



INSIDE

Page

CFSEI President's Message	1
<i>Shear Wall Design Guide</i>	1
21st Short Course on CFS	2
CFS Questions on PE Exam	3
Real World Design Examples at METALCON	4
CFSEI Annual Conference	5
CFSEI Chapter Updates	6
AISI's CFS Design Manual	7
Engineer Community News	8

Upcoming Events

CFS Design: Practical Applications (SP1 at METALCON) <i>Tampa, FL</i> www.metalcon.com	Oct. 5
METALCON International <i>Tampa, FL</i> www.metalcon.com	Oct. 6-8
USGBC Greenbuild Conf. <i>Phoenix, AZ</i>	Oct. 5-8
NCSEA Annual Conference <i>Scottsdale, AZ</i> www.NCSEA.com	Oct. 15-17
21st Short Course on Cold-Formed Steel Structures <i>St. Louis, MO</i> www.ccfsonline.org/cont_ed/short_course.html	Oct. 27-29
Steel Doing It Right Seminar <i>San Francisco, CA</i> www.CFSEI.com	Nov. 4-5
CFSEI Atlanta/S.E. Chapter Luncheon: Load Bearing Systems with Cold-Formed Steel Framing <i>Atlanta, GA</i> www.CFSEI.org	Dec. 3
AISI Committee on Framing Standards Meetings <i>Location TBD</i> www.steel framing.org	Feb. 16-18

CFSEI PRESIDENT: PURSUING INSTITUTE GROWTH AND EXPANDED OUTREACH



John Matsen P.E.
CFSEI President

I believe in the CFSEI and all that it has to offer to the engineering community. The one thing that all members of the CFSEI have in common is a shared passion for cold-formed steel design. It is this passion that is a driving force pushing forward CFSEI's mission to assist engineers in taking advantage of the structural benefits offered by cold-formed steel (CFS). Unique benefits no other building material can duplicate. As an example, we have all seen the impact the CFS design has had on the mid-rise construction market over the past 10 years.

As CFSEI President for 2009-10, effective with my election by the CFSEI Board in May, my primary goal is the growth of the CFSEI. Throughout this year, CFSEI's Board will be examining and identifying improvements intended to:

- Grow the value of CFSEI membership by continuing to meet and exceed the needs of existing members.
- Expand CFSEI's membership, and effectiveness, by reaching out to potential new members
- Integrate the newly-established CFSEI student membership class and cultivate today's students into future CFSEI leaders and volunteers.

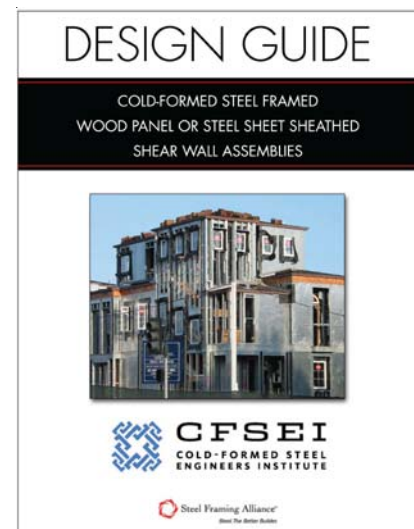
Throughout the past several months, CFSEI's Board has pursued wide-ranging discussions and new

Continued on page 2

CFSEI PUBLISHES COLD-FORMED STEEL SHEAR WALL DESIGN GUIDE

CFSEI's first new Design Guide in several years, *Cold-Formed Steel Framed Wood Panel or Steel Sheet Sheathed Shear Wall Assemblies* was published this past summer. Referred to more commonly simply as the *Shear Wall Design Guide*, the new 57-page Guide helps engineers, specifiers, and architects develop a better understanding of the latest code requirements with respect to lateral design using cold-formed steel framing, and in particular how shear wall applications can be incorporated into designs meeting the new codes. It is available for purchase online at www.cfsei.org.

