

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 checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: <div style="text-align: center;">Pavement Surface Properties Consortium Phase 2</div>			
Name of Project Manager(s): Kevin Kenneth McGhee		Phone Number: (434) 293-1956	
Lead Agency Project ID: 82650		Other Project ID (i.e., contract #):	
Original Project End Date: 2/28/2022		Current Project End Date: 2/28/2022	
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		Project Start Date: 5/9/2016	
		Number of Extensions: 0	

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
\$310,000*	\$5,033	2%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$5,033 (2%)	\$5,033	2%

* Committed; the actual contracted budget is \$70,222

Project Description:

Through a regional pooled fund, 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 will focus 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 asset management systems, including support for MAP21-related initiatives. It will also seek participation of industry through traditional membership or an industrial affiliate program. The program includes the following main broad activities:

- ✓ **Equipment Rodeos:** continue equipment comparisons by hosting the annual equipment roundups and provide consortium members with a forum for discussion of common challenges, and a unique opportunity to seek solutions for these challenges, learn from each other, and be exposed to emerging practices and technologies.
- ✓ **Technology Transfer:** The Consortium will continue to support the development of a body of knowledge in pavement surface characteristics and vehicle-road interaction and facilitate the transition from research to practice of new and existing methods and technologies for measurement of functional highway surface properties and enhanced pavement surfaces.
- ✓ **Research on Emerging Topics:** the consortium provides a unique opportunity to conduct specific studies of common interest that require measurement of pavement surface properties under controlled traffic and/or environmental conditions on different types of road surfaces. Examples of potential topics include: Evaluation of emerging 3D systems, new methods for characterizing macrotexture, and implications for FAST act requirements on current practices.

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

- The *10th Annual Surface Properties Rodeo* was held at the Smart Road in Blacksburg on May 16-20, 2016.
 - Representatives from the four consortium members who are continuing in the pooled fund (Connecticut, Georgia, South Carolina, and Virginia DOT) and an invited guest, Doug Brust, from International Cybernetics Corporation – ICC participated in the event. Doug collaborated by providing guidance and training of the locked-wheel skid tester calibrations. It was unfortunate that the other invited guest from Dynatest was not able to come, due to being busy with deliveries.
 - Four high-speed profilers participated in the rodeo: 1 from Georgia, 2 from South Carolina and 1 from VTTI. All of the participating profilers now have the wide-spot lasers (Gocators or the Ro-Line lasers used by the VTTI profiler).
 - Four friction devices, locked-wheel skid testers, participated in the Rodeo: 1 from Connecticut, 1 from Georgia, 1 from South Carolina, and 1 from Virginia DOTs. Three of the locked-wheels testers use ribbed tires for testing and one a smooth tire. The Rodeo report will incorporate the results of the runs and the appropriate comparisons between devices.
 - Locked-wheel skid tester verifications/calibrations were carried during the Rodeo, prior to the friction testing. This allows the before and after comparison for each individual device and the collective group.
 - Collected data with the Circular Texture Meter (CT Meter) and the Dynamic Friction Tester (DFT) which will be used to obtain the International Friction Index (IFI) and make comparisons with the SCRIM device from the Acceptance Testing and Demonstration of the Continuous Friction Measurement Equipment (CFME).
- The Consortium Technical Advisory Committee (TAC) also met during the rodeo.
 - The TAC reviewed the objectives, projects and financial summary of the first ten years of the Consortium (Phase I) and discussed the activities planned for the Phase II. The TAC also received a Summary Report of the Rodeos – 10 Year History, to close the previous project.
 - The group agreed to hold a mid-year TAC meeting to discuss the results of the 2016 Rodeo in conjunction with this year's RPUG meeting in San Diego, California on November 1-3, 2016.

Anticipated work next quarter:

- Organize the mid-year TAC meeting in conjunction with this year's RPUG meeting in San Diego, CA on November 1-3, 2016.
 - Complete the processing of the data collected during the *10th Annual Surface Properties Rodeo* and prepare a report and a presentation for review at the TAC meeting in November.
 - Offer at least two presentations dealing with Methods for Comparisons of measurements between locked-wheel skid testers and Continuous Friction Measurement Equipment (CFME). If approved, these presentations will be prepared.

- With a grant from the Federal Highway Administration (FHWA), organize and participate in an equipment comparison planned for September in the Texas Transportation Institute at the Locked-wheel skid trailer calibration center. This work will contribute to the Acceptance Testing and Demonstration of the Continuous Friction Measurement Equipment (CFME) Project from FHWA.

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).

No problems were encountered in this quarter.

Potential Implementation: