

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** Training for Supervisors and Operators

**OBJECTIVES:** The goal of this project is to develop a comprehensive, easy-to-use training program for winter maintenance supervisors and operators. Under this contract, our team will work with the Minnesota Department of Transportation and Clear Roads Technical Advisory Committee to identify and compile the many resources on winter maintenance and develop a series of 18 training modules for supervisors, seasoned operators, and new operators for use in the classroom or online. Information gathered through synthesis is only valuable if it can be effectively transmitted in clearly prepared documents and materials.

**PERIOD COVERED:** October 1, 2015 – December 31, 2015

**PARTICIPATING AGENCIES:**

Clear Roads

DOTs: Kansas, Rhode Island, Iowa, Maine, Oregon, Missouri, Ohio, South Dakota, Washington, Illinois, Minnesota, Nebraska, Connecticut, Pennsylvania, Massachusetts, Michigan, California, Wyoming, Vermont, Wisconsin, North Dakota, Vermont, Virginia, Montana, Idaho, Utah, Colorado, New York, and Federal Highway Administration

**PROJECT MANAGER:**

Tom Peters, MnDOT

**LEAD AGENCY:**

Minnesota Department of Transportation

**PRINCIPAL INVESTIGATOR:**

Jim Grothaus, University of Minnesota

**SP&R PROJECT NO:**

MnDOT Contract No.  
99008 Work Order No. 168

Federal Project ID:  
TPF-5(218)

**PROJECT IS:**

Planning  
 Research & Development

**ANNUAL BUDGET:**

\$100,000

**PROJECT EXPENDITURES TO DATE:**

It is an 18 month contract. We have completed 15 months of the work. An estimate of the amount of spent to date would be:  
\$80,000.00

**WORK COMPLETED:**

To date the project team has worked on the following modules. Each of the PPT modules contains technical information and photos. The instruction workbook, quizzes, PPT formatting still need to be complete. Fortin Consulting has been working very closely with the TAP to obtain comments and approval during this process.

Fortin Consulting completed the technical content for all 18 training modules. It is my understanding that the technical content is accurate and has had the appropriate technical review. Fortin had constant communication with the TAP during this process. The U of MN is still working to edit and format the PowerPoint slides and is still developing the supporting materials that consist of: training guide, pre-assessment, post-assessment, answer key for each test, and a student evaluation.

**Status of Clear Roads Training Modules:**

Date: December 31, 2015

Mod.	Topic	Status					Shared with the TAP
		Technical Content Complete by Fortin Consulting	Powerpoint Finalized	Teaching guide	Pre and Post Assessment	Student Evaluations	
1	Plowing Procedures	X	X	x	x	X	
2	Truck Operations	X	X	X	X	X	
3	Spreader Procedures	X	X	X	x	X	
4	Material Use	X	X	X	x	X	
5	Pre-wetting	X	X	x	x	X	
6	Brine Production	X	X	x	x	X	
7	De-icing	X					
8	Anti-icing	X					
9	Safety	X					
10	De-Icing Agent Management Policy	X	X	x	X	X	
11	Level of Service	X					
12	Principles of Ice Formation	X					
13	Science of Freeze Point Depressants	X	X	x	x	X	
14	Snow and Ice Control Agents and the Environment	X	X	x	X	X	
15	Drift Control	X					
16	Weather Basics	X	X	x	X	X	
17	Bridge Frost	X					
18	Avalanche Management	X					

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

We plan to finalize the instructional workbook, quizzes, and final PPT format for the 18 modules by January 31, 2016 and then meet with the Technical Advisory Panel (TAP) in February 2016. Work on remaining modules and review them with the TAP.

Additionally we will submit a request for an amendment to develop an additional 5 modules.

**STATUS AND COMPLETION DATE:**

We have approval of Task 1, 2 and 3. We have not submitted a request for approval for Task 4.