CONNECTIONS

June 2013 Volume 13 Issue 10

Newsletter of the Structural Engineers Association of Oregon

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Upcoming SEAO Meetings and Events:

Thursday, June 20, 2013: SEAO YMF Happy Hour
Location: Thirsty Lion Pub & Grill, 71 SW 2nd Avenue, Portland, OR
Time: 5:30 pm to 7:30 pm
See page 6 for more information on YMF events and contacts.

Wednesday, June 26, 2013: SEAO Dinner Meeting
Speaker: Ed Wortman, Semi-Retired, Multnomah County Bridge Section
Topic: Sellwood Bridge Move
Location: Governor Hotel, Second Floor, Portland, Oregon
Time: 5:30 pm check-in & social, 6:15 pm dinner, 6:30 pm program
Sponsored by: Redbuilt and Basalite Concrete Products LLP
See page 3 for more information and page 7 for sponsor information.

Thursday, July 11, 2013: SEAO YMF Lunch Meeting
Location: KPFF Consulting Engineers, 111 SW 5th Avenue, Suite 2500, Portland, OR
Time: noon to 1 pm
See page 6 for more information on YMF events and contacts.

Thursday, July 18, 2013: SEAO YMF Happy Hour
Location: TBD
Time: 5:30 pm to 7:30 pm
See page 6 for more information on YMF events and contacts.

Friday, July 26, 2013: TriMet Willamette River Bridge Tour
Time: 3 pm
Size of group is limited. RSVP early as only 20 spots are available. See Page 6 for more information.

Wednesday, July 31, 2013: SEAO/OACI Annual Golf Tournament
Location: Stone Creek Golf Club, Oregon City, Oregon
Time: 1:30 pm shotgun start, 6:00 pm social
See page 9 for more information and flyers on pages 12 and 13 for sponsorship and sign up info.

Thursday, August 15, 2013: SEAO YMF Happy Hour
Location: TBD
Time: 5:30 pm to 7:30 pm

CODE ANNOUNCEMENT: The State of Washington's Building Code Council adopted the 2012 International Building Code and ASCE 7-10, including amendments and ICC/ANSI A117.1-2009. The rules will be effective throughout the state on July 1, 2013. This adopted version of the code is based on WAC 51-50 as published in WSR 13-04-067. Visit https://fortress.wa.gov/ga/apps/SBCC/File.ashx?cid=2732 for more information.

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 inquires to:

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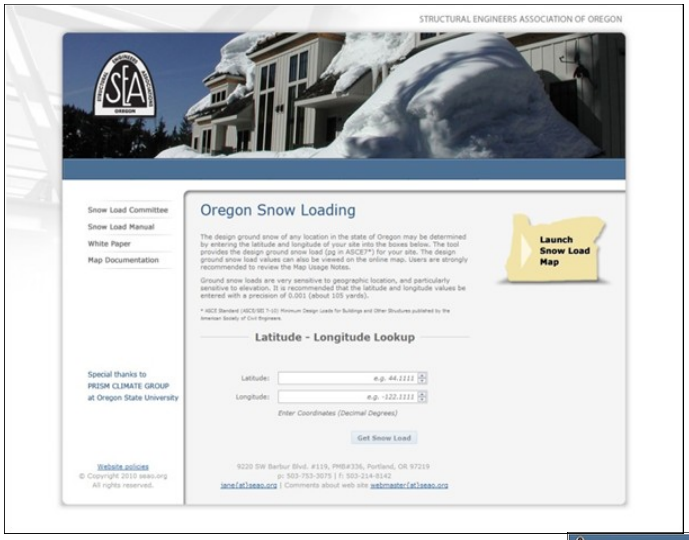
BOARD OF DIRECTORS

PRESIDENT'S MESSAGE:
DEVELOPMENT OF OREGON SNOW LOAD LOOKUP WEBSITE

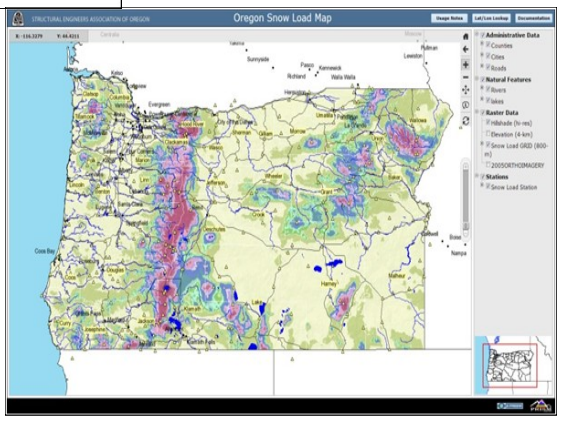
By: Aaron Burkhardt, P.E.

Part of me wanted to proclaim that it is snowing in June, but with the heat we've been having that just seemed silly. Though, with as much as the Board and the Snow Committee have been working on snow lately, it feels like we are covered with the fluffy white stuff. This Board has been committed to showcasing all of the hard work of previous Boards and our Snow Committee. Working as partners with Oregon State University's Prism Climate Group, SEAO has been evolving toward an online snow load tool for many years to take the place of the maps included with the *Snow Load Analysis for the State of Oregon* manual.

I'm very proud to announce that we have completed our new snow load lookup website (http://snowload.seao.org/lookup.html). The images below show our landing page and the mapping application.



