

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.

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|---|--|--|--|
| Transportation Pooled Fund Program Project # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(385) | | 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: Pavement Structural Evaluation with Traffic Speed Deflection Devices (TSDDs) | | | |
| Name of Project Manager(s): Brian Diefenderfer | Phone Number: (434) 293-1944 | E-Mail brian.diefenderfer@vdot.virginia.gov | |
| Lead Agency Project ID: | Other Project ID (i.e., contract #): 449904 (VT) | Project Start Date: 10/15/2018 | |
| Original Project End Date: 9/30/2021 | Current Project End Date: 9/30/2021 | 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 |
|----------------------|--------------------------------|--------------------------------------|
| \$4,494,000* | \$ 2,444,959 | 61% |

Quarterly Project Statistics:

| Total Project Expenses and Percentage This Quarter | Total Amount of Funds Expended This Quarter | Total Percentage of Time Used to Date |
|--|---|---------------------------------------|
| \$426,751 (11%) | \$426,751 | 61% |

* Committed; the actual contracted budget is up to \$3,379,999 (VTTI)

Project Description:

The objective of the pooled-fund is to establish a research consortium focused on providing participating agencies the opportunity to test available TSDDs as part of a demonstration project and providing guidelines on how to specify collection and use data collected with TSDDs. Specific tasks within this multi-year program will be developed in cooperation with the consortium participants.

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

- Conducted webinar on excel tool to analyze TSD data (temperature correction, calculation of indices, backcalculation).
- Continued to work on the literature review for project Guidelines and procedures to implement TSDD measurements into pavement management.
- Conducted TSD testing in MnRoad, Louisiana, Kansas, Texas, and Mississippi.
- Started the second research project Guideline and specifications for TSDD data collection.
- Conducted survey with pooled fund members regarding planning of future activities.

Anticipated work next quarter:

- Organize second webinar on pavement TSDD data segmentation
- Develop draft framework for Guidelines and specifications for TSDD data collection
- Develop case studies for analysis of TSD data
- Develop topic for third webinar

Significant Results:

Paper accepted for publication in journal of Computing in Civil Engineering:

- "Identifying Weak Joints in Jointed Concrete and Composite Pavements from TSD Measurements by Basis Pursuit."

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).

Potential Implementation: