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SEAW Statewide President 2006—2007

Steven Hawk, 2006-2007
SEAW State President

Maybe I’m biased, but don’t you agree that we have the coolest profession around as structural engineers? Our profession is responsible for making the tallest building in the world stand up, the longest bridges span, and the greatest structures on earth that can withstand the awesome forces of earthquakes, hurricanes, snowstorms, and tsunamis with practicality, sustainability, efficiency and beauty. I am honored to be a part of this great profession and to serve as this year’s SEAW State President.

This summer, we had a great opportunity to meet with other structural engineers from the states of Washington, Oregon, Idaho, Arizona, Hawaii, and BC at the Northwest Structural Engineers Association Conference and Western States Roundup. The theme of the conference was “Engineering in the Land of Earth, Wind, and Ice”, and the location in the Columbia River Gorge Scenic area fit nicely with this theme, as it’s one of the windiest places on earth. Those in attendance enjoyed not only the beautiful setting, but the excellent technical sessions and entertainment as well.

Some of our specific statewide SEAW goals this year as we engineer in this land of earth, wind, and ice are to:

- Develop a WABO “white paper” statement on the Snow Load Analysis of Washington for use in determining snow loads in combination with the ASCE 7 provisions.
- Further develop the SEAW Bridge Committee and increase involvement from bridge engineers statewide.
- Make a decision as to whether or not to pursue a PDH program as a state licensing requirement.
- Advance an acceptable bill of the Structural Engineer’s “Practice Act” through our State Legislature. If you recall, this is the document that will define the domain where only registered Structural Engineers are permitted to practice.
- Streamline our online dues process. Check out the new website if you haven’t yet! www.seaw.org
- Assist the Seattle Chapter in planning next summer’s SEA NW Conference.
- Adopt an SEAW “Five-Year Plan” for guiding our long-term goals of increasing membership, maintaining healthy financial status, fostering chapter interaction, positive public exposure, continuing education, improved committee membership, engagement of young members, business development, and maintenance of a strong national presence.

Speaking of Continuing Education, I recently had the opportunity to attend an NCSEA web seminar, or “webinar” as they called it. This was like a video teleconference where a group of us gathered in our

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The end of summer is creeping up upon us, the changing of the guard has occurred in the leadership of SEAW, and this is my last chance to address SEAW in this format. We have had quite a year. The financial condition of our association is good, and has improved over previous years. (I cannot take credit for this. We have been in good hands with our treasurer, Ted Smith, and the guidance of a good board of directors.)

We have spent the year getting more familiar with the new Code. This has been a much bigger task for us than for engineers in areas that were previously BOCA or Southern Building Code. We had both new wind and new seismic to learn. They only had small modifications to the procedures that they were already using. This actually increased the difficulty for us, because two-thirds of the country didn’t realize that there was a problem, and the remaining third was so busy trying to learn the new provisions that they didn’t have time to make better classes and design aids.

After all that work, we now have a new Code going into effect this July. This time, however, all we face are improvements. The seismic provisions have been substantially reformatted. While we’ll still have new calculations that we have now gotten used to, the Code sections have been reformatted to follow the pattern of the ’97 UBC. We will finally be able to find the sections we are looking for. This is such an improvement that many of you might want to start using it sooner than July. Many of the main jurisdictions have indicated that they are open to that possibility. Expect to see a joint SEAW/WABO white paper in this regard.

Wind pretty much remains the same, but with the addition of some missing pieces. Ever wonder how to handle an open building with a double slope roof? It’s now in ASCE 7-05!

Incoming President  from page 1

conference room and watched the speaker for the seminar, Ron Hamburger, present the material in an online video format while we heard his voice over the telephone. That’s another reason I like structural engineering—we aren’t afraid of technology! The format was fun and the content was great. Mr. Hamburger presented the new AISC 358 on prequalified moment connections and AWS D1.8 on welding in seismic applications. Don’t miss a chance to attend one of these great webinars!

I look forward to this year serving my fellow structural engineers and invite you to get involved with SEAW—after all, we can’t be the coolest profession around without you!

Steve Hawk
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Outgoing President’s Message

The sign section has been completely rewritten, making it much more comprehensive. One of our challenges in the coming years will be to shift our efforts from being a voice in Code development to being a voice in Standards development. Because most of the structural is now by referenced standard, this is where the action is. Anyone looking at the ASCE 7 provisions can see that we definitely need a voice. There is a big need for engineers to step up and become active in this.

While the academics have gotten most of the bad press with regard to complexity of the current Code and Standards, the real drivers in complexity are industry reps. The academics may come up with complex refined ways to analyze forces, but it is the industries that cannot resist taking advantage of every break they can get, and getting it added into the Code. This is where we need representation. Complexity to the point where it causes errors is in no one’s best interest.

Involvement in the Standards process will require more trips for our member representatives to out-of-state meetings. This is something we will need to address in the budgeting for our committees, and in our procedures for sending representatives.

On the home front, SEAW has several groups working jointly with WABO to create white papers intended to simplify, clarify, and provide wider consistency in our practice. Papers in the works include support for the RSM simplified wind method, and better defining the role and scope of structural plan checks by building departments.

Another challenge facing us these next few years is the development of a practice act for Structural Engineers. There is good reason for the additional training and testing required to become a Structural Engineer. Larger and more complex buildings need this extra training. It is time for Structural Engineer to be more than just a name.

The task will not be easy. We will need to stay informed and raise our voices together. We also need to find ways to make the transition to Structural easier (or at least less painful) to our fellow engineers in the eastern part of the state, who as part of typical practice in their part of the state, have not felt the same impetus to take the step to Structural.

I have heard that part of the argument for not wanting to require a Structural License for Importance Factor > 1.0 buildings, such as hospitals, is that multiplying by 1.25 isn’t so hard that it requires a Structural License. Sorry for using the president’s message for wading in on this, but I can’t remain silent. My daily role as a structural plans examiner gives me some insight on this. If only it were as simple as multiplying by 1.25!! (For many of you this is preaching to the choir.) Unlike regular buildings, the value of the equipment in hospitals greatly exceeds the cost of the building. Partial failures that would simply be an inconvenience in a regular building become life threatening in a hospital. Many of our code provisions on ductility detailing and compatibility of deflection get “winked at” in design of normal buildings, but become critical in high importance buildings.

In the past seven years of plan review, I have yet to see a Civil Engineer check compatibility of deflection. However, I regularly see Structural Engineers check for it in situations where it is important. Not always by calculation; but at least by clearly showing that they have considered it, and have designed and detailed to eliminate the problem. In watching the transformation in young engineers when they pass the Structural exam, awareness of compatibility of deflection and comfort with the detailing of higher ductility structures are the main hallmarks of what I see. The SE test is the forge and anvil that tempers and strengthens this portion of our design abilities. This brings us to a third challenge facing us—continuing education. There are a few SE’s that don’t (can’t?) consider compatibility of deflection even when it is important. There are some that are not current in their code knowledge and practice; even some for which it has been quite some time since they have been current. Fortunately, they tend to confine themselves to non-“important” structures. This is small consolation to the people who own, live, or work in their buildings, however. Due to a new State law mandating that manufactured homes be allowed in cities, I have recently been exposed to a whole subset of engineers (some of them SE’s) who have been off of everyone’s radar screen. We never see them at seminars or meetings. Most are unfamiliar with Cd, o, or even its predecessor 3/8 Rw. This means that they are at least 15 years behind in their practice of engineering. (This is significant, because most foundations for manufactured homes are braced by steel tension-only bracing which requires o loading.) They are blissfully unaware that during the Northridge quake, 98% of the standard-set foundations for manufactured homes closest to the epicenter failed (RED TAG – do not occupy), and 55% overall failed. Also unaware that in the Nisqually quake near the epicenter (1/6 the ground acceleration of Northridge), manufactured homes foundations failed. This is what happens when we don’t keep current.

Virtually all of us reading this newsletter attend enough meetings, seminars, and classes
Ed Huston Receives SEAW Lifetime Service Award

The SEAW State Board of Trustees has named Edwin T. Huston recipient of the 2005 Lifetime Service Award. The award was presented by President Scott Beard at the May 23, 2006 Seattle Chapter dinner meeting and includes a $500 cash gift, and a $500 contribution to the SEAW Endowment Fund presented in Ed’s name.

This award is the highest honor granted by SEAW. Ed Huston is the sixth recipient of this award. It is presented to those SEAW members who have exhibited sustained, significant and multiple contributions to the organization, provided service to committees, and have mentored other members.

Ed graduated from the University of Washington in 1971; worked with KPFF (1972-78); McMahan Consulting Engineers (1979-82); Skilling Ward Magnusson, Barkshire (1982-83); and has been a principal at Smith & Huston, Consulting Engineers (formerly Ballinger & Smith) since 1983.

Ed’s SEAW involvement includes:
• Honorary Member 2004
• Engineer of Year 1990
• State Board of Trustees (1987-1991), President (1989-1990)
• Earthquake Engineering Committee (2001-)
• Wind Engineering Committee (1991-)

Outgoing President from page 2

that meeting continuing education requirement will simply be a paperwork headache. You have my apologies. You are not the reason for wanting continuing education. We just want to make it more difficult not to get continuing education.

One last item before I check out. It was my great honor to award Ed Huston the Lifetime Service Award this year. You are aware probably aware of his work with the Structural Exam, and his involvement in various structural committees (although few may realize just how many committees), and perhaps fewer yet know about his work as liaison with other SEA’s which has been very valuable to us here in Washington. His list of contributions goes on and on. There was some question when considering him for the Lifetime Service Award, that since he doesn’t seem to have slowed down, maybe we should wait till he is closer to the end of his career? We then looked over his contributions and saw that they had hit critical mass. Our members who have previously received this award have typically continued to make great contributions to our profession. It will be fun to see what great contributions are yet to come from Ed.

Have a great year!
Scott Beard, outgoing president, SEAW sbeard@ci.tacoma.wa.us

Ed has thirty-four years of structural engineering experience with emphasis on unusual and challenging structures. He has been the structural engineer in charge of design for office, residential commercial and industrial structures as well as structural design of building components. Some of these projects have required earthquake retrofit of damaged structures or voluntary earthquake upgrading of existing structures.

Notable structures around the Puget Sound area for which Ed has had a major role in the design include: Honeywell Marine Services Building Evaluation and Retrofit; Koll Northcreek Office Building – Bothell; Koll I-90 - Group Health Campus – Bellevue; Cabot. Cabot & Forbes Center – Bellevue; Thousand Trails Corporate Headquarters – Bellevue; Bentley Office Park Buildings; Stevens Hospital Additions; McGinnis Office Building; Fourth and Blanchard Building; Fourth and Vine Building; 200 West Thomas Building; 100 First Avenue Building; Northgate Executive Center – Phase Two; Alaska Airlines Headquarters Building.

In addition to building design, Ed has conducted damage investigations after blast, fire, flood, seismic, snow, and wind events. He has also conducted investigations of construction collapse, construction delay, construction dispute resolution, decay, foundation settlement, vehicle impact, vibration complaints, and overall structural evaluation. In many cases these investigations have led to the development of recommendations and designs for repairs and voluntary upgrades, including preparation of the contract documents.

Ed is an avid traveler, photographer and walker. He enjoys tai chi and distance swimming. Ed, and his wife Katy, are active volunteers in their Catholic parish.

Congratulations to an outstanding SEAW member.

Nominations are now open for the SEAW Lifetime Service Award. For information on nominating an SEAW member see box on page 4.
Annual Chapter Reports

Seattle Chapter

Congratulations to our incoming President-Elect Ade Bright. Welcome to our new Chapter Board members Shelly Clark, Vice-President, and Bob Morrison & Peter Somers as Directors. To our outgoing Board members Mark Pierpierkarz, Cary Kopczynski, and Alan Carr, a sincere thank you for your valuable contributions over the last two years.

Seattle Chapter membership is as follows:

- Members: 273
- Life Members: 32
- Honorary: 13
- Professional Associates: 138
- Affiliates: 42
- Associates: 35
- Students: 4
- Others: 13
- Total: 550

Seattle Chapter members continue to work on many important association activities some of which are outlined below:

SEAW website (www.seaw.org):

As most of you know we are in the process of building an electronic/website based communication platform. Welcome to the 21st century. Shortly members will be able to sign-up and pay dues, reservation fees for dinner meetings, seminars etc. via the website. Members will be able check state, chapter and committee activities, calendars and conduct committee activities via the website.

Education: This last year SEAW conducted four successful seminars: “IBC ’03 Earthquake Requirements” in the summer, the “Cold Formed Steel Framing” in March, ATC-20 in April and the summer Refresher Course. The seminar committees are to be congratulated and thanked for their efforts to present these valuable seminars. Special thanks to committee chairmen Mike Valley (Earthquake) Cary Kopczynski (Education), Dave Swanson (Emergency Preparedness) and Chevy Chase (Refresher Course) for their efforts.

Ade Bright, VP, managed to put together some very interesting mini-seminars, sponsors and dinner meeting presentations this year with the help of member presentators and sponsors. Thanks to Ade and his colleagues for making this last year’s meetings very interesting and enjoyable.

Membership: Membership continues to grow. Retaining existing members, attracting new members and expanding membership to SE, students and affiliates continues to be a chapter goal. We have recruitment plans that we hope to implement this summer and fall.

Finances: Chapter finances continue to be in the black. Unfortunately, the switch from a traditional paper based dues billing process to an electronic/web based one delayed the invoicing of your annual dues. Prompt dues payments will help this Board member sleep easier.

Committee Activities: SEAW technical committees continue to be active participants in the code writing process. Simplification, clarity and usability of the building code remain important components of SEAW review process. All the committees, technical or otherwise, are eager to receive new members as either participating/voting members or as corresponding members. The committee activities are where the real work gets done and were a member can make the biggest difference between a strong profession or a weak one. I know your involvement will be worthwhile and rewarding both personally and professionally.

As a result of the March Cold-Formed Seminar, 15 attendees expressed an interest in forming a technical cold-formed steel committee. Voila! A new technical committee is forming.

2006 Scholarships Awarded

For the first time in the 21-year history of the SEAW scholarship, three applicants were chosen to receive the annual scholarship award. The qualifications of the three candidates were judged by the Scholarship Committee to be so close that a departure from the practice of awarding one and sometimes two scholarships was deemed appropriate. Jessica Lahman and Karen Kramer, both graduating Seniors of Gonzaga University, and Jocelyn Dickie, graduating Senior of the University of Idaho were chosen, bringing to thirty-eight the total number of scholarships awarded by SEAW since the award’s inception in 1985. The 2006 awardees will also receive a one-year student membership in SEAW.

Jessica Lahman is a 2002 graduate of Redmond High School. Her affiliation with student organizations at Gonzaga include Society of Women Engineers (SWE) 2003-2005 of which she was president 2004-2005; American Society of Civil Engineers 2002-2006, 2005 Steel Bridge Competition; CRISP (Career Representatives Involved in Student Planning), 2004-2005; Tau Beta Pi, 2004 – present; Alpha Sigma Nu, 2005-present.

Karen Kramer graduated from International School, Bellevue, in 2002. Her affiliations while attending Gonzaga include ASCE (president 2004-2005, treasurer, 2003-2004; project manager of the Concrete Canoe team, Captain of the Concrete Frisbee Team and Surveying team, 2003-2004); Society of Women Engineers; and Gonzaga Daughters of America.

Jocelyn Dickie is a 2001 graduate of St. Marys High School, St. Marys, ID. She will pursue her graduate degree at Pennsylvania State University. While at the University of Idaho, Jocelyn served in the treasurer, vice president and president positions of ASCE; as well as co-captain of the 2005/2006 AISC Steel bridge team, to which she has belonged since 2003. She has also been a member of the Concrete Canoe team since 2002.
Annual Chapter Reports, cont’d

coming together as the result of this common interest.

Legislative: Prior to the 2006 ninety day Legislative session, a draft of the Structural Engineering Practice Act was floated for comment to the membership. After consultation with Cliff Webster, AELC lobbyist, the introduction of the Act will be postponed to the ’07 session because of multiple AELC priorities. With the help of legislative sponsors it is hoped that ’07 will be the year of the Act’s passage. The Legislative committee still needs more help and support. Members with “political animal” instincts are needed to help advance the Practice Act and other issues important to the membership, e.g. mandatory continuing education.

SEAW-WABO: After a long hiatus this committee has been reactivated under the leadership of Mark D’Amato, and has been working on producing a series of white papers on procedural and technical subjects to enhance the communication and collaborative effort between structural engineer designers and plan reviewers. The white papers nearing completion include Guidelines for Plan Examiner, Wet Stamping Requirements and Adoption of the SEAW Rapid Solution Method (RSM).

Awards: Seattle Chapter was honored to make two awards at the May meeting. The first was to Nancy Miller Duevel as Engineer-of-the-Year, acknowledging her service to the profession through her work on the Department of Licensing Board of Registration. And the second was to Edwin Huston; a Lifetime Service Award for his many years of service to SEAW, and a multitude of contributions to the engineering profession.

Summer Fun: At this writing, plans are being made to attend the SE Northwest Conference at the Skamania Lodge along the Columbia River. The Seattle Chapter will be sponsoring two presentations: Cary Kopczynski - Concrete Shear Wall > 250’ and Scott Douglas – Cold-Formed Steel Framing. The Refresher Course committee is gearing up again for another 10 week season of study sessions starting August 3rd.

Southwest Chapter

The Southwest Chapter has seen another successful year go by. The success of the chapter is highlighted by the commitment of its members and the firms that they come from. A special thanks goes to PCS Structural Solutions who have been a strong supporter of the chapter. Another thanks to Sarah Middleton who has helped this chapter for many many years.

The meetings this year have included soil design per the IBC, the Tacoma Narrows Bridge, the Hoover Dam Bridge, a tour and description of Concrete Technology Corporation, the Trade Show, plywood research at APA, concrete mix design, and the successes the Washington General Administration has had with alternative project delivery. Three of these meetings were joint meetings: one with ASCE, one with the Seattle Chapter of SEAW, and one with the Southwest Chapter of AIA. We thank all of the presenters this year and hope that all of the attendees found the meetings well worth their time. The Southwest Chapter awarded scholarships and an equipment grant to students at Saint Martin’s University in Lacey. This is done annually based on proceeds from the annual Trade Show.

Next year our officers are:

President: Mark Leingang
President Elect, Andrew McEachern; Secretary, Ian Frank; Treasurer, Ted Ryan, Voting Directors, Kirk Kepler and Dan Sally; Non-Voting Director: Wes Neeley; Past President: Monte Smith.

Our first meeting of the year in September will be a joint meeting with the Tacoma-Olympia Section of ASCE. We hope to see you all there.

-Monte Smith
montes@sargentengineers.com

Spokane Chapter

The Spokane SEAW Chapter had an eventful year. Our membership currently stands at 95 total members.

One of our chapter goals was to provide interesting and well-attended meetings, and this goal was met. Beginning in September, we had a presentation by John Cuddy and Tom Graybeal on the new Spokane Convention Center Expansion that was designed by Integrus Architecture. In October, we had Dr. Attila Beres, P.E. from PCA present a mini-lecture on Strut-and-Tie Methods for reinforced concrete design. In November, John Tate of the South Central Chapter presented the examples from the Snow Load Analysis manual re-worked for ASCE 7.

January’s meeting brought Larry Krauser of Dywidag Systems International (DSI), who gave a talk on the retrofit of structures utilizing post-tensioning. In February, Jason Erickson from AISC presented the new 13th Edition of the Steel Construction Manual. In March, Jason Lien presented the new 6th Edition of the PCI Manual, which he co-authored. In April, SEAW’s own Ed Huston, along with Tom Young, President of the NW Concrete Masonry Association, discussed Washington State amendments and MSJC code

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changes for masonry. In May, we had our last meeting of the season where we met for a tour of the new Spokane Convention Center Expansion, guided by building designers John Cuddy and Tim Graybeal.

At the January meeting, we passed two Chapter By-Law Amendments. The first sets forth how the By-Laws can be amended, and the second allows Professional Associates (PE’s) to serve in the Director positions instead of just Members (SE’s) being allowed to serve.

Richard Ames was awarded the Spokane Chapter Engineer of Merit Award for 2005 at this year’s Engineer’s Banquet (see award write-up elsewhere in this issue). We also presented the awards for this year’s SEAW Scholarship winners, Jessica Lahman (Gonzaga University), Karen Kramer (Gonzaga University), and Jocelyn Dickie (University of Idaho) at our March meeting.

Our outgoing and incoming Board members are as follows:

Outgoing for 2005-2006:
Past President John Cuddy, Integrus Architecture
President Steve Hawk, Coffman Engineers
Vice President Craig Crowley, DCI Engineers
Secretary/Treasurer Mark Aden, DCI Engineers
Director Joe Scholze, LSB Engineers

Incoming for 2006-2007:
Past President Steve Hawk, Coffman Engineers
President Craig Crowley, DCI Engineers
Vice President DeAnn Arnholtz, Coffman Engineers
Secretary/Treasurer Dave Giordano, DCI Engineers
Director Joe Scholze, LSB Engineers

Respectfully Submitted,
Steve Hawk
Spokane Chapter President 2005-2006
hawk@coffman.com

South Central Chapter
The first goal for the South Central Chapter was education for engineers, for students, and for others. To reach this goal SEAW SC Chapter plans to host a minimum of 2 seminars per year. The second goal was increasing chapter membership. These goals were met by chapter activities throughout the year.

