



EQUILIBRIUM

Newsletter of the Seattle Chapter
Structural Engineers Association of Washington

February 2009

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February Mini-Seminar

John Hooper
of
Magnusson Klemencic
Associates

Will discuss new
Ground Motion Design
Process and ASCE 7-10.

The Burj Dubai Tower, the World's Tallest Man-made Structure

*Presented By Lawrence C. Novak,
SE, SECB, LEED® AP - Director of
Engineered Buildings for the
Portland Cement Association*

Join us as we host our colleagues from ACI at our February 24th dinner meeting.

High performance concrete is becoming the material of choice for the next generation ultra-tall high-rise buildings.

The Burj Dubai Tower, when completed, will be the world's tallest structure. The superstructure is currently under construction. The final height of the building is a well-guarded secret. The height of the multi-use skyscraper will comfortably exceed the current record holder of 509 meter (1671 ft) tall Taipei 101. The 280,000 m² (3 million square feet) reinforced concrete multi-use tower will house retail, a Giorgio Armani hotel, residential units, and offices. The goal of the Burj Dubai Tower is not simply to be the world's highest building; it's to embody the world's highest aspirations.

The tower, located in Dubai, UAE, an equivalent UBC 97 seismic zone 2A, is schedule to be completed in 2009.

Designers purposely shaped the structural concrete Burj Dubai – "Y" shape in plan – to reduce the wind forces on the tower, as well as to keep the structure simple and foster constructability. The structural system can be described a "buttressed" core. Each wing, with its own high performance concrete core and perimeter columns, buttresses the others via a six-sided central core, or hexagonal hub. The result is a tower that is extremely stiff laterally and torsionally. Skidmore, Owings & Merrill (SOM), the architects and engineers for the project, applied a rigorous geometry to the tower that aligned all the common central core and column elements.

Each tier of the building steps back in a spiral stepping pattern up the building. The setbacks are organized with the tower's grid, such that the building stepping is accomplished by aligning columns above with walls



below to provide a smooth load path. This allows the construction to proceed without the normal difficulties associated with column transfers.

The tower's width changes at each setback. The advantage of the stepping and shaping is

(Continued on page 2)

Meeting Information:

Date: Tuesday, February 24, 2009

Place: McCormick & Schmick's Harborside
1200 Westlake Ave N, Seattle

Time: 5:15–6:00 PM Mini-Seminar
5:30–6:30 PM Social Hour
6:30–7:45 PM Dinner
7:45–9:00 PM Business, Program

Menu: Choose between
Seafood Alfredo with Scallops & Shrimp
~or~
Pasta Primavera with Olive oil, White
Wine and Pine Nuts

Price: SEAW/ACI Members \$30.00
Non-Members \$35.00
Students (with ID) Free
Late Registration, add \$5.00

Reservation Deadline: Thursday, February 19

REGISTER ONLINE at www.seaw.org
(Members, be sure to log in to get member price.)

or e-mail seaw@seaw.org
Prepayment is Requested

FROM THE BOARD: Using Our Membership and Resources Wisely

The SEAW treasurer and board, at the last board meeting, addressed the 2009 budget. Both the State organization and the Seattle Chapter are in good shape. SEAW is quite frugal with the money we all pay as dues and the money we spend on seminars. The board is not anticipating any need for dues increases and fully intends for SEAW to continue to provide the most current, useful and cost-effective seminars.

Membership has grown significantly in the last couple years. It's great to see lots of young faces at meetings, seminars, and other activities. Some of the larger companies seem to be effectively encouraging their employees to become members. I don't know how many of the new members are involved in the technical committees, but that's the next step. Committee participation is a great way to learn and to serve the profession and provides a great opportunity to get to know possible future employers and co-workers. Where else is there a focused networking opportunity for structural engineers like SEAW provides?

We're all aware that the current economic situation puts our jobs and businesses in some jeopardy. Usually the Equilib-

rium has lots of job opportunities advertised. Now, not so much. But you've all seen the ads. When jobs are available, where do you think the ads will show up first? And what could be better than interviewing at a company where you know the boss or some of the employees because of mutual professional activities? Even if you're temporarily out work, you may want to stay involved in SEAW. The economy will get better and you have skills that will be needed.

The dues statements were recently distributed via email. We hope that even those who have lost or are worried about losing jobs, still can manage to keep up their memberships. Membership is still a bargain, at \$140 annually for a full Membership in the Seattle Chapter and State organizations, and less for non-S.E. memberships. Keep it up if you can. If you just can't manage it, don't just drop out. Contact Lynnell or me. We may have some helpful ideas.

One handy way to pay your dues is to go to the website (seaw.org). Since the administrative cost of hand processing your check seems to be a little more than the card-processing fee, we encourage you to give the online system a try. If you've lost track of your as-

signed username and password, contact Lynnell.

You may recall my past rants about math education and the WASL in our state's public schools. I'm glad to hear that progress is being made. A new State School Superintendent, Randy Dorn, was elected last November. He's committed to educational improvements. The WASL is on it's way out. The February 2 Seattle Times had an article by Randy Dorn discussing the replacement exam system. More detailed information about changes to the math curriculum is available at www.wheresthemath.com.

SAVE A TREE! One way SEAW is trying to keep our dues low is to distribute the newsletter online rather than sending out printed copies to everyone. Equilibrium printing and mailing costs are one of our larger expenses. I've been getting mine only online for the last couple years. Beginning in May we'll all get email notices with a link to the online Equilibrium. The website has archives of older issues in addition to the current edition. Very handy and no pile of paper. Contact Lynnell if you don't have online access. We don't want anyone to miss out, but we also want to reduce the printing and



mailing where possible.

The State Board is looking into setting up a separate charitable foundation to manage the Scholarship, Designated Emergency Response, and Designated Special Projects Funds. Several members have expressed interest in being able to make unambiguously tax-deductible charitable donations to the funds.

Ted Smith is a Principal of Smith & Huston Inc, Consulting Engineers. He has been a member of SEAW since 1976, and, in addition to other committee involvement, has served as Treasurer of the State SEAW and the Seattle chapter since 1995. Ted was named SEAW Seattle Chapter's Engineer of the Year in 2004.

The SEAW Seattle Chapter *Equilibrium* is printed monthly from September through May and is available online at www.seaw.org. Circulation by mail: approximately 550 copies. Articles, letters, and announcements are accepted by e-mail to seaw@seaw.org.

Advertising rates (prepaid, please): Help Wanted/Job wanted, \$65 ; Display ads: Quarter page, \$115; Half Page, \$150; Full Page \$190; inserts, pre-printed 8 1/2 X 11 inch flat, \$190. 10% discount for ads running two or more months. Deadline is the fourth Friday of the month. Contact SEAW for an Advertising Order Form.

Except where noted, opinions expressed in this newsletter reflect those of the author and do not reflect or represent the position of SEAW. Portions of this newsletter may be reproduced provided credit is given.

From Page One

to "confuse the wind". The wind vortices never get organized because at each new tier the wind encounters a different building shape. This enhanced wind behavior, coupled with the mass and damping provided by the high performance concrete, work together to minimize the forces and motions of the structure.

Lawrence Novak is the Director of Engineered Buildings for the Portland Cement Association. He previously was an Associate Partner with Skidmore, Owings & Merrill in

Chicago and he has over 20 years of design experience on high-rise and specialty use structures. Lawrence is an active member of American Society of Civil Engineers and the American Concrete Institute, including ACI 318 E Code subcommittee.

He has served on the Board of Directors for the Structural Engineers Association of Illinois, the TCA and the Illinois Engineering Hall of Fame. Lawrence has co-authored several papers on structural engineering and is the co-recipient of SEAOL's

"Meritorious Publication Award" for 2008 and 2001, the NCSEA's "Outstanding Structural Engineering Publication Award" for 2001 and the United Kingdom's Oscar Faber Award for 2002.

Lawrence Novak was the Senior Project Structural Engineer for the Burj Dubai tower, which is nearing completion of construction. When topped out, the Burj Dubai tower will be the world's tall-



Company Spotlight: Simpson Strong-Tie

For more than 50 years, Simpson Strong-Tie has focused on creating structural products that help people build safer and stronger homes and buildings. Considered a leader in structural systems research and testing, Simpson Strong-Tie® products are recognized for helping structures resist high winds, hurricanes and seismic forces. The company is one of the largest providers of connectors, fasteners, fastening systems, anchors and lateral-force resisting systems in the world. Featured product lines include our Wood and Steel Strong Wall® prefabricated shear walls, Anchor Tiedown Systems for multi-story buildings and Strong Frame™ moment frames. Specialty products include our Quik Drive® auto-feed screw driving systems, corrosion-resistant fasteners and Simpson Strong-Tie Anchor Systems® anchors and fasteners for concrete and masonry.

Our ability to develop new products increased significantly when we opened our Tyrell Gilb Research Laboratory in 2003. Our state-of-the-art lab allows us to perform full-scale tests on wall sections in order to measure the performance of our products and simulate real-world conditions, such as seismic ground motion, and uplift and lateral force from high winds. In the last few years, our engineers have embarked on three-dimensional testing of full-scale buildings to help clarify issues regarding allowable resistances of bracing methods under various load conditions.

Simpson Strong-Tie is committed to providing exceptional products and service to customers, which is why we invest in engineering and field support, product testing and training. We hope that when our customers see the Simpson Strong-Tie brand that they don't just think of us as a manufacturer, but as the manufacturer with the products and people they can rely on.

Simpson Strong-Tie SEAW members include:

Jim Mattison
Kevin Bourn
Keith Bohren, P.E.

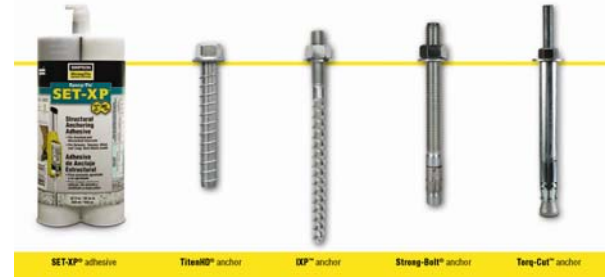
Simpson Strong-Tie
800-999-5099
www.strongtie.com

Cale Ash, SEAW Member since 2005, is our Company Spotlight Coordinator. If you would like to see your company in the spotlight, e-mail him at cash@degenkolb.com.

FEATURED PRODUCTS

Anchorage Solutions for Cracked Concrete

The new code provisions in the 2006 International Building Code (IBC) require engineers to factor in whether conditions exist that may cause concrete to crack. The provisions also require new anchorage solutions. Simpson Strong-Tie Anchor Systems has been focused on developing and testing products that meet the new standards. The company now has several code-listed cracked concrete solutions for designers to choose from, including its SET-XP™ Epoxy-Tie® adhesive (see ESR-2508), the Titen HD® screw anchor (see ESR-2713) and Strong-Bolt™ wedge anchor (see ESR-1771). Additional Anchor Systems products, such as the IXPT™ anchor and Torq-Cut™ anchor, are ICC-ES pending for cracked concrete.



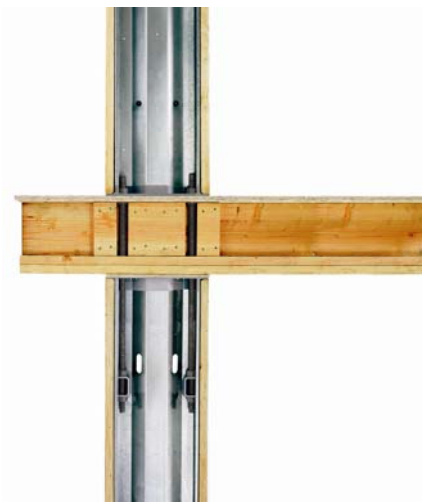
Strong-Frame™ Ordinary Moment Frame



For years moment frames have been a typical method of providing high lateral force resistance for residential and commercial construction as they allow for larger openings and smaller wall sections in buildings while offering high load values. In the past, however, they have been time-intensive to design and labor-intensive to install. Simpson Strong-Tie has changed that by developing its new pre-designed and manufactured Strong Frame™ ordinary moment frame. The frame is bolted together on site rather than welded, reducing installation time and is available in 196 engineered configurations, up to 16 feet wide and 19 feet tall, minimizing the design process.

Two-Story Stacked Shear wall Solution

Simpson Strong-Tie® two-story stacked Steel Strong-Wall® solution offers some of the highest loads in the industry. The design transfers the compression load through the nut and rod, reducing deflection under load. Unlike other wall systems, our stacked wall can be placed flush against a corner. It also has the same anchor bolt template as a single-story application and does not require bearing plates for installation. The two-story application is featured in the Strong-Wall® Shear walls Catalog, which includes balloon framing applications. Visit our website to order or download a copy.



Meeting Recap

January Dinner Meeting Highlights High Performance Concrete

The January SEAW Dinner meeting was held at McCormick and Schmidt's on Lake Union and was very well attended. The presentation on High Performance Concrete was presented by Jack Gibbons from CRSI Chicago. Mr. Gibbons presented 5 case studies in the use of High Performance Concrete mixes including self-consolidating concrete (SCC) and other innovative products. The 5 cases he presented illustrated his evolving use of and confidence in high performance concrete, and culminated with the foundation pour for the Trump Tower in Chicago.

The initial projects he illustrated used water reducing admixtures, namely polycarboxylate HRWR, to increase workability of the concrete without reducing strength. In later projects he used self-consolidating concrete due to placement restrictions.

Mr. Gibbons' recommendation to engineers for all projects: specify strength and water content ratios but NOT SLUMP. He suggested that the ready-mix suppliers should be given the leeway to meet the strength and end product performance

requirements and not the slump requirements because slump is a placement (means and methods) issue and the ACI 301 specs have not "caught up" with the advances in mix design. Therefore the slump and workability of the mix can be increased without decreasing the strength, if the contractor wants to use, and pay for, some additional admixtures.

SCC is a great solution to difficult (tight, congested, inaccessible) placement conditions, but comes at a \$20 to \$40/CY premium. The ready-mix suppliers are in varying stages of embracing the technology. The key to a successful SCC pour is to pour the concrete from one place as quickly as you can. In addition, two things Mr. Gibbons highly recommends for SCC are a pre-pour meeting and on-site technical service. These will make the pour go much more smoothly. On-site technical service is one thing that the Trump Tower had that the Freedom Tower does not, and Mr. Gibbons suggested that this is increasing

the number of issues the Freedom Tower is experiencing in its use of SCC.

He also suggested that some of the benefits of SCC can be obtained at substantially less cost premium (\$2-\$4/CY) by adding in small amounts of polycarboxylate HRWA. The polycarboxylate HRWA, if used judiciously, can really help with placement and end quality at a small premium. The polycarboxylate HRWA additive was shown to maintain the even distribution of aggregates in the fluid mix and added flowability that helped placement, lessened the need for vibrating, and lessened the dependence

upon workmanship for a quality end product. It effectively eliminated the adverse affects of poor workmanship issues related to vibrating and lessened the workmanship variable in concrete placement.

Jack Gibbons at CRSI can be reached at 847-517-1200 ext 19 or jjibbons@crsi.org. He'd be happy to answer any SCC or admixture questions that you have.

Written by Mark Moorlegghen, PE, SE, and Karen Damianick, PE, SE. Mark may be reached at mmoorlegghen@dci-engineers.com and Karen may be contacted at kld@kldengineering.com.

Bylaws Amendment Vote Passes

Voting MEMBERS attending the January 27th Seattle Chapter dinner meeting approved the proposed amendment to the Chapter bylaws to require a minimum of one name be reported to the Members by the Nominating Committee for the position of Vice President instead of the previous two.

Specific changes were made to the 6th sentence in the second paragraph of Article VI, Section 2

to read "On or about January 30th, the Nominating Committee shall report their nominations for office: one (1) name for President, at least one (1) name for Vice President, and at least two (2) names for each Director to be elected."

The full text of the Chapter bylaws can be found online at: http://www.seaw.org/documents/SE_Bylaws_2009.pdf

YMF Corner:

By Melissa White

On February 14, for the second year in a row, the YMF will be representing SEAW at the Engineering Fair, sponsored by the Puget Sound Engineering Council.

This annual event is generally aimed at elementary-through-high school aged students, with hands-on engineering challenges, such as the Popsicle Stick Bridge competition, and opportunities for kids to talk with practicing engineers representing approximately 20 organizations.

Engineering societies will represent aerospace, civil, electrical, industrial, mechanical, military, structural, among others.

Wayne Brown and Jennifer Ahlport, of Degenkolb Engineers, are coordinating the SEAW booth for the Engineering Fair. If you are interested in participating in the fair as a representative of SEAW, you may contact them at the email addresses provided at the bottom of this article. They will need help setting up and tearing down the booth, as well as staffing the booth for 2 hour shifts during the day, and talking to students and their parents

The Younger Member Forum was created in 2007 to provide networking and social opportunities to SEAW members 35 and under, as well as new non-member engineers and students. All SEAW members are welcome to participate in YMF functions.

and teachers about structural engineering and SEAW.

Even if you are unable to help out with the booth that day, the PSEC Engineering

Fair will be a fun way to spend a day with your family. Admission to the fair is free, and it will be held at the Museum of Flight from 10am to 4pm.

InfoLinks:

PSEC Engineers Fair: Visit <http://www.pseconline.org>

Volunteer Contacts:

Jennifer Ahlport: jahlport@degenkolb.com

Wayne Brown: wbrown@degenkolb.com

Engineers Week Events

Puget Sound Engineering Council Coordinates Engineers Week Activities February 15-21, 2009

Founded in 1951 by the National Society of Professional Engineers, Engineers Week is celebrated annually by thousands of engineers, engineering students, teachers, and leaders in government and business. In 1988, the National Engineers Week consortium expanded its scope and now includes more than 100 engineering, scientific, and education societies and major corporations dedicated to promoting pre-college interest in math and science, and engineering as a career option. The Foundation also works to enhance the public understanding of engineering.

Traditionally, Engineers Week falls on the week of George Washington's Birthday. President Washington was the first military engineer and land surveyor, and is considered the father of the

American engineering profession.

The purpose of Engineers Week is to highlight our profession to our community, to honor significant achievements of our members, and to note the importance of our profession in the quality of life that our community enjoys.

The Puget Sound Engineering Council is an umbrella organization for many engineering organizations in this region, including AIAA, APWA, ASCE, ASEE, ASHRAE, ASME, ASMI, AWS, IEEE, IIE, INCOSE, SAE, SAME, SAMPE, SEAW, SME, SWE, and WSPE.

Proclamations

Proclamations declaring Engineers Week start with a signing at the national level by the Presi-

dent, the state level by Governor Christine Gregoire, the County level by Executive Ron Sims and the City level by Seattle Mayor Greg Nickels.

A delegation including the following engineers will attend the proclamation signing ceremony with Governor Gregoire on February 13.

Donald Northey, PE, SE - Past-President Puget Sound Engineering Council (PSEC), and Past-President of the Structural Engineers Association of Washington (SEAW).

Deborah Limb, Director of Payloads and Structures Engi-

neering for Boeing Commercial Airplane Programs as a representative of Boeing, a Corporate Sponsor of EWEEK.

Paul Grant, PE, President-Elect PSEC, Past-President ASCE Seattle Section.

Kelly Griswold, Past-President PSEC, participant Society of Women Engineers (SWE) in local, regional and national roles.

Linda Thomas, Region Governor (Alaska, Washington, Oregon, Idaho, Montana) for the Society of Women Engineers (SWE).

PSEC Engineers Fair, February 14, 2009

The Puget Sound Engineering Council (PSEC) will be hosting the 2009 Engineering Fair in conjunction with local chapters of engineering societies and universities. The Engineering Fair generally has more than 20 display booths, staffed by practicing engineers and technical people representing many engineering disciplines.

The Fair will be held Saturday, February 14, 2009, 10 am to 4:30 pm, in the side gallery



Ryan Morgan staffs the 2008 SEAW booth



Popsicle Stick Contest Stage at the Museum of Flight sponsored by the Young Members of the American Society of Civil Engineers. For more information on the PSB contest, visit www.seattleasce.org.

at the Museum of Flight, Seattle, and is open and free to the general public. Regular admission is required for the Museum itself, but not for the Fair.

A feature of the Fair is a hands-on design competition, the Popsicle-Stick Bridge (PSB) Competition,

Engineer Awards Banquet

The 51st Annual Puget Sound Engineering Council (PSEC) Engineering Awards Banquet will be held Saturday, February 21st, 2009 at 5:30 PM, in the Alani Room at Palisade Restaurant, in the Magnolia neighborhood of Seattle. This is an unique opportunity to celebrate the profession of engineering, and to recognize the extraordinary achievements of our colleagues. Palisade features a breathtaking view of Seattle across the Elliot Bay, and an unforgettable dining experience.

Patrick M. Shanahan, Vice President and General Manager of Boeing Commercial Airplane Programs, formerly Vice President and General Manager of the 787 Program, has tentatively accepted an invitation to be the keynote speaker at the event. Mr. Shanahan's presentation will include a discussion of the challenges he faced in working to get the 787 program back on track.

The following engineers, chosen from a strong group of nominees, will be honored for their impressive achievements.

Academic Engineer-of-the-Year Professor Neil M. Hawkins, PhD, P.E., nominated by the American Society of Civil Engineers (ASCE) and the Structural Engineers Association of Washington (SEAW)

Industry Engineer-of-the-Year Leonard Frederick Reid, nominated by ASM International (ASMI)

Government Engineer-of-the-Year Ronald H. Borowski, nominated by the American Society of Civil Engineers (ASCE)

Young Engineer-of-the-Year Kelly Griswold, nominated by the Society of Women Engineers (SWE)

Professional Engineer-of-the-Year Neil A. Norman, P.E., FNSPE, nominated by the Washington Society of Professional Engineers (WSPE) Mount Rainier Chapter

Engineering Educator-of-the-Year, The Kenneth W. Porter Award Stephen R. Snelling, nominated by the Institute of Industrial Engineers (IIE)

For more information, and a link to the registration page, visit <http://www.pseconline.org/Events/AwardsBanquet/>.

Meetings/Seminars/Announcements

Steel Construction and Welding Inspection Seminars Scheduled for Spring 2009

The Steel Structures Technology Center has announced their schedule for seminars on the inspection of steel construction, structural welding, and structural steel plan reading. All seminars are conducted in cooperation with the International Code Council (ICC).

The "Structural Steel and Bolting Inspection" seminar includes International Building Code (IBC) special inspection requirements, steel materials, steel fabrication and erection, and high-strength bolting.

The "Structural Welding Inspection" seminar includes IBC special inspection requirements, and welding inspection under American Welding Society (AWS) Structural Welding Codes D1.1 - Steel, D1.3 - Sheet Steel, and D1.4 - Reinforcing Steel.

"Plan Reading for Steel Construction" includes structural design and shop drawings and specifications.

Seminars are scheduled in Tacoma / Lakewood, WA May 6 & 7, 2009

The seminars parallel the ICC special inspector certification programs for "Structural Steel and Bolting" and for "Structural Welding". All seminars are approved for continuing education credit for ICC certifications. In addition, the courses meet the criteria of AWS QC1:2007 regarding continuing education credit for AWS welding inspector certification renewal.

Individuals will be able to register for each seminar separately, or register for two or more seminars as a discounted package. Group discounts are offered for those firms or agencies sending three or more attendees.

For more information and for specific locations and times, visit the Steel Structures Technology Center website at www.steelstructures.com.

Explosion Effects and Structural Design for Blast

A 2-day training course at the Drury Plaza Hotel at the Arch in St Louis, MO, April 14 and 15, 2009

Engineers, architects, first responders, builders and others will benefit from learning about explosion effects, protective design methods, and retrofit techniques. Most new government buildings now require some level of blast resistant design and many facilities require retrofitting to meet anti terrorism bomb protection criteria; this training will address those requirements. Each participant will receive a certificate indicating 15 Professional Development Hours (PDH) that can be used to meet continuing education requirements for professional engineers. The course will focus on the fundamentals of explosion effects, determining blast loads on structures, computing structural response to blast loads, and the design and retrofit of structures to resist blast effects. The emphasis will be on terrorist threats from vehicle bombs, but the fundamental concepts can be applied to other explosive scenarios. Currently available software and publications for blast effects and design guidance will be demonstrated and discussed. Much of the design guidance and software are restricted distribution to government agencies and their contractors, however specific information on how qualified users may obtain the software will be provided. Several computer programs for blast effects and blast design calculations have recently been developed by the government for general release to the public and those programs will be discussed along with instructions on how to obtain the software. All software and references discussed in this course are available free of charge to qualified users. Participants will gain an understanding of how to compute explosion effects like overpressure, reflected pressure, and impulse; how to calcu-

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NEHRP Provision Review Requested

The SEAW Earthquake Engineering Committee (EEC) has received the latest round of proposed revisions to the 2003 NEHRP Provisions, which will become the 2009 NEHRP Provisions. There are 3 parts to the ballot, corresponding to the new three-part format of the provisions. They are:

- Part 1 - Nine proposals for modifications to ASCE 7-05.
- Part 2 - Six chapters of Commentary on the Provisions.
- Part 3 - Five "White Papers" on special topics in seismic design.

The SEAW Earthquake Engineering Committee is hoping to review and collect comments on these Proposals in the next month via email. SEAW is soliciting review comments and input from the general membership. Please take the time to review. SEAW's ballot is due back to the Building Seismic Safety Council (BSSC) by March 6th, 2009. For everyone's convenience, the ballot items have been uploaded to the following ftp site. Access is as follows:

<ftp://67.88.217.117/>
Username: SEAW
Password: SEAWEEC

Proposal SDPRG-1R4 is a rather substantial change to seismic ground motions with a change from the Maximum Considered Earthquake (MCE) to the Risk-Targeted Earthquake (RTE). A paper from the 2007 SEAOC convention that outlines the technical basis for this change may be found on the FTP site. Mr. John Hooper will also be presenting a min-seminar on this topic at February's SEAW dinner meeting on the 24th. Please email review comments to the EEC via **Doug Wilson, P.E.,S.E.** at dwilson@dc-engineers.com.

Mark Your Calendar

FEBRUARY, 2009

Saturday	14th	PSEC Engineers Fair at the Museum of Flight < www.pseconline.org >
Saturday	21st	PSEC Engineers Banquet
Friday	20th	March Newsletter Deadline
Tuesday	24th	Chapter Board meeting 3:00 pm Seattle Chapter Dinner meeting Burj, Dubai We Host ACI

MARCH, 2009

Wednesday	11th	Chapter Board meeting ASCE Hosts annual joint meeting
Friday	27th	April Newsletter Deadline

APRIL, 2009

Friday	24th	May Newsletter Deadline
Tuesday	28th	Chapter Board Meeting Seattle/SW Chapter Joint meeting - announcement of election results

MAY, 2009

Tuesday	19th	Annual Spring Social and Awards Event
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Watch the SEAW website for Calendar updates!

Meetings/Seminars/Announcements

(Continued from page 6)

late the resulting blast loading on a structure; how to compute structural response to blast loading; and practical methods for designing and retrofitting structures to resist blast effects. Participants will be provided a complete set of bound class notes. Participants may check in beginning at 7:30 am on April 14 and the course will run 8am to 5pm each day, April 14 and 15. Lunch along with refreshments at breaks will be provided for participants each day. For more information about the instructors, the course, and accommodations visit <http://www.blastdesigntraining.com/> where secure on-line registration is available. Questions should be directed to Dr. Sam Kiger, 573-882-3285, Mobile 573-999-7742, KigerS@missouri.edu or Dr. Stan Woodson, 601-636-4429 woodsoneng@netzero.net.

ATC and SEI Announce the Inaugural Conference on Improving the Seismic Performance of Existing Buildings and Other Structures

The Applied Technology Council (ATC) and the Structural Engineering Institute (SEI) of the American Society of Civil Engineers (ASCE) are pleased to announce their inaugural **Conference on Improving the Seismic Performance of Existing Buildings and Other Structures**, which will take place at the Hyatt Regency San Francisco on December 9-11, 2009. The Conference Program for this 3-day event will feature plenary and breakout sessions on a broad range of pertinent topics, presentations by prominent professional and political leaders, technical exhibits, and social events, including a black-tie gala at the San Francisco Ferry

Building celebrating new innovations in seismic strengthening over the last decade. The program will provide a forum for the presentation and exchange of new information on the seismic evaluation and seismic rehabilitation of existing buildings, including case studies, new discoveries, innovative use of new technologies and materials, implementation issues, needed improvements to existing standards and methods, and socio-economic issues. The goal is to provide an opportunity to advance the profession's understanding of the tools, techniques and innovations available to assist in seismic evaluation and rehabilitation. For those new to the profession, the conference will also provide an opportunity to learn more about core issues in this important field.

A Call for Papers was issued on October 15, 2008, and abstract and session proposals are now being sought for state-of-the-research and state-of-the-practice presentations. To see the Call for Papers, go to: www.atc-sei.org/submissions.html

Abstract and session proposals are due on February 27, 2009. To upload a proposal visit this site: www.succeed.ufl.edu/atc-sei/ Registration will open in May 2009.

Additional information regarding the conference and how to submit an abstract or session proposal can be found on the conference website: www.ATC-SEI.org.

Please plan to join us for this important new event in earthquake engineering.

Opportunities

King County Department of Transportation, Road Services Division

Lead Structural Engineer III

Are you seeking an exciting career opportunity where you can be a part of a dynamic organization that is making a difference in your community? King County Road Services is seeking an experienced lead senior level structural engineer to assist the bridge unit in maintaining and preserving the county's bridges and the continuity of King County's roadway network. The successful candidate will have a bachelor's degree in civil engineering and at least four years of experience in structural design or bridge engineers. Washington licensure as a professional engineer or the ability to obtain the license within one year of appointment is required. For more information and instructions on how to apply please visit www.karrasconsulting.net and click on current searches.

EERI Seeks Executive Director

The Earthquake Engineering Research Institute's Executive Director, Susan Tubbesing, will be retiring at the end of 2009, after nearly 22 years of service to the Institute. The EERI Board of Directors is seeking a new Executive Director. Please visit EERI's website <http://www.eeri.org/edsearch> for a complete job description and instructions.

Application deadline: March 15, 2009. Send your letter of interest and a resume with supporting qualifications to searchcommittee@eeri.org or to EERI, 499 14th Street, Suite 320, Oakland, CA 94612-1934, ATTN: Thalia Anagnos, Chair, Search Committee. Your application will be kept in confidence.



Routinely recognized as one of the best places to work, Degenkolb Engineers is actively recruiting structural engineers looking for a long-term career with a clear path to leadership and ownership. We encourage lifelong learning and support professional and community-based activities. Degenkolb engineers have the opportunity to follow their interests and develop their own book of work. And when we're not doing that, we are playing... sometimes in one of four company cabins in Tahoe, Big Bear, Monterey, and Sunriver. As renowned leaders in seismic and structural engineering, we offer a diverse, challenging mix of projects on both new and existing structures. Minimum requirements are an MS in Structural Engineering, excellent communication skills, and a desire to work in a challenging, collaborative environment. We have offices in San Francisco, Oakland, Los Angeles, San Diego, Portland and Seattle and are seeking engineers with all levels of experience. EOE

If you're interested in joining our award-winning firm, please contact: **Stacy Bartoletti**, 415.354.6501 or email your resume to recruit@degenkolb.com.

For more information, please visit www.degenkolb.com.



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Membership

Membership Applications

- Barry Chan**
Magnusson Klemencic Associates
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Class: Associate
- Julie Chappel**
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U of Illinois Urbana-Champaign
Class: Associate
- Nicholas Redmond**
Magnusson Klemencic Associates
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MS 2007 Virginia Polytechnic
Class: Associate
- Luke Ruggeri**
Degenkolb Engineers
U of Washington 2006
U of Cal Berkeley 2007
Class: Associate

- James Shannon**
Seattle University
Class: Student
- Luke Showalter**
Harris Group Inc.
BSCCE 2004 Ohio State
Class: Associate
- Samuel S Sideras**
Seattle University
Class: Student
- Rachel Vranizan**
Seattle University
Class: Student

Accepted Applications

- Anatalia Countiss**
Student
- Rocco Koekemoer**
Associate
- Ian McFarlane**
Associate
- Brian Robinson**
Associate
- William S Williams**
Associate

SEAW Membership Dues

It's Dues collection time!

Seattle Chapter members were emailed their dues invoices on January 23rd. According to the SEAW Bylaws, annual dues are payable in advance. This is a great time to review your membership listing and notify the SEAW office of any changes to your address, company, or membership classification.

Online Dues Payment Instructions

1. Go to www.seaw.org
2. Log in to the member area (Default login name is your email address; password is your first name.)
3. Click on "My Membership" in the menu bar
4. Select "Membership Renewal" in the gray menu bar
5. Follow the prompts to pay your dues online using your VISA or Mastercard.
6. When your payment has been made, you will receive an emailed receipt.

Forgot your Login Information? Simply click on "Forgot Password" under the Member sign in area and enter your email address. Your information will be emailed to you.

**Equilibrium to go
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If you are currently receiving a print copy and are ready to switch to electronic, please contact the SEAW office today!