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EXECUTIVE SUMMARY:

The ASHA is a non-profit organization that is in the process of construction of their new headquarters in Rockville, MD. This project offered many interesting opportunities in the field of construction management involving all aspects from cost and schedule analysis to sustainability and procurement methods.

The ASHA is attempting to attain a LEED silver rating for sustainable design. Green Globes is a new sustainable rating system introduced to America in 2005. This analysis is designed to compare and contrast the systems through surveys, case studies, and by comparing the scorecards of LEED and Green Globes in reference to the ASHA headquarters. These comparisons will not only give insight for the ASHA project but hopefully for sustainable rating in the future.

Traditional design-bid-build was used by the ASHA. However many procurement methods offer different opportunities such as bid-build. Each of these systems is compared through the advantages and disadvantages of both from an economical stand point to the opinions of multiple owners in the construction field. The ASHA was then analyzed based upon the owners opinions as well as an economical standpoint and the better of the two systems was selected. This study also hopes to show what may become the future procurement method for construction.

Energy efficiency of the ASHA building is extremely important especially with a LEED silver rating attempt. The windows of the building were replaced by multiple low energy high efficiency windows and then through EQuest calculations were run to compare energy savings. Finally the prices of the windows themselves were compared and an analysis was completed of whether or not the energy savings were efficient enough for the higher initial costs.

The columns of the building were originally designed as steel to reduce the schedule and complete the building faster. Using pcaColumn the steel was then re-designed as concrete members and the savings were calculated. The extension in the schedule do to the concrete was also analyzed to determine the cost of back renting to discover if the material change was cost effective.