

# Meeting Notes

## Change Management Board

January 26, 2016 – 1:30 to 4:30 p.m.

### Version 0.1



Prepared for:  
Florida Department of Transportation  
Traffic Engineering and Operations Office  
Transportation Systems Management and Operations Program  
650 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

### List of Acronyms and Abbreviations

C2C	Center-to-Center
CFX	Central Florida Expressway Authority
CMB	Change Management Board
CO	Central Office
ConOps	Concept of Operations
CoT	City of Tallahassee
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FTE	Florida's Turnpike Enterprise
IP	Internet Protocol
ITS	Intelligent Transportation Systems
MDX	Miami-Dade Expressway Authority
PTZ	Pan-Tilt-Zoom
RITIS	Regional Integrated Transportation Information System
SSUG	SunGuide® Software Users Group
SwRI	Southwest Research Institute®
TERL	Traffic Engineering Research Laboratory
TSM&O	Transportation Systems Management and Operations
UMD	University of Maryland
WAN	Wide Area Network

**Florida Department of Transportation  
CHANGE MANAGEMENT BOARD MEETING NOTES**

**Tuesday, January 26, 2016  
1:30 to 4:30 P.M**

**Rhyme Building, 330 Conference Room, Tallahassee, Florida**

**Attendees:**

Fred Heery, CO	Vincent Lee, D1/Lucent	Joe Snyder, D6
Russell Allen, CO	Josh Reichert, D2	Mark Laird, D6/AECOM
Derek Vollmer, CO	Donna Danson, D2	Rodney Carrero-Vila, D6
Ron Meyer, CO/Atkins	Ryan Crist, D2/Metric	Rossi Gaudio, D6
Clay Packard, CO/Atkins	Kenny Shiver, D3	Chester Chandler, D7
Kelli Moser, CO/Atkins	Wayne Bryan, D3 (CoT)	Mark Mathes, D7
Brian Ritchson, CO/Atkins	John McFadden, D3 (CoT)	Greg Reynolds, D7
Jo Ann Oerter, Atkins	Dong Chen, D4	Jared Roso, D7
Karen England, Atkins	Dan Smith, D4	Kathy McKenzie, D7
Frank Deasy, CO/Schneider	Dee McTague, D4/AECOM	Romona Burke, D7
John Glowczewski, CO/Schneider	Jeremy Dilmore, D5	Eric Gordin, FTE
Robbie Brown, D1	Jim Stroz, D5	Wang Lee, MDX
Scott Robbins, D1/HNTB	Tushar Patel, D5	Bryan Homayouni, CFX
Justin Merrick, D1	Manny Rodriguez, D5	John Hope, CFX/Atkins
	Javier Rodriguez, D6	Tucker Brown, SwRI
		Joe Cooper, CO-OIT

**Purpose:** The purpose of this meeting is to review and vote on statewide issues and requirements, and review footprint issues.

**Welcome:** CMB Chairman D. Vollmer opened the meeting at 1:35 p.m.

**Call for Quorum and Review of Agenda:** A quorum was established. D. Vollmer announced that the general consulting contract was awarded to HNTB. This will be the last CMB under the current contract with Atkins. If needed, if there we don't have enough time to vote or did not cover the subject thoroughly during the meeting, we will try to do some type of electronic ballot, such as email or SharePoint/voting, to see if that will work. That will enable us to vote in between meetings.

**Previous Meeting Recap and Action Item Review**

1. CO to look into getting C2C connection data into RITIS (Open Action Item)
  - Trying to get probe-type data into RITIS, or at least into the Florida Analytics
  - Florida Analytics tools are based off of HERE TMC codes.
  - FDOT GIS, HERE, and RITIS had a teleconference; under the CO agreement with RITIS, detector data can now be mapped to TMC codes for use within Florida Analytics.
  - This was a key piece of the puzzle that was not allowing us to move forward, but now UMD will be able to start making progress.

2. D. Vollmer with CO will get with Jeremy Dilmore in District 5 to discuss the RITIS contract. (Closed Action Item)
3. CO to look into including arterial detectors feeding into the ramp metering algorithm. (Open Action Item)
  - No opportunity to look into it yet.
  - Calls for setting up a ramp metering group; D. Vollmer has spoken with R. Ponnaluri (CO); R. Ponnaluri would want to head up the group with D. Vollmer as a part of the group.
  - Will reach out to Districts once we are ready to set the group up.
4. D. Vollmer with CO to reach out to J. Fortunas with CO about the express lanes software effort. (Open/Closed Action Item)
  - D. Vollmer added to express lanes meetings, but has not attended one to date.
  - Express lanes testing effort underway; a testing environment has been set up; E. Gordin stated testing is done and now waiting on comments to make a recommendation. One member from D6 and D4 attended the testing.

## **AGENDA ITEMS**

### **ITS Telecommunications Update**

F. Deasy and J. Glowczewski with CO presented slides on the ITS Telecommunications Update. All Districts have been notified of their assigned CIDR blocks for the Next Generation Statewide Network. D5 is actively migrating to assigned CIDR blocks and this step must be completed prior to statewide adoption. D6 and MDX are using their assigned CIDR blocks for new deployments. D3, D4, and D6 completed their multicast addressing. Remaining Districts should (re)address their multicast devices now to resolve any overlapping addresses. D1, D5, D7, and MDX are in process of adding multicast. D2 and FTE not implemented at Layer 3 at this time. Multicast video can then be shared statewide. Goal is to have statewide video available at the State Emergency Operations Center by next hurricane cycle.

Tallahassee Fiber Ring network is operational and will provide traffic camera video to State Emergency Operations Center. Logical configuration of hardware is still in progress.

FTE fiber has work to be completed. Requested fiber work to be done from FTE. E. Gordin is working out details with the network team. D5/Turkey Lake redundancy fiber work is complete.

CO is designing an upgrade of the unlicensed microwave system along Overseas Highway down to Key West to monitor evacuation routes throughout the Keys. This is an ongoing project. CO is working with D6 and MDX to provide additional routes. Also upgrading the ITS WAN backbone between D5 and D7 to 10Gig. FTE Tolls has requested a consolidated connection over the ITS WAN for all Districts.

No questions.

### **SunGuide® Software Update**

D. Vollmer with CO presented slides on the SunGuide software update. This will be short as there is other SunGuide software related items that will follow later. Status of 6.1 upgrades: D3

installed 6.1; D2, D4, FTE, City of Tallahassee, CFX, and MDX upgraded to 6.1; D7 has a tentative upgrade to 6.1 in February; and CO will start conversations with D1 on their needs. D. Vollmer asked J. Dilmore if they are going to upgrade to 6.1 or wait for 6.2. T. Patel spoke with J. Dilmore who indicated that D5 would wait until 6.2. 6.1 Patch 1 is the current installation with two hotfixes: Hotfix 1, which is EM and Map fixes; and Hotfix 2, which is a Web relay to turn beacons on and off, modified slightly for a single and quad relay. Two candidate hotfixes include: Hotfix 3, providing a BlueMac driver and arterial algorithm; and Hotfix 4, provides the roadway name. T. Brown indicated the candidates were verified and pushed out yesterday.

Some of the major things happening with Release 6.2 are that the map will be moved out of Internet Explorer; implementation of Waze Phase 2; wrong-way driving will have some automatic responses; redundant TSS alerts will be dismissed; improvements to response plans, specifically the templates with on- and off-road. Items included in Release 6.2 are available for viewing online at <http://sunguidesoftware.com/releases/release-6-2-future>.

Factory acceptance testing for 6.2 was completed during the week of January 11<sup>th</sup>. It was successful with some things that came up during the testing. One item was that when Waze is first turned on, all the active Waze feed alerts appear. CO will work with the Districts to figure out the best time of day, when the alerts are lowest, to turn it on. Once configured, many of the alerts will not reappear when Waze is reopened after the first time. One of the alerts, vehicle stopped on shoulder, is still showing up a lot ... about every minute. We will investigate what can be done to reduce the number of this type alert. Waze alerts will also be consistent with FHP CAD alerts. Also, we observed during wrong-way driving testing that we wanted to have the ability to quickly, manually create events from the map that were specifically wrong-way driver and would automatically, if configured to do so, send out messages.

C. Quinn asked if wrong-way driving will do a radius from the detection point and will it automatically change every sign on that corridor? How does it determine which signs will be changed with a wrong-way message? T. Brown responded there are a couple ways to set it up. One would be a pre-defined plan to set specific signs with specific messages. The other would be an automatic suggestion, where it would do an upstream detector search to look for signs and use a predefined template to fill in the information. Also, if you create an event manually for wrong-way driving, there is an option to perform a radius search, which is included in the event you are not sure what direction the driver is going, it would pick up devices in both directions of the road. Mark asked if the messages going in the chronology in the event detail would also be in the chronology report. D. Vollmer answered yes.

D. Vollmer stated that with the factory acceptance testing completed, we would start the independent verification and validation very soon, with actual testing starting the week of February 8<sup>th</sup>. We intend to release version 6.2 at the end of March, but will work to release it a little sooner, if possible.

No questions.

## **RITIS Update**

D. Vollmer with CO presented slides on the RITIS update. There is an issue with RITIS, particularly with detector health, where it sends zero volume and SunGuide software puts a null for the speed. Currently, due to the way the RITIS database is set up, that column cannot accept nulls. UMD is investigating what impact that may have to other users to allow it to accept nulls. We are also having issues where duplicate detectors are showing in the Detector Tools; currently in D3, D5, and MDX. We are looking into why they are there to resolve it and have them removed. The Sum of Volume for Lanes and Zones Not Matching was recently resolved and closed.

We are currently developing some webinar RITIS training. The training content is about 95 percent complete. The FDOT Media Team at the Rhyne Building will develop some TRESS computer-based training. We are still working on getting the Bluetooth data into RITIS. If you ever change the names of your detectors, in RITIS you will eventually be able to see all the different names, but the ID will remain the same. The frontend is completed, but not the backend. We also added zone lengths to the raw data download to help calculate travel-time reliability. We completed adding back email alerts to Districts when data is not received for more than two hours. Also, Broward County and City of Tallahassee detectors have been added to RITIS. With the new consultant coming in D. Vollmer is the only one that will receive emails for issues. D. Vollmer pointed out that what is mostly funded under his contract is the detector tools. The HERE data and Florida Analytic tools are separate and taken care of through the I-95 Corridor Coalition, which R. Allen is a member of. In the future, if we decide not to use RITIS, we still have a mechanism to provide access to the HERE data and those tools.

K. Shiver asked about getting the D3 detector integrated into RITIS. D. Vollmer needs an email and will create an account for D3.

#### **Truck Parking Subsystem (vote)**

C. Packard with CO presented slides on the Truck Parking Subsystem (TPS). C. Packard stated that CO was asked to support the TPS ConOps for deploying a means to enhance highway safety by informing truck drivers of parking availability at rest areas. Parking facility will be instrumented with detector sensors to detect the number of available parking space. Cameras will also be deployed so that operators can visually verify the number of spaces available. The presence detection information will be sent to SunGuide software where operators will be alerted when low availability occurs. Drivers will be informed of availability via embedded DMS and FL511 app. A future phase will provide for SunGuide software predicting the availability using historical data analysis (not voted on at this time).

Changes were made to the ConOps companion document based on stakeholder comments, including: when the facility's available parking goes below a configurable minimum display threshold, it displays zero spaces available; clarification that predicted availability algorithm would be tested, verified, and presented back to CMB for future consideration; database will archive information about operator corrections, including operator ID, timestamp, old and new values; and the ability to associate multiple directions to a facility (if accessible by both directions of travel). A few editorial, non-technical changes were also made. D. Vollmer stated that typically, before bring this to the CMV, we like to get back with the commenters and go over the comments; however, we did not have the time to do that before this meeting, but we will still

contact the commenters and go over the comments and our responses next week. D1, D2 , and D6 had comments.

