

THESIS PROPOSAL

Fairfax High School Renovation & Addition
3500 Old Lee Highway
Fairfax, VA 22030



A. EXECUTIVE SUMMARY

In this Proposal, you will find three analyses that are to be conducted on various aspects of the Fairfax High School Renovation and Addition project. This document is intended to give the reader a detailed view of these analyses, how they are to be conducted, and what tools will be utilized in the process. The research topic will involve developing a LEED® guide for the industry. Along with the research component, the other investigations will look at ways of improving the performance and constructability of several systems in Fairfax High School.

Below is a quick preview of each analysis:

Analysis 1: LEED® Guide

This will include research to develop a guide that can be used by owners and project managers to reduce the difficulty in obtaining LEED® certification.

Analysis 2: Phasing

This will look into re-structuring the phasing layout for the project to alleviate the use of contingencies and schedule delays.

Analysis 3: Pre-cast versus Cast-in-Place

An investigation will be performed to realign the use of cast-in-place concrete versus pre-cast concrete. The types of analyses that will be used include a structural analysis and constructability review to address the method of erection and cost / schedule impacts.