Opportunities for Integrating Operations, Safety and Multimodal Planning
  P8512.01  FHWA
- Use of Aggregate Screenings as a Substitute for Silica Sand in Portland Cement Concrete (PCC)
  P8513.01  FDOT
- Vehicle Safety: Truck, Bus, and Motorcycle
  TRB2194.01  TRB
- Pedestrians 2010
  TRB2198.01  TRB
- Safety Evaluation of the Safety Edge Treatment
  P8515.01  FHWA
- Benefits of New and Improved Pedestrian Facilities - Before and After Studies
  P8517.01  NZ TRANSPORT AGENCY
- Maximizing Investments in Work Zone Safety in Oregon
  P8518.01  OR DOT
- Bicycle and Pedestrian Safety Strategies in North Carolina: Statewide Input and Priorities
  P8519.01  NC DOT
- Cost Effective Connection Details for Highway Sign, Luminaire, and Traffic Signal Structures
  P8520.01  NCHRP
- “PRAISE”: Preventing Road Accidents and Injuries for the Safety of Employees
  P8521.01  ETSC
- Behavior Study of Merger Practices for Drivers at Work Zone Closures
  P8523.01  IA DOT
- Repair Priorities: Transportation Spending Strategies to Save Taxpayer Dollars and Improve Roads
  P8524.01  SMART GROWTH AMERICA
  P8525.01  UT DOT
- Transportation Safety Data and Analysis Volume 3: Framework for Highway Safety Mitigation and Workforce Development
  P8526.01  UT DOT
- Transportation Satellite Accounts: A Look at Transportation’s Role in the Economy
  P8527.01  USDOT
- Raising Compliance with Road Safety Law: 1st Road Safety PIN Report
  P8529.01  PEW CENTER ON THE STATES
- Measuring Transportation Investments: The Road to Results
  P8529.01  PEW CENTER ON THE STATES
- Making the Case for Investment in the Walking Environment: A Review of the Evidence
  P8530.01  UNIVERSITY OF THE WEST OF ENGLAND / LIVING STREETS
- Pilot Study to Assess Sustained and Multifaceted Traffic Safety Activity on North Dakota’s Rural Roads
  P8531.01  NDSU
- A Study on Warm-Mix Asphalt
  P8532.01  IL CENTER FOR TRANSPORTATION
- Transportation Safety Data and Analysis Volume 4: Framework for Highway Safety Mitigation and Workforce Development
  P8533.01  PEW CENTER ON THE STATES

Giveaways - CDs

- Sign Retroreflectivity Guidebook
- PEdSAFE: Pedestrian Safety Guide and Countermeasure Selection System
- BIKE SAFE: Bicycle Countermeasure Selection System

Contact Information

Name_________________________________________Agency_____________________________
Address___________________________________________________________
City_________________________________State________________Zip_________

Please check your affiliation below:

- City
- County
- State
- Federal
- University
- Other

Phone_____________________________Email_____________________________
FDOT Summary of Final Research Reports—New Topics Available

Access the FDOT website 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.

**Geotechnical**
- BDK-75-977-25 Resistance Factors for 100% Dynamic Testing, with and without Static Load Tests

**Materials**
- BDK-84-977-04 Corrosion Characteristics of Post-Tensioning Strands in Ungrounded Ducts

**Planning**
- BDK-77-977-05 Improvements and Enhancements to LOSPLAN 2009
- BDK-80-977-02 Decision Support Tools to Support the Operations of Traffic Management Centers
- BDK-83-977-04 Civil Engineering for Telemetered Traffic Monitoring Sites
- BDK-83-977-05 Electrical Engineering Support for FDOT Traffic Statistics Office
- BDK-75-977-08 Investigation of Freeway Capacity: (A) Effective Capacity of Auxiliary Lanes; (B) Segment Capacity as a Function of Number of Lanes and Merge/Diverge Activity
- BDK-80-977-05 Use of Advanced Analysis Tools to Support Freeway Corridor Freight Planning
- BDK-83-977-06 Geographic Information System (GIS) Research – Image Acquisition and Processing

**Public Transportation**
- BDK-85 977-16 Exploration of Transit’s Sustainability Competitiveness
- BDK-85 977-14 Dynamic Travel Information Personalized and Delivered to Your Cell Phone
- BDK-85 977-24 Enhancing the Connectivity of High Speed Rail in the Orlando-Tampa Corridor with Public Transportation Systems: Issues and Opportunities

**Roadway Design**
- BDK-75 977-09 Enhancement of FDOT’s SERF Device and a Study of Erosion Rates of Rock, Sand, and Clay Mixtures using FDOT’s RETA and SERF Equipment

**Structures**
- BD-550-11 External Post-Tensioning Anchorage
- BDK-75 977-04 Alternative Support Systems for Cantilever Signal/Sign Structures

**Traffic Engineering and Operations**
- BDK-80 977-03 Traffic Management Simulation Development
- BDK 77 977-09 Effective and Efficient Deployment of Dynamic Message Signs to Display Travel Time
Two 2011 Top Ten Public Works Leaders are from Florida

The American Public Works Association (APWA) recently announced their Top Ten Public Works Leaders of the Year for 2011, marking the 51st anniversary of the award.

