FACERS GENERAL MEMBERSHIP MEETING
Amelia Island Plantation, Cumberland Ballroom C
Fernandina Beach, FL 32034
November 19, 2010

Board Members Present

Hector Bertran – President *
Fred Schneider – Vice President *
Jonathan Page – Secretary *
John C. Newton – Treasurer *
Todd Buckles – Director *
Ramon Gavarrete - Director*
George Webb – State NACE Director

Also Present

See attached attendance roster

* Current Board Members

With a quorum present, Hector Bertran called the meeting to order at 8:30 a.m. Hector stated that the first order of business would be a presentation from representatives of the Florida Emergency Preparedness Association (FEPA). Fred Schneider introduced Jerry Smith, the Emergency Management Director from Lake County. Jerry distributed a brochure about the organization and encouraged the membership to get familiar with it. There was then a general discussion of each County's interaction between our Public Works personnel and our Emergency Management Departments. It was noted that we need to work more together and we were all invited to attend the FEPA meetings in the future. It was discussed that a big limitation of Public Works Departments' ability to help more in an emergency was training and equipment to deal with hazardous materials. This gap in training and materials costs money. Mr. Smith noted that there could be no guarantee for dollars but hoped there may be some funding opportunities through Homeland Security dollars. Jerry then discussed the recent initiative of the Regional Planning Council to acquire LiDAR for the state and that there was a lot of issue taken with the data particularly in South Florida because the data and model predictions were fairly dire in nature. Those counties want to get to the "truth" of the data and it is still under much discussion. The group then discussed the ramifications of the State's plans for contra flow and the affect on the adjacent northern counties. The FEPA was reviewing these plans and trying to come up with something that will work for all counties in the State.

Following the presentation from Mr. Smith, Fred introduced Paul Foley who is the current chairman for the Florida Institute of Consulting Engineers (FICE) and Mr. John Kilgore also with FICE. These gentlemen stated that in the past FICE had coordinated their activities with FDOT but they also work for Counties and would like to work more closely with FACERS. They stated that they represent more than 400 engineering firms around the state and get together to review the projects and selection procedures being used by FDOT, Counties, and Municipalities. They stated that one large initiative for

FICE is the removal of personal liability for cases involving negligence. The group discussed how devastating this can be for an engineer and can even be extremely unfair in cases such as when the speed limit is raised following design and construction of a project. The gentlemen also stated that the consulting industry does not fully understand the LAP process and is frustrated by that fact. The gentlemen from FICE requested that FACERS consider more dialogue between the two groups and suggested having some training sessions regarding the LAP process. Fred brought up the procurement procedures required by the CCNA and asked how FICE felt about the initiative of the FAC to revise the procedure. Fred also asked the FICE representatives how the group felt about the new water quality mandates from the EPA/DEP. The representatives from FICE stated that they were meeting with various WMDs throughout the state but that FICE did not see it as a huge problem yet for their transportation designers.

Secretary's Report:

- Jonathan Page presented the minutes from FACERS Board of Directors meeting held August 27, 2010 in Orlando, Florida. Minutes were discussed and approved unanimously.

Treasurer's Report: John Newton presented the Treasurer's report. The report showed a balance of $24,198.38 in checking and $4,604.40 in investments for a total balance of $28,802.78. John stated that since June we had spent some dollars on conferences such as the FACERS conference held in June 2010. It was discussed that the numbers looked like a downward trend right now but he would work on tracking the dollars so we could stay ahead of the trend and be proactive and not reactionary. It was also noted that the renewal process would begin soon and should help the balances. It was agreed that FACERS needs the NACE convention in 2014 or 2015. The treasure's report was unanimously approved.

Committee Reports:

Membership: John Newton

- It was noted that we had a couple of new members and there was some discussion of whether Amy Blaida was a new member or not. We have approximately 50 County, 25 Municipal, and 15 sustaining members.
- We discussed keeping Bob Gordon on the active membership list and he is to provide new contact information soon.
- There was also discussion of the membership list. John is the official keeper of the list and will work on getting it cleaned up and accurate.
- There was discussion of whether or not to keep the free membership for a year program intact. After some discussion of the pros and cons of this procedure (mostly pros) a motion was made and approved unanimously to keep the free for a year membership program in place.
- There was some discussion of changing the name of the organization to make it more inclusive of the municipal people. It was agreed that this topic would be brought up again in the future but we should remember we are FAC affiliated and that is a part of the FACERS by laws.

Scholarships: Bob Gordon

- Bob inquired if we had members going to the award of the scholarships and taking photos, etc. Bob asked that the board appoint someone to go to the awards ceremonies, take pictures and be the face of FACERS. We could then get this information in the newsletter.
- Bob stated that he had recently met with Mandy Alexander from USF and USF was keeping money in the account and sometimes awarding two $1,000.00 scholarships. He asked if the group wanted to raise the amount of the award or award multiple scholarships with $1,000.00 being the minimum. It was unanimously decided to continue this topic at a future meeting as more financial analysis needs to be done.
- The group also must decide if our primary goal is to get the FACERS name out, get the recipients involved in government engineering or simply to facilitate the creation of more engineers in the state.
- We discussed the fact that we are not doing a great job tracking where the recipients of the scholarships go to work when they graduate or involving them in our organization. The group discussed potentially adding them as free student members until they graduate which would keep them on the mailing list and involved with the organization.

NACE: Ramon Gavarrete

- NACE is looking for a new executive director and should be conducting interviews in March 2011. NACE hopes to have a new Director in place for the NACE conference in Minnesota on April 17-21, 2011.
- There was some general discussion about bringing the NACE Annual conference to Florida. It was determined that Florida should continue to pursue the meeting for 2014 in Daytona, but that we should be prepared to resubmit in the following years. It was discussed that we don't need to have a large group go this year but we should be ready and willing to support those that plan to attend. Potential attendees were encouraged to review their current budgets and determine what level of assistance FACERS would be requested to provide.

T Square Updates: Janet Degner

- The TRB sponsors a symposium on Low Volume roads and this is the first time they suggested sponsors and exhibits. Janet handed out information and asked the group to pass it out to our vendors for consideration.
- T2 has a retro-reflectometer loan program and Janet passed out information regarding the program to the members.
- Janet distributed the latest T2 workshop schedule. T2 was awarded a "safety shoe" to be used on resurfacing projects which creates a safe edge. John Goodknight's organization would be the first to use the one awarded to T2.
- "Everyday Counts" presentations are occurring on an invitation only basis. 150-250 people are attending to accelerate construction.
- The group thanked T2 for broadcasting the technical presentation over the web for the first time. The group discussed purchasing some additional

equipment to enhance the broadcasts in the future. Janet will get a list of necessary equipment and some pricing for those items.

Awards: Janet Degner

- It was noted that there was no award category for projects that required State and Local agency collaboration. The group unanimously approved a motion to create that award category and Janet asked that we please submit projects for possible awards.

Green Book: Fred Schneider

- The main update regarded Chapter eight "Pedestrian Facilities". The issue coming up is regarding bike lanes. The committee would like to make paved shoulders and/or bike lanes a requirement. There are plenty of FDOT and special interest groups that want this to change from a "should consider" installation to "shall install". It was discussed that a voting member list should be provided to FACERS membership since we only have a small number of voting members on the committee but may know some of the others. It was noted that the committee is not being comprised of a "rural" and an "urban" member from each District as intended by the state. Ramon mentioned the push for "specs" with the Green Book similar to FDOT's Plans Preparation Manuals. It was noted that this is supposed to be a technical manual but policy decisions are being made. It was noted that there are two T2 courses for the Greenbook that our membership could benefit from.

Newsletter: Brian Barnes

- Noted that is has been sent out. It was noted that anything the members wanted to be included needs to be written up and he would be happy to accommodate. The next newsletter will be coming out in December and we need articles and volunteers for the member spotlights. Additionally, if we have any accomplishments we are proud of we need to write them up and send them in.

