

## 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, 2022

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

**PROJECT MANAGER:**  
Hafiz Munir / Tom Peters

**SP&R PROJECT NO:**

**PROJECT IS:**

**LEAD AGENCY:** MnDOT

MnDOT Contract No.  
1044530

Planning  
 Research & Development

**PRINCIPAL INVESTIGATOR:**  
Wilfrid Nixon

Federal Project Number:  
TPF-5(353)

**ANNUAL BUDGET:** \$83,326

**PROJECT EXPENDITURES TO DATE:** \$ 64,937.50

**WORK COMPLETED:**

- Task 1 – Literature Review: A draft final version has been prepared.
- Task 2 – Survey of Practice: The survey was conducted, and the information was collected into a report, for delivery in July 2022.
- Task 3: Design Analysis and Recommendations: Using information from the literature review, the design analysis has been started. The spreadsheets for calculating pile sizes as a function of the quantity of salt to be stored are undergoing verification. A list of factors that will require consideration as part of the analysis and additional information on each of these factors is close to completion.

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

- Task 2 – Survey of Practice: A memo detailing the findings of the survey will be prepared and submitted in July 2022.
- Task 3 – Design Analysis and Recommendations: The sizing spreadsheets will be completed and will be shared with the technical advisory committee for review. The design analysis will provide information on all factors to be considered in the scalable designs. A memorandum will be developed and submitted with all this information for review by the technical advisory committee in August 2022.

**STATUS AND COMPLETION DATE:**

As noted in prior QPRs a revised schedule has been approved. The schedule is:

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	1/5/2021	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