At our monthly meeting in May the new officers for the 2006-2007 year were elected. These officers are: Jill Shuttleworth, President; John Tate, Past President; Mark Scott Vice President, Anthony Cockbain Newsletter, Harvey Lighthouse Secretary, and Michael Harrison Treasurer.

Notice: Proposed Bylaws Change
The Spokane Chapter has proposed a housekeeping change to the SEAW State bylaws. The change would authorize SEAW Chapters to allow Professional Associate members to serve in Director positions on Chapter Boards. The proposed change does not affect Executive Board positions of President and Vice President, which must be filled by registered SE Members. The text of the proposed change is as follows. Upon approval, stricken text will be removed and italicized text added:

ARTICLE IX
Chapters of the Association
Section 3. The Board of Directors shall consist of not less than five (5) Members which shall include the President, the Vice President, the last available Past President and at least two (2) Members-at-large. If no Past President is available, a special Director shall be elected for a one-year term. Only Members in good standing shall hold the offices of President and Vice-President, and only Members and Professional Associate Members shall serve as Members-at-large.

State bylaws revisions require a 2/3 vote of members voting at a chapter business meeting. Chapters will vote on the proposed by-laws change at their September dinner meetings. If approved, the by-laws change will be effective 30 days after notification of the membership.
Annual Committee Reports

Earthquake Engineering

There are 77 participants in the EEC—20 voting members and 57 corresponding members. Regular meetings are held on the third Thursday of each month. Four Task Groups, which meet separately, address specific technical issues. Significant Task Group accomplishments this year are as follows:

• Concrete (12 members; needs a new Chair): Several members attended an informal meeting concerning a proposed “Concrete Coalition” that will address the technical and non-technical issues surrounding seismic evaluation and rehabilitation of existing non-ductile concrete construction. The Task Group will review and comment on proposed changes for Chapter 21 of ACI 318-08 once those proposals are available.

• Existing Buildings (25 members; Peter Somers, Chair): The group worked with Seattle DPD to develop a Director’s Rule addressing repair of earthquake damage. The repair policy will be used as a starting point for updated requirements for substantial alteration. The group helped the Washington State Building Code Council IEB TAG to prepare amendments to the 2006 International Existing Building Code (IEBC), and submitted one code change proposal for the 2007 IEBC supplement. The group is also working on examples, checklists, and a user’s guide for ASCE 41 (the standard based on FEMA 356).

• Geotechnical (12 members; Susan Chang, Chair): The group assisted in the development of two change proposals for the 2007 IEBC supplement. The changes seek to simplify design and detailing requirements for deep foundations. The group has also discussed a number of other issues that may lead to broad improvements (both structural and geotechnical) to Chapter 18 of the IBC and related content in ASCE 7 and ACI 318. Group members participated in a recent USGS workshop on regional implications of national ground motion mapping.

• Wood (26 members; Noel Baca, Chair): The group worked on generalizing the Seattle DPD plan reviewers’ reference for wood design, and members participated in an effort to review and revise IRC braced wall requirements. To address the group’s expanded scope (including all light-framed construction), alternate meetings will be devoted to wood and cold-formed framing beginning this Fall.

In addition to directing and reviewing Task Group activities, the EEC did the following:

• EEC members updated the full-day seminar program on Seismic Design Using the 2003 IBC and ASCE 7-02 and presented the updated seminar in Seattle.

• EEC members considered existing Washington State amendments to the seismic design requirements in the 2003 IBC and determined that no such amendments to the 2006 IBC are needed.

• EEC members continued to participate in national codes and standards activities (for instance, developing technical requirements of the 2008 NEHRP Recommended Provisions, which will be based on ASCE 7-05, and completing the ASCE 41 Standard Seismic Rehabilitation of Existing Buildings).

• For the benefit of local code officials, the EEC is developing recommendations identifying which portions of the 2006 IBC (and its referenced standards) are suitable for immediate use before formal adoption in July 2007. The EEC is also discussing other issues for which position statements or code interpretations/clarifications may be developed.

• The EEC is planning presentations related to the 2006 IBC. Mini-seminars will be presented before upcoming Seattle chapter dinner meetings, and a full-day seminar will be offered in September 2007.

• The EEC is planning to offer a full-day seminar on seismic rehabilitation using ASCE 41 in February 2007.

Once again the Earthquake Engineering Committee members have worked hard to improve practice locally and nationally. All SEAW members are invited to contribute to this effort.

—Michael Valley, Chair
(mvalley@mka.com)

Building Engineering

The Building Engineering Committee (BEC) is newly formed. It consists of 25 members. Meetings are held monthly (attendance averages eight members) and are open to anyone interested in joining the committee (please contact the chair). It came into existence at the request of the State Board, in part, to close a perceived gap in the statewide committee structure of the SEAW. Its primary mission is to monitor and participate in the activities of nationally recognized code and standard development organizations not otherwise done so by the Earthquake Engineering, Wind Engineering and Code Advisory Committees. It participates with statewide committees in developing and presenting seminars and other educational initiatives for SEAW members. It also investigates structural engineering design issues and reports its findings to the SEAW membership.

Committee activity began with a kick-off meeting on May 4, 2005. Since then, there have been nine meetings. Early on, committee members willing to be liaisons to other committees and organizations have been identified. Among them are Chris Duvall (Wood Task Group), Tom Gurtowski (Geotechnical Task Group), John Hochwalt (Concrete Task Group), Ed Huston (NCSEA and Wind Engineering Committee), and Jon Siu (WABO).

Soon after, a matrix of codes and standards affecting the structural engineering profession and the committees of the respective organizations that develop them, was prepared. Its purpose is to identify SEAW members who are also members of these committees. A questionnaire is being prepared to query these individuals about their work on the committees and their willingness to share their experiences with their colleagues. Reports of these experiences may become a regular feature of the Seattle Chapter newsletter and would be made available to the other chapters of SEAW.

The standards development activities of these committees typically adhere to the policies and procedures of the accreditation process of the American National Standards Institute (ANSI). Obtaining information on committee activities is typically difficult and we hope that the SEAW members of the committees will share this information with us. Making an impact on committee decisions is also difficult and we also hope that establishing lines of communication between committee members and SEAW members will facilitate the initiation of changes in the codes and standards the committees develop. Time periods when non-committee members can submit change proposals are often limited and the deadlines for submittal are often known only to committee members.

The committee is encouraging SEAW members to join national committees that lack SEAW representation. To that end, Scott Douglas was recently accepted as a member of TPI 1, which develops the National Design Standard for Metal Plate Connected Wood Truss Construction.

The most recent activity of the committee, in conjunction with NCSEA, was the development of several structural code change proposals for the upcoming 2006/2007 ICC code development cycle (2009 IBC). Approximately 25 proposals were submitted to the committee for review. Other affected SEAW committees were consulted through the committee’s liaisons. Committee agreement on several resulted in their submittal to NCSEA of which eight were ultimately submitted by NCSEA on behalf of SEAW to the ICC. Other reviewed proposals were submitted by individual committee members. The proposals will be considered at the code development hearings in Orlando this September.

Phil Brazil, Chair
pbrazil@reidmidd.com
**Annual Committee Reports**

**Code Advisory Committee**

Your Code Advisory Committee met once to review several proposed changes to the 2007 IBC and consider other new initiatives. One proposal involved adding a definition for “registered design professional in responsible charge” to the building code. The committee felt this would not be a good idea since the definition would likely conflict with definitions used by the various state licensing boards. The committee also agreed with the proposal to remove the words “in responsible charge” from various places in Chapter 17. This wording was added by NCSEA in the last cycle.

Another supported proposal was to eliminate the wording “at significant construction stages and at the completion of the structural systems” from the definition of Structural Observation in Section 1702.1. The requirement should be in 1709 and be reworded to allow the engineer to identify the timing for structural observation.

These proposed changes have been submitted and will be considered at the September ICC hearings. We will meet prior to the hearings to form positions on many of the proposed revisions for the 2007 IBC. The hot issues for consideration at the upcoming hearings are the proposals relating to design for progress collapse. Most have resulted from the World Trade Report. It will be interesting.

The committee continues to evaluate code change proposals within the context of our simple criteria. Can it be enforced? Is it a result of unsubstantiated research? Has it been too compromised by the politics of the process? Has it been trial designed? If the answers are yes, no, and yes, the regulation passes our test.

John Tawresey
john@we.com

**Exam Committee**

The Washington State Board of Registration contracts with individuals to work on the Structural Engineering Exam. Since some SEAW members work on the exam, we have the opportunity of providing a liaison between our members and the Board of Registration. The SEAW Exam Committee fulfills this function.

Last October the Washington State Board of Registration offered its fourth 8-hour Washington State Structural III exam. Since 2002 examinees have taken this in-state written examination along with the National Council for the Examination of Engineering and Land Surveying (NCEES) 8-hour Structural II exam, for a total of 16 hours of examination. The Washington State Board of Registration reported that twenty-two of eighty-eight candidates passed the October 2005 exam, a passing rate of 25%. This is better than the average passing rate on the first three 8-hour Washington State Structural III exams (22%), and is slightly higher than the average passing rate of the Washington State Structural III 4-hour exams given between 1998 and 2001. Over seven administrations the average passing rate on the Washington State Structural III 4-hour exams was 23.2%.

The structural engineers working on the exam would be pleased to see these passing percentages be considerably higher. Candidates often fail to demonstrate knowledge of the items in the test matrix, including basic seismic issues, i.e. use of the special seismic load combinations. Many candidates cannot use statics to resolve the forces on a member or produce sketches of details that transmit their knowledge. The structural engineers working on the exam believe that one main reason for the poor performance is an over reliance on computers. Computers are a valuable tool in our profession. However, to become licensed, engineers have to be able to demonstrate knowledge and show that they can produce safe structures without the use of ETABS or SAP, to name just two programs. (We are, after all, licensing structural engineers, not computer technicians. Engineers have to show that they know when the computer results are not rational.) Furthermore, heavy reliance on computers means that candidates end up searching through the codes for particular provisions to solve a problem, and end up running out of time. The problems are time tested to ensure that the test isn’t overly long; however, there isn’t any time to research code provisions during the exam.

The 8-hour Structural III exam format has four 2-hour sections: an analysis and general code knowledge section, a concrete design section, a steel design section and a wood and masonry design section. Each of the four sections has an equal point value. On the October 2005 exam, the morning and afternoon portions of the exam each had two building problems and a bridge problem. Candidates could choose to solve any two of the three problems. This allows the bridge candidates to solve a bridge problem and their choice of either of the two building problems. Candidates whose experience had been largely in the design of bridge structures had 12-hours of bridge problems to attempt (eight hours of bridge problems on the NCEES Structural II exam and 4 hours of bridge problems on the Structural III exam). The Washington State Board of Registration has mandated that at least 4 of the 16-hours of examination must still test building structural knowledge.

The state’s focus is to provide a breadth/depth examination which acts as a companion to the NCEES Structural II exam. Having the analysis section and all of the major materials covered on each exam tests the breadth of the practice. Having two hours of work in each section tests the depth of the practice. This format should be familiar to structural engineers who took their examinations between 1987 and 1997, as it is similar to the Western States Examinations given in those years. By putting equal emphasis on the four sections, this format also removes any bias that might have been a result of having a higher percentage of the exam weight on any one subject.

There is a test matrix for the 8-hour Structural III exam. It is available from the Board of Registration.

The Structural III exam goes beyond the Structural II by delving into more of the details of seismic design. This higher level is not typically required for the Structural II exam, which is given on a national basis in states where the seismic risk is often Seismic Design Category C or less. In the Structural III exam, Washington State is able to ask questions focused on zones of higher seismicity, typically Seismic Design Category D and above, as well as questions regarding the underlying philosophy of seismic design and reasons for various seismic provisions. Since this is a departure from the Structural II exam, it is important that candidates realize that a different level of preparation is required to successfully complete the Structural III exam. The Structural III exam can also test other environmental conditions that we experience in Washington State such as high snow loads. The Board of Registration’s SE III test matrix also includes “verification of computer output”.

Many of the SE III candidates took the Structural II exam on the same weekend last October, although I understand that some of the successful candidates made a point of taking the SE II in April and the SE III in October. By doing so, they were able to decrease the intense pressure of taking 16 hours of examinations in two days. This philosophy makes a lot of sense when you consider that there are major differences in the depth of knowledge, especially seismic knowledge, tested on the two exams.

The October 2006 NCEES Structural II exam and the October 2006 Washington State Structural III exam will be based on the 2003 IBC. Candidates should be aware that using any code other than the 2003 IBC on either of these exams could diminish their chances of passing that exam.

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Annual Committee Reports

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California has adopted the same formula as Washington. That is, it now offers its own in-state written 8-hour Structural III exam and the NCEES 8-hour Structural II exam, for a total of 16 hours of examination. The State of Oregon started using the Washington’s 8-hour Structural III exam last year. The Washington Structural III is also offered in British Columbia. Some progress has been made on the concept of having NCEES write a national Structural III exam.

SEAW owes a debt of gratitude to the 27 structural engineers who work on the 4 exam committees. SEAW would also like to thank the structural engineers from Oregon and British Columbia who helped grade the 2005 exams.

Ed Huston, Exam Committee Chair
Huston@smithhustoninc.com

Western Council

The objective of the Western Council of Structural Engineers Association (WCSEA) organization, historically formalized in 1964, is to provide a medium through which the activities of the individual member associations can be coordinated and action taken on problems or concerns of common interest. Although not a separate entity within the National Council of Structural Engineers Association (NCSEA), the WCSEA continues to serve western member organizations as a regional entity for shared knowledge and information. All member associations of WCSEA belong to both organizations.

Annual meetings are held at the time and in locations suggested by the host chapter and agreed upon by the Governing Board during the preceding annual meeting. Conventions known as “Western Roundups” are held every three years unless otherwise changed by the Governing Board. The Roundup location typically rotates between the member organizations.

The 2005 Annual Meeting started with Applied Technology Council (ATC) Report. The WCSEA delegate to ATC, currently from SEAoA, attended the ATC meeting but was unable to attend the WCSEA meeting. The January ATC meeting minutes were provided and discussed. Since the last Board meeting, ATC staff, consultants, and subcontractors have continued work on 18 active projects. Visit the ATC website for more information: http://www.atcouncil.org/. Starting in January of 2006, British Columbia will represent WCSEA for a two-year term on ATC. The Delegate rotation is Washington, Oregon, Hawaii, Idaho, Arizona, and British Columbia.

Reports by the individual SEA’s provided the following information:

SEAW is pursuing a Practice Act for SE licenses and separate SE Licensing was discussed. Oregon has a limited practice act in place. Illinois and Hawaii have stringent SE practice requirements. WCSEA will collate a list of states and where they are relative to an SE title or practice act. Note that SEI held a summit and NCSEA partnered with them on practice acts.

There was much interest in sharing of WCSEA seminars and information. SEAW has traveled and given their wind and/or seismic seminars in Washington, Oregon, Idaho, and Arizona. WCSEA developed and presented a masonry seminar which was offered in Washington, Oregon, Idaho, and Arizona. British Columbia has a non-code specific seismic seminar available on line. Professional Engineers and Geoscientists of BC (APEBC), is the parent organization, www.apec.bc.ca. WCSEA member organizations will receive a discount on all APEG seminars, paying only APEG member rates. Seminars are interactive with a sound card. SEAW has a pre-dinner mini-seminar format, with a 20-30 minute presentation on topics such as new codes, prior to the monthly dinner meeting. The SEAW website has some of these mini-seminars posted online at www.seaw.org. The SEAoA website has a sample IBC QA plan with commentary.

Oregon requires 30 hours of Continuing Education every two years with a 15 hour carry over to another year. Washington has no requirement except for a new Land Surveying requirement. Idaho has Land Surveying continuing education only, but is pursuing a PE requirement. Arizona has no requirements. A WCSEA list will be collated for its members.

The variation between each state on the subject of Plan Stamping showed how divergent the rules on this issue are. Plan Stamping is defined as “stamping of plans not originally prepared by the engineer who stamps them” in the state of use. NCEES has a model law available. It states that if an engineer does his/her own independent calculations and has the right to revise the plans, it is permissible to stamp the original drawings. However each state has different rules on this subject. Some states allow this procedure under strict circumstances where independent calculations are done for the drawings. This is not the case in Washington State.

-Ed Huston, WCSEA Representative

Professional Practices

Over the past year the Professional Practices committee has been engaged in the following activities:

Reviewed Continuing Education requirements (PDH’s) proposed by ASCE for a change in the RCW. Comments were sent to Seattle Chapter SEAW representatives for review by the SEAW State Board.

Made contact with a number of smaller jurisdiction building officials (Kitsap County, Jefferson County, Island County, City of East Wenatchee) to set up communication channels for forwarding of “white papers” generated by WABO/SEAW committee.

Continuing work on updating SEAW “Code of Ethics” and “A Guideline to the Responsibilities of the Structural Engineer of Record in the Design and Construction of Buildings”. SEOC has produced similar documents that are much more extensive and that can serve as a model for SEAW.

PPC has only one active member: Bob Morrison. Since Bob’s election to the Seattle Chapter Board, a new chairman for this committee and new active members must be found.

Regular meeting schedule: None. Any business is done via telephone or e-mail Bob Morrison, chair
Professional Practices Committee
bob@rlmorrisonengr.com

NCSEA

Current Events for October 2005 through May 2006:

The 13th Annual NCSEA Conference was held last October in Kansas City, MO. NCSEA is now 39 Member Organizations strong, and was well represented by the vast majority of them at the conference. Ed Huston was on hand to give a brief overview of his reconnaissance trip to New Orleans to review building and other structural damage caused by Hurricane Katrina. The business session of the conference dealt with Code Advisory Committee activities, Advocacy for the profession, Member Organization Activities, and a break-out session by all conference attendees to help develop preliminary ideas via a SWOT analysis for future Strategic Planning for the organization.

This year’s 14th Annual NCSEA Conference will be held in Salt Lake City, UT, on September 14-16. In an effort to achieve better communications between state SEAs, NCSEA would like to see more state repre-
Annual Committee Reports

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sentatives attend the national conventions. Ideally, the delegate and alternate delegate from each state SEA should attend the meetings. Take a look at NCSEA’s web site www.ncsea.com for additional information on these and other topics as well as a schedule of upcoming events.

Based on a SWOT analysis done by those attending last fall’s annual conference at the break-out session, the Board of Directors met again in December to incorporate those results into a Five Year Strategic Plan for NCSEA. A partial summary of the NCSEA Strategic Plan draft is described as follows:

Proposed NCSEA Mission:

• To advance the practice of structural engineering and, as the national voice for practicing structural engineers, protect the public’s right to safe, sustainable, and cost effective buildings, bridges, and other structures.

• Improve communication via Member Organizations (MO), maintaining a database of all MO state and sub-chapter officers, hold regional NCSEA board meetings where area MO board members are invited to host and/or attend, improving the NCSEA website, increase distribution of STRUCTURE Magazine, and help MO’s communicate with each other through an NCSEA on-line forum.

• Strengthen awareness of the profession on a national level by advocating improved recognition of SE’s, increasing the size and activities of the Advocacy Committee, educating the news media about our profession, making presentations to other groups (like AIA), and attempting to reach a greater number of middle school and high school students.

• Increase organizational financial assets by adding Member Organizations and Associate/Affiliate members, raising member dues as required, filing exhibit space with vendors at all sponsored events, focusing on profitable continuing education programs, increasing attendance at the Annual Conferences and Winter Institutes, publishing documents, and hosting seminars.

• Strengthen professional education by setting up seminar packages, providing web-casts, improving engineering college and SE basic education requirements, working with NCEES to make continuing education more uniform and transferable between states, and offering internships to scholarship recipients.

• Promote Separate Licensure/Uniform SE Practice Acts by identifying target states and sympathetic politicians, developing model legislation, getting local SEA’s active in this pursuit, and developing effective methods to assist the local organizations.

• Improve Building Codes through the continuing work of the Code Advisory Committee (CAC) and its sub-committees, creating a coordination committee for interface with Standards Development Organizations, and getting all of the local SEA’s to bring their proposed code changes through the CAC for presentation as a more uniform voice for the profession.

• Facilitate a National Emergency Response Network by having the SEER Committee approach FEMA to develop a plan for SE’s to be an initial point of contact for structural response, have each state contact their OEM, charge the SEER Committee to seek immunity when involved in emergency response, and encouraging the implementation of Good Samaritan Laws in states where they do not now exist.