The *Shear Wall Design Guide* provides insight on the latest code



provisions, guidance for shear wall and shear wall component design, and

Continued on page 4

CFSEI President Pursuing Growth

Continued from page 1

program development activities in each of these areas. The timing of these discussions coincides with the impending launch of several endeavors initiated in the past several years after considerable work by CFSEI volunteers and staff.

A task group, headed by CFSEI Vice President Bill Babich, Director of Engineering -TrusSteel, has been formed to review CFSEI membership issues. Current membership, membership retention and membership growth are primary focus areas. The task group has been charged with identifying the current membership areas and make recommendations for improvements.

CFSEI has made considerable progress recently in educating engineers, providing technical guidance and technical resources to the engineering community. The CFSEI is working with other industry stakeholders like the American Iron and Steel Institute (AISI) and Steel Framing Alliance (SFA) to provide accurate information to Code development bodies and other institutions that influence how CFS might be used and evaluated in building projects.

In addition to increased publishing of Tech Notes and Design Guides, new programs and events (including an upcoming Webinar that is intended to be the first of many interactive events) continue to be developed to make membership in CFSEI more valuable. CFSEI Members and those considering membership are encouraged to keep abreast of all new programs and take advantage of those that are of interest.

The newly created Student Membership in CFSEI makes it possible to reach out to engineering students and involve future engineers in CFSEI for the first time. With the assistance of Roger LaBoube at the Center for Cold-Formed Steel Structures, a Web site for engineering students has been setup as a resource for students interested in cold-formed steel design.

The coming year is going to be extremely active for CFSEI, and Institute members should see the results in a wider array of member benefits and programs to become more

informed about CFS design and to realize even greater value from membership in CFSEI.

I would like to recognize Jeff Klaiman, Immediate Past President, for his dedicated leadership over the past year. Jeff's contributions to CFSEI during tough economic times have been invaluable.

CFSEI's greatest asset is the participation and dedication of its members, and we want to hear from members like you. If you have any recommendations or feedback for the CFSEI Board on the value of CFSEI membership, membership benefit enhancements or new programs, or any thoughts you'd like to share with me and the entire CFSEI Board and staff, please send your feedback for the CFSEI Board to bberger@cfsei.org at any time.

I look forward to serving CFSEI's

membership as President, building on the momentum established by my predecessors, and continuing to strengthen the Institute and expand its influence in the engineering community. CFSEI's future is rooted in progress and constant improvements. All members are encouraged to stay involved to capture all the benefits that the Institute has to offer.

John P. Matsen P.E. is Principal of MATSEN FORD DESIGN Associates, Inc. in Waukesha, Wis. He serves as CFSEI President for 2009-2010 and previously served as CFSEI Vice President, 2008-2009. Matsen joined the CFSEI Board of Directors in 2007, serves on the CFSEI Technical Review Committee, and is involved in the AISI Committee on Framing Standards among other CFS industry organizations.

21st Short Course on Cold-Formed Steel Structures

October 27,28,29, 2009
St. Louis, Missouri

This course is designed to benefit both experienced and novice cold-formed steel design engineers experienced with cold-formed steel design. For beginners, the course is structured to provide an introduction to the behavior of cold-formed steel members and connections and how that behavior is addressed by the AISI Specification. For engineers experienced with cold-formed steel design, the course is intended to strengthen their understanding of the fundamental behavior of both members and connections, as well as understanding of cold-formed steel design. Changes in the 2007 edition of the AISI Specification and the eight AISI cold-formed steel framing standards will be highlighted. A preview of future specification changes will also be provided. **Both commercial and residential applications of cold-formed steel will be discussed.**

The course includes a tour of a local panelizing facility. In addition to seminar notes, texts for the course (included in the registration fee) are the AISI North American Specification for the Design of Cold-Formed Steel Structural Members (S100), Commentary to S100, the 2008 AISI Manual for Cold-Formed Steel Design, and Dr. Wei-Wen Yu's textbook, Cold-Formed Steel Design.

