ADVANCE PROGRAM

GAYLORD PALMS CONVENTION CENTER

TECHNICAL SEMINARS ✦ NETWORKING ✦ PRODUCT SHOWCASE

for Structural Engineers, Detailers, Erectors, and Fabricators

CONFERENCE
MAY 12–15

2010

EXHIBITS
MAY 12–14

EARN UP TO
27.75 PROFESSIONAL DEVELOPMENT HOURS

FEATURING KEYNOTE SPEAKERS RICK FEDRIZZI AND KATHY CALDWELL

ORLANDO ✦ FLORIDA

NASCC THE STEEL CONFERENCE

THE STRUCTURES CONGRESS

Incorporating the: Annual Stability Conference ✦ 19th Analysis & Computation Specialty Conference
NISD Annual Meeting ✦ CASE Spring Risk Management Convocation

presented by:

SEI Structural Engineering Institute of the American Society of Civil Engineers

AISC American Institute of Steel Construction Founded 1921

cisc icca

ASCE American Society of Civil Engineers

CASE Council of American Structural Engineers The Strength behind the Beauty

IMCA

FSEA

WELCOME!

What is the Steel Conference?

NASCC: The Steel Conference is the premier event for everyone involved in the design and construction of fabricated structural steel buildings, including designers, fabricators, detailers, and erectors. In addition to more than 85 technical sessions, the Conference features a trade show with nearly 200 exhibitors showing a vast range of products, from fabrication equipment to the latest in structural engineering software. It's a once-a-year opportunity to learn the latest techniques, see the most innovative products, and network with your peers and clients. And unlike other conferences that issue a general call for papers, the NASCC Planning Committee carefully selects topics of interest and then seeks out the top experts and presenters. Some are very well known (such as Jon Magnusson, John Fisher, Ronald Hamburger, and Rafael Sabelli) while others may not be household names but still bring a distinct expertise to the program.

What is the Stability Conference?

The Structural Stability Research Council's Annual Stability Conference has been held in conjunction with the NASCC since 2001. Presentation topics range from Lateral-Torsional Buckling of Steel Beam-Columns Under Fire Exposure to Optimization of the Cross-Frame Spacing in Straight, Skewed and Curved Steel I-Girder Bridges for Deck Casting Loads. The Stability Conference also includes the 2010 Lynn S. Beedle Lecture, which this year features Reidar Bjorhovde, president of The Bjorhovde Group.

What is the Structures Congress?

Held annually, the Structures Congress is an opportunity for the members of the Structural Engineering Institute of ASCE to come together to hear the latest advances in structural engineering. This year the Congress includes more than 400 papers in a variety of tracks, including: Bridges; Analysis & Computation; Building Design; Building-Seismic; Extreme Loads & Educational Reform; Concrete & Masonry Structures; Non-Building Structures; Business & Professional Practice; Research; Tall Buildings; and Education & Loading.

What is the CASE Spring Risk Convocation?

The Council of American Structural Engineers (CASE) holds their Spring Risk Convocation annually in conjunction with the Structures Congress. The CASE Convocation is dedicated to reducing the frequency and severity of claims and provides a forum to improve the quality of structural engineering through enhancement of business practices, decreased professional liability insurance, and increased profitability.

What is the Analysis & Computation Track?

Every two years, the Analysis & Computation Technical Administrative Committee of the Structural Engineering Institute organizes sessions to be held in conjunction with the Structures Congress. This year's track focuses on educational challenges, advanced analysis-based design, emergent computing technology, optimal structural design, and structural control.

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Sponsorships

For information regarding sponsorship opportunities, contact Katey Preston, CMP at preston@aisc.org (312.670.5438) or visit www.aisc.org/nascc.

WELCOME!

Orlando/Orange County Convention & Visitors Bureau, Inc.®

Orlando

While you certainly know Orlando as a favorite family destination, there are even more offerings that will give you additional reasons to attend this year's event. You may want to come early, or plan to stay a few extra days to pursue the many Orlando activities time simply won't allow for during the busy schedule! A world of thrilling attractions, championship golf courses, world-class spas, superb restaurants, captivating museum exhibitions and performing arts, and more than 1,200 retail shops await you. Whether you're looking for a quick getaway between business sessions or an all-day excursion for your accompanying family or friends, Orlando offers something for every schedule and every interest. And with more than 300 days of sunshine each year and annual average temperatures in the mid-70s you're bound to fit it all in. Visit www.aisc.org/nascc for more information.

Getting to Orlando

No matter where you're coming from, Orlando is the perfect choice for domestic or international travel. Orlando International Airport (MCO) offers more flights to more places than any other airport in Florida. In fact, MCO provides non-stop service to more major U.S. destinations than most other cities in the country. More than 800 flights bring over 70,000 passengers through the award-winning Orlando International Airport every day. Orlando International Airport is served by more than 30 carriers that provide scheduled non-stop service to over 70 U.S. destinations and 20 international destinations.

For additional information including your options to transfer to Gaylord from the airport, please visit www.orlandoairports.net.

Conference Proceedings

Papers for the NASCC technical sessions will be made available online and made available to attendees both prior to the conference and for three months after the conference. As part of your registration confirmation, you will receive the address for this website as well as an access code. Proceedings for the Structures Congress contain over 400 papers and posters. The SSRC Proceedings CD-ROM contains over 30 papers. Both can be purchased during pre-registration only (see Registration Information on page 37).

DISCOUNTS ON TRAVEL OFFERED

Air Travel

The conference has partnered with American Airlines to provide transportation to the NASCC. In order to receive a 5% discount off published fares, enter meeting code A5750AP on www.aa.com or call 800.433.1790 (phone reservations will incur a $10 surcharge).

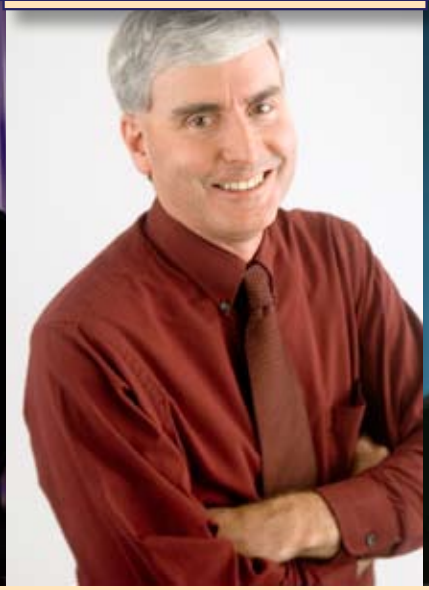
Car Rental

The conference has partnered with Avis to provide you with discounts for car rental. Enter AWD #A873999 online (www.avis.com) to receive 5% to 25% off published rates, or call 800.331.1600 for a quote. Discounts vary depending on time, location and when the advance reservation is made.

ASCE Bookstore

ASCE's bookstore will showcase hundreds of titles from the Society's extensive collection. Don't miss this opportunity to visit what may be the largest bookstore in the word devoted to civil and structural engineering titles. This year's bookstore will be located outside the Exhibit Hall. See Schedule-at-a-Glance for ASCE bookstore hours.

KEYNOTE SESSIONS



Wednesday Keynote
Main Street Green

Wednesday 1:00 p.m. – 3:00 p.m.

0.10 CEUs/1.0 PDHs

Rick Fedrizzi, founding chairman of the U.S. Green Building Council (USGBC) in 1993, was appointed President & CEO in 2004. Under his leadership, the Council has tripled its membership, broadened its influence, and cemented its role as a leadership voice in the global sustainability movement. The evolution and extension of the internationally recognized LEED Green Building Rating System to all building types and expansion of LEED certification and accreditation through the spinoff of the Green Building Certification Institute (GBCI), of which Rick is chairman, has helped build in speed and capacity to the organization. Collaboration, through work with the Clinton Global Initiative, the International Codes Council, AIA, ASHRAE, ASID, ASLA, BOMA and IFMA has broadened the base of green building. Expanded outreach and education, advocacy support for public policy initiatives, and a heightened emphasis on green buildings' role in social equity progress are part of Rick's vision for the organization.

Friday Keynote
2010 T.R. Higgins Award Lecture
The AISC Seismic Design Provisions: Past, Present and Future

Friday 10:00 a.m. – noon

0.10 CEUs/1.0 PDHs

Since their initial publication in 1992, the AISC *Seismic Provisions for Structural Steel Buildings* (AISC 341) have undergone continuous updating efforts, brought on by numerous factors such as earthquake damage, new research results, and the development of new structural systems. Now firmly rooted in U.S. design specifications and building codes, the 2010 edition of AISC 341 continues this updating process through a series of technical changes and a major format revision. This lecture will summarize the background for the provisions and the changes to AISC 341-10 and will postulate the future for seismic design of structural steel systems.

James O. Malley, P.E., S.E., is a Senior Principal at Degenkolb Engineers in San Francisco and Chair of AISC TC 9 on Seismic Design.

Structural Engineering Institute's Awards Luncheon and Keynote
The Vision of Civil Engineering: Making Connections to the Future

Saturday noon – 2:00 p.m.

During the SEI luncheon, awards will be presented to individuals in recognition of outstanding achievements and contributions to the practice and body of knowledge of Structural/Civil Engineering. The keynote speaker, **Kathy J. Caldwell, P.E.**, President-Elect of ASCE, will explore the quality of life issues we face now—clean water, sustainable energy and infrastructure and why and how the engineer must take a leading role in their management going forward. A vision of the engineer and the path to obtain the vision will be presented.

Kathy is best known for her work at Jones Edmunds and Assoc., Gainesville, Fla., where she led the successful establishment of a new market sector for the firm and where in 1999 she was named president of JEA Construction Engineering Services, Inc. Kathy, a graduate of the University of Tennessee, retired from her position at JEA in 2008 and is now president of Caldwell Cook and Associates and an adjunct professor at the University of Florida.

