

CONCLUSION

In this thesis several proposed changes were made and fully analyzed. The analysis of the use of a structural steel system in the place of cast-in-place concrete showed the feasibility of the structural steel. The steel system resulted in a floor thickness 8” greater than the existing design. However, the steel system eliminated the need for columns within the courtyard infill, instead placing them on the exterior of the floor plan. The steel system was less expensive than the cast-in-place system and the implications to the schedule were all positive, as the steel system took less time to construct than the cast-in-place system.

In the façade analysis it was shown that precast masonry/concrete panels were an acceptable alternative to laid brick veneer from a heat and moisture transfer perspective. However, the panels did weigh twice as much as the brick veneer system, and as a result the existing foundation had to be upsized. The precast panels affected the site plan because of the need for a crane, and were more expensive than the brick veneer. Nevertheless, the schedule is positively impacted, allowing for less general conditions time and for the building to be dried in faster.

In this thesis an infection control risk assessment was performed for Frederick Memorial Hospital. From the ICRA and other literature, suggestions for infection control on FMH were recommended. Implications of these recommendations were discussed, as well as a comparison between what is currently being done and what was suggested.

The research component of this thesis addressed the problem “owners” consisting of multiple entities. To collect data, surveys were sent out to various general contractors and construction managers asking them a variety of questions. The outcome of the research was that each owner entity is complex and must be dealt with differently. Several methods of dealing with the different owner groups were identified.