

“Performance Review of a Geosynthetic Reinforced Soil Retaining Wall”

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Speaker:

Dr Bo Zhang* PhD CEng MICE, Associate and Senior Geotechnical Engineer, Golder Associates (UK) Ltd.

Date:	Tuesday, 26 February 2019
Location:	Loughborough University Lecture Theatre RT/0/37
Arrival / Start Time:	18.00 for 18:30
Refreshments:	Tea / coffee and snacks will be served

Synopsis:

Excessive settlement caused by deep ground instability raised the alarm for a retaining wall founded on problematic ground. The reinforced soil retaining wall is approximately 12m high and functions as a separation between two levels of high value residential properties. There were genuine concerns over potential sudden rupture of reinforcement induced by excessive settlement which could result in heavy concrete facing panels falling down and large scale lateral movement.

Engineering performance assessment of the retaining wall was undertaken by reviewing the original retaining wall design and construction, carrying out site inspection and investigation followed by numerical modelling which enabled the engineers not only to assess the wall condition at the time, but also to predict the future performance as a result of potential further settlement. This work led to the design of a ground improvement scheme utilising compaction grouting, which has since been implemented.

This presentation starts by describing the project context and conditions of the retaining wall. It then explains the review work undertaken for the original retaining wall design. This is followed by description of the investigation work carried out on site and numerical modelling works undertaken in order to further assess the engineering performance of the retaining wall and predict its future conditions.



About the Speaker:

*Dr Bo Zhang is a Chartered Civil Engineer with over 20 years' post graduate experience in research, design and construction of civil and geotechnical engineering projects. He studied a PhD at Loughrough University from 2003 to 2006 before joined Golder Associates. Bo is a geotechnical specialist on the subjects of geotechnical structure stability and containment engineering. In recent years, Bo has been promoting technical excellence within Golder in the areas of advanced geotechnical numerical modelling and application of geosynthetics.

Next IGS UK Event. Joint Evening meeting with NWGG
Title / Speaker: Geofoam as a light weight fill material – Dave Woods
Date / Time: March 2019 date to be confirmed
Venue: Warrington – Venue TBC