Research Project Quarterly Progress Report

Date: 7/31/2017 **Project Number:** TPF-5(193) Suppl#116

Project Title: Illinois DOT and Ohio DOT MASH TL-4 Steel Tube Bridge Rail and Guardrail Transition

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Project Start Date: 5/4/2017 **Project Completion Date:** 9/30/2019

Report Period: **Due Date:**

- ☐ Quarter 1 (July 1 – September 30) ---------- October 31
- ☐ Quarter 2 (October 1 – December 31)---------- January 31
- ☐ Quarter 3 (January 1 – March 31) ---------- April 30
- ☒ Quarter 4 (April 1 – June 30)---------- July 31

Project Schedule Status:

- ☒ **On Schedule**
- ☐ **On Approved Revised Schedule**
- ☐ **Ahead of Schedule**
- ☐ **Behind Schedule**

Progress:

Task	Total Budget	% work Completed This Quarter	Expenses This Quarter	Total % of Task Completed	Remaining Budget
1. Bridge Rail Planning, Literature Review, Design	$53,131.00	45	$22,061.00	45	$31,070.00
2. Bridge Rail Full-Scale Testing	$344,162.00	0	$0.00	0	$344,162.00
3. Bridge Rail Reporting	$30,000.00	0	$0.00	0	$30,000.00
4. Bridge Deck Component Testing	$187,956.00	0	$0.00	0	$187,956.00
5. Transition Planning	$13,859.00	0	$0.00	0	$13,859.00
6. Transition Analysis and Design	$67,261.00	0	$0.00	0	$67,261.00
7. Transition Full-Scale Testing	$200,482.00	0	$0.00	0	$200,482.00
8. Transition Reporting	$30,000.00	0	$0.00	0	$30,000.00
9.					

Progress and Accomplishments this Quarter:

(Provide an informative summary of tasks/activities that occurred this quarter includes meetings, work plan status, significant progress, etc.)

The literature review of existing TL-3, TL-4, and TL-5 steel tube bridge rails and rail-to-deck connections was completed. The geometry and capacity of the current Illinois-Ohio Prototype Rail was evaluated. Alternative tube sizes and configurations were explored. Alternative post-to-deck connections were brainstormed including for attachment to 4 deck configurations. Meetings were held with the sponsors on June 5 and July 6 to discuss the progress on the project. Several internal meetings have been held between members of the research team.

Circumstances Affecting Project, Scope, or Budget:

(Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints, along with recommended solution to those problems.)

The original gantt chart in the proposal had the project starting in April 2017. Due to the time it took to get the contract in place (May 4, 2017), the project timeline will be shifted by approximately 1 month. However, we believe that this time will be made up throughout the project and that it will still get completed by the end date (September 30, 2019).

Anticipated Work Next Quarter:

The rail-to-deck connection design and component testing plans will be finalized. The bridge rail design, including steel tube sizes and layout, will be finalized. The background review will begin to be documented in a report. An update meeting is scheduled with the sponsor on August 9.

Total Percentage of Project Completion:

3%