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CM Thesis Proposal Part I: Critical Thesis Issues



Executive Summary

This thesis proposal provides an overview of the four topics that will be researched for my final thesis report. A description of the topic, problem statement, proposed solution, theoretical benefits and the solution method is included for each research topic.

The first topic focused on is the structural breadth topic. It focuses on the removal of a reinforced fill system in the building, and the redesign of the footing and foundation wall at this location to control the lateral load caused by the proposed compact fill system. After researching this topic I hope to find that it reduces the cost of the project, accelerates the schedule and improves constructability.

The second topic focused on is a mechanical breadth topic. This topic researches the option of replacing the double pane glass in the large curtain wall with triple pane glass. This research will involve calculating the long term savings by switching the glass and determining how long it would take for the energy savings to outweigh the high initial cost.

The third topic that will be researched is the implementation of Ridgid's Pro-Press fitting system on the domestic water piping system. I hope to find this is beneficial by accelerating the schedule, decreasing the cost for labor and improving constructability. This should also prove to be beneficial to the owner, as it decreases the amount of time certain sections of the building are shut down for plumbing work.

The final topic that will be researched is the improvement of the LEED process for subcontractors. This process tends to be very difficult for subcontractors who have not been involved with LEED projects in the past. This research topic will require a large amount of interaction and discussions with the subcontractors on the Recreation Hall project, and will hopefully identify improvements that can be made to future LEED projects.