

Newsletter of the Structural Engineers Association of Oregon

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Linked in

SEAO has a LinkedIn account and can be followed at <u>SEAO</u> <u>LinkedIn Page</u>.

CONNECTIONS

October 2023 Volume 23 Issue 2

Upcoming SEAO Meetings and Events:

Tuesday, October 10, 2023: SEAO Chapter Lunch Meeting

Topic: OSU Cascades Academic Building 2 (AB2) & Installation of New Board for 2023-2024

Speaker: Jason Thompson, Catena Consulting Engineers

Location: Old Spaghetti Factory, 715 S Bancroft Street, Portland, OR

Time: 11:30 am Check-in; Noon-1pm Lunch, Program, & Board Installation

See Page 3 for more information and links to register.

Thursday, October 12, 2023: OrSAP/ATC 20/45 Training

Location: Embassy Suites at Washington Square, 9000 SW Washington Square Road,

Tigard, OR

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Speakers: Chris Wong, PE, SE, City of Hillsboro & David Tarries, PE, SE, City of Portland

Time: Check-in at 7:30 am; Training from 8:30 am to 4:30 pm

Cost: \$175; PDH: 6 Hours

See Pages 6, 13, and 14 for more information

November 7— November 10, 2023: NCSEA Structural Engineering Summit

Location: Disneyland Hotel, Anaheim, CA

See Page 4 for more information

Tuesday, November 14, 2023: SEAO Chapter Lunch Meeting (SAVE THE DATE)

Topic: Hartwood & SEAOSF Scholarships Announcement

Speaker: TBD; Location: TBD

Time: 11:30 am Check-in/Lunch Buffet; Noon-1 pm Program

Tuesday, January 16, 2023: SEAO Chapter Lunch Meeting (SAVE THE DATE)

Time: 11:30 am Check-in/Lunch Buffet; Noon-1 pm Program

Tuesday, February 13, 2024: SEAO Structural Engineering Awards Banquet

See page 8 for more information.

March 26—28, 2023: International Mass Timber Conference (SAVE THE DATE)

Location: Oregon Convention Center, Portland, OR

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.

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PRESIDENT'S OCTOBER MESSAGE By: Jared Lewis, PE, SE

SEAO Members:



Greetings and welcome to the 2023-2024 season of the Structural Engineers Association of Oregon! I'm your new president and am excited for what's coming this year. I'd like to first thank last year's board members for their contributions to SEAO and, of course, this year's board members for volunteering their time to our organization.

Before looking ahead to the upcoming year, I thought I'd share some things about me. I grew up in Bend, Oregon and left for college at PSU when Bend was still a small town. I was fortunate to study with the

likes of Dr. Rad, Dr. Mueller, and Dr. Gorji among others including some fantastic adjunct professors that challenged my technical prowess with triangular concrete beams and non-linear inelastic material behaviors from something called FEMA 273! I stumbled into a graduate research program with Dr. Mueller funded by The Bonneville Power Administration and wound up setting up the shake table that now resides in the iSTAR lab. It was the best 12-months without sleep I've ever had! After graduating, I found my way to TM Rippey Consulting Engineers, moved to Degenkolb Engineers, and then joined a small startup firm in 2005, known as catena consulting engineers, where I am now a principal and partner. Along the way, I've met, worked, and collaborated with many of you and have fond memories of how we've all arrived at the places we are today. I enjoy structural engineering and the positive contributions we're all able to make in our respective communities. Along the way, I've learned to follow three principles:

- 1. Leave it better than you found it.
- 2. Good things happen when we're able to talk with each other.
- 3. Always speak with a smile.

To that end, we've been working hard as a board to solidify our schedule of events for the year. Our first meeting is on October 10 at The Old Spaghetti Factory. Over lunch, we'll hear about how mass timber played an integral role in the recently completed Edward J. Ray Hall at OSU's Cascade Campus in Bend, Oregon. On October 12, Chris Wong and David Tarries are conducting OrSAP/ATC20/ATC45 training for everyone interested in participating in Oregon's newly created Oregon Safety Assessment Program as a credentialed Building Safety Evaluator. This is similar to CalOES training that is periodically offered in virtual formats BUT is in-person and hands on! I highly recommend that anyone remotely interested sign up for the training. We have amazing topics for lunch presentations through May of 2024 including the ever-popular Trivia Night in April! Finally, we're looking to collaborate with SEAOC as they bring their annual conference to Portland next year.

