



Newsletter

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Photo Credit: Alison Faulkner



Message from the President



David Harvey, P.Eng. Struct Eng.

SEABC President

Team Work Makes a Dream Work!

Recently I recalled Cam Kemp's likening of SEABC to *The Little Engine that Could* from a story by Rev Charles S. Wing. I was revisiting the venue we selected for the 2017 IABSE Symposium – the organizing group were walking through the conference centre rooms, envisioning the committee meetings, technical sessions, and receptions all underway in their allocated space. The Westin Bayshore Hotel had undergone some renovations since we had last set foot there.

Suddenly, everything seemed very real. Walking through the Westin lobby and conference centre foyer, we had a feeling of spaciousness and quiet elegance. With the 2016 event in Stockholm behind us, this will be the location for the next round of IABSE committee meetings and the venue for the next major IABSE Symposium. Now that only 10 months remain, the planning work needs to be done in earnest. But have no fear, your Organizing Committee are up to the task! Our Conference Chairs are well aware of what needs to be done, and the Organizing Committee is doing a sterling job.

Event planning progress has been impressive. There are currently five pre-conference workshops, with two linked to the symposium program. The workshops will be available to symposium delegates, but also to locals not attending the symposium. With a more 'hands-on' and 'how to' focus, the workshops will be similar in style to prior SEABC seminars.

Abstract submissions closed recently. With around 800 abstracts to choose from, the Scientific Committee now has to select technical presentations. We are expecting up to six presentations per 90-minute session, and so

delegates will have a lot of choice and much to learn over the three-day conference. The keynote speakers have now been identified and we are in the process of finalizing arrangements.

Important to symposium financing, sponsorship and exhibit sales have been underway. With strong industry interest and the hard work of David Ellis and Adam Lubell, sales have been robust, already exceeding our targets. The symposium's flagship event, the Gala Dinner, will be held offsite at the Vancouver Convention Centre, Level 3. Co-sponsoring organization ASCE/SEI is supporting the IABSE Symposium technically, and is sponsoring the Gala dinner. With its breathtaking harbour views and spacious rooms, Level 3 is a fantastic venue for the dinner which will showcase the city for overseas visitors and locals alike.

Other important planning elements are the Young Persons' program and the social events, which include the Icebreaker Reception and the Pub Night. Facilities have to be provided for the IABSE meetings and their President's Reception. Next year the Northwest Conference will be held in conjunction with the IABSE Symposium and so a Northwest Council meeting venue has to be provided. A technical tour of the Fraser River bridges on a paddle-wheeler is being arranged, along with a dinner cruise of Vancouver Harbour and False Creek. Finally, a two-day post-conference tour of the Whistler area is being offered.

Shortly we will need to finalize event pricing and develop the registration page for the symposium website, which was created by SEABC Webmaster, Stephen Pienaar. The large number of documents, along with logos and banners and beautiful brochures required have been the work of Associated Engineering's graphic designer, Michael Tolboom. SEABC staffer Melanie Fung is our Conference Organizer. Melanie has been recently joined by her assistant, Jena Fair, so we are in good hands.

Organizing a major international conference places a significant burden on the Association's busy volunteers. Fortunately, many others have stepped forward to join the effort and we owe them a debt of gratitude. All of this is the work of a small non-profit society: SEABC – *The Little Engine that Could*.

2017 Annual General Meeting



David Harvey, P.Eng. Struct.Eng.
SEABC President

Mark your diaries – next year's Annual General Meeting will be held at the Sutton Place Hotel on Wednesday March 1 2017, starting at 6 pm. We invite members and their guests to join us to receive reports on the Association's business activities and to celebrate the winner of the Young Members Group's annual presentation competition. Attendees will also hear keynote speaker Sam Price speak about his fascinating career and unique structural engineering perspective.



Sam Price

After 18 years with Arup, in 1978, Sam founded the consulting structural engineering firm of Price & Myers in London, England. With a staff of 185, the firm's projects cover an unusually wide range, both in size and type. Very much the master craftsman, Sam leaves his stamp on everything he touches. Equally at home in every material, Sam's work embraces 'new build', restorations and building adaptation. The firm's diverse portfolio includes the latest technology along with traditional crafts, applied to everything from outstanding modern structures to the refurbishment of ancient monuments.

If you examine the firm's portfolio, Sam's influence is very apparent. His clients clearly value his expertise – the masterful expression of his art. Sam's structures are very much in the 'accessible' category. While many are modest in scale, they are treated attentively by Sam's staff, who derive the best results from each project. The apparent simplicity of every solution belies the engineering complexity that often that lurks beneath.

Casting your eye across the Price & Myers website, you will see the amazing aesthetics of outstanding structures, along with the refurbishment of much more routine buildings, done with class. The firm's visionary approach targets finding the right solution to move every project from concept to reality. All of Sam's work is based heavily on sustainability principles, and you will routinely observe those elusive qualities of 'fitness for purpose', 'unity of composition' and 'repose'.

Sam's most notable projects range from the ultra-elegant expressive form of the new Bishop Edward King Chapel, Oxfordshire; through the creation of a modern landmark from the ancient ruins at Astley Castle in Warwickshire; via a classic three-storey residence with its dramatic grand staircase in Queens Drive London; to the breathtaking 55m stainless steel Meads Reach Footbridge, Bristol which is simply stunning.



