

*FDOT Change Management Board Meeting Notes
 Friday, December 1, 2006 — 9:30 a.m. to 11:30 a.m.*

| DOCUMENT CONTROL PANEL | | |
|-------------------------------|--|-------------------|
| File Name: | <i>Florida Department of Transportation – Change Management Board Meeting Notes – Friday, December 1, 2006 – 9:30 a.m. to 11:30 a.m.</i> | |
| File Location: | W:\ITS Program\ITS GC\060305 NEW ITS GC Contract\Assign 41 - CMB Meeting Support\061201 CMB Mtg Notes v2_final.doc | |
| Deliverable Number: | | |
| Version Number: | 2 | |
| Name | | Date |
| Created By: | Dave Hodges, PBS&J | December 4, 2006 |
| | | |
| Reviewed By: | David Chang, PBS&J | December 6, 2006 |
| | Trey Tillander, FDOT | December 6, 2006 |
| | Gene Glotzbach, FDOT | |
| | Steven Corbin, FDOT District 4 | December 11, 2006 |
| | | |
| | | |
| | | |
| Modified By: | Pam Hoke, PBS&J | December 8, 2006 |
| | Pam Hoke, PBS&J | December 12, 2006 |
| | | |
| | | |
| | | |
| | | |
| | | |
| Completed By: | Pam Hoke, PBS&J | December 12, 2006 |

List of Acronyms

| | |
|------------|---|
| ASP..... | Application Service Provider |
| AVL..... | Automatic Vehicle Location |
| CCTV..... | Closed-circuit Television |
| CMB..... | Change Management Board |
| COTS..... | Commercial Off-the-Shelf |
| DMS..... | Dynamic Message Sign |
| EM..... | Event Manager |
| FDOT..... | Florida Department of Transportation |
| FHP..... | Florida Highway Patrol |
| FY..... | Fiscal Year |
| GIS..... | Geographic Information System |
| GUI..... | Graphical User Interface |
| IM..... | Incident Management |
| ITS..... | Intelligent Transportation System |
| PM..... | Performance Measures |
| SVG..... | Scalable Vector Graphics |
| SwRI..... | Southwest Research Institute |
| TERL..... | Traffic Engineering Research Laboratory |
| TMC..... | Transportation Management Center |
| TxDOT..... | Texas Department of Transportation |
| XML..... | Extensible Markup Language |

Florida Department of Transportation
CHANGE MANAGEMENT BOARD MEETING NOTES

Friday, December 1, 2006
9:30 a.m. – 11:30 a.m.

Innisbrook Golf Resort
Palm Harbor, Florida

Purpose:

This Change Management Board (CMB) meeting was held to review the SunGuideSM software footprints and support; to consider alternative map approaches; and to vote on the automatic vehicle location (AVL) funding and the LYNX statewide intelligent transportation system (ITS) architecture change request.¹ The CMB also heard an overview of the closed-circuit television (CCTV) camera preset scheduler function design.

Attendees:

Elizabeth Birriel, FDOT ITS Section
Gene Glotzbach, FDOT ITS Section
Trey Tillander, FDOT ITS Section
Chris Birosak, FDOT District 1
Katherine Duvall, FDOT District 1
Don Olson, FDOT District 1
Mark Roberts, FDOT District 1
Donna Danson, FDOT District 2
Kamal Munawar, FDOT District 2
Peter Vega, FDOT District 2
Cliff Johnson, FDOT District 3
Chad Williams, FDOT District 3
Dong Chen, FDOT District 4
Steve Corbin, FDOT District 4
Dee McTague, FDOT District 4
Bob Murphy, FDOT District 4
Mike Smith, FDOT District 5

Jesus Martinez, FDOT District 6
Javier Rodriguez, FDOT District 6
Rory Santana, FDOT District 6
Elizabeth McCrary, FDOT District 7
Bill Wilshire, FDOT District 7
James Bitting, Lucent Group
John Bonds, PBS&J / ITS General Consultant
David Chang, PBS&J / ITS General Consultant
Erik Gaarder, PBS&J / ITS General Consultant
Dave Hodges, PBS&J / ITS General Consultant
Ron Meyer, PBS&J / ITS General Consultant
Ashis Sanyal, PBS&J / ITS General Consultant
Derrick Odom, SmartRoute Systems
Jason Summerfield, SmartRoute Systems
Walt Townsend, Siemens ITS
Robert Heller, SwRI
David Krauss, VANUS, Inc.

