

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, 2022) X Quarter 2 (April 1 – June 30, 2022) Quarter 3 (July 1 – September 30, 2022) Quarter 4 (October 4 – December 31, 2022)	
Project Title: Aurora Program			
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: 12/31/2023	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
\$1,675,262	\$868,436	

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$175,815	N/A	

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:

- Managed Aurora website, including updating news.
- Managed Aurora email list. In some cases, states requested multiple individuals be included in Aurora-related correspondence.
- Prepared Aurora update presentation for 4th National Winter Maintenance and Road Weather Briefing. Coordinated with Aurora chair regarding content.
- Prepared Aurora update presentation for 2023 Road Weather Management Stakeholder Meeting.
- Coordinated with Iowa DOT and Delaware regarding commitments, particularly 2022 and 2023.
- Coordinated with Iowa DOT regarding request by Institute of Transportation Engineers for possible Aurora project presentations during an upcoming webinar.
- Included in correspondence regarding possible collaboration between an Aurora friction research team and other agency.
- Shared Illinois Board member contact information with Colorado Board member.
- Upon request, participated in meeting with a representative from tomorrow.io, provided an Aurora overview slide deck and coordinated presentation at the Aurora Spring 2023 meeting.
- Added tomorrow.io to Friends of Aurora and distributed introductory material to the Aurora Board.
- Upon request from NDDOT Maintenance Division Director, coordinated an Aurora project presentation at the AASHTO Committee on Maintenance 2023 Annual Meeting. John Hart, Iowa DOT Maintenance Bureau Director, agreed to make the presentation.
- Coordinated with WeatherExtreme Ltd. to speak at the Aurora Spring 2023 meeting.
- Participated in conversations (via email) with Clear Roads regarding a possible 2025 Peer Exchange.
- Addressed vendor request for Aurora Board member contact information.
- Prepared news article about the Aurora friction project that won an AASHTO High Value Research (HVR) Award.
- Distributed links to 2023 Road Weather Management Stakeholder Meeting presentations and videos.
- Coordinated with Alaska regarding a new representative.
- Shared flood monitoring information (FHWA, Delaware) with an interested city in a non-Aurora member state.
- Addressed request from Iowa DOT regarding member attendance at 2021 Fall Meeting.
- Coordinated with Iowa DOT and Washington DOT regarding 2023 and 2024 commitments.

Facilitate Meetings and Conference Calls:

- Planned and held Spring 2023 Meeting in San Diego, California. This included the following.
 - Arranged travel and accommodations for Board members.
 - Contracted with venue.
 - Prepared agenda, including field trips (3), group meals, project presentations, FHWA presentations, vendor presentations, proposed project presentations, business items, etc.
 - Provided transportation for field trips.

- Prepared and distributed meeting minutes for review.
- Facilitated or participated in all project-related meetings.
- Hosted Board member 60-Minute monthly conference calls on the following dates.
 - April 13, 2023 – New Member State (Delaware), Spring Meeting, Project Ideas
 - May 11, 2023 – FHWA Road Weather Management (RWM) Program Manager (Jeremy McGuffey), Spring Meeting, Project Proposals, Connected Vehicle & RWIS Technologies Survey
 - June 8, 2023 –Spring Meeting, Project Proposals, Presentations, Flood Monitoring/Warning Systems, Contact Information Sharing
- Sent “Save the Date” calendar invitation for Fall 2023 meeting (week of September 11, 2023).
- Sent “Save the Date” calendar invitation for Spring 2024 meeting (week of May 20, 2024).
- Addressed questions regarding Fall meeting attendance from member state.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Processed travel reimbursement requests.
- Arranged travel for Board members attending the Spring 2023 meeting in-person.
- Processed venue-related contract expenses.
- Processed other meeting-related expenses, e.g. group meals, van rental, etc.

Project-Specific Activities:

- Facilitated proposed project presentations, voting, discussion and selection during the Spring 2023 meeting.
- Coordinated with Iowa DOT regarding selected projects.
- Coordinated with Iowa DOT regarding new project contracting status.
- Addressed questions from idea and project proposers.
- General
 - Tracked project status and prepared a summary for recently completed and active projects.
 - Distributed quarterly reports.
 - Reviewed and approved invoices and submitted to the Iowa DOT for payment.
- 2020-02 Roadway Ice/snow Detection using a Novel Infrared Thermography Technology
 - Obtained project update from research team.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
 - Distributed quarterly reports.
 - Reviewed and approved invoices.
 - Schedule project update for Spring 2023 meeting.
- 2022-07 Evaluation of Spring Load Restriction Removal Protocols
 - Distributed quarterly reports.
 - Approved invoices and shared with NDOT.
- 2022-08 Integration of Connected Vehicle and RWIS Technologies
 - Reviewed and provided additional feedback on draft agency survey.
 - Distributed draft survey to Aurora Board and Clear Roads.
- 2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data
 - Reviewed and approved invoices.
- 2011-02 RWIS Training Tool
 - Processed monthly invoices for AWS hosting.

Anticipated work next quarter:

Program Administrative Activities:

- Continue Aurora website updates.
- Manage budget.
- Update the Aurora Charter, Work Plan and Associate Members, as needed.
- Address requests, as needed.
- Coordinate with Clear Roads regarding possible 2025 Peer Exchange.

Facilitate Meetings and Conference Calls:

- Continue monthly Board meeting calls to generate research ideas, discuss important issues and have vendor presentations.
- Plan Fall 2023 meeting, including select venue and prepare draft agenda.
- Schedule and host project meetings for existing and new projects.
- Calculate Spring 2023 meeting costs.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Book flights for Fall 2023 meeting, if appropriate.
- Process any remaining Spring 2023 meeting expenses, including travel reimbursement requests for the Spring 2023 meeting.

Project-Specific Activities:

- Coordinate with Iowa DOT regarding new project contracting.
- Schedule and host project meetings for existing and new projects.
- 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 all current projects:
 - Facilitate project activities as needed.
 - Continue to receive and distribute project updates.
 - Coordinate updates, if necessary.
 - Review invoices.
- 2020-02 "Roadway Ice/snow Detection using a Novel Infrared Thermography Technology".
 - Assess project status.
 - Schedule final project meeting, if possible.
 - Coordinate receipt, project team review, editing and publication of final report.
 - Publish final report, if possible.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
 - Track project progress.
- 2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data
 - Track project progress.
- 2022-08 Integration of Connected Vehicle and RWIS Technologies
 - Track project progress.
- 2022-07 Evaluation of Spring Load Restriction Removal Protocols
 - Track project progress.

Significant Results:

- Facilitated selection of projects for funding in 2023.
- Held Spring 2023 meeting, prepared meeting minutes and processed meeting-related expenses.
- Continued monthly Board meeting calls.
- Added to Friends of Aurora membership.
- Distributed 2022-08 survey to Aurora Board and Clear Roads.
- Prepared presentations for several events.

Circumstance affecting project or budget: