



Volume 58 • May 2022

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*Photo Credit: Andrea
Sunderland*



Message from the President



David Harvey, P.Eng.
SEABC President

Forensic Structural Engineering III

The topic of forensic structural engineering first came into focus for SEABC with Don Kennedy's 2021 Pinnacle Lecture which raised keen interest. Lessons learned are an important part of structural engineering education and shape the future in terms of code provisions and design trends.

Don's lecture referenced many structural failures and their significance but concentrated on the Florida International University Bridge collapse and its causation. The ramifications of the collapse were unclear a year ago but are now starting to emerge.

A National Transportation Safety Board (NTSB) report into the collapse concluded that errors by the designer were to blame, with failures by the independent checker, the client, the contractor and site supervisors all contributing. The NTSB's key recommendations were to close roads beneath active construction, better educate engineers undertaking such work, enhance construction monitoring and design concrete structures with "reasonable estimates of interface shear demand".

The most recent Standing Committee on Structural Safety (SCOSS) report contains several important recommendations to prevent similar disasters:

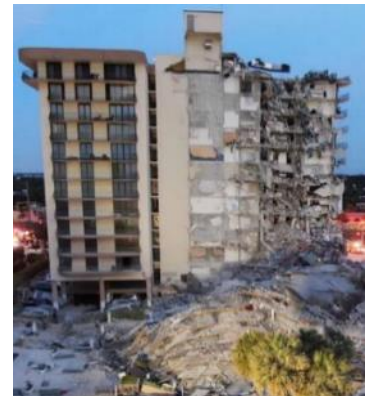
- Avoid engineering decision-making by non-engineers who are unaware of the implications of their decisions.
- Introduce "What if?" contingency planning, to better detect early signs of failure.
- Improve designer input and supervision on site to better assure quality and safety.
- Eliminate undue pressure on those with a duty of care which can compromise safety.

Four years after the collapse, the Florida Department of Transportation has unveiled designs for a new FIU pedestrian bridge. The cable-stayed 'theme' has been preserved, but the bridge design now uses structural steel with two cable planes supporting the wide covered bridge deck. Notably, the unusual single plane concrete truss design with its ornamental cable stays has been abandoned. With the collapse in mind, the road beneath the span will be closed while the new superstructure is erected. The unsurprising changes reflect the astonishment among bridge engineers that a such a heavy concrete truss design was being used. Worse, that the main span was being precast and manoeuvred into position via SPMTs and jacks. That reaction became incredulity when rapid hand calculations revealed demand levels and the publicly available drawings displayed a distinct lack of interface shear reinforcement. An optimistic design at the very best.

Last June 24th, Florida's Champlain Towers South building collapse rocked the nation with one of the deadliest building failures in history.

Structural engineers took note, wondering why a 40-year-old building would suddenly pancake.

The National Institute of Standards and Technology (NIST) is currently investigating the collapse and their report will hopefully pinpoint the causes which had been subjected to much speculation. Significantly, debris removal revealed no evidence of foundation failure.



Paralleling NIST's work, the Miami Herald conducted its own investigation, retaining Washington University's Professor Dawn Lehman to conduct in-depth analysis of the structure using super-computers based on the record drawings and witness statements. The findings were then compared with evidence uncovered at the scene. For the most part the field evidence confirms the collapse theories, but there were some discoveries including missing column-head and wall/slab rebar as well as evidence of corrosion.

Pinnacle Lecture



David Harvey, P.Eng.,
Struct.Eng.

Welcome news for structural engineers in BC was that the 2022 Pinnacle Lecture would be delivered by no other than SEABC Director Paul Fast. Paul was the Institution of Structural Engineers' Gold Medalist for 2021 and Paul agreed to retell his story to SEABC members from a complementary viewpoint with a strong emphasis on inspiring the younger generation of structural engineers.

Paul's address entitled '*Forty Years of Design Enjoyment and Lessons Learned*' took place via Zoom on March 9th, 2022 to a small gathering of staff and guests at the Concept Lab in the Fast & Epp office building. There were a record 155 unique on-line connections to the broadcast. Paul's personal journey took us through his structural engineering career which paved the way for the amazing structures and novel concepts he developed. Paul was quick to acknowledge the contribution made by his "amazingly talented" colleagues to the creative designs produced by his well-known firm – "doing things differently" in Paul's modest words. Paul recounted his earliest career influences and the amazing mentors that shaped his personal development.



Paul Fast

Paul considers his journey as a modern adventure and links his exploits to examples from the 19th century. Always a pioneer, Paul found many opportunities to push boundaries and create the new concepts that he has become famous for. He cites stepping outside the box and not getting too hemmed in by code restrictions, established practices, and computer modelling as necessary for good engineering. Paul believes strongly in holistic engineering, i.e., solving multidiscipline solutions with one structural form. Thankfully many of Paul's structures are expressed architecturally and we can enjoy the beauty of pure form and creative engineering. This includes one of Paul's design signatures – hybrid structures, very often steel and wood working together to achieve more than the sum of the parts.

This is perhaps best exemplified by the massive arches he championed for the Richmond Olympic Oval. This impressive structure retains a warmth which is seldom seen in massive structures, largely due the expanse of wood covering the cavernous interior space.

Paul cautioned against too much reliance on computers, urging us to "not let analysis prevent you from becoming a good engineer" and to always check the results. He included examples of his designs – many recognizable across the world, others small-scale and little-known. Photos of Paul's personal life in the back country were added and explained how he drew inspiration from the great creation of the world we live in. Paul's project images display his tenacious commitment to doing what is right. Closing with his 'ultimate' objective of bringing joy to his clients while embracing the challenges and hardships of getting the job done.

