

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT (VDOT)

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # <i>(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(345) Pavement Surface Properties Consortium – A Research Program at the Virginia Smart Road Phase II	Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: <p style="text-align: center;">Pavement Surface Properties Consortium: A Research Program</p>		
Name of Project Manager(s): Kevin Kenneth McGhee	Phone Number: (434) 293-1956	E-Mail Kevin.McGhee@VDOT.Virginia.gov
Lead Agency Project ID: 82650	Other Project ID (i.e., contract #):	Project Start Date: 5/19/2016
Original Project End Date: 2/28/2022	Current Project End Date: 2/28/2022	Number of Extensions: --

Project schedule status:

- On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
\$1,412,181*	\$796,035	56%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$66,552 (5%)	\$66,552	5%

* Committed; the actual contracted budget is \$1,283,774 (VTTI)

Project Description:

This program of research focuses on optimizing pavement surface texture characteristics. Phase I of the program demonstrated that a collaborative research program can provide an accessible and efficient way for highway agencies and other organizations to conduct research on pavement surface properties. This second phase focuses on addressing some of the emerging challenges in the evaluation of pavement surface properties and the changes needed to best support the next generation of pavement and asset management systems, including support for MAP21-related initiatives. The program includes the following main broad activities: (1) equipment comparisons; (2) technology transfer; and (3) research on emerging topics.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Complications with state-sponsored travel due to the virus pandemic cancelled the verification of the SCRIM devices at the TRC test track in Ohio that would take place in 2020. The pooled fund will reschedule this activity for 2021.
- FHWA Safety Office and the EDC initiative FoRRRwD Countermeasures requested our participation in a High Friction Surface Treatment (HFST) and Continuous Friction Measurement (CFM) webinar. The webinar took place on August 11 and included:
 - ✓ Stephen Read and Kevin McGhee from VDOT provided an overview of Virginia's experience with CFM and HFST.
 - ✓ Edgar de Leon discussed the implementation of a Pavement Friction Management Program (PFMP) using CFM.
- Delivered the final report and presentation to the North Dakota on September 9 2020.
 - ✓ The study confirmed a strong association between crashes and continuously measured frictional and geometric pavement properties (friction, macrotexture, curvature, etc.).
 - ✓ It also recommended implementing a proactive PFMP to reduce the risk of crashes and associated fatalities.
- Two more states benefitted from the use of the SCRIM through the Pooled Fund. Conducted surveys on:
 - ✓ 1020 miles in Kansas from August 24-30 and
 - ✓ 915 miles in Illinois from September 14-19.
- Contributed a workshop to the virtual RPUG conference.
 - ✓ Gerardo Flintsch offer a 101 session on splash and spay and hydroplaning, .
- Two more papers were accepted for publication and/or presentation.
 - ✓ McCarthy, R., Flintsch, G., and de León Izeppi, E. "Comparison and Harmonization of the Locked-Wheel Skid Tester and the Sideway-Force Coefficient Routine Investigation Machine." Accepted for publication in the ASTM Journal of Testing and Evaluation.
 - ✓ "Benefit-Cost Approach for Using Continuous Friction Measurement to Choose a Pavement Surface Treatment." (2021). Accepted for presentation at the Transportation Research Board 100th Annual Meeting.

Anticipated work next quarter:

- Complete the data collection in Illinois.
- Complete data processing and analysis will follow for Kansas
- Start the data processing and analysis for Illinois.
- Make another presentation in RPUG about hydroplaning in October.
- Schedule the TAC meeting during this quarter that was missed because of the cancellation of RPUG.

Significant Results:

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

Data collection efforts during this quarter have been slowed down because of COVID-19 restrictions.

Potential Implementation: