



CONNECTIONS

October 2014 Volume 15 Issue 2

Newsletter of the
Structural Engineers
Association of Oregon

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Upcoming SEAO Meetings and Events:

Thursday, October 16, 2014: YMF Happy Hour

Location: The Thirsty Lion, 71 SW 2nd Avenue, Portland, OR

Time: 5:30 pm to 7:30 pm

Bring a friend, coworker, or both and enjoy a beer and some food while getting to know some other young professionals in our area. See Page 4 for additional YMF information.

Wednesday, October 29, 2014: SEAO Lunch Meeting

Topic: Resilience: An Engineering Challenge

Speaker: Mary Comerio, Professor, Dept. of Architecture at UC Berkeley

Location: Portland City Grill, 30th Floor, 111 SW Fifth Avenue, Portland, OR

Time: 11:30 am check-in and lunch buffet, 11:45 am Life Member presentation, noon program

Additional Agenda Items: Life Member Presentation—James (Jed) Sampson, PE, SE

PDH Credit: 1 hour

Meeting Sponsor: Trus Joist. See Page 4 for Sponsor Info.

See Page 3 for additional meeting information.



Tuesday, November 4, 2014: SEAO/AISC Fall Seminar

Topic: AISC Seismic Design Manual & Application of the 2010 AISC Seismic Provisions

Speaker: Dr. Tom Sabol, Principal at Englekirk & Sabol Consulting Structural Engineers, Inc.

Location: The Abernethy Center, 606 15th Street, Oregon City, OR

Time: Registration Opens at 7:00 am, Seminar 8 am to 5 pm

PDH Credits: 7 hours

See Pages 10 and 11 for additional information.

Thursday, November 6, 2014: YMF Lunch Meeting

Location: KPFF Consulting Engineers, 111 SW Fifth Avenue, 26th Floor Conf. Room, Portland, OR

Time: noon to 1:00 pm

Join us for our bi-monthly lunch meeting to discuss future events and activities. This is a great way to get involved. See Page 4 for additional YMF information.

Thursday, November 6, 2014: EERI Seminar (Co-sponsored by SEAO)

Topic: EERI Technical Seminar Series: State of Practice for Performance Based Seismic Design of Tall Buildings

Location: Motif Seattle, 1415 5th Avenue, Seattle, WA

Time: 8:30 am to 4:30 pm

PDH Credits: 6.75 hours

See Pages 4 and 9 for additional information.

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



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 MESSAGE: OUR COMMUNITY

BY: JENNIFER EGGERS, P.E., S.E.



What I have come to know as I have become more and more involved with SEAO is that we are simply a group of engineers with a common goal. This goal is simply to improve our profession. In getting involved, I have made great friends with people from varying backgrounds and career paths. This is invaluable to me. I'm sure most of you feel the same way.

Some of these relationships that have developed over the years are with the outgoing board. Yes, this is the time of the year when the outgoing board passes on the torch to the new board. I would like to thank the leadership of last year. Amit Kumar is stepping down as president of SEAO and left very large shoes to fill. His leadership and dedication to our profession is stellar. I am happy that he will sit on the board for another year as past president. As Aaron Burkhardt passes on his past president torch to Amit, he leaves us with a great resource that we can always count on. Also departing is Shelly Duquette as Treasurer. Shelly kept our finances all squared away over the past two years and is now graciously stepping in as the Scholarship Foundation Chair. Dominic Matteri always had a smile on his face accompanied by great suggestions during his year as secretary. Jason Thompson is wrapping up his two-year term as Director, and he knew how to ask the best questions to get us all thinking bigger. A special thank you goes out to Tonya Halog that stepped in and did a fantastic job as the Scholarship Foundation Chair this past year. Of course, a huge thank you to Jane who keeps us ALL in line.

I'm excited to begin this new SEAO year with our new board. Gary Lewis (Vice President), Jim Riemenschneider (Secretary), Mark Butler (Treasurer, 2-term) and Michelle Chavez (Director, 2-term) are joining the carry-over board members that include Amit, Mike Bair (Director, 2-term) and

me. We have kicked off this year with new goals. Our largest goal is to develop and enhance our membership relationships and involvement with SEAO. During our leadership retreat at Fish Camp, I got to know a few of the outgoing and new board members, committee chairs and the raffle winners. It really opened my eyes more to our vast array of resources within and available to all of our members. Mike Bair is able to sponsor this wonderful retreat as a thank you to SEAO volunteers. Make sure you attend meetings and seminars to get your raffle tickets in the bin! Or better yet, just get more involved with SEAO! It is a trip you do not want to miss.

