AKT II – Generali Tower (Competition & Concept)

Alongside Zaha Hadid, AKT II worked up designs for the elegant twisting tower in response to the fact that the best views at height were oriented differently from the necessary building reception's position at street level.

We worked closely with ZHA in an extensive design exploration crafted to enable the assessment of form, geometry and materiality alongside structural considerations of seismicity, weight and strength. Parametric models were developed allowing consideration of buildability, cost and robustness of detail to sit alongside the design discussion. The angle of rotation was carefully controlled with a framework of rules to ensure control of the structural system and allow clear-span façade-to-core floor plates to be developed.

The form of the building meant that the self-weight of the building imparted torsional forces into the centrally-located concrete core, which was required to resist this in concert with the normal lateral loads from wind and earthquake events. This complex interaction between floors, columns and cores was a unique set of challenges which AKT II overcame in developing the structural systems implemented within this building.

This complexity was further added to at foundation level where otherwise strong founding soils were compromised by the existence of multiple weak and compressible lenses under the building. Complex ground models were required to develop the best solutions to support this magnificent building whilst adequately controlling deflections.