Legislative Issues: Ramon Gavarrete

- Ramon stated that these were addressed during the week's sessions and included Utilities, FAC's CCNA position, Water Quality rules, etc.

Old Business: John Newton

- Most old business was discussed during the previous sessions of the week. It was noted that the National Center for Pavement Preservation is starting training in different areas. John stated the sessions would begin soon and he would get the dates out to the members.
- The group thanked Janet Degner and the T2 center for the terrific work on the updated website. It was discussed that we might like to have the history of FACERS as a link on the website. Additionally the group made

a motion and it passed unanimously to create a FACERS Facebook page and have Amy Blaida set up and update the page.

New Business: Hector Bertran

- Regarding video presentations; Hector noted we need feedback and recommendations from T2 on items needed to continue and improve the webcasting of the presentations. Ability to hear the discussions of the group was pointed out as a relative weakness.
- The next general membership meeting will be held in Orlando on June 22-24, 2011. We discussed a possible field trip to the new Amway Center which is a platinum LEED certified facility candidate. The group was very interested in having a look at this facility as energy savings seem to be making LEED practices a viable building alternative.
- We receive a lot of complaints on the questions FACERS puts out to the membership for responses. Brian Barnes thought this was likely due to the fact that we don't have one person who could receive the questions, log them and then submit the answers to the inquirer. Mr. Barnes volunteered to be that person and log the question, answers and provide them to the inquirer. In return the inquirer would then have to tell us why they asked the question and what valuable information they got from the responses. He also discussed using the blind copy method and thereby hopefully eliminating people who don't want to get the questions from getting them. This would also *eventually* eliminate the erroneous e-mail addresses that populate those response lists that seemingly live on forever. It was briefly discussed that we may be able to do this through the Facebook page but the group determined Mr. Barnes's approach to be the best for a variety of reasons.
- Mr. Bob Gordon bestowed the Christmas decorations honors on Mr. Todd Buckles. It was noted that members who had not received this honor should be excited as there would not be repeat awards to the same member.
- The last order of business was for the membership to present Mr. Bob Gordon with a plaque for his continual membership and active involvement in FACERS for more than 12 years.

The meeting was adjourned at 10:50.

FACERS 11/19/10 General Membership Meeting Attendance Roster

Name	Organization
1. Amy Blaida	RS&H
2. Fred Schneider	Lake County
3. Janet Degner	Florida T2 Center
4. Jonathan Page	Nassau County
5. Ramon D. Gavarrete	Highlands County
6. John C. Newton III	Hillsborough County
7. Todd Buckles	Volusia County
8. Hector Bertran	Orange County
9. George T. Webb	Palm Beach County
10. Brian Barnes	Charlotte County
11. Jim Stivener, Jr.	Lake County
12. J. Scott Herring	Nassau County
13. Judy Slode	Volusia County
14. Gareth Klotz	Cumbey & Fair, Inc.
15. John Kilgore	American Consulting Engineers
16. Paul Foley	Kissinger Campo
17. Bob Gordon	City of Temple Terrace
18. Todd Buckles	Volusia County

FACERS AGENDA
NOVEMBER 17-19, 2010
F.A.C. LEGISLATIVE CONFERENCE MEETING
AMELIA ISLAND PLANTATION

Wednesday

8:30 am – 9:30 am	Florida Cultural Resources and How They Relate to your Public Works Project (ESI, Brent Handley)
10:00 am – 11:00 am	Pavement Preservation & Reconstruction – Best Practices Workshop, (APS & EJB, Bob Siffert/Chris Evers)
11:00 am – 1:00 pm	Lunch (on your own)
1: 00 pm – 2:00 pm	Quality Based Roadway system (VHB, Matthew LaChance)
2: 30 pm – 3:30 pm	SB 360/Multi Modal Impact Fee & Efficiently Managing a Street Lighting System (Tindale Oliver & Assoc., Bob Wallace/ Demian Miller)
4:00 pm – 5:00 pm	FDOT LAP Community of Practice efforts (FDOT, Duane Brautigam)

Thursday

8:30 am – 9:30 am	CCNA & Procurement pricing (Steve Carnell, Collier County/FAPPO)
10:00 am – 11:00 am	Utility Relocation/LAP (George Webb/Ramon Gavarrete moderators)
11:00 am – 11:30 am	Eric Poole with F.A.C.; legislative issues
11:30 am – 1:00 pm	FAC Luncheon or Lunch on your own
1:00 pm – 2:00 pm	Florida's Water Quality System and Standards and TMDL (Manson Law Group, Doug Manson & Laura Donaldson)
2:30 pm – 3:30 pm	Budget and the Effect on Your Department & Cost Efficiencies of Public vs. Private (George Webb, John Newton moderators, Harry Lorick LA consulting)
4:00 pm – 5:00 pm	Round Table Discussion
6:00 pm	FACERS SOCIAL

Friday

8:30 am – 11:00 am	Board of Directors & General Membership Meeting / Also a Discussion with Jerry Smith, President Elect of the Florida Emergency Preparedness Association (FEPA), and also a discussion with Paul Foley, Chairman of the Florida Institute of Consulting Engineers (FICE)

NOTE: **FACERS does not charge a registration fee for its activities, however attendance at any events/functions provided by FAC require that you are a registered participant.**

Florida Association of County Engineers and Road Superintendents

FACERS OFFICERS

Hector M. Bertran, PE
(Orange County)
President

Vice President
Fred Schneider
(Lake County)

Treasurer
John Newton
(Hillsborough County)

Secretary
Vacant

BOARD of DIRECTORS

John Goodknight, PE
(Marion County

R. Alan Holbach
(Charlotte County

Gene Calvert, PE
(Collier County)

Todd Buckles
(Volusia County)

Carolyn Steves
(RS&H)
Sustaining Member

PAST PRESIDENT

Danielle Slaterpryce, PE

STATE NACE DIRECTOR

Ramon D. Gavarrete, PE
(Highlands County)

NACE PRESIDENT

George T. Webb, PE
(Palm Beach County)

FACERS Board of Directors' Meeting
Omni Hotel & Resort
Amelia Island, Florida
November 19, 2010

Call to Order:	Hector Bertran
Secretary's Report:	Jonathan Page
Committee Reports:	
Membership	Fred Schneider
Scholarships	Bob Gordon
By Laws	Danielle Slaterpryce
NACE	George Webb
T Squared Updates	Janet Degner
Greenbook	Fred Schneider
Newsletter	Carloyn Steves/Brian Barnes
Legislative Issues	Ramon Gavarrete

Old Business:

- Pavement Preservation
- FDOT 334.03 Definitions
- LAP Work Group Update
- Pavement Preservation Committee Update
- FACERS Website
- Hosting NACE Conference Update

New Business:

- Video Presentations for the Annual Conference – Upgrade?
- Annual Conference Field Trip Ideas
- FACERS Blog Process
- Special Presentation by Bob Gordon

Adjournment

FACERS
October Bank Reconciliation
October 1, 2010 thru October 31, 2010

Starting Balance (October 1, 2010)

Checking Account	$ 24,198.38	
Investments as of October 31, 2010	$ 4,604.40	
Total		$ 28,802.78

Income (October 1, 2010 thru October 31, 2010)

Date	Check	Payee	Amount	
			$ -	
		Total Income For Period		$ -

Expense (October 1, 2010 thru October 31, 2010)

Date	Check #	Payee	Amount	
			$ -	
		Total Expenses for the Period	$ -	$ -

CURRENT BALANCE (October 31, 2010)

Checking Account Balance as of 10/31/2010	$ 24,198.38
Investment Account Balance as of 10/31/2010	$ 4,604.40
TOTAL as of 10/31/2010	**$ 28,802.78**

2010 LEGISLATIVE CONFERENCE

Amelia Island Plantation, Florida

General Membership Meeting

~~Round Table Discussion~~

(Course Name)