Our industry is relationship based. So is our profession. SEAO is a vast resource of knowledge that most of us have just begun to tap into. The board is tasked with helping facilitate membership interaction. Over the next year, look for small changes at the chapter meetings. I encourage you to participate in and embrace the changes. I challenge all current SEAO members, especially those who have been around for a while, to make sure to introduce yourself to the younger and new members so they feel welcome.

A large number of volunteers make light work. I want to send a thank you to all those who have spent their valuable time volunteering for our profession. It does not go unnoticed. I can only hope we can continue and improve our membership involvement in our committees and activities over this next year and beyond.

Looking forward to a great year!

Jennifer

SEAO COMMITTEES

CODE ADVISORY COMMITTEE

Seismic

Chad Kilian—kilianc@bv.com

Wind

Jim Riemenschneider—jimr@vlmk.com

Snow Load

Andy Stember—andy@jasenginc.com

Code

Eric Watson—eric@millers-se.com

Vintage Building

Wade Younie—wyounie@
dci-engineers.com

Special Inspections

Ray Miller—ray@millers-se.com

STRUCTURAL ENGINEERS

EMERGENCY RESPONSE (SEER)

Shawn Stevenson—
sstevenson@morrisonhershfield.com

PROGRAM COMMITTEE

Monthly Meetings

David Gilroy—dgilroy@strongtie.com
Devon Lumbard—devonl@wrkengrs.com

Golf Tournament

Devon Lumbard—devonl@wrkengrs.com

Conferences

Kevin McCormick—kevin@millers-se.com

ADVOCACY COMMITTEE

Website

Aaron Burkhardt—
aaron.burkhardt@kpff.com

Legislative

Paul Kluvers—pkluvers@gmail.com

Engineers Week

Michelle Chavez—
michelle@millers-se.com

Young Member Forum

Seth Thomas—setht@wrkengrs.com
Phillip Davis—phillip.davis@kpff.com

CONTINUING EDUCATION

COMMITTEE

Seminars

Andy Stember—andy@jasenginc.com

Professional Development

Open

MEMBERSHIP COMMITTEE

Newsletter

JoMarie Farrell—
jomarie@equilibriumllc.com

Roster

Jane Ellsworth—jane@seao.org

DELEGATES

NCSEA & WCSEA/NWC

Ed Quesenberry—
edq@equilibriumllc.com

Seth Thomas (Alternate)—
setht@wrkengrs.com

OCTOBER LUNCH MEETING ANNOUNCEMENT

WEDNESDAY, OCTOBER 29, 2014

MEETING SPONSOR: TRUS JOIST

Topic: Resilience: An Engineering Challenge

Risk modeling has focused on the "3Ds: Deaths, Dollars and Downtime" as metrics for estimating building and infrastructure performance as well as for decision-making in design and in policy development. What can these metrics tell us about performance and resilience in recent disasters? What other measures of performance are suggested by the recovery experience in both developed and developing countries? What are the engineering challenges and research opportunities coming out of recent earthquakes in China, Haiti, Chile, New Zealand and Japan, and how are they applicable to the U.S. context? Are there better engineering metrics for resilience? Engineering performance metrics typically are designed for individual components (e.g. for a building or bridge), not for a city. Resilience requires metrics that look at the performance of community components such as housing, education, civic and cultural infrastructure. Evaluating recovery experience in recent earthquakes, it is clear that funding, political will, creative planning, and good technical implementation drive the speed and quality of recovery. To improve resilience, our professions need to participate in land use and policy planning; and we need to rethink performance measures and building codes in order to develop methods of setting performance guidelines for cities. Improving overall performance and resilience in developed countries with good codes and land use practices, as well as in developing countries, are challenges for the 21st Century.

Speaker: Mary Comerio, Professor, Dept. of Architecture at UC Berkeley

As an architect, Mary Comerio has designed many public and private facilities while also pursuing a productive scientific career focusing on hazards research that has earned her international recognition. She has been a leading researcher on disaster recovery, particularly related to post-disaster housing, publishing both theoretical and empirical works that have significantly advanced our understanding. Seismic rehabilitation of existing buildings and loss modeling are also research areas where she has made significant contributions. Her work has caught the attention of policy groups such as the United Nations Environmental Program (UNEP), for which she consulted on rebuilding after earthquakes in China and Haiti. She served on the UNEP Board of Directors 2002-2005 and as a member of the Editorial Board for Earthquake Spectra from 1997-2003. She is currently associate editor of Spectra. She has also been a major contributor to the Learning from Earthquakes Program, having served as a member of reconnaissance teams for earthquakes in Italy and in New Zealand. She earned her B.A. from Washington University in St. Louis in 1973, and completed both her M. Arch. and M.S.W. there in 1977. From her initial appointment in 1978 as an assistant professor at UC Berkeley, she rose to the rank of full professor in 1991 and served as department chair 2006-2009.