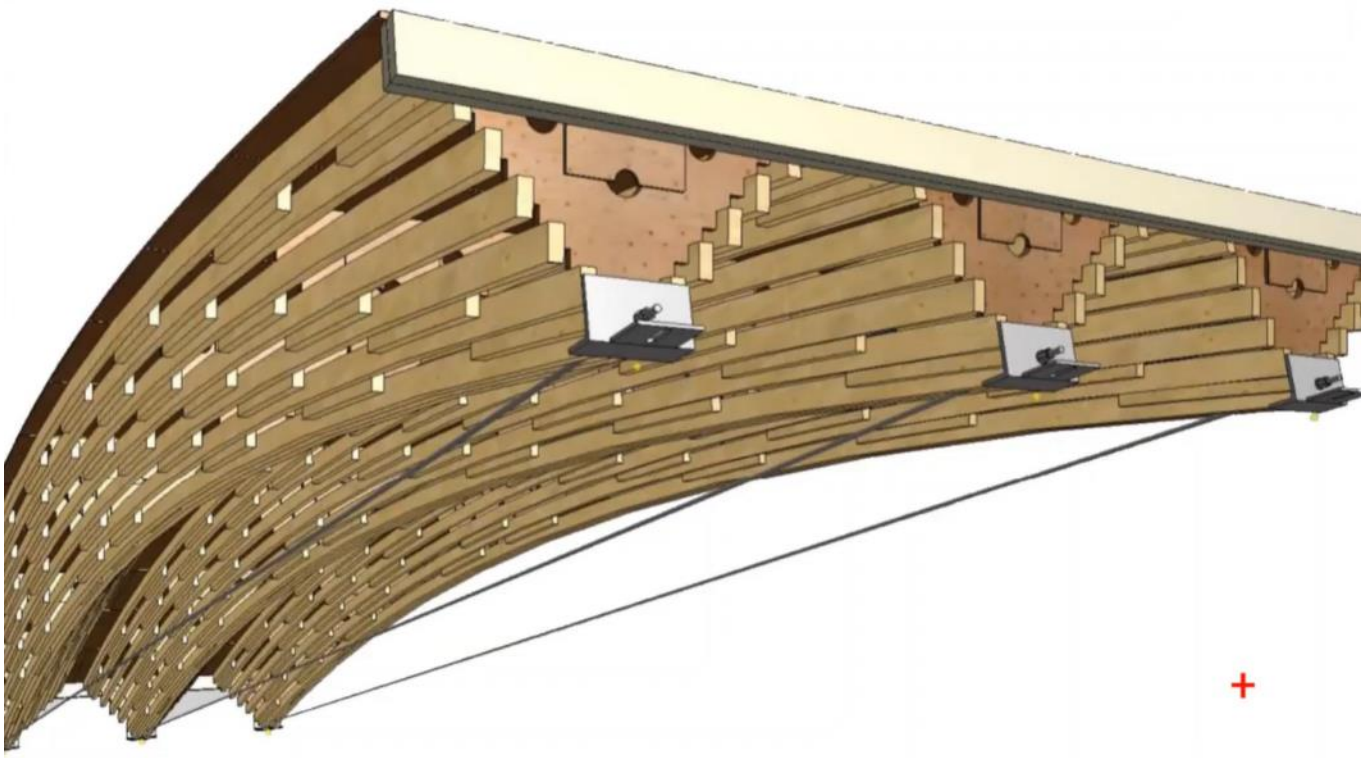
Paul's elegant structures invite us to share the joy that he and his clients have experienced in abundance. Some of these inspiring images follow.

You can listen to the recording of Paul Fast's Pinnacle Lecture at:

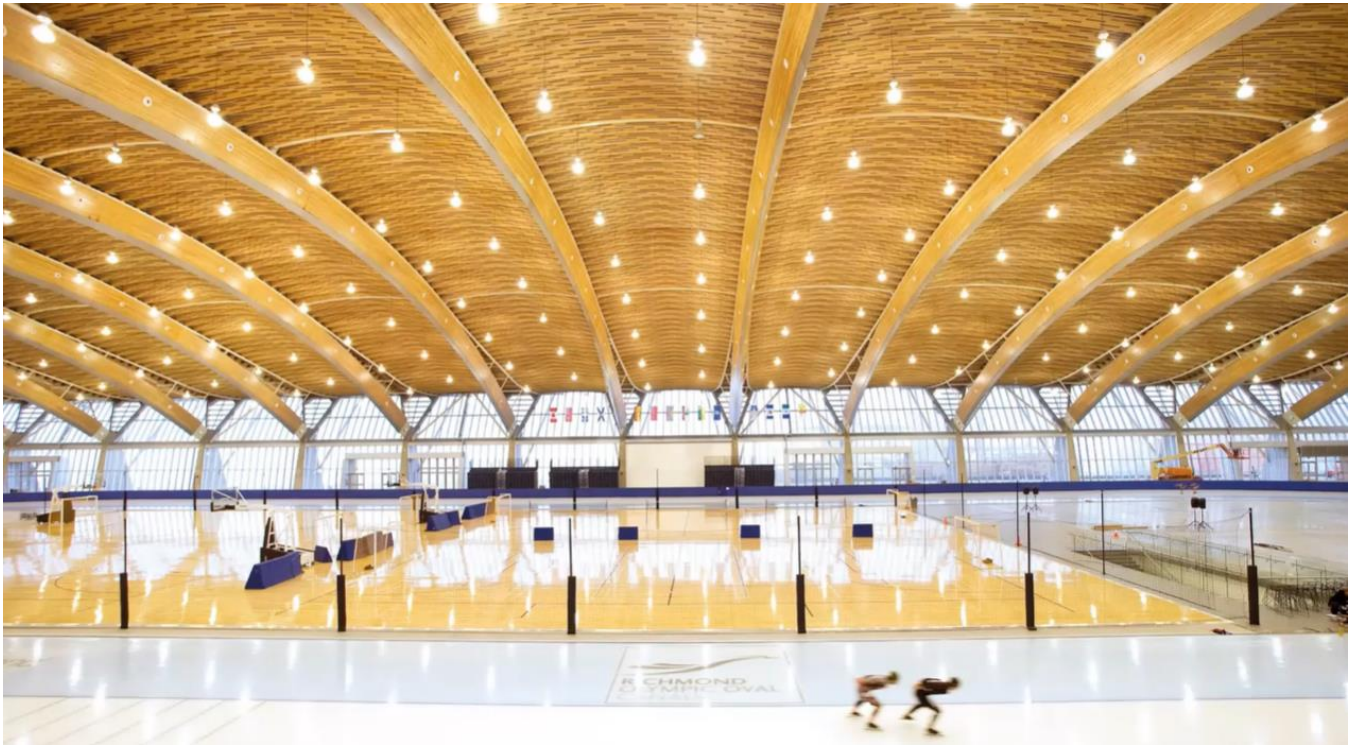
2022 Pinnacle Lecture: Paul Fast – Structural Engineers Association of British Columbia (seabc.ca)