Lastly, the board is working on developing a strategic planning initiative to be rolled out over the next two years. Our first step is to conduct a member survey to gather information that will facilitate the goals for the planning exercise. Look for a survey in your in-box to help us get started with the process.

We are very much looking forward to the upcoming year and encourage anyone to reach out with any questions, ideas for engagement, involvement, or topics of interest.

Thank you, Jared

SEAO COMMITTEES

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Young Member Forum

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Seth Thomas (Alternate) seth.thomas@kpff.com

OCTOBER CHAPTER MEETING TUESDAY, OCTOBER 10, 2023, 11:30 AM-1:00 PM

Topic: OSU's Edward J. Ray Hall

Description: Edward J. Ray Hall, a four-story, 50,000-sf laboratory and class-room building on OSU's Cascades campus, showcases best practices in mass timber design. Highlighting the structural system, the building features cross-laminated timber roof and floors, concrete shallow foundations, and glued-laminated timber beams and columns as well as a monumental stair of exposed mass plywood construction. Jason Thompson, Principal at catena consulting engineers, will share the design complexities of this Net Zero building.

Speaker: Jason Thompson has more than 25 years in the structural engineering profession, having designed and managed a broad range of rehabilitation and new building projects that include education, civic, housing, health care, and

commercial office markets. His proactive approach and willingness to achieve the client's vision make Jason a valuable team member. As one of catena's mass timber design specialists, Jason successfully implemented Oregon-sourced mass timber structural solutions, including cross-laminated timber and mass plywood, into design projects. His project portfolio includes OSU Edward J. Ray Hall, Sideyard, OHSU Knight Cancer Research Building, Art Rutkin Elementary School, and the Oregon Zoo Education Center.



Location: The Old Spaghetti Factory, 715 S Bancroft Street, Portland, OR Parking information: Free Parking Lot

Time: 11:30—Check-in Cost: \$35 Prepaid Members
Noon—Lunch & Program \$45 Prepaid Non-Member

\$20 — Students

Reservations: Pre-registration is required for all. You can register and pay online at https://www.seao.org/events/oct2023/edward-j-ray-hall before end of day, Friday, October 6. You can also register with Jane Ellsworth via phone at (503) 753-3075 or via Email: jane@seao.org. Note: No-shows will be billed.

PDH Credit: 1 PDH has been recommended for this program.

Questions: Contact Jane Ellsworth at jane@seao.org

NCSEA STRUCTURAL ENGINEERING SUMMIT NOVEMBER 7-10, 2023

HTTPS://WWW.NCSEASUMMIT.COM



This year's summit is being held at the happiest place on earth to network and learn with the happiest engineers around. Interact with and learn from leaders in the field, curious problem solvers, and expert speakers. Stay current on advancements and best practices in structural engineering and building and design codes—in education sessions and in the Exhibit Hall. Discuss technical, business, and industry challenges—and work toward solutions in a collaborative community. Build your business and leadership skills. Reconnect and network with those in your professional community.

Program Overview: Programming is focused on structural engineering content for both technical and non-technical practitioners and offers up to 14.5 hours of professional development. Specific content areas include best design practices, new codes and standards, recent project case studies, advanced analysis techniques, management and business practices, diversity and inclusion, resilience, and sustainability.

Venue & Local Information: Delight in this sleek, ultra-modern hotel that pays homage in sight and sound to the original lands of Disneyland Park. Stay in the Adventure, Fantasy or Frontier tower—and be surrounded by the wonder of Disneyland past and present. Check back soon for detailed information on room reservations, along with restaurant recommendations and fun places to explore, all within walking distance.

Awards Celebration: Each year, the NCSEA Awards Celebration spotlights the ingenuity, creativity, innovation, leadership, and service in the structural engineering world. Held on Thursday evening at this year's Summit, the celebration includes a reception, awards presentation, and after-party with food, drinks, and entertainment, along with opportunities to network with award winners and attendees. It is sure to be a memorable evening!

Exhibit Hall: Visit the largest structural engineering focused Exhibit Hall in the industry and discover countless solutions and resources to help you through your everyday challenges. Connect with industry partners. Learn about their products, services, innovations, and updates. All in a festive and interactive environment catered to you—the practicing structural engineer.

