

State Planning and Research Program Quarterly Report

PROJECT TITLE:

Quantifying the Impact New Capital Projects will have on Roadway Snow and Ice Control Operations

OBJECTIVES:

1. Survey other state DOTs for potential case studies
2. Develop a Methodology
3. Develop a Calculation Tool
4. Apply the Tool to the Case Studies

PERIOD COVERED: April 1, 2017 – June 30, 2017

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

PROJECT MANAGER:

Debra Fick/ Tom Peters

SP&R PROJECT NO:

MnDOT Contract No.
06428

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: Mn/DOT

PRINCIPAL INVESTIGATOR:

Jim Sullivan, University of Vermont

Federal Project Number:
TPF-5(218)

TOTAL BUDGET: \$145,622

PROJECT EXPENDITURES TO DATE: 88%

WORK COMPLETED:

- Completed survey data collection and preliminary selection of case studies
- Completed the first round of field data collection for four case study routes in NH and Minnesota
- Completed the integrated RSIC model development and tested its application for Vermont
- Developed inputs for the integrated RSIC model for four case studies in Vermont
- Applied the integrated RSIC model to four case studies in Vermont
- Created and delivered presentation materials for the Task 2 deliverable
- Participated in the third of four teleconferences (kickoff, Task 1, and Task 2) and presented the preliminary results of Task 2
- Conducted the second round of field data for four case study routes in NH and Minnesota
- Continued development of the MS Excel decision-support tool
- Continued writing the Draft Project Report
- Completed analysis of the second round of field data for case studies

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Complete development of the MS Excel decision-support tool
- Complete the Draft Project Report, including recommendations for incorporating RSIC operations & maintenance considerations into the AASHTO Green Book
- Submit draft report for review
- Conduct webinar presentation
- Incorporate comments and submit final project report

STATUS AND COMPLETION DATE: Since the project started in July 2015, the contracted 18-month duration did not include two winter seasons for snow and ice data collection, as outlined in the proposal. Extending the project to 24 months provided a second winter season to get the 2nd round of data. An additional 2 months was required due to complications with the collection of the 2nd round of data, and an overestimation of the work progress that was possible before the 2nd round of data collection was completed. Expectations for the progress that could be made on Tasks 3 and 4 before getting the 2nd round of gps data were too optimistic. Since this extension will make the task durations consistent with how they were originally budgeted, no changes to the level of effort for the PI or the primary data analyst will be necessary. Additional time for completion was added beyond the 2 months required to justify the request for 6 months of total time extension.