

Project Status Report: CEEEn-2018CPST-001

Report Date: 1 October 2018

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Project Title: Bluffdale Bridge Options

1) Summary of technical/non-technical challenges encountered

- Our client was unable to find existing plans for the design of the bridge. Without these plans, analyzing the bridge would first require a more comprehensive survey of the structure, including general dimensions.
- Our team currently cannot perform a site visit of the bridge; the canal running underneath the structure is still in operation until approximately mid-October.

2) Team approaches & resolutions to overcome challenges

- We first attempted to find the plans from another source. This included researching the history of the bridge, determining the organizations that were involved in its creation, and contacting these groups through the City of Bluffdale.
- To save time, we simultaneously make plans with the assumption that the design documents no longer exist and the analysis would first require an extensive survey of dimensions. To perform this analysis, we would contact a professional to understand the surveying process, determine the equipment required to perform such as task, and find out where we can obtain such equipment.
- Having a plan for surveying the bridge would also allow us to be optimally effective for the first site visit, minimizing the time wasted due to the canal restrictions.

3) Status of challenge resolutions & potential project impact

- Our research indicated that UDOT and Salt Lake City would be the most likely to have records of the bridge. We send an email to the client asking for help contacting the proper personnel to retrieve those documents and are currently waiting for a response. While obtaining these documents would be extremely useful, our simultaneous efforts greatly reduce the urgent need for these design plans.
- We have contacted several professors with expertise in bridge design and analysis (Dr. Isom and Dr. Guthrie); they have agreed to meet with us and discuss the options and methods we have available to us to get a complete survey of the bridge. This will ensure that we can perform a good analysis of the bridge on the first site visit.

4) Project status & summary

- We have set Oct. 19th as the date for the first site visit.
- We have made arrangements for a student to assist in creating a three dimensional model of the bridge, which will lower the need for repeat site visits.
- We have reviewed several AASHTO bridge regulations to understand the basic requirements for bridge loads and other related information.
- We have created a preliminarily Microsoft Excel spreadsheet using the information found in the AASHTO manual to prepare for an analysis of the data.