T² Technology Transfer Quarterly

Florida's Traffic Engineering and Safety Workforce Training Update

A *University of Florida* Publication

Volume 24, Number 1 February 2009

Help keep your agency out of court!

See pages 2 and 3

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T2 Technology Transfer Quarterly

Established in 1984

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Florida Technology Transfer Quarterly, published by the Florida Transportation Technology Transfer (T²) Center at the University of Florida, Department of Civil and Coastal Engineering, facilitates information exchange relating to roads, bridges, general surface transportation and safety.

Our programs are sponsored through partnerships between the Florida Department of Transportation and the Federal Highway Administration and include the Local Technical Assistance Program (LTAP), Safety Circuit Rider Program (SCR), the Product Demonstration Showcase Program (PDS), and the Pedestrian/Bicycling Safety Resource Center.

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 T² Center.

Circulation: 17,797

National LTAP & TTAP Programs
Serving America's Local Road & Bridge Agencies

UF UNIVERSITY of FLORIDA

Tort Liability and Risk Management Workshops

Don't miss this chance to educate your personnel!

Locations:

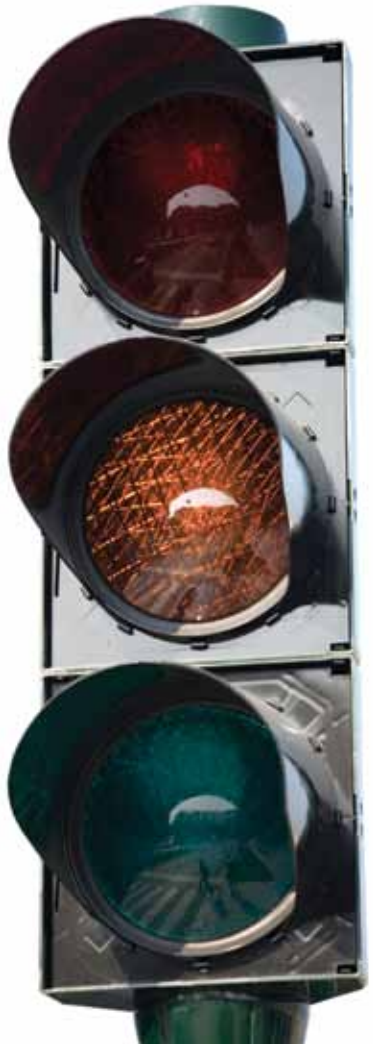
March 2 Green Cove Springs
March 3 Gainesville
March 4 Lakeland
March 5 Punta Gorda
March 6 Pompano Beach

What are the legal duties and responsibilities of agency personnel? What are the common claims and lawsuits brought against transportation and public works agencies? Tort Liability and Risk Management are two of the most serious concerns to public works and transportation agencies. One lawsuit can devastate an organization. Make sure your personnel know their responsibilities.

Learn through examples and case studies, including traffic control devices, work zones, roadway and shoulder surface conditions, sight distances, and pedestrian incidents. Specific topics include: Legal Process; Elements of a Tort Claim; Agency and Employee Liability; Tort Claims Process; Analysis of Tort Claims Data; Defenses to Tort Liability; Principles of Risk Management; Specific Measures to Reduce the Risk of Liability; Litigation Activities - Pretrial, Documentation, Role of Expert Witness, The Trial; and Case Studies.

Visit *t2.ce.ufl.edu* for more information and to register for this workshop.

Looking for Basic Traffic Signals Operations Information and Training?



The National Institute for Advanced Transportation Technology website *www.webs1.uidaho.edu/niattproject/index.htm* presents tutorial modules which provide the basics of traffic signals: Pretimed Signals, Actuated Signals, and Coordinated Signals. The Hardware in the Loop Simulation (HILS) module provides information on developing simulations utilizing actual traffic controllers. Modules can be reviewed at the user's own pace.

In the first three modules a Background section introduces concepts related to the particular signal type and the Exploration section presents case study problems to enhance learning. Users read through background materials then proceed to case studies which give information and a list of steps leading the user through the process of determining a signal timing plan, based on the background in that module. Example steps are provided. Case studies use HILS hardware and software but can still be informative, even without equipment access.

Be sure to pay attention to the following extra instructions which are easy to overlook but important to complete the step correctly: 1) Controller Settings link, which takes the user to information explaining what needs to be done for that step; and 2) Indented text (below the step) contains specific instructions supplementing the linked page.

Liability Checklist for Local Transportation and Public Works Agencies

If you can answer yes to the following questions, your agency is in a good position to defend itself against tort liability. If you have other concerns, add them to the list. Consider sharing this list with your council members and other elected officials.

Training

- Do all employees regularly receive training appropriate for the work they perform and for the materials and equipment they use?
- Do employees understand the importance of using reasonable care in performing their duties?
- Are employees instructed to report hazardous conditions and to act on them?

Signs and markings

- Do we have an up-to-date copy of the Manual on Uniform Traffic Control Devices (MUTCD) and other Florida and agency governing documents available to all employees?
- Are employees familiar with the MUTCD and the other governing documents?
- Are signs and markings adequate, properly installed, and well maintained?
- Do we have an up-to-date inventory of signs, signals, and markings and a plan for maintaining conformance with the MUTCD and other governing documents?
- Do we have and follow a plan for periodic day-and-night review of signs and markings?
- Are identified road hazards posted with appropriate warning signs based on the MUTCD and other governing documents?
- Are all bridges properly posted for weight restrictions and low clearance?
- Are all dead-end roadways and railroad crossings properly signed?
- Do we provide proper temporary traffic control in work zones?
- Are sight lines clear at intersections?

Roads, culverts, and bridges

- Do we have a current inventory of road, culvert, and bridge conditions and a plan for addressing deficiencies?
- Is the right-of-way for our roads properly established and recorded?
- Do we keep good records on agency activities including roadway conditions, crashes, and maintenance work?
- Do we use current versions of accepted guidelines in road design, construction, operations, and maintenance?

Administration

- Are all of our roadways inspected on a regular basis?
- Is our equipment in good repair and are employees instructed to report faulty equipment immediately?
- Do we follow objective procedures in setting priorities?
- Are our maintenance standards achievable with the resources available?
- Do we have an established procedure for receiving complaints, acting on them, and recording all actions?
- Do we meet periodically with our legal counsel to review the status of roadway-related claims filed against the agency?

This article has been adapted with permission and input from Dr. Ron Van Eck, PE, Florida T² Center instructor for Tort Liability and Risk Management, and from articles appearing in Lone Star Roads, Mar/Apr 2004, Nuggets & Nibbles, Fall 1996, and Technology News, Nov/Dec 2004.

