

TRANSPORTATION POOLED FUND PROGRAM

QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Michigan DOT

INSTRUCTIONS:

Lead Agency contacts 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 # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> <p style="text-align: center;">TPF-5(490)</p>	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 1 – December 31)	
TPF Study Number and Title: TPF-5(490) ENTERPRISE-Phase III (Phase II Continuation)		
Lead Agency Contact: Michigan Department of Transportation	Lead Agency Phone Number: 517-636-0036	Lead Agency E-Mail SpinksM@michigan.gov
Lead Agency Project ID: OR22-204	Other Project ID (i.e., contract #): 2024-0826	Project Start Date: 3/6/2023
Original Project Start Date: 3/6/2023	Original Project End Date: 9/30/2028	If Extension has been requested, updated project End Date: Click or tap to enter a date.

Project schedule status:

<input checked="" type="checkbox"/> On schedule	<input type="checkbox"/> On revised schedule	<input type="checkbox"/> Ahead of schedule	<input type="checkbox"/> Behind schedule
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Overall Project Statistics:

Total Project Budget	Total Funds Expended This Quarter	Percentage of Work Completed to Date
\$1,241,225.00	\$39,762.38	43%

Project Description:

TPF-5(490) is a continuation of TPF-5(359) led by the Michigan Department of Transportation. This pooled fund federal project originated under the project titled "ENTERPRISE Group" that was established in 1991. Each year, partner members contribute funds in support of ITS projects of mutual interest.

Selected research studies/projects typically involve private sector partners contracted to work with designated member agencies. An administrative contract, currently with CTC & Associates LLC, covers project management, meeting planning, website and other tasks. Over time ENTERPRISE has grown into a multi-national consortium dedicated to the advancement of ITS. The consortium provides a focus for coordinating ITS developments and sharing results within and outside the ENTERPRISE program.

Primary Focus:

To enhance innovation in highway operations and intelligent transportation systems through research and technology transfer, as well as to continue assessing transformational technologies and their impact on the transportation industry.

Objectives: The Board has selected the following 13 research projects for this phase of the pooled fund study.

Primary Projects

1. State of the Art Roadway Sensors – Phase 1
2. New Methods of Traffic Data Collection
3. Potential Approaches for Wrong Way Driving Applications – Phase 2
4. Procurement Specification for Physical Security of ITS
5. Novel Uses of Unmanned Aerial Systems in ITS
6. State of the Art of Roadway Sensors – Phase 2

Secondary Projects

7. Administration of Communications
8. ITS Simple Innovations
9. Uncontrolled Pedestrian Crossing ITS Countermeasures
10. Defining and Advancing Digital Infrastructure
11. Role of AI in ITS
12. Alternate Methods of Traffic Data Analysis
13. Truck Parking Technologies
14. Documenting Current Road Weather Information Systems (RWIS) Technologies Related to ITS and Operations

Progress this Quarter

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

Board teleconferences held on May 21 and June 18, 2025. CTC & Associates developed the agenda, documented the meeting, and finalized, distributed and posted meeting minutes.

CTC & Associates finalized the planning and held a hybrid in-person/virtual Board meeting in Houston, TX from April 2-3, 2025. Tasks included setting up the virtual platform, agenda development, booking flights, securing a hotel, meeting logistics, notetaking during the meeting, finalizing meeting minutes, posting/distributing meeting minutes, reimbursements and follow up meeting action items.

CTC & Associates assisted MDOT with members' pooled fund commitments and transfers.

CTC & Associates updated the website with current information. (<http://enterprise.prog.org>)

CTC & Associates assisted Athey Creek with activities related to individual research projects.

Research projects

Project 7: Administration of Communications

- Task 3: Draft Report – Task completed.

- Task 4: Final Report – Task completed. Comments incorporated into the final report.

Project 8: ITS Simple Innovations

- Task 3: Draft Report – Completed the draft report and searchable spreadsheet and distributed for comment.

Project 9: Uncontrolled Pedestrian Crossing ITS Countermeasures

- Task 5: Final Report – Task completed. Comments incorporated into the final report.

Project 10: Defining and Advancing Digital Infrastructure

- Task 1: Definition and Strategy for RDI – Completed webinars for members to present and discuss specific RDI topics. – Task completed.
- Task 2: Next Steps for Advancing RDI Support and Use – Started to document next steps.