Winners are selected by a committee of peers for their career-long professionalism, expertise, service, and personal dedication to improving the quality of life in their communities. Among this year’s recipients are two from Florida. Congratulations!

Mark V. Massaro, P.E.,
Director of Public Works
Orange County, Florida

Teresa Scott, P.E.,
Public Works Director
City of Gainesville, Florida

Ten Mobile Video Training Modules Provide Affordable Training at Your Facility

Schedule up to 7 hours of training in one day and have the instructor travel to and from your location without an overnight stay.

The target audience for Mobile Video Training (MVT) presentations is work crews, field and entry level employees, and supervisors.

This efficient training delivered by an experienced instructor provides video-based instruction and job-related skills information directly to your office, maintenance yard, or training facility. All training materials reflect Florida’s regulations and guidelines. Sessions are scheduled on a first-come, first-served basis with a small registration fee that covers all employees. Meeting space and breaks are provided by your agency.

Sharing costs with another agency can save money and allow us to train the most employees at once. Average cost per training hour decreases as the total training hours offered increases. Custom tailored training is also available.

Visit t2ctt.ce.ufl.edu and complete the request form, then submit as directed. Limited scholarships are available. For special training or questions, contact mvt@ce.ufl.edu or 352.273.1670.

Module 1: Work Zone Safety
1A. Rural Road Operations (4 hrs)
1B. Urban Streets (4 hrs)
1C. Combination of Rural Roads and Urban Streets (4 hrs)
1D. Detours (2 hrs)
1E. Flagging (2½ hrs)
1F. Intersection Work (2 hrs)
1G. Low Speed Streets (3 hrs)
1H. Moving/Mobile Operations (2 hrs)
1I. Pedestrians (2 hrs)
1J. Surveyors/Locators (2 hrs)
1K. Utility Work (2½ hrs)
1L. Nighttime Operations (2½ hrs)

Module 2: Asphalt Pavement
2A. Asphalt Pavement Repair (2 hrs)
2B. Asphalt Paving (1½ hrs)
2C. Asphalt Paving Inspection (1-2 hrs)
2D. Asphalt Surface Treatments (2 hrs)

Module 3: Equipment/Tool Operation and Safety
3A. Asphalt Paving Compaction Equipment Operation (2 hrs)
3B. Backhoe/Loader Operation (1½ hrs)
3C. Chainsaw Safety (1 hr)
3D. Commercial Driver’s License (4 hrs)
3E. Crane Safety (1 hr)
3F. Crawler Excavator (Crawler Backhoe) Safety (1 hr)
3G. Dump Truck Operation and Preventive Maintenance (1 hr)
3H. Forklift Operation and Safety (1 hr)
3I. Front End Loader (2 hrs)
3J. Motor Grader (1½-2 hrs)
3K. Skid Steer Loader (Bobcat) (2 hrs)

Module 4: Portland Cement Concrete
4A. Reinforced Portland Cement Concrete Inspection (4 hrs)
4B. Portland Cement Concrete Flatwork (2½ hrs)

Module 5: Roadside Maintenance Operations
5A. Mowing Safety (1 hr)
5B. Roadside Vegetation Control (4 hrs)
5C. Shoulder and Roadside Ditch Maintenance (2 hrs)
5D. Guardrail Installation (2½ hrs)

Module 6: Drainage Construction/Erosion Control
6A. Pipe Placement (1½ hrs)
6B. Underground Safety (2 hrs)

Module 7: Soils
7A. Soil Cement Construction in Florida (1½ hrs)
7B. Soil Stabilization in Clay Soils (1½ hrs)
7C. Geotextiles and Geogrids (2 hrs)
7D. Graded Road Maintenance (1-2 hrs)
7E. Erosion Control (2 hrs)

Module 8: Legal Concerns
8A. Legal Testimony — Trial and Deposition (2 hrs)
8B. Tort Liability — Field Responsibility (1 hr)
8C. Tort Liability — Management Responsibility (1-2 hrs)

Module 9: Highway Safety: Design, Construction and Maintenance
9A. Highway Safety Features (4 hrs)

Module 10: Traffic Operations
10A. Highway Signing and Pavement Marking Maintenance (4 hrs)
Let Me Count the Ways

The federal deadline for having a sign management system in place that includes an assessment method for retroreflectivity is January 22, 2012. This is to ensure compliance of all traffic signs with federal minimum standards for retroreflectivity. These standards are designed to improve safety and save lives on all public roads. Replacement of noncompliant signs is required by 2015 or 2018, depending on the type of sign.