National Traffic Management & Work Zone Safety Conference

This conference will be held on March 10-12, 2009 in Orlando in conjunction with the "World of Asphalt."

Conference topics include:

- Protecting the health and safety of workers during construction;
- Accommodating pedestrians, cyclists and persons with disabilities in work zones;
- Complying with new Federal Highway Administration regulations on high visibility clothing and payment for temporary traffic control;
- Night time construction challenges and opportunities;
- Avoiding worker runovers and backovers;
- Legal liabilities for traffic control;
- New safety and health training programs, and more!

Occupational Safety and Health Administration (OSHA) safety training sessions will be offered.

Please visit *www.workzonesafety.org*; *www.worldofasphalt.com*; and *www.agg1.org* for registration, sponsorship and event details.

Ped/Bike Resource Center News

Florida's Pedestrian & Bicycling Safety Resource Center will be opening this Spring. Please contact *mediacenter@ce.ufl.edu* for more information.

May is National Bike Month

Please visit *www.bikeleague.org/action/sharetheroad.php* and *www-nrd.nhtsa.dot.gov/Pubs/810802.PDF* for more information.

WALK LEFT | RIDE RIGHT
PedBike
Florida's Pedestrian & Bicycling Safety
RESOURCE CENTER
FUNDED BY FDOT

APWA Florida Chapter Annual Meeting & Trade Show

April 27 – May 1, 2009 West Palm Beach, Florida

Technical Program Subjects

Monday, April 27

- Digging for Dollars
- Comparing Trenchless Pipe Bursting Technology
- Sustainability Perspectives
- Flexible Form Boards
- Combining Stormwater and Floodplain Management
- Management Review to Improve PW Operations
- Tips for Effective Internet Communication
- FEMA Assistance Tips
- ADA Guidelines for Public Right of Way
- Inmate Labor

Tuesday, April 28

- Implement a City Road Bond Program
- Doing Business with FDOT: Administrators Panel
- Putting Passion into Your Presentations
- Asphalt Pavement Preservation and Maintenance
- Onsite Sodium Hypochlorite Generating System
- Underground Infrastructure Inspection
- Ground & Surface Water - New Utility Filter Technology
- Using Current Technology and Best Business Practices
- Florida's Stormwater Rule
- Solid Waste Management Systems; Utilities/Green Energy Enhancements
- Getting Administrative Staff to Live/Breathe Public Works
- Customer Service/Community Relations for Capital Improvement Projects
- Local Agency Program (LAP)
- Playground Safety/Maintenance; Liabilities and Technology
- Leveraging Funds
- National Legislative and Regulatory Issue Updates
- Landscape Irrigation Problems
- Public Private Partnerships
- Owning a Fiber-Optic Communications Network

Thursday, April 30

- From Manager to Leader
- Green Roadways Recycling and Rejuvenation
- Illicit Discharge Detection/Elimination Plan; NPDES
- New Storm Pipe Installation; Repair and Maintenance Procedures
- Aging Infrastructure Cost Strategies and Material Options and Costs
- Accelerated Bridge Construction Using Prefabricated Components
- Tools to Fix It Before It Breaks!
- Using Enviro Management Systems Concepts
- Back Flow Preventer Application

Monday, April 27

8:30 AM – 5:00 PM	Registration Open
9:00 AM – 5:00 PM	Rodeo Set-Up
9:00 AM – 5:00 PM	Exhibit Hall Set-up (Decorator)
9:00 AM – 9:45 AM	1st Timers Session (leading into Branch Training)
10:00 AM – 10:45 AM	Branch Officer, District Rep & Comm Chair Training
11:00 AM – 12:00 PM	Technical Sessions AM
12:30 PM – 2:30 PM	Opening Session (welcome, lunch & keynote speaker)
2:45 PM – 3:45 PM	Technical Sessions PM
3:00 PM – 4:30 PM	Executive Committee Meeting
5:00 PM – 6:30 PM	Presidents Reception (food, drinks, & entertainment)

Tuesday, April 28

7:30 AM – 5:00 PM	Registration Open
8:00 AM – 12:00 PM	Exhibitor Move-in (bulk space only)
8:00 AM – 1:00 PM	Golf Tournament
7:00 AM – 12:00 PM	Fishing Tournament
9:00 AM – 11:15 AM	Technical Sessions AM
9:00 AM – 3:00 PM	Equipment Rodeo
9:00 AM – 4:00 PM	Spouse Program
1:00 PM – 6:00 PM	Exhibitor Move-in (10' x 10' booth space)
1:30 PM – 3:45 PM	Technical Sessions PM
6:30 PM – 9:30 PM	Special Event Night (food, drinks, & entertainment)

Wednesday, April 29

7:30 AM – 4:00 PM	Registration Open
8:00 AM – 4:00 PM	Exhibit Show Open
8:00 AM – 10:00 AM	Coffee & Danish (exhibit hall)
10:00 AM – 4:00 PM	Student Job Fair
10:00 AM – 4:00 PM	Spouse Program
12:30 PM – 2:00 PM	Lunch with Exhibitors
2:00 PM – 4:00 PM	Reception with Exhibitors (exhibit hall)
4:00 PM – 8:00 PM	Exhibitors Move-out

Thursday, April 30

8:00 AM – 5:00 PM	Registration Open
9:00 AM – 11:15 AM	Technical Sessions AM
9:00 AM – 12:00 PM	Spouse Program
12:30 PM – 2:30 PM	Awards / Scholarship Luncheon
5:00 PM – 7:00 PM	Farewell Reception

Friday, May 1

9:00 AM – 10:00 AM	Past Presidents Breakfast

Join us at the Palm Beach County Convention Center and Marriott West Palm Beach for this year's events and earn CEUs and PDHs. For a complete schedule, please fill out and return the FaxBack form on inside back cover or visit *http://florida.apwa.net* for more information or to register. Suppliers, contact 727.548.7200 or *CorporateEvents@tampabay.rr.com* about booth space.

FACERS ANNUAL AWARDS

Every year FACERS honors a Public Works Employee, Rural Engineer*, Urban Engineer* and a Team Project of the Year for projects completed in the previous year. Awards are open to all individuals in public works and engineering in Florida's cities and counties. There is no requirement to be a FACERS member. Nominees receive a congratulatory letter. Winners receive statewide recognition at the annual FACERS conference and are featured in the *Technology Transfer Quarterly* newsletter. The engineering award recipients may also qualify for national recognition.

