

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Evaluation of Indoor Automated Stockpile Measurement Systems*

OBJECTIVES: The goal of this project is to conduct a data-driven evaluation of currently available automated or semi-automated indoor salt stockpile measuring systems in order to improve agencies' day-to-day management of their salt stockpile inventories.

PERIOD COVERED: April 1 to June 30, 2021

PARTICIPATING AGENCIES: Minnesota Department of Transportation and the Clear Roads Technical Advisory Committee

PROJECT MANAGER:
Hafiz Munir / Tom Peters

LEAD AGENCY: MnDOT

PRINCIPAL INVESTIGATOR:
Brian Hirt, CTC & Associates

SP&R PROJECT NO:
MnDOT Contract No.
1030951

Federal Project Number:
TPF-5(353)

PROJECT IS:

☐ Planning
☒ Research & Development

ANNUAL BUDGET: \$84,727.00
(18-month project budget)

PROJECT EXPENDITURES TO DATE: \$5,914.62

WORK COMPLETED:

- **Task 1: Project Management.** Convened and documented a kickoff call with the Technical Advisory Panel on June 1, 2021. Reviewed the project scope, goals, timeline, milestones and deliverables; planned next steps for the project.
- **Task 2. Literature Search and Industry Review.** Conducted and wrote an annotated literature search and industry review, including a synthesis and summary of findings. Shared this deliverable with the TAP for review and acceptance. This task is *complete* pending requests for changes; the literature search will appear in the final project report.
- **Task 3: Surveys and Interviews.** Drafted an online survey for collecting information about state DOTs' salt measurement and experience with automated systems. Drafted an industry form email for collecting information about which vendors provide products that might be used as part of the evaluation. Shared the draft survey and form email with the project TAP for review.
- **Task 4: Select Systems and States for Evaluation.** Coordinated and monitored TAP member email communication regarding potential technology selections and state participants in the project.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- **Task 3: Surveys and Interviews.** Pending TAP approval, proceed with conducting and documenting the state DOT surveys, along with targeted follow-up interviews as needed. Send the form email to industry contacts and compile the results. Anticipate task completion in Q3 2021.
- **Task 4: Select Systems and States for Evaluation.** With TAC input and oversight, draft initial selections for systems and states to participate in the evaluation. Anticipate task completion in Q3 2021.
- **Task 5: Methodology for System Evaluation.** Draft the evaluation methodology document.

STATUS AND COMPLETION DATE:

This project is on track for completion by November 30, 2022.