***Saturday's lunch & keynote is an additional fee. See registration form on page 38.**

EXHIBITOR LIST

as of December 2009

4D Steel Detailing (USA) Ltd.
AceCad Software Inc.
AISC Certification
ALFRA USA, LLC
Allied Machine & Engineering Corp.
American Institute of Steel Construction (AISC)
American Punch Company
Applied Bolting Technology, Inc.
ArcelorMittal International
Atema Inc.
Atlas Tube, Inc.
Azco Steel Co.
AZZ Galvanizing Services
BDS Vircon
Behringer Saws Inc.
Bentley Systems Inc.–RAM/STAAD Solution Center
BIMSoft, Inc.
Brakewell Steel Fabricators, Inc.
Brown Consulting Services, Inc.
Buckner Companies
Bug-O Systems/Cypress Welding Equipment
Burlington Automation
CAMBCO
Canam Steel Corporation
Cast ConneX Corporation
Cerabco Ltd.
Chatham Steel Corporation
Chicago Metal Rolled Products
Cleveland City Forge
Cleveland Punch & Die Company
CMC Joist & Deck
CMC Steel Products
Combilift USA
COMEQ, Inc.
Commercial Metals Co. (CMC)
Computers and Structures, Inc.
Connected Structural Group
Controlled Automation, Inc.
Core Brace, LLC
Corus International Americas
CSC, Inc.–Chicago
DACS, Inc.
Daito U.S.A., Inc.
Decon USA, Inc.
Delta Structural Steel Services Group
Design Data
Detailed Design Drafting Services, Ltd.
DGS Technical Services, Inc.
Dowco Consultants Ltd.
Eastern Pneumatics & Hydraulics, Inc./McCann Equipment Ltd.
eCADsystems, LLC
ESAB Welding & Cutting Products
Fab Tool Technologies
Fabreeka International, Inc.
FabSuite, LLC
FabTrol Systems, Inc.
Faccin USA, Inc.
Ficep Corporation
Fisher & Ludlow Grating Products
Fyfe Co., LLC
G.W.Y., Inc.
Gantrex, Inc.
Gaule Detailing
Gerdau Ameristeel
Girder-Slab Technologies, LLC
Graitec, Inc.
Grating Fasteners, LLC
GT STRUDL–Georgia Tech Case Center
Haydon Bolts, Inc.
Hercules Bolt Company
High Steel Structures, Inc.
Hilti, Inc.
Hodell-Natco Industries, Inc.
Holtec Consulting Private Limited
Hougen Manufacturing, Inc.
Indiana Gratings (INDIA)
Industrial Galvanizers America
Infasco
Info Sight Corporation
Infra-Metals Co.
International Design Services, Inc.
Intsel Steel Distributors/R&S Steel
ISD–International Steel Detailing
J.B. Long Inc.
Jitech, Inc.
Kottler Metal Products, Inc.
Kubes Steel, Inc.
LeJeune Bolt Company
Lincoln Electric
Lindapter North America, Inc.
Lohr Structural Fasteners, Inc.
LTC, Inc.
M&D Drafting Ltd
M.K. Morse Company, The
Madden Bolt & Galvanizing
Marubeni-Itochu Steel America, Inc. (MISA)
Max Weiss Co., Inc.
Metal Dek Group, a unit of CSi®
Metal Improvement Company
Metals USA
Mi-Jack Products, Inc.
Mitsui & Co. (USA), Inc.
Moldtek Technologies Ltd.
National Steel Bridge Alliance (NSBA)
Neilsoft
New Millenium Building Systems
Nippon Steel Corporation
Nitto Kohki U.S.A., Inc.
North American Galvanizing Company
Nucor–Vulcraft Group
Nucor Corporation
Nucor Fastener Division
Nucor-Yamato Steel Company
Ocean Machinery
Omnitech Associates
P2 Programs
Pan Gulf Technologies, Pvt. Ltd.
Pannier Corporation
Paramount Roll & Forming, Inc.
Pearl Insurance
Peddinghaus Corporation
Peikko Group, The
Perimeter Protection Products
Pieresearch
PPG Protective and Marine Coatings
Prothious Engineering Services
Quality Management Company (QMC)
Quebec Detailing Connection
Quincy Joist Company
Radley Corporation
RISA Technologies
RIX USA, LLC
Roctest
Ronstan Cable and Rod Systems
Scotchman Industries
Sen Consulting Corp.
Sharon Stairs
Sherwin-Williams Protective and Marine
Shop Data Systems, Inc.
SidePlate Systems, Inc.
Skidmore Wilhelm
SmartTCP
SOFTEK Services Ltd.
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Southwest Detailers Assoc.
Spencer Reed Group, LLC
St. Louis Screw & Bolt
Star Seismic
Steel Cast Connections, LLC
Strand7
Structal-Heavy Steel Construction
Structural Desktop, Inc.
Structural Engineering Institute/ASCE
Sumter Coatings, Inc.
Taylor Devices, Inc.
TDS Industrial Services Ltd.
TechFlow, Inc.
Tectonix Steel, Inc.
Tekla, Inc.
Tennessee Galvanizing, Inc.
Tiger Supplies
Tracer Software, LLC
Turnasure, LLC
V&S Galvanizing
Vector Corrosion Technologies
Verco Decking, Inc.
Visual Frame, Inc.
Voortman Corporation
Voss Engineering, Inc.
Walker Magnetics
Wheeling Corrugating Company
World Engineering Services

EXHIBIT HALL HOURS

WEDNESDAY
MAY 12
3:00 p.m.–8:00 p.m.
Welcome Reception
6:00 p.m.–8:00 p.m.

THURSDAY
MAY 13
7:30 a.m.–5:30 p.m.
Continental breakfast, morning and afternoon coffee breaks and boxed lunch

FRIDAY
MAY 14
9:00 a.m.–2:00 p.m.
Morning coffee break and boxed lunch

SHORT COURSES

SC1 Short Course 1
HSS Connection Design

Wednesday 8:00 a.m. – noon **Room: Sun D**
3.8 PDHs
Speaker: Donald Sherman,
University of Wisconsin-Milwaukee

Using HSS sections for design results in efficient and aesthetically pleasing structures. This course will provide you with valuable guidance for designing economical and constructible connections for those structures. Many HSS connection types will be discussed including moment connections, tension and compression connections, and truss and bracing connections. Welding and mechanical fastening will be reviewed, critical limit states will be identified, and design criteria and examples will be provided.

SC2 Short Course 2
Stability and Bracing Requirements for Beams

Wednesday 8:00 a.m. – noon **Room: Osceola A**
3.8 PDHs
Speakers: Joseph Yura and Todd Helwig,
University of Texas at Austin
Presented by the Structural Stability Research Council

There are a number of factors that affect the stability of flexural members. Some of these factors include the support conditions, the nature of the applied loading, connection details, and also the type of bracing. This course provides an overview of the important factors that should be considered when addressing the global stability of flexural members and the requirements for effective bracing. Discussions on the beam stability will focus on the impact of moment gradient, load position, as well as connection details. Solutions for assessing the stability of continuous beams braced on one flange will be covered. The AISC provisions for both lateral and torsional bracing systems are developed. Applications of the bracing provisions are demonstrated through several practical example problems.
(*Credits provided by SSRC*)

SC3 Short Course 3
Performance-Based Plastic Design of Earthquake-Resistant Steel Structures

Wednesday 8:00 a.m. – noon **Room: Sanibel 1-2-3**
3.8 PDHs
Speaker: Subhash Goel, University of Michigan
Presented by the International Code Council

A newly developed design methodology called the Performance-Based Plastic Design (PBPD) method will be presented as applied to seismic design of steel structures. The method uses pre-selected target drift and yield mechanism as key performance limit states. The design forces are calculated by using a simple energy equation. Plastic design is then performed to detail the frame members and connections in order to achieve the targeted yield mechanism and behavior. These two limit states are directly related to expected degree and distribution of structural damage during a strong seismic event. Since the drift and yield mechanism control are built into the design process from the very start and continues until the end, PBPD is a direct design method without the need for any iteration to achieve the desired targeted performance in terms of drift and yield mechanism control. That results in enhanced performance and safety, especially under severe ground motions, as well as ease and economy of repair costs when needed.

The presentation will include background theory, complete step-by-step design procedure, and detailed design examples of commonly used steel framing systems including Moment Frames (MF), and Concentrically Braced Frames (CBF).The designs of frames and their inelastic pushover and time-history responses will be compared with those of the baseline code-compliant frames to show the validity and merits of this new methodology.

Special Offer for NASCC attendees.

A 20% discount is offered to NASCC attendees on the one of a kind textbook that covers the revolutionary new method of Performance Based Plastic Design. This method will be covered in Short Course 3. Take advantage of this special offer by going to www.iccsafe.org/NASCC to purchase your copy of the book titled: *Performance-Based Design: Earthquake-Resistant Steel Structures* by Goel and Chao. NASCC attendee's special price is $78.00.

Offer valid until May 31, 2010.

SC4 Short Course 4
Making the Outreach C
Bringing Civil Fr

CANCELED

Wednesday
3.5 PD
Spe ne, Pre-College Outreach

SC5 Short Course 5
Workshop on ASCE 24 Flood Resistant Design and Construction Standard

Wednesday 8:00 a.m. – noon **Room: Miami 1-2-3**
3.5 PDHs
Speakers: Chris Jones and Bill Coulbourne, ASCE

Topics to be covered include:

- Major topics covered in ASCE 24
- Relationship of ASCE 24 to the International Building Code and the International Residential Code
- Building design and construction requirements in coastal flood zones
- Flood hazards and observed building failures
- Flood load design for buildings
- Important elements of foundation design

Instructors have been involved in hurricane disaster response for many years and were the primary authors for FEMA's *Coastal Construction Manual*. Chris Jones is the Chair of the ASCE 24 Standards Committee and the ASCE 7 Flood Loads Task Committee. Bill Coulbourne sits on both of those flood-related committees and also participates on the ASCE 7 Wind Load Task Committee and the Main Committee.

SC6 Short Course 6
Simplified Seismic Design Provisions of ASCE 7-10

Wednesday 8:00 a.m. – noon **0.35 CEUs/3.5 PDHs**
Speaker: Ronald O. Hamburger, S.E., SECB

In 2005, the ASCE-7 standard for Minimum Design Loads for Buildings and Other Structures adopted simplified procedures for applicability to small, regular buildings with stiff seismic force resisting systems. Developed in response to the demands by engineers with design practice focused on smaller residential and commercial structures, the simplified procedures provide the basic loading criteria within a few short paragraphs. The procedures have been carried forward into the 2010 edition of ASCE 7 with some enhancements and improvements. Under the Simplified procedures, base shear forces are calculated using a single simple formula and seismic drift need not be calculated. This short course provides an overview of the basic requirements and illustrates their implementation with several example applications.