¹ SunGuide is a service mark of the Florida Department of Transportation.

FDOT Change Management Board Meeting Notes
Friday, December 1, 2006 — 9:30 a.m. to 11:30 a.m.

Board Chairman Steve Corbin opened the meeting and everyone introduced themselves. A recap of the November 2, 2006, CMB teleconference was provided and the action items from that meeting were reviewed as noted below:

Trey Tillander was to find out how the funding transfer takes place to cover the cost of commercial off-the-shelf (COTS) software that is used in conjunction with SunGuide. Trey said the money approved by the Florida Department of Transportation (FDOT) Executive Board for hardware and software is \$125,000 per year per transportation management center (TMC) and includes COTS software, so Districts should make certain that their work programs have it in the right phase. Gene said the cost can be realigned in January and he's in contact with the Work Program Office if the Districts have any problems

Liang Hsia is still awaiting word on whether the annual cost of TeleAtlas® software will be covered by the Chief Engineer's Office for the next fiscal year.²

Concerning global ITS device numbering, Ken Courage of the University of Florida sent a metadata spreadsheet that was discussed at the November 2 meeting.

Trey Tillander provided direction to the Southwest Research Institute (SwRI) to utilize Active X® software in future SunGuide versions to gain a processing advantage during the SunGuide log-in process.³

Peter Vega was to conduct a test in which a posted message is misspelled and corrected through the dynamic message sign (DMS) subsystem spell checker. The conclusion is the option 3, "do nothing", no action is required.

Steve Dellenback provided Trey Tillander and Steve Corbin with three options that are available for the SunGuide DMS subsystem spell check function.

Robert Heller of SwRI came to the December 1 meeting prepared to present a high-level design review session on the CCTV camera preset scheduling module in SunGuide.

John Bonds provided Steve Corbin with the corrected versions of the camera preset scheduling requirements that were edited during the meeting and approved in a voice vote.

Steve Dellenback provided a breakout of the AVL requirements' cost estimate to Trey Tillander and Steve Corbin forwarded to the CMB.

² TeleAtlas is a registered trademark of Tele Atlas NV.

³ Active X is a registered trademark of Microsoft Corporation in the United States and other countries.

Footprints Issues Review – Trey Tillander recommended there be a SunGuide footprints review at each CMB meeting. This tool was created for SunGuide users and serves as an online knowledge base. There is read-write access to the footprint notes for users who pay for software support; read-only access for those who do not pay, such as academics and researchers who have the software installed. Since the November 2 meeting, Trey said nine footprint entries have been added by users.

Steve Corbin said one of the topics was measuring the severity of an incident based on the parameter of lanes blocked. A Level 1 incident indicates 0 to 25 percent of the lanes are blocked; a Level 2 indicates 50 percent of the lanes are blocked; and a Level 3 indicates that more than 50 percent of the lanes are blocked.. He noted that this (Issue 92) is an example of a footprint that affects all the TMCs. SunGuide was counting the shoulder, too, but Steve said that the shoulder is not a travel lane and should not be included in the calculation. Southwest Research Institute provided a patch to resolve this issue.

Robert Heller of SwRI explained that footprint changes are reflected in a software patch that was issued for SunGuide. These kinds of changes do not warrant a new software release. Trey agreed that this type of update should be part of the software configuration and that everyone should be informed of these matters. He encouraged everyone to visit this site and review these footprint items.

