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Construction Management Option
January 30, 2006

Executive Summary

The Capital One Lecture Hall stands as an excellent project in which the use of value engineering played a key role in what will be a successful outcome. During the value engineering process, good communication between the General Contractor and design teams facilitated advantageous analyses. Contrary to this statement, there were also instances where goals of the associated parties were not understood and messages lost in the mix. Some of these jumbled suggestions include alternatives for a structural steel catwalk, removing boilers in the cluttered mechanical rooms, and utilizing shoring techniques during foundation work.

Core research for this project will be an evaluation of the interaction between DAVIS Construction and the design teams. As communication increases between project teams during value engineering, partnering can be critical in order to achieve agreed upon ideas. The lack of interest and knowledge of goals outside of ones own company can lead to value engineering disaster. Exposing these assumptions and recommending appropriate partnering exercises is a must.

When analyzing the structural steel element of the Lecture Hall's catwalk, it seems as though the system may be quite over-designed, not to mention expensive. Hundreds of thousands of dollars will be put into the catwalk alone, providing an alternate system with appropriate load calculations would save the project a lot of money.

The technical analysis of the congested mechanical rooms in the basement leads one to wonder the possibilities of removing two large boilers. Evaluating the constructability and usage of new systems, including brief cost estimates, seems quite beneficial.

A final area of study will include actions to be considered in the even that the Owner, Capital One, wants building completion to occur a significant amount of time earlier than previously agreed upon. One suggestion in particular is the use of sheeting and shoring during foundation work, allowing adjacent sections to begin while previous ones have yet to finish. After evaluating the foundation sequencing and the schedule savings, a brief cost analysis shall be performed to justify an increased work load.