**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

Date: August 1, 2012

Lead Agency (FHWA or State DOT): Michigan 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.*

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| **Transportation Pooled Fund Program Project #**  TPF-5(254) | | **Transportation Pooled Fund Program - Report Period:**  □Quarter 1 (January 1 – March 31)  □Quarter 2 (April 1 – June 30)  □Quarter 3 (July 1 – September 30)  □Quarter 4 (October 1 – December 31) | |
| **Project Title:**  Bulb-T Beam As Alternate ABC to Side-by-Side Box Beam. | | | |
| **Name of Project Manager(s):**  David Juntunen, P.E./  Matthew Chynoweth, P.E | **Phone Number:**  517-335-2993  517-322-3322 | | **E-Mail**  juntunend@michigan.gov  ChynowethM@michigan.gov |
| **Lead Agency Project ID:**  MDOT Job No. 114419; OR11-010 | **Other Project ID (i.e., contract #):**  2010-0293 | | **Project Start Date:**  September 19, 2011 |
| **Original Project End Date:**  September 30, 2014 | **Current Project End Date:**  September 30, 2014 | | **Number of Extensions:**  None. |

Project schedule status:

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

Overall Project Statistics:

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| **Total Project Budget** | **Total Cost to Date for Project** | **Percentage of Work**  **Completed to Date** |
| $349,000. | $101,637. | 26% |

***Quarterly*** Project Statistics:

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| **Total Project Expenses**  **and Percentage This Quarter** | **Total Amount of Funds**  **Expended This Quarter** | **Total Percentage of**  **Time Used to Date** |
| $101,637. (29%) | $48,609. | 26% |

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| **Project Description**:  To analyze and evaluate the decked bulb-T beam (or decked I- beam) as a viable replacement for the side-by-side box-beam bridge. The project description uses the term bulb- T beam as a general description of an I- beam shape,  with a wide top flange that can serve as a deck surface. For this type of beam to be a viable replacement to a box beam, it must have a very robust cross-section designed to have a shallow depth-to-span ratio; which makes it very different than the standard AASHTO section used by some states. The use of a bulb- T beam cross section would eliminate inherent problems associated with the ability to inspect and repair box-beam type structures. The Bulb-T beam cross-section will provide enough space at the section bottom for ease of periodical inspections and  maintenance of critical elements; such as beam web and the suffit of the bridge deck slab. |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**  Project On Time:  The project is on schedule:  Task 1 is 100% completed.  Task 2 is approximately 55% completed.  Task 3 is approximately 36% completed.  This quarter period the PI continued work on the Experimental Investigation (EI); ~36% complete, and the Numerical  Simulation (NS); ~55% complete, portions of the research plan.  Percent Completions By Category:  By Time- approximately 26% completed.  By Work- approximately 26% completed.  By Budget- approximately 29% completed.  Project Within Budget:  Project expenditures to date- $101,637.  Planned budget for FY 2012- $115,281.  The TAC accepted an invite from FHWA to make a presentation at the 2012 Mid-North Regional Peer-to-Peer  Exchange on PBES in Detroit, Michigan.  Mr. Matthew Chynoweth, MDOT Co-Project Manager gave a power presentation sharing the study’s purpose/progress  at the exchange on May 2, 2012. |
| **Anticipated work next quarter**:  Continue work activities on Task 2 (Theoretical Analysis) and Task 3 (Experimental Program).  Next progress meeting planned for late September 2012. |

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| **Results This Period:**  The theoretical analysis work continued.  Construction of the decked bulb t beams continued.  The principal investigator began pre-stressing of decked bulb t beams under the experimental program of the study’s work plan. |
| **Circumstance affecting project or budget. (Please 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).** |

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| **Potential Implementation:** |