Ronald Hamburger, S.E., the instructor for this course has 35 years of experience in design, investigation and rehabilitation of structures. He served as chair of the Building Seismic Safety Council's Provisions Update Committee from 2000-2009, a member of the ASCE-7 Seismic Committee since 1998, a member of the ASCE-7 Load Combinations and Main Committees since 2002 and present chair of the General Requirements committee. He is a senior principal with Simpson Gumpertz & Heger in San Francisco, California and was one of the developers of the simplified seismic design procedures that are the subject of this course.

SC7 Short Course 7
Wind Loads of ASCE 7-10

Wednesday 8:00 a.m. – noon **0.35 CEUs/3.5 PDHs**
Speaker: T. Eric Stafford, P.E.,
T. Eric Stafford & Associates, LLC

The next edition of ASCE 7 will include many significant technical and organizational changes to the wind load provisions from the 2005 Edition (ASCE 7-05). This course will address the significant changes the wind load provisions of the 2010 Edition of ASCE 7 *Minimum Design Loads for Buildings and Other Structures*. The wind load provisions have undergone a substantial reorganization to improve the clarity of applicability for the various design methods and procedures. The wind maps have been updated to reflect ultimate wind speeds and availability of new data. A new simplified procedure has been added for buildings up to 160 ft high. These changes, along with many other technical changes will be covered in this course with additional discussion on the basis for making the changes.

Fees for all short courses are outlined on the registration form on **p. 39**. Be sure to check the appropriate boxes on the registration form if you wish to attend the short courses. Short course fees are in addition to conference registration.

SC8 Short Course 8
Best Practices: Guidelines for Structural Fire Resistance Design of Concrete and Steel Buildings

Saturday 8:00 a.m. – 5:00 p.m. **0.80 CEUs/8.0 PDHs**
Speaker: TBA

Over the past four years, the National Institute of Standards and Technology (NIST), working through the National Institute of Building Sciences (NIBS) and in close collaboration with dozens of industry experts, has prepared a comprehensive document providing guidelines on designing structural fire resistance.

The Guidelines provide practicing engineers and building code officials with a technical resource that contains the current "best practices" for fire-resistant design of concrete and steel structures including a review of existing U.S. and international guidelines and design standards, which use approaches that range from simple prescriptive methods to sophisticated software programs with advanced methods of analysis under a wide range of realistic fire conditions.

Consistent with the document, this seminar will provide general guidance on the approaches to, and practical aspects of, implementing a fire-resistant design approach for concrete and steel buildings. The guidance includes key concepts and examples for identifying performance objectives, conducting risk analyses, selecting design fire scenarios and fire exposure curves, and implementing heat transfer and structural response analyses for the structural fire-resistant design of concrete and steel structures.

Tentative Program:

- Overview of Existing Guidelines for Structural Fire Resistance Design
- Principles of Performance Based Design and the Decision Framework
- Design of Concrete Structures: Materials and Behavior
- Design of Steel Structures: Materials and Behavior
- Detailed Application of the Guidelines
- Questions and Discussion

Co-sponsored by SEI, NIST and NIBS

SC9 Short Course 9
Effective Steel Design: Step-by-Step Design for Commercial Buildings

Saturday 8:00 a.m. – noon **0.375 CEUs/3.75 PDHs**
Speaker: Michael A. West, P.E., AIA

As Hardy Cross said about building design: "Strength is essential, and otherwise unimportant." In this seminar you will learn more about the important considerations in the design of steel building structures. Topics to be presented include design for stability, preliminary lateral analysis, fireproofing, constructability issues, erection tolerances, observation and inspection, and design rules for economy. A building case study of a low-rise commercial building will be presented.

GENERAL INTEREST

A1 Steel & Wood: A Dynamic & Sustainable Duo?

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Paul Fast, Fast + Epp Engineers;
Rob Third, George Third and Son

Moderator: Sylvie Boulanger, CISC

Steel and wood are two very different materials and combining them can be rewarding to designers and fabricators but also challenging. This presentation is about making steel and wood work together. By paying attention to the interface between steel and wood, their connections and each material's strength, the design and construction team can create very unique and sustainable structures. Projects showcasing design, fabrication and erection issues will include the award-winning Richmond Oval built for the 2010 Olympics in Vancouver.

A2 Floor Levelness in Tall Buildings: Art or Science?

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**

Speakers: David E. Eckmann, Magnusson Klemencic Associates; David Alexander, James McHugh Construction Company

Achieving acceptable floor levelness of elevated slabs can be challenging. It can be particularly challenging with taller buildings, especially when the structure is a composite structure with steel framing and concrete cores. This session will focus on floor flatness and floor levelness issues in taller buildings, from the perspective of both designers and contractors. It will outline strategies for improving and monitoring floor levelness, and minimizing complaints and litigation from clients. It will also share horror stories of tall building projects where elastic shortening, creep, and shrinkage were not thoroughly considered.

A3 Developing Yourself as a Leader

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Joe Contrera, alive@work

The economy has changed...the steel industry has changed...have you? How effective are you as a leader? Are you getting the results you want or are you settling for the results you're given? This interactive session will help you learn: how to overcome the single biggest challenge facing leaders today; how to break through the generational gap so you can be more effective; the one skill you must have to be a successful leader; and how to get the results you really want.

A4 Technical Security Problems and Solutions

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Joshua Perrymon, PacketFocus LLC

Your business may be small or large, technically advanced or just beginning to use and transfer digital information, but everyone has questions and concerns about technical stability and security. This session will deal with current issues pertaining to email security, FTP download upload problems, firewalls, security and software passwords, network security and stability, sending and receiving large files, and other technical issues that everyone in the steel industry encounters on a daily basis.

A5 The Lost Art of Communication

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Forrest D. McNabb, Big-D Construction Corp.

Quality, efficient, concise, and professional communication is the foundation for every successful person and project. As the speed and volume of our communications increase, it seems that our ability to communicate effectively has decreased. It's more important now than ever before to improve our communication skills by understanding how we communicate, where the pitfalls exist, how to bridge them, and how to effectively express our expectations to others. This session provides insights from a leader in the construction industry on how he bridged the communication gap to create successful people and projects—every time.

A6 The Wal-Mart Effect and Your Business: Preventing the Commoditization of Your Services

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Robert van Arsdall, XL Design Professional

It's difficult to compete against the low-price leaders in your industry. Learn how to set yourself and your company apart from the competition and bring in more profitable jobs, more often. This session will teach you how to stand out in the marketplace by highlighting your unique value as a competitive advantage and pricing your services from the client's perspective.

DETAILING

D1 Bridge 101 for the Detailer

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Frank Kingston, ABS Structural Corporation

Moderator: Walter Gatti, Tensor Engineering

What makes detailing for bridges different than detailing for buildings? Is it more than complex geometry? Find out what a bridge fabricator needs and how the detailer provides it.

D2 Contract Language and Clauses—Confidently Handling Negotiations

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**

Speaker: Don Engler, BDS Inc.

In today's market and economy, detailers are having to bid jobs with extremely tight margins and are being asked to accept contract language that may expose the detailing firm to unforseen liabilities. This session will look at some of the more important clauses that are being seen in today's contracts and how to avoid having to agree to onerous contract language and learning strategies to handle the negotiation of these clauses such that the detailing firm can end up with acceptable contracts.

Also of interest to Fabricators.

DETAILING

D3 Detailing Issues Part 1: Streamlining Design and Detailing

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: J.R. Barker, Structural Consultants Inc.

Design teams have the option of sharing their work and conceptual design with detaiers. Detailers don't need to interpret information from drawings, but download an updated model complete with changes, to complete connection and create drawings. This session will describe the processes involved in sharing one model between design and detailing on actual jobs, to expatiate the design/detailing process, and speed through the review and approval process.

Also of interest to Fabricators and Erectors.

D4 Detailing Issues Part 2: Finding Erectability Issues Early

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: J.R. Barker, Structural Consultants Inc.

This session will pick up where Part 1 left off, and cover the available alternatives being used on current jobs to cut down on fabrication downtime, and eliminate erection problems and concerns early. Topics discussed will include providing 3D points for laser location of prefabricated curtain wall panels and welded concrete elements, integrated project delivery, and basically using virtual design and construction to deliver the steel and other structural elements faster, at a lower cost, and with zero change orders.

Also of interest to Fabricators and Erectors.

D5 Connection Design: The Good, the Bad, and the Ugly

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Luis Torres, Steel Detailers, Inc.

Attendees at this session will learn how to get EOR approval of shop friendly connections when connection design is the responsibility of the fabricator.

Also of interest to Engineers.

D6 Industrial Detailing 101

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Thomas J. Kramer, Industrial Detailing Inc.

This session is geared toward detailers that normally work with commercial structures that want to branch out into the industrial market, engineers interested in a detailer's perspective regarding industrial detailing, and detailers new to the business of detailing. Topics include: girt systems, erection drawings (what's required), ladders (caged and uncaged), horizontal bracing, trusses, plate flooring systems, modular construction, stairs and handrail, communication between detailer-fabricator-engineer, and revisions.

Also of interest to Engineers.

D7 Commercial Detailing 101

Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Bruce Vaughan

Information provided in this session will range from advice on dealing with architects to miscellaneious steel detailing (countertop supports, toilet partitions, etc.) to working with skin/fascia (including skylights and brick lintel systems).

D8 Detailer Roundtable

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Detailing Committee Rep.

D9 Finding Erectability Issues Early

Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

A careful review of the contract documents and the plans by an experienced detailer can save a lot of problems down the line by spotting fabrication and erectability issues inherent to some structural layouts and/or connection designs.

D10 Tips on Connection Design

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**
Speakers: Robert Whyte, Ferrell Engineering;
Joseph Huie, Structural Technics, Inc.

