

**State Planning and Research Program
Quarterly Report**

PROJECT TITLE: *High Performance Plow Blade Evaluation*

OBJECTIVES: The objective of this project is to develop a field test protocol and cost-benefit analysis methodology that may be reproduced by Clear Roads agencies in future testing, so that other blades may be evaluated and compared using the same standard procedures used in this project.

PERIOD COVERED: July 1 to September 30, 2021

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.

1031542

PROJECT IS:

☐ Planning

☒ Research & Development

LEAD AGENCY: MnDOT

Federal Project Number:

TPF-5(353)

PRINCIPAL INVESTIGATOR:

William Schneider IV, PhD.,

University of Akron

ANNUAL BUDGET: 195,746.58 (Project Budget)

PROJECT EXPENDITURES TO DATE: \$71,340

WORK COMPLETED:

- Task 1: Literature review compiled in matrix-style summary (100%)
- Task 2: Survey of DOTs in matrix-style summary (100%)
- Task 3: List of potential blades and testing locations for research (100%)
- Task 4: Design Test Protocol (80%)
- Task 5: Field data collection (80%)
- Task 6: Standard Test Protocol (90%)
- Task 7: Cost-Benefit Analysis (95%)
- Task 8: Quick Reference Guide (95%)
- Task 9: Final Report (95%)

Values for the tasks above were adjusted to reflect the new work required by the addendum.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER: We are planning on doing future work involving testing new blades in the lab.

STATUS AND COMPLETION DATE: The majority of the work over this quarter was to solicit help with blade selection. This process includes both the selection of the lab as well as state DOTs who will help with blade donation. To date this process has been very slow.