Meeting Notes

Change Management Board

September 17, 2015 – 1:30 to 4:30 p.m.

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Prepared for:
Florida Department of Transportation
Traffic Engineering and Operations Office
Transportation Systems Management and Operations Program
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List of Acronyms and Abbreviations

APL...Approved Product List

ATC ....Advanced Traffic Controller

ATMS...Advanced Traffic Management System

C2C .... Center-to-Center

CCTV..Closed Circuit Television

CFX ....Central Florida Expressway Authority

CMB... Change Management Board

CO .... Central Office

ConOps.. Concept of Operations

CoT...City of Tallahassee

DRIP .... Divergent Route Implementation Plan

FDOT..Florida Department of Transportation

FHWA ....Federal Highway Administration

FTE..Florida's Turnpike Enterprise

HAR .... Highway Advisory Radio

IE ....Internet Explorer

IP ....Internet Protocol

ITS.. Intelligent Transportation Systems

LAP...Local Agency Program

MDX...Miami-Dade Expressway Authority

NTCIP.. National Transportation Communications for ITS Protocol

ONVIF.. Open Network Video Interface Forum

PTZ... Pan-Tilt-Zoom

RITIS ....Regional Integrated Transportation Information System

RWIS ....Road Weather Information Subsystem

SE.. Systems Engineering

SSUG .... SunGuide® Software Users Group

SwRI.. Southwest Research Institute®

TERL .... Traffic Engineering Research Laboratory

TSM&O..Transportation Systems Management and Operations

Florida Department of Transportation
CHANGE MANAGEMENT BOARD MEETING NOTES
Monday, September 17, 2015
1:30 to 4:30 P.M
Rhyne Building, 330 Conference Room, Tallahassee, Florida

Attendees:

Fred Heery, CO	Joe Parks, D1/Lucent	Shannon Watterson, D5/HNTB
Russell Allen, CO	Vincent Lee, D1/Lucent	Javier Rodriguez, D6
David Chang, CO/Atkins	Pete Vega, D2	Mark Laird, D6/AECOM
Ron Meyer, CO/Atkins	Ryan Crist, D2/Metric	Rodney Carrero-Vila, D6
Clay Packard, CO/Atkins	Jason Summerfield, D2/Metric	Chester Chandler, D7
Derek Vollmer, CO	John McFadden, D3 (CoT)	Greg Reynolds, D7
Kelli Moser, CO/Atkins	Kenny Shiver, D3	David Howell, D7/HNTB
Brian Ritchson, CO/Atkins	Dong Chen, D4	Kathy McKenzie, D7
Frank Deasy, CO/Schneider	Dan Smith, D4	Eric Gordin, FTE
Randy Pierce, CO	Dee McTague, D4/AECOM	Kelly Kinney, FTE
John Glowczewski, CO/Schneider	Jose Alfaro, D4/SwRI	Ryan Brown, FTE/Jacobs
David Heupel, CO/Schneider	Jillian Scholer, D4/AECOM	Joe Cooper, CO/OIT
Chris Birosak, D1	Jeremy Dilmore, D5	John Hope, CFX/Atkins
Chrissie Collins, CO/OIS Liaison	Jim Stroz, D5	Tucker Brown, CO/SwRI
Scott Robbins, D1/HNTB	Eddie Grant, D5	A.J. Skillern, CO/SwRI

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

Welcome and Charter Review: CMB Chairman D. Vollmer opened the meeting at 1:31 p.m.

Call for Quorum and Review of Agenda: A quorum was established. D. Vollmer briefly reviewed the meeting agenda. Fred Heery was introduced as the State TSM&O Program Engineer. The future CMB meetings will have a shortened invitee list that includes the voting members, non-voting members, and few others. We are trying to shorten invitee list, but the meeting can be forwarded on.

Previous Meeting Recap and Action Item Review

1. CO to look into getting C2C connection data into RITIS. (Open Action Item)
   - UMD is looking into how to translate our C2C links to their traffic management center codes on their map.
2. CO to follow-up on Google Traffic data possibilities. (Closed Action Item)
   - Google does not expose any of the traffic data as an application program interface.
3. ITS WAN to send IP Allocation Plan to all the Districts by the next CMB meeting. (Closed Action Item)
   - D. Heupel noted the ITS WAN Team sent it out via email in August.
4. CO to look into operators not having to determine if the Waze event is a duplicate. (Closed Action Item)

- This cannot be done without the risk of removing real events. However, filtering events based on confidence value will reduce the chance of duplicates.

AGENDA ITEMS

ITS Telecommunications Update
D. Heupel and J. Glowczewski with CO presented slides on the ITS Telecommunications Update. District 5 received additional funding to assist with their re-allocation effort. District 6 and MDX are rolling out new deployments in their re-allocated ranges, which is going well. The CoT fiber ring is planned to be installed either September 28th or the week of October 5th. The ring should be operational fairly soon after installation. Testing will need to be completed prior to pushing it out or using it for the ITS backbone. Downtime was anticipated between District 5 and 7 optical paths due to the I-4 Ultimate Improvement Project. To eliminate that downtime and help District 7 remain on the ITS backbone, a leased service has been run from District 7 to the TERL. That service has been running for about a month and a half already and is the primary link for Tallahassee to get down to south Florida. There is now a memorandum of understanding between the CO and FTE. This will allow the CO ITS WAN to utilize FTE fiber and access facilities within the Turnpike. Several projects are on hold until this is put in place. A manufacturing defect was causing hardware failure which resulted in outages in District 5. D. Heupel in CO asked if there were any questions. There were no questions for the ITS WAN team.

SunGuide® Software Update
D. Vollmer with CO presented slides on the SunGuide Software Update. SunGuide software release 6.1 and 6.1 patch 1 have been released. D. Vollmer asked C. Packard with CO to present two of the new features in SunGuide software release 6.1 since he was instrumental in their development. C. Packard noted there had been recommendations to make the installation process easier and less error-prone. In response to those recommendations, CO first presented the installer ConOps in 2013. The improved installation process has been included in SunGuide software release 6.1. The installer executable that installs the software on the servers was simplified, checks for dependencies, and automatically deploys the dependencies needed. Previously, when there was a problem with the installation or configuration, that problem wouldn't surface until an attempt to use the software in operations. This should not be an issue anymore. It was successfully tested at the TERL and with deployments to CoT and District 2. There was a configuration editor, but it has been greatly improved to have a schema that will read the config file, tell you what it is expecting, and validate it. The configuration file editor will suggest default values that are needed in the config file and provide a notification if anything in it is incorrect. Previously, if there was one character misplaced in the XML, it would cause one the modules to not start. Now, before a file is saved, it warns that there are errors in the config file. It makes it a lot easier to configure a system without having to be an XML developer. D. Vollmer with CO continued presenting slides on the SunGuide Software Update. There is now a beacon management subsystem that is mostly associated with a visibility project on I-75 in District 2. SunGuide software now has the ability to activate beacons within a response plan for static signs. This can be used to show low visibility ahead and things like that. There is also a software administration application that is a more robust permissions system. It is a little bit more complicated as it was noticed during testing at the TERL that sometimes not everything

has the needed permissions. That is something to look out for when upgrading to ensure all of the permissions are there. The final feature discussed was alerts for RWIS data and automatic responses for low visibility sensors. This is also for the visibility project on I-75 in District 2 and the I-4 project in District 1. E. Gordin with FTE asked if the beacon management subsystem can be used for HAR beacons. D. Vollmer with CO responded that it cannot be used for HAR beacons yet. D. Vollmer with CO presented some of the minor features included in SunGuide software release 6.1. The report queue allows you to run multiple reports with the main benefit of now having the ability to terminate reports that are taking too long to run or are causing a lag in the system. However, proper permissions are required to have the ability to terminate a running report. A camera list has been added to the VOD application. All the cameras in a list are visible and you can drag them onto a VOD. ONVIF support has also been added for CCTV cameras. However, none of the APL cameras have been officially tested for SunGuide software compatibility with the ONVIF protocol. Also, the iris command didn't directly map from the NTCIP to the ONVIF protocol. In the ONVIF protocol, the iris command changes the brightness of the image, where as in the NTCIP it gives you the ability to open and close the iris. It is not quite the same thing, but it is close. The ability to add remote CCTV streams to the system has been added. This allows a District to add a remote multicast address or real-time streaming protocol address to SunGuide software, which could be sent to other Districts and appear on their map so they could pull up your video streams. This does not include PTZ capability. Since it is a remote stream, if you have an IP camera, you might want to use a lower bit rate for the stream. There were some bugs found in SunGuide software release 6.1, so Patch 1 has been released to fix them. The complete list can be found at http://sunguidesoftware.com/releases/release-6-1-p1. Items planned to for inclusion in SunGuide software release 6.2 can be found at http://sunguidesoftware.com/releases/release-6-2-future. The operator map will be moved out of IE because it will help SunGuide software use more of the processing power of the machines. Currently, multithreading is allowed in IE, but you are required to live under the one process of IE. Once moved out of IE, it will be able to utilize more processes. D. Vollmer with CO reviewed the slide showing the issues being discussed in the SSUG for future enhancements beyond SunGuide software release 6.2. D. Vollmer with CO asked if there were any questions. There were no questions on the SunGuide software update.

RITIS Update
D. Vollmer with CO presented slides on the RITIS Update. There are two open issues for RITIS – the sum of the lane volumes and the sum of the zone volumes are not matching. This was originally reported by District 7 and it was found that there were some data quality checks that were tossing some of the values out previously during the zone aggregation. Recently, it was reported again by District 6. The root cause this time was different. There was a bug in their loader algorithm where it was missing some lanes when it aggregated to the zones. UMD is currently working on resolving this issue. All the data from 09/11/2015 at 10:20 a.m. is now correct with new data. UMD is going back a year at a time to fix historical data. D. Vollmer with CO asked K. Moser with CO what year was completed by UMD so far. K. Moser with CO responded that all of 2015 has been fixed along with the majority of 2014 with the exception of the last couple months of 2014. We anticipate this issue to be fixed on Tuesday September 22nd. The CO will start to verify the fix on September 23rd and spot check between now and then. Initially, when UMD began applying the fix, we discovered that it wasn't really fixed right

everywhere. UMD had to make a change and start the reload over again. We also have an issue with poor detector health being reported. This can have multiple causes. One of the causes is when the detectors (usually at night) have no volume; then SunGuide software places a null value in for the speed that gets passed to RITIS. Currently, the RITIS system for the speed and volume columns, specifically, is configured to not accept null values. Whenever these readings are received with nulls, RITIS is not actually adding them. RITIS still has the data, but it isn't being added to the system. The result is that when you look at the detector health, it looks like it is missing data for those periods. Even though the detector is actually healthy, it is accurately reporting the volume was zero and the speed was null for that time period. We are working with UMD to come up with a solution for getting that information into the system so it doesn't affect the detector health. D. Vollmer listed the other causes for detector health to look bad. We are also working with Kathryn Ortega in District 7 to make sure RITIS can be used to create the performance measures in their reports. Resolving the zone/lane volume mismatch will be a good step in that direction. We are going to work with Kathryn Ortega so that she can take that data and create the District 7 report. D. Vollmer listed some of the future plans for RITIS including developing a live webinar training from the CO on RITIS. We want to develop videos as well so when new users come on, we can direct them to the training videos so they can better understand the system. We just recently started discussing this so it will be a few months before we can put together some training. We want to send out a monthly email to update RITIS users. We find that when an issue is reported, it affects all the users, so we want to notify them. Currently, when we are notified of an issue, we internally track it, notify UMD, UMD puts a resolution out, we verify it, and then notify the user who reported the issue. The issue is we have not been getting the word out to the general populous of the system. To resolve this, we want to send out a monthly status email to all users of the system including status of open issues and/or the resolution of closed issues. We will continue updating the CMB on RITIS issues. Please send any issues with detailed information to Derek.Vollmer@dot.state.fl.us, Clay.Packard@dot.state.fl.us, and Kelli.Moser@dot.state.fl.us. These email addresses will be included in the monthly emails as well so users know where to send their issues. D. Vollmer with CO asked if there were any questions. J. Dilmore in D5 requested a copy of the RITIS contract to help understand how to use it, the enhancement process, and what rights we essentially have. D. Vollmer with CO said he would get with J. Dilmore on the RITIS contract.

Ramp Metering System
T. Brown with CO presented slides on the Ramp Metering System. P. Vega in D2 asked if the ramp metering system had the capability of taking in detector data from arterial roadways on interchanges. T. Brown with CO responded that it takes into account the queue going into the mainline, but doesn't take into account the detectors that would be on the arterial roadway going into it. Right now that is not a parameter in the algorithm; it is just how far backed up the ramp is feeding into the mainline. P. Vega in D2 asked if that can be looked at in the future since it was something he would like to have included. T. Brown with CO responded that it can be, but the algorithm needs to be well defined on how you want the arterial information to be considered. T. Brown continued presenting slides on the Ramp Metering System. T. Brown mentioned there have been questions about going to the 2070 controller and discussions about re-writing the FDOT firmware, which is currently written for the 170. The re-writing would be specifically for the 2070 controller. In addition to that, there are NTCIP specifications for ramp metering to consider

incorporating. These are two ways the SunGuide software interface could be changing in the near future. They are both being looked into to determine whether or not we want to incorporate them into SunGuide software. D. Vollmer with CO clarified that it was for the older 2070 controller and not necessarily the ATC 2070 controller that they are looking at porting the 170 firmware over to. That is why we were looking into the NTCIP standard in addition to including the ATC controllers. What in the standard actually maps to what we are currently doing in SunGuide software and if we could use that standard moving forward for the ATC controllers. D. Vollmer with CO asked if SunGuide software has the capability to support adding a yellow light even though that isn't what is currently going on in District 6. A. Skillern with CO responded that the software could support a yellow light. D. Smith in D4 noted that s few months ago, the DTOEs decided not to use a yellow light. D. Vollmer with CO agreed, but since decisions may change in the future, he wanted to confirm that the software was capable and would not be the reason to slow down with the progress of the software. D. Smith in D4 agreed. J. Rodriguez in District 6 asked if we can pull out all of the ramp metering footprints for D6 to see if they are addressed. D. Vollmer with CO responded that we are working with Mark Laird in D6 on some of the enhancements that D6 has and are discussing them at the SSUG to try and get those moved forward. J. Rodriguez in D6 responded that he was pleased. D. Vollmer with CO asked for details from D. Smith in D4 on the potential changes D4 would like to the system. D. Smith in D4 responded that they don't have any details at the moment, but are were working with Charlie Robbins with C2S Engineering to look into their options. D. Smith in D4 mentioned the issue they want to look into further is a way to turn ramps on and off in logical ways, or in groups. We are putting ramps everywhere so manually turning on and off 70-100 ramps will not work. We will reach out to all the Districts and CO, but that hasn't quite started yet. D. Vollmer with CO thanked D. Smith in D4 for the update. There were no further questions.

Signals in SunGuide (vote)
P. Vega in D2 presented the slides on Signals in SunGuide Software, which is a voting item. P. Vega in D2 asked if there were any questions. J. Dilmore in D5 asked from a policy standpoint if approving this system with this vote locks us into this particular approach. P. Vega in D2 responded that it should not affect it since we are just providing a capability in SunGuide software for any Districts that want to use it. J. Dilmore in D5 said he just wanted to verify that if he votes yes on this enhancement that he has to use SunGuide software as his platform for any future ATMS. P. Vega in D2 said that is not what the intent is. We operate the signal systems for the locals as part of our program and it would make it easier to have it in SunGuide software instead of running an additional workstation and trying to manage both systems at the same time. J. Dilmore in D5 said he understood from P. Vega's standpoint, but asked if CO agreed with that. It isn't that he does not support the effort, but wants to make sure it does not preclude him from investments the Districts have made with the Work Program for ATMS. P. Vega in D2 asked J. Dilmore in D5 for clarification that his software takes SunGuide software data and will do similar things with the data. J. Dilmore in D5 said they were in the requirements development phase with local agencies. He has not made a decision on which way it is going to go, but is trying to ensure he does not make a decision that limits his options. J. Rodriguez in D6 asked if they should vote on this item and if this was something P. Vega needs in D2. P. Vega in D2 and D. Vollmer with CO both understood the concern even though this is something needed in D2. D. Vollmer mentioned that if we go with this and down the road J. Dilmore wanted to develop something similar and it got shot down by upper management because we decided to only use

this method. It was decided to take break early to check with CO management on the question from D5. Voting will occur after the break.

Break (10 Minutes)

D. Vollmer with CO verified with Mark Wilson and Fred Heery that it would not lock anyone into using this system. F. Heery with CO confirmed that it would not lock anyone into this approach. D. Vollmer with CO asked what the DRIP definition from the slides was. P. Vega in D2 responded DRIP stands for Diversion Route Implementation Plan.

This was followed by voting.

Voting results: D1-yes; D2-yes; D3-yes; D4-yes; D5-yes; D6-yes; D7-yes; FTE-yes; MDX-absent; CO-yes.
The item passed. P. Vega in D2 was pleased with the result and offered financial help from D2 if it is needed for this enhancement. D. Vollmer with CO was appreciative, but told P. Vega that financial assistance would not be necessary.

Statewide ITS Architecture and Systems Engineering Update
Derek Vollmer presented slides on the Statewide ITS Architecture and Systems Engineering Update. D. Vollmer with CO mentioned that we still have the opportunity to update the architectures if any of the Districts find anything that needs revision. Any changes should be submitted to either the CO or Consystec. Consystec is keeping a master list of things that need to be changed in the architectures that have already been completed. Those changes will be made when all architectures are complete in late December, so changes should be submitted. For example, the District 1 I-4 Visibility Project, as it was originally documented, was going to have C2C sharing between District 5 and District 7. Now, that has changed and District 7 will be operating all of the devices. D. Vollmer continued presenting the slides on the Statewide ITS Architecture and SE Update. D. Vollmer with CO asked if the Districts would send specific examples or scenarios to provide to FHWA of when an ITS project should be exempt from the SE process. There are exemptions for certain ITS projects in California and FHWA is aware of that. There is something similar in New Jersey so that will be looked into with FHWA. CO will be providing a LAP SE training October 13th and all the TSM&O engineers and their staff are invited, but it is specifically tailored for the LAP staff. This will inform the LAP staff of what an ITS project is and, if it is an ITS project, what forms they should be expecting and what is the required documentation when they have a local agency ITS project. We wanted to invite all the TSM&O engineers and their consultants so they can interface with their LAP staff since we were not sure if all of the TSM&O engineers know their LAP staff. This will be a good opportunity for everyone to meet and talk. We have received comments on the SE Procedure and have drafted responses to all the comments. We have several meetings scheduled to discuss these comments including meetings with the state LAP administrator, District 1, and District 6. It is important that we get an answer from FHWA on the exemption status before we finalize the procedure. If the exemption status is allowed, we will need to change the procedure to reflect that. Something we want to do moving forward is to review and update templates. We may not update all templates, but we at least want to review them to determine if they need updating. We especially want to update the ConOps template to make it more readable and user-friendly

as far as instructions are concerned. We have some required documents in the procedure that we do not have templates for so we want to create templates for those documents. CO will work with GC staff on this effort. CO wants to work with the Districts to create a document repository. Low risk projects, for example, could have a work instruction for a particular project type, which would only require you insert a few things in the document and the rest of the information would be boilerplate. Some could be made generic, enough so it could be inserted into project documentation. This would be a repository of documentation that we could all grab and reuse. One of the points of SE is to be able to have documentation reused so the document repository would be beneficial. CO will work with GC staff on this as well. D. Vollmer with CO asked if there were any question. C. Chandler in D7 asked where the LAP SE training is located. D. Vollmer with CO responded that it will be a GoToWebinar that has not been set up yet. We will be doing a dry run so we will not have the same difficulties that were experienced with the Waze training. P. Vega in D2 recommended having an ITS person from each District at the LAP webinar so they can hear from the Districts themselves. D. Vollmer with CO noted that they were all invited. There were no further questions.

Open Discussion
D. Vollmer with CO opened the floor for open discussion. R. Allen with CO said Mary Jane Hayden the State Roadway Design Engineer reached out to F. Heery with CO asking for comments to section 7.5 and chapter 7 of the Plans Preparation Manual, volume 1. We will be emailing section 7.5 out to all the ITS engineers for review and comment. We would like those responses by COB next Thursday (September 24th). Additionally, we discussed with Mark Wilson and Fred Heery with CO that the overall chapter 7 has not yet been distributed to the DTOEs, but they have been notified that we are reviewing section 7.5. That way we can get all of our comments together and get it to the DTOEs in a timely manner. R. Allen with CO will be sending that out so please call or email him with questions. D. Vollmer with CO asked if there was anything else anyone wanted to discuss. P. Vega in D2 mentioned that in the next few weeks, D2 will start moving into the new building. P. Vega will let us know what period of time D2 will be down for the move. November 12th is the ribbon cutting in Jacksonville and everyone is invited. They will be doing tours during the Autonomous Vehicles Summit December 1-2. The ITS Florida meeting is targeted for the week after, possibly December 7. J. Dilmore in District 5 brought up the express lanes software selection process and thinks it needs a group like this that handles requirements, maintenance, and enhancements process for the software. I think it is something we need to consider before everyone is having to find ways to make the software work for them. P. Vega in D2 mentioned that everyone may not have heard how software work D6 verses the new one and asked for J. Rodriguez in D6 to give more information on the selection process. J. Rodriguez in D6 responded that FTE will be looking at two software and that was all he knew at this point. P. Vega in D2 noted from the express lanes meeting that the new software would not work through SunGuide software per se, but would go off to a different system and come back to the Districts and feed it the information. J. Rodriguez in D6 agreed that was the way the two software now operate. At some point, the vision is for the software to work with SunGuide software and for CO to operate and maintain it. CO will be taking the lead on a statewide solution. P. Vega in D2 asked if D. Vollmer with CO is on the team or had more information. D. Vollmer with CO responded that he was not on the evaluation team, but will get with Jennifer Fortunas with CO for more information since he knows she is involved. J. Rodriguez in D6 reiterated that FTE is the lead on this and asked if John Easterling with FTE

was on the line. E. Gordin with FTE responded that J. Easterling was not on the call, but that he would follow up with J. Easterling who could provide more clarification on the process. D. Vollmer thanked E. Gordon. There was no further open discussion.

Review Action Items
- **D. Vollmer with CO will get with Jeremy Dilmore in District 5 on the RITIS contract.**
- **CO to look into including arterial detectors feeding into the ramp metering algorithm**
- **D. Vollmer with CO to reach out to Jennifer Fortunas with CO about the express lanes software effort.**

Meeting adjourned at 3:25 p.m.