

**NHDOT SPR2 PROGRAM
RESEARCH PROGRESS REPORT**

Project # SPR 42372E		Report Period Year 2022 <input checked="" type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input type="checkbox"/> Q3 (Jul-Sep) <input type="checkbox"/> Q4 (Oct-Dec)	
Project Title: Crushed Gravel for Shoulder Leveling 304.32			
Project Investigator: Kevin Belanger Phone: 603-352-2303		E-mail: Kevin.J.Belanger@dot.nh.gov	
Project Start Date: 4/22/2021	Project End Date: 12/31/2022	Project schedule status: <input checked="" type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input type="checkbox"/> Behind schedule	

Brief Project Description:

After the Department’s resurfacing contracts are complete and accepted, gravel is placed to level the shoulder along the newly paved roadway sections. This material tends to ravel or wash out depending on factors that include the profile grade, amount of storm water runoff, and the extent of vehicle off tracking. Shoulder gravel material on the paved roadway presents a safety hazard and creates a maintenance issue for the District workforce. Concerns that the current specification does not provide a final product that is well compacted and stay in place may be related to the material where other factors may include the site condition and/or placement method.

The Bureau of Highway Maintenance will establish test sections for the purpose of evaluating different gradations and compaction methods when placing shoulder gravel. The outcome of this project will be to recommend improvements to the Department’s specification 304.32, Crushed Gravel for Shoulder Leveling that improves performance of gravel used for shoulder leveling.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

Districts have been reviewing the sites post placement to review how they are holding up to traffic and weather events. Early spring evaluation of the D4 segments revealed all sections held up well to winter maintenance operations.

When the supplemental specification was implemented, it was decided by the specifications committee that we would like to evaluate the side mount roller in a full production scenario. D4 has set up rental agreements to rent the roller and will be renting the unit and providing it to a contractor working on a DOT project to test. The hope is to try it on 4 or 5 segments, and potentially with more than one contractor.

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc...):

Continue to monitor test segments placed to evaluate performance in both D1 and D4.

Anticipated research next three (3) months:

Utilize side mount roller with a DOT contractor doing a district resurfacing project to evaluate it in a real world production Scenario.

Circumstances affecting project:

None

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Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Select roadway segments to place test sections	100	100
Establish gradations to be tested	100	100
Determine methods of consolidation/Compaction	100	100
Install shoulder gravel Segments	100	100
Monitor segments Document results.	85	85
Evaluate results and make recommendations for specifications.	100	100
Prepare reports.	25	25

Barriers or constraints to implementing research results

We do not currently foresee any issues with completing the project.