*Rural agencies are defined as having a population less than 100,000. Urban agencies have a population of 100,000 or more.

How do I nominate someone?

Nominating someone for the FACERS award is easy! Choose the method of submittal that best fits your schedule and style. Please attach text briefly describing the project. An awards committee member may call for more details. The following should be included:

- **A brief description of the project**
- **Need – timeliness**
- **Innovation**
- **Leadership**
- **Impact on the agency budget**
- **Impact on the community**

Online: Go to *facers.org* and enter the information, then press submit.

Download: Go to *facers.org* to download the nomination form. Type or print the information and:

Email the completed form to *t2@ce.ufl.edu* **or** **Fax** the completed form to 352.392.3224

Nominee / Team Leader Information:

Name:_____ Position:_____

Email:_____ Phone:_____

Agency Name:_____ Address:_____

City:_____ Zip:_____ Best time to call:_____

Nominated for (check one):

❑ Team Project ❑ Public Works Employee ❑ Rural Engineer ❑ Urban Engineer

Project Name:_____ County:_____ Date finished:_____

By signing below, I certify that this individual / team has participated in a local project that has had a major impact toward improving our local services and protecting our citizens' best interests.

Your Information:

Name:_____ Position:_____

Email:_____ Phone:_____

Agency Name:_____ Address:_____

City:_____ Zip:_____

Signature:_____ Date:_____

For assistance, please call Janet Degner at 352.392.2371 EXT. 31676

The deadline for applications is April 20, 2009.

Sharing Success Stories

continued from the November 2008 issue

In our last issue we featured a brief overview of several nominations for past Florida Association of County Engineers and Road Superintendents (FACERS) Team Project awards. The FACERS awards recognize excellence in service in Florida's public works agencies to the citizens of our communities and state. FACERS and the Florida T² Center hope sharing these stories provides a small thank you for a job well done and also inspires others to share theirs. See the entry form on page 5 or visit *www.facers.org* for information on all the award categories and to make nominations for this year's awards.

Replacement of a Failing Pipe Beneath a Major Road

Charlotte County Maintenance and Operations

The Charlotte County project dealt with the replacement of a failing pipe crossing underneath a major road, located at County Road 74 and Swiss Boulevard in Punta Gorda. The metal pipe was rusted and in very poor condition. The Charlotte County Maintenance and Operations Team replaced the pipe with two, 60 foot runs of 72 inch, reinforced concrete pipe. As part of the installation, side drain pipes were installed along with mitered ends with material for stabilization.

The Team worked diligently through a number of obstacles including major dewatering and rainstorm problems. Work was completed using an in-house workforce and equipment which resulted in substantial cost savings. The impact to traffic and the neighborhood was minimized with the use of a well signed detour route and informative public service announcements that kept the public apprised of the project's schedule and goals.

Scenic Highway Traffic Signal Improvements

Highlands County Traffic Operations Team

In May 2007, Highlands County received only one bid (for $221,566.38) to construct the traffic signal system, including labor, materials, equipment, foundations, and associated four mast arm assemblies, so the Traffic Operations Team was instructed to take on the initiative.

In September 2007, the project was re-bid with a modification to provide labor, materials and equipment for four foundations, and furnishing and delivering materials for the mast arms. The foundations bid was awarded for $38,400. The bid to provide and deliver mast arms (materials only) was awarded for $44,806, resulting in a total re-bid of $83,206. The Team installed the four mast arms in about two weeks for an in-house cost of $142,139.33 (materials, rental equipment and labor), saving $79,427.05 over the original, outside bid.

The Traffic Operations Team showed how a job like this can be completed quickly, economically and safely. Their initiative and dedication to excellence continue to have a positive effect on Highlands County citizens.

Senior Zones

Hillsborough County Traffic Division, Traffic Engineering Section, Traffic Operations Section, Traffic Programs Team

Hillsborough County's Senior Zone is a unique and innovative program, the first of its kind in the US. It addresses the national need for senior-friendly nurturing. The Senior Zone concept is similar to School Zones except it focuses on safety needs of seniors. It strives to reduce traffic speeds and provide safer vehicular and pedestrian mobility next to retirement and assisted living facilities.

The program leverages guidelines, traffic control devices, and operational strategies recommended by the Federal Highway Administration's (FHWA) Highway Design Handbook for Older Drivers and Pedestrians, and the Manual for Uniform Traffic Control Devices (MUTCD) the Florida Department of Transportation's Elder Road User Program, and the Transportation Research Board's Special Report 218 Transportation in an Aging Society.

Senior Zone was implemented in response to safety concerns of John Knox Village residents on Fletcher Avenue. Success led to a Zone at Rocky Creek Village and establishing a five year, countywide program. Roadway Safety Audits were conducted following FHWA guidelines. Some design features include: wider pavement markings, reflective pavement markings, advanced street name signs, overhead, illuminated street name signs with large lettering, improved pedestrian crossings with longer walk intervals and refuge islands, larger traffic signs lettering, advanced lane use signs, Senior Zone warning signs and flashing lights to alert drivers, enhanced street lighting, and law enforcement.

Success is measured by lowered speeds, reduced, preventable pedestrian crash rates, and increased perceptions of improved mobility, safety and security by the elderly.

Race Track Road Widening

Hillsborough County Public Works

Race Track Road, a major two-lane road in NW Hillsborough County, borders Pinellas County and is a critical emergency evacuation route. Unprecedented growth required widening to six lanes. One of the four construction segments was between Linebaugh Avenue and Douglas Road, next to the Tampa Bay Downs horse racing track. The track owns significant right-of-way along Race Track Road. Acquiring right-of-way could have been costly. The Team developed a partnering approach with Tampa Bay Downs, Hillsborough County, Pinellas County, the City of Oldsmar, and private utility companies, enabling them to relocate the road to eliminate significant pedestrian conflicts and any business damages. However, this placed the road inside Pinellas County, requiring coordination and cooperation with Pinellas County and the City of Oldsmar. This was accomplished successfully and without issue.

The emergency evacuation status necessitated raising the intersection almost four feet. The Team, several contractors and utility groups brainstormed possible solutions for best cost and least disruption. Through partnering, they devised a construction phasing plan with minimal impacts to motorists, requiring only one weekend of intersection closure. The Team worked with Oldsmar to develop a supporting detour route. Taxpayers were saved millions of dollars and the Team's work will greatly benefit the citizens of Hillsborough, Pinellas, and Polk counties who use the road daily.

