

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: July 7, 2021

Lead Agency (FHWA or State DOT): Washington State DOT

**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.*

<b>Transportation Pooled Fund Program Project #</b>  TPF-5(332)		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31, 2021) <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)	
<b>Project Title:</b>  LTPP Forensic Evaluations			
<b>Name of Project Manager(s):</b>	<b>Phone Number:</b>	<b>E-Mail</b>	
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<b>Lead Agency Project ID:</b>	<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b>	
Y-12005	Y-12005	December 11, 2017	
<b>Original Project End Date:</b>	<b>Current Project End Date:</b>	<b>Number of Extensions:</b>	
November 30, 2019	June 30, 2021	2	

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
Current contract = \$590,989.00 (Y-12005)	\$579,533	100%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$579,359 (14% spent this quarter)	\$84,173	87%

**Project Description:**

The objective of this project was to perform forensic evaluations on Long-Term Pavement Performance (LTPP) test sections as they went out of service, in general accordance with the guidelines provided in the Transportation Research Board's National Cooperative Highway Research Program (NCHRP) Report 747: "Guide for Conducting Forensic Investigations of Highway Pavements."

The forensic evaluations were to be performed on LTPP test sections, capturing data on exactly why the section performed as it did, and what ultimately led to its removal from the program. Consistent with the NCHRP Report 747 Guidelines, LTPP test sections considered for forensic evaluation first underwent a desktop study to determine additional data needs, if any, to explain its performance. Follow-up investigations entailed coring, measuring lift deflection, and close-out monitoring.

The project was task order based and its scope consisted of the four tasks detailed below:

**1. Project Management (Task Orders AA and AE)**

Required project management activities under this task were completed on schedule. The end of the project's period of performance was June 30, 2021, and the total obligated funding were \$590,989.

**2. Test Section Selection (Task Orders AB and AF)**

Over 100 LTPP test sections were identified for potential forensic evaluation. Nominations were submitted and approved for 63 test sections at 26 different locations in 23 different States: Arizona, Arkansas, California, Colorado, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Maine, Maryland, Minnesota, Mississippi, Montana, New Mexico, Ohio, Oklahoma (2 locations), Pennsylvania, South Carolina, Texas (2 locations), Utah, and Washington (2 locations).

During the reporting period in question, no new nominations were submitted as the project was coming to an end. Desktop studies were completed for 6 test sections in three states – one in Idaho, one in Oklahoma and four in Washington (SPS-8 project). Overall, desktop studies and the associated technical memoranda documenting the studies were completed for all 63 of the approved test sections.

**3. Forensic Evaluations (Task Orders AC and AG)**

Follow-up forensic evaluations and the associated documentation have been completed, were not required, or could not be pursued for the test sections in Arizona, California, Colorado, Florida, Georgia, Indiana, Kansas, Maine, Maryland, Minnesota, Montana, New Mexico, Ohio, Oklahoma, South Carolina, Texas (test section 48\_1111), Utah, and Washington. In addition, during the reporting period in question, follow-up investigations were completed for the Pennsylvania and Texas (48\_1096) test sections.

**4. Final Project Report (Task Order AD)**

Preparation of the draft and final project report were completed during the reporting period in question. The final report was submitted in Word format complying with the Section 508 requirements.

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

The following work activities were completed during the period of April 1 through June 30, 2021.

**Project Management (Task Orders AA and AE)**

- Continued working on those management activities necessary for the successful completion of the project including cost control, subcontractor control, preparation of progress reports and invoices, and participation in meeting/conference calls with WSDOT.
- Completed twelfth quarterly progress report covering the period of January 1 to March 31, 2020 and submitted it to WSDOT. Also, prepared and submitted invoices for the months of April, May, and June 2021.
- Prepared for and participated in routine internal project status meeting to review the work done and planned as well as to address issues that may be affecting the project.
- As needed, communicated with WSDOT staff via telephone or message to address issues related to the project and the associated task orders.
- Continued communication and coordination activities with the FHWA LTPP team and the LTPP Data Collection Contractor (DCC) team as well as with the State DOTs affected by the forensic evaluations.
- Prepared for and participated in the April 22, 2021 FHWA LTPP webinar on TPF-5(332) Forensic Evaluations.

- Prepared for and participated in the May 24, 2021 TPF-5(332) Forensic Evaluations TAC meeting.

#### **Test Section Selection (Task Orders AB and AF)**

- Complete desktop study and associated technical memoranda for Idaho test section 16\_1020, Oklahoma test section 40\_4157, and Washington test sections 53\_0801, 53\_0802, 53\_A809 and 53\_A810.

#### **Forensic Evaluations (Task Orders AC and AG)**

- Completed follow-up investigation activities for Pennsylvania test section 41\_1597 and Texas test section 48\_1096. The latter involved field investigations, and both involved data analyses and memorandum preparation.

#### **Project Report (Task Order AD)**

- Completed draft of project report and submitted it to WSDOT and TAC members for review and comment. Revisions to the report were made based on WSDOT input. In addition, prior to submittal of final version of report to WSDOT in Word format, the report was made Section 508 compliant.

#### **Anticipated work next quarter:**

The project ended on June 30, 2021, and therefore no further activities are anticipated.

#### **Significant Results:**

Technical memoranda for desktop studies addressing 63 LTPP test sections were completed. These memoranda provide valuable information explaining the performance of the 63 test section pavements and, as appropriate, they recommended follow-up investigations to better explain their performance. In addition, the technical memoranda that were generated in the project could potentially support the respective agencies with their M&R decision-making processes related to the test section(s) in question.

Follow-up forensic evaluation activities were carried out for several of the above referenced test sections, and as appropriate, the associated technical memoranda were updated to include the results from these evaluations. In turn, the resulting memoranda were submitted to the FHWA LTPP for inclusion into the LTPP AIMS for use by data analysts and other users.

It is also important to point out that several important findings were made because of these forensic evaluations, which directly affect and will improve the LTPP database. A complete list of these findings was included in the summary, conclusions and recommendations chapter of the final project report.

#### **Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect 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 significant problems, challenges or issues were encountered throughout the duration of the project.

#### **Potential Implementation:**

Please see "Significant Results" write-up at the top of this page.