

Newsletter of the Structural Engineers Association of Oregon

#### SEAO 9220 SW Barbur Blvd. No. 119 PMB #336 Portland, OR 97219 Phone: (503) 753-3075 E-Mail: jane@seao.org Web site: www.seao.org

### **IN THIS ISSUE: PAGE #**

Presidents Message	2
■ SEAO SF Tradeshow	3
■ Membership and Commit- tee Updates	5
■ SEAO News: ATC Report	6
■ 2018 SEAO Awards, Pass- ing of a SEAO member, Ask a question	8
Employment Opportunitie	s )
■ E-Week Flyer 1	0
■ 2018 SEAO Awards Flyer 1	2
■Golf Tournament Flyer 1	4

SEAO has a twitter account and can be followed at @SEAOregon.



CONNECTIONS

February 2018 Volume 18 Issue 3

## Upcoming SEAO Meetings and Events:

## Wednesday, February 28, 2018: Annual SEAO SF Tradeshow

Location: Monarch Hotel And Conference Center

12566 SE 93rd Ave, Clackamas, OR 97015

Time: 10:00am check in, 11:00am seminars start in Sandy Willamette Room

## Friday, February 23, 2018: 54th Annual Engineers Week Banquet -Host a High School Student

Topic: Linux-based operating system stacks, software for enabling Intel CPUs and chipsets, virtualization, and data center cloud software.

Speaker: Mauri Whalen, from Intel Corporation, Vice President in the Software Services Group and Director of Core System Software in the Open Source Technology Center.

Time: 6:15 pm to 8:30 pm

Location: Lloyd Center DoubleTree Hotel, 1000 NE Multnomah Street, Portland OR Visit website to become a sponsor <u>http://www.oregonengineersweek.org/</u>, or see flyer on Page 12

## Thursday, March 15, 2018: YMF Happy Hour

Location: TBD Time: 5:30pm See page 7 for additional YMF information.

## Wednesday, April 25 2018: April Lunch Meeting

Topic: TBD Location: Portland City Grill, 111 SW 5th Avenue, 30th Floor, Portland, OR Time: 11:30am Check-in & Lunch; 12pm Program CONNECTIONS is a monthly publication of the Structural Engineers Association of Oregon, published to disseminate current news to our membership and others involved in the profession of structural engineering. The opinions expressed reflect those of the author and, except where noted, do not represent a position of SEAO.

Send membership inquiries to:

9220 SW Barbur Blvd. No. 119 PMB #336 Portland, OR 97219

#### **BOARD OF DIRECTORS**

President Seth Thomas KPFF Consulting Engineers Ph: 503.764.0554 seth.thomas@kpff.com

Vice President Norm Faris Valar Consulting Engineers Ph: 503.758.8092 norm.faris@valarengineering.com

Secretary *Dusty Andrews* Knife River Prestress Ph: 541.995.6327 dusty.andrews@kniferiver.com

Treasurer *Phil Davis* Vestas davisphillipm@gmail.com

Director *Chad Norvell* chad@inka.software

Director JoMarie Farrell Equilibrium Engineers, LLC Ph: 503.636.8388 jomarie@equilibriumllc.com

Past President Kevin McCormick Miller Consulting Engineers Ph: 503.246.1250 kevin@miller-se.com

Executive Secretary Jane Ellsworth SEAO Staff Ph: 503.753.3075 jane@seao.org

### PRESIDENT'S MESSAGE: NCSEA MEMBER BENEFITS- MORE THAN A MAGAZINE

SEAO Members,

I wanted to take this month's presidents message to update the membership on some of the great work that the code committee has been doing. The code committee is chaired by Eric Watson and consists of ~10 SEAO members. As most of you know Oregon's building code (the OSSC) is the IBC with local state amendments. Each time the state updates the code they adopt a new IBC and make changes relevant to our state. The IBC in turn references a number of documents that you use every day (i.e. ASCE 7, NDS, ACI, ect...). Well it is time for Oregon to start working on adopting the 2018 IBC, which will be the first use of the newest design codes such as ASCE 7-16, ACI 318-14, AISC 360-16. There have been a fair number of updates in these codes so there is significant work to get these changes integrated into the IBC and then OSSC. The development of the OSSC is the responsibility of the Oregon Building Codes Division (BCD). As a part of this process they are required to submit for public amendments which is where they rely on organizations



such as SEAO. On December 20th, 2017 the BCD notified the public that they were accepting amendment proposals through February 5th, 2018. This only allowed SEAO about 6 weeks spanning the holidays to work on proposals – which frankly was not enough time with the significant items that needed to be addressed (more on these below). Therefore the first tasks of the code committee was to understand the scope of changes in the IBC and reference documents (i.e. ASCE 7) and use this understanding to request the state for an extension. In mid-January the SEAO code committee and Board co-authored a letter to the Oregon BCD asking for this extension which the state granted on February 5th. The extension now allows code proposals through the end of April giving the committee another almost three months to complete their work.

