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FLORIDA DEPARTMENT OF TRANSPORTATION'S TRAFFIC ENGINEERING AND OPERATIONS NEWSLETTER

Editorial Corner: TSM&O Program Update

By Fred Heery, Sr., P.E., State TSM&O Program Engineer

The Transportation Systems Management & Operations (TSM&O) section of the State Traffic Engineering and Operations Office (STEO) was active on several fronts. Major activities include updating the TSM&O Strategic Plan, conceptualizing a signal phasing and timing (SPaT) project for potential deployment, assisting ITS America with a national University Training Centers workshop on work force development, serving on a national Connected Vehicle (CV) Pooled Fund effort, American Association of State Highway and Transportation Officials (AASHTO) Subcommittee on TSM&O, and participation in joint meeting with Vehicle to Infrastructure Deployment Coalition (V2I-DC). The TSM&O program is continually enhancing its Statewide TSM&O Excellence Program (STEP) with a focus on training development, developing Routes of Significance framework, preparing outlines for guidance on Ramp Metering, Hard Shoulder Running, and Integrated Corridor Management.

The ongoing TSM&O program delivery includes a combination of bottom-up and top-down approaches. The program is continually enhanced, mainly due to the support of the District Traffic Operations offices and coordination with the offices of Planning, Project Development and Environment (PD&E), Design, Construction, Operations, Maintenance and Work Program. Added to this is the guidance and direction offered by the Department's leadership, management, the TSM&O Leadership and Task Teams, the ITS Working Groups, the State Arterial Management Program (STAMP), the SunGuide® Users Group, the Traffic Engineering Research Laboratory (TERL) and the ITS Communications program.

TSM&O section is providing support to the Traffic Services section to help update the Speed Zoning Manual, revise Traffic Regulation Policy, draft Traffic Services Strategic Plan, and develop Intersection Condition Evaluation manual.

The TSM&O program continues to fulfill the Department's vision and provide a safe, efficient, and exceptional network for all roadway users.

For information, please contact Fred Heery at Fred.Heery@dot.state.fl.us or (850) 410-5600.

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District Four Traffic Incident Management Team holds Express Lanes Training for Road Rangers

By Natalie Cortes, Marketing/Public Outreach Coordinator SMART SunGuide RTMC



With motorists now using Phase 2 of the I-95 Express Lanes in Broward County free of charge (until tolling officially begins) the District Four Traffic Incident Management (TIM) Team coordinated a specialized training workshop to prepare Road Rangers on how to

effectively manage incidents in the Express Lanes. The training workshop was held on July 8th at the District Four Regional Transportation Management Center (RTMC) where more than 30 Road Rangers and 10 RTMC operators attended.

The TIM Team alongside FDOT District Four's Freeway Operations Manager, created a training manual similar to that of District Six's Express Lanes Training. The team covered possible scenarios in which Road Rangers would need to assist in incident management.

Tallahassee Regional Traffic Management Center Wins Prestigious Engineering Excellence Grand Award from the Florida Institute of Consulting Engineers

By Lee J. Smith, P.E., District ITS Program Manager/Assistant District Traffic Operations Engineer

Representatives from the City of Tallahassee, Florida Department of Transportation (FDOT), District Three, and program manager Kimley-Horn accepted a 2016 Engineering Excellence Grand Award from the Florida Institute of Consulting Engineers on August 5 at the Institute's annual meeting in Ponte Vedra Beach for the design and startup of the Tallahassee Regional Transportation Management Center (RTMC).



Pictured from left to right: Peter M. Moore, P.E. LEED AP, Incoming FICE President (2017-2018); Wayne Bryan, City of Tallahassee; Jill Capelli, P.E., Kimley-Horn; Lee Smith, P.E., FDOT D3; J. Scott Gombar, P.E., 2017 FICE President

Scenarios included:

- Rollover crashes
- Disabled buses and vehicles
- Abandoned vehicles
- Blocked travel lanes
- Vehicle relocations
- Blocked ingress and egress points
- Re-direction of traffic into the general use lanes



Training was also given on the new procedure notifications involving Express Lanes closures.

The training was completed in efforts to improve incident management on I-95 Express Lanes due to the complex nature of the area. According to Severe Incident Response Vehicle Supervisor Tom Dickson, with shoulders as small as 2 feet on the I-95 Express Lanes in Broward County, "It is vital that we properly train Road Rangers and all incident responders on how to safely manage incidents in these areas."

