

THESIS PROPOSAL
ANALYSIS 2 (BREADTH):
PRECAST BRICK VENEER FAÇADE

This technical analysis will consist of analyzing the value added from using a precast brick veneer façade instead of a mason laid brick façade. To develop this analysis the following steps will take place:

- Consult with a structural option faculty or an industry member to get help designing the precast panels. The panels must be designed for erection as well as other structural requirements.
- Consult with a mechanical option faculty to formulate a heat and moisture analysis of the two different façades.
- Perform a U value analysis, comparing the heat transfer properties of the existing system to the proposed system.
- Determine the impact to the existing structural system of using precast panels.
- Determine impact of the precast panels to the site layout plan. The site plan must be changed to allow for a staging area for the precast members. Another option would be erecting the members right off of the truck.
- Determine the cost impact of using a precast brick façade and a precast concrete structural system. Manufacturers will be contacted in order to determine the cost of using precast brick systems.
- Determine the schedule impact of using a precast brick façade by comparing the current schedule length of the masonry activity with the length of time it would take to erect precast panels.

There will be several benefits to using some sort of precast system. By saving time on the masonry the building will be able to be dried in faster. There is also a chance that glazing could be preinstalled into the panels, saving even more time. In addition to designing the members, the site plan must be analyzed so there is room for a staging area.