

## Schedule

### Mark Your Calendar (2003)

#### General Membership Meetings

(Breakfast 7:30 a.m.)

January 16

March 13

May 8

July 17

September 11

#### Business Practice Committee Meetings

(Breakfast 7:30 a.m.)

February 13

April 10

June 12

August 14

October 9

#### SEAC Board of Directors Meetings

(7:30 a.m.)

January 9

February 6

April 3

June 5

August 7

October 2

#### Annual Dinner Meeting

November 6

6 - 9 p.m.

## SEPTEMBER GENERAL MEETING

### WHAT MAKES THE IDEAL STRUCTURAL ENGINEER? AN INFORMAL DISCUSSION WITH THE PEOPLE WHO KNOW BEST

Most of us think we know what our customers are looking for when we are retained to provide structural engineering consulting services, but do we really? The scope of service and the expectations of the client vary greatly between different areas of the market as well as from firm to firm. This month, SEAC's Architectural Committee presents a panel of local Architects representing the full range and scale of building design projects in our region. The Architectural committee has surveyed both SEAC and AIA members about the chronic problems that plague the relationship between the Structural Engineer and the Architect and will use this as the basis to start the discussion. In addition we have distributed a copy of the SEAC 'Guide to the Practice of Structural Engineering in Colorado' to each of the panelists and asked for their comments. Some of the topics we anticipate will make the floor are:

- Coordination of structural drawings with Architectural as well as other disciplines
- Contracts

Julian Lineham will serve as the moderator for the panel discussion and will throw enough questions out to get things going. Please come prepared with your own questions and rebuttals as this will be an informal discussion and participation is encouraged. Julian will be prepared to move quickly on to the next topic should discussions become heated!! Our panelists for this program include local Architects, Jim Bradburn, of Fentress Bradburn Architects, Paul Hutton of Hutton Ford Architects, Mary Morrisette of Bennet Wagner & Grody Architects, Ben Wilking of Lantz-Boggio Architects and Harvey Hine, of Harvey M. Hine Architects (*bio not available*). A short biography of each of our panelist is included on page three (3) of this newsletter.

Increasing interaction with the Architectural community has been a goal of the SEAC Board of Directors for the last several years. As we did last year for the presentation on Architecturally Exposed Structural Steel, we encourage you to invite your favorite Architect to come along to this meeting to add to the discussion and hear what SEAC members have to say. Guests will be \$10, payable at the door, as was the case last year. Please mark your calendar for September 11, and join us for this great panel discussion!

## Don't Miss Out

**Date:** Thurs. Sept. 11 @ 7:30am  
**Speaker(s):** Jim Brradburn  
Paul Hutton, Mary Morrisette,  
Ben Wilking, & Harvey Hine  
**Location:** Renaissance Denver Hotel  
3801 Quebec Street (south of the I-70  
and Quebec intersection)

Please e-mail your reservations to Caryn Bauer at:  
[cbauer@martinmartin.com](mailto:cbauer@martinmartin.com), or phone in at  
303-431-6100 x 403. **Reservations MUST be  
made By 12:00 noon on Monday, September 8,  
2003.**

## Officers & Board Members



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### Submit comments/articles to:

*Ben Nelson*

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*Information for inclusion in the newsletter must be received one month prior to the next general meeting.*

*Caryn L. Bauer*  
SEAC Executive Assistant

## President's Message

It seems like the year just started and here I am introducing the last general breakfast meeting of 2003. I am pleased that this meeting will be presented by our Architectural Committee which is back on its feet this year under the capable leadership of **Julian Lineham**. A majority of **SEAC** members work on Architectural projects for a large portion of their work, hence it is important that **SEAC** does all it can to promote good communication with AIA and the Architectural community. If you have not responded to the survey emailed to you by **SEAC** on behalf of the committee, please take a few moments and do so. This same survey has been mailed to all AIA Denver members and will be used as the basis for prioritizing discussions in the committee next year.

Speaking of committees and surveys, the Standard of Practice committee has added a few new members and is now being led by **SEAC** board member **Jim Ness**. The committee has established a schedule of monthly meetings and assignments to review and update the "Guide For Consulting Structural Engineering Services in Colorado" (last published in 1987) with the goal of presenting the revised document to the membership late next year. For any of you who have not read the old document, it will be posted on the members section of the web site this month for you to review. It has served our members well, and is an excellent document. The new guide will address technology related issues such as sharing of CAD files, design-build, and electronic communication in addition to updating the original document. A survey will be sent to all of you in the coming months soliciting your input for the guide. Please call Jim if you have any questions regarding the committees work.

