



SEAU NEWS

The Newsletter of the Structural Engineers Association of Utah

Volume VII- Issue IV January 2003

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This newsletter is a monthly publication of the Structural Engineers Association of Utah.

Articles or advertisements appearing herein may be submitted by anyone interested in expressing a viewpoint on structural engineering.

Articles for publication may be submitted to:

Mike Buehner, Editor

(801) 486-3883

mbuehner@reaveley.com

Advertisements for publication may be submitted to:

Jerod Johnson, Advertising

(801) 486-3883

jjohnson@reaveley.com



Rehabilitation Construction of Hilton Hotel Concrete Parking Garage by Bidwell Inc.

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JANUARY EVENT

AISC Seminar:

Seismic Design and the New 2002 AISC Seismic Provisions

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Presented by:

Thomas A. Sabol, PhD, S.E.

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Program Date:

Thursday, January 16, 2003

12:30 p.m. Registration

1:00 - 8:00 p.m. Program

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Location:

Hilton Salt Lake City Center
255 South West Temple

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Cost:

\$100.00 per SEAU Member

MESSAGE FROM THE BOARD

EFFECTIVE PEER/PLAN REVIEWS



By Barry Arnold,
SEAU Treasurer

I love the engineering profession! The people practicing engineering are without questions the best and brightest minds in the country. No profession trains its members so meticulously in the art of problem solving and rational thought. Any engineer

carrying the credentials of P.E. is to be admired and respected. As engineers we carry a huge mantle of burden on our shoulders - the mantle being the primary concern for the health, safety and welfare of the general public.

To ensure that we keep that important obligation in focus and at the forefront of our thoughts and concerns the Peer Review / Plan Review process has been implemented.

I believe that having our plans reviewed by our peers is a good thing. It is a very efficient way to "sharpen the saw". The peer and plan review process provides us with many benefits.

As the reviewee you gain from the process by:

Having an unbiased critique of your work. The review may bring additional enlightenment regarding code references and interpretations.

MESSAGE FROM THE BOARD (continued from page 1)

Having a fresh set of eyes may find errors in both the drawings and calculations that may have been inadvertently overlooked. Seeing how another engineer would approach a problem and what assumptions they would make.

As the reviewer you gain from the process by seeing how other engineers solve problems and address issues in their calculations and on their drawings.

I have learned more from the plan review process than I have from attending seminars and reading magazine articles combined. I have been profoundly influenced by my peers through their problem solving ability, organization and ingenuity through the review processes. I have been inspired at the unique individuality of each of you in approaching engineering problems.

Unfortunately the review process has become at bit of a mess, dominated at times by egos and a vengeful attitude (i.e., "He got that job that I really wanted - now I'm going to get him!"). Even worse is that some of the reviews are being completed by people who are entirely incapable or just plain incompetent to perform a proper review.

Case in Point 1: Last year I had an out-of-state reviewer send me a list of 68 plan review comments. A majority of the comments made little or no sense so I called and found out that the reviewer was a recent graduate, she had no experience what so ever in structural design. She stated that her company had some "standard" questions they put on all plans. To top things off she was paid by the city on an hourly basis. You can't even

imagine how long the review process went on. The job has been completed for at least a year and I am still receiving plan review comments. The city got ripped off. I got ripped off by not receiving a proper review. The plan review sweat shop made big bucks (read - more than my fee for designing the building).

Case in Point 2: Last year I also received a rather lengthy review with cryptic comments like "Consider detail 4/S2.1". No further explanation was noted. What a mess to wade through. A fellow engineer told me that when confronted with the same situation he sent the review back and told the reviewer to find ten things worthy of commenting on and he would respond to those items. I only wish I had the foresight to have done the same. A proper review should never be clouded by a huge volume of B.S.

Case in Point 3: I completed the design for a rectangular (250' x200'x 30' tall) masonry wall building using a B-deck roof diaphragm. The reviewer felt (have feelings taken precedence over engineering calculations?) that the building was too big and wanted a moment frame down the center of it. There was no way to talk him out of it and no way around it - he wanted it and he was going to get it. I designed the moment frame per his request and the members were enormous (I think I could have won a national steel award for those frames). The problem is that even though the sizes of the members were gigantic the frames deflected over 4.8". The B-deck diaphragm only displaced 2.3" at its mid-span. The frame was in fact useless, but at least the reviewer was happy.

Case in Point 4: A while ago I received the plan review comments back on a project. The reviewer was very thorough, but had an enormous amount of that I would categorize as petty and insignificant comments. I bit the bullet and responded to each comment. A month after that I reviewed a plan for that same engineer and found his calculations lacking in all the same areas he so meticulously requiring me to respond to. Being two-faced and judging another engineer based on the engineer you would like to be in a review shows a lack of professional courtesy.

When performing a review we need to ask ourselves if the issue/concern is really a problem or if the solution offered by the reviewee is just different from what we would do. Doing something different does not equate to it being wrong. I work in an office with eleven engineers and I am proud to say that for many problems I can get eleven different answers - all of them valid, all of them different and all of them correct.