Location: Portland City Grill, 30th Floor, 111 SW Fifth Avenue, Portland, OR

Check-in & Lunch: 11:30 am; **Life Member Presentation:** 11:45 am; **Program:** noon

Cost: Lunch and Program: \$32 — Prepaid Members
\$20 — Prepaid YMF Members
\$40 — Prepaid Non-Members
Free — Students

Reservations: Pre-registration is required for all. **You can register and pay online at www.seao.org before noon, Friday, September 19.** 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: One PDH has been recommended for this program.

Videotaping: This month's presentation will be videotaped and will be available for purchase to view for those who are not able to attend. The cost for obtaining access to the video is \$16 for members and \$22 for non-members. Please contact Jane Ellsworth at (503)753-3075 or via Email: jane@seao.org to obtain a web link to view the video.

This month's meeting is proudly sponsored by Trus Joist. Reference page 4 for additional information.



CITY OF PORTLAND WIND DESIGN INFORMATION

New wind speeds for the State of Oregon are included in maps that are only provided in the 2014 OSSC.

The City of Portland has confirmed that the following design criteria is to be used for projects under the jurisdiction of the City of Portland:

Risk Category I: Vult = 115 mph

Risk Category II: Vult = 120 mph

Risk Category III/IV: Vult = 130 mph

NEW MEMBERS

The newest members to join SEAO are:

Tony Jenkins and Amy Kordosky—VLMK Consulting Engineers

Welcome!!

OCTOBER MEETING SPONSOR



Trus Joist(TM) brand Engineered Wood Products are manufactured by Weyerhaeuser and include TJI(r) joists, Microllam(r) LVL, Parallam(r), and Timber-Strand(r) LSL products. Mike Bair, SEAO Member in long standing, is the local Trus Joist(tm) Territory Manager and has carried that role through several business name changes since he began in 1988 (i.e. Trus Joist MacMillan, Trus Joist a Weyerhaeuser Business, iLevel, and now Weyerhaeuser/Trus Joist EWP). Come on by his table at the October meeting and see what's new.

YOUNG MEMBER FORUM ACTIVITIES

By: Phil Davis & Seth Thomas

Upcoming YMF Events:

Thursday, October 16th – Happy Hour — Location: The Thirsty Lion, 71 SW 2nd Avenue, Portland. Time: 5:30 pm to 7:30 pm. Bring a friend, coworker, or both and enjoy a beer and some food while getting to know some other young professionals in our area.

Thursday, November 6th – YMF Lunch Meeting — KPFF Consulting Engineers, 111 SW Fifth Avenue, 26th Floor Conference Room—noon to 1:00 pm. Join us for our bi-monthly lunch meeting to discuss future events and activities. This is a great way to get involved in SEAO.

November Happy Hour — Instead of the usual happy hour meeting at a bar, the YMF is planning on going bowling. The date and time are still currently TBD, but more information will follow soon.

Future Events—In the upcoming year, the YMF is planning more social events in addition to our monthly happy hours. Continue to check the newsletter for details about postings for group outings and upcoming tours.

YMF Website Info: <http://www.seao.org/committees/advocacy/ymf/>. Please visit our website for more information on YMF events and information.

SEISMIC EVENTS

ASCE Webinars (www.asce.org)

Thursday, October 23, 2014, 8:30 – 10:00 AM PST. [Seismic Evaluation and Retrofit of Existing Buildings: An Overview of Changes to the New ASCE 41-13.](#)

Monday, November 3, 2014, 8:30 – 10:00 AM PST. [Seismic Screening of Buildings Using ASCE 41-13.](#)

Thursday, November 20, 2014, 8:30 – 10:00 AM PST. [Seismic Evaluation and Retrofit of Unreinforced Brick Masonry Buildings Using ASCE 41-13.](#)

EERI Seminar (www.eeri.org)

Seattle, WA: Thursday, November 6, 2014. [EERI Technical Seminar Series: Performance Based Design — State of the Practice for Tall Buildings.](#) See Page 9 for additional info.