This website will allow anyone with a computer or Smartphone and the latitude/longitude coordinates to determine the ground snow load of their site. The website will return either just the text data or a digital contour map application that was designed at OSU. We believe that this will be a great tool for not only structural engineers, but for the public as well. But that's not all; we will shortly be releasing the 2013 Edition of the *Snow Load Analysis for the State of Oregon* manual as a companion to the website. Keep an eye on your email and our website for that announcement.



We aren't quite there yet with all of the final approvals with the State Building Codes Division. We will be presenting the online tool soon to the appropriate committees with the hope that it will be accepted as an alternate method to the previous maps (which are referenced in the upcoming 2014 OSSC). We hope to get that done this summer.

I would be remiss if I did not specifically acknowledge the work of everyone involved. SEAO's Snow Committee led by Andy Stember and Dmitri Wright deserve all the credit for this work. The committee members include Andy, Dmitri, Doug Meltzer, Tonya Halog, Greg Munsell, Jacob Baglien, Cameron Swearengin, and Kevin McCormick. These individuals have put in countless hours over several years to complete this work, and SEAO owes them a debt of gratitude.

I've spoken right here in this column in the past about the importance of volunteerism and the role it plays in professional organizations like ours. If not for the great volunteer work of many of our members this project would never have come to be.

Thanks again to everyone involved!

SEAO Committees

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JUNE DINNER MEETING ANNOUNCEMENT
WEDNESDAY, JUNE 26, 2013
Sponsored by: Basalite Concrete Products & Redbuilt

Topic: SELLWOOD BRIDGE TRUSS MOVE. Moving the 1100-foot long truss span to set up a detour bridge was another milestone in the effort to replace Multnomah County's 87-year old Sellwood Bridge. The truss span was moved on Saturday, January 19, 2013. Moving it north created space for the new Sellwood Bridge to be built in the alignment of the old bridge. The 3400-ton truss span was one of the longest bridge parts ever moved. The age and shape of the truss combined with the curved path of the move made it a highly complex undertaking. Setting up the detour bridge required the Sellwood Bridge to be closed to all users from January 17 to January 23. The detour bridge is now carrying motorists, bicyclists and pedestrians across the river until the new Sellwood Bridge opens in the summer of 2015.

Speakers

Ed Wortman is a registered civil engineer and a long-time SEAO member with an MS in structures from UC Berkeley. He has worked most of his 50-year career on construction and rehabilitation of bridges, offshore oil platforms and other large structures. Ed retired from his full-time position at the Multnomah County Bridge Section in 2007 but is still involved in County bridge projects on a part-time basis. On the Sellwood Bridge replacement project, Ed was part of the County team that worked with the contractors on planning for the truss move in January. He continues to work on other aspects of the Sellwood project.

Scott Nettleton has 23 years of professional experience and is a Senior Bridge Engineer and Project Manager, the last nine with T.Y. Lin International. He has very broad professional experience in structures design, structures materials inspection, specifications, roadway geometrics, and construction inspection. He has served an a Senior Engineer and/or Design Manager role on seven design-build projects and has also participated in multiple CM/GC projects as a Senior Engineer. This experience over the past several years, with a sum construction volume exceeding $1.3 billion, has given Scott extensive knowledge of alternative delivery methods and coordination. Scott has published on rapid bridge replacement techniques, bridge architecture and aesthetics, and various other technical topic in numerous manuals, publications, and conferences. For the Sellwood Bridge Project Scott led the production effort for the Type Size and Location for the current new structure now in construction, in the design phase he took on the effort to provide the engineering lead on the "shoo fly" leading a team of engineers and technicians through that effort and to the eventual construction and Bridge Translation performed early this year.

Location and Times:

Governor Hotel, 2nd Floor, 614 SW 11th Avenue, Portland, OR
The MAX Light Rail System stops just a block away from the hotel (The Galleria stop) and Portland's Streetcar stops right outside the hotel. Smart Park is located at SW 10th and Yamhill about two blocks from the hotel.

Check-in & Social: 5:30 pm; **Dinner:** 6:15 pm; **Program:** 6:30 pm (Videocast begins at 6:15 pm)

Cost: Dinner and Program	**Cost: Videocast Locations**
$32 — Prepaid Members	$20 — Members
$40 —Prepaid Non-Members	$33 — Non-Members
$18 — Students	$13 — Students

Videocast Venue: Corvallis: CH2M Hill, 1100 NE Circle Blvd, Suite 300, (541)752-4271

Reservations:

Pre-registration is required. **You can register and pay online at *www.seao.org* before 11 am, Friday, June 21.** 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.

Meeting Proudly Sponsored by: Basalite Concrete Products LLC and Redbuilt

BASALITE® Concrete Products, LLC AND RedBUILT™ Engineered Wood Products

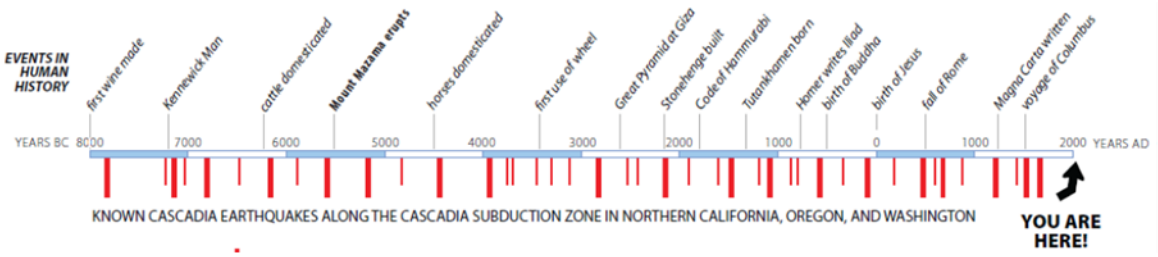
See Page 7 for more information on our sponsors!