Some of the major issues that the code committee is working on for the adoption of the 2019 OSSC are as follows;

- Oregon did not adopt the 2015 IBC thus we are jumping from the 2012 to the 2018 IBC. Thus the committee needs to review the updates of both the 2015 and 2018 IBC documents to understand the changes.
- As a part of ASCE 7-16 there are significant changes to the wind maps in previous versions of the OSSC the state has not followed the ASCE 7 wind maps but created their own maps which follow county lines and typically have had higher wind speeds.
- As a part of the development of ASCE 7-16 significant work was done to update the wind data and refine the statistical analysis this resulted in lower wind speeds across the west coast. For example the difference in wind speed for a RC II building in western Oregon 110mph (ASCE 7-10) vs. 97mph (ASCE 7-16) which results in a significant reduction in wind forces.
- ASCE 7-16 and OSSC 2014 do not entirely agree on the areas of special wind zones. Additionally ASCE 7 does not provide a path to determining the wind speeds in these areas.
- Chapter 17 of the IBC (special inspections) defers to reference documents such as AISC for steel when the 2014 OSSC was adopted these requirements were amended significantly (in conjunction with NCSEA and SEAOC). All of the changes that have been made to AISC will have to be reviewed with the previous amendments to ensure the final language matches the intent without gaps or conflicting provisions.
- Additionally code language on the testing and certifications requirements for equipment is being reviewed to ensure it is appropriate for the projects it is required on.
- Chapter 34 has been removed from the 2018 IBC, which had dealt with changes, modifications, or repairs
  to existing buildings. The 2018 IBC now references the 2018 International Existing Building Code (IEBC) for
  provisions on existing buildings. These changes will need to be reviewed to ensure there is consistency with
  local requirements (i.e. city of Portland Title 24).

In summary there are a number of issues that the code committee is working on for the adoption of the next OSSC before the end of April. If you have any suggestions for areas of the IBC that need review or potential modification please reach out to myself (seth.thomas@kpff.com) or code committee chair Eric Watson (eric@millerse.com).

-Seth

#### **SEAO COMMITTEES**

#### CODE ADVISORY COMMITTEE Seismic

*Reid Zimmerma* reid.zimmerman@kpff.com

Wind *Jim Riemenschneider* jimr@vlmk.com

Snow Load Andy Stember andy@jasenginc.com

Code *Eric Watson* eric@miller-se.com

Vintage Building *Wade Younie* wyounie@dci-engineers.com

Special Inspections *Eric Watson* eric@miller-se.com

Mass Timber *Eric McDonnell* Eric.McDonnell@kpff.com

STRUCTURAL ENGINEERS EMERGENCY RESPONSE (SEER) Dave Tarries

#### David.Tarries@portlandoregon.gov PROGRAM COMMITTEE

Monthly Meetings David Gilroy dgilroy@strongtie.com

Awards Brynn Adkins brynn@wdyi.com

Golf Tournament *Stephen Stenberg* steez07@yahoo.com

Conferences *Kevin McCormick* kevin@miller-se.com

<u>ADVOCACY COMMITTEE</u> Website

Seth Thomas seth.thomas@kpff.com

Engineers Week *Michelle Juarez* michelle@miller-se.com

Young Member Forum *Deanna Kuhlman* dkuhlman@mcknze.com

CONTINUING EDUCATION <u>COMMITTEE</u> Seminars *Andy Stember* andy@jasenginc.com

<u>MEMBERSHIP COMMITTEE</u> Newsletter *Deanna Kuhlman* 

Roster *Jane Ellsworth* jane@seao.org

#### **DELEGATES**

NCSEA & WCSEA/NWC Seth Thomas

## SEAO SF TRADESHOW

WEDNESDAY, FEBRUARY 28TH, 2018

This event provides a good deal of income to the scholarship fund in large part due to the continued support and participation of the vendors. Our past shows have been a great benefit to both the vendors and the foundation.

To continue this success, we need our members to support the show and its participants with their attendance. You will have the opportunity to view a variety of products and discuss problems and ideas. It is an excellent chance for new SEAO members to see what materials and products are available and currently in use in the field.

The mini seminars will run from 11:00 pm until 5:00 pm, allowing vendors to go more in depth and offer more information to the members than might be available at the Trade Show alone. See page??

for the list of mini seminars available.

As always, donations no matter how big or small are very much appreciated. Remember that all proceeds will help the organization reach our scholarship goal.

The Trade Show is free to all SEAO members and includes a meal and two beverages. We look forward to seeing you at this years Trade Show!

Location: SANDY WILLAMETTE ROOM Monarch Hotel And Conference Center 12566 SE 93rd Ave, Clackamas, OR 97015

#### Schedule:

Mini Seminars: 1:00 AM to 5:00 pm (See schedule on page 4) Trade Show: 5:00 pm to 8:00 pm Dinner: Served at 6:00 pm

**Cost:** Complimentary dinner and two beverages for SEAO members \$30 per person for non Members.

#### Reservations:

Please call or email Jane Ellsworth before noon on **Monday, February 23, 2018**. You only need to RSVP for the Trade Show. It is not necessary for mini seminars. Phone: (503) 753 3075 Email to: Jane@seao.org

**PDH Credit:** SEAO recommends a maximum of 6 total hours of PDHs for the event. This includes a maximum of one hour for each seminar attended and one hour to those who register their attendance for documentation at the Trade Show. See Jane Ellsworth to sign up specifically for that documentation.

