

# CCFSS NEWS

Center for Cold-Formed Steel Structures at the University of Missouri-Rolla

E-mail: [ccfss@umr.edu](mailto:ccfss@umr.edu); <http://www.umr.edu/~ccfss>

Butler-Carlton Civil Engineering Hall  
1870 Miner Circle  
Rolla, MO 65409-0030  
Telephone: 573-341-4471  
Fax: 573-341-4476

Director: Wei-Wen Yu, Ph.D., P.E.

Associate Director: Roger A. LaBoube, Ph.D., P.E.

Volume 10, Number 1

August 1999

## AISI COMMITTEE ON SPECIFICATIONS HELD ITS JULY MEETING IN CLEVELAND

The AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members and its Subcommittees and Task Forces held their meetings in Cleveland during the period from July 22 through July 24, 1999. Unlike previous meetings, the Committee started with the research progress reports presented by investigators on 14 projects, which are currently being conducted at various institutions.

At these three-day meetings, the Committee passed nine proposed revisions and/or additions to the 1996 Edition of the AISI Specification. The additions and changes are related to (a) revision of the referenced documents in Sections A3.1, A3.3, and A9, (b) addition of A875 steel in Sections A3.1 and A9, (c) addition of design equations in Section A3.3.2 for determining the reduced

yield point for multiple-web roofing, siding, and floor decking, (d) addition of Section B2.4 on C-section webs with holes under stress gradient, (e) addition of Section C3.2.2 on shear strength of C-section webs with holes, (f) addition of Section C3.4.2 on web crippling strength of C-section webs with holes, (g) addition of Section C3.1.2.2 for lateral-torsional buckling of closed box members, (h) addition of section C3.1.5 on strength of standing seam roof panel systems, (i) addition of design equations in Section E3.3 for determining the nominal bearing strength of bolted connections when deformation around the bolt holes is a design consideration, (j) revision of the thickness limit in Table E.3.3-2, and (k) addition of the statistical data in Table F1 for the determination of resistance factors for members and connections not listed in the table. All additions and revisions that have been approved since the 1996 edition of the Specification will be published by AISI in a forthcoming Specification Supplement. In the meantime, the reader is referred to *CCFSS Technical Bulletin*, Vol. 8, No. 2 for further information.

In addition to the specification changes, the meeting agenda also included subcommittee reports and discussions of strategic planning and research, ANSI's approval of accreditation, North American Specification, Australia/New Zealand Standards, International Standards, and the activities of the Center for Cold-Formed Steel Structures.

The next meeting of the AISI Committee on Specifications has been scheduled for February 17-18, 2000.

## AISI EARNS IMPORTANT ANSI ACCREDITATION

The American National Standards Institute (ANSI) has approved AISI's Application for Accreditation under the Organization Method, a critical step in gaining credibility for future Institute's design specifications and construction standards. The scope of AISI's accreditation is to develop and maintain consensus standards for structural members (cold-formed to shape) from carbon and low alloy steels.

Initially, the accreditation will include AISI's Committee on Specifications (COS) and the Committee on Framing Standards (COFS). However, it allows AISI to add future committees that fall within the scope of accreditation.

ANSI accreditation has far-reaching benefits for AISI, especially in the code arena, in these ways:

- As an accredited ANSI standards developer, future AISI standards may be more readily accepted by code bodies because of the respect that they have for the ANSI process.
- Accreditation lends instant visibility, validity, acceptability and political value to AISI.
- As an accredited organization, AISI can maintain control over its standards, which are protected from whimsical changes and modifications.

ANSI's Approval for Accreditation was effective May 24, 1999.

## METALCON INTERNATIONAL '99 TO BE HELD IN OCTOBER

The METALCON International '99 will be held at the Rosemont Convention Center in Chicago on October 12-14, 1999. It is promised to be the best and biggest METALCON International to date. The METALCON records are expected to be broken, both in terms of exhibitors, attendees, and educational sales opportunities. For further information, contact Claire Kilcoyne, Show Manager, PSMJ Resources, Tel: (617) 965-0055 or Fax: (617) 965-5152.

## SSRC HEADQUARTERS RELOCATION

The Structural Stability Research Council (SSRC) has announced the move of its headquarters from Lehigh University, Bethlehem, Pennsylvania, to the University of Florida at Gainesville, Florida.

Established in 1944 under the auspices of the Engineering Foundation in the United States, SSRC is the worldwide recognized leader in research on the stability of metal structures and the development of design criteria recommendations for codes in the United States and other countries. SSRC plays a major role in the structural engineering profession, offering solutions to a wide range of practical problems.

The Council is best known for its "Guide to Stability Design Criteria for Metal Structures", a monograph that is currently in its fifth (1998) edition. Edited by T. V. Galambos and published by John Wiley & Sons, Inc., the "Guide" is the authoritative book for all stability issues.

SSRC also offers short courses and seminars for students, educators and practicing engineers, and continues to pursue an active program of book and article publication. Researchers and designers attend the annual conference, and the international audience has also been served by a series of colloquia at locations such as New York, Washington, Toronto, Paris, Budapest, Istanbul, Rio de Janeiro, Tokyo and Beijing.

SSRC is sponsored by major industrial and government organizations as well as private firms. Individual membership is offered to engineers with research and applied engineering interests in structural stability.

The University of Florida was founded in 1853 as the Land Grant institution of the state. It is a member of the prestigious American Association of Universities, and has an enrollment of 42,000 students. The Civil Engineering Department has 41 faculty members, 530 undergraduate and 165 graduate students, and current research expenditures are \$5.3 million.

Further information can be obtained from the Council at the following new address:

Structural Stability Research Council, University of Florida, P.O. Box 116580, Gainesville, Florida 32611-6580, USA. Telephone: 1-352-846-3874, Telefax: 1-352-846-3978, E-mail: [ssrc@ce.ufl.edu](mailto:ssrc@ce.ufl.edu).

---

## TSN OFFERS IMPORTANT OPPORTUNITY FOR INDUSTRY GROWTH

The Center for Cold-Formed Steel Structures welcomes The STEEL Network, Inc. (TSN) as the Center's first Corporate Sponsor. With its products, design software, and educational programs, TSN has become the key to both meteoric growth and sustained profits for the steel framing industry.

One of TSN's major activities is the 1999 comprehensive "Cross Discipline Continuing Education Program" for construction professionals and code officials according to Mr. Edward R. diGirolamo, P.E., founder and CEO of TSN. To further their goals, TSN has developed software and a series of educational seminars that work together to address quality assurance, control construction costs, and simplify the design and construction process. The net result of this effort is a reduction of liability and an increase in profits for all disciplines.

TSN has developed the SteelSmartSystem (SSS) Software for architects, engineers, and contractors. diGirolamo has recently announced the release of SSS2000, which is the first comprehensive, standardized, cold-formed steel framing software package with the ability to design all types of walls, floor, and roofs.

The STEEL Network also led the way by developing, testing, and fielding the VertiClip and BridgeClip series - two proven, labor saving, profit enhancing products for contractors. These products improve the performance of steel frame wall systems by assuring consistency when connecting structural members, thereby reducing liability for the design and construction team. TSN has transformed innovative concepts and solutions into proven products, generating tangible results nationwide, and positioning the industry for accelerated growth.

For further information, contact The STEEL Network, Inc., Telephone: (919)-845-1025, Fax: (919) 845-1028, e-mail: [tsn@steelnetwork.com](mailto:tsn@steelnetwork.com) or web site: <http://www.steelnetwork.com>.

---

## MBMA COMPLETED EXTERIOR WALL FIRE TESTS

The Metal Building Manufacturers Association successfully conducted a 1-hour exterior wall fire test at Underwriters Laboratories in July. The assembly consisted of 26 gauge metal wall panels and 2 layers of 5/8 inch "Type X" fire rated gypsum wallboard, supported by cold-formed steel hat channels and Z-girts. The objective of this test was to make modifications to UL listed design No. V421 for exterior fire walls. Design No. V421 will now be modified by removing one layer of wallboard from the interior side of the wall. Previously, two interior layers of wallboard and one exterior layer were required.

Design No. V421 was originally created in 1997 to answer the need for an exterior fire wall rating that specifically utilized the components already found in metal building systems. For further information, or a copy of the new listing, contact Dan Walker at MBMA (216) 241-7333.

# THE ROOFING COALITION SEMINAR PROGRAM OFF TO A GOOD START

The first series of Standing Seam Metal Roof Systems Seminars were completed during late June in Atlanta, GA and Columbia, SC. The PowerPoint presentation combined with a videotape which had been prepared by the Roofing Coalition Technical Subcommittee was presented by roofing consultant Michael Clark of Macon, GA. Mr. Clark who is an experienced roofing consultant, provided an introductory and expanded program for the participants in the two-city program, and was praised for his presentation and knowledge of standing seam metal roof systems.

Two other roofing consultants will join in assisting in presenting additional seminars being scheduled starting in September. The schedule of these seminars and locations are as follows. For more information, please contact The Roofing Coalition, 104 S. Michigan Ave., Suite 1500, Chicago, IL 60603 (Telephone: (312) 201-0101, Fax: (312) 201-0214, and e-mail [rycag@aol.com](mailto:rycag@aol.com)).

<u>Date</u>	<u>Location</u>
Tuesday, September 14	Charlotte, NC
Wednesday September 15	Raleigh, NC
Thursday, September 16	Richmond, VA
Tuesday, September 21	San Diego, CA
Wednesday, September 22	East Los Angeles, Ontario, CA
Thursday, September 23	Orange County, CA
Tuesday, October 5	Washington, DC
Wednesday, October 6	Philadelphia, PA
Thursday, October 7	Baltimore, MD
Tuesday, October 26	Tampa, FL
Wednesday, October 27	Orlando, FL
Thursday, October 28	Jacksonville, FL

## UMR CONTINUING EDUCATION PROGRAMS

For the purpose of teaching cold-formed steel design using the AISI Specification, the UMR 16<sup>th</sup> Short Course on Cold-Formed Steel Structures will be offered in St. Louis, Missouri during October 20-22, 1999. In addition, the 15th International Specialty Conference on Cold-Formed Steel Structures will be held in St. Louis, Missouri on October 19-20, 2000 to discuss the structural research and design of cold-formed steel structures. Both programs are briefly reviewed in subsequent sections. For further information, contact Continuing Education, 103 Mechanical Engineering Annex, University of Missouri-Rolla, Rolla MO 65409-1560, USA. Telephone: (573) 341- 4132, FAX: (573) 341-4992.

**Short Course on Cold-Formed Steel Structures.** The UMR short course deals with the fundamentals of cold-formed steel design and is intended to provide engineers and others with a better understanding of the basic principles used in the current AISI design specification with some recent changes. Unlike previous short courses, this year's course will be conducted in three days using the 1996 Edition of the AISI Specification and Design Manual. Advance registration is requested and should be completed prior to October 5, 1999.

**15<sup>th</sup> International Specialty Conference.** The conference will cover the following subjects: (1) Basic and applied research, (2) Structural design (3) Development of new products, (4) Development of new design criteria, (5) Manufacturing techniques, (6) Construction methods, (7) Economy and effective use of steel, and (8) Engineering education. Abstracts of papers should be submitted by November 10, 1999, and written manuscripts should be sent by April 1, 2000 to Dr. R. A. LaBoube, Center for Cold-

Formed Steel Structures, Department of Civil Engineering, University of Missouri-Rolla, Rolla, MO 65409-0030, USA

## MCA CHICAGO BOAT CLUB STUDENT COMPETITION

Under the direction of Mark Asmus, Chair of the MCA Awards Committee, a new program has been developed and implemented on a pilot basis offering schools of architecture at leading universities in the Midwest the opportunity to participate in an MCA Boat Club competition open to their junior and senior and graduate architectural students and architectural studios. A total of 18 schools entered the contest, and over 60 actual designs were submitted for review by a jury of distinguished architects, including Lawrence Booth, Booth, Hansen and Associates; Ralph Johnson, Perkins & Will; Ron Krueck, Krueck & Sexton; and James Nagle, Nagle, Hartray, Danker Kegan McKay. This distinguished jury selected the following three top winners in this contest, who by coincidence, all attend Kansas State University:

1<sup>st</sup> Prize - Marcus Thomas and Jason Kurtz

2<sup>nd</sup> Prize - Jason Lott and Matt Engle

3<sup>rd</sup> Prize - Mark Pfeil and Richard Wallbridge

Cash prizes were awarded by MCA to all winners in recognition of the outstanding Boat Club designs submitted. Total prize money of \$5,750 was made available for prizes under this student design program. For more information, please contact The Roofing Coalition, 104 S. Michigan Ave., Suite 1500, Chicago, IL 60603 (Telephone: (312) 201-0101, Fax: (312) 201-0214, and e-mail [rycag@aol.com](mailto:rycag@aol.com)).

## ERRATA TO THE AISI COLD-FORMED STEEL DESIGN MANUAL

Recently, several topographical errors and minor changes have been noted on pages I-28, I-64, I-78, II-9, III-39, III-41, IV-27, VIII-23, and VIII-31 in the 1996 edition of the AISI Cold-

Formed Steel Design Manual. Details of the corrections will be added on the AISI website [www.steel.org](http://www.steel.org)

## CALENDAR

October 12-14, 1999

METALCON International  
Rosemont Convention Center  
Chicago, IL  
*Contact: (617) 965-0055*

October 20-22, 1999

Short Course on Cold-Formed Steel Structures  
St. Louis, MO  
*Contact: (573) 341-4278*

November 5, 1999

Meeting of the AISI Committee  
on Framing Standards  
Chicago, IL  
*Contact: (202) 452-7119*

January 23-25, 2000

MCA Annual Meeting  
Rancho Mirage, CA  
*Contact: (312) 201-0193*

February 17-18, 2000

Meeting of the AISI Committee  
on Specifications  
Miami, FL  
*Contact: (202) 452-7130*

July 24-26, 2000

SSRC Annual Technical Session  
and Meeting  
Memphis, TN  
*Contact: (352) 846-3874*

August 19-21, 2000

MCA Semi-Annual Meeting  
St. Louis, MO  
*Contact: (312) 201-0193*

October 19-20, 2000

15<sup>th</sup> International Specialty Conference  
on Cold-Formed Steel Structures  
St. Louis, MO  
*Contact: (573) 341-4481*

**Center for Cold-Formed Steel Structures**  
**1870 Miner Circle**  
**University of Missouri-Rolla**  
**Rolla, MO 65409-0030 USA**

Non Profit Org.  
U.S. Postage  
**PAID**  
Permit No. 170  
Rolla, MO 65401