STRUCTURE Magazine continues to be the premier national periodical for our profession. The editorial staff encourages all members of NCSEA’s Member Organizations to prepare and submit articles for publication in the magazine. This is a great way to get your name, as well as your firm’s name, in front of a large percentage of those in our profession. In addition, many of the state jurisdictions that require continuing education for license renewal will grant credit (up to 10 professional development hours) for writing something that gets published. Preferred lengths are 1,500 to 2,100 words for technical articles, 750 words for product articles, and 800 to 1,200 words for forum (opinion) articles. Suitable submissions should be informative, timely, and practical for structural engineers. The 2006 editorial calendar is posted at the NCSEA website and provides themes for each upcoming issue of STRUCTURE, but these do not exclude other subject matter from being published.

Deadlines for each magazine issue as are follows: Five months in advance - topic commitment; Four months in advance - author commitment; Three months in advance - draft text and graphics; Two months in advance - final text and graphics.

John Riley, delegate to NCSEA jriley@quantumce.com

Legislative Committee

Legislative Chair Robert Bourdages is looking for additional legislative committee members. The tasks required for this position include the following:

• Attend Architects and Engineers Legislative Council (AELC) meetings

• Review bills of interest during the legislative session

• Report findings to the SEAW membership

• Visit the Capital annually and meet with your legislators

• Testify on behalf of SEAW as needed (during the legislative session)

This is a great opportunity to learn about the legislative process and to get to know your legislators and other AELC comrades – it’s a great civics lesson! You do not have to be located in Seattle or Eastside. You can work remotely and attend meetings by conference calls.

Ideally, several members can share the tasks. If you’re interested in joining, contact Robert Bourdages at rbourdages@pdg-wa.com

AELC 2006 HIGHLIGHTS

The legislative session ended on its 59th day, one day short of the constitutionally permitted 60 days for an even-year session. Legislators introduced 2458 bills this year and passed 375 of those measures. A summary of the legislative activity in the areas of greatest interest to AELC is below.

A&E Selection (QBS): Over the last several years, an array of measures has been introduced to authorize the use of other than traditional design/bid/build procurement for public works. The proposals have included a bill to allow all school districts to use design-build construction for common schools and another to authorize price competition in procuring design services. This year, AELC joined with other members of the Washington Construction Industry Council (WICIC) to oppose successfully bills to extend the authorization for using design-build procurement methods to smaller cities and counties (HB 3229/SB 6845, and SB 6770). AELC opposes exemptions to the use of qualifications-based selection (QBS) by public agencies when selecting design consultants and it supports using alternative public works methods only where there is a clear indication the alternative procedure will result in improved design and/or construction.

Liability: AELC worked successfully this session to oppose two measures that would have weakened the builder limitation statute or other construction statutes of repose. Specifically, the two bills would have: eliminated the six-year builder limitation statute in lawsuits involving residential construction where the claim involved willful misconduct or fraud (SB 2004); and delayed the statute of limitation under certain circumstances in lawsuits for construction defect claims to which the state’s recently-enacted condominium act applies. (SB 6627)

AELC also joined with the homebuilder associations to oppose modifications to the state’s construction liens laws that could have subjected design professionals to various contractual and related responsibilities. SB 6740 died on the Senate floor calendar without coming up for a vote.

AELC supports reasonable statutes of limitation and repose in covering design and

---continued next page---

2005-2006 has been another great year for SEAW. At right is a listing of the 2006 Budget. As always, dues are our largest source of income. Seminars are another significant, though variable, source of income. Our annual budget is based on a conservative estimate of seminar income. Actual income is expected to exceed the budgeted amount.

On the expense side, both the Wind Engineering and Earthquake Engineering Committees continue to participate actively and effectively at the national level. SEAW’s effort with regard to New Code Development has proven to be very effective. Funding is provided to continue the work of the Code Advisory, Continuing Education, Scholarship and Emergency Preparedness Committees; to support the Architect Engineer Legislative Council, National Council of Structural Engineers Associations and Western Council organizations; to produce a summer newsletter; and to support the scholarship fund and administrative functions.

The board is working on establishing an endowment fund to provide funds for SEAW projects, like disaster reconnaissance teams or fronting publishing costs of SEAW developed publications. The fund will grow from contributions from various sources, including a $500 contribution by SEAW in honor of each Lifetime Service Award recipient.

The Scholarship Fund has been developing well. In 2006 we awarded three scholarships: $2500 and two $1250 awards. The projected 2006 year end balance is about $25,654.

The financial health of SEAW is highly dependent on the volunteer participation in committee work, publications and seminars in addition to dues payments. SEAW continues to be remarkably effective.

-Ted Smith, Treasurer
smith@smithhustoninc.com

### BUDGET 2006

#### INCOME

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State Account Balance January 1, 2006 $ 46,579
Budgeted Difference (Income-Expense) -20,925
Projected Balance December 31, 2006 $ 25,654
News of Note

Spokane Chapter Names Rich Ames Engineer of Merit

In 1972, Richard Ames graduated from the University of Idaho with a Bachelor of Science degree in Civil Engineering just as the Vietnam War was winding down. As a result, he spent six years in a combat engineering unit of the Idaho National Guard. After completing basic training, he went on to obtain a Masters degree from the University of Idaho in 1976.

Rich has practiced structural engineering for 30 years and has been a licensed Structural Engineer for 25 of those 30 years, licensed both in the states of Washington and Idaho. During that period of time, he has worked for several different engineering firms. These include a one year stint with Tucker Engineering (1976-1977), a small civil firm, 10 years working for Atwood-Hinzman (1977-1987), 12 years working for Peden Petersen & Lee, which later became Coffman Engineers and is presently working for LSB Engineers.

During that time he has worked on numerous projects in the areas of architectural, industrial and bridge design. Among the architectural projects that Rich has worked on include the Gonzaga Foley Library, the Spokane County Public Works Building, and the latest being the Ferris High School Athletic Facility, which is currently under construction. Industrial project experience is primarily in the aluminum and food processing industries and includes facilities design and a significant amount of overhead crane design and upgrades.

Additionally, he has designed several county bridges over the course of his career. His design of the Gannon Goldsworthy Pedestrian Bridge at Washington University was the 1997 Precast/Prestressed Concrete Institute (PCI) Design Award Winner. Rich has been a member of the Spokane Chapter of the Structural Engineers Association from the very beginning of his career and has served on several committees including the technical, library, scholarship, and seminar committees. Earlier in his career he served as a board member and secretary/treasurer. Most recently he has served as vice president, president, and past president of the organization.

Having grown up in a construction family, Rich enjoys doing woodworking, including cabinets and has been known to attempt welding projects, too!

He is also a member of the Valley Fourth Memorial Church and has participated in weekly visitations to the homes of new church visitors.

Rich appreciates very much the support he receives from his wife, Mary, and their three boys.

Nancy Miller Duevel Awarded Seattle Chapter Engineer of the Year for 2006

At the May 23rd dinner meeting, the SEAW Seattle Chapter presented its annual Engineer of the Year award to Nancy Miller Duevel. The award recognizes individuals who have provided service to SEAW and the profession; brought visibility to the profession that is favorable in the public eye; have exhibited distinguished technical and creative achievement; and have encouraged and nurtured others in their professional development.

Nancy has been a very visible member of the engineering community. She is just completing her second term as one of two structural engineers on the Washington Board of Registration for Professional Engineers and Land Surveyors. In this role she has worked diligently to uphold the standards of the profession by investigating Structural and General Complaints. She has worked to ensure mobility of Structural Engineers within the US and opened dialogues towards increasing mobility internationally. While on the Board, Nancy helped establish the Board’s support of the 2001 SEAW development of the statutory revision that preserved the status of the practice of structural engineering as a specialty discipline requiring additional experience and training. Nancy has also helped in Washington’s development and implementation of the SE III Seismic Exam and in the further development of this exam into a regional exam given in Washington, Oregon and British Columbia.

Being on the Washington Board of Registration is almost a full time job, and has precluded Nancy’s deeper involvement on the committees of SEAW, however Nancy has held a committee position on the National Council of Examinations of Engineers and Surveyors (NCEES). She has also been on the Board of Directors of our sister organization the Washington Society of Professional Engineers.

Nancy nurtures the engineers who work for her and helps them develop professionally and appreciate the complexities of engineering design and code compliance. Nancy also nurtures the engineers who work for her in their involvement in SEAW activities.

Nancy is with the firm of Brown and Caldwell, providing structural design services to a variety of clients.

Seattle Chapter Applications for Membership

Alexander Dehoux
Integris Architecture
University of WA 2007
Student

Scott Hafford
Swenson Say Faget
University of Washington 2000
Associate

Arvind Nerurkar
Coffman Engineers
Gonzaga University 1998
Professional Associate

Jacqueline Putt
KPFF Consulting Engineers
University of Washington
Associate

Kristin Sadlo
Swenson Say Faget
University of Kansas 2005
Associate

Steven Saunders
Saunders Construction
Affiliate

Robert Shawler
DCI Engineers
Walla Walla College, 2003
Associate

Anish Talati
DCI Engineers
University of Memphis 1995
Professional Associate

Ivan Tsang
Malsam Tsang Structural Engineering Corp
University of Washington 1999
Associate
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Kevin LeSmith

Kevin LeSmith – structural engineer, avid golfer, and dedicated father – passed away May 23, 2006, at the age of 39. He was a member of the Structural Engineers Association of Washington and a Senior Associate at Magnusson Klemencic Associates, where he had been employed since 1991.

Kevin earned his bachelor’s degree in civil engineering from the University of Washington in 1989 and his master’s degree in structural engineering from Cornell University in 1990. A Seattle native, he graduated from Shorewood High School in Shoreline.

Kevin had a reputation as a practical joker with a great sense of humor. He was also a brilliant engineer, serving as project manager on 26 projects and structural designer on 30 more. He was leader of MKA’s Vibration Specialist Group and very active in the Steel Specialist Group. His diverse projects can be found around the country, including the Flattron Regional Crossing Mall in Broomfield, Colo.; Smart Corner in San Diego; and Fifth & Bell in Seattle. Kevin was also involved in the American Society of Civil Engineers and American Welding Society.

He was a well-rounded athlete who excelled at golf, softball, volleyball, and football. Kevin is survived by his wife, Rose; his two sons, Brian, 7, and Steven, 4; and his mother and brother. A college fund has been set up for his children at Wells Fargo Bank.

Neil H. Twelker

Well known and highly acclaimed geotechnical engineer, Neil Twelker, 85, died at Swedish Hospital on Saturday, July 22 after battling the bone marrow disease Myelodysplastic Syndrome.

Neil was born in San Diego on March 13, 1921. He came to Washington at age 8 spending his first night in Seattle with his parents and brother in the family car on a steep hill – a precursor to a long career working on steep slopes.