This month I would also like to give special recognition to the ad hoc committee that has been meeting throughout the year to plan the October annual meeting of the National Council of Structural Engineers Association (NCSEA). The event will be hosted at the Downtown Denver Marriott on October 23<sup>rd</sup> through October 25<sup>th</sup>. The committee has been led by past president **Brent Norris** and includes **Charles Keyes, Ben Nelson, Paul Hause, Luis Estenssoro, Eric Hunnes, and Wally Prebis**. In addition to assisting the NCSEA executive director in making arrangements, the committee has met on a regular basis to develop a program to showcase structural engineering in Colorado. Typically the host **SEAC** provides the program for the Friday sessions, while on Saturday the NCSEA business meeting is held followed by the awards dinner. This years Friday program is titled "Earth, Wind, and Snow - Challenges from Mountain and Plain" and will feature discussion on expansive soils common to the Front Range and not-so-common collapsible soils, a talk on designing for the high winds of our region, and finally the pesky snow loads such as the ones we experienced in the March Blizzard this year. Participants in the Friday session will earn 0.70 Continuing Education Units. Complete details are available in the **STRUCTURE** magazine that you receive as a part of your dues to **SEAC**. Should you need additional information, please call any board member or a one of the committee members.

There is a welcoming reception on Thursday night. The **SEAC** member price to attend this event will be \$30. The cost for admission to the conference on Friday for our **SEAC** members to attend will be \$100. In case you are interested, admission to Saturday's business session will be \$75 for **SEAC** members. These discounted costs have graciously been offered to **SEAC** members only. NCSEA is not offering discounts to the conference Friday night dinner at Coors Field (\$125), or the awards dinner on Saturday night (\$100). If you are seriously considering attending portions or all of the conference, please email Brent at [brent.norris@jrharrisandco.com](mailto:brent.norris@jrharrisandco.com). Because **SEAC** must provided the number of members we are expecting to NCSEA by October 13<sup>th</sup> (and collect the fees), please consider attending the NCSEA Conference in lieu of our typical fall seminar, as it is rare to have such a gathering locally. In addition to the great program developed by our committee, you can rub elbows with the leaders of our profession and learn about what is happening with your peers across the country.

So, I guess the message for this month is that our committees are **BUSY**. If you are not active on one of **SEAC's** committees, I encourage you to participate. While all of us benefit from the efforts of our committees, the most is gained by those individuals who are actively engaged. Hope to see all of you for our September meeting.

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## Meet The Panalists for the September General Meeting

**JIM BRADBURN** is Principal in Charge of Technical Design and Operations at Fentress Bradburn Architects in Denver and has been responsible for over \$4 billion of constructed projects. Among these projects are the Denver International Airport, the Colorado Convention Center, the University of Colorado Research Complex One and Two, and the Raleigh Durham International Airport. International projects include the New Doha International Airport, the New Seoul International Airport, and several projects in Kuwait.

Jim has sought to maintain the highest levels of performance in production and architectural technology by applying the basics of engineering and science to the latest innovative technical aspects of contemporary architecture. He has won multiple awards for technical achievement from both the architectural and engineering community.

**PAUL HUTTON** is a principal at Hutton Ford Architects, a medium sized firm located in Denver's Golden Triangle. The firm focuses on environments for learning, in addition to office, retail and residential work. All of the firms work is sustainable and daylighted. Paul's sustainable design track record dates back to the 1970's when he built solar houses. He is a LEED certified professional and is at the forefront of high performance school building design.

Paul has been a practicing architect in Colorado since 1980, when he started at the office of Bill Muchow. His previous experience included offices in New England, Virginia, and Madrid. In 1990, Paul started Hutton Architects, which became Hutton Ford Architects in 1994. He is currently licensed in six states. Paul is a graduate of Princeton University, and has graduate degrees in both Architecture and Planning from the University of Virginia. He is an honorarium instructor at the University of Colorado at Denver graduate School of Architecture, where he teaches the "construction documents" course.

**MARY MORISSETTE, AIA** is a Senior Associate with Bennett Wagner & Grody Architects PC. Ms. Morisette has 20 years of experience working with institutional clients. Her main focus has been Healthcare facilities. Ms. Morisette has been an AIA member since 1987. She has served as AIA Denver Board of Directors Vice President for 2002 and 2003. Previous positions include: AIA Denver Board of Director Secretary, AIA Colorado Board of Director Secretary, AIA Denver Design Awards Committee, and Founder and Chairperson of AIA Denver Healthcare Committee.