[Click here for more information & to download registration form](#)



Newsletter for the
Cold-Formed Steel
Engineers Institute

Board of Directors

President: John Matsen, P.E.
Matsen Ford Design Associates,
Inc., Wisconsin

Vice President: Bill Babich, P.E.
TrusSteel Division, ITW Bldg.
Component Group, Inc., Florida

**Immediate Past President:
Jeff Klaiman, P.E.**
Adtek Engineers, Virginia

Richard Haws, P.E.
NUCONSTEEL, Texas

Sutton Stephens, Ph.D., P.E., S.E.
Kansas State University, Kansas

Ed Kile, P.E., S.E.
Structuneering, Inc., Texas

Jay Larson, P.E., FASCE
American Iron and Steel Institute,
Washington, D.C.

Nabil A. Rahman, Ph.D., P.E.
The Steel Network, Inc.,
North Carolina

Membership Information:

To receive the CFSEI Newsletter, Technical Notes, and other benefits of the CFSEI, call (866) 465-4732.

The CFSEI Newsletter is published by the SFA

The statements and opinion contained in this publication are those of the contributors and not necessarily of the Steel Framing Alliance (SFA), nor the contributor's employer or professional association. This publication is intended to provide a forum for the exchange of relevant information in the industry and the information is made available with the express understanding that the publisher does not render technical services. All technical matters should be evaluated by a qualified engineer before being relied on for any particular situation.

Copyright 2009 Steel Framing Alliance

CFS Questions to be on New PE Exam

For the first time in its history, the National Council of Examiners for Engineering and Surveying (NCEES) exam for structural engineers will include questions that test a candidate's knowledge of light-frame cold-formed steel (CFS) construction. Getting CFS on the exam has been a long-term goal of the SFA almost since its inception. CFSEI has been working diligently to achieve this breakthrough.

"Engineers and specifiers are recognizing the need for CFS education and knowledge, as they are confronting CFS design issues in their daily practice," said CFSEI technical director Don Allen. "They no longer can rely on specialty engineers and manufacturers to provide all of the calculations: their engineering staff needs to understand key aspects of CFS design and construction."

According to Allen, "The timing of this inclusion of CFS could not be better, given that NCEES will go to a 16-hour structural exam starting in April 2011." The exam will replace the current Structural I and Structural II exams, which will be administered for the last time in October 2010. To develop the new exam, NCEES surveyed licensed structural engineers from across the United States to find out what subjects were most relevant to current professional practice. NCEES brought together representatives from state licensing boards and national structural engineering organizations to analyze the survey results and set the specifications, or content areas, for the new exam. It was during this process that CFS framing was identified and prioritized as part of the new exam requirements.

The new 16-hour Structural exam is divided into two 8-hour components, which will be offered on successive days. The Vertical Forces component (day 1, Friday,) focuses on gravity loads and incidental lateral loads. The Lateral Forces component (day 2, Saturday,) focuses on wind and earthquake loads.

Each component of the exam has a breadth module (morning) that contains questions covering a comprehensive range of structural engineering topics. Each component also has a depth module (afternoon) that focuses more closely on a single area of

practice. Examinees will choose whether they want to concentrate on buildings or bridges for the afternoon modules.

To pass the exam, examinees must pass both the Vertical Forces and Lateral Forces components, but these may be taken and passed in different exam cycles. The specifications for the new exam are posted on the NCEES Web site, at www.ncees.org/exams/professional/pe_structural_exam.php

The exam portion dealing with CFS framing will be in the "breadth of knowledge" modules administered during the morning session of both the Vertical Forces and Lateral Forces test days. On the first day (Friday morning) the CFS framing portion will cover one or more of the topics of framing, connections, or web crippling. On the Lateral Forces breadth of knowledge module (Saturday morning) the CFS question will cover light frame shearwalls or metal deck diaphragms.