MAY MEETING PROGRAM RECAP
OREGON RESILIENCE PLAN

Summary By: David Tarries , P.E.

Trent Nagele and Ed Quesenberry provided a presentation on the Oregon Resilience Plan at the SEAO May dinner meeting. Aside from being past presidents of SEAO, they are co-chairs of the Critical Buildings Task Group under the Oregon Seismic Safety Policy Advisory Commission (OSSPAC). The task group was formed to help draft a report on the seismic readiness of the State of Oregon by the 76th state legislative assembly. It focused on quantifying the level of damage and amount of time it would take to get critical infrastructure operational following a major event and was presented on the premise that increasing the state's readiness would be completed over the course of 50 years.

In the wake of recent seismic events around the Pacific Rim, the Oregon state legislature requested information on the state's earthquake preparedness. OSSPAC coordinated with the Oregon Department of Geology and Mineral Industries (DOGAMI) to determine the "Cascadia Earthquake and Tsunami" as the basis event for the study. The selection of the subduction zone quake as a standard is due in no small part to the fault's similarities to the Eurasian Plate and the Pacific Plate fault off the coast of Japan. The event that happened in Japan in 2011 could easily occur along Oregon's coast. Pressure buildup at the plate interaction could result in two to four feet of subsidence along the Northern Oregon coast and as much as eight to nine feet of subsidence along the Southern Oregon coast following an event.

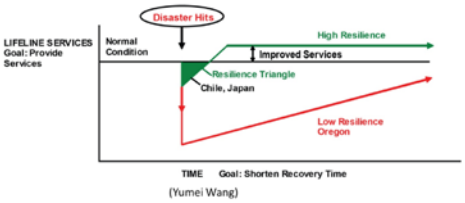


Recent seismic activity maps show little activity in Oregon. This either suggests that Oregon is safe from harmful earthquakes or that it is due for an event. Geologic studies of the Cascadia fault suggest it has been hundreds of years since a 9.0 level quake has taken place. Historically a 9.0 level event occurs about every 500 years and over the last couple thousand years the recurrence has been more frequent. In addition there have been smaller quakes around 7.5 to 8.0 that occur about every 250 years.

Earthquakes in a subduction zone are different than intercrustal quakes, particularly in duration. Subduction zone quakes can last several minutes instead of 15 to 30 seconds like the average intercrustal quake. The events can also trigger subsidence of coastal land masses as well as tsunamis. About fifty percent of coastal residents in the Northern part of Oregon live in the inundation zone. Thirty-five percent of coastal residents statewide are vulnerable to tsunamis.

In February 2013, The Oregon Resilience Plan report was presented to the Oregon legislature--one year from the task group's kick-off. OSSPAC took the request and formed a steering committee with 8 task groups including Critical/Essential Buildings of which Trent and Ed were a part. In total, more than 169 volunteers were involved in the report's creation. The Critical Buildings group focused primarily on hospitals, police and fire stations, emergency operations centers, k-12 schools, emergency shelters, community retail centers and banks, single-family residences, vulnerable buildings such as unreinforced masonry and non-ductile concrete, and critical government facilities. Their input was added to the other task group's findings to create comprehensive report of overall state readiness.

The groups defined resilience as how extensive the infrastructure of an area is damaged by an event and how long it takes to return to normal service. Everything from buildings and bridges to water and power distribution systems are considered when determining resilience. Resiliency was established as a measure of area of under a curve of how far services drop below normal over the time they take to recover. The larger the area under the curve, the less resilient the systems. As an example, earthquake damage in Japan and Chile would tend to be smaller than Haiti with services such as water and power distribution restored in much less time. Japan and Chile would be considered more resilient than Haiti.



The task force used a combination of FEMA 154 based visual screening records and FEMA HAZUS modeling to approximate the results of a Cascadia event. The group developed four Cascadia scenario impact zones across the state. These consisted of Eastern, Valley, Coastal, and Tsunami regions. They focused on the effects of an event in each of those specific regions for the report. Planning steps included:

- Assessing the performance of existing critical structures
- Developing resilience goals for each zone based on community needs
- Defining acceptable target time frames for recovery
- Preparing recommendations for the next 50 years

Continued on Page 10

2013–2014 SEAO Board Elections

On pages 14 and 15 you will find candidate biographies for next year's SEAO Board of Directors .

Please fill out the ballots that have been sent to you and fax/email/mail or bring to June meeting. Ballots need to be received at the SEAO office **by July 19th** to be counted.

Email:	jane@seao.org
Fax:	503-214-8142
Mail:	9220 SW Barbur Blvd #119 PMB #336 Portland, OR 97219

If you have any questions or require another copy of the ballot please contact Jane at 503-753-3075 or via email at jane@seao.org.

The following is a summary of the candidates who have graciously volunteered to run for each position:

President:	Amit Kumar
Vice President:	Jennifer Eggers Jim Riemenschneider
Secretary:	Dominic Matteri Devon Lumbard
Treasurer:	Shelly Duquette
Director:	Mike Bair Mark Galusha

PLEASE RETURN YOUR BALLOTS BY JULY 19TH!

EMPLOYMENT OPPORTUNITY

A growing multi-discipline Engineering and Transportation Planning firm seeks mid-level civil/structural engineer. Candidate will work with Project Managers by designing structures related to water/wastewater treatment, marine terminals, commercial and public buildings, hydroelectric and fisheries-related facilities throughout the western US. Candidate must be proficient in design and analysis with concrete, steel, masonry, and timber.

Must have a BS Degree in Civil or Structural Engineering, or higher, from an accredited college or university, and be a registered Professional Engineer in the State of Oregon. Candidate must also be proficient in the use of various structural analysis and design software. A working knowledge of "Revit", "AutoCAD" and "Microstation" software is a plus, though not required.

This position comes with a competitive salary and bonus program, paid vacations, paid holidays, health and dental coverage, a retirement program and an opportunity to work in a professional yet comfortable environment.

Please send your resume and a letter of introduction by email to kathyo@cascadedesign.net. We are a Native American-owned firm. Native Americans who meet these qualifications are encouraged to apply.

SEISMIC EVENTS

ASCE Webinars (www.asce.org)

Friday June 21, 2013, 8:30 – 10:00 AM PST.
Design of Wood Diaphragms and Shear Walls.

Wednesday June 26, 2013, 9:00 – 10:00 AM PST.
Introduction to the Seismic Design of Nonbuilding Structures to ASCE 7-10.

NEES Webinar (http://nees.org)

Wednesday July 10, 2013, 12:00 – 1:30 PM PST.
Research to Practice Webinar: Use of High-Performance Fiber-Reinforced Concrete in Design of Earthquake Resistant Shear Wall Coupling Beams.

YOUNG MEMBER FORUM ACTIVITIES

By: Phil Davis & Seth Thomas

Thursday, June 20th: Happy Hour at the Thirsty Lion Pub & Grill, 71 SW 2nd Avenue, Portland, Oregon. From 5:30 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, July 11th: Lunch meeting from noon to 1 pm. The meeting will be held in the office of KPFF Consulting Engineers, 111 SW 5th Avenue, Suite 2500. Note that this is being held o the second Thursday due to the 4th of July holiday the week before.

Thursday, July 18th: Happy hour from 5:30 to 7:30 pm. Location TBD.

Friday, July 26th, 3 pm: Tour of the new TriMet bridge over the Willamette River. This tour is a great opportunity for our members as they are limiting the number (and size) of groups on the project site, and we have been fortunate enough to get approved for a tour. We only have 20 spots available so we will take reservations on a first come first serve basis. If you are interested please contact Seth Thomas at sthomas@degenkolb.com.

Thursday, August 15th: Happy hour from 5:30 to 7:30 pm. Location TBD.

YMF Website Info: YMF now has an updated website and the address is http://www.seao.org/committees/youngmembers/. Please visit our website for more information on YMF events and information.

JUNE DINNER MEETING SPONSORS

BASALITE® Concrete Products, LLC

Basalite Concrete Products LLC of DuPont Washington is a producer of Structural CMU, Engineered Products (segmental retaining walls, fence and sound wall systems, and permeable pavers), Dry Mix/Sack goods, and Hardscapes (interlocking paving stones, garden walls, and stepping stones).

The DuPont facility is part of the nine manufacturing Basalite division plants of Pacific Coast Building Products Inc. (PCBP) in Rancho Cordova, California. Founded in 1953 by Fred Anderson with a small lumber yard in Sacramento, today PCBP is a holding company for its wholly-owned subsidiaries that operate 70-plus locations that can be found in Hawaii to the west, Colorado to the east, Canada to the north and points in between. Companies include Interstate Brick, HC Muddox, and Gladding, McBean, PABCO Building Products, Columbia roof tile and many others. Basalite Concrete Products of DuPont serves primarily the Washington and Oregon markets.

More information can be found at www.basalite.com, 1-800-964-9424, or pat.muphy@paccoast.com.

MEMBER OBITUARIES

Robert Bonney, Sr. was born in Union Mills, Washington and lived most of his life in Portland, Oregon. Bob passed away peacefully May 25, surrounded by his family. He was 94.

Bob entered Oregon State University on a baseball scholarship and obtained his engineering degree in 1941. He played semi-pro baseball for many years. He was President of Moffatt, Nichol & Bonney, consulting engineers for 60 years.

As an engineer, he quietly made his mark on the Portland skyline and more importantly his mark on many people. Bob was a committed mentor and focused on developing strong engineers for the future. Many of these engineers have started their own Portland firms. He was a structural and civil engineer on many iconic structures in Portland including the Morrison Bridge, I-205 Oregon City Bridge, US National Bank building, and Memorial Coliseum. He was recently inducted into the Hall of Fame at the Engineering School, Oregon State University. Bob was also a Fellow at the American Society of Civil Engineers.

Bob loved to be with his family for celebrations, dinners and the great-grandchildren's many events.

