



BRITISH TUNNELLING SOCIETY

Thursday 20th June 2019 at 6.00pm

TELFORD THEATRE
INSTITUTION OF CIVIL ENGINEERS
ONE GREAT GEORGE STREET, WESTMINSTER, LONDON SW1P 3AA

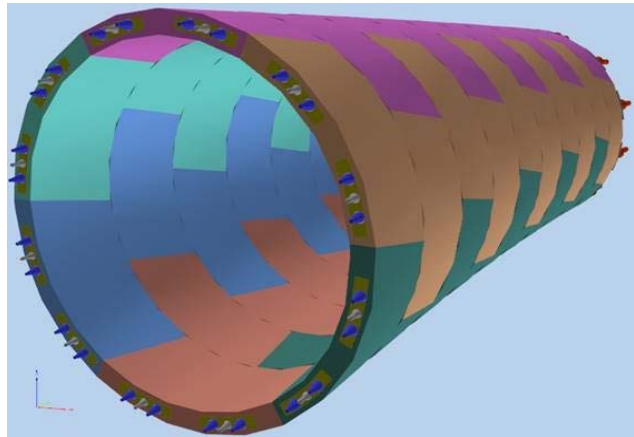
Novaliches to Balara Aqueduct number four

Speaker;

Brendan Henry, Practice Leader

Tunnels and Underground Space, GHD

The Novaliches to Balara Aqueduct number four (NBAQ4) project is part of Manila Water's improvement and expansion initiatives and is one of the largest and most important infrastructure projects undertaken by them to date. The project involves the construction of a new intake facility at the La Mesa reservoir, a 7.3-kilometre tunnelled aqueduct and an outlet facility at the Balara Water Treatment Plant.



3D design of the 80m radius segments.

NBAQ4 will deliver water to approximately seven million people in Manila. The Php 5.3 billion (USD 104 million) design & build contract was awarded to a joint venture of CMC di Ravenna, First Balfour Inc. and Chun Wo Engineering in August 2017.

A 4m EPB TBM will be used for the tunnel construction including 80m radius bends. The TBM will be launched from a 40m deep construction access shaft with a 75m mined tunnel in weak volcanic rock for TBM operations. The TBM will dock in the Intake Structure built 150m offshore in the reservoir in a 16m diameter, 30m deep temporary cofferdam.

The presentation will detail the design and current construction progress.

Biography

Brendan Henry, Practice Leader - Tunnels and Underground Space, GHD

Brendan has over 25 years of civil engineering experience working as both contractor and consultant in four continents. He is experienced in the planning, design and construction of tunnels, shafts and tunnel systems for road, rail, sewer, water and mines. He has managed delivery for PPP, D&C and design only projects with multi-disciplined and multi-cultural teams and has in depth experience and contractor and design for high risk tunnelling in urban environments and mixed ground conditions.

This is a free event - advance booking not required

Tea and biscuits will be available at 5:30pm

In case of any query please contact; societyevents@ice.org.uk

or e-mail: bts@ice.org.uk

or visit: www.britishtunnelling.org.uk