The Great Oregon Shakeout Earthquake Drill (www.shakeout.org)

Thursday, October 16, 2014 at 10:16 am.

NEW SEAO LIFE MEMBER JED SAMPSON, PE, SE



Structural Program Manager, Pacific Rim Region U.S. General Services Administration , San Francisco, CA

Jed's present position is with the United States General Services Administration Pacific Rim Region as Structural Project Manager. He has held this position since 2010 and has helped guide over \$700 million of federal building construction of new buildings, seismic renovations, and unique one-of-a-kind structures. Before moving to California four years ago, he had worked as a structural engineer in the Portland area since 1978. He was with the City of Portland Bureau of Development Services for 22 years and was Chief Structural Engineer for the last five of those years. Before working in the government sector, Jed worked for 12 years as a design engineer for three structural consulting firms in the Portland area.

Jed has always been a strong supporter of SEAO and a member since 1978. He served on the SEAO Board as President, Past President, Treasurer, and Director. He was active on a number of committees and was past newsletter editor. During his presidency SEAO was able to get the current Structural Practice Act passed through the Oregon Legislature.

Education and Registrations:

Jed graduated with a BS in Civil Engineering from the University of Tennessee. He is a Professional Structural Engineer in Oregon and a Professional Civil Engineer in California.

Affiliations:

Jed is a member of the Structural Engineers Associations in Oregon and California. He is GSA's representative to the Building Seismic Safety Council and a member of the Federal Interagency Committee on Seismic Safety in Construction.

SEAO will present Jed with Life Member status at this month's meeting at 11:45 am. Please come to the meeting to congratulate Jed and thank him for his many contributions to the organization. **Congratulations, Jed!**

DUES REMINDER

Annual dues for SEAO membership were due on October 31, 2014. You can make checks payable to SEAO and mail to:

9220 SW Barbur Blvd, No. 119
Portland, OR 97219

Or renew online using a credit card by going to: www.seao.org

Renewals: Member (licensed PE in Oregon): \$102

Affiliate Member (unlicensed): \$95

Student Member (full-time student in Civil or Structural Engineering): \$16.50

Retired Members & Retired Affiliate Members: \$25

Membership must be current (dues paid) to have your name included in our annual roster.

To update our records, please be sure that we have your correct address, name of your company, current phone numbers, and your email address. This will guarantee that you are receiving all correspondence and information from SEAO. You can update your information online or if you have any questions contact jane@seao.org.

EDUCATIONAL OPPORTUNITIES

PRESTRESSED CONCRETE DESIGN CLASS

SPONSORED BY KNIFE RIVER AND OREGON PRECAST CONCRETE INSTITUTE

CE 486/586 - Prestressed Concrete (3 credits)

Prerequisite: Course in reinforced concrete design

Instructor: Dr. Keith Kaufman of Knife River

Winter Term: 6 to 9 pm on Tuesdays starting January 6th on the OSU campus in Corvallis

MASONRY DESIGN CLASS

SPONSORED BY MASONRY INSTITUTE OF OREGON

CE 482/582 - Masonry Design (3 credits)

Prerequisite: Course in reinforced concrete design

Instructor: Nathan Wallace of CH2M-Hill

Winter Term: 6 to 9 pm on Thursdays starting January 8th on the OSU campus in Corvallis

Register for these regular university courses that can be used towards a degree or for PDHs. Admissions and registration information can be found on the OSU web page: <http://oregonstate.edu/>.

If you have any questions, please contact Prof. Tom Miller at 541-737-3322 or via email at Thomas.Miller@oregonstate.edu.

OREGON CODE INFORMATION

With the adoption of the 2014 OSSC, ACI 318-11 is now the current standard for structural concrete. Section D.9.2.2 in Appendix D of the current standard requires installers of adhesive anchors in the horizontal or upwardly inclined orientations to be certified by ACI's Adhesive Anchor Installer Certification program. The State of Oregon Building Codes Division recently issued a notice that the Adhesive Anchor Installer Certification requirement is not adopted by the State of Oregon. For additional information, see the notice on page 12.

IBC CODE INFORMATION EXCERPT FROM 2012 IBC HANDBOOK

1905.1.9 ACI 318 Section D.3.3.

This modification to Appendix D of ACI 318 is based on the 2008 edition of the standard. It provides flexibility in designing anchors for earthquake forces by providing exceptions to the ACI 318 provision. The basic premise of D.3.3 is that anchorage design is controlled by the strength of a "ductile steel element," which is defined in the ACI 318 appendix.