He is survived by his son, Bob Bonney Jr. (Mary) and daughter, Suzanne Gressinger (Cary); seven grandchildren and 10 great-grandchildren. He was preceded in death by
his wife of 63 years, Thyra.

A funeral mass was held on Friday, June 7, 2013 at St. Cyril Catholic Church, 9205 SW Fifth Street, Wilsonville.

Condolences can be sent to Robert Bonney Jr. at 1145 Timberline Dr, Lake Oswego, OR 97034. Bob did not have a preference for organizations but one close to the family's heart is Martha & Mary Ministries, a hospice organization with a home in Bob's old neighborhood. The address is 4303 SE Henderson St, Portland, OR 97206. Bob's granddaughter says, "Any worthy cause would make Pa happy so whatever people feel in their hearts to give and to whoever is perfect."

Bret Alan Heckenberg, 44, passed away Thursday, April 18th in his home in Cheney, Washington. Bret had lived and worked in Cheney for 4 years. He was born in Arcata, California on November 10th, 1968, and grew up on the North Coast of California. He moved to Redding when he was in high school, where he graduated from Enterprise High School in 1986.

He graduated from CSU, Sacramento in 1992 with a BSCE with Structural Emphasis, and began his career in Sacramento, CA with CYS & Associates. While there he volunteered to assess building damage after the 1992 Northridge Earthquake in Southern California. In 1997 he moved his family to the Portland area where he joined KPFF Consulting Engineers. For his design of Hillsboro Stadium in Hillsboro, Oregon, Bret received the 2000 American Institute of Steel Construction Engineering Award of Excellence-National Award. Other employers included, ABHT Structural Engineers (founding principal), PACE Engineers (OR), and LSB Consulting Engineers (WA). At the time of his death, he was managing the company he founded, Heckenberg Structural Engineers. Bret enjoyed and excelled in major project designs, including hotels, parking garages, bridges, hospitals, office towers, stadiums, and arenas. He travelled the world as he managed extensive projects in North America, Asia, Africa, and Europe. Bret was passionate about excellence in engineering and took great pride in making his clients' goals and visions a reality. He was committed to advancing the field of engineering and to mentoring younger engineers. In 2012 he was recognized for his contributions to the development of the Washington State Structural III examination. In 2011 Bret was President of the Spokane Chapter of the Structural Engineers Association of Washington.

Bret's personal life and hobbies revolved around his love for the outdoors and for conquering many lofty challenges. He climbed Mt. Shasta several times, earned his pilot's license, and enjoyed hunting, fishing, camping, hiking, and travelling. He particularly loved returning with his three sons to the family farm in Iowa, home of many happy childhood memories.

Bret is survived by his parents, Phil and Georgia Heckenberg, of Redding, CA; three beloved sons, Garret, Reilly, and Adam Heckenberg, of Sherwood, OR and their mother, Julie; sister, Danette VanDomelen (Mark) of Hillsboro, OR (nieces Cassidy and Natalie); maternal grandmother, Mabel Rolf of West Burlington, IA, and numerous aunts, uncles, cousins and friends, especially Colleen Harbick. Bret was preceded in death by maternal grandfather Lloyd Rolf, and paternal grandparents Frank and Evelyn Heckenberg of Mediapolis, IA. Bret was cremated following a Visitation and Vigil Service on April 23, 2013, at Riplinger Funeral Home in Spokane, Washington. Memorial contributions to help fund engineering scholarships can be made to: Structural Engineers Association of Washington, PO Box 44, Olympia, WA 98507 (online at SEAW.org) or to the SEAOC Foundation, care of the Structural Engineers Association of Central California, PO Box 2590, Fair Oaks, CA 95628.

Please sign the guestbook at http://obituaries.redding.com.

SEAO/OACI ANNUAL GOLF TOURNAMENT
July 31, 2013

Wednesday, July 31, 2013
Shotgun Start: 1 pm
Social Hour: 6 pm

Stone Creek Golf Course
14603 S. Stoneridge Dr.
Oregon City, OR 97045
Phone (503) 518-4653

Once again this year SEAO and OACI combine forces for a return engagement of golf and merriment at Stone Creek Golf Club. Stone Creek is the newest golf course in the Portland area and is the pride of designer Peter Jacobsen. Participants will all enjoy the team spirit of playing a 4-person scramble.

We will have a shotgun start at 1:00 pm, allowing us to all finish at the same time to share stories of the day's glory and despair, along with dinner, beverage, and many prizes. We hope that you will come join us and support both organizations.

The course offers a driving range, a large putting green to hone your skills prior to the tournament--so come early. Power carts and range balls are included in the golf fee.

See attached flyers for registration for golf and sponsorships.

It is through our members participation and generosity that this tournament is so successful.

MAY MEETING PROGRAM RECAP (CONT.)
OREGON RESILIENCE PLAN

Summary By: David Tarries , P.E.

Findings:

The groups found that Oregon is far from resilient. Many of the buildings in use in Oregon today were built before 1980, and seismic design was considered a low risk in Oregon until the 1990s resulting in a large number of structures that are inadequate by today's understanding of possible seismic events. As a result, human casualties from 1,250 to 10,000 are anticipated and the cost of physical damage to the infrastructure could be as great as 20 percent of the state's GDP. As much as 1 million truckloads of debris could be expected. Liquid fuel in the state is vulnerable. There are no refineries in the state and the tank farms are on poor soil near the Columbia River. The initial damage anticipated from a Cascadia subduction zone event is much greater than the people of Oregon might anticipate and start the resiliency measurement curve well below the normal level.

Regarding recovery time, the report found that most services would take longer than an acceptable amount of time to return to normal. In the valley it could take one to three months to restore power, while on the coast it could take three to six months. Drinking and waste water in the valley could take one month to a year to repair while on the coast it could take one to three years. Complex interdependencies exist between different infrastructure groups that decrease the efficiency of repairs.

The results were set up in tables of states of recovery to clarify the resilience of types of structures in the eastern, valley, and coastal zones. The target states and estimated current states of different building types were indicated in phases ranging from multiple hours to multiple months. The difference between the two states illustrates a deficit. Deficits are larger in the coastal areas rather than in the eastern area that will see little shaking and no tsunami from a Cascadia event. See below for a sample table from the report.

• Schools and Emergency Sheltering

Table 1. Target States of Recovery For Oregon's Buildings
Based on 2007 DOGAMI SSNA and Independent Structural Engineering Review

Infrastructure Cluster Facilities	Event Occurs	Phase 1 (hours)			Phase 2 (Days)		Phase 3 (Months)		
		4	24	72	30	60	4	18	36+
Primary/ K-8 (Coastal)						[2]		X	
Primary/ K-8 Centers (Valley)						[2]		X	
Primary/ K-8 (Eastern)					X	[2]			
Secondary/High School (Coastal)						[2]		X	
Secondary/High School (Valley)						[2]		X	
Secondary/High School (Eastern)					X	[2]			
Emergency Sheltering (Coastal)								X	
Emergency Sheltering (Valley)								X	
Emergency Sheltering (Eastern)					X				

[1] Analysis includes consideration of non-structural components
[2] Range recognizes preference for shorter time frame, but acknowledges a longer period can be tolerable.

Target State X Estimated Current State

Recommendations:

The state needs to implement a program to prepare for a future event. It could be called the "State Resilience Office" and would prioritize and coordinate improvements to the infrastructure in Oregon. Decisions need to be made as to how to allocate resources to close the resiliency gaps exposed by the findings. The office could decide if more funds should be allocated to Eastern Oregon, where the resilience gaps are relatively easy to close, or conversely along the coast where the need is great but the cost of slight resiliency increases can be great. The office would need to undertake a comprehensive study of critical structures, upgrade statewide policies and programs, and create incentives for the private sector by giving them financial reasons to upgrade their structures, as well as other duties.

The list below broadly describes the recommendations provided in the report:

- Establish a state resiliency office.
- Raise public awareness of the issue.
- Complete an inventory of vulnerable buildings. Portland has started but they are not well documented.
- Include inspections in emergency response.
- Prioritize essential facilities.
- Fully fund school seismic retrofits.
- Expand passive trigger programs in local building codes.
- Accelerate retirement or upgrade of vulnerable buildings.

Continued on Page 11

- Improve plan review and construction oversight on new construction.
- Develop a seismic performance rating system.
- Encourage performance-based design in design critical structures.
- Encourage residential home retrofits.

Progress:

Some communities in Oregon have already realized the importance preparing for a seismic event and started changing for the better. The following list indicates some of the progress currently being made in the state to increase seismic resilience:

- Waldport high school got funding to move the school out of the Tsunami zone.
- Seaside and Cannon Beach are working on passing or have passed bonds for moving their schools out of the Tsunami zone.
- 25 schools have received funding from the statewide seismic rehabilitation grant program.
- Portland Public Schools are working on retrofits for many of their facilities.
- Portland has renovated almost all of its fire stations and Tualatin Valley is working on it as well.
- OSSPAC is working with the legislature to push developments in seismic readiness forward.

Reports like this one have been completed in the past but they tend to get pushed under the rug over time. SEAO was involved with those reports as well, but their implementation was limited. If this push is to continue, there needs to be public support for action. SEAO members can assist with this by writing your local legislature representative or by working with other committees to help form policy, through community outreach, and through volunteering in your local community. The key is that SEAO members need to get involved. The public needs to be made more aware of the situation and what can be done to improve it. If you would like a full copy of the report presented to the legislature it is available on the SEAO website at http://www.seao.org/resources/oregonresilienceplan.

$10,000 HOLE IN ONE PRIZE!

2013 SEAO / OACI Golf Tournament

JULY 31ST, 2013
Stone Creek Golf Course
1:00 PM
SHOTGUN START!

WHEN:

DATE: Wednesday, July 31st
SHOTGUN START: 1:00PM
SOCIAL HOUR: 6:00PM
DINNER & AWARDS: 6:30–7:30PM

WHERE:

STONE CREEK GOLF CLUB

14603 S. Stoneridge Dr.
Oregon City, OR 97045
Phone: (503) 518-4653

TOURNAMENT:

4-Person Scrambles

DINNER:

Dinner Will Be Served

CONTACT INFO:

Jane Ellsworth (503) 753-3075 jane@seao.org

NO REFUNDS FOR CANCELLATIONS AFTER JULY 6TH

FEES:

Golf & Dinner: **$100/person**
(Includes golf cart & driving range)

EVENT DETAILS:

Once again this year S.E.A.O. and O.A.C.I. combine forces for a return engagement of golf and merriment at **Stone Creek Golf Club**. Stone Creek is the newest golf course in the Portland area and is the pride of designer Peter Jacobsen. Participants will all enjoy the team spirit of playing a 4-person scramble.

We will have a shotgun start at 1:00PM, allowing us to all finish at the same time to share stories of the day's glory and despair, along with dinner, beverage and many prizes. We hope that you will come join us and support both organizations.

The course offers a driving range, a large putting green to hone your skills prior to the tournament so come early. Power carts and range balls are included in the golf fee.

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

42" TV, iPad Mini, Golf Rangefinder, Ocean Salmon Fishing Trip for 2, Ocean Halibut Fishing Trip for 2, Power Washer, Gift Cards & much more!

Appropriate "Country Club" attire is recommended:

- Collared Shirts
- No Denim
- Shorts must have a 6" inseam
- Soft spikes only.

PLEASE RETURN THIS ENTRY FORM BY JULY 5TH TO:

S.E.A.O.
9220 SW Barbur Blvd. #119
PMB #336
Portland, OR 97219
(503) 753-3075 Phone
(503) 214-8142 Fax

Player Names	Green Fees	Membership	Payment Enclosed
	☐ Golf & Dinner – $100	☐ SEAO ☐ OACI	$_____
	☐ Golf & Dinner – $100	☐ SEAO ☐ OACI	$_____
	☐ Golf & Dinner – $100	☐ SEAO ☐ OACI	$_____
	☐ Golf & Dinner – $100	☐ SEAO ☐ OACI	$_____
String & Mulligan Add-Ons (1 Mulligan = 1 Shot Per Person)			
☐ 5' String – $15 (Limit 5' Per Foursome) _____ Qty ☐ Mulligans – $5 ea (Limit 5 Per Foursome) _____ Qty ☐ 5' String & 5 Mulligans – $30 (Limit 1 Per Foursome) _____ Qty			$_____

☐ **Check Enclosed** ☐ **VISA** / ☐ **MC Accepted** **Total** $_____

Name On Card: _____ **Contact Number:** _____

Card # _____ **Exp. Date:** _____

2013 SEAO / OACI Golf Tournament

JULY 31ST, 2013
Stone Creek Golf Course
1:00 PM
SHOTGUN START!

Donation / Hole Sponsor Form

Sponsor Information:

Company Name: _____

Contact Name: _____

Phone: _____ **Fax:** _____

Email: _____

Hole Sponsorship

- ○ **GOLD - $200 for tee sign and flag at the hole and recognition on banner at dinner**
  Hole Preference _____
- ○ **SILVER - $150 for tee sign, but stationed at putting green/driving range before golf and recognition on banner at dinner**
- ○ **BRONZE - $125 recognition on banner at dinner**

Special Sponsorship

- ○ **LD/KP/Long Putt Hole Sponsor | $150**
  Hole Preference _____
- ○ **On Course Drink Refreshment Sponsor | $375**
  (Host drink cart for one beverage per participant to be redeemed during play)
- ○ **19th Hole Sponsor | $250**
  (Host keg of Micro-brew)
- ○ **Golf Cart Sponsor | $200**
  (Host the golf carts with a sign in each cart with your company name)
- ○ **Scorecard Sponsor | $200**
  (Host the scorecards with the name of your company on each card)

Raffle Prizes*

- ○ **42" TV | $600**
- ○ **iPad Mini | $500**
- ○ **Gift Cards | $50 & $100**
- ○ **Ocean Salmon Fishing Trip for 2 | $250**
- ○ **Ocean Halibut Fishing Trip for 2 | $400**
- ○ **El Gaucho Gift Card | $150**
- ○ **Imperial Restaurant | $150**
- ○ **Golf Rangefinder | $300**
- ○ **Power Washer | $500**

**Golf committee will purchase raffle prizes*

Please Return This Form A.S.A.P. to:

S.E.A.O.
9220 SW Barbur Blvd., Suite #119, PMB #336
Portland, OR 97219
Fax: (503) 214-8142

Contact Info:

Jane Ellsworth
(503) 753-3075
oaci@comcast.net

2013 – 2014 SEAO CANDIDATES BIOGRAPHY

PRESIDENT

Amit Kumar

Amit has been a member of SEAO for over 20 years. He has served on the board of the SEAO as Vice president, Secretary and chair of the program committee in the past. He also served as a member of the Emergency Response, Code and Seismic committees of SEAO. He has over 25 years experience as a structural engineer designing and reviewing a broad spectrum of building types ranging from single story wood frame residential and commercial buildings to mid to high rise steel and concrete structures. Amit has worked in a private consulting firm for 11 years in various capacities as a project engineer, project manager and associate before joining the City of Portland. He is currently working for the City of Portland, as a Senior Structural engineer in the Bureau of Development Services. Amit is a licensed structural engineer in Oregon and California. He also volunteers at NCEES in helping develop and grade national structural exams for P.E. and S.E licensure. He looks forward to serving SEAO and the engineering community.

VICE PRESIDENT

Jennifer Eggers

Jennifer Eggers graduated from The University of Texas at Austin in 2003 with a BS in Architectural Engineering and a Bachelor of Architecture. She then graduated from UC Berkeley in 2004 as an NSF Fellow with an MS in Civil Engineering. After graduating, Jennifer joined Degenkolb's Oakland office and moved to their Portland office in 2006. She joined KPFF early this year where she is currently a Project Engineer and a licensed Structural Engineer. In California, Jennifer was involved with SEAONC and was the chair of the Public Affairs Committee where she organized over 150 volunteers each year for a community service project called Rebuilding Together. In Oregon, Jennifer is actively involved in SEAO's Seismic Committee and assisted with reviewing the ASCE 7-10 seismic provisions to provide adoption recommendations in the 2014 OSSC. She is currently the SEAO Board Secretary. Jennifer has been a key contributor in jump starting SEAO's Young Members Forum which now has around 15 active participants. Through YMF, she had the opportunity to interact with middle and elementary school students teaching them about our profession through presentation and a hands-on activity. Jennifer was very active in the Critical/Essential Buildings Task Group for the State of Oregon Resiliency effort which was released earlier this year.

Jim Riemenschneider

Jim graduated from Michigan State University and then The University of Michigan in 1994 with degrees in Civil Engineering. After working in Michigan for a couple of years he moved to Portland and has been a member of SEAO since 1998. Receiving his license in 2000, Jim has had the opportunity to work on a whole host of commercial, industrial, residential, and even a few municipal building projects predominantly located here along the west coast. As part of The State of Oregon Building Codes Division (BCD) Structural Code Review Committee, he helped represent SEAO and structural design during the review process for the current 2010 Oregon Structural Specialty Code (OSSC). This experience with BCD helped urge Jim to assist with the review of the Oregon Solar Installation Specialty Code adopted in 2010. About 6 years ago, he accepted the chair to the SEAO Code Advisory Wind Subcommittee and was active in the creation of section 1609.6 in the current IBC/OSSC. Over this past winter Jim helped SEAO review the 2012 IBC/ASCE 7-10 wind provisions for the forthcoming 2014 OSSC. Jim currently works with VLMK Consulting Engineers.

SECRETARY

Dominic C. Matteri

Dominic is a Senior Project Engineer with Kramer Gehlen & Associates and is a licensed Structural Engineer in Oregon, Washington and California. He graduated with a BS in Civil Engineering from Santa Clara University in 1998. Dominic's 12 years of structural engineering experience have led him into a broad variety of projects and activities. His projects range from design of high rise residential structures to a 500-child youth camp to single-family homes. Dominic has a particular interest in the seismic performance of buildings. In March of 2010, he spent a month in Haiti performing seismic evaluations of earthquake damaged homes and businesses as part of a relief effort sponsored by the UN/OPS and the Pan-American Development Fund (PADF). He volunteered for the State of Oregon Resiliency effort as part of the Critical Buildings Task Group. He also volunteers in local schools through AIA Portland's "Architect in Schools" program, which introduces design and problem solving principles to third through fifth grade students.

Devon Lumbard

Devon Lumbard graduated from U.C. San Diego in 2005 with an MS in Structural Engineering. After growing up in many different parts of the country, he chose to settle in Portland. He then joined Degenkolb's Portland office where he is currently a Project Engineer and a registered structural engineer. Outside of the office, Devon has taught as an Adjunct Faculty Member of Portland State since 2007. He has been actively involved in SEAO's Young Members Forum by giving presentations to elementary school students to encourage them to consider the structural engineering profession, as well as serving as the Co-Chair of the Event's Committee of Oregon's chapter of the Design Build Institute of America. He has also been very active in the Information and Communications Task Group for the Oregon Resilience Plan. Outside of Oregon, he has been involved in SEI as a member of the Young Professionals Committee and Chair of the Meet the Leaders Breakfast at the 2013 Structures Congress.

TREASURER

Shelly Duquette

Shelly has been involved in the structural engineering field in the Portland area since 1995 and became a member of SEAO that same year. She currently is with the City of Portland Bureau of Transportation (Bridges and Structures), transferring from the building department. Shelly has also worked in private consulting and construction support. Currently Shelly is chair of SEAO's Emergency Response Committee, on the OSSPAC Seismic Resilience Committee and the NCEES Structural Exam Committee. She is also a former Secretary of SEAO. Shelly has a bachelor's degree in civil engineering from the University of Washington and a Master's degree in civil engineering (with a structural emphasis) from Portland State University.

DIRECTOR

Mike Bair

Mike is a Technical Representative for Trus Joist® brand Engineered Wood Products manufactured by Weyerhaeuser NR. He started with Trus Joist Corporation in 1988 and carried that role through several business name changes (i.e. Trus Joist MacMillan, Trus Joist a Weyerhaeuser Business, iLevel, and now Weyerhaeuser/Trus Joist EWP). He's been involved in many educational activities for SEAO members at tradeshows and seminars during this time.

Mark Galusha

Mark is a registered Civil Engineer in both Oregon and Washington with over 24 years of experience in Materials Testing and Special Inspections. He has been employed with Mayes Testing Engineers, Inc. since 1989 and has served as their Portland Branch Manager since 2004. As a member of SEAO since 2006, Mark has also served as President, Vice-president, and Secretary of the Oregon Council of Engineering Laboratories (OCEL), and been involved with the Special Inspection Advisory Boards for both Oregon Building Officials Association (OBOA) and Washington Building Officials Association (WABO), as well as the City of Portland's Bureau of Developmental Services (BDS).