

One Nine Elms

32-hour continuous pour for the 5,000m³ concrete slab



Our reference in London (United Kingdom): One Nine Elms

The background

One Nine Elms is a mixed-use skyscraper developed by Wanda One and designed by architects Kohn Pedersen Fox (KPF). The development will replace two towers on the site built in the 1970s called Market Towers and forms part of a wider redevelopment of the Nine Elms area of London. As well as residential apartments, the scheme will include a luxury hotel.

Due to the potential for the towers to move in different directions, stability was an issue in the design. A concrete frame construction was adopted for its acoustic properties, post tensioned to provide the thinnest solution. One Nine Elms will become one of the tallest residential developments in London and the United Kingdom.

The challenge

The first challenge for this project was achieving a concrete pour of over 5,000m³ for the raft slab in one continuous pour over a period of 32-hours.

Due to there being an extremely congested steel work in the base of the raft a high flowing, workable concrete was required with an extended open life of up to 3-4 hours.

Project:

One Nine Elms

Location:

London

Main contractor:

Multiplex

Sub structure contractor:

P J Carey Civil Engineering

Concrete producer:

London Concrete

Market sector:

Ready-Mixed Concrete

Products used:

MasterSure

MasterGlenium SKY

Contact:

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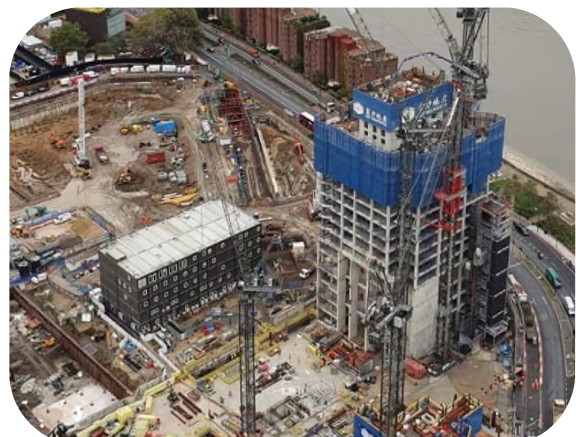
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Our solution

In order for the concrete mix design to meet the requirements, a combination of MasterSure and MasterGlenium SKY admixtures was chosen by London Concrete as the best solution for the project challenges.

Both admixtures were used in the concrete mix to meet the high flowing, workable concrete, whilst maintaining an extended open life of up to 3-4 hours.

To help achieve the continuous 32-hour pour, Master Builders Solutions provided a tanker on standby throughout the duration. All concrete was supplied from London Concrete's Battersea plant, and a admixture tanker remained on site in the event that supply needed to move to a backup facility in case of power cuts or similar disruption at Battersea.

The concrete pour took place from Friday 15th to Sunday 17th March. Over this period Master Builders Solutions sales and technical laboratory staff were on site to provide support.

The customers benefit

- Program time saved for P J Carey Civil Engineering.
- Master Builders Solutions and London Concrete were able to develop a concrete mix that met the challenges of the project.
- Master Builders Solutions provided support on site throughout the entire pour.
- An admixture tanker remained on standby in case of disruption at the Battersea plant and back up-plant was needed.

Project facts at a glance

- MasterGlenium SKY - high range water reducing admixture.
- MasterSure - consistence retaining admixture.
- 32-hour continuous pour for the 5,000m³ concrete slab.
- High flowing, workable concrete whilst maintaining an extended open life of up to 3-4 hours.