Total cost is \$112,100.

C. Packard asked if there were questions. D. Vollmer stated that if anyone had questions or felt this was a little rushed and wanted to go over the material a little bit more, we could try to do the vote electronically.

No questions.

This was followed by voting.

Voting results: D1-yes; D2-yes; D3-yes; D4-yes; D5-yes; D6-yes; D7-yes; FTE-yes; MDX-yes; CO-yes.

The item passed.

### **Statewide Emergency Operations Center Traffic Operations Video**

C. Packard with CO presented slides on the SEOC Traffic Operations Video. The SEOC would like access to statewide camera video. The challenges are providing access to the cameras, which the ITS WAN team is working on; and cataloging all the cameras, their locations, and their URL or address through the network. CO did an enhancement to the C2C software to include an address to the camera with a camera status. F. Heery stated that the video goes into the ES1 and only himself, Mark Wilson, and Irene Cabral would have access at their computers. C. Packard stated that we wanted to make this easy to maintain and operate once it is set up, and we wanted to reuse some of the existing software, such as video on desktop and C2C. We also want to make it easy to find the cameras, so we will put all the cameras on the existing operator map with a few packaging modifications.

This will be accomplished in a couple phases. Phase 1 will establish the connectivity and proof of concept where video feed from the Districts using VLC can be seen. Phase 2 will build a SunGuide Lite application that uses as much of the GUI already developed as possible, including the operator map and video on desktop. Concurrently during the SunGuide Lite application development, the device and network multicast configuration will need to be completed. This is dependent on enabling multicast URL on IP cameras and encoders. We would use the District allocated multicast address space and configure firewall interface facing ITS WAN to allow multicast video, which is a phase 1 task.

Phase 1 will be complete when the ES1 workstation can see cameras statewide from the operator map and can use the operator map to launch any camera's video to the video on desktop app.

J. Rodriguez asked if we can use this in other areas? D. Vollmer stated that it is our hope as long as they have a ability to see your multicast video. C. Chandler asked who in SEOC asked for this capability? D. Vollmer was not sure, but stated that Randy Pierce would have that

answer. F. Heery said he feels it will help during emergency events. C. Chandler said he felt it was ironic, since SEOC turned ITS down 14 years ago. F. Heery stated that it will be a tool to help us during emergencies.

Jason - D2 asked if this is a view only platform. C. Packard stated that yes, it is view only and there is no camera control.

### **CMB Process Revisions (vote)**

D. Vollmer with CO presented slides on the CMB Process Revisions. D. Vollmer said he believes he send the new document out to everyone with the track changes on so they could see the changes made. He stated that we made some minor changes and changed the logo to the TSM&O logo to reflect the new program name. We also removed the road miles and budget numbers in the introduction so that we would not have to update the document every time they changed. He listed out the voting members and their alternates as follows:

- District 1 – Chris Birozak (Alternate – Robbie Brown)
- District 2 – Josh Reichert (Alternates – Donna Danson and Peter Vega)
- District 3 – Lee Smith (Alternates – Mark Nallick, Kenny Shiver, Cliff Johnson, and Amy DiRusso)
- District 4 – Dong Chen (Alternate – Dan Smith)
- District 5 – Jeremy Dilmore (Alternates – Tushar Patel and Jim Stroz)
- District 6 – Javier Rodriguez
- District 7 – Chester Chandler (Alternate – Romona Burke)
- Florida’s Turnpike Enterprise – Eric Gordin (Alternate – John Easterling)
- State TEOO – Russell Allen, Randy Pierce, and Derek Vollmer
- MDX – Ivan Del Campo (Alternate – Wang Lee)
- Federal Highway Administration – TBD
- City of Tallahassee – Wayne Bryan
- Central Florida Expressway Authority – Corey Quinn

No questions.

This was followed by voting.

Voting results: D1-yes; D2-yes; D3-yes; D4-yes; D5-yes; D6-yes; D7-yes; FTE-yes; MDX-yes; CO-yes.

The item passed.

### **Break (10 Minutes)**

### **Ramp Metering System (vote)**

T. Brown with CO presented slides on the Ramp Metering System. T. Brown stated that currently when we change out TSS data, the configuration is captured in the data archive, but ramp metering states and configuration changes are not. This enhancement is to log all the information about ramp meters and their daily operations and configuration changes, everything that happens, in a very robust manner so that you can go back and see them.



An additional enhancement would be made to add comments for manual rate (or rate range) change. Any comments from the operator would be logged, with the idea being that if they make a manual change, you want to know why. It would be sent to the archive and logged similar to TSS. The estimate for this enhancement is \$15,000.

T. Brown stated that ramp metering currently supports scheduling the local or fuzzy mode to activate. This enhancement would allow the ramp metering “OFF” state to be scheduled as well. All scheduling will be moved to SAS for consistent scheduling of actions. This would be consistent with scheduling different types of actions. The estimate for this enhancement is \$10,000.

D6 asked if moving to SAS also supports the holiday scheduling? T. Brown stated that it would make that a whole lot easier. With this enhancement, you essentially set your schedule, then override it on certain days. There were no further questions.

This was followed by voting.

Voting results: D1-yes; D2-yes; D3-yes; D4-yes; D5-yes; D6-yes; D7-yes; FTE-yes; MDX-yes; CO-yes.

The item passed.

### **Database Design Analysis**

C. Packard with CO presented slides on the Database Design Analysis. C. Packard stated that D. Vollmer asked Atkins to look at the SunGuide database to make improvements. Originally, the database was a place to store a little bit of configuration data; it was not originally scoped for high performance. However, we grew in our use of the database to store data archiving information in release 2.0 and event management transactions, our need for additional performance is growing. We broke it into two phases to see what would help. Phase 1 was preliminary recommendations after doing a review of the data model and some of the databases at TERL along with objectives for phase 2. Phase 2 provided results and more tangible objectives and final recommendations.

The overall objectives were to perform a general analysis of issues and improvements we could make to the database model; and evaluate operational versus archiving and reporting needs support, such as partitioning or archival to separate database. We also wanted to take a look at the operational environment of the database.

Some of the objectives that we identified were the removal of residual redundant records with performance analysis. Also, look at the design of the TSS data archive portion to identify any design enhancements we can make to improve it. The next objective was to look at the ramp metering data archive portion to identify some database design requirements. We also identified logging database environment to see if there are software tools to provide us with some analysis. The next objective would be to look at the object naming to make sure we are using consistent naming conventions.

From the preliminary phase 1, some of the general recommendations we identified were that while we use the CEASED\_USE flags in some areas, it should be done consistently throughout all areas. Also, we went through the footprint system to collect database issues; one of them was the over use of database connections so we can use connection factories to manage and minimize connections (FP 2233). We also recommended using views to select objects of a certain type, such as active objects, and views with inline selection logic to improve performance. We will include all of these in the report for distribution to SwRI and the SSUG. A couple other recommendations included index testing strategies for performance improvement, employing additional locking strategies to prevent deadlocks, and data field overloading.

M. Mathes at D7 stated that C. Chandler wanted to know if express lanes operation would be accommodated in the database design. D. Vollmer asked if this was in reference to the software, such as what D4 and D6 have? M. Mathes was not sure. C. Packard said that it's not really specific to that. D. Vollmer and C. Packard stated that they would have their own database and the SunGuide database has a portion for express lanes, but we're not specifically looking at that. D. Vollmer asked if OTM has it's own database. J. Cooper responded, yes.

No further questions.