Enhancements to Marion County's Asset Management System

Marion County Transportation Department Asset Management Team

Enhancements to Marion County's Asset Management System have improved efficiency and service to internal users and the public. The county's in-house team developed processes and made significant improvements producing quicker, more complete and accurate data.

Now inspectors enter pavement field data directly into GPS-equipped computers, eliminating paper forms and data entry. Data is synchronized with the CarteGraph database and the GIS map. Installations in sign trucks allow sign technicians to record new sign installations and verify existing sign locations and conditions. Recorded field data helps identify missing and damaged signs to replace, lowering public risk and helping minimize the county's legal exposure.

Low cost equipment (around $100 per unit) is provided to many field personnel. The system is also used to map pavement edge drop-offs, water on the road due to high shoulders, invasive plant species area, defective pavement markings, signs, and guardrails.

Customized management reports now provide timely and concise information about productivity, response to citizens' calls, and annual program plan conformance. With reduced budgets and severe cutbacks, these reports help address priority issues and work force productivity. An accurate roadway features inventory is always available and will improve public safety. The initiative and commitment of Marion County's in-house team provided significant savings in time and money. Annual savings exceed $75,000 by eliminating outside contracts and reducing the work force.

Rehabilitation of Existing Culverts

Palm Beach County Engineering/Public Works Department

Rehabilitation of existing metal culverts under two lane roadways was completed without interfering with motorists. Eagle's Nest Drive and Loxahatchee River Road are located in the tidal environment. The initial plan was to excavate the roadways and remove a 48 inch and a 60 inch culvert. As the project proceeded, problems developed requiring crews to maintain traffic in the narrow, environmentally sensitive right-of-way, with no other road for access and having to work around existing utilities. A meeting resulted in establishing some other way to complete the project.

A lining process usually used on sanitary sewer pipe was discovered that had been recently used to line larger storm sewers. The process used a resin impregnated, flexible, fiberglass tube to provide a sealed pipe interior. The process provides a 50 year design life with a lower Manning's value than corrugated pipe, without significant pipe size reduction.

The original culvert replacement estimate was approximately $425,000 and the final construction cost was approximately $250,000. It was a success because of the savings and lack of impact to the immediate residential community as well as the traveling public.

McMullen Booth Road Railroad Crossing

Pinellas County Public Works Divisions

In 2007 the CSX railroad required several total closures of major Pinellas County arterials. A team was formed to develop a roadway impact mitigation plan. Goals were to facilitate public awareness, promote interagency teamwork, improve construction scheduling efficiency and minimize the negative effect of high volume road closures. Diligence, coordination and hard work of county engineering, traffic engineering, construction administration and highway department teams greatly reduced the impact.

The team evaluated traffic flow changes and chose a summer low point for closures. Maintenance of Traffic plans and an extensive public information campaign were keys to success. County staff contacted fire departments, emergency management services, and law enforcement agencies from all affected jurisdictions to address impact questions and possibilities. Staff studied detour options with the City of Clearwater and the Florida Department of Transportation. One plan saved one week of closure.

The campaign included flyers, utility bill inserts, and direct mailing to over 5,000 affected households and businesses. Over 20 variable message signs carried messages three weeks in advance. News agencies publicized closures. A phone hotline and website received over 4,400 messages.

Traffic flows were monitored by ITA CCTV cameras and the Sheriff's helicopter. 24/7 construction inspection kept the job moving. Planning resulted in such minor impact that potential traffic snarls never materialized. The road opened 28 days in advance. Overall cost was reduced. Committed staff used skill, creativity and conscientiousness to make this project a resounding success.

Implementation of a Public Works-wide Operations and Asset Management System

Volusia County Public Works Team

Volusia County conducted a first ever, department-wide project efficiency assessment of operations, developed and implemented recommendations and monitored progress. A Computer Maintenance Management System (CMMS) was chosen for asset and work order management, integrated data collection and project reengineering.

Significant tasks were incorporated, including countywide aerial photography, Light Detection and Ranging (LIDAR) data collection and Digital Elevation Models (DEM) generation for topographical analysis, roadway assets video collection, and Global Positioning System (GPS)/Geographic Information System (GIS) technology asset collection and presentation.

Before, six divisions used over 60 databases to track and record data. Few were integrated or accessible by others. Some had limited capabilities or were obsolete. New revenue constraints increased efficiency and document performance needs. Efficiency assessments identified 91 key recommendations to improve operations, many with direct budgetary impacts and/or involving a policy decision which limited implementation ability.

Change was at times a tough sell to long time staff. An environment of optimism in each user group led to accepting and applying new business practices. Enthusiasm and passion were the driving force. All were active in decision making, negotiating and coordinating efforts of multiple consultants, attending hundreds of meetings and keeping on schedule.

Estimated first year savings is $2 million with greater operations efficiency and effectiveness, increased quality and cost effective service delivery. More savings are anticipated as more recommendations are implemented.

Dealing with the News Media

What is your agency's policy? Do employees receive training on how to handle inquiries?

Being interviewed by a reporter can be downright scary.

Most transportation and public agency employees realize how important public relations are in our jobs because the media is the primary source of information for the public. News releases, articles and broadcast news segments derived from interviews give citizens background about activities in your agency. A reputation for being responsive and honest with the public is critical. A good reputation allows you to perform your duties in a supportive environment rather than one under constant public and political scrutiny while also enhancing your agency's public image.

Being proactive also develops and maintains good public relations. Some agencies have public information specialists who provide news releases, interviews concerning issues at hand, and also interact with elected officials and other groups. However, all employees should be prepared to handle media inquiries and know whether to refer them to the public information officer, a boss, or to respond individually. You must be prepared and act promptly.

Does your agency have a policy of returning reporters' calls within a set period of time? Some have instituted a 30-minute-return call policy.

What to do when a reporter calls.

If a reporter calls, find out as much information about their questions as possible before offering a response. General information you should gather includes the reporter's name and contact number, organization and any deadlines. Write down the specific questions they present. Discussing the inquiries briefly with the reporter for clarification may give you an idea of how knowledgeable they are about the issue. Will this be a written story or are they requesting a live or taped interview for TV and/or radio? These answers will assist in your agency's preparation as well as help the reporter focus the specific topics for discussion.

Most reporters are novices to transportation and public works. They need your assistance in providing accurate information. Who will be the ultimate audience? Provide responses that the reporter will understand. Also, consider providing basic information in writing (by fax, email or in person) to enhance their knowledge of the situation and to help assure accurate information is included.

