



ANALYSIS 3: Structural System Analysis

The goal of this analysis is to reduce the schedule through the use of precast structural members as oppose to the all cast in place structure. Through the use of precast members the structure can be erected faster allowing construction to move on to the façade and interiors work faster. The main focus for these precast members will be the common floors 8-12 of the hotel. The cost added for these precast members would then be compared to the profit the owner earns by being able to open the hotel sooner.

This analysis will be completed by the following steps:

- Analyze common floors 8-12 and any other area where repetition occurs in the concrete system and the cast in place concrete can be replaced with precast concrete.
- Consult with structural faculty members to design precast members to replace the current cast in place members being used.
- Complete a cost and schedule analysis of the existing cast in place system and the proposed precast system.
- Compare cost difference of the two systems with the revenue the owner can generate by opening the hotel earlier due to the schedule reduction.