11/19/10 ~~11/18/2010~~

(Date)

Not for CEU Credit

(Presenter)

Start: 8:30AM ~~4:00 PM~~

Finish: 5:00 PM

Full Name / Email	Address	PE Number
Fred Schneider	Lake Co.	
Hector Bertran	Orange C	
John Newton	Hillsborough Co	
Jonathan Page	Nassau county	
John Goodknight	Marion County	
Janet Degner	Florida T² Center	
Brian Barnes	Charlotte County	
Ramon Gavarrete	Highlands County	
Jim Stevens Jr	Lake County	
Scott Herring	Nassau County	
Amy Blaida	Reynolds, Smith and Hills, Inc	
Judy Stone	Volusia County	
Maureen M. Klotz	Cumbey & Fair, INC.	
John Kilgore	American Consulting Engineers	
Paul Foley	Kisinger Campo & Assoc.	
George Webb	Palm Beach Co	
Bob Gordon		
Todd Buckles		

T2 CTT
Florida Transportation Technology Transfer Center

2110 NE Waldo Road
Gainesville, FL 32609
352.392.2371

LVR 2011

November 16, 2010

TO: Potential Exhibitors and Sponsors

SUBJECT: 10th International Conference on Low-Volume Roads

As the host for the **10th International Conference on Low-Volume Roads**, we would like to invite you to participate as an exhibitor or sponsor. The conference, held every four years, will be July 24 – 27, 2011, at the Hilton Walt Disney World, Lake Buena Vista, Florida, and will feature the latest information about low-volume road management, design, construction, safety, maintenance, innovative ways of managing low-volume road systems, plus many more related topics.

Conference attendees include practitioners who administer, plan, design, build, or maintain low-volume roads worldwide in local, state, and federal agencies; universities; private firms; and international organizations. Previous conferences have typically attracted 300 transportation professionals from all continents.

We look forward to working with you to make the 2011 conference a success. Please feel free to make copies of this invitation and distribute it to others who may be interested in exhibiting during the event or sponsoring a portion of the event. Exhibit fees and sponsor contributions will be used to offset conference expenses.

To reserve a tabletop exhibit space for your organization, please visit our website at *www.t2events.ce.ufl.edu/10lvr* (preferred) or fill out the enclosed exhibitor/sponsor form. Space will be assigned on a first-come, first-served basis.

To become a sponsor for the 10th International Conference on Low-Volume Roads, please visit our website at *www.t2events.ce.ufl.edu/10lvr* (preferred) or choose a level on the enclosed exhibitor/sponsor form. Sponsors will receive recognition as stipulated according to the level of sponsorship that is chosen.

Complete the attached exhibitor/sponsor form and return as directed along with acceptable payment using one of the payment method options listed on the form. Questions about exhibits or sponsorships should be directed to Michele Zambelli (mzambelli@ufl.edu) at 352.273.1687 or Nina Barker (nbarker@ufl.edu) at 352.273.1676.

Sincerely,

Janet D. Degner
Director, Florida T^2 Center

10th International Conference on Low-Volume Roads
July 24 – 27, 2011
Hilton Walt Disney World, Lake Buena Vista, Florida
Exhibitor/Sponsor Level of Participation Form

Please check all of the appropriate box(es) to reflect your desired level of participation:

☐**Exhibitor Tabletop Space $975USD:** Exhibitors may bring a tabletop display and will receive:

- one full registration to all conference activity and food functions
- listing in the exhibitor/sponsor handout provided to all attendees at registration
- one 6 ft X 30 in table
- table cover and two chairs
- free electrical hookup (exhibitor must supply their own power strip and extension cord, first-come, first-served availability)

Electricity? Yes No (circle one)

☐**Sponsor - Bronze Level $500USD:** Bronze sponsors support morning/afternoon refreshment breaks plus Tuesday's field trip transportation and will receive:

- recognition in the exhibitor/sponsor handout provided to all attendees at registration
- listing as a financial supporter on our 10th International Conference on Low-Volume Roads sponsor board to be prominently placed in the conference registration area

☐**Sponsor - Silver Level $1,000USD:** Silver sponsors help provide our welcome reception on Sunday to kick off the conference and the closing social hour on Wednesday evening and will receive:

- registration for one person for Sunday's welcome reception and Wednesday's social hour
- recognition at the welcome reception on Sunday and during the social hour on Wednesday
- recognition in the exhibitor/sponsor handout provided to all attendees at registration

☐**Sponsor - Gold Level $2,500USD:** Gold sponsors support the conference by helping to provide the luncheon on Monday and the field trip lunches on Tuesday and will receive:

- one full registration to all conference activity and food functions
- two additional tickets to the luncheon on Monday and the field trips on Tuesday
- recognition at the Monday luncheon and during each field trip on Tuesday
- recognition in the exhibitor/sponsor handout provided to all attendee at registration

☐**Sponsor - Platinum Level $5,000USD or greater:** Platinum sponsors help make possible the Wednesday evening banquet and will receive:

- two full registrations to all conference activity and food functions
- four additional tickets to the Wednesday evening banquet
- one free exhibit table space in the conference exhibit area
- recognition at the Wednesday evening banquet
- recognition in the exhibitor/sponsor handout provided to all attendees at registration

10th International Conference on Low-Volume Roads
July 24 – 27, 2011
Hilton Walt Disney World, Lake Buena Vista, Florida
Exhibitor/Sponsor Information Form

Name:_____

Title:_____

Corporation:_____

Address:_____

City:_____

State/Province:_____

Country:_____

Zip/Postal Code:_____

Phone:_____Fax:_____E-Mail:_____

Exhibitor Tabletop Space $975USD ___ **(number of spaces) X $975USD (each)** = $_____
Electricity? Yes No (circle one)
Sponsor - Bronze Level $500USD ___ **(number of sponsorships) X $500USD (each)** = $_____
Sponsor - Silver Level $1,000USD ___ **(number of sponsorships) X $1,000USD (each)** = $_____
Sponsor - Gold Level $2,500USD ___ **(number of sponsorships) X $2,500USD (each)** = $_____
Sponsor - Platinum Level $5,000USD___ **(number of sponsorships) X $5,000USD (each)** = $_____
Sponsor – Plat. Level Over $5,000USD___ **(number of sponsorships) X $_____ USD(each)** = $_____

Total Level of Participation $_____USD

Please check all of the appropriate boxes below:

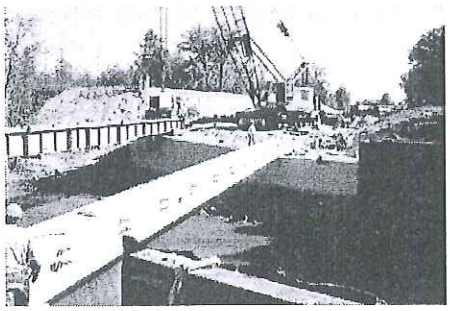
- ☐ Check enclosed (payable to University of Florida)
- ☐ Pay using Credit Card (Visa, Mastercard or American Express only, you will be contacted for payment)
- ☐ Send exhibitor/sponsor invoice to be paid

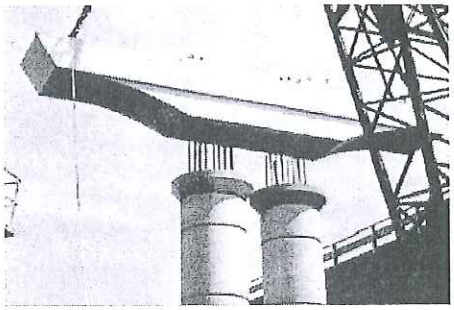
Send exhibitor/sponsor level of participation form and information form to:
Michele Zambelli
Florida Transportation Technology Transfer Center
2110 Waldo Road
Gainesville FL 32609

Federal Highway Administration

Every Day Counts

Innovation Initiative





Message from the Administrator

Our society and our industry face an unprecedented list of challenges. Because of our economy, we need to work more efficiently. The public wants greater accountability in how we spend their money. We need to find ways to make our roads safer. And we have an obligation to help preserve our planet for future generations.

