Washington-Lee High School

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Executive Summary

The goal of this proposal is to show what I plan on researching on the new Washington-Lee High School next semester. For each analysis that is going to be done a problem is identified, my research goals are given, the tools needed to complete the analysis are given, and finally the expected outcome of the research is given. At the very end a weight matrix is given to show how I will be spending my time next semester.

Analysis #1: LEED Schools

In this analysis I plan to study LEED schools and create a guide for public schools looking to build a new building that will help them decide whether or not to pursue a LEED rating. The goal of this analysis is to research the advantages LEED rated schools have in providing a better environment for students.

Analysis #2: Prefabricated Masonry Façade (Breadth 1)

In this analysis I plan to compare a prefabricated masonry façade to the current façade. There are a lot of different façade elements currently on the new school which means there is an increased chance of leakage between the joints. There also is a significant issue with coordination between trades. The goal is to show that a prefabricated system will help reduce the schedule and will also help reduce the mechanical loads due to the quality of the work. The hope is that a reduction in mechanical loads would lead to the building qualifying for more LEED points.

Analysis #3: Lighting in Gymnasium (Breadth 2)

In this analysis I hope to create a better lighting design in the gymnasium of the new Washington-Lee High School. They are currently using the normal metal halide light bulbs which most gyms use. I want to find a better more effective way to light the gymnasium that will show the new school off in a good way. I also hope to save cost or at least add more value to the new gymnasium because it will be a major gathering spot for the community.