



# EQUILIBRIUM

January 2018

Newsletter of the Seattle Chapter  
Structural Engineers Association of Washington

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## Seattle Chapter January Dinner Meeting

### Firms Showcase and Student Event

January 23, 2018

5:30 pm to 9:00 pm

UW Waterfront Activities Center

3710 Montlake Blvd NE, Seattle, WA 98195

Tuesday, January 23 will mark our tenth Seattle Chapter Young Member Group featuring a Firms Showcase and Student Project Showcase. The meeting will take place at the University of Washington Waterfront Activities Center.

Our meeting will kick off with the popular Firms Showcase networking event from 5:30 pm to 6:30 pm. The showcase is an opportunity to introduce attendees to a variety of structural design firms in the Seattle area, their work on various types of projects, and answer questions from students on what it's like to work for a Seattle area structural design firm.

### Student Project Showcase

After dinner, the evening's main program will feature presentations from students at Seattle University and the University of Washington. This will be an exciting opportunity to learn about the student projects and academic research going on in our professional community.

**Table Availability:** Due to space limitations we must limit the showcase to 10 tables, which will be reserved on a first-come-first-served basis. Secure your spot as soon as possible by registering online! Tables are available for a sponsorship fee of \$200. (Tables may be split between two smaller firms under one registration. Just note the name of the second firm with your full table registration.) Your sponsorship fee will enable students to attend free of charge. Please register your firm online by Friday, January 19. We are working with the students from Seattle U and UW as well as the Young Member Group, and should have a good turnout for this event. When you register you will be sent instructions on the types of materials you will be allowed to bring.

5:30 - 6:30 PM - Structural Firms Showcase

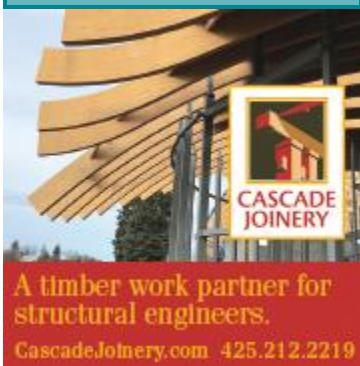
6:30 - 7:30 PM - Italian Buffet Dinner

7:15 - 7:30 PM - Welcome and Introductions

7:30 - 9:00 PM - Student Projects Showcase

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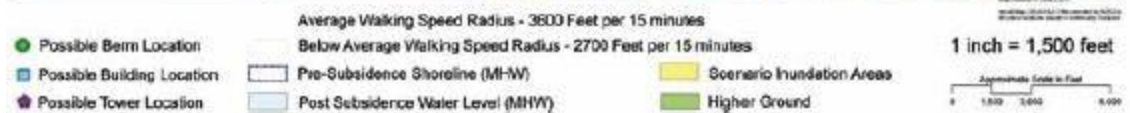
## November Dinner Meeting Recap

*By Sean Augustino*

This month's dinner presentation was by Cale Ash about the design of the new Ocosta Elementary School in Westport, WA. The new Ocosta Elementary School was designed as the nation's first community tsunami vertical evacuation shelter. Cale is a principal and office director with Degenkolb Engineers, a past SEAW state president, a past Seattle Chapter president, and an Engineer of the Year award winner.

The presentation started with a background of northwest geology, the science around the Cascadia Subduction Zone (the CSZ) and corresponding potential Cascadia earthquake, and the tsunami hazard posed to Washington's coast. CSZ earthquakes have a mean recurrence interval of 300-500 years. Since the last event was in 1700 C.E., this points to a high threat. A tsunami generated by this type of earthquake would pose the greatest risk to our coast, and would take about 25-35 minutes to reach coastal communities. A project by the State of Washington called Project Safe Haven assessed hazards to WA coastal communities, and worked with communities to develop options for people in at-risk areas. One of the resources developed as part of this project was a map of the Westport Community (shown here) showing optimal evacuation sites and residences within walking distance of them, given expected tsunami arrival time. [Read More](#)

# Community Derived Vertical Evacuation Strategy Map - South Beach, Grays Harbor County



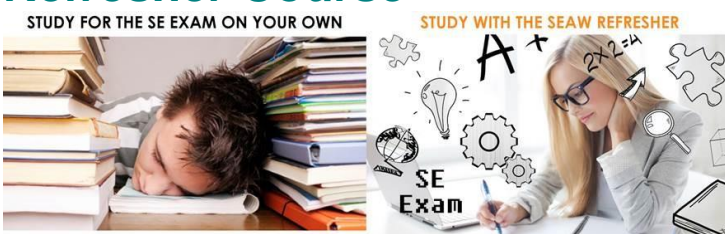
## SEAW Announcements

Check out the new [SEAW Website!](#)

## Coming in January/February

Report on the Mexico City Earthquake Reconnaissance symposium from Reid-Middleton.

## Refresher Course



SEAW Seattle Chapter, in cooperation with the UW Department of Civil Engineering, will hold its annual Refresher Course on Tuesday and Thursday evenings from February 6th through March 27th.

The course instructions and PDF notes are designed to assist engineers preparing for the NCEES Structural Exam and for practicing engineers who want to review principles of structural engineering. Fifteen two-hour lectures will present information regarding Structural Analysis, Wind Design, Foundations & Earth Retaining Structures, Seismic Design I & II, Structural Steel Design I & II, Concrete Design I & II, Pre-stressed/Post-tensioned Concrete Design, Bridge Design I & II, Wood Design, Masonry Design and Cold-Formed Steel Design.

A half Refresher Course of eight sessions is also available at a reduced rate.

For those who live outside the Greater Seattle area, course presentations are offered online through GoToMeeting. Please note that you must register individually to receive access to the online course. Multiple viewers who access a single registration are not permitted. [Read more](#)

## SEAW Seminar

Coming **Saturday March 17<sup>th</sup>, 2018.**

## Time to Renew your Membership

We would be thrilled to have you back! It's not too late to remain a part of SEAW, and we'll do our best to get you back on board.

As a member of SEAW you enjoy many important benefits, including:

- Member pricing for SEAW dinner meetings and seminars
- Access to members-only resources on the SEAW website
- Advance notice of activities, technical updates, job opportunities and member news through the chapter newsletters and the website
- Complimentary subscription to Structure magazine
- Discounts on the purchase of ICC publications

[Renew your membership](#)

## Joint SEAW/ACI Dinner Meeting in February

Topic: **"Calling all Details"**

When: Mid-February 2018

Our annual SEAW & WA ACI joint meeting will take on a process that is well known and often one of the construction industries biggest challenges, RFI's. Field solutions are looking for additional design details and cumbersome procedural requirements often result in significant costs, incomplete details, and schedule delays. RFI's become even more problematic in our current market when decision-making time is short, schedules are compressed and our workforce stretched. We'll seek to clarify the problem, discuss possible solutions and ask, "Where do we go from here?"

Join us for an open discussion as presented by our local panel of WA ACI and SEAW construction professionals representing the project team on how RFI's complicate the fluidity of construction and reduce efficiency and productivity.

Early project team engagement, communications, and identifying a RFI process and outcomes, all add up to

Location: Kane Hall Room 110

SEAW is hosting a seminar on Foundation and Shoring Design. Seminar topics include Small Diameter Deep Foundations, High Capacity Deep Foundations, Temporary Shoring, Excavation Support Systems, and Mat Foundations. Topics will be presented by a panel of 2-3 people that will include a geotechnical engineer, structural engineer, or general contractor.

## SEFW News

The Structural Engineers Foundation of Washington had a terrific November, which included another successful Fall Forum. *Origami: Inspiration in Science, Design, and Structures* featured Robert D. Lang, PhD., professional mathematician and internationally recognized origami scientist; Tina Hovsepian, AIA, professional architect/developer and founder of the non-profit Cardborigami; and Mark R. Morden, AIA, associate principal at Wiss Janney Elstner Associates Inc. in Seattle and local origami enthusiast. All three speakers had a unique perspective on applications of origami in the design industry, and overall it was a very enlightening evening! Robert had a very engaging presentation which both showed some of his most creative art commissions and shared origami applications in scientific fields such as space exploration, medicine, and criminal justice. Overall it was interesting to see origami as a unique blending of science and art. [Read More](#)

## State and Chapter Committee Reports

Contact the committee chair if you are interested in working and learning on a committee.

- NCSEA Delegate - Chun Lau
  - Earthquake Engineering Committee - Kai Ki Mow
- The EEC upcoming meeting dates are as follow: January 9, 2018; March 06, 2018; May 08, 2018. One of the current main focus and an important topic that the committee hopes to address in the upcoming year is the Increased Seismic Load in the newly published ASCE 7-16. Members interested in EEC can find additional information regarding the meeting on the [SEAW website calendar](#) or can contact the committee chair.

providing key clarifications and suggest a new way to solve old problems.

## Structures Congress 2018



**Fort Worth, Texas, April 19-21 2018**

**Early Bird rates by 2/14/2018**

**Advanced rates by 3/21/2018**

**On Site rates start 3/22/2018**

This year, ASCE SEI is putting on Structures Congress 2018 in Fort Worth Texas, April 19-21. Attendees will listen to keynote speakers Guillermo Trotti and Dr. Dava Newman open the event on Thursday, presenting on *Designing Advanced Structures for Human Space Exploration*; keynote Ashraf Habibullah presents Friday on *Next Generation Structural Engineering*; and keynote Greg Fennes closes the event Saturday presenting on *Engineering and Leadership*. Between plenary keynote sessions, there will be opportunities to attend presentations on over 12 different tracks including, Bridges, Buildings, Natural Disasters, and Professional Practice. There's a session on just about any specialty. Last, but not least, attendees will have opportunities throughout the congress to meet and mingle with structural colleagues from the U.S. and abroad at the exhibit hall, fun receptions, and throughout the whole event.

For more information, [explore the preliminary program](#).  
[Register Today!](#)

## Southwest Chapter News

Look for Southwest Chapter News in the future

- Outreach Committee - Pete Opsahl  
For more information please [visit the SEFW page](#).
- Sustainability Committee - Kyle Steuck
- Refresher Committee - Mark Whiteley
- Public Information Committee - Darrell Staaleson
- Disaster Preparation/Response Committee - Joyce Lem
- WABO Liaison Committee - Charlie Griffes  
The SEAW/WABO Liaison committee is now available for questions from SEAW or WABO members. These questions can be about subjects addressed in the White Papers already issued or general questions in the realm of structural engineering practice as it relates to interaction with the various building departments. Comments or questions can be emailed to: [charlie@ctengineering.com](mailto:charlie@ctengineering.com).  
[White Paper 6b - 2017 on Deferred Submittals](#)
- Wind Engineering Committee - Scott Douglas
- Technology Taskforce - Morgan Wiese
- Membership Task Group - Jill Shuttleworth
- Continuing Education Committee - Adam Ailvers
- Scholarship Committee - Kevin Solberg

## Wind Engineering Committee

*By Scott Douglas*

Next Meeting: **Thursday, January 18 from 12:00 pm to 1:00 pm at MKA**, 1301 5th Avenue #3200, Downtown Seattle.

The January meeting's agenda will include the following topics:

(1) Actions of the first ASCE 7-22 Wind Load Subcommittee meeting the previous week, (2) Comments on a CFSEI Tech note regarding C&C wind loads on wall studs combined with axial loads, (3) Discussions on review comments by SEAOC and ICC on the five design examples SEAW WEC members are authoring in cooperation with the SEAOC Wind Committee for the proposed SEAOC Wind Design Manual (scheduled for publication this spring) and (4) development of a Kzt map for the City of Bellevue.

All members are encouraged to participate either in person or via [Go-to-Meeting](#) [phone (872) 240-3212]. Please contact the WEC chair, [Scott Douglas](#), to join the SEAW WEC and to receive information and announcements on committee activities and actions.

## Employment Opportunities

## Spokane Chapter News

Look for Spokane Chapter News in the future

## South Central Chapter News

Look for South Central Chapter News in the future.

## YMG Corner



On Wednesday, November 29, 2017 a joint SEAW and ASHRAE social event was hosted by Arup in their Seattle office. Young engineers attended an informal networking night followed by an interesting presentation that showcased several interdisciplinary projects that Arup has worked on. These projects ranged from a facility building to an entire ranch and the brand new Mexico City airport - each project unique in its challenges and innovation.

This event would not have been possible without the help of our friends at ASHRAE and, of course, without our great host Arup. Thank you both! Stay posted for future events from the SEAW YMG. We are planning future joint events with AIA and the City of Seattle.

Principal Structural Engineer - Risha Engineering Group, Inc.

Structural Project Engineer - ABHL, Inc.

Mid-Level Structural Engineer - Morrison-Maierle

Structural Engineer (All Levels) - PSM Engineers

Structural Engineer - Nagamine Okawa Engineers, Inc.

Structural Engineer - Lund Opsahl

Structural Engineer - Complete Design, LLC

Structural Engineer - MLA Engineering, PLLC

BIM Manager/Revit Modeler - MLA Engineering, PLLC

Structural Engineer - Katerra

Structural BIM Manager - Katerra

[Learn more](#)

## Membership Postings

In accordance with SEAW bylaws, membership applications are vetted by the executive director, granted probationary status by the chapter board, and posted for membership comment. Membership is considered accepted 30 days after posting if current year dues are paid and no member objections have been received. [Read more](#)

## Upcoming Events

January 18 - [South Central January Chapter Meeting](#)

January 23 - [Seattle Chapter January Dinner Meeting](#)

February 6 - [Refresher Course](#)

February 15 - [South Central February Chapter Meeting](#)

February 27 - [Seattle Chapter February Dinner Meeting](#)

## From the Editor

*By Darrell Staaleson*



Equilibrium publication Team:

Darrell Staaleson, Editor

Katie Olleman

Zohrah Ali

Allison Tran - Grammar, spelling, and watching out for you'll-never-believe-how-they-spelt-that!

All members are welcome to submit articles to Equilibrium. To help you with your writer's block, here are a few topics: Write Engineer's Notes from Afield, summarize an interesting technical design you worked on, write about how you have been successful and increased productivity with an accounting procedure or marketing technique, write about your experiences in community services, or share some construction site photos and talk about lessons learned.

"A Picture and a Paragraph," and please use the Article Submittal Form provided. Please note that when I say, "picture" I mean an actual "picture" and not a blank space where the "picture" should be. The picture needs a caption along with the names of the people in the photo.

Please submit your articles in Word format using the [Article Template](#).

### January Puzzle:

In this story of humanity's first contact with an alien race, the alien ship was in the shape of a cylinder and used a reactionless gravity drive for propulsion. What Sci-Fi novel tells this story? Name the captain and his ship that made first contact.

Clue: The author is credited with having invented the idea which makes modern cell phone technology possible.

The first SEAW member to respond on our SEAW Facebook Page or at the next Dinner Meeting – **with a correct and full answer** - will get coffee and a Danish pastry.

### November Puzzle:

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What Sci-Fi novel features a machine that can give you “the desire to watch television, no matter what’s on?” Name the author, the machine, and the number you enter?

Clue: Arnold (“I’ll be back”) Schwarzenegger stars in a movie which tells the story of a construction worker who is having troubling dreams about Mars and a mysterious woman there.

The correct answer is: “Do Androids Dream of Electric Sheep” by Philip K. Dick; a Mood Organ; 99.

The winner is Jeff Dragovich. Jeff received a coffee and a Danish pastry at the November Dinner Meeting. Jeff didn’t have the number you enter for the Mood Organ, but we accepted his answer because no one else was even close.

‘Equilibrium’ is published monthly from September through June and is available online at [www.seaw.org](http://www.seaw.org). Articles, letters, and announcements are accepted by e-mail to [Editor@seaw.org](mailto:Editor@seaw.org). Deadline for copy is the fourth Monday of the month prior to the publication month. [Article Format](#)

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