

**NHDOT SPR2 PROGRAM
RESEARCH PROGRESS REPORT**

Project # SPR 42372E		Report Period Year 2022 <input type="checkbox"/> Q1 (Jan-Mar) <input checked="" 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.):

Paving is taking place across the state with the new Special Provision being included in all contracts. The contractor that was awarded the D4 resurfacing contract was offered the offset vibratory roller to demo/try as part of the project. They were not interested, and thus there will be no further evaluation of the offset vibratory roller at this time.

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:

The Special Provision was included in all 2022 paving Contracts in NH. Districts will evaluate the new shoulder gravel as it is placed to evaluate how the new gradation holds up. As the 2022 paving contractors will not be performing further testing with the offset roller, the test sections will undergo a final review and a final report will be prepared. A request to Final Voucher is expected this upcoming quarter.

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.	90	90
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.