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

LONG-TERM BRIDGE PERFORMANCE PROGRAM

PROGRESS REPORT NO. 7

Report Period: April 1, 2018 – April 30, 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 meeting with Dr. Rob Zobel at the 2018 National Bridge Preservation conference in Orlando, FL on 4/11 and discussed the status of the LTBP program.

Co-PI: 4.5 hours

Project Support: 6 hours

2. Data Gap Analysis

Data gap efforts in April were primarily focused on (1) finalizing the data collection needs and data gaps and collection strategies for the two remaining high priority performance issues (bridge bearings and treated bridge decks), and (2) coordinating the preliminary high-level data gap results, findings, and recommendations with the other LTBP teams.

The following is a breakdown of effort per task:

Task 2.1: Examine, Characterize, and Summarize LTBP Protocols for Data Collection Efforts: This task focuses on examining and structuring the data that may be obtained from all current LTBP data collection protocols pertinent to each high priority performance issue. This task was largely completed in previous months as it was needed, in part with Task 2.2 Data Collection Needs, to complete Task 2.3 the Data Gap Analysis. The current data collection protocols were examined as a whole (instead of a single examination relating to each individual high priority performance issue) in the previous months, and as a result this task is largely completed. It is anticipated, however, that this task will be revisited to resolve specific findings as the other tasks progress.

Task 2.2: Develop Set of Data Collection Needs: No major development of this task in April.

Task 2.3: Identify Data Gaps and Collection Strategies: Using the findings from Task 2.1 and Task 2.2, data gaps were identified for bridge bearings. Collection strategies to address these gaps were drafted.

Task 2.4: Prioritization and Strategic Recommendations: The results from Task 2.1, Task 2.2, and Task 2.3 for bridge bearings were compiled and used to draft prioritized recommendations.

Task 2.5: Reporting: The Rutgers team received a commented review of the summary of findings draft submission for untreated bridge decks and bridge joints in the last week of April and began to address the comments for the final submission.

Co-PI: 3 hours

Project Engineer: 118 hours

Technician: 39.15

Project Support: 5 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: 9 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 reach out to the FHWA team to set up a monthly meeting.

2. Data Gap Analysis

Per the schedule in the submitted Work Plan, future work in May will primarily focus on (1) addressing the comments provided by the COR regarding the untreated bride decks and bridge deck joints summary of findings draft submission, (2) compile the data gap findings for bridge bearings, and (3) draft the summary of recommendations for bridge bearings.

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 4/1/2018 – 4/30/2018	Cumulative Expenditures 10/1/2017 – 4/30/2018
Rutgers, the State University of New Jersey	$ 15,685.87	$ 161,106.37
Bridge Intelligence LLC	$ 2,141.37	$ 11,095.53
New Jersey Institute of Technology	$ 2,701.74	$ 11,129.67

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. 4
For the Period from 4/1/2018 through 4/30/2018

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)

During this period, Mr. Parvardeh attended a meeting with Dr. Frank Moon and Dr. Rob Zobel. The meeting took place at the 2018 National Bridge Preservation Conference in Orlando, FL. The purpose of the meeting was to discuss the progress of the LTBP program.

Number of hours during this period: 4.5 hours

This task is approximately 30% complete.

Task 2: (Data Gap Analysis)

During this period, Mr. Parvardeh reviewed the progress of the Data Gap Analysis effort including the comments received from FHWA regarding the summary of findings draft submission.

Number of hours during this period: 3 hours

This task is approximately 25% complete.

BRIDGE INTELLIGENCE

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: 9 hours

This task is approximately 32% complete.

BRIDGE INTELLIGENCE

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	16.5	$ 2,145.00

Below is a breakdown of level of effort per task:

Task 1	Task 2	Task 3
4.5 hrs	3 hrs	9 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 4/1/2018 through 4/30/2018

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

During this period, the team at NJIT reviewed literature pertaining to cost and effectiveness of preservation and maintenance methods used by various agencies. NJIT started work on cost and effectiveness comparison tables for developing data collection needs for bridge decks. A list of parameters/recommendations for estimating construction quality, maintenance, and preservation was also further developed. Lists of data gap input/output parameters were further refined.

Number of hours during this period: Technician: 39.2 hours

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	39.2	$ 2,704.8

E. Travel

None.