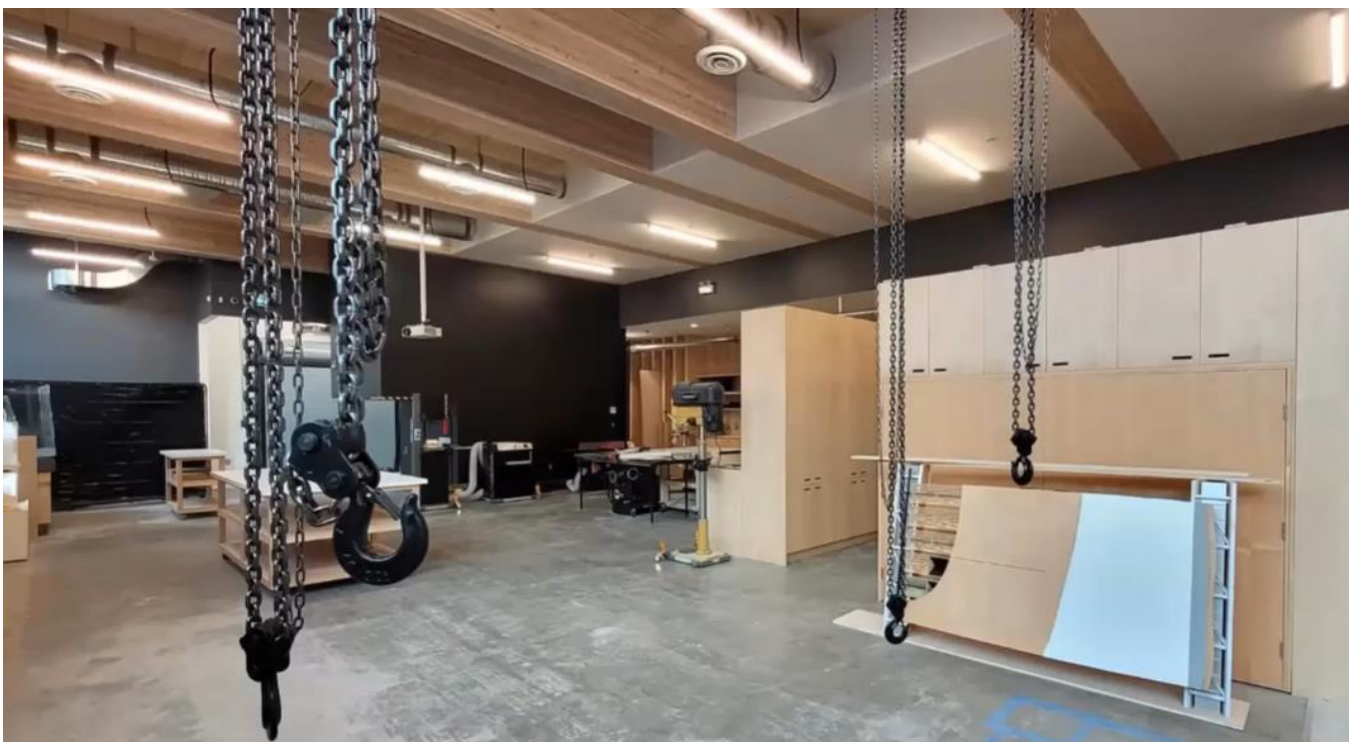
Whistler Public Library



Roof Panel – Richmond Olympic Oval



Completed Roof – Richmond Olympic Oval



Fast & Epp Concept Lab



Mannheim Gridshell



Kingsway Bridge – Burnaby



Brentwood Town Centre



VanDusen Botanical Gardens



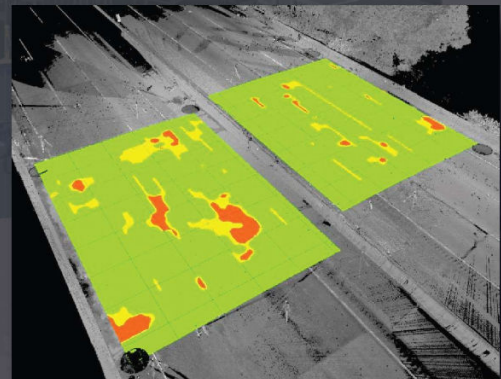
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Committee Reports

Young Members Group



Amr Farag, E.I.T. M.Eng

The SEABC Young Members Group is pleased to announce Gregory Gislason, MSc., P.Eng., as the new chairperson. Gregory was previously the networking chair of the YMG and has been working in the industry for five years. He currently works at Bush, Bohlman & Partners where he mainly focuses on institutional buildings and seismic retrofitting among other projects. Gregory received his undergraduate degree in 2014 and his master's degree in structural engineering in 2018, both from the University of Alberta.



