

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Salt Shed Design Template*

OBJECTIVES: The purpose of this project is to develop three salt shed scalable designs that can be used as templates by agencies for a variety of sites. The designs will consider a number of factors including code adherence, incorporation of state and federal regulations associated with environmental and related concerns, pad design, material selection options, construction techniques, and easy design modification.

PERIOD COVERED: January 1 – March 31, 2021

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

PROJECT MANAGER:
Debbie Sinclair / Tom Peters

SP&R PROJECT NO:
MnDOT Contract No.

PROJECT IS:

LEAD AGENCY: MnDOT

Federal Project Number:
TPF-5(353)

____ Planning
 X Research & Development

PRINCIPAL INVESTIGATOR:
Wilfrid A. Nixon, Ph.D., P.E.
Wilfrid A. Nixon and Associates LLC

ANNUAL BUDGET: \$83,326

PROJECT EXPENDITURES TO DATE: \$6,583

WORK COMPLETED:

Administration: The kick-off meeting with the research panel was held. The PI has been working to finalize the sub-contract.

Task 1 – Literature Review: The literature review has been started and a great deal of literature has been collected. There are two major themes running through the literature. The first is optimal placement of salt storage facilities to serve a road network. The second is methods that can be used to mitigate run-off from salt piles. The literature on storage for other granular materials is somewhat limited, but there are some sources that may be promising. However, most other granular materials do not get impacted by exposure to weather in the same way that salt does.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 1 (literature review) will be completed and the draft of the review will be provided to the panel for their review.
- Task 2 (surveys of practice) will be started, and drafts of the two surveys (one to the snow and ice community, the other to other granular materials storage facilities or representatives thereof) will be provided to the panel for their review.

STATUS AND COMPLETION DATE:

The project is moving forward relatively smoothly at this point in time. No slippage in the completion of the project is apparent at this time, thus the ending date of July 31, 2022 is apparently still good.