

2016 Executive Committee

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**ITS Technical Committee
Meeting Minutes
Tuesday, August 2nd, 2016**

Name	Agency
Derek Nieveen	Alliant Engineering
Todd Olson	Alliant Engineering
Ginny Crowson	Athey Creek
Steve Rippey	Metro Transit
Steve McHenry	SRF
Brian Scott	SRF
Mike Kronzer	MnDOT
Ray Starr	MnDOT
Morrie Luke	MnDOT
Jim McCarthy	FHWA
Kyle Halligan	WSB
Cory Johnson	MnDOT
Chad Braun	Carver County
Dan McCormick	Carver County
Kevin Albertson	TAPCO
Brian Scharles	TAPCO

Meeting Location: MnDOT Waters Edge, Conference Room A
Meeting Topic: ITS Equipment Maintenance
Meeting Presenter: Brian Scharles and Kevin Albertson, TAPCO

1. Introductions / Sign-up sheet
2. Approve Minutes of Tuesday, May 3rd, 2016
3. Review Agenda of Tuesday, August 2nd, 2016
4. Discussion Topic – ITS Equipment Maintenance. Presented by Brian Scharles and Kevin Albertson, TAPCO.
 - TAPCO currently holds the Wisconsin DOT ITS Maintenance Contract which includes the following devices:
 - 400 Cameras
 - 144 Ramp Meters
 - 105 Permanent DMS
 - 140 PCMS
 - 1600+ Detectors
 - Numerous other devices

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- TAPCO also assists local agencies in signal maintenance, which can overlap with ITS in the areas of communications.
- TAPCO services around 1100-1300 WisDOT tickets annually.
- CCTV cameras
 - Unique deployments include mounting cameras on high mast lighting, utilizing solar and wind power in remote locations, and including 5.8GHz radios for communications to the STOC.
- Detectors
 - Types of detection used by WisDOT includes:
 - RTMS G4
 - Wavetronix
 - RTMS SX300 (replacing G4's and Wavetronix)
 - Deep Blue (Bluetooth detector)
 - Triple Beam Over-height Sensors
- Ramp Metering
 - TAPCO has been using Sensys pucks for a simple solution to in-pavement loop failures.
 - Overhead ramp meter detection is transitioning from video detection to microwave due to the lower mounting heights. Microwave detection does not require cleaning maintenance.
- Permanent DMS
 - TAPCO worked with Adaptive Microsystems in Wisconsin to retrofit DMS by replacing flip disks with LED modules.
 - WisDOT is currently in contract with Adaptive to provide DMS. Wisconsin is using full-color DMS with 20 mm pixel pitch.
- Solar PCMS
 - TAPCO developed an innovative solution to providing a reliable source of power for solar PCMS. They have been testing and using a pure methanol fuel cell to augment the solar power.
 - Findings found that the methanol fuel cell will provide roughly 420 hours of power on 23 liters of methanol. Additionally, only 15 failures occurred (41 previous failures were reported) and of those 15 failures, none were power related.
- Device Reporting
 - TAPCO has developed maintenance tracking forms for all devices that give information on GPS location, previous work done, configuration, as well as other pertinent information.

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- Technicians in the field utilize a cell phone application to report maintenance data that can easily and accurately imported into TAPCO's maintenance forms.
- In addition to receiving tickets from WisDOT, TAPCO is able to proactively monitor all of WisDOT's devices using an application that reports when ping information is unable to be completed.
- Other Devices
 - In addition to the devices mentioned above, TAPCO also manages the following:
 - Wireless Radios
 - Highway Advisory Radio (HAR)
 - Blinker Chevron Signs
 - Radar Feedback Systems
 - Blinker Wrong Way Signs
 - Rectangular Rapid Flash Beacons (RRFB)
 - Blinker Stop Signs

5. Round Robin:

- Cory Johnson gave an update on the ATCMTD grant for ICM/Connected Vehicles. Roughly 1000 upgrades to both freeway and signal controllers would be performed as part of this RFP if it is chosen.
- Cory also noted that three selections were made for the Innovative Ideas contract:
 - Variable Pedestrian Clearance Using Automated Pedestrian Detection
 - MnPASS Enforcement
 - Wavetronix Signal Detection
- Steve McHenry and Brian Scott provided an update on SRF's work including:
 - Finalizing IRIS deployment in Nebraska
 - RTS projects with Metro Transit
 - MOA transit station
 - Kennedy Bridge infrastructure monitoring system
- Steve Rippey noted that Metro Transit will be implementing an on-board real-time information system for users on A-line buses.
- Ginny Crowson gave us information about a Northwest Passage Staff Training Forum in August for the maintenance of ITS equipment along the I-90/I-94 corridors.
- Morrie Luke noted that he has moved to District 1. He also told us that the D1 IRIS server was successfully transferred to Metro.
- Jim McCarthy is currently working on the following:

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- Organizing a Connected Vehicle Planning Workshop: Scenario Planning
- Peer Review for Managed Lanes Enforcement. High violation rates increase pricing and congestion in those lanes, making them less effective.
- Mike Kronzer provided an update on RICWS. The last of the RICWS is has been constructed. Mike also noted that MnDOT is creating a remote monitoring system for ITS devices in-house.
- Ray Starr gave the following update:
 - MnDOT has chosen a new Asset Management Software called Agile Assets. It is expected to be turned on August 23rd.
 - Ray will be meeting with the Metropolitan Council regarding an Automated Vehicles proposal.

6. Other:

- Next meeting will be held on Tuesday, October 4th, 2016, 1:00pm-to-3:00pm at Waters Edge Conference Room A.
 - Meeting Topic: "Connected Vehicle Snow Plow" by Nichole Morris, UMN.