Gregory Gislason, MSc., P.Eng. - New YMG Chair

Stanley Chan, M.Eng., P.Eng., has chaired the committee for the previous five years, leading the group to unprecedented success with new events and a more involved presence in the industry for young professionals and students alike. Stanley will remain involved with the YMG to provide continuity during the transition and continue to serve on the SEABC Board in 2022.

This issue of the YMG report highlights the results of the 11th annual presentation competition along with the 2022 Greater Vancouver Regional Science Fair.

11th Annual Presentation Competition

The 11th Annual SEABC YMG Presentation Competition took place on February 22nd and 24th. The organizing committee would like to thank everyone who participated. We were delighted to see more than 50 audience members tuning in during their lunch times on both days. This year also marked a record number of competitor entries, with 18 well developed abstracts submitted! We commend everyone who took the time to submit an entry and we hope to see even more young engineers eager to share their accomplishments in upcoming years.

Congratulations to this year's presentation competition winner:

Jeffrey Salmon

"Full-Scale Experiments of the Gapped-Inclined Bracing System: A Seismic Retrofit for Soft-Storey"

Congratulations to the People's Choice Award winners:

Day 1* - **Ornagh Higgins**

"Design of High-Rise Mass Timber Structures for Robustness and Progressive Collapse"

Day 1* - **Jeffrey Salmon**

"Full-Scale Experiments of the Gapped-Inclined Bracing System: A Seismic Retrofit for Soft-Storey"

Day 2 - **Jaime Connolly**

"Malahat Skywalk: A Mass Timber Viewing Tower and Boardwalk on Southern Vancouver Island"

*An unexpected tie occurred on Day 1 of the competition. Ornagh and Jeffrey shared the People's Choice Award of Day 1.

Thank you to all of our presenters. All six shortlisted presentations were thoroughly prepared and well presented. Being one of the finalists in a highly contested year was an achievement and all presenters exceeded our expectations.

The remaining presenters were:

Navpreet Bharaj

"Coping with the Coping Slab"

Bryn Endacott

"Structural Design of Large Steel Bins and Silo- A Gap in Engineering Design in North America"

Sam Shulman

"A High-Capacity Shear Connector for Tall Hybrid Timber Buildings"

Thank you to our judges for their time and insight:

Dr. Ahmed Bediwy, PhD

Adam Gerber, M.B.A., P.Eng., M.A.Sc., CPHC

Kitty Leung, P.Eng., Struct.Eng., PE, SE, LEED AP

Thank you to our sponsor for supporting SEABC YMG initiatives:

Xradar, Platinum Sponsor

Lastly, a thank you goes out to the organizing committee:

Kaila Spencer, Event Co-Host

Daisy Ma, Event Co-Host

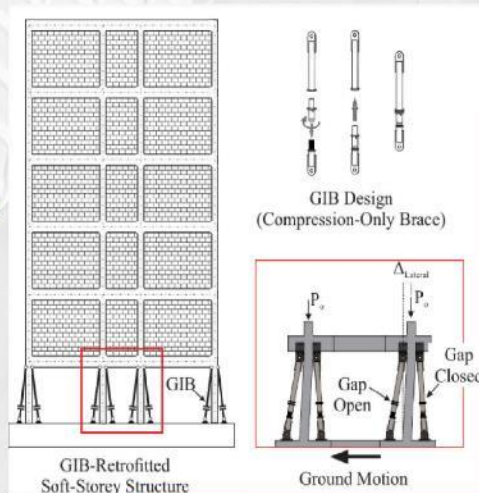
Stanley Chan, Event Organizer/ Former YMG Chairman

Camilo Granda, Event Organizer

See you next year at the 12th Annual SEABC YMG Presentation Competition. In the meantime, stay tuned for more events from the SEABC YMG and be sure to follow SEABC on LinkedIn and Instagram.

FULL-SCALE EXPERIMENTS OF THE GAPPED-INCLINED BRACING SYSTEM: A SEISMIC RETROFIT FOR SOFT-STOREY - BY JEFFREY SALMON - ACADEMIC RESEARCH

This presentation focuses on the full-scale experimental validation of the gapped-inclined bracing (GIB) system - a low-cost seismic retrofit for ground-level soft-storey buildings. This novel retrofit allows the soft storey to form while preventing collapse of the structure, effectively creating an isolation layer with the ground-floor columns.

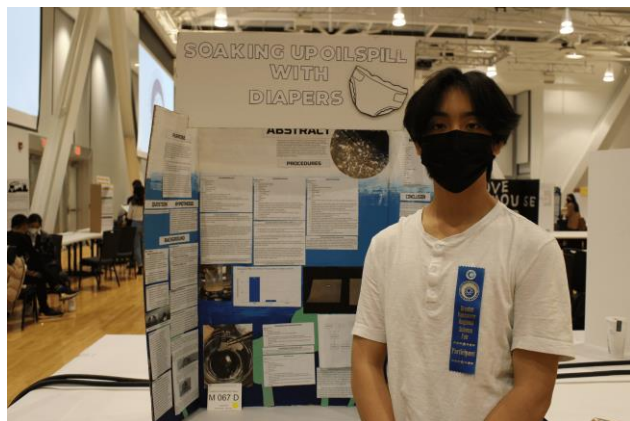


11th Annual Presentation Competition Winner

2022 Greater Vancouver Regional Science Fair

The SEABC YMG committee was pleased to once again, support the 2022 Greater Vancouver Regional Science Fair (GVRSF). As a charitable non-profit organization, the GVRSF relies on its sponsors to help foster the brightest young scientists in Greater Vancouver. We are proud to continue the tradition of supporting such ambitious students, congratulations to all those who participated!

