
UPPER CAMPUS HOUSING PROJECT



THESIS PROPOSAL

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EXECUTIVE SUMMARY

The Upper Campus Housing Project, currently under construction on the campus of the University of Pittsburgh, is a nine-story, 161,600ft² structure that will house approximately 500 students. This 100ft tall building will have a brick façade encasing a structure of precast hollow-core concrete planks with reinforced masonry bearing and shear walls. The problem that may arise for the building owners in the future is the inability to change the structure's purpose. This is a problem because the plank will be insufficient to carry new, larger live loads and the masonry walls cannot be changed or moved because of their functions.

For the purposes of thesis, this structure will be examined as a two-way concrete system. ADOSS will be used to analyze the gravity and lateral loads that the structure will be exposed to. A choice between a flat plate system and a waffle slab system will be made within the first few weeks of the up-coming semester. Also, a new exterior curtain wall will be developed to provide the building with a different form of thermal and moisture protection and the interior walls will also be redesigned and examined. Construction management issues such as cost and schedule comparison will also be done.