Astley Castle

Sam is a Fellow of the Institution of Structural Engineers, the Institution of Civil Engineers, and the Royal Academy of Engineering.

Excited? Naturally, so please join us at next March's AGM and come and meet Sam!



Bishop Edward King Chapel



Queens Ride Staircase



Queens Ride



Meads Reach Footbridge

Teaching Opportunity

BCIT is looking for two full-time instructors to teach courses primarily related to structural engineering starting in January. If this is of interest to you, we invite you to apply. If you know someone who may be interested, please pass on the information. The Posting ID is 16SF286, and applications can be submitted here:

www.careers.bcit.ca/applicants/jsp/shared

Committee Reports

Technical Committee



Kevin Riederer, M.A.Sc.
P.Eng.,
Director SEABC

The Task group investigating the Seismic Design of Basement Walls has been very active over the past few months. A rough draft of the recommended procedure has been circulated to the committee and will also be forwarded to a peer review group for comments and suggestions. Once a consensus has been reached, the Education Committee will host a seminar where the recommendations will be presented. Look for the announcement for this seminar in the New Year.

Anyone with interest in participating on a Technical Subcommittee is encouraged to contact SEABC. Any member with an issue or concern that they would like to have the Technical Committee consider is also encouraged to reach out to the committee.

Communications Committee



David Harvey, P.Eng.,
Struct.Eng.
Director SEABC

How can you help SEABC? Are you interested in publishing newsletters? Do you enjoy writing articles about structural engineering? Do you enjoy volunteer activities? Join the Communications Committee! The Committee is responsible for SEABC's membership, website, and newsletter and we are seeking out new members to help. You can contact us at: newsletter@seabc.ca – we'd like to hear from you.

Please send us newsletter articles or photographs – describe your activities, or items of interest to our

readers. When our fellow professions read about our designs, or interests, we raise our personal profile, and can inspire others to build on our experience. We want to hear from you!

Send articles for publication to: newsletter@seabc.ca
We'll include as many of your submissions as we can. Thank you for helping to keep our newsletter newsworthy.

Young Members Group



Nick de Ridder, P.Eng.

Part of the mission of the SEABC YMG is to help raise awareness of and promote the structural engineering profession and the greater SEABC with university students at both UBC and BCIT. To help with this cause, part of our annual budget goes to sponsor a number of student engineering teams that part-take in extracurricular competitions relating to our field.

The four UBC teams that received sponsorship from the SEABC YMG last year were the EERI Seismic Design Team, the Concrete Canoe Team, the Concrete Toboggan team and the Concrete Toboggan Team. Following is a brief description of how they did, and a link for members to find out more.



EERI Seismic Design Team

The team from UBC placed 4th in proposal, 2nd place in seismic performance prediction and 5th place in seismic cost. By scoring exceptionally well in all of these categories, UBC's structure had placed 13th overall, improving from last year's 20th place position. For more information:

www.paf.engineering.ubc.ca

Concrete Canoe:

The team had an incredible experience in Montreal. Congratulations to all the teams for their hard work and achievements. For more information and pictures:

www.facebook.com/pg/ubconcretecanoe

Concrete Toboggan:

This year for the 2016 Ottawa competition they were thrilled to walk away winning second overall. A write up can be found here:

www.toboggan.sites.olt.ubc.ca/news/

Concrete Toboggan:

The team came in 1st in Construction Speed, 1st in Architectural Design and 2nd Overall, a very impressive feat for their first time competing at the CNSBC Competition. As well, UBC Steel bridge team 2015/2016 did a great job this year placing 17th out of 48 teams overall at the NSSBC. With international teams from the States, Mexico, China, and even Puerto Rico, there was a lot of great competitors. For photos:

www.facebook.com/pg/ubcsteelbridge

We would like to congratulate all who participated in the competitions and the strong representation they are making for local young engineers.

Vancouver Island Branch



Thor Tandy, P.Eng, Struct.Eng,
MStructE

Branch Chair

Mission:

To provide a focal point for SEABC members on the Island to meet, discuss SEABC issues and to take benefit in the form of exchange of items of technical interest.

2016 Branch Executive:

Branch Exec: Thor Tandy, Dan Weber, Dan Gao, Tyler Best.

Inter-Branch Liaison as best we can: Meagan Harvey, Lee Rowley, and Ralph Watts

Branch Demographic:

- 1) Members in the local Victoria, Gulf Islands area.
- 2) A Central Island group centred on the Nanaimo, Port Alberni area.
- 3) A small North Island group.

Successful Events:

March 24: Case study of a real claim against a structural firm presented by Metrix Insurance Brokers. Although this was the basis of the talk, it was opened up to interaction with the group, which was successful because the issues presented by the case were recognized in many of the day to day issues members generally faced.

May 24: 'Seismic Risk Assessment and Management' presented by Dr. Solomon Tesfamariam. A very interesting methodology using a 'fuzzy logic' approach to hazard assessments and management of risk. The Branch has a number of relevant papers on file that we will request Dr. Tesfamariam's permission to share if anyone is interested.

