

The Platinum Tower in Doha, Qatar is a 45 storey building, 202m in height.

The structural system consisted of circular concrete columns to support gravity loads with a triangulated external frame was used to resist the majority of the lateral loads.

The unique feature of this structure was that each floor has essentially a triangular floor plate that is a different size than the floor immediately above and below it. In addition, each floor was rotated with respect to the floor below. The external frame was also required to help resist the “unwinding” effect of the gravity loads from the floors.

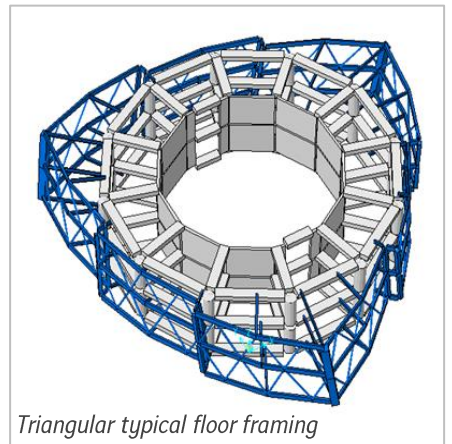
Non-linear staged construction analysis was undertaken to capture the effects of axial column shortening which were significant given the height of the tower.

## New structures

### Post-Tensioning Works

Platinum Tower

Doha - Qatar



*Triangular typical floor framing*

#### Client

Platinum Tower Company

#### Consultant

GHD

#### Contractor

HIGGS & HILL/ Qatari Arabian  
Const. Co.

#### Construction

2008