But it's not enough to simply address those challenges. We need to do it with a new sense of urgency. It's that quality—urgency—that I've tried to capture in our initiative, Every Day Counts (EDC).

EDC is designed to identify and deploy innovation aimed at shortening project delivery, enhancing the safety of our roadways, and protecting the environment.

These goals are worth pursuing for their own sake. But in challenging times, it's imperative we pursue better, faster, and smarter ways of doing business.

EDC is designed to focus on a finite set of initiatives. Teams from the Federal Highway Administration will work with our state, local, and industry partners to deploy the initiatives and will develop performance measures to gauge their success.

The first round of initiatives described in the following pages represent what I hope will lead to a sea change in the way we deploy innovation. As you see represented in the EDC logo, our industry is shaped by invention, ingenuity, imagination, and innovation. These words are not new to the transportation community's lexicon. They've always been at the heart of our work.

But under Every Day Counts, I want to see us work together to bring more focus and commitment to those qualities, and to the rapid deployment of proven solutions and technologies that make a difference. The traveling public deserves no less.

Secretary LaHood has set the bar high at USDOT. He not only expects us to think innovatively, he understands the times demand it. Every Day Counts is FHWA's effort to provide National leadership in the quest to meet the transportation demands of the 21st Century.

Victor Mendez
FHWA Administrator

EDC Initiatives

We've organized EDC around three pillars. One is an internal effort to make FHWA a greener Agency and reduce our carbon footprint. The other two are directly related to our work as stewards of America's highway system:

Accelerating Technology and Innovation Deployment

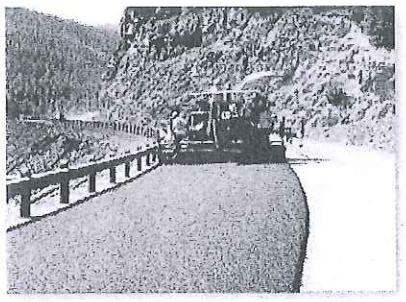
Every Day Counts is not about inventing the next "big thing." It's about taking effective, proven and market-ready technologies and getting them into widespread use. By advancing 21st century solutions, we can improve safety, reduce congestion and keep America moving and competitive.

Shortening Project Delivery

The sooner we can deliver projects, the sooner the public can enjoy their benefits. To deliver projects more quickly, FHWA will help the highway community make routine use of innovative practices. We've put together a toolkit that includes ideas for using flexibilities in the law and not duplicating efforts in the planning and environmental review process. We are also recommending that States make innovative contracting practices the standard way of doing business.

Accelerating Technology and Innovation Deployment

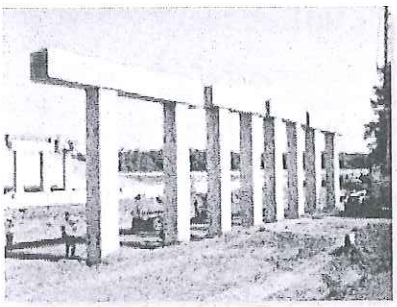
Warm Mix Asphalt



Warm-Mix Asphalt (WMA) is the generic term for a variety of technologies that allow asphalt to be produced and then placed on the road of at lower temperatures than the conventional hot-mix method. WMA production is at temperatures ranging from 30 to 120 degrees lower than hot mix. In most cases, the lower temperatures result in significant cost savings and reduced greenhouse gas emissions because less fuel is required. WMA also has the potential to extend the construction season, allowing projects to be delivered faster. By 2009, more than 40 States constructed WMA projects, with 14 adopting specifications to accommodate WMA.

Prefabricated Bridge Elements and Systems

With Prefabricated Bridge Elements and Systems (PBES), many time-consuming construction tasks no longer need to be done sequentially in work zones. An old bridge can be demolished while the new bridge elements are built at the same time off-site, then brought to the project location ready to erect. Because PBES are usually fabricated under controlled climate conditions, weather has less impact on the quality, safety, and duration of the project. The use of PBES also offers cost savings in both small and large projects. The ability to rapidly install PBES onsite can reduce the environmental impact of bridge construction in environmentally sensitive areas.



Adaptive Signal Control Technology

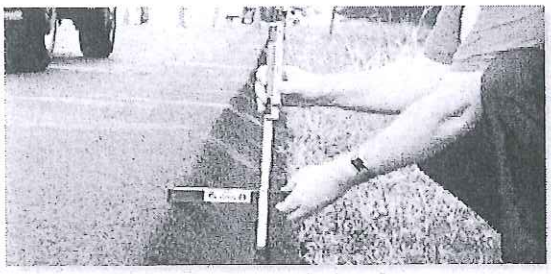
Poor traffic signal timing contributes to traffic congestion and delay. Conventional signal systems use pre-programmed, daily signal timing schedules. Adaptive signal control technology adjusts the timing of red, yellow and green lights to accommodate changing traffic patterns and ease traffic congestion. The main benefits of adaptive signal control technology over conventional signal systems are that it can:

- Continuously distribute green light time equitably for all traffic movements.
- Improve travel time reliability by progressively moving vehicles through green lights.
- Reduce congestion by creating smoother flow.
- Prolong the effectiveness of traffic signal timing.

Adaptive Control Software Lite (ACS-Lite) is an example of adaptive signal control technology. ACS-Lite was specifically designed to be deployed using conventional control equipment, communications, and traffic sensors on arterial streets, making it a cost-effective alternative to other signal timing adjustment technologies.

Safety Edge

The Safety Edge is a simple but extremely effective solution that can help save lives by allowing drivers who stray off highways to return to the road safely. Instead of a vertical drop-off, the Safety Edge shapes the edge of the pavement to 30 degrees. Research has shown this is the optimal angle to allow drivers to re-enter the roadway safely.



The asphalt Safety Edge provides a strong, durable transition even for vehicles that are particularly vulnerable, such as smaller, lighter cars. Even at higher speeds, vehicles can return to the paved road smoothly and easily. FHWA's goal is to accelerate the use of the Safety Edge technology, working with States to develop specifications and adopt this pavement edge treatment as a standard practice on all new and resurfacing pavement projects.

Geosynthetic Reinforced Soil

Instead of conventional bridge support technology, Geosynthetic Reinforced Soil (GRS) Integrated Bridge System (IBS) technology uses alternating layers of compacted granular fill material and fabric sheets of geotextile reinforcement to provide support for the bridge. GRS also provides a smooth transition from the bridge onto the roadway, and alleviates the "bump at the bridge" problem caused by uneven settlement between the bridge and approaching roadway. The technology offers unique advantages in the construction of small bridges, including:

- Reduced construction time and cost, with costs reduced 25 to 60 percent from conventional construction methods.
- Easy to build with common equipment and materials; easy to maintain because of fewer parts.
- Flexible design that's easily modified in the field for unforeseen site conditions, including unfavorable weather conditions.

Shortening Project Delivery Toolkit

It's a commonly held perception that it takes an average of 13 years to deliver a major highway project from planning through completion. This toolkit presents approaches for improving project delivery times by addressing what we've identified as a number of frequently cited problem areas. FHWA is prepared to play an active leadership role in helping the people who actually deliver projects—States, MPOs, contractors—understand and accept the new practices and new technologies.

The first three initiatives below attempt to eliminate time-consuming duplication of effort.