Proposed Events:

- Polystyrene Building Blocks: 'A Triple Bottom Line Approach to Addressing Several of Haiti's Most Pressing Challenges.' This is a re-presentation of Roxanne Duigou's paper on recycled structural materials in Haiti. We believe this paper is of interest to all who have sensitivity to sustainable construction; however, at this time this will be postponed until a later date.
- Rubble foundations: 'Improving Performance of Rubble Foundations in Seismic Zones.' This will probably be of interest to those who are involved in Heritage and other past-century structures. The current schedule is for January/February 2017
- Rammed Earth: 'An Ancient Art Seeking Technical Rationalization.' The schedule is for a time in March. Since this is but one of several alternative building materials, we will consider including a general overview of alternative materials such as Straw Bale construction.
- Non-structural components – 'What Not To Do.' Case studies and acceptable solutions. Scheduled for May/June 2017
- Social event(s). We are organizing a pre-Christmas get together but time is running out so might be in the New Year instead.
- Next Executive Meeting will be in January, 2017
- We encourage members to submit comment to our executive on any matter that may concern or interest structural engineers.

Contacts:

Victoria/Gulf Islands: Branch Executive
Central Island: Lee Rowley
North Island: Ralph Watts
Okanagan: Meagan Harvey

On the Web



Stephen Pienaar, P.Eng.
Webmaster

Website refresh

Work on the new website has fallen behind schedule. After repeated missed deadlines, the Board has agreed a contract termination with the web development firm. We are naturally disappointed that our new website is not yet ready for use. However, it will represent a significant upgrade for the Association and what we have is looking really good. The Board is now working on an alternative plan to complete development of the new website and bring the project to fruition. Watch this space! In the meantime, it is full steam ahead on the current website...

Current activities

New on the SEABC website:

- CSE Program:
Registration is now open for the **January 2017 Term**
www.seabc.ca/cse_current
- Young Members Group:
Registration is now open for the **Young Members Presentation** competition that will be held in January.
www.seabc.ca/ymg
- Recent seminar recordings:
Design in the Digital Age (2016 Annual General Meeting Keynote Presentation)
Balance and Harmony (April evening seminar).
www.seabc.ca/videos
- Be first the first to know:
Join our **Twitter feed**: announcements for SEABC events and other interesting structural engineering snippets.
www.twitter.com/seabc

IStructE News



Bill Alcock, P.Eng. Struct.Eng.
MIStructE.

Director SEABC

IStructE Meetings in London, November 11, 2016

Just as a reminder, student membership in IStructE is free, and academics and student members can access many IStructE publications free of charge.

IStructE Board Meeting, November 11, 2016

Items discussed at the Board meeting on which I can update SEABC members include:

- **CPD**

IStructE Director of Membership and Education Services, Darren Byrne, reported the result of an audit of another 2000 members with 1922 of the members satisfying the compulsory CPD requirements. 45 members have been removed for non-compliance, and the remainder have agreed to comply by year's end.

- **Essential Knowledge Texts**

These publications are aimed at students and recent graduates to provide information on current engineering practice. Eleven EKT's have been published and 6 more are expected to be completed and ready for publication by the end of the year. There has been strong support from universities for the EKT's.

- **Structural Behavior Course**

Following the success of the Structural Behaviour Course, the Institution launched a pilot (invigilated) Structural Behaviour Examination in September 2016. Candidates were invited to answer a new set of 20 questions developed specifically for the

online examination. Four universities (Bath, Edinburgh, Cardiff and City) provided access to their computer suites. 27 candidates attended the Exam and 17 were successful (63%). Two candidates achieved a 100% score and the Communications Department will be including this news in promotional material.

- Further discussions have been held with external providers with a view to rolling out the examination internationally and having several exams per annum.

Structural Awards 2016

The annual Structural Awards ceremony was held at the historic "Brewery" convention hall for the third time this year. The Master of Ceremonies was a well-known BBC television correspondent, Clive Myrie, who had literally walked off the plane from attending the US Election in Washington to be with us as MC.

Congratulations to Fast+ Epp!

We are very fortunate to have been so well represented at the Structural Awards by Fast+Epp who won both the Supreme Award for Structural Engineering Excellence, and Community or Residential Structures Award for its engineering of the Grandview Heights Aquatic Centre in Surrey, BC. This beautiful structure engineered by Fast + Epp, utilizes the world's most slender, long span timber catenary roof. The engineering of the undulating roof had to contend with many issues including unbalanced snow loads, wind uplift and dynamic excitation. A truly magnificent piece of engineering!

The Awards judges said: "We were struck by the undulating roof, which elegantly balances structural form with building use and celebrates the expressed materials. The adoption of timber in catenary permitted a structural depth of just 300mm for a 55m span- a design which defies convention and demanded design excellence."

In addition to the Supreme Award, Fast+Epp also received a Commendation in the 'Education and Healthcare Structures' category for the Philip J Currie Dinosaur Museum in northern Alberta, in which the

timber roof structure was engineered to mimic dinosaur bones.

The winners of The Structural Awards 2016 in full are available on the IStructE web site complete with many photos of the event at:

www.istructe.org/news-articles/2016/institution-news



Commendation: Education or Healthcare Structures. Philip J Currie Dinosaur Museum, Wembley, Alberta.

Well done Fast + Epp! Now we need some of our other talented BC engineering firms to submit their projects to the awards competition.



Fast + Epp receiving their certificate. 2016 Supreme Award Winner and Community or Residential Structures Award.



