

State Planning and Research Program Quarterly Report

PROJECT TITLE: Synthesis of Material Application Methodologies for Winter Operations

OBJECTIVES: The goal of this research is to “create a synthesis of best management practices for application rates, material application methodologies and material usage, including chloride brines applied directly or as additives to abrasives and rock salts”.

PERIOD COVERED:

Jan. 1, 2019 – March 31, 2019

PARTICIPATING AGENCIES:

Washington State University – Prime
Monte Vista Associates LLC - Consultant

PROJECT MANAGER:

Lisa Jansen/Tom Peters

SP&R PROJECT NO:

MnDOT Contract No.
1001326

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: Mn/DOT

Federal Project No.
TPF-5(218)

PRINCIPAL INVESTIGATOR:

Xianming Shi, Ph.D., P.E., WSU

ANNUAL BUDGET:

\$117,658

PROJECT EXPENDITURES TO DATE:

\$117,658

WORK COMPLETED:

Project Management

This includes the submission of quarterly progress report by the project PI to the Clear Roads program in Jan. 2019 and some communications between the PI and the Clear Roads coordinator, as well as between the PI and the consultant. The updated project end date to **April 30, 2019**.

Task 1. Literature review (100% completed)

A revised literature review was submitted for panel review again in December 2016. It highlights current practices, innovative practices, and trends related to materials used, their application rates, and the application methodologies and equipment under various road weather scenarios (temperature ranges, storm conditions, and other climate and operating conditions).

Task 2. Interview Plan (100% completed)

In December 2016, an updated interview plan was submitted to the panel for review.

Task 3. Interviews (100% completed)

The interviews were conducted with more than 35 agencies and an interview memo was submitted in Sept. 2017. The detailed notes of the interviews are also available upon request by the panel.

Task 4. Guidebook (100% completed)

The final revisions were made to the Guidebook in the last quarter and all review comments were addressed.

Task 5. Final report (99% completed)

Revisions were made to the Final Report in the last quarter. Final discussions are taking place within the project subcommittee. Final approval is expected by April 30th.

The report summarized all the methodology and findings from tasks 1 to 4.

Task 6. Final presentation (100% completed)

The final presentation was conducted by Michelle Akin in Feb. 2019, with the assistance from the entire project team.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

All the work has been conducted and we expect Clear Roads to post the final deliverables online during the upcoming quarter.

STATUS AND COMPLETION DATE:

The project is complete.