Neil graduated from the University of Washington in 1942 with a degree in civil engineering. After a teaching stint at the U of W he went to work for the Army Corps of Engineers. At the Corps he worked on the exploratory work for the St. Lawrence Sea Way, the construction of the Chief Joseph Dam, the rerouting of the Puyallup River, as well as working on many smaller dams and dikes, as well as a number of secret government installations.

After assisting in the revision of the geotechnical Unified Classification System Neil was invited to attend Harvard University where he received his Doctorate in Civil Engineering in 1956. At Harvard Neil studied under two of the founding fathers of geotechnical engineering Karl Terzaghi and Arthur Casagrande and he pioneered the study of 3 dimensional flow net analyses.

After graduating from Harvard Neil established the third oldest geotechnical engineering firm in Seattle. During his career in Seattle Neil was involved with many aspects of geotechnical engineering and worked on projects from California to Alaska. Neil was known as an innovative, or to some as a meric, geotechnical engineer who used unique and cost effective techniques to solve problems spanning from the “Barrage de le Range” tide generating power plant in St. Malo France to small backyard deck projects.

Neil was a consultant for many of the well known structural and architectural firms in the Northwest. He was the geotechnical engineer for many of the familiar structures in the Puget Sound region including the Sedgwick James Building (the “Darth Vader Building”), the grain elevator on Elliot Avenue, and much of downtown Portland Oregon. Neil’s career involved consulting on scores of tunnel projects as well as hundreds of landslide repair projects including the famous 1964 earthquake caused Fourth Avenue Landslide in Anchorage, the Golden Garden Slide of 1974, and the stabilization and construction of the Inverness neighborhood and Bellevue’s Bellevue Office Park. Recently Neil has been one of the advocates involved with saving the Viaduct and has contributed a number of cost effective techniques for its repair.

Besides his love for music and engineering Neil was an avid sailor, building two sailboats in his lifetime, and was a lover of writing and the English language.

Neil is survived by his beloved wife Alice, brothers Ed and Al; and from a previous marriage, his sons Eric (Janeann) and Bryon (Sharon), daughter Paula (Scott), as well as six grandchildren Evan, Karl, Robin, Erin, Dylan, and Sasha.

Neil will be remembered by many as a marvelous storyteller with a fascinating mind who always remembered that engineering was a calling not a business. Neil’s life and career was about people and their needs not about formulas and structures.

ATC-20 TRAINING September 13

The Disaster Preparedness & Response Committee of SEAW is hosting a 6-hour training session on Post-Earthquake Building Safety Evaluation Procedures (ATC-20). This training will help you develop the skills to properly assess earthquake damaged buildings for occupancy following a major earthquake.

The training will be held Wednesday, September 13 in the Council Chambers of Bellevue City Hall, 450 110th Ave NE, Bellevue, from 1:00 PM to 7:00 PM. The cost, $45 for SEAW members and $50 for non-members, includes the training, the ATC-20 Field Manual and light refreshments. Register online at www.seaw.org or phone 206.682.6026.

ENGINEERS WITHOUT BORDERS Volunteers Needed for Regional Technical Advisory Committee

The West Coast Region Office of Engineers Without Borders is looking for volunteers interested in participating on a Regional Technical Advisory Committee (RTAC). The RTAC will be responsible for overseeing all projects originating or being implemented by chapters on the West Coast. RTAC members may be required to spend up to 23 hours per month on project reviews and related activities. For detailed information and application form, see our announcement on the website (homepage): http://www.ewb-pugetsound.org

Email the SEAW office at seaw@seaw.org or phone 206 682 6026 for ordering information

Publications Available from SEAW

- Snow Load Analysis for Washington with Supplemental Design Examples *** $35.00
- Supplemental Design Examples only *** $10.00
- 2002 Seismic Evaluation & Rehabilitation Seminar notes on CD $30.00
- SEAW Refresher Course Notes—SEAW Member $190.00
- Non-Member $240.00
- Kobe Earthquake Reconnaissance Report $20.00
- SEAW/FEMA Analysis of Structural Failures due to Holiday Storms $5.00
- FEMA 352: Recommended Post-earthquake Evaluation & Repair Criteria for Welded Steel Moment-Frame Buildings $5.00

**See Snow Load Order Form on page 15
Recently, the Snow Load Analysis committee received the following inquiry from Spokane County. The Committee’s response has been reviewed and approved by the State Board of Trustees.

INQUIRY:
Unincorporated Spokane County currently has adopted the following ordinance language as it applies to roof snow loads:

3.02.030 Design loads.

(b) Snow Loads. The basic minimum roof snow load for the county is established as thirty pounds per square foot except as otherwise provided for in this title. The director in all cases shall determine snow loads where the minimum figure hereby established appears inadequate. Such determinations shall be based on analysis of local climate and topography and the “Snow Load Analysis for Washington” as published by the Structural Engineers Association of Washington.

We have been asked by a member of the public to consider abrogating the 30# minimum and adopting the Snow Load Analysis for Washington as the specific regulation to determine minimum roof snow loads for all structures - commercial, residential, accessory, manufactured homes. - in a manner similar to that which King County has in effect:

16.04.410 Snow loads. Section 1608 of the International Building Code is not adopted and the following is substituted: Snow loads (IBC 1608). The “Snow Load Analysis for Washington” Second Edition (1995), published by the Structural Engineers Association of Washington shall be used in determining snow load except where the department determines by public rule that a different standard is necessary to protect the public health and safety. The minimum Snow Load shall be 25 pounds per square feet.

Similar language is found in the King County Code pertaining to residential buildings.

Prior to delving into other aspects of this request, we are first inquiring as to the SEAW’s position and/or comment on adoption of the SLAW as a mandatory ordinance/regulation, eg, "...absent engineering, shall comply with...", both because the SLAW is copyrighted and published "only as a guide".

SEAW RESPONSE:
The members of the Snow Load Analysis committee have discussed Mr. Holman’s question concerning abrogating the requirement for using 30 psf as the minimum snow load for roof design in Spokane County and using the Snow Load Analysis for Washington as the basis for determining the design load. We recommend that the current language of section 3.02.030(b) that Mr. Holman cited be unchanged.

First, in our opinion, 30 psf is an appropriate minimum load to be used for roof design in Spokane County. Certainly there are regions of the county where this is not adequate, and for those areas it is appropriate to consider “local climate and topography” and to use the Snow Load Analysis for Washington as a reference for determining the design load.

Next, the Snow Load Analysis for Washington probably should not be adopted as an ordinance by the county because it is based on the UBC, which is no longer in use. There is, however, a supplement published last year by SEAW that updates the design examples from the original manual with respect to the IBC, but the many references to the UBC in the manual itself make it unacceptable for adoption as an ordinance. SEAW had permission from ICBO to reprint excerpts from the UBC, but there may also be copyright restrictions that preclude its use as a local ordinance.

We recommend that SEAW should have the position that the Snow Load Analysis for Washington be used only as a guide by building officials and experienced designers, as stated in the disclaimer on page 3 of the manual. Knowledge of local conditions is extremely valuable and could lead to more accurate design loads than just using the snow load manual alone might. We understand that local jurisdictions have adopted the manual as a reference, but that the local Building Official retains the responsibility of determining the required design loads.

---

### SEAW Snow Load Analysis/Supplement Order Form

Mail or Fax order to SEAW • PO Box 44 • Olympia WA 98507 • Fax 360/753-1838 • Phone 206/682-6026

Name: ___________________________________________ Email: ___________________________________________

Firm: ____________________________________________

Address: ___________________________________________________________________________________________

City/State/Zip: ___________________________________________ Daytime phone: _______________________

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Structural Engineering design firm seeks outstanding individuals to fill immediate openings for Staff Engineers in both our Seattle and Tacoma offices. All experience levels considered and encouraged. We’re a mid-size dynamic company recognized for our team work, creativity and innovation. We combine a very progressive benefits package with a fun, flexible and informal office culture. Email resume to bbresko@swensonsayfaget.com or fax attention Blaze Bresko at 206 443-4870. No phone calls please.

Structural Engineer

Roggenkamp Erickson & Associates, P.C., a structural engineering firm in Vancouver, WA, is seeking a structural engineer with a minimum of 3 years of professional experience - seismic rehabilitation experience and PE registration preferred. We offer a competitive salary, a full medical and dental benefits package, a 401k plan with matching, paid training, quarterly profit sharing, paid holidays and vacation time, and an opportunity to play an integral role in our growing firm. To apply, please submit a cover letter, resume, references, and salary history. www.REAstructuralengineers.com

Roggenkamp Erickson & Associates, P.C., 10000 NE 7th Ave., Suite 150, Vancouver, WA 98685

Structural Engineer

PACE Engineers, Inc. is an employee-owned company providing quality professional civil and structural engineering, planning, surveying, and construction management services from offices in Kirkland and Seattle, Washington and Oregon City, Oregon. We have successfully completed projects for a wide range of clients in both the public and private sectors throughout the Northwest.

We offer a competitive compensation package including medical/dental, short and long term disability, life insurance, 401(k) program, paid time off, wellness reimbursement and incentive bonuses.

PACE is an Equal Opportunity Employer.

We are eager to hire two (2) Structural Engineers to join our Oregon City, OR, team as soon as possible.

Position No. 1: Qualifications must include SE registration in Washington; additionally, strong project management and client management skills; ten (10) years experience designing building and small bridge structures using concrete, steel, wood and masonry; experience with RISA 3D or equivalent frame analysis, MATHCAD and AutoCAD software; and enthusiasm!

Responsibilities will include; working with principals to develop new business in Washington; and, client and project management (planning, budgeting, supervising design staff) for public works, industrial, commercial and residential structures.

Education: BS in Civil Engineering with focus in structures.

Position No. 2: Qualifications must include SE registration in Oregon (or PE minimum with willingness to pursue SE) and strong aptitude and track record for developing new business in Oregon and SW Washington. Additional -continued next page

9th Annual Golf “Fun”draiser

To support the efforts of the Architects & Engineers Legislative Council

Eight trade associations and professional societies comprise AELC. It provides an organization for associations and/or organizations of architects and architectural firms, engineers and engineering firms in Washington State to work cooperatively on legislative objectives and issues for the improvement of business conditions. This is an excellent opportunity to support the organization that fights for important issues like tort reform, QBS, infrastructure funding and fair competition; to network with other professionals; and to have a good time!

