

The Harry and Jeanette Weinberg Center
Mercy Hospital Medical Office Building
Baltimore, MD



Breadth Option
Thesis Proposal

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Structural Option

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Executive Summary

Building at-a-glance

The Harry and Jeanette Weinberg Center is a medical office building located in Baltimore, Maryland. Steel framing combined with a composite action slab on metal deck comprises the gravity system for The Weinberg Center while chevron shaped braced frames resist any lateral loads.



Breadth Investigations Proposal

Since access to Mechanical, Electrical, Lighting, and Plumbing documents for The Weinberg Center can not be obtained breadth topics will focus around the design of a 20 person conference room. Areas to be investigated and designed include lighting for the conference room in conjunction with acoustical performance. The conference room will be designed with a ceiling height to match that of Alternate System #1 at 9'-6". An investigation will then be conducted to see what in this design would change to accommodate a smaller ceiling height of 8'-0" to 8'-6".

Breadth Investigation

Breadth work that will be investigated will focus around changes in the design of a typical conference room given that the floor-to-ceiling height will be reduced from the existing heights. I will design the lighting and the acoustical systems for this conference room. For the current system a floor-to-ceiling height of 9'-8" is typical and will be used for the design. The redesigned structure will limit the floor-to-ceiling heights to 8'-0" and I will redesign the two systems with this change in mind. I will then discuss what differences would be expected in a redesign of this conference room for my redesigned structural system. The redesigned building has a shallower floor-to-ceiling height and as such will impact the design of the lighting and acoustics of a conference room.

Task 8 – Breadth Research

- Use notes from Dr. Ling as well as the book “Architectural Acoustics” by M. David Egan for the acoustical design of the conference room
- Use notes from Professor Mistrick and the book Electrical Systems in Buildings by S. David Hughes to design the lighting system for the conference room
- Discuss any differences the design of the conference room would have if the floor-to-ceiling height was restricted to 8'-0"