

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Calculating Plow Cycle Times from AVL Data*

OBJECTIVES: To develop a methodology to calculate plow cycle times, considering various relevant factors; and use the methodology to create the framework for a visualization tool that agencies can format with their own electronic data.

PERIOD COVERED: July 1 to September 30, 2022

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

PROJECT MANAGER:
Hafiz Munir / Tom Peters

SP&R PROJECT NO:
MnDOT Contract No.
1047791

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: MnDOT

Federal Project Number:
TPF-5(353)

PRINCIPAL INVESTIGATOR:
Ming-Shiun Lee, PhD, PE
AECOM Technical Services, Inc.

ANNUAL BUDGET: \$125,377.84

PROJECT EXPENDITURES TO DATE: \$12,473.64

WORK COMPLETED:

- Task 1: Project Management
 - Conducted a check-in meeting with project subcommittee to review literature summary and survey questions.
- Task 2: Information Research
 - Finalized the literature summary.
 - Finalized survey questions.
 - Distributed survey and gathered survey responses.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 1: Project Management
 - Conduct a check-in meeting with project subcommittee to review survey results, AVL data format and user stories.
- Task 2: Information Research
 - Continue gathering survey responses.
 - Analyze survey responses and summarize survey results.
 - Gather and review AVL data outputs and formats.
 - Prepare Survey and AVL Solutions/Data Summary Report.
- Task 3: User Stories Development
 - Draft user stories to outline operational scenarios
- Task 4: Methodology – Plow Cycle Time
 - Identify variables for calculating plow cycle times.

STATUS AND COMPLETION DATE:

On schedule and budget. Expected project completion October 31, 2023.