Planning and Environmental Linkages

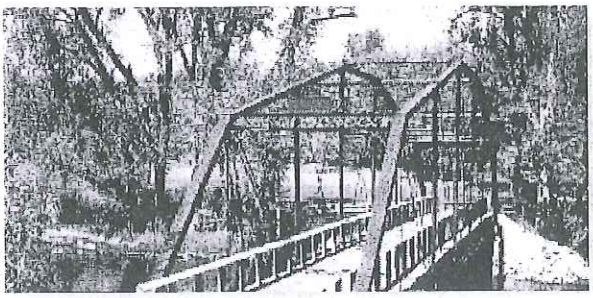
This initiative will set up a framework for considering and incorporating planning documents and decisions from the earliest stages of project planning into the environmental review process. It represents an approach to transportation decisionmaking that takes environmental, community, and economic information collected early in the planning stage and carries it through project development, design, and construction. This can lead to a seamless decisionmaking process that minimizes duplication of effort, promotes environmental stewardship, and reduces delays in project implementation.

Legal Sufficiency Enhancements

Decisions made early in planning and project development are often the root causes of problems identified later in the environmental review process when NEPA and Section 4(f) documents undergo legal scrutiny. Consultation with FHWA environmental attorneys at early decision points can help decision-makers avoid problems later, saving time and costs. This initiative will also identify the most common problems in document development, their root causes, and the measures preparers can take to avoid the problems.

Expanding Use of Programmatic Agreements

The continued and expanded use of programmatic agreements (PAs), where procedures have been standardized and agreed upon, has been very effective in saving time. When prior agreements exist for avoiding, minimizing, and mitigating impacts, projects are reviewed quicker and trust is developed that results in improved relationships between DOTs and regulatory agencies. The goal of this initiative is to identify and assist in the expansion of new and existing programmatic agreements to a regional or national level.



The next five initiatives encourage the use of existing regulatory flexibilities.

Use of In-Lieu Fee and Mitigation Banking

In projects that will impact waters of the United States (wetlands, for example), the permitting process under Section 404 of the Clean Water Act currently constitutes a major component of the project development and delivery process. This initiative proposes expanded use of in-lieu fees and mitigation banking currently allowed under existing statute, FHWA regulations, State law, and court decisions in order to save time and expedite project delivery.

Clarifying the Scope of Preliminary Design

This initiative will identify the amount of design work allowable under current law prior to NEPA completion regardless of contracting mechanism, and develop guidance to allow this work to be done consistently.

Flexibilities in Right of Way

The Right of Way (ROW) process is currently a major part of the project development process. Significant time savings can be achieved by employing flexibilities already provided for in statute and FHWA regulations. This initiative will underline opportunities for improved coordination of ROW activities with other key project development actions in preliminary design; land acquisition for utilities accommodation and relocation project activities; NEPA mitigation land needs; and a number of other areas where streamlined approaches may prove beneficial. The proposed initiative deals only with flexibilities allowed under existing regulations and statutes. Legislative changes required for additional flexibilities will need to be addressed separately.

Flexibilities in Utility Accommodation and Relocation

The often-conflicting priorities of State transportation agencies and utility companies can adversely affect the timely completion of transportation projects. Potential utility conflicts exist on most transportation projects. It is estimated that half of all highway and bridge projects eligible for Federal funding involve the relocation of utility facilities, and construction generally takes longer and costs more when utilities need to be relocated. The initiative will spotlight existing flexibilities currently in place under Federal law and regulations and describe techniques that foster effective utility coordination during project development which warrant more widespread use.

Enhanced Technical Assistance on Delayed EISs

This initiative will provide additional FHWA technical assistance to identify major challenges on ongoing Environmental Impact Statement projects and implement solutions to resolve project delays where feasible. Candidate projects would ideally be those where 60 months have elapsed since issuance of the Notice of Intent (NOI) without issuance of a Record of Decision (ROD). FHWA teams will focus on facilitating interagency coordination and collaboration to resolve outstanding issues and provide peer-to-peer activities, workshops, training, or specialized on-site assistance.

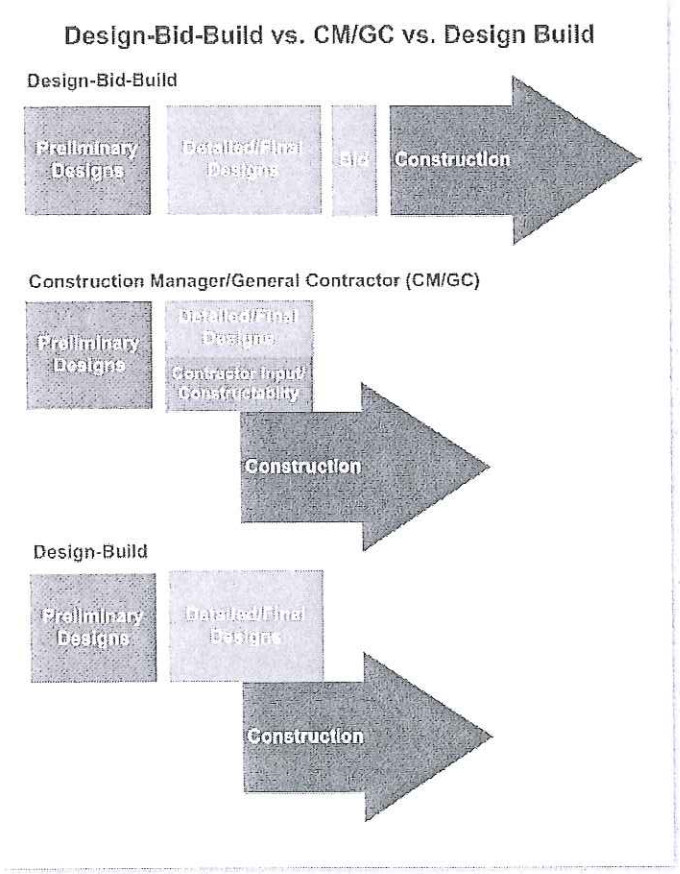
Accelerated Project Delivery Methods

The next two initiatives focus on the construction phase of a project.

Design Build

Traditionally, a project is designed, put out for bid to construction firms, then built by the winning bidder (design-bid-build). Design-Build (DB) is an alternate method of project delivery in which the design and construction phases are combined into one contract, eliminating the separate bid phase and allowing certain aspects of design and construction to take place at the same time. This can provide significant time savings compared with the design-bid-build approach, where the design and construction phases must take place in sequence.

With DB project delivery, the designer-builder assumes responsibility for the majority of the design work and all construction activities. This provides the designer-builder with increased flexibility to be innovative, along with greater responsibility and risk.



In addition to the time savings, a DB contract provides savings in cost and improvement in quality. Cost savings are realized by transferring many of the construction engineering and inspection costs from the contracting agency to the designer-builder. The arrangement also results in fewer change orders or claims for errors or delays. Finally, the ongoing involvement of the design team throughout the process puts a greater focus on quality control and assurance, and allows better coordination between the needs of the project and the contractor's capabilities.

Construction Manager/General Contractor

Construction Manager/General Contractor (CM/GC) occupies the middle ground between the traditional design-bid-build and design-build. In a typical CM/GC scenario, the owners of a project hire either a general contractor or design firm to serve as the construction manager, placing responsibility for design review, design modifications, system integration, and construction with that single contractor. CM/GC allows State DOTs to remain active in the design process while assigning risks to the parties most able to mitigate them. As with the design-build approach, there are potential time savings because of the ability to undertake a number of activities concurrently.

Additional benefits include:

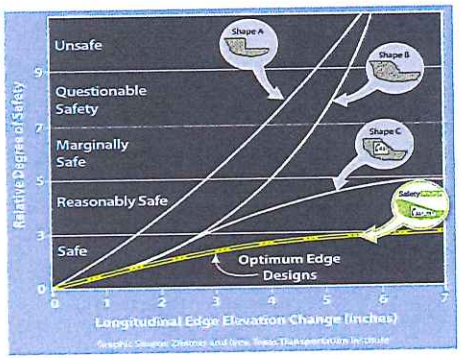
- Increased partnership and team building fosters an environment where innovation can be nurtured, be rewarded, and flourish.
- Owner has control over design details as a member of the design team.
- Potential for lower project costs, primarily due to risk identification and allocation during early project development.
- Enhanced cost certainty at an earlier point in design because of real time costing information inherent to CM/GC.
- Value engineering savings accrue to owner. The number of change orders, which are indicators of design quality, is also low.