If your county or city has not yet chosen a retroreflectivity assessment method as part of a sign management plan, please read this article. This requirement carries serious implications for future sign-related litigation for those who choose not to comply. It is important to understand the pros and cons of the methods available and choose the best methods for your agency’s situation.

Options

In implementing an assessment or management method for your agency’s signs, per the Manual on Uniform Traffic Control Devices, you can use one option or a combination of options.

1. Visual Nighttime Inspection. Requires review/assessment/approval by a trained sign inspector 60+ years of age driving an SUV or truck.
2. Measured Sign Retroreflectivity. A retroreflectometer is placed against each sign to measure sign retroreflectivity. Signs with below-minimum levels must be replaced.
3. Expected Sign Life. When signs are installed, the installation date is labeled or recorded. The age of the sign is compared to the expected sign life, based on the experience of sign retroreflectivity degradation in a geographic area. Signs older than the expected life should be replaced.
4. Blanket Replacement. All signs in a given area or of a given type are replaced at specified intervals. This method eliminates the need to assess retroreflectivity or track the life of individual signs. The replacement interval is based on expected sign life for the shortest life material used on the affected signs.
5. Control Signs. Replacement of signs in the field is based on the performance of a sample of control signs in the maintenance yard or in the field. All signs represented by the control sample should be replaced before the retroreflectivity levels of the control sample reach minimum levels.

Methods developed and based on an engineering study can also be used.

How should you decide which methods are right for you? First, we recommend reading the Federal Highway Administration’s (FHWA’s) Sign Retroreflectivity Guidebook, which is the source for information in this article. The Guide is specifically designed for small agencies. It includes a spiral-bound manual and a DVD with some interactive features, including an easy-to-use decision tool for choosing an assessment method based on your particular road system’s characteristics.

FHWA’s Guide contains an excellent article on how one agency chose their approach. Your colleagues at neighboring agencies might help by providing approaches that worked for them.

Your agency may want to turn your sign management and retroreflectivity maintenance over to the private sector. This decision may be more costly, but also may present some efficiencies, depending upon the structure of your workforce and your resources.

FHWA’s Guide is available free for Florida local government agencies from the Florida T² Center. Call 352.392.9537 ext. 1544 or email us at mediacenter@ce.ufl.edu and we will send you a copy (while supplies last).

The Florida T² Center also provides retroreflectivity training and has a retroreflectometer loaner program for agencies participating in the training. Contact David Page at 352.273.1685.

Article adapted with permission from the Kansas LTAP Newsletter, Spring 2010.
Upcoming Workshops

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 of Traffic
August 17–19, 2011 Pompano Beach
August 24–26, 2011 Cape Coral
August 30–31, 2011 North Miami Beach
September 14–16, 2011 Orlando
September 21–23, 2011 Gainesville
October 11–12, 2011 North Miami Beach
October 19–21, 2011 Pompano Beach
October 25–27, 2011 Temple Terrace
October 26–28, 2011 Cape Coral
November 16–18, 2011 Gainesville
November 16–18, 2011 Orlando
November 30 – December 2, 2011 Crestview
December 7–9, 2011 Pompano Beach
December 14–16, 2011 Tampa
December 20–21, 2011 North Miami Beach

Advanced Maintenance of Traffic - Refresher
August 16, 2011 Pompano Beach
August 23, 2011 Cape Coral
September 13, 2011 Orlando
September 20, 2011 Gainesville
October 4, 2011 North Miami Beach
October 18, 2011 Pompano Beach
October 24, 2011 Temple Terrace
October 25, 2011 Cape Coral
November 15, 2011 Gainesville
November 15, 2011 Orlando
November 29, 2011 Crestview
December 6, 2011 Pompano Beach
December 13, 2011 Tampa
December 14, 2011 North Miami Beach

Asphalt Mix Design Reduced Fee!
August 16–19, 2011 Gainesville
October 18–21, 2011 Gainesville

Asphalt Paving Level 1
August 23, 2011 Miami
August 30, 2011 Tampa
October 4, 2011 Davie
October 25, 2011 Chipley
November 1, 2011 DeLand
November 7, 2011 Gainesville

Asphalt Paving Level 2 Reduced Fee!
August 24–26, 2011 Miami
August 31 – September 2, 2011 Tampa
October 5–7, 2011 Davie
October 26–28, 2011 Chipley
November 2–4, 2011 DeLand
November 8–10, 2011 Gainesville

Asphalt Plant Level 1 Reduced Fee!
September 7–9, 2011 Gainesville
October 4–6, 2011 Miami
November 8–10, 2011 Gainesville