In today's competitive marketplace, a steel detailing firm can greatly help to improve its client's bottom line by developing economical and practical connections. Modeling software are great tools but in the hands of skilled knowledgeable operators they become even more profitable! This session will help the detailer recognize the right connection designs to suggest or to improve from the design drawings using existing manuals and good old common sense.

D11 Survival of the Fittest: Know Your Costs!

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: Doug Bevill, Bevill Associates Inc.

What can a detailing firm do to survive these hard times with prices at their lowest in decades and worldwide competition gnawing at our North American markets? Are detailers ready for the fight of their lifetime to maintain their standard of living; are they aware of what is coming at them? Sitting and waiting is not an option, we must move forward with imaginative actions to get and deliver the plans and services to our clients and still maintain prices at a market level while hoping to make a profit. This session presents Darwin's theory as applied to a detailer's behavior in surviving in times of drought!

D12 Lean Construction for the Detailer

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

D13 Modeling for Management

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Jean Thibodeau, Technix
Moderator: Terry Devine, NISD

The trick is in the initial setups. Color coding enhances the management part by identifying unanswered RFIs, or fabricated steel or erected pieces. Cost control can also be implemented in the model.

D14 Engineer vs. Detailer: Where Do You Draw the Line

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Luis Torres, Steel Detailers, Inc.

Also of interest to Engineers.

E1 The Puzzle of Steel Procurement Solved

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Max Powell, PDM Steel Service Centers

Have the past four years of economic volatility left you confused and uncertain about the supply and price of structural steel products? Are you yearning for a confident source regarding the "Steel Procurement" process? We will explain and demystify the entire process of how steel is made and moves from the manufacturing mill to the project site. You will learn: The current market conditions of steel; what the different manufacturing processes are; what is a steel service center and what they can do for you; what steel products are currently available—and what you should be watching out for; how are conditions in the steel industry changing and what you can do to prepare yourself for those changes; and, the latest forecast for price and availability of steel products.

Also of interest to Fabricators.

E2 122 Design Ideas in 90 Minutes

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: James M. Fisher and Michael A. West, Computerized Structural Design

Designers should remember that "design = analysis + member design + connections." Attendees at this session will hear 122 practical ideas garnered from conversations with some of the leaders of the structural steel design and construction industry. These specific suggestions will focus on connections, member design, erection considerations, and specifications.

E3 What's on the Horizon for AISC Standards in 2010

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: Cindi Duncan and Charles J. Carter, AISC

As AISC prepares to release the 2010 edition of the *Specification for Structural Steel Buildings* and the *Code of Standard Practice for Steel Buildings and Bridges*, this session provides an overview of some of the important changes and clarifications that have been made to the 2005 editions of these standards. In the *Specification*, some of the major revisions appear in the scope, composite design, bolted connection design, and new chapters on quality assurance and quality control, as well as design by inelastic analysis. Clarifications have been made to the CVN toughness requirements, classifications of sections for local buckling, analysis methods, combined loading, and HSS connection design. The *Code* has several modifications, including a major revision of Section 3.1.2 on connection design delegation.

E4 Lessons Learned in Structural Software: Implementing a "Software Error Reduction Plan"

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: Brian Quinn and Lisa Willard, SE Solutions

"Hi John, this is Sarah from XYZ Construction. We need you to come out to the job site as soon as possible. We have multiple floor beams that appear to be deflecting significantly and we're very concerned." Have you ever received a call like this on one of your projects? You grab your plans see your staff had chosen a W12x16 spanning 27 ft. You become nervous thinking about the design without even needing to look up the loading as the beam doesn't meet your "rule of thumb" guideline that the beam depth be approximately one half the span (in inches). In looking at the calculations you ask, "why does the dead load on this beam seem so light?" Upon further review, you learn that the beam was designed without considering the slab weight because of a new option in your software program that your engineers fully didn't understand. Attendees at this session will learn practical procedures to prevent problems like this.

Also of interest to Detailers.

E6 HSS: Applications, Use, and Limitations of Chapter K of AISC 360-05

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: Jeff Packer, Professor, University of Toronto

Based on AISC's upcoming Design Guide on HSS, this session will provide practical, up-to-date information on the design of structures with HSS, including simplifying connections in connection.

E7 An Engineer's Guide to the New 2010 Joist Specification

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**
Speakers: Tim Holtermann, Canam; Perry Green, Steel Joist Institute; Cevyn Meyer, Vulcraft; Carl Pugh, Jr., NMBS

In 2010, the Steel Joist Institute will issue an update to the *Standard Specification for K-Series, LH/DLH Series, and CJ-Series Joists and Joist Girders*. Attendees at this session will learn what's changed, including new tables for use in applications with heavier load-carrying capacity than the current K-Series or LH-Series joists, particularly for floors with wider spacing, as well as added or revised maximum and effective slenderness ratios, revised camber values for longer span joists, and more comprehensive welding stress calculations.

E8 AISC 2010 Specification Appendix 4 (Part 1): Structural Design for Fire Conditions

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Bruce Ellingwood, Georgia Institute of Technology; John Gross, NIST; Nestor Iwankiw, Hughes Associates

Structural engineers have seldom been responsible for the fire protection of building structural systems. So why is there an appendix on fire engineering in the AISC *Specification*? Part 1 provides an introduction to Appendix 4 and practical fire-resistant steel design, a look at the behavior of structural steel at elevated temperatures, and information on the modeling of fire loads for performance-based engineering.

E9 AISC 2010 Specification Appendix 4 (Part 2): Structural Design for Fire Conditions

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Barbara Lane and Matt Johann, Ove Arup & Partners

Structural engineers have seldom been responsible for the fire protection of building structural systems. So why is there an appendix on fire engineering in the AISC *Specification*? Part 2 presents practical strategies and design examples of performance-based fire engineering.

E10A An Introduction to Earthquake Engineering and Seismic Codes (Part 1: Ductility)

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Michael Engelhardt, University of Texas at Austin

Ductility is a fundamental property of great importance in earthquake engineering. This session will review the what, why and how of ductility and how it is used to withstand earthquake loads. In addition, the basic principles for achieving ductile behavior in steel structures will be discussed and illustrated.

E10B An Introduction to Earthquake Engineering and Seismic Codes (Part 2: Provisions and Design Examples)

Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Robert Tremblay, Ecole Polytechnique

This session will provide background information on earthquake effects on building structures and give a summary of the seismic provisions included in ASCE 7-05. Determination of seismic-induced member forces based on the 2005 AISC *Seismic Provisions* will also be presented and illustrated with design examples of different types of bracing systems for buildings.

E11 Design, Detailing, and Installation of Metal Roof Deck Diaphragms

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Robert Tremblay, Ecole Polytechnic; Pierre Gignac, Canam Group

Metal roof deck diaphragms are widely used in low-rise building applications to resist wind and earthquake loads. Design requirements will be reviewed together with practical examples. The SDI method will be used in the examples and numerical modeling techniques will be presented. The performance of steel deck diaphragms heavily depends on good fabrication and installation details. Information on deck fasteners and their installation will be given. Details of connections between structures and roof diaphragms will also be discussed.

Also of interest to Detailers, Fabricators and Erectors.

E12 Confronting and Debunking Marketplace Myths…and the Realities We Need to Know!

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Tabitha Stine, AISC

There are many times that as engineers and construction professionals, we cling too much to lessons learned and rules of thumb of the past about design and construction—that do not reflect on the business practices and manufacturing trends of today. There are so many myths that are a result of mistaken ideas about the structural steel industry due to misunderstanding or a simple lack of knowledge. This presentation will serve to 'debunk' these myths and offer current realities that truly impact the economic, sustainable, and flexibility advantages in designing in structural steel.

Also of interest to Detailers, Fabricators and Erectors.

E13 Welding Heavy Structural Steel…Successfully!

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Duane Miller, The Lincoln Electric Company

Structural steel is routinely fabricated and erected by welding—with success. When member sizes increase, when plates become thicker, or when structures become more restrained, problems may be encountered, with cracking being a common albeit highly undesirable outcome. Designs for blast resistance have resulted in larger members and more highly restrained construction, with a corresponding increases construction challenges to successfully construct projects with heavy and highly restrained members, changes in material properties, joint detailing, welding procedures, and inspection requirements may be required. This session will provide practical, field-proven concepts that, when implemented, allow for successful welding under these more difficult circumstances.

Also of interest to Detailers, Fabricators and Erectors.

E14 Code Complexity

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speakers: James Parker, SGH; Jeff Asher, KPFF; Jaime Vasquez, WPM

Moderator: Ed Pence, Stroud, Pence & Associates, Ltd.

The construction community is faced with an ever increasing complexity of building and design codes. What can the design engineer do to stay current yet deal with this alarming trend?

E15 Installation, Inspection, and Behavior of High-Strength Bolts

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Geoff Kulak, University of Alberta

High-strength bolts are a reliable and cost-effective way to make connections in fabricated steel structures. The structural engineer generally has full responsibility for all aspects of bolted connections, unlike the situation that pertains when welded connections are used. Consequently, he must not only understand how the fasteners transfer their forces and be able to carry out the design, but he is also responsible for the proper installation and inspection methods to be employed. Once the mechanism of the load transfer is understood, the design of the connecting elements is relatively simple. Both serviceability and strength of connections that use high-strength bolts must be examined. The necessity of attaining a bolt preload and the related inspection depends upon the way the fasteners transfer load. It is essential that structural engineers understand the role of bolt preload relative to the way that the bolts function so that the installation and inspection procedures are consistent with those needs.After examination of the basic modes of load transfer and the corresponding strength or deformation statements for high-strength bolts, attention will be directed toward proper installation and inspection procedures. This will include a report of field studies of bolt pretension that reflects standard practice and includes different methods of installation.

Also of interest to Fabricators.

E16 Connection Design – Limit States

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: Kevin Truman

This presentation will describe and illustrate the basics of limit states based connection design. It will focus on the limit states associated with bolted and welded connections in order to increase awareness of practical, safe connection design. After a brief description of bolted and welded connection types, the limit states for bolts and all types of welds in shear, direct tension and combined shear and tension will be discussed. Slip critical connections, their performance and limit states will be illustrated. The limit states of the connecting materials and connected members for both bolted and welded connections will be presented in detail: yielding, fracture, tear-out, bearing, block shear, shear lag, prying, effects of outstanding elements, coping, edge distances, and open holes (reduced areas). The limit states related to web buckling, web yielding, and web crippling will be briefly discussed coupled with half and full stiffener limit states. This presentation will be rudimentary in nature and is intended for an introduction to limit states and the under pinning of connection design.