Section D.3.3.4 includes four exceptions. Exception 1 applies to concrete wall anchorage that is designed for maximum expected seismic forces. Under ASCE 7, higher wall anchorage force levels are required to protect against brittle failure. This exception clarifies that these special wall anchorage design forces need not be compounded with the ACI 318 Appendix D anchorage ductility requirement.

Exception 2 applies to the anchorage of wood sill plates to concrete foundations in light-frame construction. Based on light-frame shear wall testing, the wood sill plate controls the ductile behavior of the anchorage assembly. If the anchor meets the requirements of the exception, then the anchor need not meet the requirements of Section D.3.3.4. Allowable in-plane shear capacity of the anchor bolt is determined in accordance with NDS Table 11E rather than ACI 318 Appendix D.

Exception 3 applies to the anchorage of cold-formed steel track to concrete foundations in light-frame construction. Based on light-frame shear wall testing, the cold-formed steel track controls the ductile behavior of the anchorage assembly. If the anchor meets the requirements of the exception, then the anchor need not meet the requirements of Section D.3.3.4. Allowable in-plane shear capacity of the anchor bolt is determined from AISI S100 Section E3.3.1 rather than ACI 318 Appendix D.

There are five criteria to meet in order to use Exception 2 or 3 for the design of anchor bolts connecting wood sill plates of shear walls of light-frame structures. The maximum nominal diameter of the anchor is 5/8 inches (15.9 mm); anchors must be embedded a minimum of 7 inches into the footing and located a minimum of 1-3/4 inches (44 mm) from the edge of the concrete parallel to the wood sill plate or steel track, and a minimum of 15 diameters from the edge of the concrete perpendicular to the wood sill plate or steel track; the wood sill plate must be a 2X or 3X, and the track must be within a thickness range of 33 mil to 68 mil.

(Continued on Page 7)

IBC CODE INFORMATION (CONT) EXCERPT FROM 2012 IBC HANDBOOK

For light-frame construction, Exception 4 allows use of provision D.3.3.7 rather than D.3.3.4. IBC Section 202 defines light-frame construction as a system where vertical and horizontal structural elements are primarily formed by repetitive wood or cold-formed steel framing members.

Section D.3.3.5 allows design of the anchor attachment to control the anchorage assembly design. Yielding of the attachment must begin before the anchor begins to yield. ACI 318 Appendix D defines “attachment” as the structural assembly external to the surface of the concrete that transmits loads to or from the anchor. As steel today has a higher expected yield strength than its specified yield strength, the attachment must have an expected yield strength no larger than the design strength of the anchor.

There are two exceptions to this provision. Exception 1 deals with nonstructural components designed for earthquake loading in accordance with ASCE 7 Section 13.4.2. That provision imposes additional nonductile anchor force increases on anchors in structures assigned to Seismic Design Category C and higher. The exception clarifies that it is not intended for nonductile anchor force increase to be compounded with this ACI 318 anchorage requirement. Exception 2 applies to concrete wall anchorage that is designed for maximum expected seismic forces. Under ASCE 7, higher wall anchorage force levels are required to protect against brittle failure. This exception clarifies that these special wall anchorage design forces need not be compounded with the ACI 318 Appendix D anchorage ductility requirement.

Section D.3.3.6 allows the design strength of an anchor to be set as 0.4 multiplied by the steel strength of the element as determined in accordance with ACI 318 Appendix D.5.1 for steel tensile strength or D.6.1 for steel shear strength. This provision was initially added to ACI 318-08 to provide a capacity for nonductile steel anchors. In ACI 318-11, anchors are assumed to be ductile steel elements.

Section D.3.3.7 refers to ACI 318 D6.2.1(c) where shear loads are examined parallel to the length of the sill plate or track. This provision allows the use of ductile or nonductile anchors in wood sill plates and tracks without the decrease in design strength required in Section D.3.3.6. This practice is considered acceptable since wood plate or steel track failure occurs before the anchor reaches its design strength.

Note: Section 1905.1.9 of the 2012 IBC contained errata. The corrected information is included in this article. To read the errata, go to iccsafe.org/errata.

This excerpt is from the 2012 International Building Code Handbook, authored by John Henry, PE and Doug Thornburg, AIA. The book is available at iccsafe.org/store. Use ID # 4000S12.



