



Vancouver Geotechnical Society

A Local Section of the
Canadian Geotechnical
Society

www.v-g-s.ca

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NOTICE OF UPCOMING TECHNICAL PRESENTATION

Vancouver Geotechnical Society Annual General Meeting (AGM)

Wednesday, September 20, 2017

SUBJECT: Evergreen Line Rapid Transit: Deep Foundation and Ground Improvement Solutions

SPEAKER: Ali Azizian, Ph.D., P.Eng., PMP – Tetra Tech, Vancouver, BC

Dr. Azizian is a Geotechnical/Seismic Engineer and Principal Specialist at Tetra Tech (EBA). He has consulting and project management experience in seismic/geotechnical design and construction of bridge and building foundations, pipelines, and embankment dams, as well as academic research experience in dynamic analysis of piles, liquefaction, submarine landslides, and uncertainty analysis. He specializes in dynamic soil-structure interaction analysis using software such as FLAC. His project experience includes: Evergreen and Canada Line Rapid Transit, Port Mann and Golden Ears Bridges, Pacific NorthWest and Kitimat LNG plants, and several Metro Vancouver watermain crossings and wastewater treatment plants. He has co-authored 20 technical papers that have been published in refereed journals and conference proceedings.

CONTENT: The 11 km long alignment of the Evergreen Line Rapid Transit (ELRT) project through Burnaby, Coquitlam and Port Moody consists of elevated and at-grade guideway sections as well as cut-and-cover and bored tunnels. Because of the high seismicity of the region, liquefiable and soft soils posed the main challenges for the design of structures. A performance-based design approach with varying levels of performance requirements were specified for the project. Several deep foundation and ground improvement solutions were used to meet the design objectives, while satisfying cost, schedule and site constraints. Foundation types included drilled shafts and driven steel pipe piles. Ground improvement solutions included Cement Deep Soil Mixing (CDSM) and driven timber piles. The presentation will provide an overview of the subsurface ground conditions along the alignment, seismic analyses (e.g. FLAC modelling), selected foundation or ground improvement types for each section, and some of the challenges faced during construction.

DETAILS:
Location: Executive Inn, 4201 Loughheed Highway, Burnaby, BC V5C 3Y6
Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar)
Annual General Meeting: 6:30 to 6:40 pm
Technical Presentation: 6:40 to 7:40 pm (No need to RSVP)
Dinner: 8:00 pm (\$20 will be charged for dinner)

If you would like to stay for dinner, please RSVP to Aran Thurairajah via email (Aran.Thurairajah@golder.com) or at the door