E17 Introduction to Seismic Design

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Amanuel Gebremeskel, AISC

The 2005 AISC *Seismic Provisions for Structural Steel Buildings* is a substantial update to the previous releases. This presentation not only highlights these changes but provides supplemental information and tools to help make the *Provisions* easier to understand and use. The session will be divided into an hour presentation followed by a half-hour audience questions and discussion lead by the speaker.

E18 Stability Issues and Computer Modeling

Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**
Speakers: Jason Ericksen, CSC;
Allen Adams, Bentley Systems

Stability has long been a source of discussion between structural engineers—especially in terms of computer modeling. This session will provide attendees with invaluable insight from three software experts during a panel discussion on lessons they have learned. Also, attendees will be able to "Ask the Experts" their own questions during the second portion of this hour and a half session.

E19 Implementing BIM in Your Structural Engineering Firm

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: Jim Corsiglia, Harley Ellis Devereaux
Moderator: Larry Kruth

You've heard a lot about BIM being successful on a project, but how do you get your entire office to implement and use it? This session will explore one firm's path into this very subject. Attendees will learn how to successfully transition to the next levels of BIM design and construction.

Also of interest to Detailers.

E20 Designing Healthcare Facilities

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Susan Burmeister, Cagley & Associates

The health care industry accounts for a significant portion of global U.S. construction. Despite all the current media attention focused on health care, many engineers have never thought about the special design considerations associated with creating a functional facility that can keep pace with the constant changes and advancements taking place in the medical arena. While certain aspects of health care structure design are unique to the medical industry, they are typical within that field. Expansion capability, structural vibration considerations, radiation shielding, and infection control issues as they pertain to the design and detailing of the structure are just some of the topics that will be discussed.

Also of interest to Detailers.

E21 Behavior and Design of Composite Column Systems: Recent Research and New Provisions

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Jerome F. Hajjar, University of Illinois

In the last two decades, a wide range of research has been conducted worldwide on composite steel/concrete beam-columns, and their use in practice for low-rise, high-rise, and industrial structures has been increasing. This presentation summarizes recent research and practice on composite beam-columns, including a summary of new provisions for composite systems in the AISC 2010 specifications both for non-seismic and seismic design. Topics covered include background and an update on the provisions for beam-column strength for concrete-filled and concrete-encased beam-columns; recent experimental testing and analysis on concrete-filled steel tubes; new provisions for bond strength, load transfer, and local buckling in concrete-filled tubes; and new provisions for composite seismic force-resisting systems.

E22 Design of Underslung Hoist and Crane Beams/Girders

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Kerry Anger, IBI Group
Moderator: Richard Vincent, Canam Group Inc.

Underslung crane runways are often utilized in manufacturing plants such as automotive assembly lines and have particular design problems including member continuity, laterally unsupported flanges and fatigue of the support member just to name a few. This session describes the problems encountered and the solutions for designing the structural support structures, the connections between the supporting members and the runway girder as well as the runway girders themselves for underslung hoists and crane runways. The design for curved monorail support beams will also be covered. These monorail beams are often hung under jack trusses, secondary trusses or open web steel joists and special design requirements need to be included in the design of these components, including fatigue details for the connections and support members.

E23 Contract Documents: A Key to Economical Design

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Brian Decker, Robert L. Miller Associates

There's a surprising disconnect between the structural engineer of record and the specialty structural engineer. This session will provide practical tips on what needs to be communicated in your contract documents to maximize economy.

Also of interest to Fabricators.

E24 Pecha Kucha Goes Steel!

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

Come learn about eight projects in a very unique way. Have you heard about Pecha Kucha or seen this type of presentation format? Well, this is your opportunity to see it in real life—each presenter is allowed 20 slides, each shown for 20 seconds each—giving six minutes 40 seconds of fame before the next presenter is up. This keeps presentations concise, the interest level up, and gives more people the chance to show. Our eight presenters will highlight their specific project's exceptional characteristics and/or challenges within the allotted timeframe, and attendees will have the remainder of the session to ask questions to all the presenters.

E25 Ethics: Where Does Your Responsibility End?

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**
Speakers: Matthew A. Gillies and
Steven M. Henderson, Stites & Harbison

This session will explore a professional engineer's ethical and contractual obligations and legal issues that may arise if one fails to act in accordance with those obligations. Topics will include typical ethical duties established in state regulations and codes published by various professional societies, typical contract clauses, relevant provisions of the AISC *Code of Standard Practice for Steel Buildings and Bridges*, and the standard of care applied in evaluating claims against engineers. The presentation will focus on typical issues that arise in the steel industry and attendees will be given an opportunity to apply these concepts to real world examples based on representative cases.

FABRICATION

F1 Fabricator Roundtables

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Fabricators rarely get to talk with their peers in a non-competitive setting. This workshop allows groups of fabricators from different regions of the country, assisted by a moderator, to sit down in small groups and discuss issues critical to the operation and functioning of a structural steel fabrication shop. Discussions will range from dealing with escalation clauses to implementing quality systems. Take advantage of this annual opportunity to learn and explore opportunities with your peers!

Fabricators ONLY.

F2 Practical Energy Management for Your Shop

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Richard G. Lubinski, Think Energy Management LLC
Moderator: Martin Anderson, AISC

Have you wondered how to go about saving money on your shop's electric bill? Have you thought about using other forms of energy, but didn't know what the return-on-investment would be for your company? This session will provide practical and honest answers and highlight the financial advantages related to them. In this one-hour session, our speaker will also answer your questions, so that attendees leave saying "I could start doing that next week and save money!"

F3 Corrosion Protection in Exposed Environments

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Bill Corbett, SSPC
Moderator: Bill McEleney, National Steel Bridge Alliance

What to specify for corrosion protection for structural steel that will be exposed to the elements? What can you do to protect A325 and A490 bolts? What makes weathering steel special, how does it perform?

F4 The Hole Story

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Jim Colt, Hypertherm
Moderator: Mark Trimble, Huntington Steel

Plasma-burning is becoming increasingly popular; this session will focus on the latest innovations in hole-making using plasma technology. Included in the session will be strategies for lead-in, lead-out, dealing with specs that prohibit burned bolt holes, minimizing hole tapering, cleaning or reaming, etc. For the fabricator who is looking for an alternative to punching or drilling holes.

F5 Reading the Tea Leaves

Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: John Cross, AISC

In today's economy it is essential to stay current on the status of your market. Methods to monitor the overall domestic market as well as the fabricator's local market will be discussed. Useful indices (and where to find them), historic trends, publications and specialized data that can be developed by your company as well as a roadmap of current economic conditions will be presented. This information can aid in strategic planning and improve your bottom line.

Also of interest to Detailers, Engineers and Erectors.

F6 Making Sure You Get Paid

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Tony Parker, Kelly, Parker & Cohen

Attendees will learn about subcontractor agreements that will help you get paid, including knowing when your lien rights expire, contract language that protects collection rights, purchase order wording, etc.

Also of interest to Detailers.

F7 Robotic Welding in the Fab Shop

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

F8 Connection Design Scope and Shared Structural BIM Models: Now What?

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Tom Faraone, Banker Steel

This open forum on the future of BIM will start with two case studies (one a large ball park and the other a smaller commerical building) of projects that extensively utilized BIM followed by an open discussion of where the industry is headed and what needs to be done to get there.

F9 It's Not Just About Drawing Presentation Anymore

Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Wayne Morrison and John Cooper, Herrick Corporation

This session will help fabricators understand why their old detailing standards are more than likely antiquated, and will also help detailers understand how to be proactive to accommodate much needed change. Covered will be such topics as: Evaluating what 3D software cannot easily do; how to evaluate time and cost that may be saved; new services or information detailers may be able to provide; coming to agreement on information that can consistently be created and extracted from software; develop a "standard" modeling procedure to produce consistent information; phases to reach goals gradually without halting work flow; developing and integrating new processes; planning ahead for future development.

Also of interest to Detailers and Engineers.

F10 Competing in the One-Story Market

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: Tim Lack, Martin/Martin; Larry Jeffords, Jeffords Steel; and Craig Weisensel, Flad Architects

F11 LEED, Follow, or Get Out of the Way! How the Sustainable Building Movement Is Changing the Way We Do Business

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

What paperwork is required when the owner is looking for LEED Certification? How does this affect your purchasing and documentation?

FABRICATION

F12 Preventative Maintenance

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Speakers: Terry Weir, Fought & Company;
Pat Thomashefsky, QMC
Moderator: Mark Trimble, Huntington Steel

Preventative Maintenance: A session perfectly suited for fabricators who want to improve their bottom line. The three-part session includes QMC's perspective on the necessary components of an AISC certified fabricator's preventative maintenance program, an inside look at a fabricator's PM program "through the eyes" of the person responsible for a successful PM program that has minimized delays due to equipment breakdowns and boosted customer satisfaction, and finally an interactive panel discussion lead by the moderator on ways to improve the fabricator's PM program.

F13 AISC Bridge Certification: The Importance and the Process

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: Bob Zaykoski, QMC Auditor; Steve Russell, QMC Auditor; Paul Palmes, Auditor
Moderator: Zane Keniston, QMC Auditor

The importance of having a quality system in place in today's steel construction industry is incredibly significant. Yet often times, it is not always clear what goes into developing a quality system and how an organization's quality system is evaluated. The presentation, geared toward both American Institute of Steel Construction (AISC) Certified and Non-Certified structural steel fabricators as well as structural engineers designing bridge structures, will focus on the Standard for Bridge and Highway Metal Component Manufacturers Certification program that AISC introduced earlier this year in addition to its Major Steel Bridge and Simple Steel Bridge Certifications.

Attendees will learn how corrective actions and management responsibilities effects your quality management system, and what one can expect as the return on your investment. In addition, attendees will better understand how to create, execute, and audit a quality system to meet AISC program criteria along with the required documentation and procedures. This session will include a 45 minute presentation followed by attendees breaking into roundtable groups for the remainder of the session to discuss the previous topics. Roundtables will be moderated by AISC Certification staff and QMC auditors.