Software Support — Trey said there has been 24 hours a day, 7 days a week telephone support with answering service and he gave the telephone number for the support line. This service is provided by SwRI's San Antonio-based staff. The operator answers, takes down the caller's information, and a support staff member phones back within an hour for critical issues. Trey said if there are ways to make it better so people will use it more, then that should be addressed. Also included in the support agreement is the Footprints Issues Tracking Database, and the diagnosis and troubleshooting of problems, as well as installation and upgrade service and support. Minor enhancements are provided and a SwRI staff member makes a weeklong trip to Florida one time per month as needed. The budgeted cost for this is \$395,702 for fiscal year (FY) 2007.

The expense is on target in regards to the budget. Trey said the rate is based on a certain number of hours of support. Peter Vega said he feels the budget amount is high. Steve Corbin asked whether the assistance “timer” starts when the call is made and Robert Heller responded that it does. Steve asked what constitutes a response. Is it when you get a call back or when you get a fix? Trey said a response is when you get a call back. Steve replied that this won't work for the Districts; they need a software fix. Walt Townsend said that may be difficult because fix times vary and it may take days to repair a problem. Steve responded that the CMB needs to look at creating some form of matrix so that the mean time for repairs can be tracked. Trey asked that all users give him comments on this. He agreed with Steve that if it's a software crash and a TMC system is down, that would be more critical than a simple program bug that needs fixing.

FDOT Change Management Board Meeting Notes
Friday, December 1, 2006 — 9:30 a.m. to 11:30 a.m.

Robert Heller reminded the CMB that what is proposed for the support agreement has already been through the CMB and was approved, so the decision has been made. Trey and Elizabeth Birriel said the discussion is for next year (i.e., FY 2008). Elizabeth McCrary recommended having an indication that a response from SwRI has been received and logs that identify when a repair request is made.

Trey Tillander said the support agreement for next year has an expanded scope. The estimated cost is \$477,551, which includes \$182,000 for a fulltime SwRI staff person at the Traffic Engineering Research Laboratory (TERL), where the software is installed now. Steve Corbin asked about the qualifications for this support person. Trey responded that it needs to be a SwRI software development team member who moves to Tallahassee or someone trained for this position to be part of the support infrastructure. He would like to avoid a situation where on-the-job training is needed. The price for SwRI's support has been reduced through the adoption of lesser job classifications. Elizabeth Birriel said she would like to see the \$477,551 reduced further. She and Chris Birosak think fewer trips to Florida would be acceptable. She favors a cutback on travel from San Antonio.

Steve Corbin said that it would be helpful for the CMB to have a figure on what was spent the previous year. It would show how much of the previous budget the FDOT spent on SunGuide support. (It was noted that travel is \$12,000 of the current \$395,702). Peter Vega asked about support received at the time each District deploys the SunGuide software. He asked whether that includes system debugging costs. Trey said that is covered in the original contract, but this is for support. He explained that support was covered in the original contract. Trey said he would provide information on the cost proposal so members can decide if the response level is what everyone wants. Steve Corbin added that everyone should look at the support contract document and offer feedback on it. Trey says he can provide that.

Steve Corbin asked Robert Heller about the nature of support from San Antonio and about who responds. Robert replied that a SwRI person at TERL is fully dedicated to SunGuide and provides full-time support. That would be the person's sole function. Staff in Texas only bills the FDOT when they work on SunGuide problems, but they have other commitments, too. They are instructed, however, to respond immediately to the FDOT calls.

SunGuide Alternative Map Approaches — As requested at the November meeting, Robert Heller gave a briefing on SunGuide alternative map technologies. He said a white paper that Steve Dellenback authored was sent to everybody. Robert showed slides that gave a summary of mapping requirements. Maps must show incidents, roadway conditions, and ITS devices. The SunGuide operator must be able to manually create incidents and select alternative map views. Southwest Research Institute utilized a scalable vector graphics (SVG) display engine within a normal browser to create this function, but now the question concerns map performance. Robert explained that there are many extensible markup language (XML) messages moving between SunGuide and the graphical user interface (GUI) for processing purposes. This takes a long time because of the parsing speed of these JavaScript® messages, whereas actual map rendering takes very little time.⁴ Southwest Research Institute has determined that the parsing can be moved to an application service provider (ASP) application, replacing Java. This would reduce the parsing to as little as 5 seconds. The discussion of map performance is timely because SunGuide users are asking the map to do more. A good example is displaying system status, Robert noted.

