BC Chapter's Fourth Annual One-Day Symposium

"Designing for a Moving Target – Sustaining Resilience in an Era of Evolving Seismic Demands"

Thursday, October 15, 2026
UBC Robson Square, Vancouver, BC

BC Chapter's Fourth Annual One-Day Symposium

The Earthquake Engineering Research Institute – BC Chapter (EERI-BC) is pleased to invite you to the 4th Annual One-Day Symposium, taking place on **Thursday, October 15, 2026, at UBC Robson Square in downtown Vancouver, BC.**

Our inaugural symposium in 2023 and the annual symposia that followed in 2024 and 2025 were highly successful, attracting strong participation from across British Columbia and beyond. Building on this momentum, we are excited to announce our fourth symposium and look forward to bringing together professionals, researchers, students, and industry leaders once again. As in previous years, attendance will be free for all accepted delegates.

This year's symposium will focus on the theme: **"Designing for a Moving Target – Sustaining Resilience in an Era of Evolving Seismic Demands".**

Advances in seismology, earthquake engineering, and earthquake hazard characterization continue to reshape our understanding of seismic risk. As new data, improved models, and lessons from recent earthquakes refine our understanding of earthquake hazards, the seismic demands used to assess and design infrastructure continue to evolve. This raises important questions about the resilience of existing infrastructure and the challenges of designing new infrastructure for an uncertain future.

Invited speakers will address seismic hazards, lessons from recent earthquakes, advances in earthquake engineering, infrastructure resilience, dam and tailings storage facility safety, and the challenges of aging infrastructure. A panel will bring together experts from industry, academia, and government to discuss strengthening resilience in the face of evolving seismic demands.

Speakers for the invited lectures include Perry Adebar (UBC), Gail Atkinson (Western University), Upul Atukorala (WSP), Alan Hull (USA), Carlos Molina Hutt (UBC, Ribu Dhakal (UBC), Saqib Khan (Spannovation), Joe Quinn (Klohn Crippen Berger), Bob Schubak (BC Hydro), Fei Tong (UNBC), and Paul Wilson (Thurber).

We look forward to welcoming you to this important discussion on the future of earthquake resilience in British Columbia. If you require further information, please contact us at 2026EQSymposium@klohn.com.

The EERI-BC Chapter's Annual General Meeting will be held at the end of the session.

Date and Time

October 15, 2026 (Thursday): 8:00 am – 5:00 pm

Venue

UBC Robson Square
800 Robson Street
Vancouver, BC, Canada V6Z 3B7

Registration

Attendance at the symposium requires prior registration and formal acceptance by the Symposium Committee via email. Accepted registrants can attend free of charge and will receive complimentary morning refreshments, a boxed lunch, and snacks and beverages during scheduled coffee breaks.

Please fill out the registration form available at https://eeri-bc.wildapricot.org/ under the upcoming events page.

Symposium Committee:

Thava Thavaraj, Ph.D., P.Eng., Iman Roshanzamir, MSc, P.Eng., Jonathan Foote, M.Eng., P.Eng. Jackson Hamersley, P.Eng., James Williams, MSc, P.Eng.

