TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

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

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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(178)	**Transportation Pooled Fund Program - Report Period:** ☐Quarter 1 (January 1 – March 31) ☑Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐Quarter 4 (October 1 – December 31)

Project Title: Implementation of the Asphalt Mixture Performance Tester (AMPT) for Superpave Validation		
Name of Project Manager(s): David Mensching	**Phone Number:** 202.366.1286	**E-Mail** david.mensching@dot.gov
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:** September 2008
Original Project End Date: September 2011	**Current Project End Date:** December 2019	**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
$3,952,940	$2,991,292	76%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
0%	$0	90%

Project Description:

This pooled fund study is open to any highway agency interested in using simple performance tests to aid in material characterization for design and analysis of flexible pavements. The objectives of this pooled fund study are to:

1) Nationally procure the AMPT for highway agencies interested in obtaining and using the AMPT to characterize asphalt mixtures designed using Superpave technology

2) Provide support in training technicians to use the AMPT to perform the proposed standard practices for measuring dynamic modulus, flow number, and flow time of asphalt mixtures compacted using the Superpave Gyratory Compactor (SGC)

3) Advance the nation-wide implementation and use of the AMPT for assessing performance of asphalt mixtures over a wide range of climatic conditions, materials, and structures.

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

- Editing of full- and small-size instructional videos for dynamic modulus and cyclic fatigue testing in the AMPT are ongoing.
- Planning for new NHI course on the AMPT and its recent technology advancements has begun.
- Planning for equipment buy and demonstration projects.
- Submission of draft procedures for small specimen fabrication, dynamic modulus, cyclic fatigue, and full-size stress sweep rutting tests for consideration by AASHTO Committee on Materials and Pavements.
- Coordination with TPF states on shadow projects to advance AMPT and performance-engineered mixture design.

Anticipated work next quarter:
- Work pertaining to ruggedness and interlaboratory study for AASHTO TP 107 on full- and small-size specimens.
- Planning for new NHI course on the AMPT and its recent technology advancements.
- Planning for equipment buy and demonstration projects.
- Marketing of shadow project success stories.
- Planning for small specimen dynamic modulus and interlaboratory study.

Significant Results:

- A total of 57 technicians and engineers from pooled fund participating agencies and 82 overall have been trained on the Asphalt Mixture Performance Tester through NHI Course # 131118.

- Twenty-nine (29) AMPTs have been ordered, delivered, and installed for pooled fund participant agencies.

- The National Pooled-Fund Workshop on the AMPT brought together over 70 members of the AMPT user community representing state DOTs, consultants, equipment vendors, universities, and FHWA to share best practices and identify future AMPT implementation needs.

- A synthesis report titled "Use of AMPT for Characterizing Asphalt Material Inputs for Pavement ME Design Implementation" was completed to document best practices. (NCAT Report 13-04)

- The AMPT Pooled-Fund Interlaboratory Study was completed and a final report on testing variability and investigation of air void effects is available. (NCAT Report 14-01)

- A report titled "Comparing Friction Reducers for Use in AMPT Testing" recommends allowing spray silicone for fabricating greased latex friction reducers for use in AMPT testing. (NCAT Report 15-01)

- AMPT Users Group, currently comprised of about 165 members from FHWA, DOTs, industry,and academia.

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).

Potential Implementation:

The AMPT evaluates asphalt mixture properties to assess potential performance. Transportation agencies can use the AMPT to: develop inputs for the structural design of flexible pavements, evaluate new asphalt mixtures including warm mix asphalt (WMA), high reclaimed asphalt pavement (RAP) mixes, and recycled asphalt shingles (RAS) mixes, and obtain information helpful in monitoring asphalt mixes and performing quality assurance.