SEE DETAILED DESCRIPTIONS ON PAGE 4

## SEAO SF TRADESHOW

WEDNESDAY, FEBRUARY 28TH, 2018

#### SEAO SF TRADESHOW SEMINAR SCHEDULE:

TIME	SESSION	DESCRIPTION
11:00– 12:00 PM	DEWALT <i>Concrete Anchoring Accord- ing to IBC 2015 New Devel- opments</i>	Join us for an informative and educational presentation regarding structural anchorage in concrete and masonry base materials. Topics included are strength design of anchors including IBC 2105 requirements for anchoring, new requirements for adhesives, recent developments in seismic anchoring, fastener specification best practices, and an introduction to DEWALT fas- tening capabilities and services.
12:15– 1:15 PM	<b>VULCRAFT</b> <i>Steel Joist Design Tips</i> By: Darrell E. Marchell, P.E.	This seminar will touch upon the design parameters to be presented on con- tract structural drawings and how to quickly arrive at the most economical joist & girder depth. It will examine axial load transfer, and how best to specify loads that may occur anywhere along the joists. It will discuss the pitfalls that many engineers get into due to specifying total load deflection criteria. It will introduce the Ecospan composite joist system which uses a mechanically attached shear-flex screw to achieve composite action.
1:30–2:30 PM	<b>VERCO</b> <i>Steel Deck Design</i> By: Holly Schaubert, P.E.	This session will provide an overview of steel roof and floor deck design and specification. During this session we will review resources and tools now available to the design community to evaluate diaphragm shear capacity based on method of attachment, axial capacity for bracing of walls, concen- trated hanging load capacity, and allowable unshored span limits for thick slabs, among other topics.
2:45 – 3:45	CAST CONNEX Castings in architecturally Ex- posed Structural Steel By: Jennifer A. Pazdon	The use of steel castings in the design and construction of building and bridge structures is a fast growing trend in the United States, as casting man- ufacturing offers unparalleled geometric freedom in structural steel. As such, cast steel components are often used to address challenges in design and construction that would otherwise be very difficult to tackle using conven- tional steel fabrication. Given the freeform capabilities of casting manufac- turing, castings are also very commonly used in architecturally exposed structural steel. This presentation will provide examples of how castings have been successfully integrated into a wide range of projects, and will teach attendees how to leverage castings in their designs to enhance the structural and architectural performance of key structural connections.
4:00 – 5:00	RISA Optimize your Building with RISA	Description: Learn how to use RISA to design a multi-story building with a variety of materials to get an optimal design. This presentation will demonstrate the gravity loads and design the gravity system with RISAFloor, automatically calculate the wind and seismic loads with RISA-3D and foundation design with RISAFoundation. See how to use the automated tools in RISA to improve your workflow.

## YOUNG MEMBER FORUM ACTIVITIES

#### Upcoming YMF Events:

**Thursday March 15<sup>th</sup> – Happy Hour** Location: TBD Time: 5:30pm

Appetizers will be provided, drinks are not. No need to RSVP, grab a friend and come meet other younger members!

Happy hours will be on the 3rd Thursday of the month.

seao.org/committees/advocacy/ymf

## NEW MEMBERS

The new SEAO members for February are:

- Anthony Boudon Miller Consulting Engineers
- Ke Liilah Slingluff Powers Engineers
- Daniel Skovron DCI Engineers
- Steven Williams PCS Structural Solutions
- John Carstensen MSC Engineers, Inc.
- Alexandra Stroud KPFF Structural
- Kenneth Safe Oregon Military Department
- Logan Young Jacobs/CH2M

## Welcome to SEAO!

Our goal is to provide benefit to our members and the best way to do that is get involved! Watch the emails, newsletters, and website for more information!

## NCSEA MEMBERSHIP UPDATES

Please note that Jane is now able to update your status on the NCSEA database! If you update your address please send an email to <u>jane@seao.org</u> so you can get your Structures Magazine!

### WIND COMMITTEE UPDATE BY: JIM RIEMENSCHNEIDER

#### ANOTHER WIND DESIGN CHANGE IN 2019 OSSC:

After adapting our wind designs from simply using 20 psf to using fastest-mile wind speeds to using the 3 second gust speeds, and after working with the ever changing wind speeds for Portland that have gone from 80mph to 100mph to 94.5mph to 95mph to now 120mph, we have another wind speed change: ASCE 7-16 is effectively lowering a lot of the western United States wind design speeds by about 10mph with completely new maps, BUT, we in Oregon are different... or are we? The SEAO Wind Subcommittee needs to review the history of the transformation away from the rest of the US and decipher why we need to, or not, keep our separate wind speed maps, like we have currently.

So if you're interested in history and wind design, please consider joining the SEAO Wind Subcommittee! Our 2019 OSSC will be based on IBC 2018 and ASCE 7-16 so we'll be starting work sometime soon.

### SEER COMMITTEE UPDATE By: David Tarries

#### SEER COMMITTEE UPDATE:

The Oregon Office of Emergency Management (OEM) has requested engineers that are willing to be trained to teach FEMA P-50 courses in different municipalities around the state. They are willing to offer reasonable compensation for attending the training as well as teaching the courses. They have already filled their requirements for this spring but will put volunteers on a waiting list for future opportunities.

#### Please contact David Tarries

(david.tarries@portlandoregon.gov) if you are interested in this opportunity or any future FEMA seismic training events that may come up in the future. The SEER committee would also like to keep a list of members with interest in giving or receiving training, including attending ATC-20/45 and Cal OES SAP seminars. Please contact David Tarries if to be put on a contact list.