Project 12: Alternate Methods of Traffic Data Analysis

- Task 1: Gather Agency Examples – Continued conducting research and interviews to identify alternative methods of traffic data analysis.

Project 13: Truck Parking Technologies

- Task 3: Draft Report – Task completed.
- Task 4: Final Report – Task completed. Comments incorporated into the final report.

Project 14: Documenting Current Road Weather Information Systems (RWIS) Technologies Related to ITS and Operations

- Task 4: Draft Report – Task completed.
- Task 5: Final Report – Task completed. Comments incorporated into the final report

The following research projects are complete, and the final report is posted to the ENTERPRISE PFS website:

- **Completed December 2023:** Project 1: State of the Art Roadway Sensors – Phase 1: <https://enterprise.prog.org/wp-content/uploads/ENT-Roadway-Sensors-Phase-1-Final-Report.pdf>
- **Completed March 2024:** Project 2: New Methods of Traffic Data Collection (Comparison of Emerging Traffic Data Collection Methods to Traditional Methods): <https://enterprise.prog.org/wp-content/uploads/ENT-Comparison-Traffic-Data-Collection-Methods-Final-Report.pdf>
- **Completed April 2024:** Project 5: Novel Uses of Unmanned Aerial Systems (UAS) in ITS: <https://enterprise.prog.org/projects/novel-uses-of-unmanned-aerial-systems-uas-in-its/>
- **Completed June 2024:** Project 4: Procurement Specification for Physical Security of ITS: (Posted to the ENTERPRISE members only website.)
- **Completed June 2024:** Project 6: State of the Art of Roadway Sensors – Phase 2: <https://enterprise.prog.org/projects/state-of-the-art-roadway-sensors-phase-2/>
- **Completed July 2024:** Project 3: Potential Approaches for Wrong-Way Driving Applications – Phase 2: <https://enterprise.prog.org/projects/potential-approaches-for-wrong-way-driving-applications-phase-2/>
- **Completed March 2025:** Project 11: Role of Artificial Intelligence in Intelligent Transportation Systems: <https://enterprise.prog.org/wp-content/uploads/ENT-AI-in-ITS-Final-Report-Mar-2025.pdf>
- **Completed April 2025:** Project 9: Uncontrolled Pedestrian Crossing ITS Countermeasures: <https://enterprise.prog.org/projects/uncontrolled-pedestrian-crossing-its-countermeasures/>
- **Completed April 2025:** Project 13: Truck Parking Technologies: <https://enterprise.prog.org/projects/truck-parking-technologies/>
- **Completed April 2025:** Documenting Current Road Weather Information System (RWIS) Technologies Related to ITS and Operations: <https://enterprise.prog.org/projects/documenting-current-road-weather-information-system-rwis-technologies-related-to-its-and-operations/>
- **Completed June 2025:** Project 7: Administration of Communications: <https://enterprise.prog.org/projects/administration-of-communications/>

Anticipated work next quarter:

The Board will hold teleconferences on July 16, August 20 and September 17, 2025. CTC & Associates will create agendas, take notes, and finalize, distribute and post meeting minutes for monthly Board meetings.

CTC will begin planning a hybrid in-person/virtual meeting taking place from October 15-16, 2025 in Chicago, IL. Planning activities will include agenda development, finding and contracting with a hotel, booking flights, and setting up the virtual platform.

CTC & Associates will MDOT with members' pooled fund commitments and transfers.

CTC & Associates will update the website with current information. (<http://enterprise.prog.org>).

CTC & Associates will monitor the research projects schedules and assist Athey Creek with activities related to individual research projects.

Research projects - Athey Creek (Project updates are presented at monthly Board meetings.)

Project 8: ITS Simple Innovations

- Task 4: Final Report – Incorporate comments into the final report.

Project 10: Defining and Advancing Digital Infrastructure

- Task 2: Next Steps for Advancing RDI Support and Use – Continue to incorporate Task 1 findings into next steps.
- Task 3: Draft Report – Begin to draft report.

Project 12: Alternate Methods of Traffic Data Analysis

- Task 1: Gather Agency Examples – Complete researching alternative methods of traffic data analysis.
- Task 2: Use Cases – Continue to identify and document

Significant Results:

See Progress This Quarter section.

Circumstance affecting project or budget. (Please 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).

None

Potential Implementation:

None