The winner of the SEABC YMG \$250 prize this year was **James Weng** for his exhibit, "Soaking Up Oil Spills with Diapers", in which James developed an oil-isolating procedure using materials found in hardware stores to create a superabsorbent polymer that could repel water yet absorb oil.



Winner of the 2022 Greater Vancouver Regional Science Fair – James Weng



Communications Committee



David Harvey, P.Eng.,
Struct.Eng.

Director SEABC

If you are new to this column you may like to know that this newsletter thrives on your contributions – regular readers will be aware of this. SEABC is a volunteer group delivering services to our members, and your story is welcome. Some of our more interesting contributions are practice-related issues and design tips, so please keep those flowing in. Other topics we cover are group activities and research reports, but in fact we are open to receiving articles on any topic that may be of interest to structural engineers.

Since its inception in 2008, SEABC has published quarterly electronic newsletters. We have made some adjustments along the way but the basic formula of keeping you informed continues. The feedback we receive is positive which we take as your approval; however, we welcome your suggestions on how we can improve.

Articles can be full- or half-page and should be illustrated. Abbreviated research papers are also acceptable. You can also send in photos with a descriptive paragraph. Contributions should be newsworthy and/or inform our readers on structural engineering. We also invite feedback from you. If you have a great idea – share it with us!

Kindly send your information for publication to: newsletter@seabc.ca – we'd very much like to hear from you.



On the Web



Ricardo Ruiz,
B.Sc., M.Sc.

Hello again from your new webmaster. It's been a busy couple of months with lots of interesting activities and events.

- After the very successful YMG Presentation Competition, the video presentations of all the contestants are now posted on the website at: seabc.ca/ymg. Congratulations again to this year's winner – Jeffery Salmon with his presentation “Full-Scale Experiments of the Gapped-Inclined Bracing System: A Seismic Retrofit for Soft-Storey.”
- Likewise, the 2022 AGM and Pinnacle Lecture last March 7 and 9 were very well received. The video of the Pinnacle Lecture by Paul Fast “Forty Years Design Enjoyment and Lessons Learned” is available for viewing by members at seabc.ca/pinnacle-lecture.
- Industry event postings: (seabc.ca/events/upcoming/):
 - Applied Technology Council (ATC) Free Webinar: FEMA P-2139, Short-Period Building Collapse Performance and Recommendations for Improving Seismic Design
 - Innovation in Infill- A Spotlight on a High Performance Office Building by Wood Works! BC on May 25
 - Advancements in research for Engineering Applications in Mass Timber Buildings by UBC Faculty of Forestry on May 25
 - From Performance-Based Engineering To Urban Resilience by UBC Green Construction Research & Training Center (GCRTC) on Jun 8
 - 9th International Operational Modal Analysis Conference by International Operational Modal Analysis (IOMAC) Association from Jul 3 to 6
- SEABC Seminar – Champlain Towers South (CTS) Building in Surfside Florida Partial Collapse Investigation by Prof Dawn Lehman, held on April 21. It was a very successful and well attended event with over 110 participants. Presentation slides and materials are available in the event archive at: seabc.ca/collapse_investigation.
- YMG Bowling Night – social event organized by the Young Members Group. Bowling with pizza dinner afterwards. Details and registration were available through the website.
- Call for Nominations for SEABC Legacy Awards have been sent out. Two awards are available:
 - The Peter Ridgway Taylor Grant (PRTG) for Structural Engineering Advancement
 - The SEABC Young Member Meritorious Achievement Award (YMMAA)

The details for both awards are available on the website at seabc.ca/legacy-awards.

- The minutes of the Board of Directors Meeting on Jan 10, Feb 14, and Mar 14 2022 have all been posted to the site: seabc.ca/meeting-minutes.

We want to hear from you!

We welcome your comments for improving the SEABC's website and other online services. Please send your suggestions to webmaster@seabc.ca



IStructE News



David Harvey, P.Eng.
Struct.Eng

Throughout the recent pandemic, IStructE headquarters operated remotely. Council meetings, typically involving up to 100 delegates, were held on-line over two days. This replicated the formula for the previous Council meetings but in a shortened on-line format. Breakout rooms were used for the interest group discussions following the introduction of topics in the general session. The breakout room discussions were lively and allowed plenty of opportunity for delegates to share their views. The points raised were consolidated by a group recorder and later presented to the general session.

Interestingly, while there was plenty of common ground, not all groups reached the same conclusion, and some groups raised unique perspectives on some of the key issues. While the on-line meetings worked remarkably well, the meetings attendees seemed keen to revert to in-person meetings. While the trajectory of the pandemic is far from clear, the hope is that the Council meeting for July will be held in-person, possibly with a remote participation option. Watch this space for further information!

Are you an undergraduate student interested in conducting research? Please be aware that IStructE offers five research grants of 800 GBP annually. This year's applications will need to be in by June 3, but if you cannot make it in time, there is always next year. The good news is that you do not have to be a member of IStructE or reside in the UK to apply. For more information go to:

istructe.org/training-and-development

Competency Assessor



David Harvey, P.Eng.
Struct.Eng

Are you a P.Eng. with at least 5 years' experience serving in a senior capacity? Do you have an interest in assessing the experience, competency and education of applicants for registration? Are you willing to volunteer for EGBC? If yes to all, read on!

