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(300)*	**Transportation Pooled Fund Program - Report Period:** Quarter 1 (January 1 – March 31, 2014) Quarter 2 (April 1 – June 30, 2014) Quarter 3 (July 1 – September 30, 2014) x Quarter 4 (October 1 – December 31, 2014)

Project Title: Performance and Load Response of Rigid Pavement Systems		
Project Manager: Linda Narigon	**Phone:** 239-1471	**E-mail:** linda.narigon@dot.iowa.gov
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Lead Agency Project ID:	**Other Project ID (i.e., contract #):** Addendum 504	**Project Start Date:** 5/29/14
Original Project End Date: 5/31/2017	**5/31/2017**	**Number of Extensions:**

Project schedule status:

X 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
$920,000.00	55,183.27	10%

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
55,183.27	N/A	7%

Project Description:

The modern approach to highway design is embodied in the Mechanistic-Empirical Pavement Design Guide (MEPDG), which incorporates models embedded in dedicated software, such as AASHTOWare Pavement ME Design, to predict pavement performance in greater detail than before. Full implementation of the MEPDG by state departments of transportation requires customizing or calibrating the software to state and local conditions, which in turn requires collecting data on climate, material properties, load response, and pavement performance.

The MEPDG software uses these data inputs to more accurately simulate the load response of pavements and long-term pavement performance. Local calibration of the software involves comparing long-term performance simulation results to actual performance data at local sites if possible or from matching pavements in the LTPP database. New York is one of the states that have previously instrumented test pavement sections to acquire local data to improve calibration of the MEPDG software. The installed sensors are still functioning to an extent that permits collection of additional useful data. This project has these objectives:

- Collecting load response and performance data and environmental monitoring at selected test pavements in New York for four years.
- Installing new instrumented sections as needed for a better understanding of rigid pavement response, including monitoring for the duration of the project.
- Determining the impact of a base on long-term performance of rigid pavement utilizing the data acquired in fulfilling the first two objectives and other nationally available data on the topic.

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

- We communicated with the contractor and NYDOT liaison for the RT9 project concerning the sensors and data acquisition for the RT9 project.
- Following the conversation, ORITE agreed to install the wiring and solar panel on the sensor cabinet when it is installed
- NYSDOT authorized the sale of the solar panel so ORITE ordered and received the solar panels and are waiting for the contractor or DOT to contact us so we can proceed with the installation
- NY DOT contacted us that they are not ready yet for the solar panel installation on the RT9 project.
- Calibrated and created a catalog entry from the AASHTOWare MEPDG program for NY Region 8 and 5. The data was forwarded and reviewed by JB.
- Ordered and received replacement solar panel for NYI86 untreated PCC section.
- Continued analyzing the FWD data and sensor data from the site visit to the I 86 project
- Analyzed FWD data and conducted several MEPDG trial runs for a proposed pavement rehab on NY I86. We sent a recommendation and analyses report back to the NYSDOT.
- Completed the FWD I86 analysis.

Anticipated work next quarter:

- Data from the FWD testing are being analyzed and plotted to be sent to NYSDOT, including load transfer efficiencies, and spreadabilities of the overlay sections.
- We are continuing to build the NYSDOT design catalog and are awaiting response from our initial report.
- Continue calibration of other regions, install the solar panels on the Rt9 project site when requested.
- Plan for a field visit in early spring to I90 and I490 sites.

Significant Results:

- The overlay sections on I86 are still performing well with little to no distress found.

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).

- None