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Symposium Program

08:00 - 08:30	**Registration**
08:30 – 08:35	**Opening Remarks and Welcome Address** **Thava Thavaraj**, Klohn Crippen Berger Ltd. (Symposium Co-Chair)
08:35 – 09:05	**Keynote Lecture 1** **Dr. Perry Adebar,** P.Eng., Professor, University of British Columbia *"Impact of Evolving Seismic Demands on Highrise Buildings in BC"* *Chair: Jonathan Foote, Thurber Engineering Ltd.*
09:05 – 10:00	**Invited Lectures – Session 1** **Dr. Bob Schubak,** P.Eng. , Vice-President of Engineering, BC Hydro. *"Managing Earthquake Risk and Uncertainty: Reflections of a Structural Engineer and Asset Manager of Critical Infrastructure"* **Dr. Upul Atukorala**, **P.Eng.,** Senior Principal Geotechnical Engineer, WSP *"TBA"* *Chair: Iman Roshanzamir, Klohn Crippen Berger Ltd.*
10:00 – 10:15	**Coffee Break**
10:15 – 10:20	**Great BC Shakeout**
10:20 – 10:30	**Introduction to BC Earthquake Alliance Society** **Christine Buttkus**, Executive Director, BC EA *"Strengthening Earthquake and Tsunami Preparedness"*
10:30 – 11:00	**Keynote Lecture 2** **Dr. Alan Hull**, CEG, Earthquake Geologist and Former Seismic Hazard Practice Leader, Golder Associates Ltd. *"Improving Hazard Assessments by Learning from Fault Ruptures"* *Chair: Iman Roshanzamir, Klohn Crippen Berger Ltd.*
11:00 – 11:50	**Invited Lectures – Session 2** **Dr. Carlos Molina Hutt,** P. Eng., Associate Professor, University of British Columbia *"An Overview of the 2026 NEHRP Provisions on Seismic Design for Functional Recovery"* **Paul Wilson,** P. Eng., Partner and Senior Geotechnical Engineer, Thurber Engineering Ltd. *"TBA"* *Chair: Jackson Hamersley, Basis Engineering Ltd.*
11:50 – 12:00	**Introduction to 19th WCEE 2028 and CAEES** *Introduction to the 19th World Conference on Earthquake Engineering (19WCEE, 2028) by the Canadian Association for Earthquake Engineering and Seismology (CAEES)*
12:00 – 13:00	**Lunch Break**

Symposium Program (Contd.)

13:00 – 13:30	**Keynote Lecture 3** **Dr. Gail Atkinson**, P.Geo., Professor Emeritus, Western University. *"Induced Seismicity: Seismic Hazard as a Moving Target"* *Chair: Behzad Hassani, BC Hydro*
13:30 – 15:00	**Expert Panel Discussion** *"Designing for a Moving Target – Sustaining Resilience in an Era of Evolving Seismic Demands"* **Panel Members** **Perry Adebar**, Ph. D., P. Eng., Professor, University of British Columbia **Gail Atkinson**, Ph. D., P. Geo., Professor Emeritus, Western University **Upul Atukorala**, Ph. D., P. Eng., Senior Principal Geotechnical Engineer, WSP **Bruce Hamersley**, P. Eng., President, Basis Engineering Ltd. **Alan Hull**, Ph. D., CEG, Earthquake Geologist, USA. **Joe Quinn,** Ph. D., P. Geo., FEIC, Vice-President, Klohn Crippen Berger Ltd. **Don Kennedy,** P. Eng., Senior Bridge Engineer, Former VP, Associated Engineering Ltd. **Bob Schubak,** Ph. D., P. Eng. , Vice-President of Engineering, BC Hydro **Paul Wilson**, P.Eng., Partner and Senior Geotechnical Engineer, Thurber Engineering Ltd. *Chair and Moderator:* **Tyler Southam,** P.Eng., BGC
15:00 – 15:25	**Invited Lectures – Session 3** **Dr. Joe Quinn,** P. Geo., FEIC, Vice-President, Klohn Crippen Berger Ltd. *"Seismic Hazard and Seismic Deformations: Challenges and Perspectives from A Global Experience on Tailings Dams"* *Chair: Aran Thurairajah, Stantec*
15:25 – 15:45	**Coffee Break**
15:45 – 16:50	**Invited Lectures – Session 4** **Dr. Fei Tong,** P. Eng., Assistant Professor, University of Northern British Columbia *"System-Level Innovations for Seismic-Resilient Buildings under Evolving Seismic Demands"* **Dr. Ribu Dhakal,** Assistant Professor, University of British Columbia *"Liquefaction Impacts on Vancouver's Urban Infrastructure"* **Saqib Khan,** MSc, P.Eng., SE, FEC**,** Principal Engineer, Spannovation Group. *"From Performance-Based to Resilience-Based Seismic Design of Bridges: Emerging Research and Trends"* *Chair: TBA*
16:50 – 16:55	**Closing Remarks** **Jonathan Foote**, Thurber Engineering Ltd. (Symposium Co-Chair)
16:55 – 17:15	**EERI-BC AGM**

Note: The schedule is subject to change.

Presenters' Bio

***Perry Adebar, Ph.D., P. Eng.**, is a Professor of Structural Engineering at UBC and a leading expert in the seismic design of concrete buildings. Perry is chair of the technical committee CSA A23.3 Design of Concrete Structures and chair of the technical subcommittee on Seismic Design (Clause 21). He served as Chair of the NBC Standing Committee on Earthquake Design (SC-ED) from 2019 to 2024, is currently a member of the National Model Code Committee on Seismic Design (NMCC-SD), which replaced SC-ED, and is chair of the NMCC-SD Task Group on Seismic Analysis and Design. Perry's academic honours include research awards from ACI (1998) and EGBC (2004), and teaching awards from UBC (2013) and EGBC (2015). He served as Associate Dean of UBC Engineering from 1999 to 2008, and Head of UBC Civil Engineering from 2014 to 2019. Perry is a structural collapse specialist on Canada Task Force 1 Heavy Urban Search and Rescue Team.*

***Gail Atkinson, Ph.D., P.Geo.,** is a Professor Emeritus at Western University, Canada, who conducts research at the engineering-seismology interface. She specializes in seismic hazards and ground motions, including hazards due to induced seismicity. She has been active in the development of seismic design regulations for buildings, dams, and nuclear power plants, has been involved in hundreds of site-specific seismic hazard evaluations, and has authored over 250 research articles. She frequently partners with firms on academic and industry research and consulting projects. Professor Atkinson has served as President of both the Seismological Society of America and the Canadian Geophysical Union, currently serves as a member of the U.S. National Earthquake Hazard Mapping Advisory Committee and is a Fellow of the Royal Society of Canada. In 2021 she was recognized with the Harry Fielding Reid Medal of the Seismological Society of America, awarded for outstanding career contributions to seismology.*

***Upul Atukorala, Ph.D., P.Eng**. is a Senior Principal Geotechnical Engineer with WSP. Upul has over 35 years experience and is an industry-recognized specialist on ground response analysis and seismic design of earth structures, soil/structure interaction analysis, and ground improvement methods required to mitigate soil liquefaction. He has in-depth and hands-on knowledge on all aspects of deep foundations, shallow infrastructure tunnels, and design of above and below-grade structures. Upul has led a number of assignments related to the development of seismic design guidelines for earth structure systems (including dikes) and has participated in Task Forces and Codes/Standards addressing geotechnical earthquake engineering aspects.*

***Riwaj (Ribu) Dhakal, Ph.D.,** is an Assistant Professor of Civil Engineering at the University of British Columbia. He earned his Bachelor's and Ph.D. degrees from the University of Canterbury, New Zealand, specializing in geotechnical earthquake engineering, followed by a Postdoctoral Fellowship and professional practice as a geotechnical engineer focusing on soil liquefaction. His accolades include several best paper and presentation awards, a Fulbright scholarship to UC Berkeley, and the prestigious Otto Glogau Award from NZSEE. His research centers on liquefaction assessment using simplified, laboratory, and advanced numerical methods; seismic performance of shallow and deep foundations; and soil and site characterization. He has contributed to projects involving bridge foundations, highways, and buildings, and has consulted on liquefaction assessment tools and updates to New Zealand's national seismic loading standard.*