EGBC is currently looking for applicant assessors in various disciplines including structural engineering. This is an important area of professional regulation which plays a crucial role in protecting the public. A high rate of applications for registration are currently being received by EGBC who will be pleased to hear from you if you would like to be involved. The duties involve reviewing applications, including work experience and references, and reporting back to EGBC within a month of being notified. Each review will take around one to two hours. Assessing prospective member applications can be very interesting and rewarding, so if you are looking for a professional volunteer opportunity, please consider becoming an EGBC registration competency assessor. More information is available at:

egbc.ca/Volunteer-Opportunities



Non-Structural Components for the Structural Engineer



Mark Budd, P.Eng.

Non-structural components can include such items as ductwork, lights, and suspended ceiling systems. These items are also referred to as operational and functional components (OFCs). This is a more defined term given that there needs to be "structural" involvement in the seemingly "non-structural" component within another professional's scope. In the Lower Mainland, the structural design for OFCs frequently requires providing sufficient seismic restraint and anchorage to the ceiling components.

Recently I had a colourful exchange with a contractor installing OFCs on a tenant improvement project. After that conversation, I reviewed the established standards available in my library. I have presented some suggested resources below for the consideration of other designers:

CSA S832-14

This guideline is one of the few Canadian-based standards. CSA S832 includes a short discussion of the structural design requirements, a method to assess the seismic risk, sample calculations, a thorough list of component-specific standards, and a slightly modified version of Table 4.1.8.18 (BCBC 2018) with more sub-categories. This document is a fantastic starting point for establishing decisions in practice.

FEMA E-74

The FEMA document takes an in-depth approach to each OFC category. Common risks and mitigation strategies are described. Illustrations of failures and solutions are also presented. Checklists are provided in the Appendix for post-earthquake condition assessments. At nearly 900 pages, the value of this

document comes not only from the breadth of information, but also from the photographs and details that help provide insight into good installation practices.

ECABC Seismic Restraint Standards Manual

This guideline is specific to electrical systems and has been developed with input from contractors and engineers in the province. The guideline describes the requirements for five basic electrical components. Provincial zones based on S_a (0.2) values are used to determine the degree of restraint required. Capacities for standard materials (pipe, angles, cables, rod, etc.) are categorized using an alphabetic code that corresponds to the minimum load rating. The application of the zones and tables assists with establishing the design requirements. Numerous details are also provided, which assists with construction documentation and field reviews.

SMACNA Seismic Restraint Manual

The SMACNA guideline is specific to mechanical systems (piping and ductwork) and is developed in a similar format to the ECABC manual. Tables are used to generate bracing requirements. Details are also presented to verify the proper locations for restraints. Be advised that the SMACNA document has been developed with ANSI standards in mind. Still, the 2008 version continues to be referenced by CSA S832-14 and the requirements appear to meet the general intent of current design specifications.

ASTM E580

This ASTM standard is typically referenced in the literature provided by proprietary suspended ceiling manufacturers. The details are generally captured within the FEMA E-74 document. There is some additional clarity specifically for ceiling suspension systems subject to earthquake ground motions.

ASCE 7-22

While largely inconsequential in direct Canadian practice, it is important to note that a major portion of the development from the standards and guidelines above is captured in the provisions and commentary of ASCE 7. The intent of general design principles of non-structural components (OFCs) is

covered in substantial depth. These two volumes are a valuable library resource, perfect monitor stands, and they also function as study companions for those attempting the SE exam in future years.

Each of these documents present basic prescriptive requirements and illustrative construction details. This should get a designer to the halfway point. Getting across the finish line will require an understanding of site constraints within the plenum space, clear instructions, diligent field review, and the willing support of an installer.

Annual Reporting



David Harvey, P.Eng.
Struct.Eng

While SEABCs sole requirement to remain a member is to pay the annual fee, we do hope that you bring a passion for structural engineering. Most SEABC members will also be practicing members of EGBC – BC’s professional regulator, and by now will have received information regarding annual reporting. The requirements are new in that they are mandatory under BC’s Professional Governance Act and contain additional specific elements. As they are backed by fines for non-compliance and ultimately suspension, compliance is highly recommended. The compliance deadline is June 30th. As any omission will result in non-compliance, earlier submission is recommended – EGBC will then send you a confirmation email.

The recommended sequence is to first report your Continuing Education activities. All practicing registrants need to accumulate 60 hours in any three-year period which may include any type of learning activity that you consider relevant to your professional development. However, Struct.Eng. registrants require an additional 60 hours comprising technical learning activities related to their work as a structural engineer. As part of their continuing education, all registrants are required to undertake a regulatory learning module which is provided by

EGBC, as well as an Ethical learning module, which can be one provided by EGBC or another educational provider. All qualifying activities from January 1, 2021 to June 30, 2022 may be included this year. Currently, the reporting is for one year, but will cover three years starting in 2024. You will also need to make an annual declaration.

Practicing registrants are always required to submit by June 30th a continuing education plan which looks forward for the upcoming twelve months. EGBC provides a suitable reporting template, but you may use any template that provides the requested information. Note that the plan can be tailored to address any educational deepening or broadening gaps that the registrant wishes to fill, which can be either addressed in one year or over several years. All that is required is to submit annually their updated continuing education plan, which therefore may look quite similar to the plan they submitted the previous year.

Although reporting your continuing education might appear to be a major hurdle and an onerous requirement, it is intended to be helpful having practicing registrants focus on their continuing education and attend to it as learning opportunities arise. Reporting on a frequent basis is the key while activities are still fresh in mind. Once this becomes habitual, there is not much to it. What is vital is to make sure that your reported activities have been recorded in the reporting system – this is not always automatic.

