TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): ____IOWA 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.

Transportation Pooled Fund Program Project # *TPF-5(183)*	**Transportation Pooled Fund Program - Report Period:** Quarter 1 (January 1 – March 31, 2015) Quarter 2 (April 1 – June 30, 2015) Quarter 3 (July 1 – September 30, 2015) X Quarter 4 (October 1 – December 31, 2015)

Project Title: Improving the Foundation Layers for Concrete Pavement		
Project Manager: Brian Worrel	**Phone:** 239-1471	**E-mail:** brian.worrel@dot.iowa.gov
Project Investigator: David White	**Phone:** 294-1463	**E-mail:** djwhite@iastate.edu

Lead Agency Project ID: RT 0314	**Other Project ID (i.e., contract #):** Addendum 352	**Project Start Date:** 3/16/09
Original Project End Date: 3/15/14	**Current Project End Date:** 3/15/20**16**	**Number of Extensions:** On-going pooled fund project

Project schedule status:

☐ On schedule X On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
$875,000	$796,525.90	97

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
$66,175.64		1

Project Description:

The objective of this research is to improve the construction methods, economic analysis and selection of materials, in-situ testing and evaluation, and development of performance-related specifications for the pavement foundation layers. The outcome of this study will be conclusive findings that make pavement foundations more durable, uniform, constructible, and economical. Although the focus of this research will be PCC concrete pavement foundations, the results will likely have applicability to ACC pavement foundations and, potentially, unpaved roads. All aspects of the foundation layers will be investigated including thickness, material properties, permeability, modulus/stiffness, strength, volumetric stability and durability. Forensic and in-situ testing plans will be conceived to incorporate measurements using existing and emerging technologies (e.g. intelligent compaction) to evaluate performance related parameters as opposed to just index or indirectly related parameter values. Field investigations will be conducted in each participating state. The results of the study will be compatible with each state's pavement design methodology and capable for use with the Mechanistic-Empirical Pavement Design Guide (MEPDG). Evaluating pavement foundation design input parameters at each site will provide a link between what is actually constructed and what is assumed during design. There are many inputs to the pavement design related to foundation layers and this project will provide improved guidelines for each of these. The study will benefit greatly from maximizing the wide range of field conditions possible within the framework of a pooled fund study.

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

The main research activity during this quarter involved updating the field project reports shown in the table below as part of the Sub Tasks 1.5, 1.7, 3.1, 3.2, 3.4. The process of internal review was provided in the earlier QPRs. In brief, the research team authors finishes the first draft and a technical editor reviews and updates the report followed by revisions by the authors, and the report is submitted back to the technical editor for final review. Then the report is uploaded to an FTP site for TAC review. All reports are targeted to be finished by early next quarter.

Report	First Draft by Authors	Technical Editor Review	Updates by Authors	Technical Editor Final Review	Upload to FTP site for TAC
Non-Uniformity Analysis Report	Done	Done	Done	Done	
MEPDG Sensitivity Analysis Report	Done	Done	Done	Done	
Wisconsin US10 Report	Done	Done	Done	Done	
Michigan I96 Report	Done	Done	Done	Done	
Iowa I29 Report	Done	Done	Done	Done	
Pennsylvania US422 Report	Done	Done	Done	Done	
Michigan I94 Report	Done	Done	Done	Done	
Iowa Urbandale Drive Field Study Report	Done	Done	Done	In Progress	
Iowa US34 Report	Done	Done	In Progress	In Progress	
Iowa US30 Report	Done	Done	In Progress		

Some of the reports listed have gone through several revisions between InTrans publications and technical editor to meet compliance requirements for FHWA. Several final reports and draft reports will be provided to TAC early next quarter for review, prior to the face-face meeting. The project team met internally several times to discuss reports and manual, and the electronic deliverables timeline in coordination with TCCC. A face-to-face meeting with TAC members is scheduled for Feb 3-4, 2016.

Manual of Practice: The research management team continues meeting internally to develop the publication details for the Manual.

Anticipated work next quarter:

- Upload field project reports (finals and drafts) to ftp site TAC to review.
- Finish draft version of "Manual of Practice" to discuss with TAC.
- TAC face to face meeting in Ames, Iowa on Feb 3-4, 2016.

Significant Results:

- IA Urbandale Drive report.
- IA US30 report.

Circumstance affecting project or budget (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).

TAC committee:

First	Last	Organization	Email
Pooled Fund Members			
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