In the future, a similar training will be administered to Florida Highway Patrol troopers. A large focus of this future training will cover "lane diving" enforcement on the Express Lanes.

For more information on Express Lanes Training, please contact Mrs. Nicole Forest at 954-847-2631 or email to <u>Nicole.Forest@dot.state.fl.us</u>.

Long before the phrase *smart city* became a buzzword, the leaders of Tallahassee and Leon County, Florida committed themselves to making the state's capital region its first. Their vision culminated in creation of the RTMC, a model of local government traffic operations departments mutually benefiting from the integration of their respective systems. And because the RTMC also serves as home to the Florida Department of Transportation SunGuide® Freeway Management System (FMS), the RTMC represents a distinct example of high-level collaboration among three levels of government – city, county, and state.

Key traffic management and public safety response functions requiring realtime situational awareness and command/control capabilities were brought under one roof to enhance



cooperation and integrate functions. The co-location of the City of Tallahassee's Advanced Traffic Management System, which controls 350 traffic signals with the state's SunGuide® FMS successfully leveraged the construction of the new, joint-use, Leon County/City of Tallahassee Public Safety Complex (PSC) to allow for dramatic facility improvements and cost savings. The centerpiece of the facility is a





two-level video-wall that can be viewed by all agencies in the Public Safety Complex. This easily customized display brings together real-time CCTV images from 126 traffic cameras to monitor traffic along I-10 and local roadways throughout the region.

The RTMC project is a testament to professional engineers supporting a partnership among Kimley-Horn and multiple agencies. The RMTC

FDOT District Six Attends Integrated Corridor Management Conference

By Javier Rodriguez, P.E., TSM&O Program Engineer



The Florida Department of Transportation (FDOT) District Six Transportation Systems Management and Operations (TSM&O) office attended an Integrated Corridor Management (ICM) Concept of Operations Study Scenario Planning Workshop on

August 2-3 in the New York/New Jersey area.

The two-day conference highlighted ICM principles, which combines two fundamental concepts: active management and integration. Active management involves monitoring and assessing the performance of a system while at the same time implementing actions and services in response to demand. Integration requires actively managing these services in a unified way to benefit the corridor as a whole.

The workshop provided local stakeholders with an opportunity to collaborate with transportation management professionals from all

was not only completed on schedule and under budget, it has greatly improved the ability to monitor and manage the region's traffic. It is also a critical tool in the safety of the community through improved customer information together with enhanced, timely, and contextspecific incident response.

over the country, including representatives from Districts Six and Four. Attendees were given several local traffic scenarios to discuss and provide potential ICM solutions. This approach helped area officials better assess their issues while considering input from other agencies. The workshop scenarios ranged from transit and train corridors to heavily traveled roadways at peak times with specific lane closures.

The experience was beneficial for FDOT attendees as well. FDOT staff was able to contribute lessons learned from some of South Florida's most complex transportation solutions while learning about more robust public transportation systems found in New York and New Jersey.

Industry workshops are a great way for transportation professionals from around the country to collaborate on solving critical problems and bringing back a wealth of knowledge to their respective regions. District Six remains committed to participating in these events to keep up-to-date with new traffic management strategies that may benefit our community.

For more information contact Javier Rodriguez at Javier.Rodriguez2@dot.state.fl.us

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Florida's Guide for Aging Drivers – 2016-2018 Edition

By Gail M. Holley, Safe Mobility for Life Program Manager



The latest revision to the Safe Mobility for Life Coalition's (SMFLC) very popular Florida's Guide for Aging Drivers is now available!

Florida's Guide for Aging Drivers complements the Florida Department of Transportation's (FDOT) website (<u>www.FLsams.org</u>) and continues to provide helpful information to meet the safety and mobility needs of Florida's aging road users. Users of the guide are able

to understand the impact that aging has on safe driving skills, learn how to stay proactive about their driving, and plan for a safe transition from driving in an easy to read format.

This year's revision also provided us the opportunity to help educate on other FDOT programs and safety efforts. We have added more pictures and safety tips for drivers, pedestrians, bicyclists, motorcyclists, and golf

cart drivers. In addition we have updated local contact information and added new information on:

- Move Over Law
- White Cane Law
- Florida 511
- Vehicle Safety Tips to Starting a Conversation about Safe Driving Concerns

Florida's Guide for Aging Drivers is just one of many safety and mobility resources that has been developed by the SMFLC as we work together to reduce crashes for Florida's aging road users by improving their safety, access, and mobility.