### SEAO NEWS ATC BOARD REPORT TO SEAO BY :KENT YU, PHD, SE, SEFT CONSULTING GROUP



As a recently retired member of the Applied Technology Council (ATC) Board of Directors, I'm very pleased to provide SEAO members with a brief update about ATC's mission, organizational structure, role they've been playing in our profession, active projects, and my involvement as a board member.

ATC is a nonprofit corporation that was originally established in 1973 with help from the Structural Engineers Association of California (SEAOC). Its mission is to develop and promote

state-of-the-art, user-friendly engineering resources and applications for use in mitigating the effects of natural and other hazards on the built environment. ATC also identifies and encourages needed research and develops consensus opinions on structural engineering issues in a nonproprietary format. In a sense, ATC is a "think tank" for our structural engineering profession, thereby fulfilling a unique role in developing and transferring information for structural engineers. ATC traditionally obtains most of its project funding from government agencies at the federal, state, and local levels. With its strong project leadership and sound management, ATC relies on a wide range of highly qualified consulting professionals from academia, research, and professional practice. These integrated teams, who would not be available from any single organization, have completed numerous critically important projects over the past 45 years.

Like many other structural engineers, I have been benefitting from ATC's work over my entire career. My first engagement with ATC was through the SAC Steel Joint Venture in 1995 when I was a still graduate student at University of California at San Diego. In mid-1994, SEAOC, ATC, and Consortium of Universities for Research in Earthquake Engineering (CUREE) formed the SAC Joint Venture to investigate the damage to welded steel moment frame buildings in the 1994 Northridge earthquake and develop repair techniques and new design approaches to minimize damage to steel moment frame buildings in future earthquakes. Funded by the SAC Joint Venture, I worked on a detailed seismic evaluation of an instrumented 13-story steel moment frame building that was damaged during the 1994 Northridge Earthquake. As I started to investigate seismic behavior of the steel moment frame connections through full -scale experimental tests, we used a loading protocol from ATC-24 Guidelines for Cyclic Seismic Testing of Components of Steel Structures (published by ATC in 1988) in all my tests to assess the effectiveness of various approaches to improve seismic performance of steel moment frame connections.

After I started to practice in late 1990's, I realized that many significant documents for our profession were also developed by ATC. One of them is ATC-14 Evaluating the Seismic Resistance of Existing Building, funded by the National Science Foundation and completed in 1987. This work served as the initial basis for FEMA 178 NEHRP Handbook for Seismic Evaluation of Existing Buildings, which was converted by the American Society of Civil Engineers (ASCE) to a prestandard as FEMA 310 Handbook for the Seismic Evaluation of Building published in 1998, a national standard ASCE 31-03 Seismic Evaluation of Existing Buildings in 2003 and became a portion of ASCE 41-13 Seismic Evaluation and Retrofit of Existing Buildings. Another ATC publication is ATC-20 Procedures for Post-Earthquake Safety Evaluation of Buildings together with its companion ATC-20-1 Field Manual: Post-earthquake Safety Evaluation of

Buildings. Funded by the California Office of Emergency Services, California Office of Statewide Health Planning and Development, and FEMA, ATC developed this publication set that provides the rapid and detailed evaluation procedure that has been used for safety assessment following earthquakes in US and many other countries.

ATC's influence also goes beyond earthquake risk mitigation. Funded by the National Oceanic and Atmospheric Administration (NOAA) and FEMA in 2004, ATC started to address a critical need in many communities potentially affected by Cascadia Subduction Zone earthquake for tsunami evacuation, and published FEMA P646 Guidelines for Design of Structures for Vertical Evacuation from Tsunamis under the ATC-64 Project in 2008. This document formed an important basis for Chapter 6 Tsunami Loads and Effects of ASCE 7-16. These are just a few of the many ATC projects that have significantly influenced my structural engineering practice. I'm sure many of SEAO members share the same sentiment.



### SEAO NEWS (CONT.) ATC BOARD REPORT TO SEAO BY : KENT YU, PHD, SE, SEFT CONSULTING GROUP

ATC has a small but extremely capable staff. Currently, Executive Director Jon Heintz leads Director of Operations Bernadette Hadnagy, Director of Projects Ayse Hortacsu and Veronica Cedillos, and Publication Specialist Carrie Perna. Chris Rojahn, who retired in 2015 after serving ATC as Executive Director for approximately 35 years, now serves as Director Emeritus, and remains involved in various ATC projects. ATC is guided by a Board of Directors consisting of representatives appointed by the Structural Engineering Institute of ASCE, the National Council of Structural Engineers Associations (NCSEA), SEAOC, the Structural Engineers Association of New York, the Western Council of Structural Engineers Associations (WCSEA), and four at-large representatives concerned with the practice of structural engineering. Each director serves a three-year term. Whenever feasible, ATC deliberately schedules its quarterly board meetings with conferences hosted by other structural engineering associations such that ATC board may have networking opportunities with leaders and members of these organizations (e.g., NCSEA, SEAOC). At the end of 2014, it was Oregon's turn to appoint a board member to represent the WCSEA. Jennifer Eggers, Then-President of SEAO worked with the Western Council to appoint me to serve on the ATC Board. Given the great work of ATC and ATC staff that I have known through my past employment and professional interaction, I felt it was such a great honor to serve on the board to contribute my efforts and ideas to make ATC more successful.

