Asta Powerproject Case Study: The Shard

MACE USES ASTA POWERPROJECT MULTI-USER FOR CONSTRUCTION AT THE SHARD

Construction of the iconic tower, The Shard, is nearing completion, delivering a "vertical city" which offers 590,000 square feet of world-class office space, a hotel, restaurants, luxury residences and public viewing galleries. At 310m, the building is now the tallest in Western Europe.

Mace, as main contractor, will see the complex programme through from conception to completion. To help meet the challenge, Mace required a programme and project management tool that could handle significant technical challenges and that would be flexible yet robust enough to take on such a huge construction project.
As well as Mace's expertise from large-scale global projects they chose Asta Powerproject to help them drive the innovative solutions required.

Demolition and subsequent works were carefully planned and innovative methods were adopted to find the fastest way of delivering the project. Top-down construction allowed the sub- and superstructure to be worked on simultaneously, saving time on the programme. The result was that Mace implemented a "jump start" of the core, even though the technique had not been used

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before on a building of this scale, which meant that work on the core and steelwork above ground could go ahead while the core continued to be built downwards into the basement. Mace also introduced the "jump-lift strategy", a self-climbing elevator system that provided an alternative to exterior hoists which improved the efficiency of the construction allowing operatives and materials to be efficiently and safely distributed around the project. This had not been done before in Europe.

The project itself provided several logistical challenges. One of the biggest was the concrete pour into The Shard's base which required 700 truckloads over 36 hours with trucks arriving on site at two-minute intervals. In a busy part of London, surrounded by narrow access roads and with thousands of commuters entering the train station, nearby bus station and hospital, safe planning was essential to safely move materials to and from site.

Mace Director, Rob Owen stated: "Using Asta Powerproject not only made the job of scheduling a much easier process but also meant we could consult more easily with the local council and communicate our plans to all stakeholders. It has a powerful "what-if" functionality which allows us to be innovative and overcome technical challenges, even when a technique has not been used before. Everything can be risk assessed."

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