He presented three map creation options. In the first, a TMC can have a workstation-based map, and this would require each workstation to have ESRI™ geographic information system (GIS) tools.⁵ A second option is the server-based map (e.g., Google™ maps).⁶ The operator would query a server that would respond with a map rendering transmitted back to the workstation. The third option is a combination of these two. For the browser client, SVG performs the map rendering on your workstation.

Robert Heller showed how SunGuide maps work for the operator and also what the SunGuide Web server displays, which is generally a fixed view determined by the system administrator.

ESRI tools are widely used in the GIS industry. There is also Microsoft® MapPoint®, which is similar to Microsoft Streets & Trips.⁷ Robert said it has visually appealing maps and the program is well integrated with Microsoft products. However, base map data cannot be altered. Google maps are widely used as an Internet-based map service, and now Google has a fee-based usage structure for the “enterprise” edition. Robert showed a slide for workstation map generation, and another with charts on the performance and cost of server-based maps.

Robert recommended that the CMB not select a map tool until the desired functionality is captured. He urged the CMB to decide what is really important to SunGuide users before making a choice. Write these needs as requirements, then prioritize them and establish a consensus. Evaluate implementation alternatives, options, and costs.

⁴ JavaScript is a registered trademark of Sun Microsystems, Inc.

⁵ ESRI is a trademark of Environmental Systems Research Institute, Inc. in the United States and other countries.

⁶ Google is a trademark of Google, Inc.

⁷ Microsoft and MapPoint are registered trademarks of Microsoft Corporation in the United States and other countries.

Steve Corbin asked what should be considered in the context of the AVL that is being added to SunGuide. What should be done as the CMB moves forward with this map-based function? Robert replied that many of the functions require the use of GIS coordinates for positioning. Placing devices on a map using latitude and longitude is the same as placing a vehicle on that map. Robert said changing map technologies will affect AVL because it will affect everything. Fortunately, the placing of objects on a map is all common code. Walt Townsend asked Trey Tillander how to move forward with defining requirements for this. Trey referred to the white paper on mapping approaches, which had basic questions that would drive you to a conclusion. He recommended that everyone read the white paper and work through those questions.

Peter Vega asked what the CMB's desired time frame is on this. Trey said he favors sooner rather than later – maybe making it part of Release 3.x. Peter said he is getting inquiries from companies who have map products. Trey replied that he is not concerned with map appearance as much as what it does and its performance. Before the CMB gets sales pitches, members need to know what they want. He asked if the FDOT can use the Texas Department of Transportation (TxDOT) map system. Robert responded that you can, but not right away. Texas is very particular about releasing these programs to other users before there is verification that the map system works properly. However, the FDOT could benefit from that learning curve.

Trey read the questions from the white paper. Steve Corbin poses the idea of a map that can also be used for the 511 service later. He'd prefer that, especially since TMC operators must provide quality control on map data displayed to the public and it is better to do that on the same map. If a map is hosted on an external server and something happens, then that would be a problem. Walt Townsend said the answers to the white paper questions will determine the prototype to proceed with.

Trey asked that all Districts send answers to the white paper questions and if there's a trend evident from that, have SwRI draw up a prototype concept to use when vendors present. Steve Corbin said he would send everyone an email survey on this.

Release 3 AVL Subsystem Funding — Trey said the SwRI estimate is \$234,791, which includes the GUI, the subsystem, and the driver. A vote today means that development of the AVL function can proceed. John Bonds asked if the CMB goes to a new map, will the GUI cost go up for AVL? That depends. Robert said the relationship between the map and AVL is not unique to the AVL. The cost for the AVL could be minor because it would be shared across all of the subsystems that rely on the map. It is common code. John said he thinks it might be better to proceed with the AVL development and be able to use that, even with the possible change in the mapping thereafter.