A good reputation can be quickly and easily destroyed if public relations are not handled properly. As a professional, you must deal with each situation courteously and promptly. If you don't know the answer to their questions, respond quickly and tell them so. Never talk off the record and do not say anything you do not want to see printed or broadcast. A lie or half-truth will impact your credibility for years. "No comment" is not an option, either. Declining to comment can be perceived negatively by the public. Stay as positive as possible and maintain your cool in all situa-

tions. If you field a question that you are unsure of, be honest and offer to relay the requested information after some research.

Asking for questions ahead of the interview will allow you to prepare and practice. One question often leads to another, so the person being interviewed should be well versed and comfortable with public speaking.

Once you have a good handle on what the reporter wants, suggest that you contact him later but well before his deadline (offer a time) so you have adequate time to prepare and do any additional research. If your research is delayed or you can't locate a subject matter expert to address the questions, promptly contact the reporter to advise them of your timeline plan to meet their deadline.

Know what you want to say. Develop brief talking points to keep you on track. You are the expert, not the reporter or general public, so you must be sure to answer the reporter's questions with short answers using laymen's terms to be clear and get your points across. Being brief avoids having any quotes paraphrased to possibly imply something else. Use a phrase like "The most important thing is …" to identify items of the most interest. Ask the reporter to read back any quotes to make sure they are correct but don't expect the reporter to show you the story before it runs.

Communication is more than words.

Body language and voice tone are extremely important in delivering your message. Even if you are not on camera, the reporter can pick up on your body language—posture, movement, and facial expressions all give the audience a more complete picture than just your words. Voice volume and pitch are also very important so speak clearly and with assurance. Varying your tone makes listening more enjoyable. Show self confidence by looking the reporter and any audience in the eye.

Seeing is believing; video tape and record your practice sessions.

Some agencies provide training sessions to practice dealing with reporters and videotape the sessions. It is often easier to understand our public speaking shortcomings when we see ourselves in action—nervously moving around, not facing the camera or audience, not speaking clearly, not using complete sentences, etc. Will the broadcast be taped or live? If so, choose appropriate clothing.

If your agency does not provide training sessions, consider attending organizations like Toastmasters to improve public speaking skills. Have someone role play with you. Try to determine questions you may be asked and then answer them. Suggest the other person try to follow up on the answers you gave.

Plan ahead.

Develop a press kit with your agency's history, contact names and phone numbers. Include a list of positive things your agency has recently accomplished. Putting a human face behind statistics provides a more interesting story so provide human interest anecdotes as well as additional article ideas.

Build relationships with the media.

The media can be some of your agency's best advocates or worst enemies so nurture the relationships. Do it now before being called! Be proactive; seek out reporters who cover your technical area. View reporters' work to get an idea of their style. Consider calling them first when a bad story occurs and tell them all about it. This investment of time and energy can pay dividends down the road.

Pro Walk/Pro Bike Presentations Now Available On-Line

The National Center for Bicycling and Walking has posted some of the 2008 Pro Walk/Pro Bike National Conference workshop presentations at *www.bikewalk.org/2008conference/vconference/schedulefull.html*. Look for live links in red.

EPA's Green Infrastructure Models and Calculators

The Environmental Protection Agency's Green Infrastructure webpage includes links for predictive models and calculators that can assist in modeling stormwater runoff, water quality impacts from land use changes, benefits of urban tree canopy and pollutant load reductions from Low Impact Development (LID) techniques. Calculators can assist with quantifying costs and benefits of green infrastructure investments.

Visit *cfpub.epa.gov/npdes/greeninfrastructure/modelsandcalculators.cfm*

New at the T² Media Center

Our Media Center offers more than ***7,000*** *publications,* ***1,000*** *videos, and* ***175*** *CDs and it's easy to borrow materials from the T² Center. 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 of the materials can be found on our website: t2.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

- ❑ **Evolution of and Directions in Construction Safety and Health**
  CIB P0713.01
- ❑ **Cost Effective Safety Improvements for Two-lane Rural Roads**
  US DOT P0715.01
- ❑ **Strategies to Address Nighttime Crashes at Rural Unsignalized Intersections**
  Iowa State University P0716.01
- ❑ **Prevention of Splitting Failure at Ends of Prestressed Beams during Fabrication**
  FDOT University of Florida P0717.01
- ❑ **Making the Case for Transportation Safety Ideas for Decision Makers**
  DOT FHWA P0718.01
- ❑ **Work Zone Safety Flip Pad**
  Transportation Information Center P0719.01
- ❑ **Transportation Research. An International Journal Part A: Policy and Practice Vol.42A Issue 8**
  Iowa State University P0722.01
- ❑ **Florida Pedestrian Law Enforcement Guide (reverse side) Florida Bicycle Law Enforcement Guide**
  FDOT FL Bicycle Association FL Ped/Bike Safety Resource Center P0728.01
- ❑ **Moving the Bus Back into Traffic Safely-Signage and Lighting Configuration Phase I**
  FDOT P0731.01
- ❑ **Highway Safety Foresight Issues Challenge DOT's Efforts to Assess and Respond to New Technology-Based Trends**
  GAO P0732.01
- ❑ **Coastal Management Zone Measuring Program's Effectiveness Continues to be a Challenge**
  GAO P0733.01
- ❑ **ACRP Synthesis 9 Effects of Aircraft Noise: Research Update on Selected Topics**
  TRB P0735.01
- ❑ **Specification Writer's Guide For Federal Lands and Highways**
  USDOT P0736.01
- ❑ **Road Stabilizer Product Performance Buenos Aires National Wildlife Refuge**
  USDOT P0738.01
- ❑ **Research Results Digest 330 Temporary Bridging to Avoid or Minimize Impacts to Waters and Wetlands During Highway Construction**
  TRB P0739.01
- ❑ **Innovative Intersection Safety Improvement Strategies and Management Practices: A Domestic Scan**
  USDOT P0740.01
- ❑ **Comparative Performance Measurement Pavement Smoothness**
  AASHTO P0741.01
- ❑ **Advanced Surveying and Mapping Technologies Systems Overview & Applications**
  FHWA P0742.01
- ❑ **Soil Stabilization**
  ARRA P0746.01
- ❑ **Comparative Cost of Risk Survey**
  ADOT P0747.01
- ❑ **A Cost Evaluation of Cross-Border Truck Emissions Testing Using Heavy Duty Remote Sensing Equipment**
  ADOT P0749.01
- ❑ **ACRP Report 8 Lightning Warning Systems for Use by Airports**
  ACRP P0751.01
- ❑ **Primer on Transportation and Climate Change**
  AASHTO P0753.01
- ❑ **Optimizing the System: Saving Lives, Saving Time**
  AASHTO P0754.01
- ❑ **Protecting America's Roads, Bridges, and Tunnels: The Role of State DOT's in Homeland Security**
  AASHTO P0758.01
- ❑ **ACRP Synthesis 10 Airport Sustainability Practices**
  TRB P0760.01
- ❑ **Effect of Ambient Temperature Changes on Integral Bridges**
  Kansas DOT P0762.01
- ❑ **Bend Loss in Rectangular Culverts**
  Kansas DOT P0763.01
- ❑ **Hydraulic Forces on Submerged Bridge Decks**
  Kansas DOT P0765.01
- ❑ **Origins and Destinations Study of Older Persons**
  ADOT P0768.01

National Work Zone Awareness Week 2009

National Work Zone Awareness Week 2009 will be observed April 6-10.