Grandview Heights Aquatic Centre, Surrey, BC. Photo Credit: Ema Peter Photography

Grandview Heights Aquatic Centre



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

Director SEABC

It has been an amazing year for Grandview Heights Aquatic Centre. Opened in March, the City of Surrey's most recent and very elegant natatorium has been entered into a series of engineering design competitions by the design duo of engineer, Fast + Epp; and architect, HCMA Architecture + Design. While this might seem like a fairly commonplace story, *all this project did was to win the lot!*

To start the ball rolling, last April, the stylish new south-of-the-river community facility was entered for the Association of Consulting Engineering Companies – British Columbia's 2016 Awards. It promptly garnered the event's top prize, the Lieutenant Governor's Award of Excellence. Moving onto the national stage, Surrey's new jewel was subsequently entered into the Association of Consulting Engineering Companies – Canada's 2016 Canadian Consulting Engineering Awards gala. Once more, the aquatic centre caught the attention of the judges. Only last month, this amazing project came out tops, scooping the prestigious Schreyer Award.

But the design team were not done just yet. Before the proverbial dust had even begun to settle, the designers quickly stepped up to the global stage by entering Canada's best new project for The Institution of Structural Engineer's 2016 Structural Awards. This prestigious event, held annually in London, England, draws out the very best structures in the world, to compete fiercely for top honours. This year, despite the many outstanding entries from London-based and international consulting firms with impeccable pedigrees, the Grandview Heights Aquatic Centre completed the hat trick. A mere 17 days after gaining top Canadian honours, the new Surrey landmark walked away with the Institution's Supreme Award for Structural Engineering Excellence.

This remarkable achievement places the facility among the world's most celebrated structures. Sitting alongside the massive arches of the Singapore Sports Hub, the sweeping suspension cables of the gigantic Taizhou Bridge, and the graceful symmetric curvature of the London Velodrome, the relatively modest asymmetric curves of the new roofline in Surrey, BC, may appear to be the odd one out.

And yet it belongs in the structures 'hall of fame' on merit – the aquatic centre design is technically brilliant. Striving for efficiency and appropriateness, the designers crafted the roof shape around the headroom requirements, and chose a unique double-catenary roof shape, using 'wood cables' to resist the gravity and snow loads in tension, and the small wind uplift forces as slender compression arches. Wood was selected as the ideal roof material in the aggressively corrosive environment of the swimming pool. This audacious decision was achieved using 125 by 250 mm glulams, all built to a common curvature for economy. Thus, the roof shape and extreme slenderness combined to minimize the building's volume, and contribute to operational efficiency, while lending the building its distinct appearance and providing facility users with a novel aquatic experience.

But the ambitious roof design did not come without technical challenges. Having neatly dealt with uplift on the lightweight roof, the Fast + Epp designers diligently tackled unbalanced snow-load displacements and wind-induced dynamic excitation, handling these challenging design criteria in their stride.

Using other aspects of the design efficiently, the team used the excavation for the pool to set the foundations deep underground which help handle the overturning forces resulting from the roof's catenary anchorages on top of the structure's end frames. The glass-curtain building facades were supported by steel tubular columns which doubled as ventilation ducts by distributing air through a series of perforations. The efficiency and effectiveness of this solution added to the clean aesthetics of the aquatic centre by removing the visual clutter of ventilation ducting.

Not content with its technical achievements, the design also incorporates healthy sustainability principles. By maximizing the use of locally-grown wood while minimizing materials consumed and

operating costs, the team were reducing project costs while designing sustainably. This win-win strategy also enhanced durability, minimizing life-cycle costs, while the eye-catching building adds visual interest to a sleepy rural Surrey neighbourhood.

But no job is complete unless its objectives are achieved. Civic Facilities Manager, Scott Groves reported his delight with the structural concept and

its sustainable attributes, while Surrey Mayor, Linda Hepner, citing the achievements of building form and function, noted perhaps the biggest win of all – universal approval by local residents and citizens of Surrey!

To follow are a selection of photographs that show the construction of Grandview Heights Aquatic Centre.

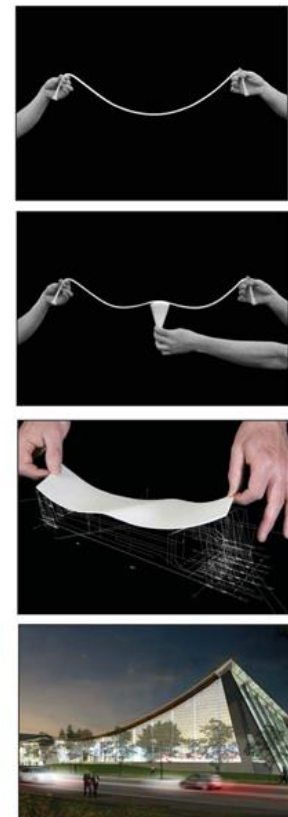
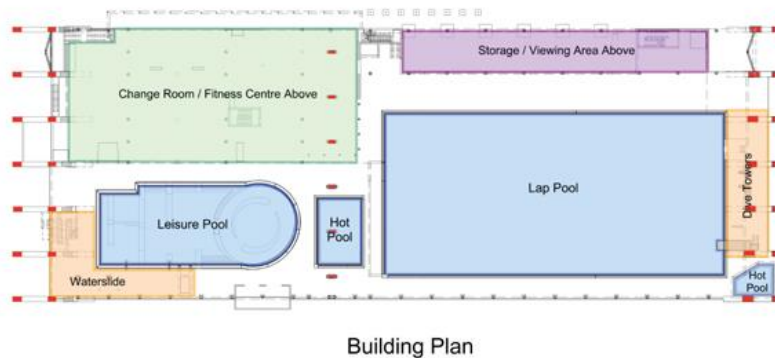
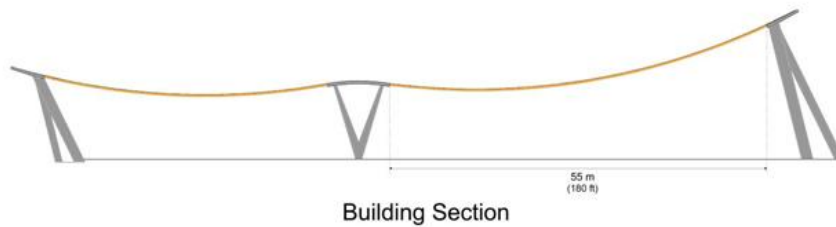


Photo Credit: HCMA Architecture + Design



Photo Credit EllisDon

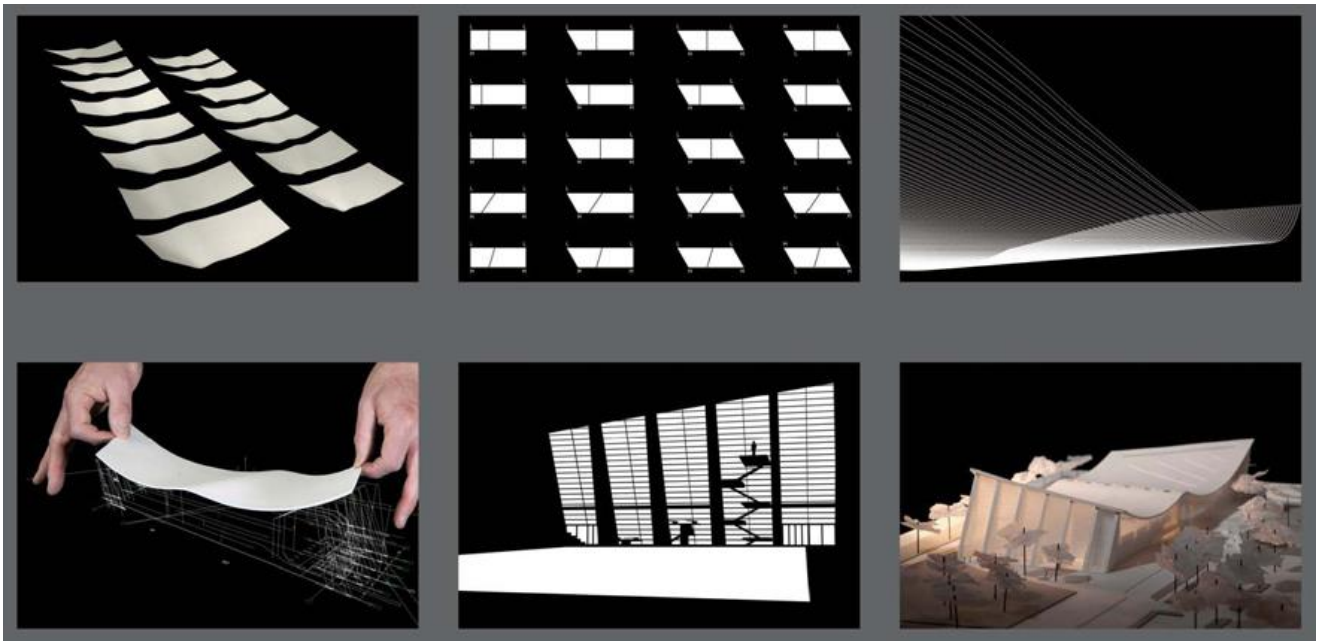


Photo Credit: HCMA Architecture + Design



Photo Credit: Alison Faulkner



Photo Credit: Alison Faulkner



Photo Credit: Alison Faulkner



Photo Credit: Alison Faulkner



Photo Credit: Ema Peter Photography



Photo Credit: Ema Peter Photography

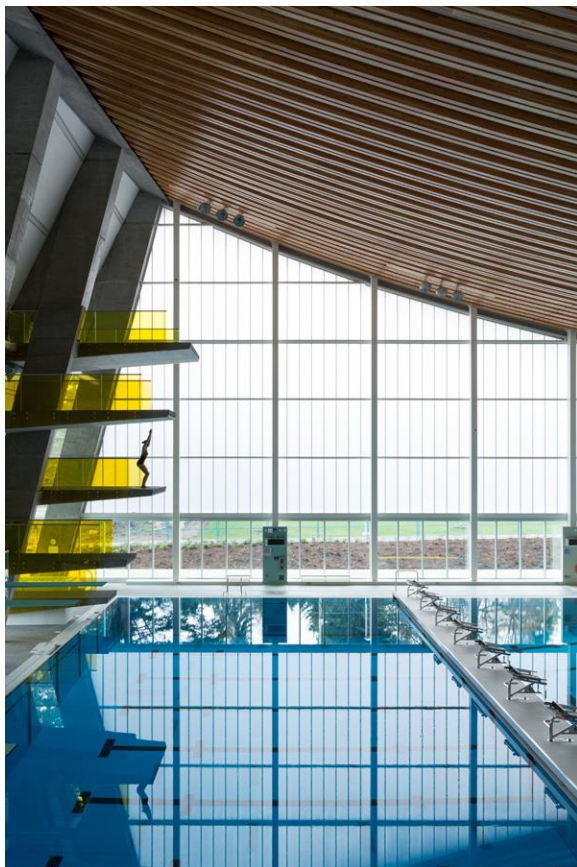


Photo Credit: Ema Peter Photography

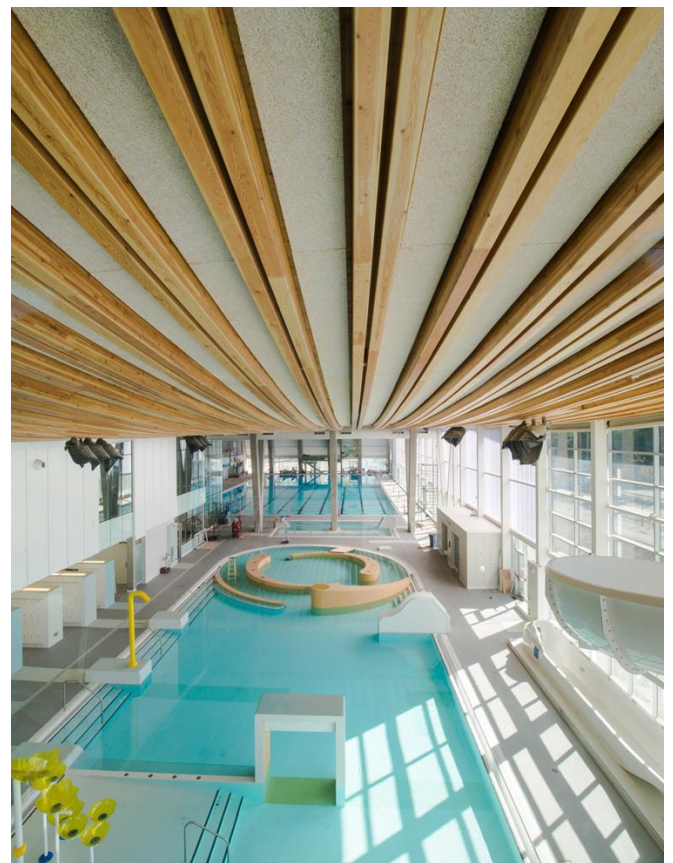


Photo Credit: Mathias Fast Photography

IABSE Symposium



Adam Lubell, PhD, P.Eng.
Read Jones Christoffersen Ltd
Symposium Co-Chair



Katrin Habel, Dr. Sc. Techn.
P.Eng.
Associated Engineering
Symposium Co-Chair

SEABC will host the 2017 IABSE Symposium, a three-day technical conference preceded by a program of pre-conference workshops, tours of local structural engineering projects, and the Annual Meetings of IABSE's technical committees and working groups.

We are regularly updating the symposium website with new information: www.iabse2017.org. Check out the Symposium promotional video on the website (also available at vimeo.com/157380662) and share the link with your colleagues and friends. Be sure to sign up for the mailing list to receive important announcement about the conference.



IABSE 2017 Poster in Stockholm

IABSE Symposium 2016, Stockholm, Sweden



Stockholm

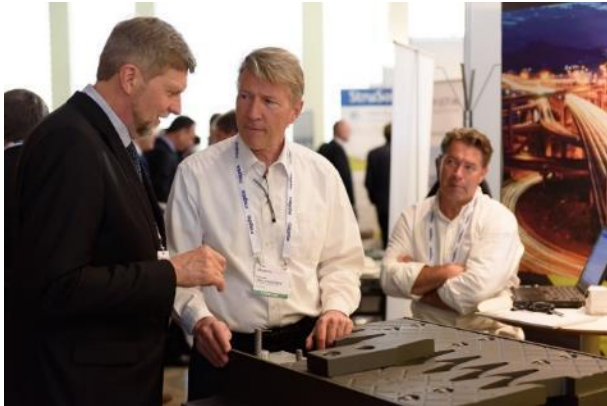