"The new questions fit well with efforts by SFA and CFSEI to develop resources for engineers," said CFSEI President John Matsen of Matsen Ford Design Associates. "The release of the CFSEI *Shear Wall Design Guide* is a perfect reference document for those preparing to sit for the new exam." According to CFSEI manager Brian Berger, other documents in the pipeline, including Tech Notes on steel deck diaphragms on CFS floor framing, updates of notes on CFS connections, and new framing Tech Notes on specific applications, will contribute to the already sizeable body of CFS test preparation material.

As NCEES moves forward with test development, SFA and CFSEI will monitor and provide input to engineers involved in both developing content and grading the exam. SFA's goal is for CFS to eventually become a part of the afternoon exam session.

For additional information on the efforts to support and enhance the CFS problems on the NCEES Structural exams, contact technical director Don Allen at dallen@cfsei.org. For information on NCEES exam content, grading, and eligibility, go to www.ncees.org, or contact your state's professional registration board.

Shear Wall Design Guide

Continued from page 1

addresses design and detailing requirements for wind and seismic forces, including the special detailing required in high-seismic areas. It contains practical examples based on AISI S213-07: *Standard for Cold-Formed Steel Framing – Lateral Design*, referenced by Chapter 22 of the *2009 International Building Code* (IBC).

Primary author of the *Shear Wall Design Guide*, Jeff Ellis, P.E., S.E., of Simpson Strong-Tie Co., Inc. in Brea, Calif. served as President of CFSEI from 2007-2008, and chaired the American Iron and Steel Institute (AISI) Committee on Framing Standards (COFS) Lateral Design Subcommittee during that group's development of AISI S213-07.

"Light-frame shear walls are an most economical method for transferring loads imposed by wind and earthquakes, and they've been used successfully as lateral force resisting elements for years." Ellis said. "The *Shear Wall Design Guide* is a valuable new resource for contemporary building designers, exploring both wood panel and steel sheet sheathed shear wall assemblies used to resist wind and seismic

forces with design and detailing examples conforming to new code requirements."

The *Shear Wall Design Guide* consists of four main sections:

- Section I – Provides information and background on the code requirements for and design of shear walls, describes shear wall types, and discusses the design of shear walls and shear wall assembly components, and seismic design considerations. It contains information on changes to structural requirements for light-frame structures brought about in the 2006 IBC, which references AISI S213-04 (AISI-Lateral) and ASCE 7-05 Minimum Design Loads for Buildings and Other Structures.
- Section II – Contains five shear wall design examples illustrating shear wall design using LRFD as well as ASD, wood panel as well as steel sheet sheathing, use of different shear wall types, and the design of shear walls resisting wind



Jeff Ellis discusses lateral design requirements in the California Building Code at a June 2008 meeting of the CFSEI West Chapter. Ellis, who served as President of CFSEI from 2007-2008, is a frequent lecturer and expert in lateral design issues.

as well as seismic forces.

- Section III – Explores shear wall component design and drift analyses using several of the design examples from Section II.
- Section IV – Contains various details pertaining to the examples used in the previous sections.

The *Shear Wall Design Guide* is available for purchase from the SFA/CFSEI online store.

Real World Design Example Problems at METALCON

The message came in loud and clear at this year's CFSEI Annual Meeting in Anaheim: engineers want to see more real-world solved example problems, showing them how to design CFS framing quickly, providing economical solutions for their architect and contractor clients. In response, the Steel Framing Alliance (SFA) is sponsoring an all-day special program on Monday, October 5, in conjunction with METALCON in Tampa, Fla. SP1, entitled *Cold-Formed Steel Design: Practical*

Applications and Design Examples give real-world examples backed up with CFSEI and American Iron and Steel Institute (AISI) publications, in an intense, 7-hour seminar. Part of the program materials include the new CFSEI *Shear Wall Design Guide*, and one lucky student will walk away with a free copy of AISI D110-07: the *Cold-Formed Steel Framing Design Guide*.