U.S. Department of Transportation
Federal Highway Administration

FAQs

Why should I change my current process to include the Safety Edge?

The Safety Edge improves the short- and long-term safety of the roadway. Studies show that severe crashes may occur when a vehicle drops a tire over the edge of a nearly vertical pavement. The research shows that virtually all drivers can recover, even at high speeds, when the pavement edge is a 30-degree wedge. Using the Safety Edge also improves the durability of the pavement edge.

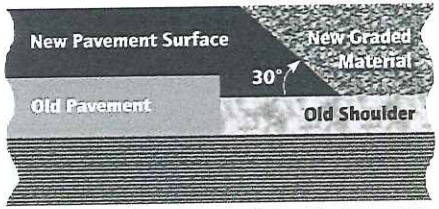


Do I need to modify my paving process to install the Safety Edge on asphalt?

Very few changes are needed. The key item is to add a specially designed shoe, per manufacturer's instructions, to the paver to create the Safety Edge. While paving, the shoe should be monitored and adjusted to keep the bottom edge of the device in contact with the road shoulder surface. Using the Safety Edge should not affect the rate of production.

How much will the addition of the Safety Edge cost per mile?

It will be almost negligible for hot-mix asphalt. It does depend somewhat on the specific design and construction parameters, but typically the process compacts asphalt that often otherwise would break off because it was loose. When measured, it has been calculated to be less than 1 percent additional asphaltic material.



This diagram shows how the Safety Edge is created during a repaving project. As the new graded material begins to settle or erode, the angled and more durable Safety Edge prevents a vertical edge from forming, making the pavement edge safer for drivers and cyclists.

Contact Information

For training or more information on this Every Day Counts Initiative, please contact your local FHWA Division Office.

To learn more about EDC, visit:
http://www.fhwa.dot.gov/everydaycounts

About Every Day Counts

Every Day Counts is designed to identify and deploy innovation aimed at shortening project delivery, enhancing the safety of our roadways, and protecting the environment.

Publication Number: FHWA-SA-10-034

The Safety Edge

A Pavement Edge Drop-Off Treatment

U.S. Department of Transportation
Federal Highway Administration

SafetyEDGE
Your Angle for Reducing Roadway Departure Crashes

What is the Safety Edge?

The Safety Edge is a simple but effective solution that can help save lives by allowing drivers who drift off highways to return to the road safely. Instead of a vertical drop-off, the Safety Edge shapes the edge of the pavement to 30 degrees. Research has shown this is the optimal angle to allow drivers to re-enter the roadway safely. The asphalt Safety Edge provides a strong, durable transition for all vehicles. Even at higher speeds, vehicles can return to the paved road smoothly and easily. The FHWA's goal is to accelerate the use of the Safety Edge technology, working with States to develop specifications and adopt this pavement edge treatment as a standard practice on all new paving and resurfacing projects.

The Safety Edge is shown here in the main photo during construction. Upon project completion, the adjacent unpaved material should be graded flush with the top of the pavement (inset photo). The Safety Edge creates a more durable pavement edge and makes recovery from any future drop-off much easier and safer.

How Does It Work?

Drivers leave the paved road for many reasons. When steering the tires back onto the pavement, a vertical edge can make it difficult for a driver to safely re-enter the travel lane. Drivers may over-steer and lose control of the vehicle, leading to severe crashes. The challenge is that a drop-off is created during most paving projects. Even when the unpaved shoulder is regraded to eliminate the drop-off, the edge often becomes exposed within a few months. The edge also may deteriorate.

The Safety Edge is an effective solution to reduce pavement edge-related crashes, by shaping the edge of the pavement to 30 degrees using a commercially available device (called a shoe) that can be attached to the paver. The asphalt is extruded under the shoe, resulting in a durable edge that resists edge raveling. Research has shown this 30-degree shape allows drivers to re-enter the roadway safely.

After paving with the Safety Edge, the adjacent material should be regraded flush with the top of the pavement. This is considered the best practice, and provides the safest pavement edge. The difference is that when the edge becomes exposed, this shape can be more safely traversed than a vertical edge.

The shoe that creates the Safety Edge is a special edging device that asphalt paving contractors can install on new or existing resurfacing equipment.

Quick Facts

Sharp, steep pavement edge drop-offs can contribute to crashes.

- The Safety Edge can help decrease highway fatalities and serious injuries on our Nation's highways.
- Because the Safety Edge provides an additional level of consolidation on the edge, edge raveling is decreased. This contributes to longer pavement life.
- The Safety Edge involves minimal time and cost to implement. Typically, less than 1 percent additional asphalt is needed. The Safety Edge shoe, which creates the edge, can be installed on existing equipment.
- The Safety Edge also can be installed on Portland Cement concrete pavements. (Several differences should be considered. For more information, visit the Safety Edge Web site for details.)
- Best practice is to maintain a flush edge, so that no drop-off exists. The Safety Edge reduces the risk of drop-offs when maintenance forces cannot keep up with erosion or tire wear.
- Vertical and near vertical pavement edge drop-offs have been a factor in a substantial percentage of severe crashes in which vehicles leave the road, particularly on rural roads with unpaved shoulders. The Safety Edge reduces this problem, providing a safer transition back to the road.
- The Safety Edge is a safer design for motorcyclists and bicyclists, as well as motorists.

Case Study: Iowa Adopts Safety Edge Policy

Safety Edge treatment being applied during an asphalt overlay.

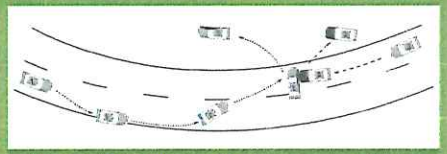
The Iowa FHWA Division and the Iowa Department of Transportation (IDOT) recently began working with counties to install the Safety Edge on projects with a history of roadway departure crashes. The Safety Edge was included at the county level on project plans or incorporated as change orders on already-let projects. During one of these county projects, the contractor's safety officer felt positive about the results because the Safety Edge potentially reduced the contractor's liability by providing immediate elimination of the vertical drop-off.

After seeing how easily even large vehicles could traverse the pavement edge without loss of control or damaging the edge, the county decided its typical practice of bringing in a gravel wedge before nightfall was not necessary when the Safety Edge was present. The results were so positive that IDOT decided to use the Safety Edge on one of its State paving projects on a narrow road. Since then, IDOT has decided to adopt the Safety Edge as standard practice across the entire State.

Pavement Edge Drop-Offs Can Contribute to Crashes

Roadway departures account for 53 percent of fatal crashes. State-level studies point to the life-saving potential of the Safety Edge. For example, researchers studying crashes in Missouri during 2002-2004 reported that pavement edges may have been a contributing factor in as many as 24 percent of rural run-off-road crashes on paved roadways with unpaved shoulders. This type of crash was twice as likely to include a fatality than rural crashes overall on similar roads.[1]

When a driver drifts off the roadway and tries to steer back onto the pavement, a vertical pavement edge can create a "tire scrubbing" condition that may result in over-steering. If drivers over-steer to return to the roadway without reducing speed, they are prone to lose control of the vehicle. The resulting crashes tend to be more severe than other crash types. The vehicle may veer into the adjacent lane, where it may collide with oncoming cars; overturn; or run off the opposite side of the roadway and strike a fixed object or overturn on a slope.