Many professionals (including structural and geotechnical engineers, university professors, and emergency managers) from Oregon have served in key roles in the development of many ATC products and reports. As a board member, I also have had the privilege of getting involved in several ATC projects as a Board Representative. Over the past three years, I worked on ATC-114 Guidelines for Nonlinear Structural Analysis for Design of Buildings (funded by NIST), ATC-126 Critical Assessment of Lifeline System Performance: Understanding Societal Needs in Disaster Recovery (funded by NIST), and ATC-135 Improving the Alternate Rigid-Wall Flexible Diaphragm Building Design Procedures (funded by FEMA). These three projects have been successfully completed.

The ATC web site lists 16 active ATC projects funded by FEMA, NIST, California Earthquake Authority, World Bank, or City and County of San Francisco (see complete list at <a href="https://atcouncil.org/projects/projects-active">https://atcouncil.org/projects/projects-active</a>). These projects include the National Earthquake Technical Assistance Program webinar series, school safety in Central Asia, steel deep column testing, seismic retrofit of one- and two-family light frame dwellings, mitigation of nonductile concrete frames, and new design procedures. Although most of the projects are seismic related, ATC has continued to use the ATC Endowment Fund to focus on developing more of a presence in fire, wind and flood mitigation. Recently, ATC has completed a web-based tool (<a href="http://atc.prontotype.us">http://atc.prontotype.us</a>) that provides structural engineers with geographic-based design load parameters related to snow, wind, and tornado. As the USGS will shut down its seismic design parameter site in a few months, planning for a new seismic portion of the site is underway.

ATC is among the best organizations I have served over my career. I thoroughly enjoyed discussion at each board meeting, and brought many perspectives of the Pacific Northwest, including infrastructure resilience, earthquake early warning, and resilient and safe schools, to the board's attention. My three-year term went by so quickly. It was hard for me to say good-bye to the ATC board and its staff. In 2018, it is Hawaii's turn to appoint Dr. Lyle Carden as its representative for the WCSEA to serve on the board. Knowing how dedicated he is, I'm sure that he will enjoy his time with ATC. I also encourage SEAO members to get involved in ATC projects to help positively influence the evolution of our structural engineering practice.

If you have any questions related to ATC, please feel free to send an email to me at kentyu@seftconsulting.com

## VENDOR ADVERTISING

SEAO is now accepting vendor advertising!

Cost of a full page ad running for one month: \$250 - Members \$350 - Non Members

For more information, contact Jane Ellsworth at jane@seao.org.

### 2018 SEAO AWARDS

#### 2018 SEAO AWARDS

SEAO is now accepting entries for the fourth annual Structural Engineer Awards Presentation to acknowledge outstanding projects and structural engineering advancement. This year we are opening the access to prepare the submissions earlier so that more time is provided to the membership to gather their submission materials. Projects are not limited to an Oregon location—you only need to be an SEAO member to submit a project.

Projects will be judged by a panel of invited judges from multiple fields related to design and construction and will be based on innovative design, engineering achievement, and creativity. Awards will be presented at the September Chapter Dinner meeting on September 26, 2018.

Submission Categories:

- New Buildings Under \$10 million
- New Buildings Over \$10 million
- Renovation/Retrofit
- Special Use Structures

The instructions for submission and the fillable entry form are available on the SEAO website on the Awards Committee page and through the following link: <u>https://www.seao.org/committees/</u>advocacy/awards/

Awards Submission Instructions and Entry Form. All submissions must be post-marked or emailed by June 30, 2018.

## ASK A QUESTION, GET AN ANSWER

Do you have a code question you would like to ask the Wind Committee or Snow Committee? SEAO is pleased to announce a simple way for Q&A's with technical committees.

Email questions to jane@seao.org, and SEAO will direct your question to the appropriate committee chair for a response. Questions and their answers will be made anonymous and available to the membership on the website www.seao.org.

Committees include: Seismic, Wind, Snow, Code, Vintage Building, and Special Inspections.

### PASSING OF AN SEAO MEMBER

Arthur M. James was born in New York City Feb. 27, 1921. He studied engineering at City College of New York on a scholarship and graduated in 1943. He served in the U.S. Army Air Corps in World War II, performing engineering duties. Art married Martha Lehman, moved to Portland and created his own structural engineering company and practiced as a consultant for more than 50 years.



In Memoriam, Arthur M. James Feb. 27, 1921 - Jan. 10, 2018

Art James designed many bridges, schools and cold storage buildings. He testified at the

State Legislature about the safety of buildings and served in various committees for the American Concrete Institute. He held several patents, including one for a prestressed concrete tanks and a method of jumping tower cranes. The James System for tanks was used to build numerous tanks in Oregon, Washington and Minnesota. It was also used for nuclear reactor cooling towers. He was named a Fellow of the American Society of Civil Engineers in 1967.

James held professional engineering licenses in Oregon, Washington, California, Alaska, Idaho and Montana, among many other states. He was elected president of the Structural Engineers of Oregon twice.

Over his long career, James became an expert in "forensic" engineering. In 2002 he published a book, "Locomotive in the River and Other Stories From 50 Years of Investigating Structural Failures", and in 2011 a second book, "You Could Hear the Pin Drop, and Other Stories". He also was a principal contributor to Portland State University's course, "Forensic Structural Engineering". He worked with PSU Professor Franz Rad, and Dean Emeritus Chik Erzurumlu.