SEABC members are in good shape here, as most of our activities will qualify as learning material. Whether it is serving on an SEABC committee, attending an SEABC seminar or Certificate Program course, or studying archived educational material on the website, these activities can be included in your annual reporting. For detailed information and to carry out your annual reporting, go to:

egbc.ca/Annual-Reporting

There is a helpful 3 minute video from EGBC that will walk you through the CE reporting and annual reporting process:

egbc.ca/Continuing-Education

Unwieldy Analytical Models



Robert Bourdages, P.Eng.
LEED AP

Today's practice of structural engineering typically involves developing an analytical structural model to size members and evaluating building performance. Structural analysis software has advanced rapidly in the last decades and has facilitated engineers to evaluate structures that have increasingly complex geometry. Additionally, the results generated have been able to report astonishingly accurate solutions that can mimic building performance fairly well.

However, this evolution of technology has its challenges- namely the complexity of the input, and the ability to understand and predict solutions generated by the underlying algorithms. This challenging phenomenon has been referred to as "black box" solutions.

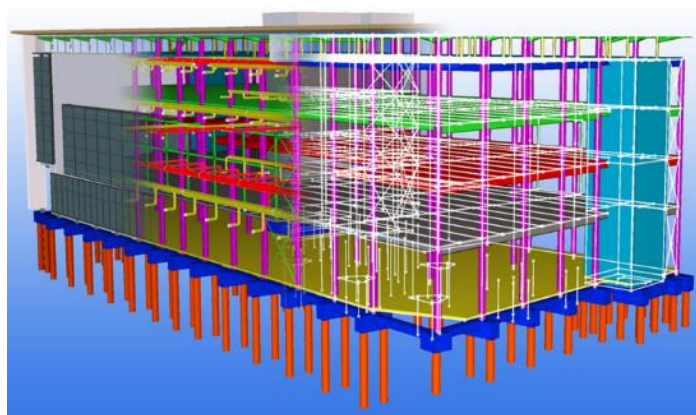
Structural programs have evolved from providing linear static and dynamic analyses to various nonlinear analyses. With each degree of complexity there is a potential to separate the user from reliably understanding and independently verifying the solutions.

How does one avoid the pitfall of potentially relying on "black box" solutions?

1. Summarize the loading by spreadsheet, prior to building the model. Use approximate analysis to estimate the structure reactions. Know where you are headed prior to running a detailed analysis. This will help build confidence that your solutions are valid when your model is finally built.
2. Once the model has completed, input a simple load case, such as dead load only, and provide independent analysis to verify loads have been input correctly, and connectivity is valid. Check the deformed structure and look for anomalies.

3. Likewise input a simple lateral load and track the results independently to demonstrate the model is producing predictable results. Check the deformed structure.
4. Isolate each load case and check the summation of loads. Independently verify that the summations are correct.
5. For non-linear inputs such as joint deformation, compare with published results of similar arrangements, to develop confidence that the input is reasonable. Check structure deformations – are they reasonable?
6. For models with complex geometry, isolate areas and run simpler models to validate performance.
7. Build scale models and load test them. This can be surprisingly simple that can yield a quick understanding of structural performance.
8. Conduct peer and independent reviews.

Regardless of the complexity of the structure and the method of analysis used, the structural engineer is responsible for understanding the analytical approach used by the software and should always independently verify results.



Certificate in Structural Engineering Program



Shannon Remillong,
CSE Program
Co-ordinator

Registration for the **September 2022 term** will open early July 2022 through the SEABC website: seabc.ca/certificate Early-bird rates and SEABC Member's discount, both a \$50 savings, will apply at registration. Classes will begin the week of September 6th and end the week of December 1st.

The CSE Program returns to UBC Robson September 2022!

The following courses will be offered in September 2022:

- **E24** Introduction to Marine Structures
- **C4-1** Introduction to Earthquake Engineering & Seismicity
- **E21** Design of Two-way Slabs **NEW COURSE!**
- **E27** Base Isolation and Supplemental Energy Dissipation Design for New Buildings **NEW COURSE!**
- **E29** Python for Structural Engineers **NEW COURSE!**

Outlines for the five courses will be available on the SEABC website by mid-June.

Course delivery:

- All courses will be offered LIVE webcast; however, select courses will be simultaneously offered in-person at the UBC Robson campus. Details will be available on the SEABC website in June.
- Courses are once a week, 2 hours in the evening, either 4:00-6:00pm or 6:30-8:30pm PST.
- Courses are 13 consecutive weeks.

Important Dates:

- Registration Opens: Monday July 4, 2022
- Early-bird Deadline: Friday, August 19, 2022
- Registration Closes: Monday, September 5, 2022
- Withdrawal Deadline: September 19, 2022

Courses will fill up fast so make sure to register early and take advantage of the savings!

This year at the SEABC Annual Meeting held in early March, the Certificate Program Executive Committee awarded the \$1,000.00 Mahmoud Rezai Scholarships to **six outstanding students** who have taken a minimum of 2 courses over 2 consecutive years, with the highest grade point average.

The students who have accomplished this goal between 2020 and 2022 are:

- Saman Hashemi (Sedgman Canada)
- Roger Boudrea (Fishburn Sheridan & Associates)
- Brian Parke (Redwood Engineering)
- Tim Stockton (Allester Engineering)
- Douglas La Prairie (Sable Building)
- Meaghan MacGillivray (SNC Lavalin)

The Executive Committee would also like to congratulate the following who have recently graduated from the SEABC Certificate Program, successful completing 12 courses.

