**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(117)* | **Transportation Pooled Fund Program - Report Period:**□Quarter 1 (January 1 – March 31)□ Quarter 2 (April 1 – June 30)xQuarter 3 (July 1 – September 30)□Quarter 4 (October 4 – December 31) |
| **Project Title:**Development of Performance Properties of Ternary Mixtures: Field Demonstration Projects |
| **Project Manager: Phone: E-mail:**Peter Taylor 294-9333 ptaylor@iastate.edu |
| **Project Investigator: Phone: E-mail:**Peter Taylor 294-9333 ptaylor@iastate.eduPaul Tikalsky (Univ of Utah) 801-581-6931 tikalsky@civil.utah.edu  |
| **Lead Agency Project ID:**RT 0149 | **Other Project ID (i.e., contract #):****Addendum 241** | **Project Start Date:**12/01/05 |
| **Original Project End Date:** **8**/25/11 | **Current Project End Date:**7/25/2012 | **Number of Extensions:**Pooled fund project; interim funding |

Project schedule status:

□ On schedule □ On revised schedule □ Ahead of schedule x Behind schedule

Overall Project Statistics:

|  |  |  |
| --- | --- | --- |
|  **Total Project Budget** |  **Total Cost to Date for Project** |  **Total Percentage of Work** **Completed** |
| 675,000 | 577,207 | 75% |

***Quarterly*** Project Statistics:

|  |  |  |
| --- | --- | --- |
|  **Total Project Expenses** **This Quarter** |  **Total Amount of Funds**  **Expended This Quarter** | **Percentage of Work Completed** **This Quarter** |
| 12,171 |  | 5% |

**Project Description:**

This phase of the project is intended to provide states and contractors with the use and field management of ternary mixtures. The National CP Tech Center will provide its state-of-the-art 44-foot long mobile laboratory equipped for on-site cement and concrete testing. The mobile lab will be made available for testing at each project site to demonstrate the tests and procedures available for field management of ternary mixtures. Contractors will be provided with a list of potential mixture designs that encompass the optimum properties identified in earlier phases and the materials available in the local market. The contractors would be able to make minor adjustments in a selected mixture design to meet the needs of their equipment and crews.

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

* A paper based on the earlier field visits and lab tests was submitted to 2012 TRB meeting.
* Visits to NY and CA were completed
* Field manufactured specimens were brought to the lab for testing.
* Analysis of the data was started.

**Anticipated work next quarter:**

* Execution of the final OK field trip
* Analysis of the data will continue.
* Continue preparation of a model specification

**Significant Results:**

* The laboratory phase is completed and the final report is available on the CP Tech Center’s website. <http://www.intrans.iastate.edu/reports/ternary_mixtures_lab_study_w_cvr.pdf>
* Nine properties were tested and analyzed. These concrete mixtures evaluated during this phase are being used to contact field studies.
* Report on tests on pastes and mortars is complete
* Report on laboratory tests on concrete mixtures is complete
* Eight field trips completed, one still planned
* Work on a final report has started.
* Contractors will be provided with a list of potential mix designs that encompass the optimum properties and the materials available in the local market.
* A software decision support tool and proposed specifications for using ternary mixes will be developed.

**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).**

The project will be completed in July 2012 together with the companion cooperative agreement side of the funding.