

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa 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 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 (435)		Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31) Quarter 2 (April 1 – June 30) Quarter 3 (July 1 – September 30) X Quarter 4 (October 4 – December 31)	
Project Title: Aurora Program – Addendum 731			
Project Manager: Tina Greenfield		Phone: 515-233-7746	E-mail: tina.greenfield@dot.iowa.gov
Project Investigator: Zach Hans		Phone: 515-294-8103	E-mail: zhans@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 731	Project Start Date: January 1, 2020	
Original Project End Date: December 31, 2021	Current Project End Date: 12/31/2026	Number of Extensions:	

Project schedule status:

X 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
\$2,425,000	\$2,180,328	87%

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$22,894	N/A	3%

Project Description:

The Aurora Program is a consortium of public agencies focused on collaborative research, evaluation, and deployment of technologies for detailed road weather monitoring and forecasting. Members seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures; ultimately lessening adverse impacts of inclement weather.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.). These efforts are identified below.

Program Administrative Activities:

Reviewed financial details.

Facilitate Meetings and Conference Calls:

2023-04 Standardized Framework for Winter Weather Road Condition Indices

- Held final project meeting (with entire Board) on December 11, 2025.

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data

- None this quarter.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

N/A

Project-Specific Activities:

Addressed project invoices.

Reviewed and approved invoices and submitted to the Iowa DOT for payment.

Tracked project status and prepared a summary for recently completed and active projects.

Distributed reports to project teams and requested reports from researchers if/when not provided.

2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data [NCAR, WTI, Rutgers]

Shared the following final posting links with the Board, FHWA representative and AASHTO Winter Weather Management representative.

- Project page: <https://www.intrans.iastate.edu/research/completed/an-intelligent-human-centric-communication-system-for-adverse-weather-and-road-conditions/>
- Report: https://www.intrans.iastate.edu/wp-content/uploads/2025/09/CARWIS_w_cvr.pdf
- T2: https://www.intrans.iastate.edu/wp-content/uploads/2025/09/CARWIS_t2.pdf
- The CARWIS platform is also available for demonstration and continued evaluation at <https://r-uihilab01.ecn.uiowa.edu/lab/carwis/>, and will remain accessible through December 31, 2025.

2023-02 An Intelligent Human-Centric Communication System for Adverse Weather and Road Conditions [University of Iowa]

Shared the following final posting links with the Board, FHWA representative and AASHTO Winter Weather Management representative.

- Project page: <https://www.aurora-program.org/research/completed/automating-variable-speed-limits-using-weather-traffic-and-friction-data/>
- Report: https://www.intrans.iastate.edu/wp-content/uploads/2025/09/automating_VSLs_w_cvr.pdf
- T2: https://www.intrans.iastate.edu/wp-content/uploads/2025/09/automating_VSLs_t2.pdf

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2023-04 Standardized Framework for Winter Weather Road Condition Indices

- Coordinated with the research team regarding timing of final deliverables and final meeting.
- Distributed draft final report to the project team and provided recommendations regarding review, including new material.
- Held final project meeting on December 12, 2025 during the monthly Board meeting.
- Shared project team feedback with the research team.
- Distributed updated draft final report to the project team, including a document outlining how project team feedback was addressed.

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data

- Distributed quarterly report.

2023-03 Road Weather Management using Connected Vehicle Technology

- At the request of the Iowa DOT, looked into final invoice.

Anticipated work next quarter:

Program Administrative Activities:

Manage budget.

Facilitate Meetings and Conference Calls:

Schedule and host project meetings for existing projects.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

N/A

Project-Specific Activities:

Track project status and timelines.

Request quarterly reports from research teams.

Distribute project materials/updates to project teams.

Maintain list of project champions and team members.

For current projects, continue the following.

- Facilitate project activities as needed.
- Continue to receive and distribute project updates.
- Coordinate updates, if necessary.
- Review invoices.

2023-04 Standardized Framework for Winter Weather Road Condition Indices [Iowa State University]

- Confirm that the project team has provided all feedback on the draft final report.
- Coordinate with InTrans publication group and research team regarding editing of the draft final report.
- Publish final report.

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data [NCAR]

- Track project progress.
- Hold project update meeting as necessary.

Significant Results:

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- Published final reports and tech transfers for 2022-10 and 2023-02.
- Held final project meeting for 2023-04.
- Obtained and distributed draft final report for 2023-04.
- General project tracking, support and coordination of pertinent progress updates.

Circumstance affecting project or budget:

- The timing of the end date of 2023-04 may have impacted comprehensive project team review and feedback. This will be addressed early next quarter.