Peter Taylor (Honorary Chair), Marianna Polak (Chair of the Scientific Committee), Adam Lubell and Katrin Habel (Co-Chairs) attended the 19th IABSE Congress in September 2016 in Stockholm, Sweden, with a theme of “*Challenges in Design and Construction of an Innovative and Sustainable Built Environment*”. Major sub-themes in Stockholm included:

- Flexible, human friendly and traffic efficient structures
- Cost efficiency in design and construction
- Contracts and the procurement process
- Digitalisation as an enabler in the construction industry
- Low-intrusive construction and maintenance
- Safety of temporary structures
- Strengthening and retrofitting of aging infrastructure
- Confidence in implementing innovations
- Practical use of multi-criteria decision making through big data
- Structural safety and risk assessment; systems in different countries
- Product Category Rules (PCR) as a base for Environmental Product Declarations (EPD)
- General or other Challenges in Design and Construction
- Forensic Engineering



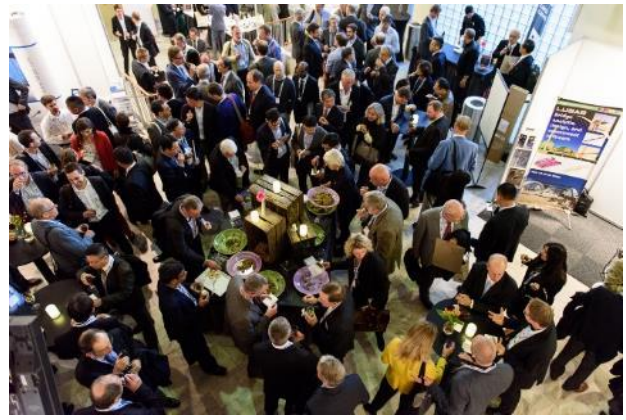
Pecha Kucha Session(© IABSE)

The Stockholm Congress hosted keynote sessions on different aspects of sustainability, parallel sessions – often designed to stimulate audience discussion- and a Pecha Kucha session over 3 full days, preceded by the Annual Meetings of IABSE’s technical committees. Technical tours were organised to visit ongoing major construction projects in Stockholm. The tours were preceded by technical presentations on the projects. A pre-conference workshop on Forensic Engineering was also held.