Also of interest to Erectors.

F14 Value-added Internal Auditing

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**
Speakers: Larry Martof, QMC Auditor
Moderator: Patricia Thomashefsky, QMC

Whether you are currently certified or seeking certification this session will provide best practices insight for transforming your internal audit from checklist based to process based. We will look at some adventurous concepts for planning and managing internal audits. We will also explore different methods for conducting the internal audit that will bring excitement to your internal audits and provide for a return on your investment in internal auditing. Larry Martof is a contract auditor with QMC. He is also an ISO9001 Lead Auditor, ASQ Certified Quality Auditor, ASQ Manager of Quality/Organizational Excellence and a Master Lean Six Sigma Black Belt. Larry also provides business consulting for multiple industries and assists organizations in achieving excellence.

Also of interest to Erectors.

ERECTOR

R1 New OSHA Crane Standards

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**
Speaker: Chip Pocock, Buckner Companies
Moderator: Doug Williams, Buckner Companies

Attendees will hear an update on the new requirements of OSHA Subpart "N", which previously had no major updates since 1972, from one of the participants on the C-DAC Committee. You'll learn how these changes will effect your company and what you need to do to prepare.

R2 Retainage

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Speaker: Dennis Bausman, Clemson University
Moderator: Eddie Williams, Buckner Companies

A recent survey on retainage for the American Subcontractors Association provides insight into contemporary attitudes toward the practice of retainage. Attendees will learn answers to such questions as wether retainage influences project relationships, whether owners and their agents really believe that retainage is needed as an incentive for quality work, and whether there usually is substantial "float" time between the general contractor's receipt of subcontractor retainage and payment to the subcontractor. Presented by the author of the study, this session will identify the detriments and benefits of retainage for members of the construction team and identify alternatives to minimize the detrimental impact of retainage (as well as learn about their effectiveness).

Also of interest to Detailers and Fabricators.

R3 Making Magic in Orlando: The Amway Arena

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**
Speakers: Adam Samuel, Schuff Steel;
Don Moe, Walter P Moore & Associates;
Patrick Lewis, Superior Rigging;
Sean Sullivan, Superior Rigging
Moderator: Dan Kilgore,
Graycor Industrial Constructors Inc.

What's the story behind the fast erection of the roof for Amway Arena, the new home of the Orlando Magic? At 800,000 sq. ft, 3,300 tons of steel, challenging site logistics, and only 18 weeks for erection, this arena provides a great case study on fast and challenging erection procedures.

Also of interest to Fabricators.

R4 The Nuts and Bolts of Structural Connections

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Speaker: Dan Kaufman and Pat Thomashefsky, QMC
Moderator: Dan Kilgore,
Graycor Industrial Constructors, Inc.

What are the current structural bolting requirements for steel projects? This session will provide a practical and up-to-date overview of structural bolting requirements and give examples of how some erectors and fabricators are meeting the criteria. Included will be a discussion of some of the history behind the requirements, how these requirements may present a problem in the field, and how to overcome these issues. In addition, recent changes in the RCSC *Specification* will be highlighted.

Also of interest to Engineers.

R5 Practical Horizontal Life Line Systems

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Design, installation, and use of horizontal life line systems. Would also cover putting together the documentation to meet OSHA and COE requirements. Including new safety equipment.

R6 Special Lifting Devices

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

R7 Sequencing!

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Speakers: Greg Peterson; Josh Cindrell

Establishing sequences early in the job is essential to completeion of a sucessful project. This session will provide insight to the fabricator and erector on ways to improve both shop and field efficiencies.

R8 Erection Engineering for Libeskind's Sobella Retail Structure

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Patrick M. Hassett, Hassett Engineering, Inc.

Starchitects such as Daniel Libeskind often design breathtaking structures—but also create erection nightmares. The roof structure designed by structural engineer Halcrow Yolles of Las Vegas consists of 19 distinct and challenging shapes and in many cases each area to be erected was sequenced separately from its neighbor. This presentation will show step-by-step the erection engineering for this complex structure.

R9 Seismic Filler Metals

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

Speaker: Jerry Mathison,
ESAB Welding & Cutting Products

Attendees at this session will learn about seismic requirements and how the various welding processes apply to the seismic codes. This presentation will cover the testing for seismic filler metals to meet the AWS. D1.8 Seismic supplement. The areas covered will include the various processes covered in this supplement and the testing requirements. Topics to be covered include; high and low heat input testing, preheat and interpass temperatures, mechanical testing requirements and Intermix testing and exposure testing. A comparison between the AWS. A5.20/A5.20M-2005 and the AWS. D1.8 2005 will also be covered.

R10 Raleigh Durham Airport Terminal

Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

Speaker: Doug Williams, Buckner Companies

Moderator: Josh Cilley, Buckner Companies

The roof for this complex project consists of a combination of laminated wood and steel trusses. This case study presentation will provide details on how the erector designed a special assembly/lifting platform, which allowed horizontal assembly and pivoted to a vertical position for erection. Additional challenges on the project included heavy lifts and long spans.

R11 Erecting Amusement Park Rides

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Kenny Wahl, I.M.P.A.C.T.

The session will cover all aspects of erecting a roller coaster from negotiations with the park to receiving the ride components to the actual erection.

Also of interest to Engineers and Fabricators.

R12 Protecting Your Assets

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Speakers: Kimberley Mariani, William Conboy

Everyday business, whether you are a fabricator, erector, detailer or engineer, subjects you to potential liability issues. By restructuring your company to a different type of corporation or breaking up your company to several corporations could limit your liability, reduce insurance costs, and minimize your tax obligations. The typical family-owned "C Type" Corporation may not be the best answer in today's world of increased legal costs and reduced profits. Several options will be discussed for your increased protection and decreased financial liability.

R13 Worksite Theft

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Mike Kennedy, Heist Proof;
Henry Hagood, AGC of Alabama

Moderator: Chip Pocock, Buckner Companies

More than $1 billion of construction equipment is stolen from worksites in the U.S. each year. How can you protect your equipment and material? Attendees will learn about AGC of Alabama's new anti-theft program and you can implement a similar program.

R14 Innovative Bridge Erection

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Chris Hall, International Bridge Technology
Bob Cisneros, High Steel Structures

Moderator: Bill Halsband, Mammoet USA

Erection of steel bridges is one of the most demanding and spectacular activities known to man. Whether launching over great distances or employing Accelerated Bridge Construction techniques to minimize disruption to the traveling public, the steel bridge industry leads the way.

ESSAYS FROM EXPERTS

X1 When Codes and Regulators Stop Engineers from Thinking

Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Ronald O. Hamburger, Simpson Gumpertz & Heger

Early codes and specifications provided broad guidelines to assist engineers to design and contractors to build safe structures. These criteria specified typical design loading and permissible stresses, leaving the engineer to think their way through the rest of the process including figuring out how to configure their structures; distribute loads to the different structural elements; and, how to detail the connection of elements. Today's building codes are very different. In addition to basic loading and strength criteria, they specify means of analysis, acceptable analysis assumptions, required details, and nearly all other aspects of design. If an engineer wants to design something that falls outside the code prescription, the burden is placed on the engineer to demonstrate it will be acceptable. If an engineer chooses to use a proprietary product in the structural system, rather than relying on the manufacturer's data and their own judgment as to the product's suitability, the engineer must present an evaluation report indicating conformance to code requirements. This may result in safer and more reliable structures, however; it also results in stagnation of innovation, and leads engineers to approach their profession as technicians rather than professionals. If engineers are to continue to bring value to the construction industry, we must find a way to reinsert thought, professional judgment, and individual consideration into the design process.

X3 Fatigue Design: Past, Present and Future

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: John W. Fisher, Lehigh University

In addition to fatigue resistance, which is based on laboratory work, there will be an examination of the random variable loads that actual structures are subjected to in service. The time dependent stress cycles resulting from these loads are of extreme importance and depend on their magnitude and frequency. Their relationship to the fatigue limit for long life and for finite life will also be examined.

X2 Braced Frame Connection Design

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Rafael Sabelli, Walter P Moore and Associates

This presentation will provide a methodology for determining forces for design of braced-frame connections. The method develops consistent sets of design forces for gusset plate connection design based on increasing levels of complexity: Wind design with one lateral force distribution, combining collector and brace forces for both chevron and *X* (or two-story *X*) configurations; seismic design with $R = 3$, combining diaphragm forces (based on diaphragm accelerations) with brace forces (based on a roughly triangular vertical distribution); ductile seismic design ($R > 3$) combining diaphragm forces (based on diaphragm accelerations) with forces based on yielding in the frame; and SCBF combining diaphragm forces (based on diaphragm accelerations) with forces based on the post-buckled condition in which compression braces have only residual force. Emphasis is placed on clear free body diagrams and consistent sets of forces corresponding to clear and understandable load conditions for the frame. Information is presented both in a format for connection designers, and for presentation to the fabricator for delegated connection design.

X4 A Candid Conversation About the Business Ramifications of BIM and IPD

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speaker: Jon Magnusson, Magnusson Klemencic Associates

Steel structural systems have unique advantages in BIM applications compared to most other building materials. However, there are basic business constraints that need to be removed to allow wide-spread "real world" adoption of these modeling advantages. Contrary to popular opinion, the issues are not technical interoperability, but are much more basic. If you are looking for a BIM and IPD cheerleading, stay away from this session. If you would like to discuss how to deal with business roadblocks that are keeping the industry from moving forward, this is the session for you.

The Constructability Influence Curve

Constructability is a process that involves commitment and collaboration of all design and construction team members from the earliest stages of the project through completion of construction. This comprehensive team works together to develop and maintain a clean, concise vision of the project, beginning with a clean-slate design concept that seeks construction input, and expanding the traditional design and construction decision matrix to improve decision-making. Implemented in this manner, constructability influences every stage of design and construction, and improves results for each team member that touches the project. The Constructability Influence Curve is a multi-session program that describes how each member of the structural team can participate in, and benefit from, integration of constructability into their project delivery. It will include four components, which can be attended as complementary sessions or as independent sessions. Ideally, all target audiences will attend the primer session to receive an overview of the topic.