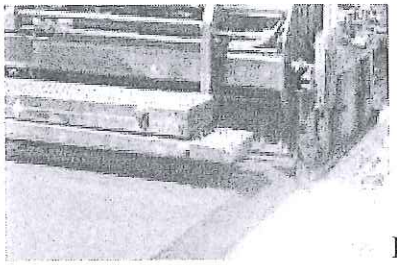
This is a typical diagram for a crash caused by tire scrubbing. The vehicle at left scrubbed the edge of the pavement, and when it returned, the driver overcorrected, lost control, crossed into the adjacent lane, and struck an oncoming vehicle.
(Graphic source: AAA Foundation for Highway Safety)

Inexperienced drivers are not the only victims of tire scrubbing. Smaller, lighter vehicles have a harder time climbing a steep pavement edge. At high speeds, the climb is particularly dangerous. According to in-service evaluations, a vertical or near vertical drop-off of 2.5 inches or greater has been shown to pose a significant risk, while pavements built with the Safety Edge showed reductions of more than 5 percent of total crashes.

[1] Hallmark et. al: Safety Impacts of Pavement Edge Drop-Offs, AAA Foundation for Highway Safety, Washington, DC, September 2006.

The Safety Edge

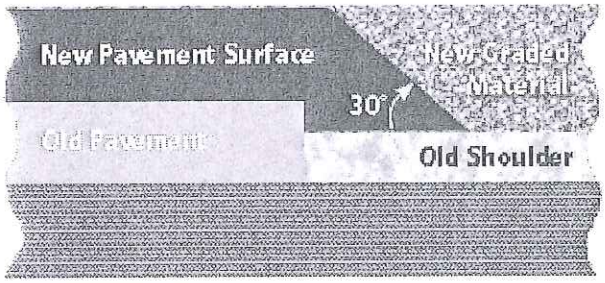
The asphalt paving technique called the Safety Edge is gaining momentum across the country as State transportation departments strive to protect motorists from run-off-the-road crashes. The Federal Highway Administration recommends that States use the safety edge technique—particularly on two-lane roads with unpaved shoulders.



During the normal paving process, pavement edges are formed vertical or near vertical. The recommended practice of bringing the adjacent graded material (unpaved shoulder or stabilized soil) flush with the top of the pavement only lasts for a short time and requires frequent maintenance. The exposed vertical edge can contribute to drivers losing control of the vehicle when attempting to recover from a roadway departure.

While data documenting the role of pavement edges at the national level remain elusive, studies in several States point to the life-saving potential of safer edges. For example, researchers studying crashes in Missouri during 2002-2004 reported that pavement edges may have been a contributing factor in as many as 25 percent of rural run-off-road crashes on paved roadways with unpaved shoulders. This type of crash was twice as likely to include a fatality as rural crashes overall on similar roads.

Recent updated research has shown that almost all drivers and vehicles can recover if the edge is tapered to 30 degrees from the horizontal. This durable taper, the Safety Edge, is easy to include in the paving process, provides a safer roadway edge, and a stronger interface between the pavement and the graded material. The additional cost of the asphalt edge is minimal when included as part of resurfacing projects. Benefits include the avoided economic and social impacts of fatalities, injuries, and property damage.



Pavement Edge Drop-Offs

- The Safety Edge: Pavement Edge Treatment, FHWA-SA-10-034
  This tri-fold brochure from the FHWA's Office of Safety describes the hazards of unsafe pavement edge drop-offs, and describes how properly designed pavement edges can save lives, reduce tort liability, reduce maintenance expense, and cost less than 1 percent of a pavement resurfacing budget. FHWA recommends a 30° – 35° angle "Safety Edge" that interfaces with the adjacent unpaved surface.
- **Consideration and Implementation of Proven Safety Countermeasures: Safety Edge**
  In July 2008, the FHWA issued a guidance memorandum that highlighted nine proven safety countermeasures, and when and where they should be used. The Safety Edge was among the recommended countermeasures. Click here to read the cover memo and the specific guidance dealing with the Safety Edge.
- **Evaluation of the Safety Edge**
  This multi-year Transportation Pooled Fund Program study TPF-5(097), launched in 2004, is evaluating the effectiveness of safety edges in reducing crash frequency and severity. Study partners include California, Colorado, Georgia, Indiana, Mississippi, North Carolina, New York, and Utah.
- **Safety Impacts of Pavement Edge Drop-offs** [PDF 2.69 MB]
  This 2006 research report focuses on quantification of the contribution of pavement edge drop-offs to crash frequency and severity, particularly on rural two-lane paved roadways with unpaved shoulders. Research was conducted in Iowa and Missouri. The report also contains a useful summary of national, State, and (Canadian) Provincial guidance regarding pavement edge drop-offs. Research panel recommendations for addressing pavement edge drop-offs are included.
- **Construction of a Safe Pavement Edge: Minimizing the Effects of Shoulder Dropoff** [PDF 132 KB] NEW!
  This paper presented at the TRB 2005 Annual Meeting describes the construction solution developed in Georgia using two different devices to pave a safe edge with no impact to production and less than one percent additional materials costs. It includes the field evaluations showing the value as both a temporary and permanent safety feature.
- Influence of Roadway Surface Discontinuities on Safety, State of the Art Report
  The "Pavement Edges" section of this 2009 report provides an update to research published in the 1980's on the effects of the shape of pavement edges on safety, including new tests performed at higher speeds, with the newer 30-degree shape, and with new tire designs.

T2 CTT

Florida Transportation Technology Transfer Center

Upcoming Courses – Through June 2011

Advanced Maintenance of Traffic

Location	Start Date	End Date
Orlando	11/17/2010	11/19/2010
Pompano Beach	12/8/2010	12/10/2010
Cantonment	1/11/2011	1/13/2011
Tallahassee	1/18/2011	1/20/2011
Pompano Beach	2/2/2011	2/4/2011
Gainesville	2/9/2011	2/11/2011
Orlando	2/16/2011	2/18/2011
Tallahassee	3/9/2011	3/11/2011
Port Charlotte	4/6/2011	4/8/2011
Gainesville	4/13/2011	4/15/2011
Pompano Beach	4/20/2011	4/22/2011
Orlando	5/11/2011	5/13/2011
Pompano Beach	6/8/2011	6/10/2011
Gainesville	6/15/2011	6/17/2011
Tallahassee	6/21/2011	6/23/2011

Intermediate Maintenance of Traffic - Refresher

Location	Start Date	End Date
Saint Petersburg	11/16/2010	11/16/2010
Gainesville	1/18/2011	1/18/2011
Naples	1/25/2011	1/25/2011
Orlando	1/25/2011	1/25/2011
Cape Coral	2/22/2011	2/22/2011
Port Charlotte	2/22/2011	2/22/2011
Gainesville	3/15/2011	3/15/2011
Orlando	3/15/2011	3/15/2011
Naples	4/5/2011	4/5/2011
Port Charlotte	4/19/2011	4/19/2011
Cape Coral	5/17/2011	5/17/2011
Gainesville	5/17/2011	5/17/2011
Orlando	5/17/2011	5/17/2011

Asphalt Combo - Inspection and Maintenance

Location	Start Date	End Date
Gainesville	2/16/2011	2/16/2011
Pompano Beach	5/25/2011	5/25/2011

Asphalt Plant Level 1 - REDUCED FEE!

Location	Start Date	End Date
Gainesville	11/16/2010	11/18/2010

Advanced Maintenance of Traffic - Refresher

Location	Start Date	End Date
Orlando	11/16/2010	11/16/2010
Pompano Beach	12/7/2010	12/7/2010
Cantonment	1/10/2011	1/10/2011
Tallahassee	1/17/2011	1/17/2011
Pompano Beach	2/1/2011	2/1/2011
Gainesville	2/8/2011	2/8/2011
Orlando	2/15/2011	2/15/2011
Tallahassee	3/8/2011	3/8/2011
Port Charlotte	4/5/2011	4/5/2011
Gainesville	4/12/2011	4/12/2011
Pompano Beach	4/19/2011	4/19/2011
Orlando	5/10/2011	5/10/2011
Pompano Beach	6/7/2011	6/7/2011
Gainesville	6/14/2011	6/14/2011
Tallahassee	6/20/2011	6/20/2011

Asphalt Plant Level 2 - REDUCED FEE!