He enjoyed serving in many different ways to improve engineering and the education of engineers. He was a mentor to many. He was a member of the Portland Downtown Rotary for many years.

Art is survived by his widow, Sandra Hardtla James; five children, a stepdaughter, a daughter-in-law, 17 grandchildren and 14 great-grandchildren.

His memorial will be held from 12-3 p.m., Feb. 24, 2018, at the Multnomah Athletic Club. All are welcome. In lieu of flowers, donations may be made to your charities.

## **EMPLOYMENT OPPORTUNITIES**

#### Jacobs (Formerly CH2M.) Structural Engineer

The electronics division at CH2M continues to win significant work, and we are seeking to add to our core staff with highly-qualified Structural Engineers and Designers of all levels. Our team is recognized globally as one of the top AE design firms for semiconductor manufacturing, data centers, and other advanced technology industrial projects. We are at the leading edge of Lean Design and Integrated Project Delivery, and our projects are highly collaborative with the client, general contractor, and trade partners.

If you are up to the challenge and interested in growing your career, come be a part of our vibrant, dynamic team. Visit <u>www.ch2m.com/careers</u>, or contact Steve.Trautwein@ch2m.com.

#### <u>SEFT Consulting Group</u> Structural Engineer Beaverton, OR

SEFT Consulting Group is a growing consulting firm located in Beaverton, Oregon. SEFT offers our clients structural seismic solutions for critical buildings and lifeline infrastructure systems through expert services in seismic evaluation, performance-based design, resilience planning, and practical implementation of analytical and experimental research.

SEFT is looking for an energetic entry to mid-level team member that has earned a Master's Degree or PhD in Structural Engineering and is committed to life-long learning. This position requires an individual that is passionate about structural engineering and is self-driven with the ability to work independently. Applicants must have excellent communication and interpersonal skills. SEFT offers flexible work hours, competitive salary and benefits, and opportunities for profit sharing.

If you are interested in joining us, please send your resume and cover letter to <u>info@seftconsulting.com</u>

#### <u>Lund Opsahl</u> Structural Engineer Seattle, WA

Lund Opsahl is a growing structural engineering firm located in the SODO neighborhood of Seattle and we are looking to expand our team of exceptional individuals. Lund Opsahl is known for its technical leadership and creative environment. We are a woman owned business and work on a wide range of project types. We value the professional relationships within our firm and we believe those values are fundamental to the development of professional relationships outside of our firm. Collaboration within our office as well as with our clients requires commitment and responsibility. Currently we are looking Structural Engineers of all skill levels. Please visit our website, www.lundopsahl.com for additional information and job descriptions for each of these positions. You can also send inquires and/or resumes to <u>careers@lundopsahl.com</u>.

### <u>KPFF</u> Structural Engineer Portland, OR

KPFF Portland Structural is looking for Experienced Structural Engineers who are motivated and interested in an opportunity for growth. KPFF is about freedom to work on what inspires you. Our engineers work on a vast spectrum of projects located around the globe: from anchorage of mechanical systems to complex, non-linear analysis of high-rise structures. We're a group of dedicated, friendly, hard-working professionals with the benefits of a large and stable firm but none of the red tape that comes with it. At KPFF you will work individually and collaboratively in the design and construction process for a wide array of challenging projects. You will work closely with talented engineers, BIM / CAD technicians, architects, project managers, contractors and client teams. Providing first-class service to our clients is what we're about.

If this sounds like an environment you could thrive in, visit <u>www.kpff.com/careers</u>.



Celebrating over 50 years of growing new engineers in Oregon & Washington

# 54<sup>th</sup> Annual E-Week High School Program

You are an essential part of the 54th Annual Engineers Week High School Program.

Date: Friday, February 23, 2018

Location: Lloyd Center DoubleTree by Hilton Hotel - 1000 NE Multnomah St.

To participate at E-week, do one of the following:

- 1) Go to <u>http://www.oregonengineersweek.org/sponsorship/</u> for online registration.
- 2) Send in the following form and a sponsor check (see details on next page).

We will contact you with additional day of the event information.

## **Engineers Week Sponsorship Levels**

		Sponsor Included on E-week Web and Facebook Pages	Title Sponsor on all Event Publications*	Official Sponsor of College Seminars	Number of Sponsored Students	# Banquet Dinner Tickets for Your Organization
Platinum	\$2,000	1	1	V	20	15
Gold	\$1,000	~	~		10	10
Silver	\$500	~			5	5
Individual	\$75	•			1	1

\*Title sponsors will be included on all event publications if program support is committed by December 31, 2018.

E-week Sponsor Registration
Organization Name:
Is this a public agency or non-profit? If so, do you want to participate in the Exhibit Hall? Yes please – contact me with more information
Contact Name:
Email Address:
Phone Number:
Sponsor level - check one:
Platinum \$2,000
Gold \$1,000
Silver \$500
Individual \$75 x # of attendees
I cannot attend, but I would like to sponsor a student - \$40
Send this form and a sponsor check payable to " <u>ASCE Oregon Engineers Week</u> " to:
Tova Peltz c/o Oregon Department of Transportation 123 NW Flanders Street Portland OR 97209.
We will confirm receipt of your registration and send more day of event details. Please email <u>tova.r.peltz@odot.state.or.us</u> with any questions.
The Engineers Week High School Program is a tax-deductible program affiliated with the American Society of Civil Engineers, a 501c3 non-profit organization.