EMPLOYMENT OPPORTUNITIES

SunModo Structural Engineer



SunModo develops, manufactures, and sells innovative solar PV racking and mounting solutions. We are looking for a Licensed Professional Structural Engineer to assist with design, stamped structural calculations, permitting, and technical support for solar PV racking projects. Also works with engineering team on new product development.

Qualifications: A high proficiency and working knowledge of IBC, ASCE-7, structural analysis software, and AutoCAD. At least 3 three years of experience with PE or SE license. Experience in various types of steel, aluminum, wood, helical anchors, and concrete foundation. Excellent analytical, detailing communication skills with demonstrated ability to write and speak persuasively. If interested in this position, please email us your resume and cover letter to employment@sunmodo.com.

Hatch Mott MacDonald Senior Project Engineer-Structures Seattle, WA

HMM is hiring a Structural Senior Project Engineer with experience on light rail building structures to support projects in Seattle, WA. The selected candidate will have at least 15 to 20 years of structural design experience. This hire will manage the design team while leading the CADD department for plan sets production.

The selected candidate should have experience with structural analysis software and knowledge of Microstation, AutoCAD, etc. Candidate should have very good communication skills and being a good coordinator. She/he will work and lead a team of engineers to build and analyze structure software models, manage preparation of design calculations, and development details for structural drawings.

Registered Washington P.E. with BS Civil Engineering degree (Masters or PhD preferred) is a must for this position. Please submit your resume via email to kevin.ramsey@hatchmott.com.

OUTGOING PRESIDENT'S MESSAGE

BY: AMIT KUMAR



Due to a family emergency, I was unable to pen my last President's message last month. I apologize to those of you who were expecting to read a President's message but did not find one.

I do want to take a few moments to acknowledge the efforts of several people who, over the past year have worked tirelessly on behalf of SEAO in furthering its mission of advocating for the profession, in providing a forum for its members to interact and improve their technical knowledge and professional skills. They have contributed by serving on the board, on several committees and volunteering countless hours.

First of all, I would like to acknowledge my fellow members of the Board for 2013-14: Jennifer Eggers (Vice-President), Dominic Matteri (Secretary), Shelly Duquette (Treasurer), Jason Thompson (Director), Mike Bair (Director) and Aaron Burkhardt (Past President). Thank you all for all your help and wise counsel in guiding me. As the cliché goes, "Many helping hands make light work". So thank you.

To all the committee chairs and members whose committees have been active and have engaged the SEAO membership in advancing their missions, a HUGE Thank you: Shawn Stevenson and the SEER committee, Chad Killian and the seismic committee, and Seth Thomas and Phil Davis as chair of the YMF. YMF has probably been one of the most active committees last year. And then there is the one and only JoMarie Farrell as the editor of the newsletter. The newsletter is the main means of communication to all the members and JoMarie has taken this task to heart on her own. She is not thanked enough for her effort. From the bottom of my heart, thank you for your effort. Your leadership on this, took one issue off my bucket list and made my job that much easier.

Last year we had three very popular all day seminars organized by SEAO. We all have Andy Stember to thank. Year after year Andy takes it upon himself to organize this very important event to provide a forum for its members to interact and improve their technical knowledge and professional skills.

I would be remiss if I did not recognize Jane Ellsworth. Jane's administrative and organizational skills and knowledge of past SEAO activities and board protocols have been an invaluable asset to SEAO. Thank you.

Lastly, I wanted to thank the SEAO membership for your support and encouragement during my term as President. I have heard from a lot of you over the past year with some great ideas and suggestions. I hope you will continue to provide the same support to your new President, Jennifer Eggers. Those of you who volunteer your time for SEAO, I hope you will continue to do so and those of you who may be new to SEAO or may have not contributed before, please consider how you can help SEAO in its mission. SEAO depends on your spirit of volunteerism.

Amit Kumar, Past President, SEAO

PEO COLUMBIA CHAPTER NOVEMBER MEETING ANNOUNCEMENT COMPLEX MARINE PROJECTS IN OREGON

The Professional Engineers of Oregon Columbia Chapter will host a presentation by Kevin Hine of Vigor Industrial on November 4, 2014, at Hayden's Lakefront Grill, 8187 SW Tualatin Sherwood Road, Tualatin, OR. Vigor Industrial is an Oregon-based company and has recently purchased Oregon Iron Works. The company has brought one of the world's largest dry docks to Portland. The presentation will focus on complex multifaceted project delivery, including the key mechanical, electrical, and computer control systems necessary for the success of modern marine projects. Registration is from 6 to 6:30 pm, social hour and dinner from 6:30 to 7:30 pm, with the presentation to follow.