For those of you trying to read between the lines let me be clear so I am not misunderstood - the plan review and peer review process are good and needful things, but they must be completed in a professional, competent manner. There are certainly occasions when incomplete and/or incompetent work is submitted as finished and this type of practice must be stopped! SEAU has taken a stand against such practices by encouraging the publication of the Guidelines for the Structural Engineer of Record. The Ethics Committee should be applauded for their outstanding effort to bring that document to us.

BULLETIN BOARD

BULLETIN BOARD EDUCATOR FEATURE

Each month for the next several months, SEAU NEWS will highlight a Structural Engineering educator from one of Utah's engineering schools. This month's feature is on:



DR. CHRIS PANTELIDES

Dr. Chris Pantelides has been a Professor of Civil and Environmental Engineering at the University of Utah since 1991. Prior to joining the staff at the 'U' Professor Pantelides was a Professor of Civil Engineering at the University of Missouri-Rolla. Before his career as an instructor, Dr. Pantelides worked as a Construction Engineer for Odon & Odostromaton. He received his B.E. in Civil Engineering in 1980 from American University of Beirut. He earned his M. Sc. and Ph. D. degrees in Civil Engineering from the University of Missouri-Rolla in 1983 and 1987, respectively.

Dr. Pantelides has played a major role in the education of most structural engineers that have graduated from the University of Utah within the last decade. He has taught nearly every course at the university that can be considered 'core' in terms of the skills that we must develop as structural engineers. Courses he teaches include, Concrete Design I & II, Timber Design, Masonry Design, Dynamics of Structures & Earthquake Engineering, Structural Earthquake Engineering, Bridge Engineering, and others. Alumni of the department of Civil and Environmental Engineering credit Dr. Pantelides with providing them with a vast array of tools and skills necessary for successful careers in structural engineering. Alumni also report that his classes were difficult and demanding, but very worthwhile because

they emerged with a wealth of abilities and an excellent understanding of the concepts taught.

A sample of Dr. Pantelides' research includes: retrofit of reinforced concrete bridges with CFRP composites, optimization of structures with uncertainty using non-probabilistic uncertainty models, behavior of welded plate and FRP composite connections in precast concrete panels under simulated seismic loads, rehabilitation of non-ductile reinforced concrete interior building joints, reduced beam section moment connections without continuity plates, and CFRP composite connections for concrete members.

Dr. Pantelides has been the principal investigator for funded research projects too numerous to list with many of the projects involving carbon fiber reinforcement of structures. He has authored and contributed to many journal and book articles, technical reports, and conference proceedings publications.

SEAU NEWS is proud to feature Dr. Pantelides in this month's newsletter and offers its gratitude to him for having such a positive influence over structural engineers educated at The University of Utah.

If you had an engineering professor at BYU, the U of U, or USU that you believe should be recognized in SEAU NEWS, please contact the SEAU Newsletter committee or send an email to jjohnson@reaveley.com.

SEAU BY-LAWS PROPOSED CHANGES

BY-LAWS CHANGES

By: Julie Ott, By-Laws Committee Board Representative and
Brent Maxfield, By-Laws Committee Chairman

Last month we published a proposed change to the SEAU By-Laws which will reorganize the Secretary/Treasurer position to be the SEAU Secretary/Historian the first year of service and the SEAU Treasurer the second year of service. The Board of Directors (and past Secretary/Treasurers) strongly endorses this change. We asked for your comments. We have not received any comments. We assume that all of you are happy with the proposed change. Barry Welliver pointed out a name correction for the Utah Seismic Safety Committee. We had it listed as the Utah Seismic Safety Council. We will add this correction to the proposed changes to the By-Laws. Voting grade members should anticipate a ballot to be sent to them in the coming weeks. Please promptly vote and return the ballot.

If you have questions, please contact Julie Ott at jott@absconsulting.com or Brent Maxfield at maxfieldba@ldschurch.org.

BULLETIN BOARD**SEAU MEMBERSHIP APPLICANTS**

The following individual has submitted an application for approval by the SEAU membership committee for new members:

1. Russel Skeem - Professional

UPCOMING EVENT

Masonry Design Software Seminar
Sponsored by the Utah Masonry Council
Tuesday, February 18, 2003

The seminar will be a course in the use of NCMA's structural design software that can help users to explore and compare different design codes, design walls and lintels by both strength and allowable stress design, and perform other functions. Software is included in the registration fee of \$140.00.

For more information and to register, contact the Utah Masonry Council at (801)-486-7200.

THIS SPACE FOR RENT

The newsletter is an excellent forum to target a very select group of professionals for advertising. To find out more contact:

Jerod Johnson,
c/o Reaveley Engineers & Associates, Inc.
1515 South 1100 East
SLC, UT 84105
Phone 486-3883, Fax 485-0911
Email: jjohnson@reaveley.com

CLASSIFIDES**STRUCTURAL ENGINEER**

ABS Consulting is looking for a senior engineer with 10+ years experience and SE license. ABS is an international consulting firm providing risk analysis and design services to clients worldwide. Our Salt Lake City office is growing and has a diverse backlog of challenging projects.

Please direct letters of interest to:

John Masek, Vice-President
ABS Consulting
310 South Main Street, #300
Salt Lake City, UT 84101
801/333-7676

STRUCTURAL ENGINEER

Established consulting firm looking for talented project engineer with 3-10 years building design experience. Opportunity for productive engineer to grow with company. Send resume and statement of interest to:

CALDER-KANKAINEN, Inc.
307 W. 200 S. Suite 4002 SLC, UT 84101
FAX 328-2737

STRUCTURAL DESIGN ENGINEER

Do you want to work on schools, office buildings, jails, theaters, warehouses and retail spaces? Do you want to run your own projects? Do you want to be involved in the front end of a growing firm with a clear path to career advancement? **BHB Consulting Engineers, PC** is looking for a service oriented structural engineer with a minimum of three years experience. If you are interested, please send your resume to:

BHB Consulting Engineers, PC
Attn: Chris Hofheins
5263 South Commerce Drive, 200
Murray, Utah 84107

Phone: (801) 261-0601
Fax: (801) 261-0614
Email: chrish@bhbengineers.com

AISC Seminar Registration Instructions

registration

seismic design and the new 2002 AISC seismic provisions

Learn about the changes and new provisions in the 2002 Seismic Provisions and the impact of these changes through examples.

please mark date/location

- 1.14 Denver, CO
- 1.16 Salt Lake City, UT
- 1.28 Portland, OR
- 1.30 Seattle, WA
- 2.25 Sacramento, CA
- 2.27 Irvine, CA

member \$225 non-member \$275

1

NAME _____ AISC MEMBER # (if applicable) _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ FAX _____ E-MAIL _____

2

NAME _____ AISC MEMBER # (if applicable) _____

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AISC Member(s) @ \$225 Non-Member(s) @ \$275 **payment type**
 Check (payable to AISC Seminars)
 Visa MasterCard

TOTAL \$100.00
 Add \$25 to registration fee, if registering within 3 days of seminar. **COMP PER CAROL FIVONKA**

SIGNATURE _____

CARDHOLDER NAME _____ CARD# _____ EXPIRATION _____

Handout materials are included. An individual's AISC membership number is required to receive discount. Attendees registering within 3 days of seminar are not guaranteed handouts at the seminar, but will receive them by mail.

Registration Discounts: For firms or agencies registering three or more people, discount the above fees by \$20 per person.

Payment: Payment by check should be made payable to AISC Seminars. Payment is also accepted using VISA or MasterCard.

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 \$25.

how to register:
 Pre-registration is recommended. Registration information cannot be taken by phone.

If paying by check:
 Please fax just the registration form to 630.369.3773 and mail copy of registration form and check to:
 AISC Seminars
 LBX 619704, P.O. Box 6197
 Chicago, IL 60680-6197

If paying by credit card:
 Please fax registration form with credit card # and expiration date to 630.369.3773 (fax is secure)

Questions?
 Call 630.369.7784

BE SURE TO SEND IN YOUR REGISTRATION ON TIME!

OR \$80.00 FOR ANYONE WITH 3 OR MORE ATTENDING FROM THE SAME FIRM.

BE SURE TO WRITE "SEAU MEMBER" AND "COMP PER CAROL FIVONKA" ON YOUR REGISTRATION FORM.

SEAU Presents:
**AISC SEMINAR - SEISMIC DESIGN
AND THE NEW 2002 AISC SEISMIC PROVISIONS**

Thursday, January 16, 2003

Registration 12:30 p.m.

Program 1:00 – 8:00 p.m. (Dinner provided at 5:30 p.m.)

Presented by:

Thomas A. Sabol, PhD, S.E.
President, Englekirk & Sabol

Program Highlights:

- Changes and new provisions found in the 2002 AISC Seismic Provisions.
- The impact of these changes through examples of structural member and connection design.

Location:

Hilton Salt Lake City Center
255 South West Temple

Cost:

\$100.00 for SEAU Members - \$80.00 each for 3 or more attending from the same firm.
(AISC is giving SEAU Members a \$75.00 discount off the regular seminar fee of \$275.00 plus another \$20.00 per member for 3 or more attending from the same firm. SEAU has secured DOPL education funding equal to \$100.00 per member bringing the total cost down to \$100.00, or \$80.00 if applicable. Find more information at AISC's website www.aisc.org or by calling AISC at (603) 369-7784. You can register directly through Carol Pivonka at pivonka@aisc.org or call her directly at (406)-652-9787. Make sure you indicate you are a member of SEAU on all correspondence to secure your discount.

STRUCTURAL ENGINEERS ASSOCIATION OF UTAH

P.O. Box 58628

Salt Lake City, Utah 84158-0628

www.seau.org



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