Exhibitors (© IABSE)

IABSE Symposia present great opportunities for networking amongst practicing engineers, academics, suppliers and infrastructure owners in an informal setting. The annual IABSE President’s Reception was held after the first day of meetings, and the Chair of the Swedish Group of IABSE hosted a Reception on the following day. A Welcome Reception for all attendees was held at the conference venue at the end of the first day of the conference.



Welcome Reception (© IABSE)

The Gala dinner was held in a grand old ballroom in the City. This was a beautiful event with good food and entertainment featuring world-famous Swedish music. Our delegation took away some great ideas for the technical and social events for the upcoming IABSE Symposium in Vancouver.



Peter Taylor, Marianna Polak, Katrin Habel and Adam Lubell at the Gala Dinner



Gala Dinner at Berns (© IABSE)

Call for Papers

The Call for Papers for the Symposium closed in early November 2016. We have received over 750 general submissions as well as session proposals from our supporting organisations CAEE, ASCE, and iStructE, various IABSE working groups and for projects. Members of the Scientific Committee are busy reviewing the abstracts and will notify authors soon. We are looking forward to an interesting and varied program at the Symposium next year.

For the Preliminary Invitation and more information, please see:

www.iabse2017.org/

Corporate Sponsorship & Exhibition

The Organising Committee has focussed on our sponsorship programs in recent months, since the success of high-calibre conferences like the IABSE Symposium rely on the tremendous energy from our local volunteers and from the support of corporate partners and organizations. We have managed to attract local and international sponsors to date, and some categories of the tiered sponsorships are now sold out. We are still looking for additional sponsors and exhibitors. Fantastic sponsorship opportunities are still available that will give your firm strong exposure to local, national and international delegates. Our website is constantly updated to show confirmed sponsors as they come on board.

We encourage you to review our sponsorship brochure at:

www.iabse2017.org/images/PDF/IABSE2017-sponsorship-brochure.pdf.

Please contact David Ellis, Chair of the Sponsorship Committee, if you would like to discuss these opportunities in further detail:

ellisd@ae.ca

604-293-1411

Other Activities

The Organising Committee is still confirming keynote speakers and pre-conference workshops, and we are looking forward to presenting you with a more detailed program in early 2017, when the registration for the conference will open.

We are excited to welcome this high-quality international conference to Vancouver and we hope to present a program of great interest to SEABC members. Please contact us with any comments, suggestions or questions regarding the IABSE Symposium and stay tuned for updates in the next SEABC Newsletter.

Katrin: khabel@iabse2017.org

Adam: alubell@iabse2017.org



Certificate in Structural Engineering Program



Shannon Remillong,
CSE Program Co-ordinator

New Year brings a New Venue!

We're very excited to announce the Certificate in Structural Engineering Program is moving to our home at UBC Downtown. Starting this January 2017, our courses will be held at the UBC Robson Square Downtown location, 800 Robson Street. The new venue will offer improved university calibre classroom setting and the latest in internet technology for our webcast students. Classes for the January 2017 term will be on Wednesday and Thursday evenings. However, we expect to return to regular Tuesdays and Thursdays starting in January 2018. The 4 courses for the January through April 2017 term will be:

- **C6** Dynamic Analysis of Structural Systems
- **C50** Highway Bridge Design Loadings and Load Rating **NEW!**
- **E5-1** Seismic Design of Concrete Structures
- **C11** Timber Design of Light Residential & Commercial Buildings

Course details are available through the Certificate in Structural Engineering Program website:

www.seabc.ca/certificate.html.

- Registration is now open until Monday, January 9th, 2017.
- SEABC Members will receive a discounted rate and additional savings with early-bird rates until Friday, December 16th, 2016.
- Classes will begin the week of January 11th and end the week of April 6th with a mid-term break in the week of February 22th.

New Course for January 2017!

C50 Highway Bridge Design Loadings and Load Rating

This course focuses on the general highway bridge design loadings and bridge load rating in the Canadian Highway Bridge Design Code. The course will provide the students with an understanding of basic loads, an introduction to complicated loads, the development of load factors. Load combinations for design and the background/basis for bridge load rating and why it differs from new design. The students will come away with a basis for the appropriate application of loads, load factors and combinations for the design of highway bridges. Specific emphasis will be directed at highway bridge design loads and load rating per Chapters 3 and 14 of CSA-S6-14.

Hope we'll see you in the New Year!