"It's not just engineers that are now finding out they need to learn about CFS framing design," said

Don Allen, CFSEI Technical Director and one of the instructors for the program. "Panelizers, code officials, plan checkers, truss fabricators, and even some framing contractors realize the advantage of having at least one person on staff that has a good grasp of the code requirements for CFS." The SP1 seminar will focus on wall and floor systems. With the wall systems, design of a typical stud will be given, as well as the design of an opening

Continued on page 7

Cold-Formed Steel Framing Education and Peer Knowledge Exchange Focus of CFSEI's 2009 Annual Conference at California Forum

Education and collaboration were the central tenets of the California Steel Framing Forum in Anaheim in May, as architects, engineers, contractors, building code officials and manufacturers gathered for seminars and discussions on the key issues affecting steel framing.

The Cold-Formed Steel Engineers Institute's 2009 Annual Conference, May 20-21, provided crucial training for more than 100 construction-related professionals in attendance. Collaborative efforts like the California Forum bring key stakeholders together to exchange information, and to identify, and later address, technical research and marketplace needs.

Providing a Forum where professionals with varying degrees of experience in steel framing, including those who have never designed or constructed projects with cold-formed steel, can learn from and interact with leading experts fosters the knowledge that is necessary to grow the market for steel in framing applications where it offers advantages over competing framing materials. It's possible to presume that benefits such as lower insurance rates, termite resistance, improved performance during high wind and seismic events are common knowledge, but this benefit-awareness is far from universal knowledge.

Many attendees at this year's California Forum & CFSEI Annual Conference acknowledged that the conference was an effective way to learn new information and increase professional capabilities in using steel framing. Attendees also reported that the Forum increased their knowledge about the potential advantages of steel framing in certain applications, and this was true even among some professionals who possess significant experience with steel framing.

Lateral design presentations, a focus of the Forum, given its California location and primarily West Coast audience, were particularly helpful to the professionals in attendance. Many of the Forum's 15 educational seminars covered topics in lateral design including a session on lateral changes resulting from the transition from the 1997 Uniform Building Code (UBC) to the 2006 International Building Code (IBC), which was particularly relevant given California's

adoption of the 2006 IBC. Testing and analysis of different building materials' seismic performance, and R-factor determination, was the subject of substantial discussion in a well-attended meeting of CFSEI's Lateral Task Group and a seminar on the subject. The group has become increasingly engaged in addressing existing issues in testing and evaluation processes that unreasonably discriminate against steel framing relative to competing materials.

"The Lateral Task Group meeting brought together the best minds and leaders, and created a forum for lateral code issues that have perplexed our design community," said Lou Zylstra, President, CFSEI West Chapter. Zylstra is an engineer with Zylstra & Associates Engineering in Fountain Valley, Calif. "The meeting helped clarify how steel systems can meet or exceed code acceptance using the ATC-63 methodology. This valuable interaction needs to occur more often, not only to protect the community, but refine the complex code issues facing engineers today."

"I found the whole 'green' building presentation particularly interesting," said one engineer in attendance. "The Steel Framing Alliance (SFA) needs to really push it, not only from a contractor or designer standpoint, but from an owner standpoint. Many building owners are not aware of the whole LEED thing and the potential tax credits that are available. Promoting the federal, state, and local tax benefits that accrue to building owners would encourage activity that would benefit the steel framing industry."

A c o u s t i c
ratings and solutions, fire assemblies using cold-formed steel for multi-unit structures, and **B u i l d i n g**
I n f o r m a t i o n
Modeling (BIM) were some of the other topics



Peter Navarro, noted economist, discusses business cycles; planning strategies for economic growth and downturns during Keynote Dinner.

covered in seminars that attendees cited as beneficial to increasing their knowledge of steel framing design and construction.

"In slow economic conditions, trade shows put a burden on our sponsors and supporters; but it is important to promote cold-formed steel when the professional community is looking for new tools for design," said Zylstra. "We received tremendous support from our industry for this event, and could not have done it without their support."

Sponsors of the California Steel Framing Forum included Dietrich Metal Framing, Simpson Strong-Tie, Inc., ICC Evaluation Service (ICC-ES), International Association of Plumbing and Mechanical Officials – Evaluation Service (IAPMO-ES), Aegis Metal Framing, a division of MiTek, and nine additional industry suppliers exhibited.

Continued on page 6



Above: Participants at the CFSEI's general membership meeting during the Institute's 2009 Annual Conference. Insert: Attendees and exhibitors in one of many conversations in the exhibit hall.

CFSEI Annual Conference

Continued from page 5

The California Steel Framing Alliance (CASFA), and CFSEI, and CFSEI's West Chapter organized and hosted this year's event.

During the conference, CFSEI's Board of Directors met for their Spring Board meeting and a strategic planning session. The planning session served as the first intensive re-evaluation of CFSEI's "eight key strategies" which have guided the Institute since 2006. CFSEI's Board concluded that the strategies and priorities of the Institute are largely unchanged and the consensus inclination is to maintain the strategic priorities that have been in place since 2006. Technical Notes remain the "lifeblood of CFSEI" and expanding the library of technical resources for members remains the most important strategic objective of the Institute. Although the Board was undivided in upholding the priorities of CFSEI, there will be some changes in terms of how the eight key strategies are implemented.

CFSEI's Board is going to focus on strategy implementation in depth during the remainder of 2009, and identify new initiatives and enhancements to existing programs that would support improved operations and results in achieving defined objectives within each of the eight key strategy areas:

1. Produce technical documents that aid and enable engineers
2. Promote the CFSEI
3. Increase relevance to chapter activities and local membership needs
4. Provide timely and competent responses to CFS technical inquiries
5. Provide forums for CFS information and idea exchange
6. Partner with aligned organizations
7. Help focus research spending on needs of engineers
8. Develop awareness of CFS through formal education system

The 2010 CFSEI Annual Conference will be co-hosted by the CFSEI Atlanta/Southeast Chapter next spring. Plan to participate!

CFSEI CHAPTER UPDATES

CFSEI Atlanta/Southeast Chapter Update

The Chapter's had a busy 2009, and an even more eventful 2010 looms on the horizon. The Atlanta/S.E. Chapter, next spring, co-hosts the CFSEI Annual Conference for the first time in the Chapter's history, and preliminary planning has begun to ensure that the CFSEI 2010 Annual Conference is a success. Any individuals or organizations interested in helping with planning and implementation, or sponsorship opportunities, should contact Brian Berger at bberger@cfsei.org.

Jeff Ellis, Simpson Strong-Tie, former CFSEI President and primary author of the recently published CFSEI *Shear Wall Design Guide* spoke at a Chapter meeting this summer on the *Design Guide* and important information it contains for engineers, which was a great success. The Atlanta/S.E. Chapter would like to extend its appreciation to the event's sponsors: Hardy Frames, The Steel Network, Inc. and Sure Board for their generosity.

Next up on the Chapter's events calendar is a December 3rd lunch meeting on the topic "Load Bearing Systems with Cold-Formed Steel Framing." Interested sponsors should contact info@cfsei.org.

The Atlanta/Southeast Chapter thanks Marty Hortman for his service and leadership as a member of the Chapter's Board of Directors. Marty will be resigning from the Board of Directors at the end of 2009, and will be missed.

CFSEI Florida Chapter Update

The CFSEI Florida Chapter continues to grow and educate local design professionals about cold-formed steel (CFS). The Chapter held its most recent Dinner Meeting June 1st and was honored to have Steve Walker, P.E. of the Light Gauge Engineering Group speak to attendees about the application and design of cold-formed steel shear walls. The presentation was well received by all in attendance and they even asked for more information regarding cold-formed steel walls when they filled out the survey at the end of the event.

