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Thesis Proposal Revision

Revised Proposal for the Investigation of
Alternative Systems

Army National Guard

Readiness Center Addition

Arlington, Va.

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Mechanical

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Breadth Topics

Acoustical

An interesting aspect of the ArNG building is directly tied to its function. It is an Army National Guard Readiness Center, as a result the building has some very distinct functions which require various considerations. One such function is that of its Joint Operations Center/Command Center. These areas are classified require very special care when it comes to privacy.

The building as a whole is mainly office spaces, but on the lowest level of the building these sensitive areas can be found. The function of these spaces are for conferencing between various government organizations and in an emergency will be used in a part, with other centers around the country, to run the United States. It is clear of the importance of these spaces and as a result they need to be heavily isolated from the spaces surrounding them.

From this it is proposed to conduct an acoustical analysis of these spaces. The current sound isolation measures which have been designed will be studied in an effort to determine possible room for improvement. From there it will be possible to propose alternative acoustical systems to either, provide better sound isolation from the corridors and other spaces or accomplish the same isolation with new materials in a more cost effective manner.

Construction Management

The proposed mechanical system alternatives will result in substantial scheduling issues and thus will impact costs. The GSHP which has been prescribed will be a very intriguing scheduling issue. This will depend on both the depth with which the bores will be made as well as the number of bores necessary. This will greatly affect construction times and will be determine continuation with construction. Cost estimation due to these schedule changes will also need to be analyzed in an effort to fully understand the impact such a system would induce.