- Mohsen Nejati
- Ali Lameh (Bush Bohlman)
- Dr. Mahmoudreza Mivehchi (Chair, EGBC Tri-City Branch)
- Mark Budd (Cavvy Structural Engineering)
- Roger Boudreau (Fishburn Sheridan & Associates)
- Kamyar Fozi (Kamtech Engineering)
- Meagan Harvey (Mercury Structural)

Congratulations everyone! Well done and we look forward to seeing you in September!

Registration Inquiries and Requests/Suggestions:
Please contact Shannon Remillong, Certificate
Program Administrative Assistant, at email:
courses@seabc.ca

CSE Board of Directors

- Chair: John Pao, M.Eng., P.Eng. Struct.Eng., Bogdonov Pao Associates Ltd. (cse-chair@seabc.ca)
- Executive Assistant: Shannon Remillong (courses@seabc.ca)
- Farshid Borjian, M.A.Sc., P.Eng., PE., C.Eng., M.I.Struct.E., Struct.Eng., Borjian Engineering Ltd.
- Svetlana Brzev, Ph.D., P. Eng., FEC, University of British Columbia
- Anthony El-Araj, P. Eng, Struct Eng, PE, SE, LEED AP, Glotman Simpson Consulting Engineers
- Darrel Gagnon, M.Sc., P. Eng., COWI North
- Keith Holmes, M.Eng., P. Eng., WSP Canada Inc.
- Chris Jacques, P. Eng., Struct.Eng., WSP Canada Inc.
- Yavuz Kaya, Ph.D., P.Eng., Ministry of Transportation and Infrastructure
- Bishnu Pandey, Ph.D., P. Eng, British Columbia Institute of Technology
- Carlos Ventura, Ph.D., P.Eng., University of British Columbia



NorthWest Conference 2022



David Harvey, P.Eng.
Struct.Eng

The Northwest Conference for structural engineering has not been held for the past two years, and there has been insufficient time to organize a 2022 event. Accordingly, the Northwest Council is currently planning to start resuming in-person events in 2023. Event hosting is likely to start where it left off. Therefore, expect that the 2023 event will be hosted by the Seattle Chapter, followed by the 2024 conference in Idaho. BC's next opportunity to be the Northwest Conference host would be in 2028. Watch this space for further information!

SEABC Trivia Question

In this edition we have posted a six-part question – easier for someone who follows bridge engineering developments to answer.

- Name the bridge which recently opened that has the world's longest span.
- What is the length of the main span?
- In which country is this newly-opened bridge located?
- Which well known international consulting firm was primarily responsible for its design?
- The strait that the bridge traverses has several well-known names – provide one.
- This strait connects two seas – provide both names.
- Please reply to info@seabc.ca and add **Trivia Contest** in the subject field.

The first three fully-correct answers received will win special SEABC discount prizes valid until December 31, 2023.



Mark Your Calendar

Upcoming Seminars, Webinars and Events

Professional Practice Guidelines: Structural Engineering Services for Tall Concrete Building Projects

Date: Friday May 27, 2022

Location: Webinar (650 seats available)

Time: Registration and Log-in: 11:45 AM–12:00 PM
Pacific Time. Webinar: 12:00 PM–1:30 PM Pacific
Time

For more info: egbc.ca/Events

Leadership: The Art of Influencing

Date: Monday, June 6, 2022 - Thursday, June 9, 2022

Location: Webinar (16 seats available)

Time: Registration and Login: 8:45 AM–9:00 AM
Pacific Time Daily

Webinar: 9:00 AM–12:30 PM Pacific Time

For more info: egbc.ca/Events

Climate Change Impacts on Water

Date: Tuesday, June 7, 2022

Location: Webinar

Time: 8:45 AM–9:00 AM Pacific: Registration
9:00 AM–10:30 AM Pacific: Webinar

For more info: egbc.ca/Events

Burnaby/New West Branch AGM and Astronaut Guest Speaker

Date: Thursday, June 9, 2022

Location: Webinar

Time: 12:00 PM–1:30 PM Pacific Time

For more info: egbc.ca/Events

9th International Operational Modal Analysis Conference

Date: Sunday, July 3 - Wednesday 6, 2022

Location: Sheraton Vancouver Wall Centre,
Vancouver

For more info: venuewest.eventsair

*Conference participants have to be fully vaccinated
and be able to show proof of vaccination to attend.*

Authentic Communication

Date: Tuesday, June 14, 2022

Location: Webinar

Time: 8:45 AM–9:00 AM Pacific: Registration
9:00 AM–12:30 PM Pacific: Webinar

For more info: egbc.ca/Events

The ROI for Emotional Intelligence

Date: Thursday, June 16, 2022

Location: Webinar

Time: 8:15 AM–8:30 AM Pacific Time: Login
8:30 AM–12:30 PM Pacific Time: Webinar

For more info: egbc.ca/Events

Stress Management

Date: Thursday, June 23, 2022

Location: Webinar (25 seats available)

Time: 8:45 AM–9:00 AM: Registration
9:00 AM–12:30 PM: Stress Management

For more info: egbc.ca/Events

Final Words

Editorial Information

The SEABC Newsletter is published by the Structural Engineers Association of British Columbia. The current and past issues are available on the SEABC website at www.seabc.ca.

The Newsletter is edited and managed by the SEABC Communications Committee.

- Committee Chair: David Harvey
- Newsletter Editor: Catherine Porter
- Editorial Assistant: Mark Budd
- Webmaster: Ricardo Ruiz

Submissions are welcomed and all SEABC members are encouraged to actively contribute to the Newsletter. Submissions, letters to the Editor, questions and comments can be sent to: newsletter@seabc.ca.

The Committee reserves the right to include or exclude submitted material and in some cases, edit submitted material to suit overall space requirements. If content is not to be edited, please advise so at submission time.

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