Building Envelope Council Ottawa Region

Lunch and Learn Technical Seminar – Wednesday, December 4, 2019

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12:00 (noon) to 3:30 pm
Sala San Marco,
215 Preston Street, Ottawa, Ontario

Please note: this seminar will be held in the new Amadeus Room!

Advanced registration is required!

The New Normal
Designing for Extreme Weather

The climate is changing. Energy codes are tightening to reduce greenhouse gas emissions linked to increasing global mean temperature, in turn linked to local climate and weather effects such as increasing temperature and drought, more frequent and intense severe rainfall and wind storms, and rising ocean levels. In this seminar, we will be looking at climate change and extreme weather events from several different points of view. What is the insurer's perspective? You may be surprised with the insurance industry's on-going efforts to track climate change and predict future risk, using factors not often considered in building design. How is the NRC looking at climate change, with respect to the NBC climate design requirements? Historically we've looked back at past climate to design future buildings but that works only when the climate is relatively stable. We know now it isn't. So what do we need to do going forward, in new building design? What is the responsibility of the design professional in all this? Do we wait for guidance or in the meantime, move ahead to try to minimize risk, creating capacity to withstand future change?

SEMINAR SCHEDULE:

12 pm – 1 pm	**Networking lunch & Opening remarks**
1:00 pm – 1:30 pm	**The insurance industry perspective on past change and future risk** *Muhammad Rizvi, Canadian Institute of Actuaries* *The Actuaries Climate Index (ACI) provides actuaries, public policymakers, and the general public with data about changes in the frequency of extreme climate events over recent decades. The climate factors tracked differ from those typically used for building design, including extremes of high and low temperature, high winds, heavy precipitation, drought, and changes in sea level, providing another viewpoint on climate change for building owners,*

	managers, designers and builders to consider. Mr. Rizvi will describe the ACI and give a regional comparison of current Index results that show how climate is changing and the potential challenges we face.
1:30 pm – 2:00 pm	**National Building Code of Canada - Historical and future projected climate data for building design** *Dr. Abhishek Gaur, National Research Council Canada* *Building design is based on a selection of climate factors, recorded over various time periods. Increasing frequency of extreme climate events shows us that basing the future on the past is no longer viable. Dr. Gaur will discuss how historical climate data is prepared, the creation of future climate data, development of climate indices and Canada-wide maps showing hazard and risks to building envelopes, and development of user-interactive tools and guidelines to guide the design of new buildings with and the performance assessment of existing buildings to guide retrofit.*
2:00 pm – 2:15 pm	**Break**
2:15 pm – 2:45 pm	**Durability and climate change – Resilient building envelope design and adaptation** *Dr. Michael Lacasse, National Research Council Canada* *So we know the climate is changing and perhaps, what it may turn out to be. Now what? Dr. Lacasse will give a brief introduction to climate change and its impacts on buildings, and describe climate resilient design for core public infrastructure, new building construction and the retrofit of existing buildings.*
2:45 pm – 3:15 pm	**The responsibility of the design professional to manage future risk** *Taylor Schaefer, Morrison Hershfield* *Do we wait for the building code, or do we get out in front of it? As building designers, do we design for the certainty of past we know or the uncertainty of the future? Mr. Schaefer will argue that we should be designing buildings that can withstand new extremes that will be faced in the coming years. By doing so, we can create buildings that cost less in the long run and provide healthier indoor environments.*
3:15 pm - 3:30 pm	**Q&A Session with all speakers & Closing remarks**

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TOPICS AND SPEAKERS:

Muhammad Rizvi is a Director at Sun Life with over 10 years of experience in the Life Insurance and Reinsurance industries. He is a Fellow of the Society of Actuaries, a Fellow of the Canadian Institute of Actuaries and also holds a Chartered Financial Analyst (CFA) designation. He is passionate about Climate Change and in understanding its associated risks on infrastructure and people.

Dr. Abhishek Gaur, Ph.D., MESc, is an assistant research officer in the Façade Systems and Products group in the Construction Research Center of the National Research Council Canada. Dr. Gaur is a lead researcher with Infrastructure Canada's Climate Resilience Buildings – Core Public Infrastructure (CRBCPI) project working on the development of a climatic database for building envelope design and research. He is a contributor to CRBCPI's work on the assessment of the durability of building envelopes, overheating in buildings, wildland urban interface fire hazards under historical and future projected climates. He is also a contributor to the Tall Wood Buildings project on the evaluation of the effects of climate change and extreme events on the performance and durability of Tall Wood building envelopes.

Dr. Michael Lacasse, Ph.D., P.Eng., is a senior research officer in the Construction Research Center of the National Research Council Canada. Dr. Lacasse has over 25 years' experience as a building engineer. He is Team leader for the Facades Systems and Products Group. As such, he has overseen work over a broad spectrum of building envelope research that includes the weather tightness of building enclosures, evaluating the thermal and moisture response of highly insulated wood-frame wall assemblies, optimization of thermal performance of curtain wall systems, and the development of methods to assess the long-term performance of building components and envelope assemblies. Most recently, Dr. Lacasse's work has focused on the resilience of building enclosures to the effects of climate change.

Taylor Schaefer, B.Eng., is a Building Science Consultant for Morrison Hershfield. He is a graduate of Carleton's Architectural Conservation and Sustainability Engineering program with previous experience as a Façade Engineer for Surface Design in Sydney, Australia before joining Morrison Hershfield. He has worked on iconic projects such as 60 Martin Place, Queen's Wharf Brisbane, and Sydney's new Australian Technology Park in Australia and various projects in the Ottawa / National Capital Region, for the MH building science and sustainability teams.

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Seminar fees	Premium Corporate	Individual and Corporate Members	Non-Members
Please Register By Noon on Monday, December 2, 2019.	**Free**	**$35.40 + $4.60 HST = $40.00**	**$62.00 + $8.00 HST = $70.00**

Visit BECOR@goldenplanners.ca ***to register on-line for this event***

This seminar is Eligible for 2.0 hours of Core ConEd Credits for OAA Members

Whether a BECOR member or not, you must register to attend this seminar.

We respectfully request that you register for this seminar no later than
Monday, December 2, 2019 at 2pm.
Please note that no refunds will be provided after this date.