***Bruce Hamersley, P.Eng.,** is the President of BASIS Engineering and has 40 years of experience with a focus on bridge design, soil-structure interaction, and construction engineering. His diverse design background includes project management of large transportation projects, highway and railway bridge designs, seismic retrofit and rehabilitation of major bridges, and construction engineering for bridge erection. Bruce has been a member of the committee that developed the MOT Supplement to the Canadian Highway Bridge Design Code. He was also one of the primary authors of EGBC's Guidelines for Performance-Based Seismic Design of Bridges in BC.*

***Alan G. Hull, PhD., CEG (California)** is an independent earthquake geologist with more than 45 years in research and consulting. His early career at New Zealand Geological Survey (now Earth Sciences New Zealand) focused on revealing the location and magnitudes of large earthquakes through field investigations of crustal faults, elevated marine terraces, and other coseismic ground deformation. During his 24 years with Golder Associates (now WSP), he led site-specific probabilistic and deterministic seismic hazard analyses and field-based fault activity assessments for critical facilities throughout North and South America, Africa, Asia, and Australasia. Major studies were for tailings and water dams, gas pipelines, landfills, and critical urban infrastructure. Alan now provides owners and engineering consulting companies with independent review of seismic hazard and fault activity assessments for projects worldwide.*

***Carlos Molina Hutt, Ph.D., P.E., C.Eng., P.Eng.,** is an Associate Professor of Structural and Earthquake Engineering at UBC, where he leads the Engineering for Seismic Resilience Research Lab (www.esrlab.org). His work focuses on the development of methodological.*

approaches to assess seismic risk in buildings and its implications for urban resilience, and on translating this knowledge into tools and information for use by practicing engineers, seismic planners, and policymakers. Carlos received the Earthquake Engineering Research Institute (EERI) Shah Family Innovation Prize. In 2022, he was invited by the US Building Seismic Safety Council, through the Provisions Update Committee, to serve on the Functional Recovery Task Committee, which has been tasked with developing design procedures to achieve different functional recovery targets for use in the next generation of building codes. He continues this effort as a member of the Seismic Subcommittee in the ASCE 7-28 code revision cycle.

***Don Kennedy**, **P.Eng.,** is Senior Bridge Engineer and Former VP at the Associated Engineering Ltd. Don has 35 years of seismic and bridge experience in seismic criteria, design, performance assessment, retrofit design, and construction. He is a ~20-year member of the seismic section of the Canadian Highway Bridge Design Code, and is the current chair of that sub-committee. He has authored and presented numerous papers and seminars on the seismci aspecst of bridges. Don was a member of the Canadian reconnaissance team for the 1994 Northridge earthquake, is a Director of the CAEES, Chair of the Seismic chapter for the Canadian bridge code and was Technical Co-Chair of the 2015 11th CCEE. He was a co-author of the 2018 EGBC design practice guideline for performance-based seismic bridge design in BC and has co-authored the BC MoTI criteria and Supplement to the CHBDC for seismic retrofit and design since 2005.*

***Saqib Khan, M.A.Sc., P.Eng., SE, FEC,** is a highly accomplished bridge engineer whose expertise encompass conventional and design-build projects, from conceptual planning through detailed design and construction supervision. He excels in advanced seismic analysis and design, devising practical and resilient seismic strategies and foundation solutions. Saqib is also actively involved with seismic and other bridge-related research, teaching, and code-development initiatives. Amongst others, Saqib has been part of the Canadian Highway Bridge Design Code (CSA S6) Subcommittee for the "Seismic design" chapter since 2015.*

***Joe Quinn, Ph.D., P.Eng., P.Geo., FEIC**, is a Vice-President at the Klohn Crippen Berger Ltd. in Calgary, Alberta. Joe has over 20 years of experience in site characterization, tailings dam design and operations, seismic hazard analysis, advanced tailings dam stability, deformation and seismic response analysis and seepage modeling, focusing primarily on design of oil sands and hard rock tailings dams, and water dams. Joe has worked on projects in Brazil, Kazakhstan, USA, Canada, Papua New Guinea, Mexico, UK, Finland, Australia, Chile and Peru. He is a member of several review boards, and worked as the lead geotechnical engineer for the laboratory testing, site investigation, stability analysis and numerical modeling components of the post-failure investigation of the Fundão tailings dam failure in 2015, reporting to the investigation panel. He also led the deformation analysis component of the investigation into the 2018 Cadia North Tailings Storage Facility (NTSF) failure and the Feijão Dam 1 failure in 2019.*

***Bob Schubak, Ph.D., P.Eng.,** is the Vice-President of Engineering at BC Hydro, where he leads a large, broad-based group of approximately 1000 engineers, technologists, technicians, and affiliated support staff to provide engineering services for BC Hydro's vertically integrated power system comprising its dams, generating stations, and transmission and distribution systems. Bob has over 35 years of experience. Prior to his present role, Bob served as BC Hydro's Director of Dam Safety, where he was responsible for overseeing the program that manages the condition, performance, and overall safety of BC Hydro's dams. Throughout his career, Bob has maintained an active involvement in engineering education, having been a lecturer and instructor of structural engineering at UBC, BCIT, and in the SEABC's Certificate in Structural Engineering Program, which he co-founded in 2001. Bob currently sits as a member of the UBC Applied Science Dean's Advisory Council and the University of Victoria's Civil Engineering Advisory Committee, and previously chaired BCIT's Civil Engineering Program Advisory Committee.*

***Fei Tong, Ph.D., P.Eng**., is an Assistant Professor in Structural and Seismic Engineering at the University of Northern British Columbia and an Adjunct Professor in Civil Engineering at McMaster University. His research focuses on seismic-resilient buildings and infrastructure, high-performance structural systems, performance-based seismic design, nonlinear numerical modelling, and the seismic design of concrete, steel, timber, composite, and hybrid structures. Before joining academia, Fei gained extensive industry experience with Ove Arup & Partners and Buro Happold Consulting Engineers, working in Beijing, Tokyo, and Dubai on landmark high-rise buildings and complex structures around the world. He is active in Canadian codes and standards activities, including efforts to implement performance-based seismic design in Canadian design practice.*

***Paul Wilson, P.Eng**., is a Partner and Senior Geotechnical Engineer at Thurber Engineering in their Vancouver office. Paul is engaged in major transportation, oil and gas, and building projects in BC. Paul is actively involved in design guidelines and code development, including the CHBDC and EGBC Guidelines for school seismic retrofits, seismic site response analysis, and seismic design of dikes. Paul is the current chair of CHBDC Section 6, Foundations and Geotechnical Systems.*

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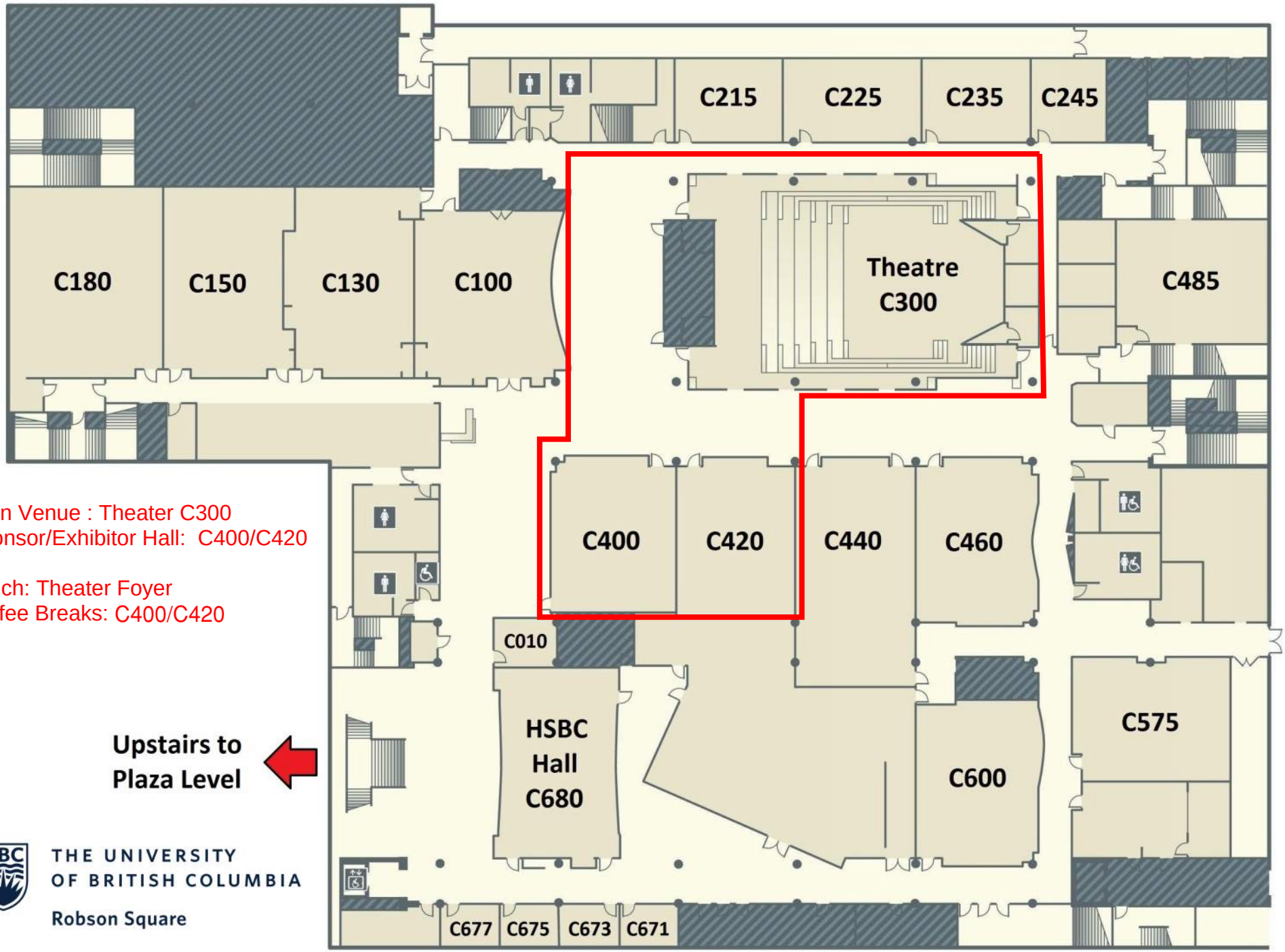
Robson Square

UBC Robson Square is located in downtown Vancouver on Robson Street between Hornby and Howe Street. The campus entrance is located on the Plaza Level and may be accessed by stairways on either side of Robson at Howe Street, or by the elevator from the underground parkade. There is a wheelchair accessible entrance on the corner of Hornby and Robson Street that connects to all levels of the campus.

By Car: In Vancouver's downtown core, turn south onto Howe Street – a one-way street. The underground parkade is located on Howe at the corner before Nelson Street (right hand side). Hourly parking charges apply. Please visit the Westpark website for updates and more information on payment methods, monthly rates and parking regulations. There is also limited meter street parking on Howe and Hornby Street. (Indigo neo app, Lot 189: $3.75/hr; $16/daily)

By Public Transit: The Burrard, Granville, and Vancouver City Centre SkyTrain stations are located within walking distance of the campus. Buses stop near the campus on Burrard, Georgia, and Howe Streets. The SeaBus from the North Shore docks is within walking distance. Visit the Translink website at www.translink.bc.ca to plan your route.

By Bicycle: A bicycle rack is located outside our front doors on the plaza level. They are to the left of the doors as you come inside.



Main Venue : Theater C300
Sponsor/Exhibitor Hall: C400/C420

Lunch: Theater Foyer
Coffee Breaks: C400/C420

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