For more information contact Christian Steinbrecher, P.E., PEO Columbia Chapter Program Chair, cfs@CaRPEngrs.com or 503-297-4827. Register on-line at <http://www.oregonengineers.com/>. PDH hours are available to attendees.



2014 EERI Technical Seminar Series: Performance Based Design – State of the Practice for Tall Buildings

A technical seminar series supported by



FEMA Department of Homeland Security

SEMINAR PROGRAM (8:30 a.m. – 4:30 p.m.)

Speakers listed worked on presentation development; only one speaker will present on each topic at each venue.

Introduction and History of PBD

Ron Hamburger, *SGH*

Guideline Documents (LATBSDC/PEER)

Farzad Naeim, *Consulting Engineer*;
Jack Moehle, *UC Berkeley*

Using Ground Motions & SFSI

Jon Stewart, *UCLA*; Marshall Lew, *AMEC*

Structural Analysis & Modeling (ATC 72-1/ASCE 41)

Greg Deierlein, *Stanford University*

Case Study 1: Concrete Building Design

John Hooper, *MKA*; Ron Klemencic, *MKA*

Case Study 2: Steel and Hybrid Building Design

Nabih Youssef, *Nabih Youssef & Assoc.*;
Leonard Joseph, *Thornton Tomasetti, Inc.*

Lessons from PBD Peer Reviews

Farzad Naeim, *Consulting Engineer*;
Jack Moehle, *UC Berkeley*

The Future of PBD and ATC 58

Ron Hamburger, *SGH*

Local Jurisdiction Applications

Colin Kumabe, *LADBS*; Gary Ho, *SFDBI*;
Steve Pfeiffer, *City of Seattle*

Panel Discussion

DATES AND LOCATIONS

Wednesday, October 29: San Francisco, CA

Thursday, November 6: Seattle, WA

Friday, November 7: Los Angeles, CA

Who Should Attend

Structural and Geotechnical Engineers; Seismologists; Architects; Urban Planners; Developers; Building Officials; and Students. Attendees will receive 6.75 PDHs.

The Earthquake Engineering Research Institute (EERI) 2014 Technical Seminar Series focuses on the **State of the Practice for Performance Based Seismic Design (PBD) of Tall Buildings**. For the last decade engineers in major cities along the West Coast have taken advantage of performance based design concepts to achieve structural designs of tall buildings that are not in strict compliance with the International Building Code prescriptive provisions. These projects reflected cumulative best state-of-the-practice information related to seismology, geotechnology, and structural design to provide the most complete platform for implementing performance based seismic design concepts on major design projects.

The seminar will begin with a history of performance based design and the use of guidelines published by the Pacific Earthquake Engineering Research Center (PEER) and the Los Angeles Tall Buildings Structural Design Council (LATBSDC) in conjunction with the building code to form the basis of design for these structures. The focus will then turn to seismological and geotechnical considerations in the development of seismic demands in the form of both response spectra and ground motions for long period structures. This will be followed by a presentation on approaches for the modeling and analysis of these complex structures. In addition, two case studies will be presented by structural engineers responsible for major tall building projects to demonstrate how the concepts have been put into place on actual structures. Since PBD is new and each project has unique features and challenges, peer review is an important component of the design process, and a talk will present some of the lessons learned from peer reviewers. The final talk will discuss future directions of performance based seismic design, FEMA (ATC) 58, and moving present practice to the next level. The day will conclude with a panel discussion including a representative of a local building department who has been working with the developers and design team to help bring these landmark structures to fruition.

Co-sponsors

ASCE Metropolitan Los Angeles Branch
EERI Regional Chapters: Northern California, Southern California, and Washington
Seattle ASCE
SEAW-Seattle
SEAO – Structural Engineers Association of Oregon
SEAOSC – Structural Engineers Association of Southern California

Register online or download a registration form for the 2014 EERI Technical Seminar Series at <https://eeri.org/cohost/registration/tech-seminar-2014>

AISC Seismic Design Manual & Application of the 2010 AISC Seismic Provisions

Presented by the Structural Engineers Association of Oregon (SEAO) in conjunction with AISC

Date: **Tuesday, November 4, 2014 – 8:00 AM to 5:00 PM**
Registration Opens at 7:00 AM (Lunch Included)

