



**Project Status Report: CEE-2019CPST-004**

**Report Date: 2/24/20**

**Team Members: Jacquelyn Winfield, Andee Guy, Tanner Roberts**

**Project Title: Kiewit Bulkhead Evaluation**

**1) Summary of technical/non-technical challenges encountered**

- We have rechecked and recalculated the required depth of embedment to prevent a slipping failure. A few numbers were corrected, but the required depth of the embedment is still deeper than ideal when using the 8ft maximum.
- The failure method of the tie rod is being evaluated and the challenge is determining the value of the moment caused on the tie rods.
- Finding the right program to model our sheet pile wall is a challenge for this upcoming week.

**2) Team approaches & resolutions to overcome challenges**

- For the moment arm on the tie rods, Tanner will be using the advanced soil mechanics book to apply the given equations to the sheet pile wall.
- Andee will meet with Dr. Williams this week to decide which program would be best to model our evaluation.

**3) Status of challenge resolutions & potential project impact**

- The main calculation has been finished and checked. The three other types of failure that we are evaluating are the tie rods, buckling of the wall, and using the program. Each team member is leading the analysis for a different type of failure this week.
- The calculation portion of our analysis should be complete by the end of February. If it's not complete than our project my be rushed in March for completion.

**4) Project status & summary**

- The project is going well. Last week we took the time to double check our calculations and present them in Mathcad in order to have a clean presentation of our numbers and assumptions.
- The next failure evaluations should be smoother to calculate due to the time and care taken to evaluate the first failure analysis done together as a team.

Please enter # of hours spent on project this last week for each team member in the order listed above