If you are interested in receiving a free copy, please contact:

FSU Pepper Institute on Aging and Public Policy Safe Mobility for Life Resource Center Post Office Box 3061121 Tallahassee, FL 32306 Email: <u>safe-mobility-for-life@fsu.edu</u> Phone: 850-644-8145





Osceola County Connected Vehicle Deployment

By Clay P. Packard, P.E., ITS Software Manager, ITS/Traffic

Osceola County, Florida pushes connected vehicle (CV) technology forward by deploying connected vehicle roadside units at two signalized intersections. The deployment was sponsored by the Federal Highway Administration (FHWA) as a pilot project to test deployment of Dedicated Short Range Communications (DSRC) equipment and intersection processing equipment to gain experience and lessons learned in the deployment of CV infrastructure and applications.



The roadside units (RSU) were deployed at the intersections of Osceola Pkwy and Orange Blossom Trail (OBT), and Orange Blossom Trail and Poinciana. The Poinciana intersection had a mast arm, while the OBT intersection had a span

wire. This arrangement allowed the Atkins team to deploy connected vehicle equipment across to both types of intersection arrangements.

To make this happen, multiple partners worked together. FHWA sponsored the project to deploy its new data processing equipment and document the process. FHWA configured the RSUs to have the signal phase and timing application running on them. FHWA developed a field computer companion to the RSU to provide additional processing power from within the signal cabinet, and configured that to work with the system. Atkins translated the desired outcomes from FHWA to a tactical local approach and worked with District 5, Osceola County and Florida Department of Transportation (FDOT) Central Office to execute a deployment.

FDOT Central Office evaluated and permitted the roadside equipment at the Traffic Engineering Research Laboratory (TERL). During the permitting process, TERL staff planned to deploy the same DSRC hardware at their lab days prior to the installation at Osceola County. FDOT Central Office facilitated the required FCC license. FDOT Central Office has already obtained a statewide license for roadside equipment and coordinated the site specific permit for the deployments. FDOT Central Office will learn more about the deployment of these DSRC based equipment through this project as they prepare to move forward with executing Florida's connected vehicle program.

FDOT District 5 (D5) kicked off the coordination with Osceola County. Osceola County is the maintaining agency for the roads and traffic signals on these state roads. After the team chose the intersections, D5 and Osceola County worked together to bridge their roadside fiber optic networks in order to have the roadside

units communicate back to the D5 Regional Traffic Management Center (RTMC). The RTMC hosts the SunGuide software, where data from the RSUs will be collected and from where messages to the driver will be generated. D5 and Osceola completed the network connection successfully the week before the deployment. D5 also configured the SunGuide software to communicate with the RSUs with Central Office's SunGuide Software Support contractor.



D5 provided a team from Transcore with bucket trucks to physically install the roadside unit equipment on the mast arm and the span wire. Transcore also ran the power over Ethernet cable to it. Two bucket trucks were needed to run the cable

down the mast arm and run the cable through it.

During the deployment, there were several challenges and the teams involved all pitched in to find solutions. Osceola provided a pull box locater when the pull box was obscured by flora. Osceola sent over a signal technician to swap out signal controllers to provide the correct firmware. Osceola even coordinated with the manufacturer of the infrastructure equipment to send out a representative to install the telemetry module on the controller required for the SPaT application to work.

When the bucket trucks finally rolled away, the team could see the SPaT data visually on the user interface of the on board unit communicating with the roadside unit. Job well done, FHWA and FDOT!

For more information, please contact Jeremy Dilmore by phone at (386) 943-5310 or email to jeremy.dilmore@dot.state.fl.us.

ANNOUNCEMENT: Older Driver Safety Awareness Week

The American Occupational Therapy Association, Inc. (AOTA) establishes the first week of December as Older Driver Safety Awareness Week (ODSAW). The goal during this week is to promote the importance of older driver safety and mobility to help ensure older adults remain active within their communities. In Florida, the Safe Mobility for Life Coalition endorses and supports AOTA's national efforts by raising awareness and promoting events throughout the state.

In support of ODSAW, we will be hosting a Safety is Golden Mobility Fair on December 6, 2016 from 10:00am to 1:00pm at The Volen Center in Boca Raton, FL.

For more information on the Fair or to view all other outreach activities taking place during this week, please visit: http://www.FLsams.org/ODSAW2016.htm





FDOT TRAFFIC ENGINEERING AND OPERATIONS MISSION AND VISION STATEMENTS

Mission

Provide leadership and serve as a catalyst in becoming the national leader in mobility.

Vision

Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

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