TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): FHWA HIBT

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 # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)*	**Transportation Pooled Fund Program - Report Period:**
TPF-5(227)	☐ 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:		
Continued Advancements in Load and Resistance Factor Design (LRFD) for Foundations, Substructures and Other Geotec		
Name of Project Manager(s):	**Phone Number:**	**E-Mail**
Silas Nichols	202-366-1554	Silas.Nichols@dot.gov
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:**
Multiple	Multiple	Varies
Original Project End Date:	**Current Project End Date:**	**Number of Extensions:**
Varies		

Project schedule status:

☐ On schedule ☑ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
$580,000	$100,000	15%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$0	$0	12%

Project Description:

This project is broken into several sub-tasks to address specific Load and Resistance Factor Design (LRFD) research and deployment needs for State DOTs. Tasks include but are not limited to:

1. Development of technical guidance for design of shallow foundations
2. Development of comprehensive design problems in LRFD
3. Evaluation of capacity determination for large diameter driven piles
4. LRFD guidance for design and construction of driven piles
5. Evaluation of load and resistance factors for abutment design

The pooled fund is leveraging funds against other sources, so as to maximize the benefits to participating states and to best advance the practice. The objective of each task is to address a gap in the transition from allowable stress design (ASD) to LRFD identified by state DOTs and other transportation partners.

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

TRAINING: A contract was initiated to update training to facilitate deployment of shallow foundations. The gap is a lack of design guidance in LRFD. 65% of funds for this effort come from pooled fund, remaining money leveraged from other sources. Pilot course for Spread Footings was delivered to TPF partner state NCDOT.

Anticipated work next quarter:

During the next quarter, it is anticipated that:

1. A contract for the third project will be awarded for developing comprehensive example problem for several foundation types in LRFD. 50% funded from pooled fund, remainder leveraged from other sources.
2. RFP is currently under development for update to technical guidance on LRFD for Lateral Load on Deep Foundations. The guidance will update and document the state of the practice for design of deep foundations for lateral load and develop scopes of work research efforts to address gaps (eg, rock-soil interface, point of fixity). Partially funded by pooled fund, remainder leveraged from other sources.
3. RFP is currently under development for update to technical guidance for LRFD of Driven Piles. Guidance will update and document the state of the practice for design and construction of driven piles. Effort will include research on effectiveness of current design methods for large diameter piles.

Significant Results:

Final deliverables submitted by contractor for LRFD for Spread Footings training.

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).

None to report.

Potential Implementation:

Objective of shallow foundations work is to promote more widespread use as a more cost effective structural foundation alternative.