

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

LONG-TERM BRIDGE PERFORMANCE PROGRAM

PROGRESS REPORT NO. 12

Report Period: September 1, 2018 – September 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 few correspondences with the FHWA team over the phone or by email.

Program Manager: 10 hours

2. Data Gap Analysis

The Data Gap Analysis group accomplished the following tasks for the month of September:

- The primary focus of the group for this period was the identification and analysis of gaps in the areas of treated bridge decks and bridge bearings.
- For the area of treated bridge deck gaps, the biggest issue identified was the lack of any data or documentation collected for bridges with treated decks. The following areas are likely to have data gaps in based off of our investigation:
 - Lack of functionally data
 - Lack of cost data
 - Lack live load data
 - Lack of construction related data
 - Lack of maintenance and preservation data
- For the area of bridge bearing data gaps, the following gaps were identified:
 - Maintenance and preservation data
 - Construction-related data
 - Live load data
 - Cost data
 - Lack of inspection protocols bearings other than elastomeric and rocker
 - Lack of modern tools used during inspection
- A detailed explanation of each of the data gap subsections identified above was written and included in the updated data gap analysis report which includes data gaps relating to treated bridge decks and bridge bearings.
- Recommendations for solutions for all identified data gaps were also written and will be included in the submitted report.
- All other sections from the previously submitted May 2018 interim report have been reviewed and updated as needed.

Co-PI: 45.5 hours

Program Manager: 8 hours

Project Engineer: 37.5 hours

Staff Engineer: 30.0 hours

Technician: 46.07

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: 10 hours

Project Support: 17.5 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 October 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 9/1/2018 – 9/30/2018	Cumulative Expenditures 10/1/2017 – 9/30/2018
Rutgers, the State University of New Jersey	\$ 11,634.00	\$ 302,664.12
Bridge Intelligence LLC	\$ 7,215.00	\$ 27,670.53
New Jersey Institute of Technology	\$ 3,178.83	\$ 60,499.49

H. Subcontractor's Progress Report

Sub-recipient Name: Bridge Intelligence LLC

Subaward No: 00000286

Principal Investigator: Hooman Parvardeh

LTBP TSSC

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PROGRESS REPORT NO. 9

For the Period from 9/1/2018 through 9/30/2018

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)

Nothing was done during this period.

Number of hours during this period: 1 hours

This task is approximately 70% complete.

Task 2: (Data Gap Analysis)

During this period, Mr. Parvardeh receiving work items from Utah and Kentucky. Utah provided data in Oracle database format and Kentucky provided it in XML format. Mr. Parvardeh worked on installing Oracle database on LTBP server and imported the database to Oracle and started querying the data and working with the data to extract useful maintenance information.

Number of hours during this period: 45.5 hours

This task is approximately 75% 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 80% 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	55.5	\$ 7,215.00

Below is a breakdown of level of effort per task:

Task 1	Task 2	Task 3
0 hr	45.5 hrs	10 hrs

E. Travel

None.



Sub-recipient Name: New Jersey Institute of Technology

Subaward No: 00000290

Principal Investigator: Matthew P. Adams

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For the Period from 9/1/2018 through 9/30/2018

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 continued to review data gaps in the literature pertaining to cost, maintenance preservation techniques, functionality, and construction.

Number of hours during this period: 46 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	46	\$69/hour

E. Travel

None.