**BEN WILKING, AIA** is an Associate and Senior Project Manager at Lantz-Boggio Architects, P.C. Mr. Wilking created and directs the Design Build Program. He has over 18 years experience in all phases of design and Construction Administration with an emphasis in K-12 schools. Ben has been a member of the American Institute of Architects (AIA), since 1990. He is currently the AIA President, and served as Chair of the AIA Denver Design-Build Committee from 1996-2002. He is the Principal author of the Design-Build Curriculum Committee's Certificate of Design-Build at UCD's University of Architecture and Planning, Denver Campus.

A Design Seminar You Will Not Want To Miss!

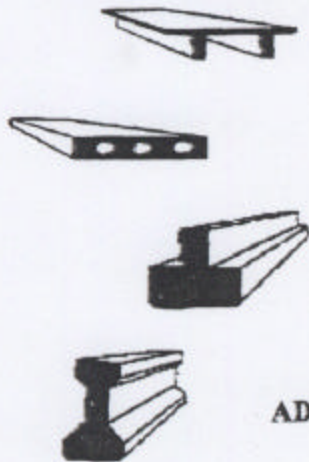
**Basic Design of Precast/Prestressed Concrete.....**

**.....with an emphasis on ACI 318-02 and IBC 2003**

**NOTE: This Seminar has been rescheduled from June 13 to September 26, 2003**

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1510 GLEN AYR DR., SUITE 8  
LAKEWOOD, CO 80215



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## THE SPEAKERS

**JERRY DENISON, P.E.** Project Manager with Stresscon Corp. Jerry received his degree in Civil Engineering from the University of Colorado.

**JOHN HANLON, P.E.** Engineering Manager with Rocky Mountain Prestress. John has a BS in Civil Engineering from the University of Dayton and a MS in civil Engineering from the University of Pittsburgh.

**JASON LIEN, P.E.** Jason is President of StructureWorks. Denver. a recently established firm specializing in 3-D computer modeling for the precast prestressed concrete industry.. His degrees include a BS and MS in Engineering Systems from the Colorado School of Mines. He currently serves on the PCI Design Handbook and Connections Committee.

**WALLY PREBIS, P.E.** Executive Director of the Colorado Prestressers Assn., and a graduate of Colorado College, 1955, with a degree in Civil Engineering.

**BUCK REINKING, P.E.** Past President of Stresscon Corp. and currently Vice President of EnCon Corp.. Buck received his BSCE and MBA degrees from the University of Colorado.

**BILL RICHARDSON, P.E.** Past President of Stresscon Corp., and currently CEO of Richardson Consulting Services LLC. A graduate of Virginia Tech University, Bill has a BS and MS in Civil Engineering. He is a Past Chairman of PCI.

**HEIDI ZIEMANN.** Design Structural Engineer with Rocky Mountain Prestress. Heidi has a BS degree in Civil Engineering from Michigan Technological University.

### RESCHEDULING OF SEMINAR

To those of you who registered for the original June 13 date, our sincere apologies for any inconvenience. We were unaware of another seminar that produced a conflict, hence the need for rescheduling. Our thanks to the many who selected to retain their registration for the Sept. 26 date, and you will be appropriately informed that your registration is intact. Only the date has changed as the time and place remain the same.

### DATE, TIME, AND PLACE

Date: Friday, September 26

Time: 9:00 AM-4:30 PM

Place: Renaissance Hotel, Denver, 3801 Quebec St.

### EDUCATIONAL CREDITS

We have arranged through AIA/CES Registered Provider to issue educational credits for both Architects (8 LU) and Engineers (0.8 CEU). Certificates will be presented immediately following close of the Seminar.

### Fee

Registration Fee is \$65/person, payable by check when you send in your registration below. Please register no later than one week before seminar.

### WHAT IS INCLUDED

Your registration fee includes the following food and beverage:

Early morning coffee starting at 8:30 AM

Mid-morning break including coffee/tea/soda

Lunch

Mid-afternoon soda break

Handouts included:

Packet with design example

PCI Design Handbook on CD ROM

Seminar notes

**NOTE: You should bring your own copy of ACI 318-02**

### THE PROGRAM

- Brief Overview of ACI 318-02  
A focus on precast/prestressed concrete
- A Designers View of Realistic Live Loads  
Floor loads  
Roof and ground snow loads  
Parking decks with combined snow and live load
- Determining Fire Ratings  
Required fire ratings as dictated by the IBC  
Introduction to ASTM Std. E119  
How precast products meet the IBC requirements
- Design Examples  
Introduction  
Industry terminology  
How and why we prestress  
Manufacture  
Review of ACI 318-02 Chapters 18 and 11  
Notations used in prestress design  
Allowable stresses for bending and shear  
Lateral load analysis  
Creating diaphragms  
Shear wall vs. other framing Systems  
Design of a roof double tee  
Column design  
Wall design  
Solid and insulated sandwich
- Architectural
- ...all this and more....
- Summary  
Q & A

