

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Michigan Department of Transportation

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # TPF-5(231)	Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 4 – December 31)	
Project Title: ITS Pooled Fund Program (ENTERPRISE)		
Project Manager: Lee Nederveld Phone: (517) 335-5317 E-mail: nederveldl@michigan.gov		
Project Investigator: Dean Deeter, Athey Creek Phone: 503.343.9602 E-mail: deeter@acconsultants.org		
Lead Agency Project ID:	Other Project ID (i.e., contract #): 2010-0316	Project Start Date: January 2010
Original Project End Date: December 2015	Current Project End Date:	Number of Extensions:

Project schedule status:

- On schedule**
 On revised schedule
 Ahead of schedule
 Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
\$2,200,000 (5 year estimated budget, final Budget dependent on member contributions)	\$683,420	31%

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$79,049	\$79,049	4%

Project Description:

The ENTERPRISE Pooled Fund Program performs technical projects to serve the needs of the member agencies. Currently, 16 member agencies participate in the ENTERPRISE Pooled Fund. Each year, the members identify current needs of their organization that they feel are most suited to be addressed by pooled fund projects. After identifying candidate projects, the members discuss and ultimately vote to elect the projects to be included in the year's Work Plan. Technical projects are then performed to execute the projects and address member needs. Overall, three high level tasks are performed:

- **Management support** to the program, the lead state, and to members;
- **Administrative support** to organize and conduct in-person meetings and monthly webinars; and
- **Technical support** to execute the technical projects selected for each year's Work Plan.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

Administrative/Management Task:

- Two conference calls were held during the 2nd Quarter with the ENTERPRISE board members and one in person meeting in Phoenix, Arizona.

Technical Task:

- Project 5: ICWS Coordination and Systems Engineering – Phase 2
Project Goal: An extension of Project 1, this project will further support the standardization of ICWS by coordinating among the various national standards and association groups, and by developing a concept of operations and system requirements for the four types of ICWS identified in the Design and Evaluation Guidance for Intersection Conflict Warning Systems.
 - The final system requirements were posted on the project web page: http://enterprise.prog.org/Projects/2010_Present/icwsphase2.html.
- Project 6: Next Generation Traffic Data and Incident Detection from Video
Project Goal: To develop and test software systems to analyze video streams to collect traffic data, and to detect incidents. Test environments are expected to include rural area animal detection (to warn of animal crossings), and metropolitan area incident detection.
 - Phase 2 scope of work was revised to include additional ENTERPRISE member agencies. Iowa DOT and Minnesota DOT have agreed to participate by serving as deployment sites for testing the video analytics system.
 - Iowa, Kansas City Metro Area (KC Scout) and Missouri DOT have identified sites for evaluation
 - One participating vendor has completed installation in Iowa.
 - A kickoff meeting for the cost/benefit portion of the project was held.
- Project 7: ITS Warrants to a Permanent Home
Project Goal: To transition the ENTERPRISE warrants process to a selected agency/organization as a permanent home and identify a warrant review process.
 - The ENTERPRISE Board reviewed a number of options for a permanent home for the warrants and agreed that ENTERPRISE would continue to own and maintain the warrants.
 - Organizations/agencies to review and comment on the warrants have been identified and a warrants review process has been created. ITS Warrants presented to AASHTO SCOTE in June.
- Project 8: Use and Impacts of Camera Images and Other Displays of Traveler Information (Interpretable Traveler Information – Use and Impacts)
Project Goal: Understand the use and impacts of the 'interpretable information' (e.g. video or still camera images) displayed to travelers.
 - The on-line survey of travelers was finalized and linked from various ENTERPRISE member websites in March. Preliminary survey results were presented at the April meeting. The survey will be available through May.
 - A literature search was finalized and was shared with the ENTERPRISE members at the April Board Meeting.

- Web usage tracking was initiated in Minnesota, Iowa, and Idaho.
- Project 9: Crashworthiness and Protection of ITS Field Devices
Project Goal: The objective of this project is to determine if there are appropriate crashworthy supports for ITS Field Devices (signs, detectors, solar panels, control cabinets, etc.), that meet federal MUTCD and AASHTO standards and guidelines for crashworthy roadside appurtenances.
 - Project was authorized on 6.12.13
 - A search for crashworthy ITS system configurations and supports started. Online sources included FHWA's list of accepted crashworthy supports and online design standards of ENTERPRISE State DOTs.
- Project 10: HAR – Best Practices and Future Direction
Project Goal: The intent of this project is to research the current HAR 'state of the practice', and document how effective HAR is, and provide additional details that will allow ENTERPRISE members to make decisions about whether or not to invest (or continue investing) in HAR technologies.
 - Project was authorized on 6.12.13
- Project 11: Intelligent Workzone – Synthesis of Best Practices
Project Goal: Document the best practices and lessons learned regarding IWZ technologies (Dynamic Merge, End of Queue Warning, Alternate Routes, and Variable Speed Limits) from various sources to draw conclusions about what approaches work best in what situations.
 - Project was authorized on 6.12.13

Anticipated work next quarter:

Administrative/Management Support Task:

- A monthly webinar will be conducted in July. An in person meeting will be held in August in St. Cloud, Minnesota.

Technical Task:

- Project 5: Intersection Conflict Warning System – Phase 2
 - Continue outreach and collaboration with the Low Cost and Traffic Control Devices pooled funds (ENTERPRISE letter send to the TCD pooled fund to support their human factors research), NCUTCD ICWS task force and ATSSA.
- Project 6: Next Generation Traffic Data and Incident Detection from Video
 - Continue vendor coordination.
- Project 7: ITS Warrants to a Permanent Home
 - Meet with the suggested review organizations to request review of the warrants.
- Project 8: Use and Impacts of Camera Images and Other Displays of Traveler Information (Interpretable Traveler Information – Use and Impacts)
 - Compile and present the survey results.
- Project 9: Crashworthiness and Protection of ITS Field Devices
 - Contact ITS device manufacturers and State DOTs to request relevant information.
- Project 10: HAR – Best Practices and Future Direction
 - Define the focus of the project.
- Project 11: Intelligent Workzone – Synthesis of Best Practices
 - Define the focus of the project
- Additional projects from the 2010-2012 Work Plan will begin to commence during the next quarter.

Significant Results:

Projects authorized:

- Project 9: Crashworthiness and Protection of ITS Field Devices
- Project 10: HAR – Best Practices and Future Direction
- Project 11: Intelligent Workzone – Synthesis of Best Practices

Circumstance affecting project or budget (Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

N/A