

Project Status Report: CEEEn-2017CPST-009: HSS Triangular Section Evaluation

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<div><div>1) Summary of technical/non-technical challenges encountered</div><div><ul style="list-style-type: none">• We are approximately 1 month behind schedule.• Determining actual number of end plates needed for testing.• Having to fit our tests into the BYU structures lab schedule since we missed our planned dates.</div></div>	<div><div>2) Team approaches/resolutions to overcome challenges</div><div><ul style="list-style-type: none">• We have talked with Dr. Wayne Lee about our schedule and what we can do to eliminate scope creep and complete the project.• We have discussed options to reduce the number of plates needed with Dr. Wayne Lee. We believe that we have started to go outside the original scope of comparison testing and are working to refocus.• We are working with Dave Anderson to fit the tests into the Structures Lab schedule.</div></div>
<div><div>3) Status of challenge resolutions & potential project impacts</div><div><ul style="list-style-type: none">• After our discussion with Dr. Wayne Lee, we have decided that we will eliminate the 3.5 inch square tube from all tests, eliminate the circular section from the tensile test, as well as eliminating the single and double shear tests. This will allow us to focus on these tests and move forward with the physical testing while reducing the number of 1/2inch end plates required to complete all of the tests.• We will be conducting the tests as we receive material and as the lab is available. We will work to provide ATP with test plans so they can attend if desired.</div></div>	<div><div>4) Project Status & Summary</div><div><ul style="list-style-type: none">• FEA data compilation for fixed-fixed and cantilever bending has been completed and preliminary results show the triangle performing well when compared to the circle, square and rectangular shapes. We are still running the other tests and will update ATP with comparison results as they are completed.• At this point we are on schedule with our FEA analysis but are now approximately 4 weeks behind schedule in regards to physical testing.• We were excited to receive the dog-bone sections this week and were able to complete the tensile tests.</div></div>