Project Status Report: CEEn-2016CPST-007 Flood Control Plan Feasibility Study

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1) Summary of technical/non-technical challenges encountered

Some challenges we encountered were with the pipe design. We weren't sure how to locate it in such a way that it wouldn't interfere with existing pipelines, the steep slope, and the ground cover. The location of the detention basin was also a challenge, as the stability of the slope was a concern. Profile views in Civil 3D were also a challenge, as Civil 3D in general is a software package we didn't have much experience in. Cost estimates and material bulk was an ambiguous design factor for us to try to determine.

2) Team approaches/resolutions to overcome challenges

For the pipe design we decided to put in pipe bends and steer away from the retaining wall. For the existing pipelines, we called several companies to get a general idea, and used only one foot of pipe cover in order to avoid interference with other lines. Concerns with detention basin location were alleviated by distancing the site from the slope, and encouraging a slope stability analysis before construction. For the Civil 3D profile view challenge, a team member familiarized himself with online examples and learned the process of creating profile views. To estimate project cost we looked at past similar project reports, acquired a pipe price quote, and estimated the bulk materials required.

3) Status of challenge resolutions & potential project impacts

As of today, we have finalized our stormwater design, produced our final report, and have found a solution for fixing a sag point in the area. We have also have a good estimate for the total project cost.

4) Project Status & Summary

We anticipate the project will be delivered on time with no delays. We have successfully altered our design from an open channel to a storm pipe design. The design will fix the problem of flooding in Ridge Lane. We plan to present everything to the sponsor on 12 April 2017. We will deliver a final report, electronic design files, and project presentation.