Registration: Visit https://www.ncseasummit.com/registration2023 to register and reserve your room.

Schedule: Visit https://www.ncseasummit.com/program2023.

ANNUAL DUES REMINDER

Annual dues for SEAO membership are due by October 31, 2022. The SEAO website is open for paying dues. Visit: https://www.seao.org/ to login and pay your dues. Please contact Jane at jane@seao.org if you'd like to pay an alternate way. Renewal rates are as follows:

Member (licensed PE in Oregon): \$125 Affiliate Member (unlicensed): \$110

Student Member (full-time student in Civil or Structural Engineering): \$20

Life Members, Retired Members/Affiliates, or Professors: \$25

VOLUNTEER FOR ARCHITECTS IN SCHOOLS

VIRTUAL LUNCH & LEARN MONDAY, OCTOBER 16, 2023

Introduce elementary school students to the power and possibilities of design through the Architecture Foundation of Oregon Architects in Schools program. Your participation creates lifelong learners and critical thinkers who have a greater understanding of their environment and its impact on people's lives.

Volunteer professionals such as engineers, architects, contractors and other designers are paired with an elementary school teacher to deliver creative, design-based lessons. Sign up to share your passion and expertise on design, while increasing student engagement and success.

Join us at a Virtual Lunch & Learn on Monday, October 16, 12-1pm on Zoom to learn more. Register here.

2023-24 Program Information: <u>bit.ly/ais programinfo</u> Volunteer Application: <u>bit.ly/ais23-24 volunteerapp</u>

Application Deadline: Sunday, October 22, 2023

Questions? Contact Candice Agahan, Education Program Manager at Candice@af-oregon.org

or phone: 503.542.3823

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 provide 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.

MEMBER SPOTLIGHT ERIC ESQUEDA



This month's SEAO member spotlight features the SEAO YMF Co-Chair Eric Esqueda. A Portland-native, Eric holds a Bachelors of Science in Civil Engineering from Clemson University and is a licensed professional engineer in Oregon and California.

Currently a project engineer at VLMK Engineering + Design, Eric has structural design experience working on residential, educational, healthcare, hospitality, commercial, and industrial projects across the entire Pacific coast and beyond. From his portfolio of work, he most enjoys working on ASCE 41 seismic retrofits, about which he says "there's something special about taking an old building and giving it new life while preserving its historical character for the people who use it every day."

Outside of his role at VLMK, Eric is also active with the SEAO Young Members Forum as co-chair with Emma Olds. He's recently served as host for the SEAO Trivia Night for the second year in a row and also hosted the first-annual Oregon Beam Break event, an interstate engineering competition where teams compete to as many drill holes and load as much weight on a 2x4 without breaking it, having attracted teams from four states in its inaugural year.

He enjoys working on creative projects outside of the office, playing music with friends and making videos for his YouTube channel, as well as attending Portland Pickles baseball and Portland Winterhawks hockey games - though when it comes to the NHL he's still an avid fan of the Carolina Hurricanes. "I lived in Raleigh when the Hurricanes came to North Carolina in 1997" he says, "the Kraken are fine, but I watched the Canes win the Stanley Cup in '06. You can't just switch teams when the roots run that deep."

SEAO is lucky to have such an active member! Eric's efforts are much appreciated by the SEAO Board and the Board wishes to say, "Thank you, Eric for all that you do for SEAO!

OREGON SAFETY & ASSESSMENT PROGRAM (ORSAP) SEMINAR THURSDAY, OCTOBER 12, 2023

Fall OrSAP/ATC 20/45 training opportunity:

The State of Oregon has recently created the Oregon Safety Assessment Program (OrSAP) after the passing of House Bill 2206 in 2019. The program creates a verified and maintained list of credentialed Building Safety Evaluators (BSEs) that can be called out in an emergency. Building safety evaluations follow the ATC 20 Post-Earthquake Safety Evaluation of Buildings and ATC 45 Safety Evaluation of Buildings after Windstorms and Floods procedures. Copies of these documents can be ordered off the FEMA website: Applied Technology Council Online Store (atcouncil.org) and can be included in registration for additional fee (only available to early registrants). We highly encourage that you obtain a copy of these manuals prior to the training.

The training and credentialling meets FEMA standards and provides a resource for jurisdictions in need following a disaster. The system can be used to credential government employees that can be shared between jurisdictions in smaller emergencies and for qualified volunteers that can be called up and deployed when a state of emergency is declared. Qualified volunteers would typically be licensed engineers and architects of varying levels of experience. Government employees would commonly be certified inspectors and plans examiners employed by a jurisdiction. This OrSAP training course provides a mixture of ATC 20 and ATC 45 training, a basic overview of FEMA's National Incident Management process, as well as Oregon specific hazards and Or-SAP functionality. As OrSAP does not yet have a formal standard training course this course will follow the Cal OES SAP training with additional slides for OrSAP.

Speakers: Chris Wong, PE, SE, City of Hillsboro Community Development Department and David Tarries, PE, SE, City of Portland Bureau of Development Services & SEAO Structural Engineers Emergency Response (SEER) Committee Chair.

Location: Embassy Suites Hotel & Conference Center, 9000

SW Washington Square Road Time: 8:30 am to 4:30 pm

Cost: \$175 (Register by October 5, 2022); \$200 (After Octo-

ber 5, 2023) PDH: 6 hours

Register at: https://www.seao.org/events/oct2023/orsap-including-atc20-atc-45 or see pages 13 and 14 for registration forms.

NCSEA GRANT OPPORTUNITY

Artificial Intelligence (AI) has been selected as the topic for the 2023-2024 National Council of Structural Engineers (NCSEA) Innovation in Structural Engineering Grant. NCSEA is seeking individuals who are interested in helping develop an AI foundation for the structural engineering profession. The initiative aims to identify and support groundbreaking advancements in the field of artificial intelligence (AI) through the following objectives:

- Provide Education: Provide structural engineers with information on the latest developments in AI as it relates to the profession and outline future areas of study in future areas surrounding this topic.
- Foster Innovation: Encourage structural engineers to explore, develop, and implement innovative AI solutions that enhance the efficiency, accuracy, and longevity of structural engineering practices.
- **Promote Collaboration**: Foster collaboration between structural engineers, AI experts, and other industry partners by encouraging the exchange of ideas and expertise to drive progress in the field.
- Address Industry Challenges: Address key challenges faced by the structural engineering industry through the application of AI technologies, including ethical and legal areas.

This year's NCSEA Innovation in Structural Engineering Grant presents a unique opportunity for structural engineers to push the boundaries of their field by understanding and leveraging AI technologies. By providing financial support, technical guidance, and a platform for knowledge sharing, this year's program aims to catalyze transformative advancements in the profession and foster collaboration within the structural engineering community and between industry partners.

To review the complete Request for Application document, click here. To apply for the 2023-2024 NCSEA Innovation in Structural Engineering Grant, click here.

This Grant Program is just one of the many efforts supported by the NCSEA Foundation.

Applications must be submitted by October 20, 2023.

2023 SEAO/OACI ANNUAL GOLF TOURNAMENT RESULTS

This year's golf tournament was a huge success. It was held at Pumpkin Ridge Golf Club in North Plains, Oregon on July 19, 2023. It was a festive day of golf and finished with a delicious dinner, awards for winners, and a raffle. The winners include the following:

1st Place—\$100 Award

Korey Shimojima, Pioneer Waterproofing Doug Wolf, Pioneer Waterproofing Dalan Askew, Pioneer Waterproofing Neil Antonini, Pioneer Waterproofing

2nd Place—\$50 Award

Dave Germer, CalPortland Greg Wong, Knife River Wayne Normand Brandon Merchant

3rd Place—\$25 Award

Seth Thomas, KPFF Ryan Guay, KPFF Shannon Lee, KPFF Nick Kennedy, KPFF

LONG DRIVE- \$50 Award

Hole #1—Brandon Merchant, CalPortland Hole #10—Scott Worthington

KP—\$50 Award

Hole #11—Jesse Plotz, Knife River Hole #16—Wyatt Dean

RAFFLE PRIZE WINNERS

Fishing Trip for 4—Adam Schulze—Contech
65" TV — Todd Rowell — Rowell Engineering
45" TV — Peter Stember — JAS Engineering
Traeger Grill—Ryan Wing — Joehanson Wing Architecture
Blackstone 36" Grille—Jesse Plotz—Knife River
Kegerator—Dave Germer—CalPortland
Yeti Cooler 35—Don Clark—Masons Supply
Yeti Cooler 65—Tyson Gilmore—Schubach Builders
Yeti 12 Pack—Jeff Brookman—Masons Supply
Drone—Tony Allison—CalPortland
Bluetooth Speaker Bose—Wyatt Dean—DOWL
Wheelbarrow—Ralph Turnbaugh—TM Rippey
Webber BBQ—Dan Howard—Contech
Leaf Blower Eco—Anthony Boudin—Miller Consulting

