

## EXECUTIVE SUMMARY

JW MARRIOTT, GRAND RAPIDS, MI  
DECEMBER 15, 2006

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STRUCTURAL  
ADVISOR: BOOTHBY

The JW Marriott is a 24 story hotel currently under construction in Grand Rapids, Michigan and is being constructed under the 2003 Michigan Building Code. The JW will offer over 300 guest rooms and multiple accommodations including a business center, restaurant, and 24 hour concierge. The unique elliptical shape will create a strong presence in the otherwise conservative Grand Rapids skyline.



### **Breadth Options:**

Redesigning the JW Marriott for a high seismic zone, Monterey, California, will offer many opportunities for breadth study. I will focus on two major areas of study, construction management and mechanical systems.

First, construction must be considered because joints connecting building elements are likely to endure rebar congestion. The design must be done in a manner that concrete may be fittingly poured and reach proper consolidation. If necessary I will investigate alternative concrete mix designs to solve any dilemmas. 3-D AutoCad drawings will be made to show examples of critical joints and the rebar inside them.

Second, if the building is to be built in Monterey the mechanical system will be subject to change as well. Higher cooling loads and lower heating loads will warrant a new air to air heat exchanger. For instance, average January temperatures differ by 31 degrees between Grand Rapids and Monterey. With this in mind I will determine the current heating loads, new heating loads, and then chose a handler suitable for Monterey.