Friday, October 6, 2006

ECHO FALLS COUNTRY CLUB

9:00 a.m. Shotgun Start

Team Scramble

$175 (includes Golf, Cart, Lunch, Prizes)

visit www.accec-wa.org for registration

For Information call (425) 453-6655

Deadline for Registration is September 25, 2006
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DMJM Harris, an AECOM Company recognized in the ENR 2004 as the #1 Transportation Engineering Firm in the US, has immediate openings for Entry/Mid/Senior Level Civil Engineers for the following offices: Washington-Seattle and California Offices - Los Angeles, Orange, Ontario, Sacramento and Oakland.

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Structural Engineers
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Project Managers

DMJM Harris offers an excellent salary and benefits package including - 401(k), Stock Purchase Program, Health, Life, Dental, Tuition Reimbursement, Career Advancement Opportunities, Savings Plans, Referral Bonuses and more. This is an excellent opportunity to advance your career through involvement in a variety of assignments on a wide array of challenging and rewarding high-profile projects

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Please forward resumes to our Corporate Recruiter:
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Visit our website at www.dmjmharris.com

Bridge Engineer

CH2M HILL … our employee-owned culture helped the firm be 5th among "Most Admired" Engineering and Construction companies in 2005 and named as one of Fortune Magazine’s "100 Best Places to Work For - 2006". Join the “best” and use your engineering talents from our Boise office to help our clients build a better world.

Build your career on a wide variety of high profile transportation projects in the Northwest, including bridges, retaining walls and related highway structures. As a member of our Structural Engineering team you will perform structural analysis, seismic design, and plan preparation for bridges and/or transportation structures. May have client interface and mentor junior staff.

Requires MS degree in Structural Engineering with 4+ years design work history on bridge and transportation structures. Strong self-starter, effective communication skills, attention to detail and a team oriented attitude will fit right in! Idaho PE registration with SE license track desired.

In addition to excellent benefits (including stock plan, relocation assistance, and more), CH2M HILL offers the opportunity for personal and professional growth, challenging projects, and the latest technology. To apply, indicate job code 13247BR and submit your resume to careers@ch2m.com. Visit our web site at www.ch2m.com. EEO/AA employer

Structural Engineers

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STRUCTURAL ENGINEERS WANTED

Quantum Consulting Engineers, a downtown Seattle structural engineering firm, is seeking project engineers to design structures in concrete, steel, masonry, and wood. Successful candidates must be able to prepare structural calculations and construction drawings for commercial, residential, industrial, and public building projects. Experience in structural detailing, seismic design, and evaluation of existing structures is a plus. Applicants must hold a B.S. in engineering and have up to 10 years’ experience. A P.E. license is preferred but not required.

Quantum Consulting Engineers is a dynamic and growing firm with a strong client base and a commitment to client service. We offer a friendly and supportive work environment with opportunities for personal growth and advancement. We provide superior wages and a comprehensive benefits package, including health insurance, a retirement plan, transportation benefits, and funds for professional licensing and seminars.

Please visit our website, www.quantumnce.com.

Send resumes to HR@quantumnce.com or:
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1511 Third Ave, Suite 323
Seattle, WA 98101
tel 206-957-3900 • fax 206-957-3901

SEAW Statewide Equilibrium page 17 Summer 2006
Oppunities for experienced, motivated structural engineers and project managers. Exceptional compensation is available for qualified individuals. CKC also offers a comprehensive benefits package. Benefits include an Incentive Compensation Plan, 401k Plan, and medical, dental, optical and disability. Visit us at www.CKCPS.com.

Contact Melissa Shelton; melissa.sasa@ckcps.com; Cary Kopczynski & Company 10500 N.E. 8th Street; Suite 800, Bellevue, WA 98004
Phone: 425/455-2144, Fax: 425/455-2091

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Exeltech Consulting, Inc. is seeking a Structural Engineer to work in our Seattle Pioneer Square office. Applicant must have 5-10 years building design experience & be a licensed PE. Must have strong technical skills and ability to build and maintain client relationships. Project types include residential, commercial, and mixed-use development for private clients. Exeltech is a growing, progressive company that puts value on design quality & professional growth. Competitive salary benefits package. Send cover letter & resume to hr@xltech.com

Structural Engineer

rfa structural engineers is seeking a structural engineer with at least three years of design experience to join our team in Seattle. We are a dynamic family friendly firm run by one of Seattle's top professional engineers Robert J. Fossatti.

Our office is located in downtown Seattle. We have a relaxed work environment that has "First Friday's", where everyone is invited to dine together at one of Seattle's many spectacular restaurants.

We offer an outstanding compensation and benefits package that includes medical, dental, vision, disability and life insurance. We also pay for 90% of your spouse and dependents insurance premiums, without a waiting period!

You will also be eligible right away for the company quarterly bonus program.

You will work directly with some of Seattle's best architect's working on a broad range of projects that include both commercial and residential buildings

Fax your resume for immediate consideration to (206) 615-7737, or email to mlacasse@rfaiengineers.com

To learn more about rfa structural engineers, visit our website at www.rfaiengineers.com.

Structural Engineer

Arup is a leading international design firm with over 7500 employees worldwide in 76 offices. We are involved in the design of some of the most prestigious projects locally and worldwide. Our North America practice, established more than 20 years ago, now includes over 600 employees in 10 offices. We hire the best and brightest people and provide an opportunity for growth commensurate with your investment of skill, energy and desire to contribute and succeed.

The Structural Engineer will calculate loads and perform structural analysis and design for steel, concrete, timber, and masonry building structures based on building codes and specifications.

Under direction, gives instruction and performs responsible professional structural engineering design and review of drawings and specifications for compliance with building code requirements, city ordinances, and State and Federal statutes; personally checks the structural calculations and designs of the highest complexity requiring a working knowledge of sophisticated design procedures; consults with architects, contractors, geo-technical engineers, and other engineers on design, code requirements, and soils data; works with field inspection staff on activities relating to both plan detail approvals and construction procedures; coordinates structural plan development with architectural, electrical, mechanical, and plumbing plan checking processes; performs special studies and assists in formulation and preparation of technical charts, etc. for plan checking and inspection staff; possesses knowledge of current seismic design and evaluation methodology; performs other related duties as required.

Requirements:

- Bachelors/Masters Degree in Civil/Structural Engineering with a sound knowledge of structural engineering fundamentals
- Good communication skills are essential for team-based working
- Prove legal right to work in the USA. Have at least 8 years experience
- PE Licensed
- Project management experience

Qualities:

- Good communication skills essential for team-based working
- Excellent planning and organization skills required for our fast-paced environment
- Must be highly motivated, proactive and willing to take on new challenge

For our full-time positions, we offer excellent salaries, a progressive environment and a premier benefits package that includes:

- Full medical, dental, long term disability and life insurance
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- Team-oriented working environment
- Business casual dress

Arup is an equal opportunity employer


More Opportunities, page 20

SEAW RESIDENTIAL REGISTRY

As a service to homeowners, SEAW makes available a registry of engineers available to perform residential work. Although SEAW does not make referrals of professional engineering services, the list gives homeowners a starting place from which to begin their selection process. If you would like to be included on the list, please email your name, company and contact information to Lynnell at the SEAW office: seaw@seaw.org. The residential registry can be viewed on the web at www.seaw.org.
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Reid Middleton engineers are encouraged to be leaders in their design practice and to embrace technology to solve problems to help our clients succeed. We are experts at creating outstanding solutions by providing the right balance of technical expertise, leadership, management, and teamwork.

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The primary responsibilities of this Bridge EIT will be to apply structural engineering and detailing techniques in the development of bridge design. Additional duties include: selecting standard bridge engineering/design procedures, developing structural details using specialized software (Microstation, AutoCAD, MathCAD, LARSA, Prestress Concrete Design), perform structural load calculations as well as assisting with geometric layout and quantity development. This person will work under the direction of a registered professional engineer on small projects as well as assist senior engineers on larger bridge projects.

Experience Required:
BSCE or MS in Structural/Civil Engineering; EIT; 0 to 5 years civil/structural design experience required. Should be able to run structural analysis models

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Employer JobCode: 060617

[GI.559535.1404]

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Primary duties will include geometric layout, structural analysis (including seismic) and detailed design of bridge and transit superstructures and substructures. Typical duties will include preparing drawings and designs for steel and concrete guideway beams and concrete piers. Also, may perform pushover analyses of piers. May oversee the work of EITs, CADD Technicians and junior engineers. May also assume some project management duties and some client interaction.

Experience Required:
BS/MS in Civil Engineering; PE; 5+ years bridge design experience; 1+ years LRFD design experience; Bridge design program (LARSA, PCACOL, CONSPAN,BDS, ETRACT,LPILE); EXCEL; WORD; MathCAD; AutoCAD and/or Microstation a plus

Apply Online:
Employer JobCode: 060613

[GI.559532.1404]

Call for Nominations:
SEAW LIFETIME SERVICE AWARD

Nominations for the SEAW Lifetime Service award may be made by any SEAW member to the State Board of Trustees by November 1st of each year. Qualifications include: SEAW Member; service to SEAW on a Statewide level; Sustained, significant, multiple contributions; committee service; nurturing/mentoring abilities. The award may be made posthumously.

If nominations have been submitted, the SEAW State Board will convene a selection panel consisting of four most recent awardees (if possible) and a representative of each chapter to meet prior to the January State Board meeting.

The Award will be presented at the appropriate chapter’s May meeting or at the Northwest Conference. The award will consist of a unique trophy/plaque, a cash award, and a contribution in the awardee’s name to the SEAW Endowment Fund.
Please consider a donation to the future of Structural Engineering!

Each fall, the Structural Engineers Association of Washington (SEAW) offers a scholarship to a college or university student studying and planning to make his or her professional career in the practice of Structural Engineering. Instituted in 1985, the SEAW Scholarship has been awarded to students from Washington attending engineering schools at the University of Washington, Washington State University, Gonzaga University, University of Idaho, and the University of California Berkeley.

These students, chosen by their merits as representatives of the future of structural engineering, continue to prove themselves years after their education has been completed. Recipients of the SEAW Scholarship have gone on to successful careers as structural engineers. Many continue their membership with SEAW, contributing time and effort as committee members, seminar chairs, emergency response volunteers, as well as chapter and state officers. The investment in their education made by SEAW produces a return that benefits not only the student, but the association, the profession of structural engineering, and the general public.

SEAW’s goal is to create an endowed scholarship fund. Progress is slow but steady. From its humble beginnings in 1985, and after awarding over $66,000 in scholarships, the fund has grown to nearly $40,000. This would not have been possible but for the contributions of SEAW members. You can help SEAW continue this worthwhile program by making a contribution. Please fill out the form below and send it in with your donation today!

---

SEAW Scholarship Fund Contribution

Yes! I would like to contribute to the future of structural engineering. Please accept my donation of □ $25 □ $50 □ $75 □ $100 □ Other $__________

☐ Enclosed is my check payable to SEAW Scholarship Fund
☐ Please charge my VISA/Mastercard:

Card # ______________________________ expiration: __________
Cardholder signature ______________________________
Print cardholder name ______________________________

Mail to: SEAW • PO Box 44 • Olympia WA 98507
Or fax credit card contributions to SEAW at 360/753-1838
New 100th Anniversary Earthquake Products
Commemorating the 1906 San Francisco Earthquake
To place an order, see side 2 or visit http://www.eeri.org/cds_publications/catalog/

**CD-ROM Proceedings of the 100th Anniversary Earthquake Conference**

This Proceedings CD set contains papers and abstracts of presentations given at the April 18-22, 2006, conference in San Francisco, California, which was co-convened by the Earthquake Engineering Research Institute, the Seismological Society of America (SSA), and the California Governor’s Office of Emergency Services (OES). The theme was “Managing Risk in Earthquake Country.” Contents are text searchable, indexed by author, title, and topic. April 2006.

The two CD-set includes:

1. Disks 1 and 2: Proceedings of the Eighth U.S. National Conference on Earthquake Engineering. Approximately 1,000 papers on the following topic areas: ground motion characteristics, hazard analysis, geotechnical engineering, building structures, bridge structures, lifeline systems, nonstructural components and contents, advanced technologies, new design criteria and methods, earthquake engineering practice, loss estimation, loss modeling and risk analysis, lessons from recent earthquakes, tsunamis, other seismic hazards, experimental methods, information technologies in earthquake engineering, impacts of earthquakes on business, response and recovery, social issues, public policy, and seismic awareness and education.

2. Disk 2: Approximately 600 abstracts from the SSA Centennial Annual Meeting

3. Disk 2: Papers submitted to the OES 2006 Disaster Resistant California Conference

4. Disk 2: Conference Program

5. Disk 2: List of sponsors

6. Disk 2: List of exhibitors

**The 1906 San Francisco Earthquake: An Earthquake Engineering Retrospective 100 Years Later**

The 1906 San Francisco earthquake holds great interest for professionals in a broad range of fields influenced by its legacy.

This 340-page special issue of *Earthquake Spectra* is a unique compilation of articles by some of the country’s top earthquake experts. The keystone paper uses the latest technology to create a scenario of ground shaking from a repeat of the 1906 earthquake. From this, the authors create a fascinating loss estimation study of the effects on the current building inventory in the San Francisco region, given a repeat of this event. The remaining twelve papers address issues ranging from structural performance and ground failure and lifelines to education, emergency management, and public policy. Highlights include:

- Re-evaluation of earthquake damage to buildings in San Francisco in 1906, distinguished from that caused by fire;
- Effects of the earthquake on water systems juxtaposed with current efforts to strengthen today’s critical lifeline delivery systems;
- Geotechnical analyses of liquefaction in 1906 project the extent of likely liquefaction today;
- A re-examination of the extensive surface faulting in 1906;
- Comparisons of emergency management in 1906 to contemporary challenges;
- An account of observations made in 1906 by Japanese earthquake scientists and engineers;
- A look at the event’s long-term effects on earthquake research and education;
- An examination by a team of public policy experts of the continuing influence that the 1906 event has had on public policy.

The special issue includes a 16-page section of color figures selected from five of the 13 articles. William T. Holmes and Robert Reitherman, editors.
100th Anniversary Earthquake Products Order Form

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Steel Connections: Seismic Applications 2006

a one-day seminar on the design, construction and inspection of connections in steel buildings using the new 2005 AISC Seismic Provisions, the new AISC 358 Prequalified Connections standard, and the new AWS D1.8 Structural Welding Code - Seismic Supplement, with ties to previous FEMA 350 and 353 recommendations

Special inspections
Building permits, inspectors, tasks, approved fabricators, structural observation, nondestructive testing

Part 2 - Structural Steel
Materials, mill tolerances, fabrication tolerances, erection tolerances

Part 3 - Bolting
Materials
Bolts, nuts and washers, manufacturer testing, galvanized assemblies, certifications

Part 4 - Welding
Introduction
Processes, terminology, inspection basics

Welding Materials
SMAW, FCAW, GMAW, SAW

Prequalification
Processes, filler metals, weld size, joint details, welding procedures, preheat

Why attend?
• Select the appropriate type connection for your project, knowing the benefits and pitfalls of each detail.
• Prepare your design and your contract documents in accordance with the latest recommendations and specifications.
• Bring your office, department or shop practice up to the latest technical standards.
• Understand and prepare for the new provisions being adopted by building codes, local jurisdictions, and national standards, and by project specifications.
• Understand and implement recommended contract provisions for specifying and providing quality control and quality assurance.
• Provide engineering, plan review, fabrication, erection and inspection services following the requirements of AISC.

What should you bring?
An extensive handout will be provided to assist you in learning and implementing the information. In addition, as a working seminar, attendees are encouraged to bring their 2005 AISC Seismic Provisions and AISC 358, which may be downloaded at www.aisc.org.

CEUs and PDHs
Each participant will receive a certificate confirming 0.65 Continuing Education Units (CEUs), 6.5 Professional Development Hours (PDHs), upon completion of the seminar. For New York State Professional Engineers license renewal, this course has been approved by PIE.

Structural Steel Inspection

a two-day seminar on the inspection of steel-framed structures using the standards of the American Institute of Steel Construction, the American Welding Society, the Research Council on Structural Connections, the Steel Joist Institute, the Steel Deck Institute, and the International Code Council.

This seminar includes discussion of building code requirements regarding inspection, structural steel, steel fabrication and erection, welding, bolting, metal decks, steel bar joists and joist girders, shear connectors, and fabrication plant qualification.

Qualification
Welding personnel, welding procedures

Weld Discontinuities
Acceptance criteria

Part 4 - Welding (continued)
Nondestructive Testing
Extent of testing, methods, applications

Welding Symbols

Part 5 - Steel Bar Joists
Steel bar joists, longspan steel bar joists, joist girders
Materials, welding, attachment conditions, bridging, special details

Part 6 - Steel Decks
Composite floor deck, form deck, roof deck
Materials, attachment, welding, special details

Part 7 - Shear Connectors
Placement, qualification testing, installation, inspection

Part 8 - Fabrication Plant Qualification
IAS Fabricator Inspection
AISC Quality Certification
Categories, methodology, evaluation items, acceptance

What should you bring?
An extensive handout will be provided to assist you in learning and implementing the information. In addition, as a working seminar, attendees are encouraged, but not required, to bring an AISC Manual of Steel Construction, AWS D1.1 and D1.3, SJI Standard Specifications and Load Tables, SDI Design Manual, and an International Building Code.

CEUs and PDHs
Each participant will receive a certificate confirming 1.5 Continuing Education Units (CEUs), 15.0 Professional Development Hours (PDHs), upon completion of the seminar. For New York State Professional Engineers license renewal, this course has been approved by PIE.
Steel Connections: Seismic Applications 2006
Structural Steel Inspection

<table>
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<th>Steel Connections: Seismic Applications</th>
<th>Portland</th>
<th>Tukwila</th>
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<tr>
<td>Sept 26</td>
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<td>Structural Steel Inspection</td>
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<td>Sept 28 &amp; 29</td>
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Buena Park
Ramada Inn Hotel & Conference Center
6221 NE 82nd Avenue
Portland, OR 97220
(503) 255-6511
(enter off Columbia Blvd. at 80th St.)

Fremont
Best Western River's Edge (Southcenter)
15901 W. Valley Highway
Tukwila, WA 98188
425-226-1812
I-405, Exit 1 West Valley Highway

Seminar Schedule

<table>
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<tr>
<th>Steel Connections</th>
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<tr>
<td>9/26, 9/27</td>
<td>9/28</td>
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<tr>
<td>Registration</td>
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<td>12:30 pm</td>
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<td>Seminar begins</td>
<td>8:00 am</td>
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<tr>
<td>Meal (provided)</td>
<td>12:15 pm</td>
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<tr>
<td>Seminar concludes</td>
<td>5:00 pm</td>
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International Code Council Certification Holders
Both seminars are conducted in cooperation with the International Code Council, and are officially recognized for Continuing Education Unit credit toward ICC Certification renewal.

About the speaker
Robert E. Shaw, Jr., PE, is President of the Steel Structures Technology Center. Bob serves on the AISC Specifications Committee, including Technical Committees on Seismic Design and on Connections, as well as AISC's new Connections Prequalification Review Panel. He is a member of the AWS D1 Structural Welding Committee, including subcommittees on Design, Seismic Issues, and Strengthening and Repair. He serves on the Research Council on Structural Connections, and is also a member of ASNT, ASTM, ASM and ASCE. He authored the Structural Bolting Handbook, the Structural Welding Quality Handbook, and numerous other industry references. In addition to being a registered Professional Engineer, he is an ICC Certified Special Inspector for Structural Steel and Welding. With 33 years experience in steel construction, conducting training in the industry for the past 24 years, he is known for his practical approach and useful seminars.

About our seminars, publications and services
SSTC also offers these seminars in-house, customized to your schedule and needs. Our publications include the Structural Bolting Handbook, the Structural Welding Quality Handbook, the Shop Inspection Handbook for Structural Steel Buildings, and the Structural Steel Inspection and Field Practices Workbook. We have several self-study courses available for CEU/PHD credit. SSTC also provides consulting services related to structural steel connections, fabrication, erection, inspection and quality. For more information, visit our website at www.steelstructures.com.

Registration

Registration Fee: The fee for the Steel Connections: Seismic Applications 2006 seminar is $225.00 per person. For firms or agencies registering three or more people for this seminar, discount the above fee by $25.00 per person. The fee for the Structural Steel Inspection seminar is $395.00 per person. For firms or agencies registering three or more people for this seminar, discount the above fee by $50.00 per person. Handout material, breaks and meals are included.

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<th>Steel Connections: Seismic Applications 2006</th>
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Payment: Payment by check should be made payable to the Steel Structures Technology Center, Inc. Payment is also accepted using Visa, MasterCard and American Express. Federal, state and local government agencies may register using your standard training document or purchase order procedures. SSTC Federal ID Number: 38-2940152

Cancellation Policy: Substitutions may be made at any time. Cancellations received less than three business days prior to the seminar are subject to a service charge of $50.00 per day.

How to Register?
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5277 Leelanau Ct.
Howell, MI 48843
Phone: (734) 878-9560
Fax: (734) 878-9571
Email: seminars@steelstructures.com
Website: www.steelstructures.com

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