Ooni Pizza Oven—Ryan Lewis—Largo Pressure Washer—Ralph Turnbaugh—TM Rippey Apple Airpod Pros—Lauren Wheeler—Nike Massage Gun by Sharper Image—Anthony Boudin—Miller **Consulting Engineers** Bose Sunglasses—Pat Merriman—Masons Supply Cigars—Nat Taylor—Pence Kelly Weekend Away to Surfside Inn—AJ Hedgecock—Sawtooth Concrete Cutting Case of Wine—Anthony Boudin—Miller Consulting Case of Wine—Jacob Hamblen—CalPortland Lawn Mower—Tony Allison—CalPortland Weather Station—Don Clark—Masons Supply Whiskey—Scott Tarrant—ZGF Whiskey—Wayne Normaud—ODOT Chainsaw—Adam Schulze—Contech Soundbar—Greg McMahon—Pence Kelly Heated Vest—Nat Taylor—Pence Kelly Nintendo Switch—David Palmer—Greystar Laser Level—Jeff Brookman—Masons Supply Dewalt—Benji Finley—Whitaker Ellis

Fishing Backpack—Alexander James—Miller Consulting

Fishing Backpack—Robert Ramirez—Masons Supply

Hidden Gift Cards—\$100

Galaxy Golf—Tom Warfield—Sutton Galaxy Golf—David Powell—Pence Kelly Nike—Alex Gabis—Alliance Industrial Nike—Nat Taylor

Dewalt—Tom Clark—Polish Commercial

Congratulations to all the winners and thanks to all the wonderful donations from our sponsors! We are already looking forward to next year's tournament in July, 2024!

ADVERTISING SPACE AVAILABLE

SEAO is pleased to provide full page advertising to members for \$500 and to non-members for \$600. That is the price to run the ad the entire year from September to August.

If you'd like to advertise, please contact Jane at jane@seao.org.

2023 SEAO EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS

The SEAO Awards Committee has opened the SEAO website to accept submissions for the 2023 awards consideration. Projects must have been completed in 2021, 2022, or 2023.

Submission deadline is end of day on December 19, 2023.

Award categories include:

- New Buildings Under \$10M
- New Buildings \$10M to \$40M
- New Buildings Over \$40M
- Renovation/Retrofit
- Special Use Structures

The awards banquet will be held on Tuesday, February 13, 2024.

Visit https://www.seao.org/committees/advocacy/awards-committee to see the Awards Committee web page and to begin your submission(s). Don't forget to login to access the website to start your submission. For ease on the submission process, you can start, stop, and save your work as you create your submission.

Eligibility requirements include:

- 1. Project must have completed construction during the calendar years of 2021, 2022, or 2023.
- 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.
- 4. Projects may be submitted into one category only. SEAO reserves the right to reassign the category, should it meet the criteria for more than one category.
- 5. Each company may submit up to two projects per category (10 projects total).

We especially encourage small firms to submit their projects. Remember to submit as much technical information as possible. The judges are looking for your engineering challenges and creative structural ideas.

We want to see what you have been working on! Start thinking about a project or projects you want to submit for consideration or visit the link above to begin your submission(s).

NCSEA UPCOMING LIVE WEBINARS

REGISTER AT: HTTP://WWW.NCSEA.COM/EDUCATION/WEBINARS/

October 12, 2023, 10 am Pacific Time (FREE Webinar & PDH) 3rd Annual Structural Engineering Innovation & Excellence Webinar Series—Forensic/Renovation/Retrofit/Rehabilitation Structures > \$20 Million: Climate Pledge Arena

Speaker: Matt Farber, P.E., S.E., Thornton Tomasetti

Climate Pledge Arena is an 800,000-square-foot, mostly below-grade venue that will hold more than 17,000 fans for hockey, basketball, concerts, and other events. What makes this project stand out from other large renovations is the preservation of the historically landmarked, 44-million-pound roof structure and exterior curtain wall. The near-total demolition of the structure below the roof presented several complex challenges. Most notable among these was how to demolish the structure and excavate 680,000 cubic yards of soil to make way for construction of a new world-class below-grade arena, all while temporarily supporting the roof structure above it. Complicating matters further were the arena's location in a high seismic zone, the project's aggressive schedule, and the owner's commitment to making it the first netzero certified arena in the world. (1.5 PDH)

October 17 & 18, 2023, 10 am to 1 pm Pacific Time (\$75 Webinar) CalOES Safety Assessment Program—Day 1 and Day 2 Training

Speakers: Klaus Perkins, P.E., S.E., Bennett & Pless and Colby Baker, NCSEA SEER Committee

This California Office of Emergency Services (CalOES) Safety Assessment Program (SAP), presented by NCSEA, is based on ATC-20/45 methodologies and forms. This SAP training course provides engineers, architects and code-enforcement professionals with the basic skills required to perform safety assessments of structures following disasters. Licensed design professionals and certified building officials will be eligible for SAP Evaluator certification and credentials following completion of this program and submission of required documentation.

October 19, 2023, 10 am Pacific Time (Fee for Webinar) Use of the Multi-Period Response Spectrum in ASCE 7-22

Speaker: Scott Neuman, P.E., S.E., KPFF Consulting Engineers ASCE 7-22 introduces a new method for calculating seismic demand parameters on buildings which uses a multi-period design response spectrum. This presentation will compare seismic demands using both methods and demonstrate how to use the multi-period spectrum to calculate seismic demand parameters. (1 PDH)

November 16, 2023, 10 am Pacific Time (Fee for Webinar) <u>Mastering Seismic Design: Answers to the Top 20 Frequently Asked</u> Questions

Speaker: Emily Guglielmo, S.E., Principal, Martin/Martin and Seth Thomas, S.E., Vice Chair ASCE 7-28 Seismic Subcommittee In this highly informative session, NCSEA has curated a comprehensive compilation of frequently asked seismic questions. The primary focus will be on shedding light on the often-misunderstood or incorrectly applied ASCE 7 seismic provisions, specifically tailored for practicing structural engineers. Prepare to delve into key topics including the importance of redundancy, deciphering the complexities of R, Cd, and Ω o, tackling irregularities, understanding the orthogonal effect, demystifying site-specific response spectrum, and a myriad of other captivating subjects. Join us as we unravel the intricacies of seismic design, equipping you with the knowledge to confidently navigate these seis-

mic challenges. . (1.5 PDH)

November 28, 2023, 10 am Pacific Time (Fee for Webinar) Case Studies in Professional Ethics

Speaker: Tara Hoke, ASCE General Counsel

Case studies in professional ethics can be a valuable and engaging experience. Professional ethics are a set of principles and guidelines that govern the behavior and decision-making of individuals in a particular profession. These ethics provide a framework for professionals to maintain integrity, accountability, and responsibility in their work. This session will review the engineer's ethical obligations as applied to a series of real-life case studies, and will emphasize what engineers can do to advance a culture of ethics at an individual and organizational level. (1.25 PDH)

December 14, 2023, 10 am Pacific Time (Fee for Webinar) <u>An Introduction to the New ASCE Solar/PV Structures Manual of</u> Practice

Speakers: Steve Gartner, P.E., Principal Engineer Renewable Energy, Chair ASCE Solar PV Structures Committee

At this time the U.S. solar industry is operating without solar specific structural consensus standards or codes to provide engineers, owners, manufacturers, developers, and contractors guidance on how to design and build solar photovoltaic (PV) structures. Design engineers and manufacturers have to rely on what they can interpret from the local building codes, or any literature they can find, to design these unique structures. The challenge with allowing a young industry to grow and mature under this type of model is that it results in a wide variety of interpretations of the codes and design literature that leads to a lack of reliability of many solar PV structures. To provide a more reliable and consistent approach to the design of solar PV structures the Structural Engineering Institute (SEI) has through the Solar PV Structures Committee developed a Manual of Practice. This Manual will provide guidelines that engineers can use to rationally design solar PV structures for ground mounted PV, elevated PV, rooftop PV, and floating PV. The committee is made up of structural engineers, geotechnical engineers, contractors, tracker manufacturers, wind specialists, solar developers, and owners who are all working together to provide this guidance document. (1 PDH)

There are also recorded webinars that can be purchased for professional development hours (PDHs) online at https://www.pathlms.com/ncsea/events#on-demand-events-content

EMPLOYMENT OPPORTUNITIES

CATENA CONSULTING ENGINEERS

Structural Engineer Portland, OR

catena consulting engineers provides the personal environment of a small firm while providing the opportunity to work on a variety of projects. Our projects vary in size from a single day's effort to large projects with construction values in excess of \$300 million. You will gain design experience in concrete, steel, timber, and masonry buildings and will work on a wide variety of project types including buildings created for healing, learning, living, and interacting.