U1 Constructability: A Primer

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**
Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Intended for both design and construction team members, this session establishes the impact that constructability can have on project cost, schedule and profitability. Attendees will learn how to position their firms with project owners and other design/construction team members to participate in the constructability process. The session will provide an overview of the key business drivers that make constructability a competitive advantage in today's highly-competitive market.

U2 Constructability for Designers

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Every building that is designed and constructed is custom because each site has different subsurface conditions, seismic considerations and loading criteria (from wind, snow, etc.). Yes, some previously designed solutions can be appropriate, however, each new site usually brings a new challenge that requires some sort of custom solution. This session will describe how constructability solves potential issues on the design side by expanding the decision matrix and prevents problems on the construction side by not only bringing together design disciplines, but also by inserting construction knowledge into the design process as well. Attendees will learn how to use constructability to know more about the other systems that connect to the structural design, and better understand construction implications on design.

U3 Constructability for Fabricators

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

When implemented, constructability can enhance the project through more accurate and cost-effective proposals based on compete and coordinated design documents. This, in turn, can improve the entire structural steel detailing and fabrication process through economical material procurement, timely shop drawing preparation and conformance to standard shop fabrication processes and OSHA requirements. Constructability also can improve connections when basic detail considerations are understood and accounted for early in the process. This session discusses each of these areas, and provides fabricators with a solid background on how to infuse constructability into the design process, improving their deliverables and profitability.

U4 Constructability for Erectors

Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

Constructability can be an elusive goal in the normal design-bid-build process. Most in the construction community typically have limited input during the traditional design process. This present design process often undermines the ability of construction team members to influence the designer's decision matrix which often does not include such items as: construction sequencing, site constraints, construction trade interface, and specification relevancy. Many aspects of the on-site construction process can be improved with consideration of constructability during design. This session outlines constructability suggestions that can deliver better decision making, reduced costs, improved schedules and less conflict between the design and construction teams.

TOP HITS FROM TOP PROFS

P1 Seismic Design of Concentrically Braced Steel Frames

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**

Speaker: Robert Tremblay, Ecole Polytechnic

The presentation will cover the main aspects of the seismic design of concentrically braced steel frames for ductile seismic response, starting from seismic load calculations up to special seismic detailing. Focus will be put on the cyclic inelastic response of bracing members and on the capacity design requirements that must be satisfied to achieve the intended strength hierarchy. These aspects will be illustrated through a numerical example, together with other topics such as design period, tension vs. compression brace design, bracing configurations, flexural demand on columns, brace connections, and drift and period calculations.

P2 Characterization and Mitigation of Residual Welding Stress

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Speaker: Larry Reavely

Experiments conducted at the University of Utah measured the effects of multi-pass welding on jumbo-shape structures. Shrinking welds and thermal expansion, driving displacement in the connection members, strain all structural frames. Connection end-conditions, section thickness, and welding procedures contribute to the final stress residing in the structure, each in varying degrees. These effects on large-scale joints, each filled with more than 18 lbs of weld metal, were measured and enabled university researchers to characterize medium and high restraint conditions for the structural engineer. With the characteristics known a mechanical process was developed that effectively mitigated all residual tension, even inducing a compression cushion into the connection, to stress-relieve the entire structure. This lecture will describe these characteristics in detail and provide effective assembly techniques to reduce residual stress and increase weld ductility.

P3 Use of the AISC Direct Analysis Method to Analyze a Unique Stability Bracing Problem

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Speakers: Tom Murray, The Boeing Company;
Brad Davis, University of Kentucky

Member stability bracing can be difficult to evaluate for situations not directly addressed by the AISC *Specification*, Appendix 6. This paper illustrates the use of the AISC Direct Analysis Method to analyze a unique stability bracing problem consisting of a long collector element braced by cantilevered roof joists and joist bridging. The situation is not covered by Appendix 6 because the joists and bridging provide a combination of nodal and relative bracing and because the collector has a variable axial load. A model of the collector element and roof joists was created and analyzed using RamAdvanse, a commercially available frame analysis program capable of performing second-order analyses. Modeling and analysis assumptions were adopted from the Direct Analysis Method. Several initial out-of-straightness patterns were investigated to determine the most severe combination of joist cantilevers installed higher or lower than the nominal position. The analysis method is shown to be reasonably simple and practical for design use.

EDUCATOR SESSION

ES1 Sustainability in your Steel Design Class/Architecture & Construction Management Curriculums

Wednesday 8:00 a.m. – noon

Speakers: Geoff Weisenberger and
Tom Schlafly, AISC; Tim Mrozowski,
Michigan State University

Moderator: Nancy Gavlin, AISC

How can the structural steel industry contribute to the sustainable development of our planet, and how should these efforts be incorporated into our structural steel design classes? Ideas will be presented and an open discussion held on this subject.

Many Construction Management and Architecture undergraduate programs require their students to take a structural design course that combines structural steel, wood and concrete in a single one-semester class. Traditional structural steel design curricula and texts have been developed as full-semester courses for engineering students. As a result, CM and Architecture programs now are faced with deciding what to include in their shortened steel design courses, and what excerpts to select from the texts. During this session, AISC will introduce its new teaching aid, which will help faculty to identify and establish a core structural steel curriculum for architecture and construction management undergraduate students.

STUDENT SESSION

ST1 Student Session: Conference Orientation & Careers in the Structural Steel Industry

Wednesday 4:30 p.m. – 6:00 p.m.

This year NASCC will provide a session dedicated to students. An orientation to the conference will be provided, along with an overview of the structural steel industry and a panel discussion on careers in the structural steel industry.

Beedle Award Details

The award has been established in honor of the late Lynn S. Beedle, an international authority on stability and the development of code criteria for steel and composite structures. He was a leader and outstanding contributor to the work of the Structural Stability Research Council for a period of more than 50 years, establishing the council as the pre-eminent organization worldwide in the area of structural stability. Through Lynn Beedle's dedicated work and leadership in the national and international arenas, the structural engineering profession has seen advanced concepts developed into practical engineering tools. He consistently and successfully endeavored to advance collaboration between researchers, engineers and code writers worldwide. Recipients of the Lynn S. Beedle Award must meet the following criteria:

- Longtime member of SSRC.
- A worldwide leading stability researcher or designer of structures with significant stability issues.
- A leader in fostering cooperation between professionals worldwide.
- Significant contributions to national and international design code development.

The SSRC Executive Committee will serve as the award committee. The award may be presented as frequently as annually. An individual can only receive the award once. The award will be presented at the SSRC Annual Stability Conference. It consists of a framed certificate, signed by the SSRC Chair and Vice Chair.

2010 Beedle Award Winner

Reidar Bjorhovde

Reidar Bjorhovde is president of The Bjorhovde Group, a consulting firm and international engineering consortium located in Tucson, Arizona, USA. With Ph.D.s from the Norwegian Institute of Technology and Lehigh University, Dr. Bjorhovde has held positions with the Norwegian Institute of Technology and the American Institute of Steel Construction (AISC). He was a professor at the University of Alberta, the University of Arizona and the University of Pittsburgh for many years. He is editor of the *Journal of Constructional Steel Research*, published by Elsevier Science, and research editor of the AISC *Engineering Journal*.

With his company, Dr. Bjorhovde advises industry, designers, fabricators and owners on construction projects throughout the world, and works with industry associations and research councils on contemporary engineering projects and research and code needs.

As a professor, Dr. Bjorhovde taught graduate and undergraduate courses on steel, reinforced concrete and composite structures, as well as reliability theory, advanced mechanics of materials and strength and behavior of construction materials. He has conducted extensive research, including landmark work on the stability and reliability of columns, structural connections and composite structures.

The author of approximately 250 publications, he has received many awards, including the prestigious T.R. Higgins Award from AISC, the Research Fellowship of the Japan Society for the Promotion of Science, the NATO Senior Scientist Award, the Croes Medal, the Hardesty Award, the George Winter Award of the American Society of Civil Engineers, the Duggan Medal of the Engineering Institute of Canada and the IMCA Award of the Mexican Institute of Steel Construction. He is an Honorary Fellow of the Singapore Structural Steel Society.

Dr. Bjorhovde is a member of the Steel Design Code Committees both for AISC (hot-rolled steel structures) and the American Iron and Steel Institute (cold-formed steel structures), and of the Canadian steel design standard CSA S16 Committee. He served on the committee that developed the 2005 Hong Kong steel design code, and is currently an advisor to the Building and Construction Authority of Singapore. He is a past chairman of the Structural Stability Research Council (SSRC) and of the Executive Committee of the Technical Activities Division of the ASCE Structural Engineering Institute. Dr. Bjorhovde is a Fellow of the American Society of Civil Engineers and a Registered Professional Engineer in the United States, Canada and Norway.