Visit *www.workzonesafety.org/news_events/awareness_week/* 2009 for more information.

Fact or Fiction? Should you believe it or not?

Have you ever received email that sounds like urban legend, folklore, an old wives tale, or a rumor? The Internet reference source *www.snopes.com* identifies that misinformation. Check out such emails to save you from forwarding incorrect information and even inform the sender of your findings.

Giveaways

Make your choice(s) and use the FaxBack form to request these free items.

- ❑ Pedestrian Safety Guide for Transit Agencies (Feb 2008) Book, 2 copies
- ❑ Know the Signs Poster, 11 copies
- ❑ Innovative Intersection Safety Improvement Strategies Book, 3 copies
- ❑ Roadway Safety Awareness Program: Temporary Traffic Control Devices Booklet, 50 copies
- ❑ Surrogate Safety Assessment Model (SSAM) Booklet, 17 copies
- ❑ NCHRP Synthesis 321 Roadway Safety Tools for Local Agencies, 3 copies
- ❑ Focus: The Place to Go for System Preservation Technical Assistance, 5 copies
- ❑ ITS in Work Zones: Case Study Integrated Work Zone Booklet, 20 copies
- ❑ Highway Finance & Public-Private Partnerships Booklet, 5 copies
- ❑ ITS in Work Zones: Case Study Using ATI Booklet, 14 copies
- ❑ Saving Lives, Time, & Money Using ITS Booklet, 6 copies
- ❑ Retroreflective Sheeting Identification Guide Laminate, 70 copies
- ❑ Summary of Trenchless Technology Use in Culverts Booklet, 7 copies
- ❑ Focus: Performance Contracting: A New Way of Doing Business, 5 copies

FDOT Summary of Final Reports—New Topics Available

Access the updated 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.

Construction

- ❑ BD544-26 – Integrated Work Zone Safety Management System and Analysis Tools

Materials

- ❑ BDB09 – Investigating the Statewide Variability and Long Term Strength Deformation Characteristics of RAP and RAP-Soil Mixtures
- ❑ BC353-44 – Validation and Practical Procedure for Vibrational Evaluation of Tendons
- ❑ BD544-22 – Role of Alkalis and Sulfates of Portland Cement on Durability of Florida Structures

Planning

- ❑ BD015-17 – Alternatives for Estimating Seasonal Factors on Rural and Urban Roads in Florida: Phase II

Public Transportation

- ❑ BD549-39 – Development of a Large Bus/Small Bus Decision Support Tool: Phase II
- ❑ BD549-43 – Exploration of a Shift in Household Transportation Spending from Vehicles to Public Transportation

Safety

- ❑ BD500 – Evaluation of Innovative Safety Treatments

More Free Training: Learn How to Improve Pedestrian Safety and Accessibility

The Federal Highway Administration (FHWA) and the Pedestrian and Bicycle Information Center (PBIC) are offering a limited number of free courses to Florida's agencies, including:

- Developing a Pedestrian Safety Action Plan (two-day course)
- Designing for Pedestrian Safety (two-day course)
- Planning and Designing for Pedestrian Safety (three-day course)

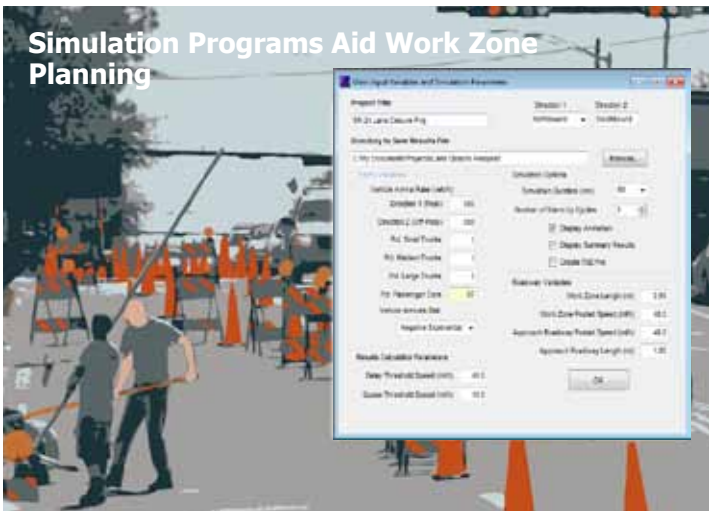
Courses were recently conducted for Tampa, Pinellas County, Volusia County, St. Lucie County, Chipley, Hillsborough County, and Miami.

Find out more: Visit *www.walkinginfo.org* for the course descriptions and target audiences. To schedule a course, contact Hussein Sharifpour, FHWA Florida Division Office Safety Engineer at *Hussein.Sharifpour@fhwa.dot.gov* or 850.942.9650 EXT. 3024.

New Research Cards Are Available

The FDOT Research Center issued more project information cards. The projects include:

- ❑ **Simulation Programs Aid Work Zone Planning**
  BD545-61 Impact of Lane Closures on Roadway Capacity
- ❑ **Single-Cable Signal Systems Resist Storm Winds Better than Dual-Cable Systems**
  BD545-57 Development of Hurricane Resistant Cable Supported Traffic Signals
- ❑ **New Design and Repair Standards for Cantilevered Sign Poles**
  BD545-54 Anchor Embedment Requirements for Signal/Sign Structures
- ❑ **Enhanced Traffic Data Improves Travel Time Modeling**
  BD545-70 Travel Time Reliability Models for Freeways and Arterials
- ❑ **New Procedure for Bridge Tendon Vibrational Testing**
  BC353-44 Validation and Practical Procedure for Vibrational Evaluation of Tendons
- ❑ **Yield-to-Bus Enhancements Can Improve Compliance**
  BD549-34 Moving the Bus Back into Traffic Safely – Signage and Lighting Configuration Phase I



Impact of Lane Closures on Roadway Capacity

BD545-61

Project Manager: Frank Sullivan
Principal Investigator: Scott Washburn
http://www.dot.state.fl.us/research-center

Background Lane closures inconvenience travelers and cause traffic delays. A study of the existing lane closure planning methods for two-lane and arterial roadways could suggest opportunities for improvement.

