**Federal Contract # DTFH61-17D00001 – Task Order #2**

**LONG-TERM BRIDGE PERFORMANCE PROGRAM**

PROGRESS REPORT NO. 23

Report Period: August 1, 2019 – August 31, 2019

Prepared For:

**Federal Highway Administration**

Prepared By:



**A. Account of work performed in this period**

* 1. **Coordination and Meetings Between the Contractor and FHWA LTBP Team**

Dr. Moon and Mr. Parvardeh had multiple calls and emails with the FHWA team during this period.

PI: 32 hours

* 1. **Develop LTBP Program bridge performance strategic research matrix**

Nothing was done during this period.

* 1. **Conduct training for all field personnel on LTBP Protocols**

Nothing was done during this period.

* 1. **Development of data collection protocols and RABIT-CE operations manual**

Nothing was done during this period.

* 1. **Legacy Data Mining data extraction**

Nothing was done during this period.

* 1. **Organize, conduct, and participate in LTBP workshops and meetings**

Nothing was done during this period.

* 1. **Publications, website, communications, and technical assistance**

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

Mr. Parvardeh developed and leveraged code for the conversion of raw NDE data to XML format.

Dr. Babanajad performed the necessary steps in order to complete the QA/QC for the NDE data collected through the LTBP Program. The focus was on addressing the problematic issues with the NDE stack files and statistical analysis for the most appropriate plotting approach in the InfoBridge.

PI: 50 hours

Project Engineer: 95.50 hours

Technician: 10 hours

Project Support: 8 hours

**B. Work to be accomplished during the next period**

* 1. **Coordination and Meetings Between the Contractor and FHWA LTBP Team**

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

* 1. **Develop LTBP Program bridge performance strategic research matrix**

No work is planned under this task for the next reporting period.

* 1. **Conduct training for all field personnel on LTBP Protocols**

No work is planned under this task for the next reporting period.

* 1. **Development of data collection protocols and RABIT-CE operations manual**

No work is planned under this task for the next reporting period.

* 1. **Legacy Data Mining data extraction**

No work is planned under this task for the next reporting period.

* 1. **Organize, conduct, and participate in LTBP workshops and meetings**

No work is planned under this task for the next reporting period.

* 1. **Publications, website, communications, and technical assistance**

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**

None.

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

The following is a summary of how the work performed on the primary tasks of this task order contribute to meeting the FHWA, DOT, and LTBP program goals.

**Task 2 - Develop LTBP Program bridge performance strategic research matrix**

Fundamentally, the SRMs aim to link the LTBP program to the larger research community. By placing the LTBP efforts in this larger context, the program will be able to identify potential synergies and collaborative opportunities as well as any overlaps that may exist. This will both increase the cost effectiveness of the program as well as the program’s impact on bridge engineering practice through clearly showing how the LTBP program contributes to the overall bridge performance research landscape.

**Task 3 - Conduct training for all field personnel on LTBP Protocols**

At the heart of the LTBP program’s data collection effort is the requirement that data be obtained in a consistent and reliable manner across the breadth of the program. Variations in collection techniques or unreliable practices would pollute the data streams and greatly limit the ability of the program to meets its goal of improving our understanding of long-term bridge performance. Activities under this task aim to ensure that the data collection efforts of the LTBP program are executed by teams with the required expertise to obtain consistent and reliable data.

**Task 4 - Development of data collection protocols and RABIT-CE operations manual**

Similar to the training work being conducted under Task 3, this task is also involved in ensuring consistent and reliable data collection throughout the program. Specifically, this task will develop additional protocols and operations manuals that specify best-practice approaches for data collection.

**Task 5 - Legacy Data Mining data extraction**

In addition to ensuring consistent and reliable data collection efforts, the overarching goal of the program is also dependent upon the completeness of the data collection efforts. This task contributes to this through the collection of available legacy data. This data not only provides a means to ensure field data collection efforts are carried out efficiently (i.e. on bridges best suited to meeting the program’s goals) but also provides context to the data to help explain observed trends and correlations (and thus further our understanding of long-term bridge performance).

**E. Purchases and Rentals**

WJE purchased a business GSuite account for $12 to get access to the data shared by Rutgers University.

**F. Travel Details for Reporting Period**

None.

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

|  |  |  |
| --- | --- | --- |
| **Institution** | **Current Expenditures**  **7/1/2019 – 7/31/2019** | **Cumulative Expenditures**  **10/1/2017 – 7/31/2019** |
| Rutgers, the State University of New Jersey | $ 23,566.00 | $ 917,447.59 |
| Bridge Intelligence LLC | - | $ 94,904.39 |
| Pennoni Associates | - | $ 34,206.00 |
| Infratek Solutions | - | $ 25,244.00 |
| New Jersey Institute of Technology | - | $ 28,237.18 |
| WJE | $ 12,415.00 | $ 58,316.50 |

**H. Subcontractor’s Progress Report**