Location	Start Date	End Date
Gainesville	1/25/2011	1/27/2011
Orlando	3/15/2011	3/17/2011

Asphalt Paving Level 1

Location	Start Date	End Date
Davie	11/30/2010	11/30/2010
Lakeland	1/11/2011	1/11/2011
Miami	1/18/2011	1/18/2011
Jackonsville	2/8/2011	2/8/2011
Chipley	2/22/2011	2/22/2011
Orlando	3/1/2011	3/1/2011
Davie	4/12/2011	4/12/2011
Fort Myers	5/23/2011	5/23/2011

Asphalt Paving Level 2 - REDUCED FEE!

Location	Start Date	End Date
Davie	12/1/2010	12/3/2010
Lakeland	1/12/2011	1/14/2011
Miami	1/19/2011	1/21/2011
Jackonsville	2/9/2011	2/11/2011
Chipley	2/23/2011	2/25/2011
Orlando	3/2/2011	3/4/2011
Davie	4/13/2011	4/15/2011
Fort Myers	5/24/2011	5/26/2011

Intermediate Maintenance of Traffic

Location	Start Date	End Date
Saint Petersburg	11/17/2010	11/18/2010
Gainesville	1/19/2011	1/20/2011
Naples	1/26/2011	1/27/2011
Orlando	1/26/2011	1/27/2011
Cape Coral	2/23/2011	2/24/2011
Port Charlotte	2/23/2011	2/24/2011
Gainesville	3/16/2011	3/17/2011
Orlando	3/16/2011	3/17/2011
Naples	4/6/2011	4/7/2011
Port Charlotte	4/20/2011	4/21/2011
Cape Coral	5/18/2011	5/19/2011
Gainesville	5/18/2011	5/19/2011
Orlando	5/18/2011	5/19/2011

Bridge Maintenance

Location	Start Date	End Date
Tallahassee	4/18/2011	4/22/2011

Bucket Truck Safety/Hands-on

Location	Start Date	End Date
Gainesville	3/10/2011	3/10/2011
Naples	5/25/2011	5/25/2011
Pompano Beach	11/9/2011	11/9/2011

Chainsaw Safety in Disaster Recovery

Location	Start Date	End Date
Pompano Beach	6/15/2011	6/15/2011
Port Charlotte	7/20/2011	7/20/2011

Concrete Batch Plant Operator

Location	Start Date	End Date
Pompano Beach	1/18/2011	1/18/2011
Orlando	2/22/2011	2/22/2011

Chainsaw Safety/Hands-on

Location	Start Date	End Date
Gainesville	6/8/2011	6/8/2011

Drilled Shaft Inspection - REDUCED FEE!

Location	Start Date	End Date
Gainesville	12/7/2010	12/9/2010
Chipley	1/4/2011	1/6/2011
Ocoee	3/14/2011	3/16/2011
Sarasota	5/16/2011	5/18/2011

Earthwork Construction Inspection Level 1

Location	Start Date	End Date
Pompano Beach	1/4/2011	1/5/2011
Jackonsville	3/8/2011	3/9/2011
West Palm Beach	4/18/2011	4/19/2011
West Palm Beach	6/7/2011	6/8/2011

Earthwork Construction Inspection Level 2 – REDUCED!

Location	Start Date	End Date
Pompano Beach	1/6/2011	1/7/2011
Jackonsville	3/10/2011	3/11/2011
West Palm Beach	4/20/2011	4/21/2011
Orlando	6/9/2011	6/10/2011

FDOT Concrete Field Inspector Specification – REDUCED!

Location	Start Date	End Date
Lakeland	11/16/2010	11/17/2010
Tampa	1/3/2011	1/5/2011
Pompano Beach	1/19/2011	1/21/2011
Chipley	2/2/2011	2/4/2011
Orlando	2/23/2011	2/25/2011
Miami	3/21/2011	3/23/2011
Tampa	3/22/2011	3/24/2011
Jackonsville	5/9/2011	5/11/2011
Davie	6/20/2011	6/21/2011

Final Estimates Level 1

Location	Start Date	End Date
Lakeland	1/10/2011	1/10/2011
West Palm Beach	3/9/2011	3/9/2011
Lakeland	3/14/2011	3/14/2011
Gainesville	4/12/2012	4/12/2011

Final Estimates Level 2

Location	Start Date	End Date
DeLand	11/17/2010	11/18/2010
Ponce de Leon	2/2/2011	2/3/2011
West Palm Beach	3/10/2011	3/11/2011
Lakeland	3/15/2011	3/16/2011
Gainesville	4/13/2011	4/14/2011

Florida Greenbook

Location	Start Date	End Date
Tallahassee	1/27/2011	1/28/2011
Gainesville	2/9/2011	2/10/2011

Forklift-Powered Industrial Truck - Safety/Hands-on

Location	Start Date	End Date
Gainesville	3/11/2011	3/11/2011
Pompano Beach	7/13/2011	7/13/2011

Front-end Loader Safety/Hands-on

Location	Start Date	End Date
Gainesville	4/26/2011	4/26/2011

Inspecting Municipal Properties

Location	Start Date	End Date
Naples	8/24/2011	8/24/2011

Integrating Pavement Preservation Practices and Pavement Management

Location	Start Date	End Date
Gainesville	5/24/2011	5/24/2011

Limerock Bearing Ratio (LBR) Technician - REDUCED FEE!

Location	Start Date	End Date
Gainesville	2/17/2011	2/18/2011
Gainesville	6/23/2011	6/24/2011

Mobile Equipment and Internal Work Zone Safety

Location	Start Date	End Date
Pompano Beach	1/25/2011	1/25/2011
Port Charlotte	11/30/2011	11/30/2011

Pile Driving Inspection

Location	Start Date	End Date
Chipley	1/31/2011	2/2/2011
Orlando	4/4/2011	4/6/2011
Gainesville	6/6/2011	6/8/2011

Safe Mobility for Life: Planning and Designing for our Aging Population

Location	Start Date	End Date
Cape Coral	11/18/2010	11/18/2010
Cape Coral	11/18/2010	11/18/2010
Ocoee	1/13/2011	1/13/2011
Ocoee	1/13/2011	1/13/2011

Pilot/Escort Flagging

Location	Start Date	End Date
Fort Myers	11/16/2010	11/16/2010
Gainesville	12/9/2010	12/9/2010
Orlando	1/12/2011	1/12/2011
Gainesville	2/8/2011	2/8/2011
Fort Myers	2/16/2011	2/16/2011
Tallahassee	3/5/2011	3/5/2011
Orlando	3/8/2011	3/8/2011
Gainesville	5/10/2011	5/10/2011
Fort Myers	5/17/2011	5/17/2011
Tallahassee	6/4/2011	6/4/2011
Orlando	6/21/2011	6/21/2011

Pilot/Escort Flagging Refresher

Location	Start Date	End Date
Gainesville	12/14/2010	12/14/2010

Plans Reading Fundamentals

Location	Start Date	End Date
Naples	3/9/2011	3/9/2011
Naples	3/16/2011	3/16/2011
Pompano Beach	9/14/2011	9/14/2011

Qualified Aggregate Sampler

Location	Start Date	End Date
Gainesville	2/15/2011	2/15/2011
Fort Myers	2/28/2011	2/28/2011
Davie	6/22/2011	6/22/2011

Quality Control Manager - REDUCED FEE!

Location	Start Date	End Date
Lakeland	11/18/2010	11/19/2010
Tampa	1/6/2011	1/7/2011
Miami	3/24/2011	3/25/2011
Jackonsville	5/12/2011	5/13/2011

Roadside Maintenance Safety

Location	Start Date	End Date
Pompano Beach	2/23/2011	2/23/2011