Findings Researchers conducted a three part study with the objective of enhancing work zone planning. In Part I, they created a simulation program dubbed FlagSim that can be used to develop models for estimating work zone travel speed, saturation flow rate, queue length, and queue delay for closures on two-lane roads. These models were incorporated into an integrated analysis methodology and implemented in a worksheet format. In Part II, the researchers used an existing simulation program, CORSIM, to create traffic capacity models for five different arterial roadway work zone configurations. These models will need to be validated against field data. In Part III, they conducted a survey of drivers which revealed that travel time, work zone location, and weather conditions influence route choices. Using these data, researchers developed Excel-based models that estimate traffic demand in proposed work zones. Collectively, the models should reduce travel inconveniences and delays.

Travel Time Reliability Models for Freeways and Arterials

BD545-70

Project Manager: Doug McLeod
Principal Investigator: Lily Elefteriadou
http://www.dot.state.fl.us/research-center

Background Florida's Strategic Intermodal System (SIS) of freeways, arterial highways, and other transportation services is vital to the state's economy. Because travel time reliability (the likelihood of reaching a destination on time) is a major SIS performance measure, FDOT funded a study (BD545-48) to develop a general SIS travel time estimation model. A follow-up study was needed to identify available traffic data sources for the model, and to develop a travel time model usable for SIS arterial highways.

Findings Researchers found that most of the available data sources have limited utility for the SIS travel models. They recommended that FDOT districts refine their data collection and archiving systems. They evaluated District Four traffic incident data and determined it could serve as proxy data for the model while collection systems are being developed. The researchers also recommended simplifying the arterial travel model so it can use the data now available. The model should with time become a useful travel analysis tool.

To request cards, contact the Media Center at 352.392.9537 EXT. 1544 or *mediacenter@ce.ufl.edu* or use the FaxBack form on the inside back cover.

Ten tips for tire life, worker safety and going greener

Tires are tougher than ever these days, so it is easy to forget about their maintenance. Remembering a few basics can save you money while you maximize the life of your tires, reduce emissions and ensure the safety of the people working on them and driving the vehicles. It is all about air pressure and the life of the tire. Simply follow these tips.

Under-inflation costs money. Operating on soft tires means they wear faster, the vehicle burns more fuel and produces more emissions. Running tires at 20% under recommended pressure at normal speeds will reduce tire life by 16% and increase fuel use by 2%.

Explosion is possible. Any radial tire that has been driven at less than 80% of its recommended pressure has the potential to "zipper rupture" when it is re-inflated. A zipper rupture happens when the sidewall of a steel cord radial tire explodes during inflation. The resulting blast can cause serious injury or death to those nearby. Learn to recognize hazardous tires and how to re-inflate them safely from videos or training programs provided by tire suppliers.

Expect tires to lose air. Rubber tires are porous and continuously lose air. A vehicle tire is expected to lose up to two pounds a month, according to industry standards. In addition, air can leak through valve caps or small punctures.

Consider the temperature outside. A tire will gain or lose a pound of pressure with every 10 degree difference in outdoor temperature. Tire pressure and tire life are directly related.

Know the proper pressure. Tires are designed to run at specific pressures based on the total load. Know each vehicle and equipment's actual axle load, and then use standard load charts to calculate the correct tire pressure. Ask your tire supplier for help and training.

Calibrate gauges monthly. Even with regular checking, tires could be at the wrong pressure due to faulty gauges. About 15% of gauges in a facility are not properly calibrated. Purchase a master gauge (about $100) and calibrate all gauges once a month.

Check pressure every season or before use. You should check vehicle tire pressure every month. For equipment such as a motor grader, check tire pressure before using it. To get an accurate reading, be sure the tire is cold. Do not check the pressure within three hours of last using it.

"Read" tires regularly. Check for signs of wear before tires sustain serious damage. Regularly inspect side walls for cuts, cracks, blisters, or bulges, all of which could cause zippering. Measure tread depth. It should be no less than 4/32 inch on the steer axle and no less than 2/32 inch on all others. Run your hand over the tread and feel for abnormalities like rib edge feathering or cupping. Feathering is an early sign of misalignment or could be caused by improper pressure. Take the tire/wheel assembly off and look at the face of the tire for any type of irregular wear pattern. For example, drive tires may develop heel and toe wear.

Rotate tire position for longer life. Any rotation schedule is better than no rotation. How often it is needed depends on usage. For vehicles used infrequently, you may only need to rotate tires every other year.

Repair correctly. The only proper way to fix a tire is to put a patch on the inside and a plug through the injured area. It is estimated that as much as 40% of tire repairs are not done correctly. Any repair from the outside will void the tire warranty, even if it is properly fixed afterwards. It can also be a safety issue.

Web Resources:

Tire Load Ratings

www.dualport.com/bustech/load_tires.html

Tire Retread and Repair Information Bureau

www.retread.org

Tire Load Charts

www.goodyear.com/truck

Adapted with permission from an article in The Bridge August 2008 and Crossroads Spring 2005

A zipper rupture is a tear in the mid sidewall of a steel cord radial tire resulting from an explosion during re-inflation. The blast can cause serious injury or death to nearby individuals.

T² and CTT Workshops

Upcoming Workshops

To register visit *t2.ce.ufl.edu* or email *t2workshops@ce.ufl.edu* or call 352.392.2371 EXT. 31675.
To register for CTQP or CTT courses visit *ctt.ce.ufl.edu* or email *ctt@ce.ufl.edu* or call 352.846.3593 EXT. 31669.

