# TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Federal Highway Administration (FHWA)

#### **INSTRUCTIONS:**

Lead Agency contacts 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 Pr	roiect#	Transportation Pooled Fund Program - Report Period:	
TPF-5(470)		☐ Quarter 1 (January 1 – March 31)	
		⊠ Quarter 2 (April 1 – June 30)	
			•
		☐ Quarter 3 (July 1 – S	september 30)
		☐ Quarter 4 (October 1	I – December 31)
TPF Study Number and Title:			
TPF-5(470): Traffic Signal Change and Cle	arance Interval P	ooled Fund Study	
Lead Agency Contact:	Agency Contact: Lead Agency P		Lead Agency E-Mail
Jamie Mackey	Lead Agency Phone Number: 385-831-4262		jamie.mackey@dot.gov
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Lead Agency Project ID:	Other Project ID (i.e., contract #): 693JJ322A000005_693JJ323F00330N		Project Start Date: 09/22/2023
			09/22/2023
Original Project Start Date: 09/22/2023	Original Project 09/21/2026	t End Date:	If Extension has been requested, updated project End Date: N/A
Project schedule status:			
oxinesize On schedule $oxinesize$ On revised schedule $oxinesize$ Ahead of schedule $oxinesize$ Behind schedule			
Overall Project Statistics:			

Total Project Budget	Total Funds Expended To Date	Percentage of Work Completed to Date
\$1,036,655.77	Labor \$250,000 Travel \$18,778	25%

#### **Project Description:**

Define a sound, data-driven, research approach and work plan to address the current limitations and challenges in the determination and assessment of traffic signal change and clearance intervals (CCI). Conduct research based on statistically valid data and robust methods to establish a defensible and practical methodology for agencies to use for assessing and making CCI decisions. Provide a report, companion data, and materials to support review and understanding of the findings, including presentation slides, factsheets, practical documented summary examples, to facilitate building awareness among traffic signal operators.

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

- Began pilot data collection and analysis focusing on BSM/CV, video, historical crash, and LiDAR data.
- Began tracking data collection and analysis work tasks and labor hours.
- Requested a transfer of a portion of travel and equipment funds to labor.
- Requested a modification of deliverable due dates to improve likelihood of project success.

#### Anticipated work next quarter:

- Schedule and conduct technical panel meeting #3 (TPM3).
- Use TPM3 feedback to update the research work plan document.
- Schedule and conduct external webinar #2.
- Transition from pilot data collection and analysis to full data collection and analysis.
- Develop safety risk functions and extract driver behavior performance measures.

## Significant Results:

- Developed software tool to facilitate video data reduction.
- Gained full access to UDOT BSM/CV data.
- Obtained and analyzed historical crash data from multiple jurisdictions.
- Initial LiDAR data observations imply kinematic equation deficiencies.

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).

The research team requested to transfer a portion of the available equipment/materials and travel funding to labor, to improve the sample size of data collection/analysis that will be needed to address the top-priority research questions.

#### **Potential Implementation:**

The research team will turn its focus to implementation considerations (e.g., developing a practical new CCI methodology and field validation method) in approximately the Fall of 2024, following the initial months of data collection and analysis.

Task	Deliverable	Complete?
1	Kick-off Meeting	Y
1	Project Management - Final Work Plan	Y
2	Technical Panel Meeting 1	Υ
2	Feasibility and Gaps White Paper	Υ
2	Technical Panel Meeting 2	Υ
2	Final Project Research Work Plan	80% complete as of 06/30/2024
3	Final White Paper on Survey Results	Υ
3	SQL Database and Dashboard	Υ
4	Data Collection and Analysis*	Remainder of 2024
4	Technical Panel Meeting 3**	Summer 2024
5	Technical Panel Meeting 4	Summer 2025
5	Final White Paper - Final Methodology	Spring 2025
6	Project Report Annotated Outline	Spring 2025
6	Final Project Report	Summer 2025
6	Technical Panel Meeting 5	Summer 2025
7	Final Outreach Plan Report	Summer 2025
7	Final Outreach Plan Materials	Summer 2025
7	External Webinar 1	Υ
7	External Webinar 2	Summer/Fall 2024
7	External Webinar 3	Summer 2025
8	Travel Estimate Log	Υ
8	Detailed Travel Reimbursement Log	Summer 2025

<sup>\*</sup> Monthly time and materials (T&M) payments.

<sup>\*\*</sup> No milestone payment for Technical Panel Meeting 3.