CONTINUING EDUCATION

AISC Offers Hot Seminars At Cool Prices

This summer, designers have the unique opportunity to attend "The Best of" recent AISC seminar programs at a substantially reduced cost. From July 25-28, AISC will consecutively offer four recent successful seminars at one location with each presented by the top presenters and/or the program authors:

- *Field Fixes: Common Problems in Design, Fabrication and Erection—Solutions and Prevention* (July 25)—Jim Fisher and Larry Kloiber
- *Steel Design after College* (July 26)—Larry Griffis
- *Seismic Braced Frames* (July 27)—Rafael Sabelli
- *Bolting & Welding* (July 28)—Duane Miller and Geoff Kulak

The programs are each six hours and each provide 6 PDHs (0.6 CEUs). And as part of this special event, registration fees for AISC members are substantially reduced: Attend one seminar for $100, two for $180, three for $240, or all four for $280 (non-members pay $200 for one seminar, $360 for two, $480 for three, or $560 for all four). However, early registration is encouraged as seating is limited.

What: AISC Seminars: "The Best of"
Where: Rubloff Auditorium
Loyola University
25 E. Pearson St.
Chicago, IL 60611
When: July 25-28, 2007

To keep costs down, the seminars include coffee breaks but no lunch (the venue is in the heart of Chicago's shopping district and numerous restaurants are within walking distance).

To register, visit **www.aisc.org/bestofseminars** and download a registration form.

Field Fixes: Common Problems in Design, Fabrication and Erection—Solutions and Prevention

What do you do when a hole is misplaced? Or the columns aren't plumb? More importantly, what can you do to prevent these problems from occurring in the first place? This seminar covers a wide range of topics, including material specifications, connection design requirements, standard details, sizing material for constructability, use of mill reports, perimeter details for tilt-up and pre-cast concrete walls, design procedures for fast-track construction, electronic data transfer, and shop drawing approval procedures. You will be introduced to the types of errors that typically occur in the design office, in the fabricating shop, and in the field—and gain the tools and knowledge necessary to "fix" problems that occur in the field.

The speakers bring more than three quarters of a century of practical experience. **James M. Fisher** is vice president of Computerized Structural Design in Milwaukee. He also is the co-author of several AISC design guides, chairman of the AISC Committee on Specifications, and the recipient of numerous AISC awards, including the T.R. Higgins Lectureship Award and the J. Lloyd Kimbrough Award.

Lawrence A. Kloiber of LeJeune Steel is the retired vice president of engineering at LeJeune Steel Co. He currently serves on the AISC Committee on Specifications, the AWS D1.1 Code Committee and the Research Council on Structural Connections. He has received an AISC Lifetime Achievement Award as well as the T.R. Higgins Lectureship Award.

Bolting and Welding Primer

Part One of this seminar will provide an introduction into the basics of welded connection design. The presentation will cover weld joints, weld types, criteria for selecting weld types, matching and undermatching filler metal strength, and the procedures needed to determine weld capacity.

Principles of welded connection design will be reviewed, along with case studies where failure to apply these principles has led to problems. The course concludes with a series of practical cost reduction ideas, permitting the attendee to put these ideas into practice, and quickly reap the benefits of this course.

Design and specification of a bolted joint requires the structural engineer to select the type of fasteners to use, to understand how they are to be designed, and to set out acceptable methods of installation and inspection. Part Two will provide the engineer with the information necessary to select suitable high-strength bolts, specify the methods of their installation and inspection, and to understand the basis of the design rules in the AISC specification. Bolts can be either common bolts (sometimes called ordinary or machine bolts) or high-strength bolts. Although both types will be described, emphasis will be placed on high-strength bolts.

Duane K. Miller, Sc.D., P.E., a recognized authority on the design of welded connections. He is manager of engineering services at The Lincoln Electric Company and has authored and co-authored chapters of many texts and was the recipient of the 1998 AWS Silver Quill Award. He currently serves as a member of the AISC Committee on Specifications and received the AISC T.R. Higgins Lectureship Award in 2001.

Geoffrey Kulak, a professor of civil engineering at the University of Alberta from 1970 to 1996 and now a professor emeritus. He is a recognized authority on the behavior of welded and bolted connections. He has published extensively, and these publications include *Guide to Design Criteria for Bolted and Riveted Joints* and *A Fatigue Primer for Structural Engineers*, both available through AISC at **www.aisc.org/bookstore**. He is the author of AISC's *Design Guide 17: High Strength Bolts—A Primer for Structural Engineers*.

Steel Design After College

Most of us left college and entered the work force with a clear understanding of structural steel design. The professors performed their jobs well, teaching us all about the behavior of steel and introducing the AISC *Specification* and *Manual*. Those of us who took an advanced steel design course even

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learned how to design many standard connections. We went to our first day of work with an engineering degree, and the know-how to completely design a steel-framed building. Right? Not quite. There is a limit to how much can be taught at the university level. In order to perform structural design one has to attain additional knowledge via "on the job training" and continuing education. AISC has developed this course to cover structural topics you did not learn in the college classroom.

The speaker for this session is **Lawrence G. (Larry) Griffis**, P.E., President of the Structures Division and Senior Principal with Walter P. Moore and Associates, Inc., where he is responsible for directing the structural, diagnostic/forensic, and parking services in the eight WPM offices around the country. Griffis is a member of both the AISC and ACI specification committees and is a member of the board of directors for both the Applied Technology Council (ATC) and the Structural Stability Research Council (SSRC). He is chairman of the Task Committee on Wind Loads for ASCE7 and currently serves as chairman of the ASCE Committee on Steel Buildings. Larry has received AISC's T.R. Higgins Award and AISC's Lifetime Achievement Award. He was inducted into the National Academy of Engineering in 2004.

Seismic Braced Frames

Many seminars on seismic design have concentrated primarily on moment frame systems. There are many cases in moderate to high seismic regions where the designer might prefer the lower cost and more efficient braced frame option. In response to requests from engineers and designers, AISC has developed a seminar that concentrates specifically on seismic braced frames. The course will focus on the design requirements in the 2005 AISC *Seismic Provisions for Structural Steel* pertaining to Special Concentrically Braced Frames (SCBF), Ordinary Concentrically Braced Frames (OCBF), and Buckling-Restrained Braced Frames (BRBF). Example problems and solutions for each type of the three braced frames will be covered.

The speaker is **Rafael Sabelli**, S.E., a principal of DASSE Design in San Francisco. He is a member of the AISC Task Committee on the *Seismic Provisions for Structural Steel Buildings*, and is the author of numerous publications on concentrically braced frames including analytical studies and design guides on buckling-restrained braced frames. He was the 2000 NEHRP Professional Fellow in Earthquake Hazard Reduction, and is the past chair of the Seismology Committee of the Structural Engineers Association of California.

While no rooms have been reserved for attendees, a list of nearby hotels is available on the registration form at **www.aisc.org/bestofseminars**.

ON THE WEB

New Web Site Lets Steel Pros Share Software and Utilities

Modern Steel Construction has launched a new web site—**www.steelutilitiesonline.com**—to provide a forum for structural engineers, detailers, fabricators, and others involved in the design and construction of structural steel buildings to post and download software and utilities for the design or analysis of structural steel buildings.

All files posted should be available to download free (commercial software developers may also post demos of their software). Postings will not be reviewed for accuracy, so care should be taken when using any of the software or utilities posted to the site. Users can also post comments about the software, utilities, and other information posted on the site.

Registration as a member of the forum is required to post or download a file. Member information is kept confidential and is only used for the site's administration.

UNIVERSITY RELATIONS

Apply Now for AISC Faculty Fellowships

The American Institute of Steel Construction is accepting applications through June 16 for its 2006 faculty fellowships. Each fellowship is a four-year, $30,000-per-year award for a promising faculty member. Application guidelines and information about the program are available at **www.aisc.org/2006facultyfellowship**.

Applications must be submitted in duplicate, with one hard copy and one electronic file (either an MS Word document or Adobe Acrobat PDF). Please provide advance notice of intent to submit an application by e-mailing Tom Schlafly, Director of Research, at schlafly@aisc.org. The notice of intent should include the name of the candidate, the name of the institution, and the subject of the proposed research.

JOURNALS

Engineering Journal: Call for Papers

AISC is always accepting article submissions for *Engineering Journal*. Articles may address topics pertinent to steel design, research, steel fabrication methods, or significant new products for steel construction. Technical articles with practical applications in the steel industry are particularly welcomed.

If you are a structural engineer, steel fabricator, steel detailer, or steel producer with a new idea for an article or an improvement on an old idea, please submit your paper in duplicate to Cynthia Duncan, editor of *Engineering Journal*, at 1 E. Wacker Dr., Ste. 700, Chicago, IL, 60601-1802. More information is available at **www.aisc.org/ej**.

CERTIFICATION

Certification Standard Update to Clarify Language

An updated version of the *Certification Standard for Steel Building Structures* will clarify and simplify language—once tailored toward specifiers—for fabricators and other steel construction professionals. This updated standard will be available later this year. The current standard is available to AISC members to download free at **www.aisc.org/buildingstandard**.

news & events

NEW PUBLICATIONS

Compilation of ASTM Standards Available

The 2006 edition of the *Selected ASTM Standards for Structural Steel Fabrication* is now available. A selectively compiled list, this book contains virtually all ASTM standards that apply in the design and construction of structural steel buildings and bridges.

The publication is also available on CD-ROM. Both versions are available to purchase at **www.aisc.org/bookstore**.

New Seismic Design Manual Out This Month

Orders are being accepted for AISC's new six-part *Seismic Design Manual*, which will be available this month. The manual includes guidance on general seismic design considerations, design of systems using $R = 3$ (braced and moment frames), design of braced-frame systems using $R > 3$, design of moment frame systems utilizing $R > 3$, and design of other systems using $R > 3$.

The manual also includes printed versions of the *Seismic Provisions for Structural Steel Buildings* (ANSI/AISC 341-05) and the AISC *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications* (ANSI/AISC 358-05).

The *Seismic Design Manual* is available for $175 to AISC members and $350 for non-members. It can be ordered online at **www.aisc.org/bookstore**.

COATINGS

Joint Paint Standard Committee Formed

The American Institute of Steel Construction and SSPC: The Society for Protective Coatings have formed a joint committee with the goal of creating a single standard for shop painting structural steel.

The committee has two years to complete its work or both organizations will revert to having separate programs without reciprocity. The committee will consist of industry and staff members representing both organizations.

While this work is being done, AISC and SSPC have reconfirmed their agreement to recognize each other's paint certification programs as two coordinated and equivalent quality programs to certify structural steel fabrication and paint shops that apply coatings to structural steel.

AISC will continue to offer its Sophisticated Paint Endorsement (SPE), and SSPC will continue to offer its QP 3 program. Both programs have long been available to the industry but recently have been revised to reflect advances in the fabrication and coatings industries. SSPC now has two classes of QP 3 certification:

- Class B, which is equivalent to AISC's SPE, applies to the structural fabrication market (bridges and buildings).
- Class A, which includes quality assurance as well as safety, health, and environmental compliance, is recommended for shops more commonly involved with vessels or fleet equipment and shops that paint but that do not provide steel fabrication services.

Both AISC and SSPC expect to have their revised certification programs completely phased in by the end of 2006.

"The AASHTO/NSBA Steel Bridge Collaboration heartily applauds and endorses the reciprocity between the AISC and SSPC certification programs," said Ronnie Medlock, chairman of the Collaboration and Bridge Technical Services Director for the Texas Department of Transportation.

The AASHTO/NSBA collaboration, which represents the national steel bridge community, recommends that facility owners specify that fabrication shops contracted to paint are certified to meet the AISC SPE program, while dedicated paint facilities working with structural steel should be certified to SSPC QP 3, Class B. This helps ensure that owners' contracts are awarded to capable shops that have been evaluated independently to the highest standards.

For information about the AISC SPE program, contact AISC Certification by phone at 312.670.2400 or e-mail at certinfo@aisc.org, or visit AISC's web site at **www.aisc.org**. For information on SSPC QP 3, contact the SSPC Shop Certification Program by phone at 412.281.2331 or e-mail damiano@sspc.org, or visit SSPC Online at **www.sspc.org**.

INFORMATION MODELS

Getting Architects on Board with BIM

The American Institute of Steel Construction recently contributed an article on Building Information Modeling (BIM) to *Architectural Record* that can help architects earn Continuing Education Units. The article, entitled "Getting on Board with Building Information Modeling," appeared in the magazine's April issue as part of its continuing education series.

AISC shared with architects the structural steel industry's experiences and successes in implementing BIM in an integrated, collaborative fashion. The article provides guidance to architects about how to start working on projects using BIM, and describes how BIM has delivered projects faster, with higher quality, and at lower cost.

Architects are eligible to receive continuing education credit through the American Institute of Architects by reading the article and completing an accompanying quiz. To access the article online, visit **http://archrecord.construction.com/resources/conteduc/article_pdf/0604steel.pdf**.

ON THE WEB

Online List of Resources for Steel Designers

As part of a continuing effort to bring useful information to the design community, AISC's Steel Solutions Center and a committee of the American Society of Civil Engineers' (ASCE) Structural Engineering Institute have compiled a list of current, complete, and easily available references for structural steel designers. The list, "Resources for Steel Design, 2nd Edition" is available at **www.aisc.org/designresources** and was most recently published in the December 2005 issue of MSC.

The subjects included in the list cover a wide range of topics relating to the design of steel structures. Each item on the list has an associated link either to the resource itself (if published by AISC) or to contact information for the publishing party.