Advanced Maintenance of Traffic

Mar 18 - 20, 2009	Crestview
Mar 31 - Apr 2, 2009	Jacksonville
May 20 - 22, 2009	Orlando
Jun 3 - 5, 2009	Bartow
Jun 16 - 18, 2009	DeLand
Jul 22 - 24, 2009	Panama City
Aug 26 - 28, 2009	Orlando

Advanced Maintenance of Traffic (MOT) Refresher

Mar 17, 2009	Crestview
Mar 30, 2009	Jacksonville
May 19, 2009	Orlando
Jun 2, 2009	Bartow
Jul 21, 2009	Panama City
Aug 25, 2009	Orlando

Asphalt Paving Level 1 – CTQP

Feb 13, 2009	Gainesville
Feb 23, 2009	West Palm Beach
Mar 30, 2009	Gainesville
Apr 27, 2009	Orlando

Asphalt Paving Level 2 – CTQP

Feb 24-26, 2009	West Palm Beach
Mar 31 - Apr 2, 2009	Gainesville
Apr 28-30, 2009	Orlando

Asphalt Plant Level 1 – CTQP

Feb 25-27, 2009	Miami
Mar 11-13, 2009	Gainesville
May 27-29, 2009	Gainesville
Jun 24-26, 2009	Miami

Asphalt Plant Level 2 – CTQP

Feb 16-18, 2009	Gainesville
Jun 23-25, 2009	Miami

Asphalt Mix Designer

Jun 2-5, 2009	Gainesville

Drilled Shaft Inspection – CTQP

Feb 2-4, 2009	Gainesville
Apr 13-15, 2009	Orlando

FDOT Concrete Field Inspector Specification – CTQP

Mar 26-27, 2009	Sarasota
Apr 14-15, 2009	West Palm Beach
May 4-5, 2009	Gainesville
Jun 9-10, 2009	Orlando

Earthwork Construction Inspection Level 1 – CTQP

Feb 10-11, 2009	Tampa
Mar 3-4, 2009	West Palm Beach
May 12-13, 2009	DeLand
Jun 16-17, 2009	Davie

Earthwork Construction Inspection Level 2 – CTQP

Feb 12-13, 2009	Tampa
Mar 5-6, 2009	West Palm Beach
May 14-15, 2009	DeLand
Jun 18-19, 2009	Davie

Final Estimates Level 1 – CTQP

Apr 22, 2009	Miami

Final Estimates Level 2 – CTQP

Mar 4-5, 2009	Tampa
Apr 23-24, 2009	Miami

Intermediate Maintenance of Traffic

Feb 26 - 27, 2009	Jensen Beach
Mar 9 - 10, 2009	Ft Myers
Mar 10 - 11, 2009	DeLand
Mar 25 - 26, 2009	Tampa
Mar 30 - 31, 2009	Orlando
Apr 8 - 9, 2009	Tallahassee
Apr 16 - 17, 2009	Punta Gorda
May 18 - 19, 2009	Orlando
Sep 2 - 3, 2009	Orlando
Nov 9 - 10, 2009	Orlando

Intermediate Maintenance of Traffic Refresher

Mar 24, 2009	Tampa
May 21, 2009	Tampa
Jul 20, 2009	Panama City
Aug 18, 2009	Tampa
Oct 2, 2009	DeLand

LBR Technician – CTQP

May 7-8, 2009	Gainesville

Pile Driving Inspection – CTQP

May 11-13, 2009	Orlando

Pilot/Escort Flagging Training

Mar 13, 2009	Tallahassee
Mar 20, 2009	Leesburg

Plans Reading Fundamentals

Mar 11, 2009	DeLand

Qualified Aggregate Sampler – CTQP

May 6, 2009	Gainesville

Quality Control Manager – CTQP

Mar 16-17, 2009	Orlando
Apr 16-17, 2009	West Palm Beach
Jun 2-3, 2009	Sarasota

Roadside Maintenance Safety

Apr 1, 2009	DeLand

Safe Mobility for Life Program: Preparing Our State for the Future

Mar 4, 2009	Sarasota
Apr 22, 2009	Bushnell
May 20, 2009	New Port Richey
Jul 15, 2009	Jacksonville
Aug 19, 2009	Miami
Sep 16, 2009	Cantonment

Surveying Methods For Local Highway Departments

Jul 15, 2009	DeLand

Tort Liability and Risk Management

Mar 2, 2009	Green Cove Springs
Mar 3, 2009	Gainesville
Mar 4, 2009	Bartow
Mar 5, 2009	Punta Gorda
Mar 6, 2009	Pompano Beach

Visit *ctt.ce.ufl.edu* for CTQP or CTT workshop details or visit *t2.ce.ufl.edu* for all other workshop details.

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Publications, Videos, and CDs from the T² Center. Just check the item(s) you wish to borrow on pages 10 and 11, fill out the information above, and fax all pages to us. It's that easy!

Items mentioned in this issue:

Please mark the boxes below like this ☒ Thank you!

Subject	Mail Copy	Fax Copy	Email Copy
APWA Meeting Information (pg. 4)			
Media Center Items (pg. 10)			
Giveaways (pg. 11)			
FDOT Summaries (pg. 11)			
Research Cards (pg. 12)			

Help Us!

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.

Simply make a copy of the back page of the newsletter – showing us the person's name and information – write delete (or correct the current information) and fax it to us at 352.392.3224. If you have several deletions or corrections, please contact *t2mailings@ce.ufl.edu* at 352.273.1675.

Upcoming Workshops

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

Advanced Maintenance of Traffic
7 Classes

Advanced Maintenance of Traffic (MOT) Refresher
6 Classes

Asphalt Paving Level 1 - CTQP
4 Classes

Asphalt Paving Level 2 - CTQP
3 Classes

Asphalt Plant Level 1 - CTQP
4 Classes

Asphalt Plant Level 2 - CTQP
2 Classes

Asphalt Mix Designer
1 Class

Drilled Shaft Inspection - CTQP
2 Classes

FDOT Concrete Field Inspector Specification - CTQP
4 Classes

Earthwork Construction Inspection Level 1 - CTQP
4 Classes

Earthwork Construction Inspection Level 2 - CTQP
4 Classes

Final Estimates Level 1 - CTQP
1 Class

Final Estimates Level 2 - CTQP
2 Classes

Intermediate Maintenance of Traffic
10 Classes

Intermediate Maintenance of Traffic Refresher
5 Classes

LBR Technician - CTQP
1 Class

Pile Driving Inspection - CTQP
1 Class

Pilot/Escort Flagging Training
2 Classes

Plans Reading Fundamentals
1 Class

Qualified Aggregate Sampler - CTQP
1 Class

Quality Control Manager - CTQP
3 Classes

Roadside Maintenance Safety
1 Class

Safe Mobility for Life Program: Preparing Our State for the Future
6 Classes

Surveying Methods For Local Highway Departments
1 Class

Tort Liability and Risk Management
5 Classes

Visit *ctt.ce.ufl.edu* for CTQP or CTT workshop details or visit *t2.ce.ufl.edu* for all other workshop details.

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