



DOHA 9 TOWER / QATAR



TERRELL's role: Structural, MEP and Façade Engineering Design from Concept through to Detailed Design.

Designed by Architect Jean Nouvel, this 44 storey helioid structure created real structural engineering design challenges, including the outward "bursting" forces created by the geometry which were redistributed by the use of post-tensioned ring beams at each level. A huge basement was formed using a secant piling procedure and dewatering which lasted several months prior to building. The principal frame was designed as a tube, with the outer reinforced concrete double helix structure taking both vertical load and up to 75% of the lateral wind bracing loads. The floors were designed as a mixture of composite steel and reinforced concrete. The Moucharabieh which acts as a sunscreen was designed as four overlaid panels of complementary geometric patterns.

CLIENT: Sheik Saud Al Thani

ARCHITECT: Ateliers Jean Nouvel

PROJECT VALUE: 100 M€

TOTAL SURFACE AREA: 57 000 m²

COMPLETION DATE: 2010

LOCATION: Qatar

OUR BRIEF: Structural, Façade, Mechanical and Electrical Services Engineering