For registration Inquiries and requests/suggestions, please contact Shannon Remillong, Certificate Program Executive Assistant: courses@seabc.ca

CSE Board of Directors

*John Pao, P.Eng, Bogdonov Pao Associates Ltd.
(Chair)*

Shannon Remillong (Executive Assistant)

*Farshid Borjian, M.A.Sc., P.Eng., C.Eng., M.I.Struct.E.,
Struct.Eng.*

*Svetlana Brzev, Ph.D., P. Eng. British Columbia
Institute of Technology*

*Anthony El-Araj, P.Eng, PE, LEED AP, Glotman
Simpson Consulting Engineers*

*Andreas Felber, Ph.D., P.Eng., (on temporary leave),
BC Hydro*

Darrel Gagnon, M.Sc., P. Eng., Buckland & Taylor

*Chris Jacques, P. Eng., MStructE, LEED AP, Read Jones
Christoffersen Ltd*

*Bishnu Pandey, Ph.D., P. Eng., British Columbia
Institute of Technology*

*Carlos Ventura, Ph.D., P.Eng., University of British
Columbia*

SEABC Membership Renewal

It's time for all SEABC members to renew their membership. Please renew your membership before December 31 to continue enjoying membership benefits: free monthly seminars, discounts on full-day seminars and courses, access to the SEABC's web archive of seminars, and more. SEABC seminars and courses are a valuable source for compliance with the APEGBC professional development guidelines.

Membership Fees

Having remained unchanged since 2008, the Directors have directed that annual membership fees will increase this year. Although the Associations' finances remain healthy, the Board is seeking to counteract increasing costs and allow for growth in SEABC activities.

The membership fees for 2017 are as follows:

- Individual Members: \$85 plus GST
 - Structural and civil engineers who hold P.Eng. or E.I.T. status.
- Associate Members: \$85 plus GST
 - Technologists and non-structural engineers.
- Affiliate Members: \$85 plus GST
 - Individual members of organizations that share the interest of the SEABC.
- Student Members: Free
 - Engineering students enrolled full-time on January 1, 2017.

Renewal

You can renew your membership online (credit card payment) or offline (mail in a cheque). Corporations can also do a bulk renewal for their employees. For more information, please go to:

www.seabc.ca/renewal

Invitation to new members:

Please invite your colleagues that are not yet members of SEABC to join at this time. Joining now will grant them membership until the end of 2017.

Mark Your Calendar

Upcoming Events

APEGBC: Tour of Mossom Creek Hatchery

Date: Thursday December 1st 2016

Presenter: Ruth Foster, Co-Founder and secretary of Mossom Creek Hatchery and Education Centre

Venue: 12 Mossom Creek Drive, Port Moody, BC.

Time: 3:00-5:00pm

More information: Sarah Alloisio 778-837-3944

APEGBC: Writing Effective Proposals and Reports

Date: Tuesday November 29th, 2016

Presenter: Eric Tung, MA Principal Consultant, Prolepsis Consulting

Venue: Vancouver BC

Time: 8:30-9:00am registration and continental breakfast, 9:00-4:30pm Seminar

Contact: Jaishree Narsih 604-412-4865

Dinner Presentation: Carbon Capture

Date: Thursday December 15th, 2016

Presenter: Geoffrey Holmes, M.Sc. Business Development Manager, Carbon Engineering

Venue: Holiday Inn, 700 Old Lilloet Road, North Vancouver, BC

Time: 5:30pm-9:30pm (Presentation starts at 7:30pm)

Contact: ss@apeg.bc.ca

YMG Presentation Competition

Save the date!!! February 15th, 2017

Time and Venue TBA!

AGM Dinner Meeting and Keynote Presentation

Date: March 1, 2017

Venue: Sutton Place Hotel, Vancouver.

Time: 6:00pm

Wood WORKS!: Timber Connections Design Workshop

Date: December 1st-2nd, 2016

Venue: Trades Education & Innovation Complex, Victoria, BC

Time: 8:00am-5:00pm

Registration: www.eventbrite.ca/e/timber-connections

APEGBC: Mentoring Training Session for Registration Mentors

Date: Wednesday November 30th 2016

Venue: Holiday Inn, 711 West Broadway Avenue, Vancouver, V5Z 3Y2

Time: 4:00pm – 4:30pm registration, 4:30pm – 6:00pm Presentation

Registration: www.apeg.bc.ca

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
- Webmaster: Stephen Pienaar

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.

SEABC Board of Directors

President:	David Harvey
Past President:	Cameron Kemp
Secretary / Treasurer:	Surinder Parmar
Other Directors:	Perry Adebar, Bill Alcock, Grant Fraser, Paul Fast, Tejas Goshalia, David Davey, Adrian Gygax, Kitty Leung, Andrew Seeton, Kevin Riederer, John Sherstobitoff

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Advertising

Pre-paid rates per edition:

- \$270 (quarter page), \$360 (half page) or \$450 (full page) plus GST. Rates include a banner advert on the Events page of the SEABC website.
- 50-word "Available for Employment" ads are free.

Please address advertising enquiries to: newsletter@seabc.ca.

Please support our advertisers.

SO YOU THINK YOU CAN GIVE A SEMINAR?

More info to come....

APPLICATION DEADLINE

January 6th, 2017

Email title and description (250 words max) to ymg@seabc.com

GET READY

A project you'd like to talk about?

Want to take the stage?

Get your 10-15 minute presentation ready for next year's competition!

COMPETITION DATE

February 15th, 2017

PRIZE

Up to \$ 1,000 !

Invitation to present at the SEABC AGM !

Requirement:

SEABC members with less than 10 years experience.

Participation in last year's event does not disqualify you from participating in this year's event!