### REGISTRATION FORM

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Registration Fee: \$65/person payable with this form

Mail to: Colo. Prestressers Assn.  
1510 Glen Ayr Dr., Ste. 8  
Lakewood, CO 80215

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

COMPANY \_\_\_\_\_ E-MAIL \_\_\_\_\_

ADDRESS \_\_\_\_\_

City State Zip

all new for  
**2003**



# field fixes

common problems in design,  
fabrication and erection—  
solutions and prevention

## field fixes common problems in design, fabrication and erection—solutions and prevention

Inventory, design, fabrication, and construction problems occur on structural steel projects. At this seminar, you will learn solutions to recurring problems, and suggestions to prevent problems from occurring.

Topics include design issues such as material specifications, connection design requirements, use of standard details, storing material for constructability, use of mill reports, perimeter details for lift-up and pre-cast concrete walls, design procedures for fast-track construction, electronic data transfer and shop drawing approval procedures.

The shop fabrication problems that will be addressed include misplaced holes, shop splicing, camber requirements, fabrication tolerances, quality control procedures, cleaning, and painting.

The field problems that will be addressed include loading misplacement, anchor rod misplacement, anchor rod length errors, camber and floor levelness, hole alignment, columns not plumb, columns too short or too long, column splices, bolt installation and inspection, welding and weld inspection, RTU installation, crane rail location, sparallel beam location problems, shear connector installation, joint problems, steel joists too long or too short, joint reinforcing, bridging interference, deck openings, and many more.

Included will be a discussion of the proper procedures and documentation needed to verify that the revision complies with design requirements and has been properly made and inspected. The attendee will leave the seminar better equipped to solve and prevent errors in his or her structural design.

### why attend?

- Learn how to reduce the number of errors on your projects!
- Understand the types of errors that typically occur in the design office, in the fabricating shop, and in the field.
- Gain the tools and knowledge necessary to fix problems that occur in the field.

### who should attend?

structural engineers, fabricators and fabricator engineers, erectors, architects, and building inspectors

### what materials will I receive?

You will receive AISC Design Guide 15, AISC Rehabilitation and Retrofit Guide: A Reference for Historic Shapes and Specifications. Handout notes of the PowerPoint presentation written by Jim Fisher and Larry Kibbler will also be available. Bring your thoughts on problems you have had that you may want to see addressed.



American Institute of Steel Construction, Inc.  
One East Wacker Drive, Suite 3100  
Chicago, IL 60601-2000

### field fixes

common problems in design,  
fabrication and erection—  
solutions and prevention

### dates and locations

9.16	Albuquerque, NM	11.4	Richmond, VA
9.17	Denver, CO	11.5	Raleigh, NC
9.23	Greenville, SC	11.6	Greensboro, NC
9.24	Columbia, SC	11.18	Providence, RI
10.1	Birmingham, AL	11.18	Cincinnati, OH
10.2	New Orleans, LA	11.19	Cromwell, CT
10.14	Milwaukee, WI	11.19	Columbus, OH
10.30	Phoenix, AZ	11.20	Edison, NJ
11.4	Salt Lake City, UT	12.3	Nashville, TN

### seminar schedule

8:30 a.m.	registration
9:00 a.m.	seminar begins
noon	lunch (provided)
3:30 p.m.	seminar concludes

### continuing education units

5.0 Professional Development Hours (PDHs) or  
0.5 Continuing Education Units (CEUs)

## seminar outline

<b>field problems</b>	anchor rods base plates spenders and brade bending bolts tagging trusses steel deck fit-up	embed plates interference ranching connections columns beams center steel studs shear studs
<b>fabrication and erection problems</b>	paint bolts gusset plates erection aids welding	roof-top unks joints crane rails specifications
<b>design</b>	member selection guidelines shear connection guidelines moment connection guidelines	can/lever design guidelines bracing connection guidelines

## authors

**James M. Fisher, Ph.D., P.E.**, is the Vice President of Computerized Structural Design, SC, the firm he joined in 1973 after teaching as an assistant professor of Structural Engineering at the University of Wisconsin-Milwaukee. He currently serves as a member of the AISC Specification Committee for the Design, Fabrication and Erection of Structural Steel Buildings, AISC's Committee on Specifications, and AISC Subcommittee No. 13 on Design and Construction of Mill Buildings. Dr. Fisher received the 1984 T.R. Higgins Lectureship Award presented by AISC, and in 2000, he received AISC's Lifetime Achievement Award.

