

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: April 1 – June 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.
1044530

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: MnDOT

Federal Project Number:
TPF-5(353)

PRINCIPAL INVESTIGATOR:

Wilf Nixon

ANNUAL BUDGET: \$83,326

Total budget: \$124,989

PROJECT EXPENDITURES TO DATE: \$10,967

WORK COMPLETED: The sub-contract unfortunately took much longer to finalize than anticipated, and as a result the input from the sub-contractors into task 1 was substantially delayed. As a result, an amended timeline has been requested. The sub-contract is now completed and has been submitted.

Task 1 – Literature Review: The literature review has continued. The two themes reported on last quarter (location and run-off mitigation) continue as major themes. There is not a great deal of other material or subjects in the literature. The literature on storage for other granular materials remains limited, and the promising sources mentioned last quarter (primarily the Industrial Minerals Association of North America) has confirmed that most other granular materials can be safely stored outside since they are not impacted by rain or snow in the same way that salt is.

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:

As noted above, the difficulty in completing the sub-contract has delayed progress (due to the PI not having experience with such matters, and assistance being very difficult to receive due to COVID restrictions). Accordingly this revised schedule has been requested:

Task	Current Task Start Date	Current End Date for Task Approval	Revised Task Start Date	Revised Due Date to Submit Draft Deliverables	Revised End Date for Task Approval
1	1/8/2021	5/15/2021	1/8/2021	8/31/2021	10/31/2021
2	4/1/2021	10/15/2021	7/31/2021	1/31/2022	3/31/2022
3	8/1/2021	1/15/2022	1/31/2022	6/30/2022	8/31/2022
4	1/1/2022	5/15/2022	5/1/2022	8/31/2022	10/31/2022
5	3/1/2022	7/15/2022	7/1/2022	11/1/2022	1/1/2023

Thus the revised estimated ending date for the project is now 1/31/2023.