Asphalt Plant Level 2 Reduced Fee!
October 5–7, 2011 Gainesville

Bucket Truck Safety/Hands-on
November 9, 2011 Pompano Beach

Concrete Batch Plant Operator
September 6, 2011 Gainesville

CTQP Written Exam Only (No books provided) Reduced Fees!
August 12, 2011 Lakeland
August 17, 2011 Jacksonville
August 19, 2011 Jacksonville
August 23, 2011 Miami
August 26, 2011 Miami
August 30, 2011 Orlando
September 2, 2011 Tampa
September 7, 2011 Chipley
September 7, 2011 Jacksonville
September 7, 2011 Pompano Beach

Drilled Shaft Inspection Reduced Fee!
August 24–26, 2011 Orlando
November 2–4, 2011 Davie

HelpUs! Please help update our database so we can serve you better! If you are receiving duplicate copies or receiving mail for folks who are no longer with your agency, please let us know. Visit t2ctt.ce.ufl.edu/newsletter or make a copy of the back page of the newsletter and write “delete” or the appropriate corrections and fax it to us at 352.392.3224. If you have several deletions or corrections, please contact t2@ce.ufl.edu or call 352.273.1670.
Earthwork Construction Inspection Level 1
September 13–14, 2011  Jacksonville
October 11–12, 2011  Tampa
November 15–16, 2011  Gainesville
December 6–7, 2011  Gainesville

Earthwork Construction Inspection Level 2 Reduced Fee!
September 15–16, 2011  Jacksonville
October 13–14, 2011  Tampa
November 17–18, 2011  Gainesville
December 8–9, 2011  Gainesville

FDOT Concrete Field Inspector Specification Reduced Fee!
September 12–14, 2011  Chipley
September 19–21, 2011  Fort Myers
October 17–19, 2011  Orlando
November 15–17, 2011  Gainesville

Final Estimates Level 1
September 21, 2011  Gainesville
September 28, 2011  Tampa
November 8, 2011  Davie
November 14, 2011  Gainesville

Final Estimates Level 2
September 22–23, 2011  Gainesville
September 29–30, 2011  Tampa
November 9–10, 2011  Davie
November 15–16, 2011  Gainesville

Inspecting Municipal Properties
August 24, 2011  Naples

Intermediate Maintenance of Traffic
August 16–17, 2011  Naples
August 23–24, 2011  North Miami Beach
August 24–25, 2011  Orlando
August 30–31, 2011  Cape Coral
September 8–9, 2011  Crestview
September 20–21, 2011  Tallahassee
September 28–29, 2011  Clearwater
October 5–6, 2011  Tallahassee
October 19–20, 2011  Gainesville

October 19–20, 2011  Orlando
November 2–3, 2011  Temple Terrace
November 8–9, 2011  North Miami Beach
November 15–16, 2011  Naples
November 16–17, 2011  Cape Coral
December 7–8, 2011  Orlando
December 14–15, 2011  Crestview

Intermediate Maintenance of Traffic - Refresher
August 15, 2011  Naples
August 23, 2011  Orlando
August 29, 2011  Cape Coral
September 7, 2011  Crestview
September 7, 2011  North Miami Beach
September 19, 2011  Tallahassee
September 27, 2011  Clearwater
October 4, 2011  Tallahassee
October 18, 2011  Gainesville
October 18, 2011  Orlando
November 1, 2011  Temple Terrace
November 2, 2011  North Miami Beach
November 14, 2011  Naples
November 15, 2011  Cape Coral
December 6, 2011  Orlando
December 13, 2011  Crestview

Long Term Pavement Performance (LTPP) - Pavement Distress Identification
October 5–7, 2011  Pompano Beach

Mobile Equipment and Internal Work Zone Safety
November 30, 2011  Port Charlotte

Nuclear Density Gauge Safety and HazMat
September 12, 2011  Jacksonville
December 5, 2011  Gainesville

Pile Driving Inspection
October 11–13, 2011  Gainesville
November 30 – December 2, 2011  Orlando

Pilot/Escort Flagging

Mark Your Calendars
2011 National Stop on Red Week August 7-13, 2011 www.stopredlightrunning.com
Put the Brakes on Fatalities Day October 10, 2011 www.brakesonfatalities.org
18th World Congress on Intelligent Transportation Systems  Orlando October 16 – 20, 2011 www.itsworldcongress.org
FACERS Fall Meeting Sandestin Beach Resort Walton County November 16 – 18, 2011 facers.org
Upcoming Workshops

For the dates and locations of these upcoming workshops, see pages 14 and 15.

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Pile Driving Inspection
Pilot/Escort Flagging
Pilot/Escort Flagging Refresher
Plans Reading Fundamentals
Qualified Aggregate Sampler
Quality Control Manager Reduced Fee!
Road Safety 365: A Workshop for Local Governments
Roadside Maintenance Safety
Successful Supervision in Public Works