**Lamrona A. Klobner, P.E.**, is the retired Vice President of Engineering at Lukens Steel Co., and has been involved in the design, fabrication, and erection of structural steel for over 40 years. He currently serves as a member of the AISC Specification Committee for the Design, Fabrication and Erection of Structural Steel Buildings, the AWS D1.1 Code Committee, and the Research Council on Structural Connections. Larry received AISC's Lifetime Achievement Award in 2002.

For information about the speaker in your area, please visit the AISC web site at [www.aisc.org/seminars](http://www.aisc.org/seminars).

## seminar cost

AISC members \$250  
AISC non-members \$300

For speaker and other seminar information, please visit the AISC web site [www.aisc.org/seminars](http://www.aisc.org/seminars).

## seminar locations

9.16	Albuquerque, NM	Hilton Albuquerque 1901 University Boulevard, NE	505.894.2500
9.17	Denver, CO	Renaissance Denver Hotel 3801 Quebec Street	303.398.7500
9.23	Greenville, SC	Generale Spartanburg Airport Marriott One Parkway East	864.297.0000
9.24	Columbia, SC	Holiday Inn Columbia 630 Assembly Street	803.799.7800
10.1	Birmingham, AL	Holiday Inn Homewood 280 Oremor Road	205.942.2041
10.2	New Orleans, LA	Hilton New Orleans Riverside Two Poydras Street	504.561.0500
10.14	Milwaukee, WI	Sheraton Milwaukee Brookfield Hotel 375 South Moorland Road Brookfield, WI	262.384.1100
10.30	Phoenix, AZ	Phoenix Airport Marriott 1101 North 44th Street	602.273.7373
11.4	Salt Lake City, UT	Salt Lake City Marriott Downtown 75 South West Temple	801.531.0800
11.4	Richmond, VA	Richmond Marriott 500 East Broad Street	804.543.3400
11.5	Raleigh, NC	North Raleigh Hilton 3415 Wake Forest Road	919.872.2323
11.6	Greensboro, NC	Marriott Airport One Marriott Drive	336.852.8450
11.18	Providence, RI	Providence Marriott 1 Dorn Street	401.272.2400
11.18	Chickadee, OH	Radisson Hotel Chickadee Airport Chickadee, Kentucky Int'l Airport Hebron, KY	866.371.6186
11.19	Cromwell, CT	Radisson Cromwell 100 Bath Road	800.635.2000
11.19	Columbus, OH	Concourse Hotel and Conv. Center 4300 International Gateway	614.237.2515
11.20	Edison, NJ	Holiday Inn South Plainfield 4701 Station Road	908.753.5500
12.3	Nashville, TN	Milkenstein Maxwell House Nashville 2025 Metro Center Boulevard	615.259.4343

## 2003 registration field fixes

- common problems in design, fabrication and erection—solutions and prevention
- Please mark your location:
- 9.16 Albuquerque, NM
  - 9.17 Denver, CO
  - 9.23 Greenville, SC
  - 9.24 Columbia, SC
  - 10.1 Birmingham, AL
  - 10.2 New Orleans, LA
  - 10.14 Milwaukee, WI
  - 10.30 Phoenix, AZ
  - 11.4 Salt Lake City, UT
  - 11.4 Richmond, VA
  - 11.5 Raleigh, NC
  - 11.6 Greensboro, NC
  - 11.18 Providence, RI
  - 11.18 Chickadee, OH
  - 11.19 Cromwell, CT
  - 11.20 Edison, NJ
  - 12.3 Nashville, TN

Check box to receive notification via e-mail

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AISC members \_\_\_\_\_ @ \$250

AISC non-members \_\_\_\_\_ @ \$300

Total \_\_\_\_\_

ADD \$25 to registration fee if registering within 3 days of the seminar.

Check (payable to AISC Seminars)  VISA  MasterCard

cardholder name \_\_\_\_\_ card number \_\_\_\_\_ expiration \_\_\_\_\_

signature \_\_\_\_\_

**Handout materials are included.** An individual's AISC membership number is required to receive discount. **Attendance 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.

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

**If paying by check:** Please fax with the registration form to 630.383.3773 and mail copy of registration form and check to:

AISC Seminars  
LBX 619704, P.O. Box 6197  
Chicago, IL 60660-6197

**If paying by credit card:** Please fax registration form with credit card # and expiration date to 630.383.3773 (fax is secure).

**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.

**Registration Questions:**  
Call 630.383.7764