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2024 – February Evening Seminar

PERFORMANCE BASED LATERAL DESIGN IN CONTEXT TO TALL BUILDING GUIDELINES

Date:	Monday - February 26, 2024
Venue:	C300 Theatre at UBC Robson Square, 800 Robson Street, Vancouver
Time:	Refreshments 6:00pm, Presentation 6:30pm
Presenter:	Ehsan Dezhdar, Ph.D., P.Eng., Senior Associate at Glotman Simpson Group
Cost:	Free for SEABC Members; \$85 for Guests and Non-Members Pre-Registration is required: ../event/performance-based-lateral-design

Performance Based Lateral Design (PBLD) of tall reinforced concrete building structures is the wave of future. While it has become relatively mainstream in the seismic regions in the US, it has not been as common in Canada likely because Performance Based Seismic Design (PBSD) process involves nonlinear time history analysis and a rigorous peer review process. Luckily for us, our speaker Dr. Ehsan Dezhdar has gathered a wealth of experience on many PBSD design projects for reinforced concrete buildings in the US (Los Angeles, Seattle, Bellevue, San Jose, and San Diego) and in Canada (Vancouver and Calgary). He has successfully completed peer review process for more than 20 high-rise buildings.

Join us for an enlightening evening talk on this much coveted subject, where Ehsan shall be presenting on the following topics:

- Peer review process for performance-based seismic design (PBSD).
- An overview of guidelines available for PBSD: PEER Tall Building Initiative version 2.03 (2017) and the Los Angeles Tall Building Guideline (2023);
- The similarities and differences between the review process in Washington and California;
- Case study of application of PBSD to buildings with Gravity-Induced Lateral Demand Irregularity;
- Vertical ground motion analysis, treatment of diaphragms with reentrant corner and diaphragm;
- Discontinuous irregularity, diaphragm design of buildings with shared podium;
- Introduction to performance-based wind design (PBWD) and its beneficial impact on the lateral design of high-rise buildings located on site class B in Lower Mainland.

Ehsan Dezhdar, P.Eng., Ph.D. is a structural engineer and Senior Associate at Glotman Simpson Group. He has over 10 years of experience in the design of reinforced concrete buildings. His academic background includes a BAsC degree from Sharif University of Technology, an MSc in concrete structures from Imperial College London, and a PhD from the University of British Columbia in 2012. Ehsan's PhD thesis focused on seismic response of shear wall buildings, which resulted in updated provisions to clause 21 of CSA A23.3.