Cost: \$300 SEAO Member (Includes Class Notes) \$325 Non-member
\$25 Late Fee (if registration received after October 28, 2014)
Students \$200 (Includes Notes) – Must show current student ID
No refunds after 12:00 noon Tuesday, October 28, 2014

Register early; Maximum 100 people

Location: **The Abernethy Center**
606 15th Street
Oregon City, Oregon 97045
(503) 722-9400

Continuing Education: **SEAO has recommended this seminar for 7 PDHs (5 PDHs for Viewing Video)**

Description of seminar: The 2014 Louis F. Geschwindner Seminar has been named to honor AISC's immediate past Vice President of Engineering and Research. AISC places great emphasis on providing valuable continuing education programs to the steel design and construction community. The 2010 AISC Seismic Provisions and 2nd Edition of the Seismic Design Manual are now available. This seminar will highlight proper application of key design and detailing requirements and introduces important technical changes in the recently updated Seismic Provisions. Design Examples from the new 2nd Edition of the Seismic Design Manual will be included.

Speaker: Dr. Tom Sabol is a Principal at Englekirk & Sabol Consulting Structural Engineers, Inc., a Los Angeles-based firm specializing in structural and earthquake engineering, historical structure rehabilitation, and wind engineering. He received his B.S. in Architectural Engineering from California Polytechnic State University, San Luis Obispo, and his Ph.D. in Structural and Earthquake Engineering from UCLA. In addition to his structural design experience, Tom has extensive experience in evaluation of earthquake safety of structures and has directed numerous projects investigating the seismic behavior of buildings. Dr. Sabol is an Adjunct Professor in the Civil Engineering Department at UCLA where he teaches graduate and undergraduate courses focusing on tall building design, earthquake engineering, and structural steel. His research work has focused on the performance of structural steel buildings subjected to earthquake loads. He is a member of AISC's Seismic Provisions Technical Committee and the Committee on Specifications.

The 2nd Edition Seismic Design Manual is available for purchase (order by 10-28-14)

Speaker is from the Structural Engineers Association of California (SEAOC)

Questions: Andy Stember (503) 657-9800

AISC Seismic Design Manual and Application of the 2010 AISC Seismic Provisions

Registration Form

Register Online at www.seao.org or

Send to: SEAO
PO Box 2958
Vancouver, WA 98668
(503) 753-3075

Make Checks Payable to:
SEAO

Firm Name: _____

Firm Address: _____

Phone: _____

Name of Attendee(s) _____

of Attendee(s) _____ @ \$300.00 / each = \$ _____
(Nonmember \$325.00)

of Late Fees _____ @ \$25.00 / each = \$ _____

of Students _____ @ \$200.00 / each = \$ _____

AISC SDM _____ @ \$100.00 / each = \$ _____
(2nd Edition Seismic Design Manual \$350 Value)

Total Enclosed = \$ _____

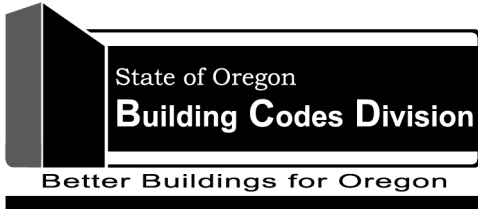
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Credit Card # _____

Expiration Date _____ 3 digit code _____

Cardholder Signature _____



ACI 318-2011
September 29, 2014

**New Adhesive Anchor Installer Certification
Not adopted by the State of Oregon**

The Building Codes Division is clarifying that the ACI 318-2011 AAI Certification or any other manufacturer product installer certifications are not adopted as part of the State Building Code and are unenforceable under ORS Chapter 455 or by any municipality operating a building program under ORS 455.148 and ORS 455.150.

Recently, the American Concrete Institute (ACI) implemented a new Adhesive Anchor Installer (AAI) Program for the current version of ACI Standard 318-2011, Building Code requirements for Structural Concrete. ACI 318-2011 is the current standard for structural concrete in the 2014 Oregon Structural Specialty Code. Section D.9.2.2 of this standard requires the Adhesive Anchor Installer (AAI) to be certified to perform horizontal or overhead installations of an adhesive anchoring system. OAR 918-008-0000(2) states:

“Unless required by law, *matters generally not authorized for inclusion in a specialty code* or referenced standard include, but are not limited to: licensing or *certification requirements*, or other qualifications and standards for businesses or workers; structures or equipment maintenance requirements; matters covered by federal or state law; and matters that conflict with other specialty codes or publications adopted by the department.”

For further information, please contact:

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