

**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, 2016) Quarter 2 (April 1 – June 30, 2016) X Quarter 3 (July 1 – September 30, 2016) Quarter 4 (October 1 – December 31, 2016)	
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: 12/31/2016	Number of Extensions: On-going pooled fund project

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	Total Percentage of Work Completed
\$875,000	\$865,628.61	98

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$2,018.14		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.):

All field project data reports (total 14) have been completed and printed hard copies of the reports are sent to each TAC member in a binder. The electronic version of the reports have also been posted on the CEER-FTP site. Details of the FTP site are provided in the transmittal letter provided in the binder. The TAC has been requested to comment on the reports by July 15th. The reports will be posted on CEER website by end of July addressing comments from the TAC members.

Now that the state project draft reports are completed, the focus of the research team is on completing the manual. Once the manual is complete, the team will be working with Chris Anderson with the Iowa DOT regarding the web based training modules that will be developed through the AASHTO TCCC technical services program.

The team will be in contact with the TAC regarding the review schedule for the manual.

Anticipated work next quarter:

- Manual of practice

Significant Results:

- Several project reports.

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			
Mehdi	Parvini*	California DOT	mehdi_parvini@dot.ca.gov
Brian	Worrel	Iowa DOT	brian.worrel@dot.iowa.gov
Todd	Hanson	Iowa DOT	todd.hanson@dot.iowa.gov
Steve	Megivern*	Iowa DOT	stephen.megivern@dot.iowa.gov
Kevin	Merryman	Iowa DOT	kevin.merryman@dot.iowa.gov
Mark	Grazioli*	Michigan DOT	graziolim@michigan.gov
John	Staton	Michigan DOT	statonj@michigan.gov
Josh	Freeman	Pennsylvania DOT	josfreeman@state.pa.us
Lydia	Peddicord*	Pennsylvania DOT	lpeddicord@state.pa.us
Jeff	Horsfall*	Wisconsin DOT	jeffrey.horsfall@dot.state.wi.us
Lisa	Rold	FHWA-Iowa	lisa.mcdaniel@dot.gov
Jim	Sherwood	FHWA	jim.sherwood@dot.gov
Gina	Ahlstrom	FHWA	Gina.Ahlstrom@dot.gov
*Primary state contact			
Research Team			
Tom	Cackler	Woodland Consulting	tcackler.wci@prairieinet.net
Barry	Christopher	Geotech Engr Consultant	barryc325@aol.com
Andrew	Dawson	Univ of Nottingham	Andrew.Dawson@nottingham.ac.uk
Jeff	Roesler	Univ of Illinois U-C	jroesler@uiuc.edu
Pavana	Vennapusa	CEER/ISU	pavanv@iastate.edu
David	White	CEER/ISU	djwhite@iastate.edu

