



The
Geological
Society

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Speakers:

David Place
Mott MacDonald

Date:
Wednesday 12th
July 2017

Details:
Tea / coffee:
17:30

Meeting
Commences:
18:00

Location:
Burlington House

Free to attend.
Registration not
required.

For further information
and registration, please
contact:

Event Convenor: Tom
Hall

email:
tom.hall@mottmac.com

Accelerated Programme for Crossrail's Moorgate Shaft

**An evening meeting by the Engineering Group of the Geological
Society (EGGS)**

Synopsis

Liverpool Street station was on the critical path for the completion of Crossrail's central tunnelled section; however, the start of the station's 42m deep Moorgate shaft was delayed by the prolonged time required to extract the foundation piles of the building that had previously occupied the site. As this delay would have led to further delays in completion of the shaft, a carefully defined and controlled observation based Verification Process was developed that makes innovative use of real-time site monitoring data and state-of-the-art 3D numerical analysis of ground-structure interaction, ground movements and movement of adjacent tunnels. The presentation describes the successful application of the Verification Process. The outcome was that as the shaft was being excavated the Verification Process progressively demonstrated that three levels of propping could be omitted, and the number of excavation stages reduced by two.



Excavation and construction of Crossrail's Moorgate Shaft.

David is a chartered civil engineer with 40 years' experience in the design and construction of major transportation projects. Most recently he was Mott MacDonald's Package Manager for Crossrail Contract C138 for design and construction stage support of the underground station at Liverpool Street. Past projects include the East London Line, A34 Chieveley M4 Junction 13 improvement, Delhi Metro, and Taiwan High Speed Rail.

