**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

Lead Agency (FHWA or State DOT): Alabama 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.*

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| **Transportation Pooled Fund Program Project #***(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)*TPF-5(228) | **Transportation Pooled Fund Program - Report Period:** **√** - Quarter 1 (January 1 – March 31) 2013Quarter 2 (April 1 – June 30) Quarter 3 (July 1 – September 30) Quarter 4 (October 1 – December 31) |
| **Project Title:**Superpave Regional Center, Southeastern Region |
| **Name of Project Manager(s):**Don Watson and Randy West | **Phone Number:**(334) 844-7306 | **E-Mail**watsode@auburn.edu |
| **Lead Agency Project ID:**ALDOT Research Project No. 930-763P | **Other Project ID (i.e., contract #):**224574 | **Project Start Date:**April 28, 2010 |
| **Original Project End Date:**September 30, 2012 | **Current Project End Date:**September 30, 2013 | **Number of Extensions:**1 |

Project schedule status:

On schedule √ On revised schedule Ahead of schedule Behind schedule

Overall Project Statistics:

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|  **Total Project Budget** |  **Total Cost to Date for Project** |  **Percentage of Work**  **Completed to Date** |
| $972,129  | $329,428 | 34 |

***Quarterly*** Project Statistics:

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|  **Total Project Expenses**  **and Percentage as of This Quarter** |  **Total Amount of Funds**  **Expended This Quarter** |  **Total Percentage of**  **Time Used to Date** |
| $329,428 (33.9% of budget) | $14,029 | 85 |

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| **Project Description**:The Southeastern Superpave Center has been supported by state agencies through a pooled-fund project that has been largely used to provide training, verify ruggedness of equipment, check equipment calibrations, provide materials research, and aid in keeping agency personnel abreast of changes in asphalt technology. In order to continue the efforts in training, technology transfer, and implementable research, it is essential that the pooled-fund effort be continued. ***NOTE:*** *This pooled-fund project is not limited to states located in the southeast. Agencies throughout the country are invited to participate and take advantage of the research and training opportunities provided by the Southeastern Superpave Center.***OBJECTIVES**Several short-term and long-term objectives of the Southeastern Superpave Center are listed below. Several objectives deal with evaluating recently-developed performance test equipment and conducting research to address materials and tests issues. Objectives of the Center are:1. Conduct training in regard to Superpave binders, mix design, and performance testing. Provide training on special topics as requested by participating agencies at their on-site locations.
2. Perform research, both cooperatively and agency-specific, sponsored by members of the pooled-fund.
3. Perform precision and bias testing for asphalt-related performance test equipment.
4. Conduct noise studies in an effort to develop quieter pavements.
5. Perform forensic evaluations on materials or projects that have experienced premature distress.
6. Prepare research articles of regional and national interest.
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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):****MEPDG CLIMATE DATABASE:** The research team coordinated with LTRC to identify three representative pavement sections for use in verifying the climate files. The work for the first phase of this research has been completed, and LTRC recently asked that the research be extended to include more information. Progress on the project is delayed while the pooled fund administrative process clears the funding for the additional tasks. The project is scheduled to be completed late this year. A time extension will be needed in order to complete this work.**AGGREGATE FRICTION STUDY:** NCAT built test slabs with the common aggregates used in the JMF of a 9.5 mm mixture and ultra-thin mixture and with the alternative friction aggregates, slag and granite. NCAT used two MDOT approved mix designs to prepare eight mixtures. The baseline “control” mixture will replicate the approved job mix formula aggregate proportions and gradation. The second mixture substituted 33% of the coarse aggregate with a comparable proportion and gradation of the coarse aggregate from the alternative friction aggregate source. The third mixture substituted 60% of the coarse aggregate. For the ultra-thin baseline “control” mixture the substitution was based on total aggregate portion. The substitution rates were 30% and 60%. The draft final report for this study was completed in March and is undergoing a peer-review process. It will be published as soon as the review is completed and comments are addressed.**HIGH RAP STUDY:** Four states have sponsored a study of the use of high RAP proportions in asphalt mixtures. The RAP proportion was varied so that the RAP binder replaced 10, 25, and 50 percent of the virgin binder. This research was developed to assess whether increasing volume of effective virgin binder, using a softer binder, or using a warm-mix asphalt (WMA) technology aided in improving the durability of mixtures containing high percentages of RAP. In addition to changing the grade of the virgin binder, a warm mix additive was added to the control RAP mixtures to assess how using this WMA technology affected the mixture’s durability and rutting performance.The report was distributed to sponsoring agencies for review and those comments have been addressed in the final report (attached).**COMPOSITE SPECIMEN INTERFACE CRACKING (CSIC)**The overall objective of this research funded by Florida DOT is to test 1) control, and 2) experimental pavement sections constructed at NCAT’s Pavement Test Track which have undergone live heavy vehicleTraffic for a three year traffic cycle. The purpose is to determine whether a thick proprietary interlayer contributes to a delay in cracking by using the CSIC test developed at the University of Florida. Results of these tests can be used to identify interface conditions which may improve cracking performance and/or to optimize bonding materials and application rates for enhanced cracking performance. Work by University of Florida is nearly complete. This project was granted a time extension, but should be completed within the summer quarter.**TECHNOLOGY TRANSFER/TECHNICAL MEETINGS:** Several agencies used funds this period to pay travel and registration expenses for employees to attend technical meetings such as ASTM and AASHTO meetings.  **Anticipated work next quarter**:During the next quarter, work should resume on the LA DOTD project. The research panel has met and decided the types of pavement distress to be Included in the analysis. For the Aggregate Friction Study, the draft report will be revised to address comments of the peer-review panel and willBe published. Work will continue on the CSIC research regarding cracking resistance.A new study involving 4.75 mm mixes will begin in which performance of a 4.75 mm mix will be compared to that of a 9.5 mm mix. Three different binder grades will be used including a polymer-modified binder. |
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| **Significant Results:**Attached is the final report for the High RAP study. |
| **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).**N/A |

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| **Potential Implementation:** The climate data being obtained will be useful for one agency by providing specific climate data that is more compre- hensive and more accurate than the original data used in the MEPDG development.The high RAP study will provide information to agencies that will give increased confidence for decision-making in regard to whether increased RAP proportions can be used without fear of cracking failure. |