Environmentally Conscious Structural Design of High Rise Buildings

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Abstract

As designers of the built environment, we have a responsibility for the environmental impact of the buildings we create. How can we affect change by designing in a more environmentally conscious manner? This presentation will focus on the opportunities for Structural Engineers to positively impact our projects that we work on, and the techniques we can employ to do so. The presentation will focus on high-rise construction, being the dominant building typology of our urban environments, and the principal field of experience of the speaker. Presentation topics will include optimization techniques, and innovations in structural systems and material use.

Biography

Aaron Mazeika is a Structural Engineering Associate Director in the Chicago office of Skidmore, Owings & Merrill, LLP. After completing his university studies at the University of Cambridge, Aaron spent some time living and teaching in China, beginning an association with the country that has continued throughout his career at SOM. Aaron has led the Structural Engineering team in the design of over 30 high-rise towers in China. Notable projects include the New Poly Plaza in Beijing, which features the world’s largest cable-net supported glass façade, the 413m tall twisting Al Hamra Tower in Kuwait City, and the 358m tall Greenland Group Suzhou Center currently under construction in Wujiang, China. Current projects include the 600m tall Greenland Nanjing Pukou Supertall, and the 501m tall Greenland Xixian Silk Road International Center.