Due to the technical complexity and challenge of many of our projects, we seek engineers that hold a Masters degree, and that have a desire to learn, grow, and be challenged. U.S. citizenship is preferred. We are currently seeking engineers at all levels of experience in structural engineering for buildings.

For a detailed advertisement and to submit your resume, visit our website http://www.catenaengineers.com/ opportunities/

PACE ENGINEERS

Structural Engineer & Project Manager Lake Oswego, OR

PACE is growing our structural engineering team to deliver unique and challenging project designs for our clients in the public and private sectors. We are recruiting engineers at all experience levels who will be empowered to share and grow their skills within a collaborative and respectful working environment. Our current structural team includes nine (9) SEs or PEs and five (5) structural designers. We partner with our civil engineers and surveyors to complete projects throughout the PNW, the Mountain West, and beyond. Project types include hydraulic structures for potable water systems; roadway, pedestrian, and utility bridges; building and non-building structures; and contractor and vendor services. Our family-first, client service culture cultivates technical, PM, BD, and managerial growth in a hybrid work environment.

PACE is a team of 130 civil and structural engineers, surveyors, and GIS professionals located in Lake Oswego, OR and Kirkland, Everett, and Wenatchee, WA. See www.paceengrs.com or contact HR manager, Karmell Dawson at karmelld@paceengrs.com for more information.

JACOBS ENGINEERING

Intermediate Structural Engineer Corvallis, OR

As a member of our team, you will perform structural design for facilities including water and wastewater pump stations, treatment facilities for water and wastewater plants and conveyance systems. Duties include analysis, design, technical writing, and construction drawing markup/detailing, and specification production.

What You'll Need:

- Bachelor's Degree in Civil Engineering, Structural emphasis
- At least 5 years of experience in designing structures
- Experience working in multi-discipline project teams
- Oregon Professional Engineer License (PE) or licensed in another State & ability to get Oregon reciprocity within 6 months

Ideally, You'll Also Have:

- Master's Degree in structural engineering
- Structural Engineer (SE) License
- Experience with water and wastewater treatment plants, pump stations, and conveyance systems

Visit: https://jacobs.taleo.net/careersection/ex/jobdetail.ftl?lang=en&job=WES0003ZL to learn more and to apply online.

EMPLOYMENT OPPORTUNITIES (CONT)

HARPER HOUF PETERSON RIGHELLIS

Senior Structural Engineer Portland, OR

The ideal candidate will be a capable team player, respond effectively to multiple deadlines, and take pride in their work. They must also be highly attentive to detail, and have excellent communication and organizational skills. Some responsibilities will include:

- Provide leadership, project organization, and project review with structural team.
- Mentor technical staff in completion of work tasks.
- Actively participate in structural QA/QC.
- Perform feasibility studies/layout work and analysis of structures.
- Responsible for managing project tasks, budgets, work plans, sub-consultants, and schedules.

Experience/Qualifications:

- Bachelor's degree in Civil Engineering with a structural emphasis.
- Licensed CE or SE, with the ability to obtain Oregon or Washington license within a year.
- Familiarity with applicable building codes and standards.
- Knowledge of structural design software is required.

Apply via HHPR's Career Center.

HARPER HOUF PETERSON RIGHELLIS

Structural Engineer Portland, OR

The candidate will work closely under supervision of an Engineering Manager. They will be competent in preparing detailed construction drawings for numerous types of structures using structural specifications, sketches, detailed drawings, and design information according to project standards. Projects involve work on municipal, residential, commercial, and industrial structures.