The Florida Chapter's next endeavor is to introduce CFS to the student chapter of ASCE at the University of Florida (UF) in Gainesville, Fla. Volunteers from the Florida Chapter will talk to engineering students about cold-formed steel, and possibly even discuss Florida quarterback Tim Tebow with the young crowd of aspiring engineers. The Chapter will serve pizza as well at the October 14th meeting and CFS presentation.

Another event later this fall is also a possibility, and it would most likely be a dinner meeting and presentation on walls, a topic participants at previous meetings have indicated a strong interest in learning more about at future Chapter meetings.

The CFSEI Florida Chapter hopes and expects to grow its membership in the Florida market through these types of meetings and invites all CFSEI members in the region, and interested individuals, to attend the next meeting.

AISI Publishes Cold-Formed Steel Design Manual

The American Iron and Steel Institute (AISI) announced in June the publication of the 2008 edition of the *Cold-Formed Steel Design Manual*. The Manual supplements AISI S100-07, the 2007 edition of the *North American Specification for the Design of Cold-Formed Steel Structural Members*. It is available for purchase online at <http://store.steel framingalliancestore.com/aicospdema.html>. SFA and CFSEI Members are able to purchase these important references at a substantial 25-percent discount available through the SFA Online Bookstore.

The material contained in the new *Cold-Formed Steel Design Manual* was developed under the direction of AISI's Committee on Specifications. It provides the latest design information for conformance with AISI S100-07, as well as new improvements and additions.

"This is one of the best documents that engineers, software developers and building officials can use to better understand the North American Specification and to correctly apply the

design provisions," Jay Larson, P.E., F. ASCE, CFSEI Board Member and AISI's Managing Director, Construction Technical Program said. "The comprehensive design examples provide a step-by-step demonstration of how to use the provisions in the North American Specification. There are several tables and charts that also serve as design tools for engineers to perform cold-formed steel member design."

The *Cold-Formed Steel Design Manual* consists of six parts:

- *Part I, Dimensions and Properties* - Contains information on the availability and properties of steels referenced in the North American Specification (AISI S100), tables of section properties, and formulas and examples of calculations of section properties.
- *Part II, Beam Design* - Contains tables and charts to aid in beam design and example problems.
- *Part III, Column Design* - Contains tables to aid in column design and

example problems.



- *Part IV, Connections* - Contains tables to aid in connection design and example problems.

- *Part V, Supplementary Information* - Contains a table of Specification cross-references to examples provided in the Design Manual, design procedures not included in

the Specification, and additional information to assist users of cold-formed steel.

- *Part VI, Test Standards* - Contains 14 American National Standards Institute (ANSI)-approved AISI test methods for cold-formed steel, a bibliography of other pertinent test methods, and an example problem.

In Parts I-IV, summaries explain the intent of the Specification provisions and provide essential design guidelines for users. Nine examples have been added to illustrate the new design provisions introduced in the Specification. All the test standards have been updated, and six new test standards have been added.

METALCON

Continued from page 4

(including header and jamb studs), as well as design of a shearwall. For floor systems, design of a floor joist and floor diaphragm will be covered. In addition, the interaction between wall and floor systems, as well as connection methodologies, will be discussed. The presentation will include photos and details of many projects designed and built with loadbearing cold-formed steel.

