**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)  X Quarter 2 (April 1 – June 30, 2014)  Quarter 3 (July 1 – September 30, 2014)  Quarter 4 (October 4 – December 31, 2014) | |
| **Project Title:**  Performance and Load Response of Rigid Pavement Systems | | | |
| **Project Manager: Phone: E-mail:**  Linda Narigon 239-1471 linda.narigon@dot.iowa.gov | | | |
| **Project Investigator: Phone: E-mail:**  Tom Cackler 294-3532 tcackler@iastate.edu | | | |
| **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** | | **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 | 0 | 0 |

***Quarterly*** Project Statistics:

|  |  |  |
| --- | --- | --- |
| **Total Project Expenses**  **This Quarter** | **Total Amount of Funds**  **Expended This Quarter** | **Percentage of Work Completed**  **This Quarter** |
| 0 | N/A | N/A |

**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.):**

* The subcontract with Ohio University was completed mid-June and the project has just started.

**Anticipated work next quarter:**

* **Begin collecting data from instrumentation already installed at existing test pavements**
  + Such as load response parameters
  + Traffic load data gathered by weigh-in-motion sensors or other traffic counters
  + Weather parameters such as air temperature, rainfall, relative humidity, solar radiation, wind speed, and wind direction
  + Strain due to environmental factors
* Design and update database.

**Significant Results:**

**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).**