#### **Small Enhancements (FP 2303 and 2569) (vote)**

D. Vollmer with CO presented slides on the Small Enhancements. D. Vollmer stated that some small enhancement were proposed by D2 dealing with camera presets being able to PTZ cameras that are in a tour with video on desktop. C. Packard stated that we would like to include some enhancements in releases 7.0 to make life easier on operations at a detailed level (not major new subsystems or new operation). These are supported by the SSUG.

FP 2569 will allow the ability to PTZ during a tour in video on desktop. This would give you the ability to pass the tour and control the camera. So we are proposing to add a pause button. There will also be a back button so you are able to move backwards to the correct camera if you "miss it." FP 2303 will provide permissions to overwrite specific presets. We want the ability to lock down the presets 1-4 for all cameras. This will be an added permission, typically only given to administrators.

The costs for these enhancements are:

- FP 2569 - \$1500
- FP 2303 - \$2500
- Total - \$4000

J. Reichert in D2 asked when 7.0 would be released. D. Vollmer stated that they are scheduled in Dec 2016/Jan 2017. There were no further questions.

This was followed by voting.

Voting results: D1-yes; D2-yes; D3-yes; D4-yes; D5-yes; D6-yes; D7-yes; FTE-yes; MDX-yes; CO-yes.

The item passed.

### **Statewide ITS Architecture and Systems Engineering Update**

D. Vollmer with CO presented slides on the Statewide ITS Architecture and Systems Engineering Update. This effort is now complete. All of the Districts and the statewide architectures have been updated. Later they went back and updated all the architectures to reflect information that was captured in some of the later architectures making them consistent statewide.

D. Vollmer stated that we have our systems engineering procedure; it is really close. He sent out an email on January 22<sup>nd</sup> regarding some language being add that we discussed with FHWA to clarify some items that do not require systems engineering documentation. Comments are due this Friday. He will go back to FHWA one more time to make sure they are okay with any changes. Then the documents will go to the Forms and Procedures Office to be finalized.

On the FDOT web site for systems engineering, we reposted all templates in Word format. There are also some minor changes to the template, so a document control panel was added to all the templates, and a revision history panel was also added. We are working on creating some templates for required documentation that will be required as part of the procedure. One of them is a Requirements Traceability Verification matrix. We have an initial draft, almost ready to be sent out for review. D. Vollmer will send that out this week and have a one-month review period.

D. Vollmer state that once the new consultant is on board, we will investigate creating a task work assignment for them to get with all the Districts and flesh out some training that could then be performed by them statewide.

No questions.

### **Open Discussion**

D. Vollmer with CO opened the floor for open discussion.

D. Vollmer stated that he reached out to Jennifer Fortunas, but she does not know of a date when the software recommendation would be made. J. Rodriguez will send an email originated from Gus Pego to D. Vollmer. It doesn't have a date, but they are working on it.

### **Nominations**

D. Vollmer indicated that his term is almost up and he needs nominations for the next chair so that we can vote on it at the next CMB meeting. J. Rodriguez nominated J. Reichert. J. Reichert asked about workload. D. Vollmer said CO would assist. J. Reichert accepted nomination.

D. Vollmer stated that if there were any other nominations, they could be emailed to D. Vollmer and we would try to vote at the next meeting.

W. Bryan in Tallahassee wanted to thank Atkins for all their assistance.

There was no further open discussion.

**Review Action Items**

- **D. Vollmer will send email on Hotfixes 3 and 4 to Districts.**
- **K. Shiver will send email to D. Vollmer regarding RITIS integration.**
- **D. Vollmer will go over truck parking comments.**
- **D. Vollmer to remove D. Danson as an alternate for D2.**
- **D. Vollmer to add Mark Mathes to the CMB Process document as an alternate in D7**
- **D. Vollmer to change C. Quinn at CFX to Bryan Homayouni**
- **J. Rodriguez will forward FTE email to D. Vollmer.**
- **D. Vollmer will send out draft of Requirements Traceability Verification matrix to Districts.**

Meeting adjourned at 3:50 p.m.