

State Planning and Research Program Quarterly Report

PROJECT TITLE: 2012-2013 Clear Roads Administration and Information Services

OBJECTIVES: Clear Roads is a pooled fund research project aimed at rigorous testing of winter maintenance materials, equipment and methods for use by highway maintenance crews. The Clear Roads Technical Advisory Committee (TAC) contracted with CTC & Associates LLC to perform the administrative functions associated with maintaining the pooled fund project as well as information services that support technology transfer. This report summarizes activities conducted under this contract over the last three months.

PERIOD COVERED: April - June 2013

PARTICIPATING AGENCIES: Minnesota Department of Transportation

PROJECT MANAGER: Debra Fick

SP&R PROJECT NO:
96037

PROJECT IS:

LEAD AGENCY: MnDOT

Planning
 Research &
Development

PRINCIPAL INVESTIGATOR:
CTC & Associates LLC

ANNUAL BUDGET:
\$89,470.00

PROJECT EXPENDITURES TO DATE:
\$89,466.34

WORK COMPLETED:

TAC Meetings

- Completed planning and attended a face-to-face meeting of the Clear Roads Technical Advisory Committee on May 7-9, 2013, in Jackson Hole, Wyoming. Planning included all preparations for the meeting such as communication with TAC members, meeting logistics, agenda and meeting materials.
- Continued planning for a face-to-face meeting of the Clear Roads TAC on September 9-12, 2013, in Vancouver, Washington in conjunction with the 2013 Winter Maintenance Peer Exchange. Planning includes communication with TAC members; coordinating with members of AASHTO, Aurora and PNS; meeting logistics; and agenda development.
- Began planning for a face-to-face meeting of the Clear Roads Technical Advisory Committee on March 25-27, 2014, in Portland, Maine.
- Drafted meeting minutes and followed up on action items from the spring 2013 meeting.

Administration and Marketing

- Updated the Clear Roads website with current TAC members, project status and meeting information.
- Maintained and updated commitment, obligation, and overall budget information for the pooled fund in coordination with MnDOT.
- Supported efforts of TAC members in recruiting new members and talking about Clear Roads at conferences.

Information Services

- Researched and wrote content for the May Winter Maintenance E-News.
- Worked with the TAC to gather results from the 2012-13 Product Experience Survey on the Clear Roads website.
- Sent out Clear Roads news and updates each month.
- Completed literature searches for new projects selected for 2013 funding.
- Drafted an article for *Roads & Bridges* magazine on the completed Clear Roads project on Mapping Weather Severity Zones.
- Distributed Clear Roads updates (final reports, surveys, newsletters, etc.) to the Clear Roads distribution list using

Constant Contact.

Research Support

New projects

- Worked with the subcommittees to develop the scopes of work and formal RFPs for the following 5 research projects selected by the TAC for funding in May 2013:
 - Best Practices for the Prevention of Corrosion to DOT Equipment: A User's Manual
 - Developing Test Bed Software to Qualify Plug and Play Technology
 - Snow and Ice Control Environmental Best Management Practices Manual
 - Identifying Characteristics, Benefits, and Mechanisms of Commonly Used Agricultural and Mineral By-Products in the Deicer Indus
 - Cost Benefit Analysis of Various Winter Maintenance Strategies

Research in progress

- Plug and Play Initiative: Coordinated with the project subcommittee and other stakeholders.
- Snowplow Operator and Supervisor Training: Continued to support the subcommittee as they reviewed proposals and considered additional ways to leverage existing training materials.
- Continued to coordinate with investigators and the Clear Roads subcommittees on:
 - Establishing Effective Salt and Anti-icing Application Rates
 - Understanding the Chemical and Mechanical Performance of Snow and Ice Control Agents on Porous and Permeable Pavement Types
 - Comparison of Materials Distribution Systems
 - Environmental Factors Causing Fatigue in Snowplow Operators
 - Cost-Benefit Analysis Toolkit Phase II
 - Determining the Toxicity of Deicing Materials
 - Development of a Totally Automated Spreading System
 - Understanding the True Costs of Snow and Ice Control Operations

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Note: Current contract activities concluded this quarter. The following activities will be completed under a new contract with CTC & Associates.

- Research, write and publish the August Winter Maintenance E-News.
- Begin work on a new look for the Clear Roads website. Maintain the existing content.
- Summarize and post online the results of the 2012-2013 Product Evaluation Survey.
- Work with the TAC to finalize the scopes of work and get RFPs posted for the new projects selected for 2013 funding at the May meeting.
- Continue planning for the TAC meeting September 9-12, 2013, in Vancouver, WA: travel logistics, final agenda, etc.
- Coordinate and support the evaluation process for the proposals received for projects selected for 2013 funding.
- Continue to coordinate with investigators and the Clear Roads subcommittees on projects in progress.
- Coordinate and record webinar presentations for ending Clear Roads projects.
- Write monthly email updates with news regarding Clear Roads research, growth and collaborations.
- Write two-page briefs for the Cost-Benefit Toolkit project and the True Costs of Winter Maintenance Project.
- Write an article for publication in *Roads & Bridges* magazine about the Cost Benefit Toolkit Phase II project.
- Write an article for publication in *TR News* about Clear Roads and its accomplishments.
- Maintain the Clear Roads budget.

STATUS AND COMPLETION DATE:

CTC has completed all work for the current contract, and the full budget has been expended. CTC will continue providing support to Clear Roads next quarter through a new two-year contract in place with MnDOT.