Experience/Qualifications:

- Bachelor's degree in Civil Engineering, structural emphasis preferred.
- PE License or ability to obtain license in 1 year.
- Strong organizational, interpersonal, and effective communication skills.
- Strong analytical and problem-solving skills.
- Demonstrated ability to work as part of team.
- Ability to consistently meet project deadlines.
- Must have working knowledge of MS office applications (Word, Excel, Outlook, Teams).
- Experienced in Revit 3D modeling and AutoCAD.
- Experience in Bluebeam Revu.

Apply via **HHPR's Career Center**.

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Oregon Safety & Assessment Program (OrSAP) Including ATC 20 and ATC 45

Hosted by the Structural Engineers Association of Oregon (SEAO) & ASCE SEI Oregon

Date: Thursday, October 12, 2023 – 8:30 AM to 4:30 PM

Registration Opens at 7:30 AM (Lunch Included)

Cost: \$175 SEAO Member (Includes Class Notes) \$225 Non-member

\$25 Late Fee (if registration received after Oct. 5, 2023) Students \$75 (Includes Notes) – Must show current student ID

No refunds after 12:00 noon Thursday, Oct. 5, 2023

Register early; Maximum 100 people

Location: Embassy Suites 9000 SW Washington Square Rd

Hotel and Conference Center Portland, Oregon (503) 644-4000

Continuing Education: SEAO has recommended this seminar for 6 PDHs

Speakers: Chris Wong, PE, SE, City of Hillsboro Community Development

David Tarries, PE, SE City of Portland Bureau of Development Services

Chris Wong, PE, SE, is a licensed civil and structural engineer in Oregon and California. Chris has 18 years of experience in structural design, evaluation, and structural plan review of building structures. He is currently a structural engineer for the City of Hillsboro Community Development Department. He is a member of the Structural Engineers Association of Oregon (SEAO) Structural Engineers Emergency Response (SEER) subcommittee and has been active over the past two years assisting with the development of the Oregon Safety Assessment Program (OrSAP) building safety evaluator training.

David Tarries, PE, SE, is a licensed civil and structural engineer in Oregon, California, and Washington. David has 20 years of experience in structural design, evaluation, and structural plan review of building structures. He is currently a structural engineer for the City of Portland Bureau of Development Services. He is chair of the Structural Engineers Association of Oregon (SEAO) Structural Engineers Emergency Response (SEER) subcommittee and has been active over the past six years promoting the development of an Oregon Safety Assessment Program (OrSAP) from legislation to training and deployment.

Fall OrSAP/ATC 20/45 training opportunity: The state of Oregon has recently created the Oregon Safety Assessment Program (OrSAP) after the passing of House Bill 2206 in 2019. The program creates a verified and maintained list of credentialed Building Safety Evaluators (BSEs) that can be called out in an emergency. Building safety evaluations follow the ATC 20 Post-Earthquake Safety Evaluation of Buildings and ATC 45 Safety Evaluation of Buildings after Windstorms and Floods procedures. Copies of these documents can be ordered off the FEMA website: Applied Technology Council Online Store (atcouncil.org/) and can be included in registration for additional fee (only available to early registrants). The training and credentialling meets FEMA standards and provides a resource for jurisdictions in need following a disaster. The system can be used to credential government employees that can be shared between jurisdictions in smaller emergencies and for qualified volunteers that can be called up and deployed when a state of emergency is declared. Qualified volunteers would typically be licensed engineers and architects of varying levels of experience. Government employees would commonly be certified inspectors and plans examiners employed by a jurisdiction. This OrSAP training course provides a mixture of ATC 20 and ATC 45 training, a basic

overview of FEMA's National Incident Management process, as well as Oregon specific hazards and OrSAP functionality. As OrSAP does not yet have a formal standard training course this course will follow the Cal OES SAP training with additional slides for OrSAP.

We suggest that you purchase the ATC books at atcouncil.org

Questions: Andy Stember (503) 657-9800

Includin Registration I	Safety & Assessment P ag ATC 20 and ATC 45 Form ne at www.seao.org or SEAO PO Box 2958 Vancouver, WA 98668 (503) 753-3075	
Firm Name: _		
Firm Address:		
Phone		
Name of Atten	ndee(s)	
# of Attendee(s) @ \$175.00 / each = (Nonmember \$225.00)	\$
# of Late Fees	@ \$25.00 / each =	\$
# of Students	@ \$75.00 / each =	\$
Visa Or Maste	Total Enclosed = arcard (go to www.seao.org to register or	\$

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