David Krauss asked a question about whether the AVL module would support District 7's XML format. District 7 already has an AVL legacy format for its Road Ranger system. Robert says he can do it any way the CMB wants. Steve Corbin called the question and everyone voted. The measure passed to proceed with AVL development.

Event Manager (EM), Performance Measures (PM), and Incident Management (IM) Subsystems in Release 3 — John Bonds presented a briefing on Release 3.x, including EM and PM functions. John recommended that additional requirements be reviewed by the CMB, with SwRI providing the costs. That would be followed by a CMB vote. He said there could be a vote on the additional requirements at a CMB meeting in January or February.

Trey asked if Release 3.x would have the same look and feel as Release 2.2. Robert Heller replied that the price includes 3.x being fully compatible with previous SunGuide versions. Trey said that can be put in the text part of the engineering change order. Steve Corbin asked about the data storing function for reporting purposes. Robert said he did not know. Trey said a ballot will be prepared on this for voting at the next meeting.

ITS Architecture Change Request from LYNX —Trey explained that the request from the LYNX transit service in Orlando relates to their “FlexBus” project and deals with a change in the regional ITS architecture. Customers request a bus by visiting a Web site, kiosk, or similar location. He showed a slide that summarized the request. The change only affects District 5. A vote was taken and the change was approved.

Design Overview of CCTV Preset Scheduler — Robert Heller provided a status briefing on the CCTV preset scheduler. It provides a means for arranging CCTV preset operations. The SunGuide operator can also use this feature to select other devices and preset other events. It includes systemwide presets, preset homing, and preset tours (moving through a series of positions). Then he showed graphics of the preset scheduler GUI, where the operator fills in his preferences.

In response to a question from Steve Corbin, Robert said he would find out an answer to the scheduling of cameras at staggered intervals, which an operator could use to view each individual camera’s movement to its new preset as each change occurs (based on a 24-hour clock). Robert will also find out what happens when an operator manually schedules a device that already has a sequence and they conflict.

Review of Action Items — David Chang and Steve Corbin went over the Action Item list they had compiled from the discussion during the meeting.

ACTION ITEMS

- 1) SunGuide users are to provide Trey Tillander with their comments on the *SunGuide Support Definition Response Times* document so that the mean time for software repairs can be tracked for the purposes of documenting response times.
- 2) For the FY 2008 SunGuide support maintenance scope and cost, Trey will work with SwRI to find ways of reducing the cost of trips to Florida for onsite support.
- 3) Trey will distribute SunGuide support and maintenance cost information to the CMB members so they can decide if the response level is what everyone wants.
- 4) Trey will contact Maj. Williams of the Florida Highway Patrol (FHP) regarding the cost of Microsoft MapPoint software.
- 5) The CMB members will provide comments on the mapping approaches white paper by December 8. Steve Corbin will send everyone an email survey on this.
- 6) The CMB will schedule the SunGuide mapping proposal discussion in conjunction with the 511 workshop in January 2007.
- 7) Southwest Research Institute will provide a prototype map for the January workshop.
- 8) The CMB members will provide review comments on SunGuide Release 3.x by December 20, 2006.
- 9) Language stating that the EM/PM module in Release 3.x will be fully compatible with SunGuide Release 2.2 will be added to the engineering change order for the project.
- 10) The CMB members are to provide comments on the CCTV camera preset scheduling function as outlined in the presentation slides by SwRI by December 8, 2006.
- 11) Southwest Research Institute will look into the CCTV preset scheduling sequencing feature, based on a 24-hour clock.
- 12) Southwest Research Institute will research what happens when an operator manually schedules a device that already has a sequence and they conflict. Which operation would take priority?
- 13) Southwest Research Institute will provide answers to the CMB for the following questions:
 - Will the AVL system interface directly with the database for the purpose of creating reports or will it be databus centric?
 - Will the EM/PM GUI in Release 3.x communicate with SunGuide via the databus or the database?