503.753.3075 www.seao.org E-mail: jane@seao.org

## 2018 Excellence in Structural Engineering Awards

The Structural Engineers Association of Oregon (SEAO) Excellence in Structural Engineering Awards was created to acknowledge outstanding projects and structural engineering advancement by members. The fourth annual SEAO Awards will be recognized as a part of the September 26, 2018 dinner meeting and awards ceremony.

#### Eligibility Requirements:

- 1. Project must have completed construction during the calendar year of 2017 or 2018.
- 2. At least one member of the design team, research team, or a principal of the firm responsible for entry must be a member of SEAO.
- 3. Entries may be of any size, type, and location in the world.
- 4. Projects may be submitted into one category only.
- 5. Each company may submit up to two projects per category (8 projects total).

#### SEAO Judging Criteria:

Projects will be judged by a panel of invited judges from multiple fields related to design and construction based on the following criteria:

- 1. Creativity of structural design
- 2. Complexity of design criteria
- 3. Ingenuity of design for efficient use of materials and construction
- 4. Fulfillment of client's / owner's needs or expectations
- 5. Suitability of the structure for its environment

#### Entry Instructions:

All entries must include the following:

- 1. Completed entry form on following page, including signature. Please enter all information as they would appear on an award.
- 2. Project Summary:
  - **a.** A written summary of the project emphasizing any outstanding accomplishments achieved and hurdles overcome during the course of the project's duration.
  - b. Two pages of text maximum, (10.5 point font minimum, 1.5 line spacing), plus one optional additional page for photos and figures at the end of the summary. Architectural renderings will not be considered and should not be included with the summary. Figures showing structural analysis or structural drafting models and details (Revit, AutoCAD, etc.) are allowed.
  - **C.** Summary must not include names of participating firms or project team members to allow for impartial judging. Any included names will be removed prior to judging.
  - d. Do not include any confidential or sensitive information.
- 3. Provide up to 15 photos (per project entry). If entry is mailed, provide a separate CD/Flash drive with all photos and figures. If entry is emailed, provide a separate Zip file attachment of .jpg images. Renderings will not be considered.
- 4. \$125 Entry Fee (per entry). Please make checks payable to SEAO and mail check as noted at bottom of entry form.
- 5. Multiple entries may be mailed together (and paid by single check). Refer to entry form for mailing address. If entries are emailed, send each entry in a separate email to the email address provided at the bottom of the entry form.
- 6. All entries shall become the sole property of SEAO. SEAO reserves the right to use or publish some or all entry material in publications. By entering, the Entrant grants a royalty-free license to SEAO to use any copyrighted material submitted. Such right includes publication of photographs and names of award recipients without compensation to Entrants.
- 7. Submissions must be post-marked or emailed by June 30, 2018.



## 2018 Excellence in Structural Engineering Award Entry Form

### **Project Information:**

Project Name:		
This project is to be judged under the following category	y (select <b>one</b> ):	
New Buildings Under \$10M	Renovation / Retrofit	
New Buildings Over \$10M	Special Use Structure	S
*Note: The SEAO Awards Committee reserves the right to trai	nsfer projects into a differe	ent category as it sees fit
Project Location: City:	State:	
Total Construction Budget:	Completion Date:	
Entering Firm: (contact must be a current member o	f SEAO)	
Please complete all sections of the form below. This info	rmation may be used fo	or publicity purposes.
Firm Name:		
Address:		
City:	State:	Zip:
SEAO Contact Name:		
Contact Email:	Phone:	
By signing below, I accept responsibility for any issues regard	ing project confidentiality a	agreements.
→ Signature:		
Involved Entities:		
Owner/Developer:		
General Contractor:		
Architectural Firm:		
Geotechnical Firm:		
Civil Firm:		
MEP Firm:		
Other:	Role:	
Submission Checklist: Entry Form Project Summary (see entry instructions) CD/flash drive for mailed entries or separate email attachment w/up to 15 photos/images Check for \$125 per entry made payable to SEAO	Mail all materials to: SEAO Awards Structural Engineers 9220 SW Barbur Blv Portland, OR 97219 <b>Or</b> Email all materia per email) to:	Association of Oregon d, #119, PMB #336 ls (10 MB maximum

### Submissions Must Be Post-Marked or Emailed By June 30, 2018



# **EVENT DETAILS:**

You're invited to the 2018 S.E.A.O. and O.A.C.I. Golf Tournament at the Reserve's South Course in Aloha, just outside of Hillsboro, OR! Come join us for another year of incredible golfing, fun, prizes and dinner! Last year's North Course tournament was such a success, we wanted to recreate the magic, but mix it up with the lush, varied South Course.

Designed by John Fought, a Portland native and former PGA Tour pro whose design credits include four Top 100 courses, The South Course is a traditional American layout with mature stands of Oregon trees, naturally rolling terrain and 114 gleaming white sand bunkers waiting to swallow errant shots. Strategy and deception combine with pure aesthetic pleasure on this par 72 track, measuring from 5,189 to 7,172 yards.

There will be a shotgun start at 1pm, capped with an on-site dinner, beverages, and prizes for participants and their teams.

We look forward to seeing you at yet another fantastic golf tournament!

## WHEN:

DATE: Wednesday, July 18th SHOTGUN START: 1:00PM SOCIAL HOUR: 6:00PM **DINNER & AWARDS:** 6:30-7:30PM

## TOURNAMENT:

4-Person Scrambles

## **CONTACT:**

Jane Ellsworth ph: (503) 753-3075

em: jane@seao.org

#### Don't forget to bring money for the raffle prizes and string! This year's raffle prizes will be:

- → 50" TV
- $\rightarrow$  Apple Watch
- → Apple iPad Mini
- → Traeger Grill
- $\rightarrow$  Ocean Fishing Trip for 4
- → YETI 65 Cooler
- → Quadricopter Drone
- $\rightarrow$  Much more!

## JULY 18™, 2018 he Reserve Vinevards & Golf Course :00 PM - SHOTGUN START

## WHERE

The Reserve (South Course) 4805 SW 229th Ave. Aloha, OR 97007 Phone: (503) 649-8191

## **DINNER**:

A barbecue dinner, will be served after the tournament on-site.

## FEES:

Golf & Dinner:	\$150/person
(Includes golf cart &	driving range)
SEAO Young Members Forum:	\$85
Mulligan:	\$5/ea

#### Appropriate "Country Club" attire is required:

- $\rightarrow$  Collared Shirts
- $\rightarrow$  No Denim
- $\rightarrow$  Shorts must have a 6" inseam
- $\rightarrow$  Soft spikes only

### NO REFUNDS FOR **CANCELLATIONS AFTER JUNE 27th**

<b>PLEASE RETURN</b>	Player Names	Green Fees	Membership	Payment Enclosed
THIS ENTRY FORM		☐ Golf & Dinner – \$150	□seao □oaci	\$
<b>BY JUNE Z/<sup>III</sup> IU:</b> S.E.A.O.		☐ Golf & Dinner – \$150	□seao □oaci	\$
9220 SW Barbur Blvd. #119		☐ Golf & Dinner – \$150	□seao □oaci	\$
PMB #336		□ Golf & Dinner – \$150	□seao □oaci	\$
Portland, OR 97219 (503) 753-3075 Phone			Included: 1 (one	e) five-foot string per group.
(503) 214-8142 Fax Mulligan Add-Ons (1 Mulligan = 1 Shot Per Person)				
Check Enclosed	Mulligans – \$5 ea (Li	imit 5 Per Foursome)	Qty	\$
VISA / MasterCa	ırd / 🗌 AMEX Accepted		Te	otal \$
Name On Card:	Car	d #:	Exp	o. Date:
Contact Number:	Billing Zip C	Code:	3-Digit Code On Back O	of Card:

## **SPONSORSHIP FORM**

Company Name:		
Contact Name:		
Phone:	Fax:	
Email:		
HOLE SPONSORSHIP (cho	ose any or all of the following)	
CORE SPONSORSHIP - \$250	PREMIUM SPONSORSHIP - \$500	PLATINUM SPONSORSHIP - \$4,000

**JULY 18<sup>TH</sup>, 2018** 

e Reserve

Comes with individual tee signage and recognition at the on-site dinner. PREMIUM SPONSORSHIP - \$500 Complete tee setup at of one of three available, 3-par holes and recognition at the on-site dinner. (Only avaialable to 3 sponsers) PLATINUM SPONSORSHIP - \$4,000 Join the SEAO and OACI with a single, cotitle sponsorship of the tournament. Includes registration for four, and distinct recognition from SEAO/OACI at the on-site dinner.

**Contact Info:** 

(503) 753-3075

1° Shotgun Start Jane Ellsworth

Vineyards and Golf Course oaci@comcast.net

# **WE THANK YOU FOR YOUR SUPPORT!**

If you or your company would like to sponsor more than the above hole sponsorships, please check any of the additional sponsorship items below, or the option to sponsor/donate your own raffle prize:

RAFFLE PRIZE SPONSORSHIPS	SPECIAL SPONSORSHIPS
<ul> <li>50" TV   \$600</li> <li>Apple Watch   \$400</li> <li>Apple iPad Mini   \$500</li> <li>Traeger Grill   \$600</li> <li>Ocean Fishing Trip for 4   \$600</li> <li>YETI 65 Cooler   \$400</li> <li>Quadricopter Drone   \$300</li> <li>Power Washer   \$500</li> <li>Escape Room for 4   \$120</li> </ul>	<ul> <li>LD/KP/Long Putt Hole Sponsor \$150</li> <li>On Course Drink Refreshment Sponsor \$400 (Host drink cart for one beverage per participant to be redeemed during play)</li> <li>Tee Off Sponsor \$250 (Host keg of Micro-brew)</li> <li>19<sup>th</sup> Hole Sponsor \$250 (Host keg of Micro-brew)</li> <li>Golf Cart Sponsor \$200 (Host the golf carts with a sign in each cart with your company name)</li> <li>Scorecard Sponsor \$200 (Host the scorecards with the name of your company on each card)</li> </ul>
Would you like to sponsor/donate your own         raffle prize? (ex: Mariner's seats, Blazers seats, etc)         NO       YES, Please describe below:	Please Return This Form A.S.A.P. to: S.E.A.O. 9220 SW Barbur Blvd., Suite #119, PMB #336 Portland, OR 97219 Email: oaci@comcast.net
VISA / MasterCard / AMEX Accepted	t Total \$
Name On Card: Ca	ard #: Exp. Date:
Contact Number: Billing Zip	Code: 3-Digit Code On Back Of Card: