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Bedford, PA
11-20-2006



A. EXECUTIVE SUMMARY

Within this technical assignment are the initial steps that will be the framework for the thesis research and analyses that will be written in the future. The topics that are discussed in this report are critical industry issues from the fall PACE (The Partnership for Achieving Construction Excellence) Roundtable, a critical issue research method, a problem identification list, technical analysis methods, and a weight matrix.

The critical industry issues highlight the fall PACE Roundtable. During this seminar there were 3 discussion sessions with multiple topics for the attendees to choose from. The discussion sessions I attended were entitled “Start-up, Operations, and Maintenance”, “Modeling Implementation and Challenges”, and “Building Respect with Owners and Operators”. The information that was presented at the Roundtable was informative and helpful but did not help in regards to formation of ideas for thesis research and analyses.

The critical issue research method develops a research topic to study. From the experience on a jobsite of a historical renovation, I have focused on building rehabilitation and the development of methods to simplify the error filled process that comes with renovating a building. Considering that every renovation is different, I have produced a questionnaire which I plan to distribute to companies and individuals that have first hand experience to gain a better understanding of the problems they have faced and how they solved them.

The problem identification list and technical analysis methods identify possible problems on the project site and have us expand those problems into an analysis which could benefit the project in some way. The current analyses that I am pursuing are:

- A value engineering analysis which concentrates on the converting individual room heating pumps into air handling units that service multiple rooms.
- A schedule reduction analysis that compares a structural wood system to a structural steel system and the schedule impact of the change.
- A constructability analysis on the water reduction systems that could be applied around the site and the cost impact.