Although the presentation does not cover roof framing directly, several of the principles will apply: members with combined axial and bending, member bracing, and diaphragm design, to name a few. The session will also help introduce some of the other CFSEI and SFA

seminars during METALCON, including two on truss design

(Thursday, October 8: TH29 - *Cold-Formed Steel Trusses for the Design Professional*; and TH30 - *Cold-Formed Steel Trusses for the Contractor*). Dr. LaBoube will follow Monday's presentation with two additional conference presentations of his own on Wednesday: *Overview of CFS Design & the North American Specification (parts I & II)* WE13 & WE21. Engineers will also find value in Tuesday's presentation by Steve Walker of the Light Gauge Steel

The Steel Framing Alliance (SFA) invites all of its valued members to participate in the **Alliance's 2009 Annual Meeting** in Tampa, Fla. at METALCON International, the premier metal industry trade show, on **October 6, 2009**, from **5:00 pm to 6:30 pm at the Tampa Convention Center, Room 5 & 6**. Visit the Steel Framing Alliance booth (Booth No. 1637).

Engineering Group: *Challenges in Loadbearing Systems Construction* (TU04). With his unique style, Walker will cover real-world successes and failures, and the reasons why there are winners and losers in each case.

For a full list of METALCON presentations, including those sponsored by SFA and CFSEI, go to www.metalcon.com, click on "seminars & special programs," and look for the distinctive SFA and CFSEI logos.

Engineering Community News

Cold-Formed Steel Research Highlighted in European Conferences



Ben W. Schafer, Ph.D., P.E.
Johns Hopkins University

Recent cold-formed steel research from around the world, including contributions from AISI and SSMA sponsored research, was highlighted in two recent conferences: The 12th International Conference on Civil, Structural and Environmental Engineering Computing in Madeira, Portugal, Sept. 1-4; and 7th EUROMECH (European Mechanics Society) Solid Mechanics Conference, Lisbon, Portugal, Sept. 7-11.

The two conferences each had over 400 attendees, but thanks to the organizing efforts of Professor Dinar Camotim from the Technical University of Lisbon the cold-formed steel research was brought together into two mini-symposia. Talks in the mini-symposia were well attended and cold-formed steel, along with English, was the language of these sessions. Highlights of these mini-symposia included:

- Documentation of the new Brazilian cold-formed steel design code and its

adaptation of the AISI-S100-07 Appendix 1: Direct Strength Method, within the body of their new specification.

- New developments in analytical tools primarily used to investigate cold-formed steel members such as Generalized Beam Theory and the constrained Finite Strip Method (developed in part through AISI funding).

- Recent investigations into cold-formed steel storage racks and updates on the new Eurocode standard for such racks, and a remarkable new Australian standard that provides the ability to do complete “design-by-analysis” for such racks and conscientiously employs provisions from both the U.S. Rack Manufacturers Institute standard and the Eurocode.

- Measurements and simulation of imperfections in cold-formed steel members (partially funded by the Steel Stud Manufacturers Association).

- Detailed studies to further investigate

the potential and characterize the strength in mode interactions for cold-formed steel members, including C and angle sections.

- Reporting on an extensive multi-year experimental and computational study in Hungary on cold-formed C-sections, including built-up sections, combined with applications and testing to trusses and full portal frames comprised from cold-formed steel sections.

In addition numerous other papers related to the stability and behavior of thin-walled structures were presented from experts around the world.

Upcoming conferences in the United States with a potential for a similar sharing of the latest in research include the Annual Stability Conference of the Structural Stability Research Council (May 12-14 2010, Orlando) and the Center for Cold-Formed Steel Structures Biennial Specialty Conference on Cold-Formed Steel (October 3-4, 2010 in St. Louis, Mo.).

Stay Informed. Receive vital guidance on cold-formed steel design, all the newest Technical Notes, publications & event discounts.

Don't get left behind. Renew your CFSEI annual membership for 2009-10. Renew your CFSEI membership by clicking here or at www.cfsei.org.

Not Receiving Members Only Resources from SFA?

1. Login to update your profile ([Click here](#))
2. Add the following e-mails to your contact list:
 - editor@steelframing.org
 - webmaster@steelframing.org
 - webmaster@cfsei.org



Cold-Formed Steel Engineers Institute



1201 15th Street, NW, Suite 320
Washington, D.C. 20005-2842
(866) 465-4732 Toll Free