

Federal Contract # DTFH61-17D00001 – Task Order #1

LONG-TERM BRIDGE PERFORMANCE PROGRAM

PROGRESS REPORT NO. 11

Report Period: Aug 1, 2018 – Aug 31, 2018

Prepared For:

Federal Highway Administration

Prepared By:



A. Account of work performed in this period

1. Coordination and Meetings Between the Contractor, FHWA LTBP Team, and State Highway Departments

The Rutgers team had a few correspondences with the FHWA team over the phone or by email.

2. Data Gap Analysis

Primary efforts in August were not based strictly on the five tasks outlined in the initial workplan, but instead primarily focused on expanding the initial guidance and details regarding the implementation of the recommendations for construction related data and maintenance related data both at a high level and specific to the high priority performance issues. An initial draft of this guidance was completed in the previous month which explored the details and feasibility regarding each recommendation suggested in the data gap analysis summary. Several team meetings and discussions were held which analyzed, critiqued, and expanded the original recommendations and implementation details. Additionally, a summary of the recommendations and relative prioritization were added. Of the recommendations explored, maintenance related data seems the most viable option to pursue (highest priority) based on its relative accessibility and the potential positive impact of obtaining the data type to the program's goals. Due to this, a proposed workplan was drafted (based on the recommended implementation details) which outlines several activities/tasks to carry out the high priority recommendations for maintenance related data. Details are broken down by task and an anticipated timeline is included.

Co-PI: 9.5 hours

Program Manager: 48 hours

Project Engineer: 122.42 hours

Technician: 69.92

Project Support: 4 hours

3. Communication

The Rutgers team prepared the electronic version of the monthly progress report and submitted it to FHWA. Moreover, the Rutgers team updated the MS Project file showing the project milestone and submitted it to FHWA.

Co-PI: 10 hours

Project Support: 18 hours

B. Work to be accomplished during the next period

1. Coordination and Meetings Between the Contractor, FHWA LTBP Team, and State Highway Departments

The Rutgers team will meet with reach out to FHWA to set up a meeting for the month of August.

2. Data Gap Analysis

Work in September is anticipated to focus on maintenance data collection.

3. Communication

The Rutgers team will prepare the electronic version of the monthly progress report and will submit it to FHWA. Moreover, the Rutgers team will submit the updated MS Project file to FHWA.

C. Problems/Recommended Solutions

No problems encountered during this period.

D. How the results of the work performed supports one or more of the FHWA, DOT and LTBP Goals

All of the work conducted under this task order aims to ensure that the LTBP program collects the data required to realize the following four use cases: (1) Advance research in bridge deterioration and predictive modeling, (2) Advance research in cost analysis, (3) Support improved bridge design methods, and (4) Quantify the effectiveness of bridge maintenance, preservation, repair, and rehabilitation strategies. These use cases encapsulate the overarching goals of the LTBP program and its vision for positively impacting the practice of bridge engineering.

E. Purchases and Rentals

Nothing was purchased or rented during this period.

F. Travel Details for Reporting Period

None.

G. Current and Cumulative Expenditures (cost shown includes benefits and overhead)

| Institution | Current Expenditures 8/1/2018 – 8/31/2018 | Cumulative Expenditures 10/1/2017 – 8/31/2018 |
|---|--|--|
| Rutgers, the State University of New Jersey | \$ 19,690.50 | \$ 291,030.12 |
| Bridge Intelligence LLC | \$ 2,535.00 | \$ 20,455.53 |
| New Jersey Institute of Technology | \$ 9,259.32 | \$ 57,320.66 |

H. Subcontractor's Progress Report

Sub-recipient Name: Bridge Intelligence LLC

Subaward No: 00000286

Principal Investigator: Hooman Parvardeh

LTBP TSSC

Federal Contract # DTFH61-17-D00001

PROGRESS REPORT NO. 8

For the Period from 8/1/2018 through 8/31/2018

A. Accomplishments/Work Performed

The following is a complete account of all accomplishments and work performed on each task during this reporting period.

Task 1: (Coordination and Meetings between the Rutgers and FHWA LTBP Team)

Nothing was done during this period.

Number of hours during this period: 1 hours

This task is approximately 60% complete.

Task 2: (Data Gap Analysis)

During this period, Mr. Parvardeh reached out to Utah and Alabama regarding maintenance data. Utah will most likely give access to their working items which were part of their inspection to our team.

Number of hours during this period: 9.5 hours

This task is approximately 65% complete.

Task 3: (Communication)

During this period, Mr. Parvardeh performed the following tasks:

- Prepared and submitted monthly progress report to FHWA
- Updated the MS project file and submitted it to FHWA

Number of hours during this period: 10 hours

This task is approximately 70% complete.

B. Work Anticipated During the Next Period

During the next period, Mr. Parvardeh will perform the following tasks:

- Set up, prepare, participate in the monthly conference call
- Prepare and submit minutes for the monthly conference call
- Support the LTBP Data Gap Analysis effort
- Prepare and submit monthly progress report

C. Changes /Problems

None.

D. Participants & charged Level of Efforts

| Personnel Name | Role/Contribution | Total Hours | Billed Cost |
|------------------|-------------------|-------------|-------------|
| Hooman Parvardeh | Principal | 19.5 | \$ 2,535.00 |

Below is a breakdown of level of effort per task:

| Task 1 | Task 2 | Task 3 |
|--------|---------|--------|
| 0 hr | 9.5 hrs | 10 hrs |

E. Travel

None.



Sub-recipient Name: New Jersey Institute of Technology

Subaward No: 00000290

Principal Investigator: Matthew P. Adams

LTBP TSSC – Task Order 1

Federal Contract # DTFH61-17-D00001

For the Period from 8/1/2018 through 8/31/2018

A. Accomplishments/Work Performed

The following is a complete account of all accomplishments and work performed on each task during this reporting period.

Task 2 Data Gap Analysis

The research group continued studying data gaps on treated and untreated bridge decks. These activities centered around gaps pertaining to functionality data (e.g., structural geometry), cost data, and construction-related data. Additional data gaps relating to maintenance and preservation for decks are also being investigated.

Number of hours during this period: 104.8

B. Work Anticipated During the Next Period

For the next period, the team at NJIT will continue to assist and work on directed documents as directed by Rutgers and FHWA.

C. Changes /Problems

None.

D. Participants & charged Level of Efforts

| Personnel Name | Role/Contribution | Total Hours | Billed Cost |
|-----------------|-------------------|-------------|-------------|
| Aaron Strand | Technician | 69.9 | \$69/hour |
| Matthew Adams | Project Engineer | 17.5 | \$127/hour |
| Matthew Bandelt | Project Engineer | 17.5 | \$127/hour |



E. Travel

None.