

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa DOT

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(295)	Transportation Pooled Fund Program - Report Period: X Quarter 1 (January 1 – March 31, 2021) Quarter 2 (April 1 – June 30) Quarter 3 (July 1 – September 30) Quarter 4 (October 1 – December 31)	
Project Title: Midwest Smart Work Zone Deployment Initiative		
Name of Project Manager(s): Dan Sprengeler	Phone Number: 515-239-1823	E-Mail Dan.Sprengeler@dot.iowa.gov
Lead Agency Project ID: Keith Knapp	Other Project ID (i.e., contract #): Addendum 535	Project Start Date: July 1, 2014
Original Project End Date: June 30, 2020	Current Project End Date: December 31, 2021	Number of Extensions: None

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	Percentage of Work Completed to Date
\$1,425,000 committed	\$1,286,497.60	25% (of extension)

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$29,564.25		100

Project Description:

The Midwest Smart Work Zone Deployment Initiative (MwSWZDI) was initiated in 1999 as a Federal Highway Administration (FHWA) Pooled Fund Study intended to coordinate and promote research among the participating states related to safety and mobility in highway work zones.

The program is an ongoing cooperative effort between State Departments of Transportation, universities, and industry. The studies completed have consisted of evaluations of various work zone related products, various innovative topics, and several synthesis studies. Completed reports and descriptions of ongoing projects can be obtained at the Iowa State University's Institute for Transportation (InTrans) website (www.intrans.iastate.edu/smartwz/) link to the Smart Work Zone Deployment Initiative. InTrans currently operates as the program manager of the pooled fund efforts and completes administrative tasks related to request for ideas and proposals, meetings, project files, quarterly reports, and recommending reimbursement.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**Quarter Ending March 31, 2021 (Overall)**

During this quarter we communicated with principal investigators as needed and resolved progress issues if they occurred. Projects from Program Years 2018 and 2019 contracts progressed (see below) and are the focus of this project number. The 2020 to 2022 projects are discussed in another quarterly report.

The following is a summary of accomplishments from January to March 2021 for the individual research projects underway with fund account TPF-5(295).

2019 Program Projects

The following projects were selected in September for funding during the 2019 program year.

- Field Testing of Non-Motorized Road User Accommodations for Work Zones, Iowa State University, John Shaw as PI.

Contract timeline extended to 12/31/21. Preparing for Pedestrian Test Track implementation in summer 2021.

A justification for time extension to 12/31/2021 was prepared in the last quarter of 2020. The extension was approved. This work was contracted for 1/1/2019 to 3/31/2020 and was extended to December 31, 2020. It has been extended again to March 31, 2021 and now to December 31, 2021. The project is 10% complete.

- Investigation of Autonomous/Connected Vehicles in Works Zones, University of Missouri-Columbia, Carlos Sun as PI.

The simulator lab is almost ready for hosting human subject studies. Due to the COVID shutdown of the lab, several pieces of equipment needed to be adjusted and re-tested. The triple screen configuration was re-aligned and calibrated so that the human subject would have a realistic view out the vehicle window. The simulator network was re-configured and re-connected so that the driving and trucking simulators are once again synchronized.

Please note that internal funds are now being used to complete the project. This was due to the COVID shutdown and the need for no-cost extending the project.

This project is contracted to start on 4/15/2019 and end on 7/31/2020. It was extended to March 31, 2021 and now to December 31, 2021. The project is 75 percent.

2018 Program Projects

- Guidance on Active Work Zone Data Archival, Iowa State University, Anuj Sharma is PI.

This project report has been completed and the report/technical transfer document posted. It is 100% complete.

Anticipated work next quarter:

Work will continue to work to finalize the two 2019 projects listed above. These two projects were extended to the end of 2021 due to impacts of COVID.

Significant Results:

Work continued on the two project above and the 2018 project was completed and posted this quarter.

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

Currently there are no problems to report with the administrative contract. The COVID 19 situation has impacted the progress of the two 2019 projects and the projects have been extended to the end of 2021.

Potential Implementation:

The website for the SWZDI pooled fund is updated on a regular and as needed basis for finished reports.