Case Study 1: Lateral Structural Stability

Due: 10:00, Group Set 1: 10 February 2011, Group Set 2: 17 February 2011

No late submissions accepted **Mark: 12.5% of Overall**

Your group is required to present the lateral stability structural solution used by a building of your choosing. The building can be:

1. A building described in a journal, magazine or on the web, for which there is sufficient information available to help you analyse its lateral stability structure;
2. A building for which the group has adequate access to determine its lateral stability structure;
3. A building that you may have worked on and have access to drawings and/or site photos;
4. Any type of building is acceptable.

Firstly identify three possible buildings that meet the above criteria and give a *brief* description of the lateral stability aspects of each. Secondly, select one of the three buildings for more detailed analysis of the later stability structure. *Briefly* give the reasons for your choice.

As there are a multitude of sources for you to work from (e.g. the reading material list), there should be minimal duplication of buildings chosen across all of the groups in the class.

In your presentation, identify whether the building is braced or unbraced in each direction, and the means by which the lateral stability is provided in each direction. Also identify the load path to ground taken by any horizontal forces. Identify also potential problems that the structural design avoids; that is, identify the reasons behind the chosen scheme. You will need to provide sketches illustrating the lateral stability system. A plan and two orthogonal sections are required as a minimum.

General Directions

Follow the Report Guidelines.