

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Standardized Test Procedures for Ice Melting Capacity of Deicers*

OBJECTIVES: The goal of this research is to evaluate the suitability of the mechanical rocker test as a standardized laboratory test that can realistically and robustly assess the performance of deicers is needed to allow DOTs to make data-driven procurement decisions.

PERIOD COVERED:

February 1, 2020 – March 31, 2020

PARTICIPATING AGENCIES:

Washington State University – Prime
Monte Vista Associates LLC – Subcontractor
Roadtech, Inc. - Subcontractor

PROJECT MANAGER: Tom Peters

SP&R PROJECT NO:
MnDOT No. 1033080

PROJECT IS:

LEAD AGENCY: MnDOT

Federal Project No.
TPF-5(353)

Planning
 Research & Development

PRINCIPAL INVESTIGATOR:

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

ANNUAL BUDGET:

\$74,086

PROJECT EXPENDITURES TO DATE:

\$0

WORK COMPLETED:

Project Management

This contract was officially signed in 2019 and the PI worked with the Clear Roads coordinator and the project panel to conduct a kickoff meeting of this project. The project panel requested the PI (Dr. Xianming Shi) to draft a plan for replacing Michelle Akin (a key personnel who left WSU in June 2019) and this plan has since been reviewed and approved by the project panel. The revised staffing plan was approved by the project panel and the research team was ready to proceed with the project in February 2020. A new kickoff meeting was held on Feb. 7, 2020.

Task 1. Mechanical Rocker Test Procedure Evaluation (5% complete). The project team gathered a list of liquid deicers of interest to various Project Panel members and is in the process of receiving the deicer samples. We have also received the data from the previous Nebraska DOT projects related to the Mechanical Rocker Test and are in the process of analyzing them.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Work in the coming quarter will consist of project management as well as the continuation of Task 1 and the beginning of Task 2 (Interim Report). The work is currently on hold due to the Coronavirus outbreak and subsequent lock-down of campus etc.

STATUS AND COMPLETION DATE:

The revised project timeline is shown as follows. Partially due to the one-month delay in contract approval and Coronavirus outbreak and subsequent lock-down of campus etc., we anticipate task delays by about three months. We will try to catch up on the schedule in the following quarters.

Task	Draft Due Date	Final Due Date
1	June 30, 2020	August 31, 2020
2	August 31, 2020	October 31, 2020
3	October 31, 2020	December 31, 2020
4	January 31, 2021	March 31, 2021
5	February 28, 2021	April 30, 2021
6	May 31, 2021	July 31, 2021

Task	2020												2021						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	X	X	X	X	X	X	X	X											
2							X	X	X	X									
3										X	X	X							
4										X	X	X	X	X	X				
5												X	X	X	X	X			
6																X	X	X	X