



Australian Geomechanics Society

Sydney Chapter

“Lane Cove Tunnel Retaining Structures”

Paul Hewitt

Parsons Brinckerhoff

Wednesday 9 April, 2008

Auditorium, Ground Floor, 8 Thomas Street, Chatswood

(see map below for venue location)

Light refreshments at 5.30 pm for 6 pm meeting

SYNOPSIS

The Lane Cove Tunnel connects the M2 Motorway at North Ryde with the Gore Hill Freeway and the Pacific Highway at Artarmon. Design and construction involved about 70 retaining structures which included braced and anchored bored pile walls, soil nailing, reinforced soil wall systems and post-tensioned cantilever walls. Significant challenges related to restricted site access, the need to minimise construction impacts, a tight design schedule, and stringent settlement and angular distortion criteria.

Rigorous assessment of the effects of new construction on existing structures and construction safety utilised advanced numerical techniques to model ground-structure interaction. This talk discusses various geotechnical issues affecting design and construction, how the design was implemented in the field, and documents results of performance monitoring.

Monitoring data indicated the pre-construction geotechnical models and design parameters were appropriate. The suitability of the adopted wall construction techniques for the site conditions was demonstrated through the successful construction and performance of the works.



ABOUT THE SPEAKER

Paul is Principal Geotechnical Engineer and Principal Professional Associate with Parsons Brinckerhoff (PB). He has over 25 years consulting experience on geotechnical aspects of civil, mining, building and environmental projects throughout Australia and overseas. His professional interests include ground treatment, ground-structure interaction, tunnelling and geotechnics for transport infrastructure. He is a member of the AGS Sydney Chapter committee and the NSW representative on the AGS National Committee.

*For further info. contact
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*Attendance may be credited (1 point)
towards Continuing Professional
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LOCATION PLAN FOR 8 THOMAS STREET, CHATSWOOD

