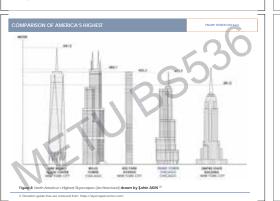


BS 536 STUDIES ON TALL BUILDINGS: DESIGN CONSIDERATIONS Spring 2016-2017

Case Study: Trump International Hotel and Tower by

Şahin Akın

Submitted to: Assoc.Prof.Dr. Mehmet Halis Günel Assist.Prof.Dr. Bekir Özer Ay



Never known for subtlety, Trump originally planned a 150-story tower that, at up to 610 m, would have been the world's tallest. But within weeks of September 11, he halved the height to 78 stories and 327 m recognizing that few people would want a home in what might become a new terrorist

- ☐ Trump Tower's structural design allows the façade to be opened up and sheeted in a diaphanous glass curtain wall. [4]
 ☐ The façade is adorned with clear anodized aluminum and mirror-finished
- stainless steel that reflects and refracts light from the sun. [4]
- Metallic quality reflects building's luxurious identity. ☐ Setback design makes the building perceived as talle
- Aerodynamic Design

 Setbacks filleted





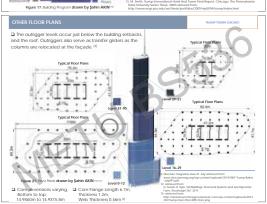


Case Study: **Trump International Hotel and Tower** by Şahin Akın Submitted to: Günel, Ay – Spring 2017 Official Name: Trump International Hotel & Tov Other Names: Trump Tower Chicago, Trump Plozo nstruction Period: 2005 - 2009 [2] ation: United States - Chicago - 401 North ctural Engineering: Skidmore, Owings & Merrill LLP [1] ors Relow/Above Ground: 2 / 98 chitectural Style: Modernism [1 Gross Floor Area: 241 548 m² [1] Building Cost: \$850 000 000 [1] Status: Completed [2] Global - National - City Ranking: 18 - 4 - 2 2 Aspect Ratio (h/d): 8 (Height divided by smaller base dimension) ructural Material: Reinforced Concrete [2] Building Function: Residential - Hotel [2] ructural System: Outriggered Frame System



☐ 92 stories, 250 838 square meters ☐ 9 290 square meters of boutique shopping ar ☐ Hotel hosts 339 five star luxury condominiums [10] luxury residential condominiums [10] tarred restaurant at level 16 [10] and spa facility at level 14 [10] T 1 858 square meters of multi-function banquet and meeting room space including a grand ballroom, skyline reception room [10] ■ Over 370 Indoor public parking space [10] □ 5 mechanical Floors [13] N 10 100

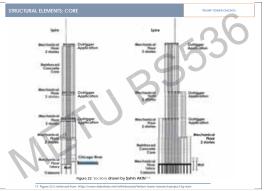
drawn by Sahin AKIN











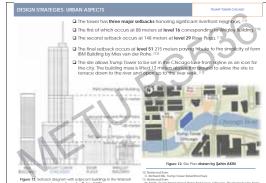


☐ Trump International Hotel and Tower was the tallest residential building in United States to date

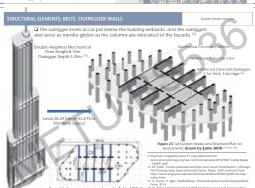
1 Trump International Hotel and Tower has residential floor in North America, the 2nd high floor in the world to date.³¹

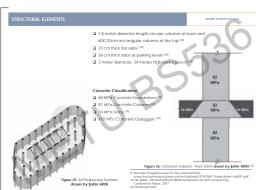
ump International Hotel and Tower was the tallest building North America since the completion of the Sears

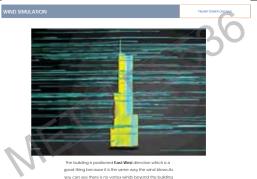
ved to be the first application of 110 MPa selfconsolidating concrete pumped and placed to an elevation up to 200m above grade to construct outriggers.^[3]





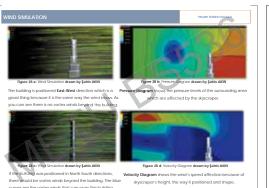












curves are the vortex winds that can sway the building.