2010 SSRC ANNUAL STABILITY CONFERENCE

Tuesday, May 11

SS1 Task Group Technical Presentations Session 1

Tuesday 2:00 p.m. – 3:00 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Benjamin Schafer, SSRC Vice-Chair

- Welcome to the 2010 SSRC Task Group Sessions and Annual Meeting
- Improved Stability of Cross Frames for Steel Bridge Systems Using Tubular Members
  Anthony Battistini, Karl Frank, Todd Helwig, Michael Engelhardt
- Effect of Buckling on the Design of Steel Plate Girder Bridges
  Metwally Abu-Hamd
- Application of a 3D Fluid-Thermal-Mechanical Model for Performance-Based Analysis of Composite Structures under Fire
  Julio Cesar Goncalves, Alexandre Landesmann
- Feasibility of Unprotected Steel Framing in Sprinklered Buildings
  R.S. Fike, V.K.R. Kodur

SS2 Task Group Technical Presentations Session 2

Tuesday 2:15 p.m. – 3:15 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Ronald Ziemian, SSRC Chair

- Cross-Section Stability of the Human Femur
  V.M. Zeinoddini, A. Khaled, T.J. Beck, B.W. Schafer
- Cyclic Elastoplastic Finite Element Analysis and Stability Evaluation of Steel Braced Frames
  Iraj H.P. Mamaghani, Saman Montazeri, Navid Nemati
- Toward Direct Strength Method for Cold-Formed Steel Beam-Columns
  Y. Shifferaw, B.W. Schafer
- Post-Buckling Behavior and Strength of Lipped Channel Steel Columns Affected by Local/Distortional/Global Interaction: Experimental and Numerical Study
  Eduardo M. Batista, Dinar Camotim, Pedro B. Dinis, Eliane Santos

SS3 Task Group Workshop 1: Member Stability

Tuesday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

Summary report from 2009 AISC and 2010 Charge

Breakout session for Task Groups

Members Breakout:
TG1 Centrally Loaded Columns – Robert Driver
TG15 Beams – Donald White
TG26 Stability of Angle Members – Iraj Mamaghani

Bridges Breakout:
TG14 Horizontally Curved Girders – James Davidson
TG27 Plate and Box Girders – Reagan Herman

Thin-walled and Testing Breakout:
TG13 Thin-Walled Metal Construction – Benjamin Schafer
TG6 Test Methods – Perry Green

SS4 Task Group Workshop 2: System Stability and Outreach

Tuesday 5:15 p.m. – 6:45 p.m. **0.15 CEUs/1.5 PDHs**

Breakout session for Task Groups

Systems and Bracing Breakout:
TG4 Frames – Andrea Surovek
TG30 Bracing – Todd Helwig

Extreme Loads Breakout:
TG24 Stability Under Seismic Loading – Robert Tremblay
TG20 Compression Members and Fire – Amit Varma

Outreach Breakout:
Education Programs – Todd Helwig
TG 11 International Cooperation of Stability Studies – Dinar Camotim

SS5 SSRC Annual Business Meeting

Tuesday 6:45 p.m. – 7:00 p.m.

SS6 SSRC Social Hour

Tuesday 7:00 p.m. – 8:00 p.m.

SSRC SESSIONS

S1 Topics in Structural Stability

Wednesday 3:15 p.m. – 4:15 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Ronald Ziemian

- Welcome to the 2010 SSRC Annual Stability Conference
- Lateral-Torsional Buckling of Steel Beam-Columns under Fire Exposure
  M.M.S. Dwaikat, V.K.R. Kodur
- Spatial Stability Design of Free-Standing Tubular Arches of a Road Bridge
  Dagowin la Poutre, Markus Vill, Rudolf Immig

S2 Stability Under Dynamic (Earthquake) Loads

Wednesday 4:30 p.m. – 6:00 p.m. **0.15 CEUs/1.5 PDHs**

Moderator: Peter Birkemoe

- On the Interface of Stability and Seismic Design Requirements for Steel Buildings
  Taichiro Okazaki, Larry A. Fahnestock, Matthew Parkolap
- Large-Scale Test of a Steel Plate Shear Wall with PEC Columns and RBS Connections
  Mehdi Dastfan, Robert G. Driver
- Appropriate Adjustment Method for Experimental Results of Cold-Formed Steel Shear Walls Sheathed with Steel Sheets
  Cheng Yu, Yujie Chen
- Stability Evaluation of Thin-Walled Steel Tubular Columns Under Cyclic Multidirectional Loading
  Saman Montazeri, Iraj H.P. Mamaghani

S3 Thin-Walled Steel Behavior and Design

Thursday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Moderator: Roger LaBoube

- The Effective Section Method for the Design of Thin-Walled Cold-Formed Steel Members
  Eduardo de Miranda Batista
- Direct Strength Design of Cold-Formed Columns with Holes
  C.D. Moen, B.W. Schafer
- Distortional Behavior and Failure of Cold-Formed Steel Rack-Section Columns under Fire
  Alexandre Landesmann, Dinar Camotim, Eduardo Batista
- Stability and Strength of Cold-Formed Steel Columns Braced with Dissimilar Sheathing
  Y. Shifferaw, L. Vieira, B.W. Schafer

S4 Thin-Walled Steel Analysis and Design

Thursday 10:00 a.m. – 11:30 a.m. **0.15 CEUs/1.5 PDHs**

Moderator: Donald Sherman

- Non-Linear GBT for Thin-Walled Steel Frames: Formulation, Implementation and Application
  Cilmar Basaglia, Dinar Camotim, Nuno Silvestre
- The Constrained Finite Strip Method for General End Boundary Conditions
  Z. Li, B.W. Schafer
- Elastic Buckling of Cold-Formed Steel Beams in Shear
  R.T. Naik, C.D. Moen
- Local/Distortional Global Buckling Mode Interaction in Cold-Formed Steel Rack-Section Columns
  Pedro Borges Dinis, Dinar Camotim

S5 Stability of Bridges During Erection

Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Leroy Lutz

- Stability Recommendations for Partially Constructed Bridges During the Erection Sequence
  B. Petruzzi, J. Stith, T. Helwig, K. Frank, M. Engelhardt, E. Williamson
- User-Friendly Finite Element Analysis Programs for Steel I-Girders During Lifting, Erection, and Concrete Placement
  J. Stith, B. Petruzzi, H. Kim, E. Williamson, T. Helwig, K. Frank, M. Engelhardt
- Optimization of the Cross-Frame Spacing in Straight, Skewed and Curved Steel I-Girder Bridges for Deck-Casting Loads
  Nohemy Y. Galindez, Karl E. Barth

S6 Stability and Design of Plate Girders

Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Donald White

- Bending and Shear Strength of Horizontally Curved Plate Girders with Longitudinally Stiffened Webs
  Gaby Issa-El-Khoury, Daniel Linzell, Louis F. Geschwindner
- Behaviour of Longitudinally Stiffened Plate Girders Subjected to Bending-Shear Interaction
  Darko Beg, Franc Sinur
- Effective Width of Slender Elements in Composite Plate Girder Bridges
  Ghada El-Mahdy, Metwally Abu-Hamd

S7 Behavior and Design of Stability Bracing

Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

Moderator: Joseph Yura

- Impact of Connection Flexibility on the Brace Stiffness Requirements in Skewed Steel Bridges
  Craig Quadrato, Anthony Battistini, Michael Engelhardt, Todd Helwig, Karl Frank
- Bracing Behavior for Steel Trusses
  Rangsan Wongjeeraphat, Todd A. Helwig
- Bracing Strength and Stiffness for Sheathed Cold-Formed Steel Walls
  L. Vieira, B.W. Schafer

S8 Stability and Design of Beams

Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Moderator: W. Samual Easterling

- Lateral Buckling of Beams with Inflection Points
  Joseph A. Yura, Todd A. Helwig
- Simplified Mono-Symmetric Beam Design
  Ian MacPhedran, Gilbert Y. Grondin
- Flexural Resistance of Nonprismatic Thin-Walled Members
  M.M. El-Sadaawy, M.T. Hanna
- Design Methods for Local-Global Interaction of Locally Slender Steel Members
  M. Seif, B.W. Schafer

S9 Beedle Presentation

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

Moderator: Benjamin Schafer

- **Beedle Award Presentation:** Columns: From Single Members to Framework Components
  Reidar Bjorhovde
- Lateral-Torsional Buckling Strength of Prismatic and Web-Tapered I-Beams: Reliability Assessment
  Y.D. Kim, D.W. White
- Stability of Open Web Steel Joists Subjected to Ponding Loads
  Duncan Stark, Christopher C. Higgins, Perry Green

S10 Topics in Structural Stability

Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

Moderator: Clarence Miller

- Plastic Collapse of Unstiffened and Edge-Stiffened Plates
  Bo Dowswell
- Improving the Ductility of Steel I-Beams Through the Use of Glass Fiber Reinforced Polymers
  O. Ozgur Egilmez, Deniz Alkan, Timur Ozdemir
- New Simplified Analytical Method for the Prediction of Global Stability of Steel and Composite Sway Frames
  Jean-Francois Demonceau, Lam Ly, Jean-Pierre Jaspart
- Determination of Antisymmetric Buckling of Thin-Walled Cylindrical Shell Roof
  Ozden Caglayan, Kadir Ozakgul, Ovunc Tezer

BRIDGES I

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

B1 Highway Bridge Codes and Standards
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

B2 Seismic Bridge Design and Analysis
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

B3 Bridge Design
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

B4 Inspection and Monitoring of Aging Bridge Infrastructure
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

B5 Consideration of Soil-Structure Interaction in Design and Assessment of Structures
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

B6 Innovative Bridge Design and Construction
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

B7 Fatigue Design of High-Level Lighting and Sign Structures
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

B8 Innovative Bridge Design
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

B9 Movable Bridges
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

B10 Segmental Bridge Design & Failures
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

BRIDGES II

BB1 Distortion Induced Fatigue in Steel Bridges
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

BB2 Design of Steel Orthotropic Bridge Decks
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

BB3 Highway Bridge Structure Health Monitoring
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

BB4 Research at Florida Universities – Structures
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

BB5 Structural Identification; Fundamentals and Case Studies – Part 1
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

BB6 Structural Identification; Fundamentals and Case Studies – Part 2
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

BB7 Advanced Bridge Technology
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

BB8 New Perspectives on Timber Bridges
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

BB9 Bridge Analysis
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

BB10 Bridge Strengthening
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

ANALYSIS & COMPUTATION

The Analysis & Computation (A&C) Technical Administrative Committee (TAC) of the Structural Engineering Institute organized the 19th A&C Specialty Track being held in conjunction with the 2010 joint North American Steel Construction Conference and Structures Congress, May 12–15, 2010 in Orlando, Florida.

This specialty conference, within the Congress, consists of ten dedicated sessions on the following topics:

- **Educational Challenges:** novel educational methodologies integrating advanced analysis-based design and emergent computing technology into civil and structural engineering curricula, practical case studies, software development, institutional programs and industry collaboration.
- **Advanced Analysis-Based Design:** new methodologies, case studies that indicate the impact of analysis on the performance and economy of structures, methods to assess structural integrity of building and bridge systems, progressive collapse mitigative design and analysis methods, simulation-based methods for fire-resistant design, reliability-based design methods.
- **Emergent Computing Technology:** soft computing, database and information systems, web-based and collaboration technologies, artificial intelligence, field-based computing, automation, hybrid simulations, grid computing, visualization.
- **Optimal Structural Design:** performance-based design, evolutionary computing, conceptual design, topology and geometry optimization, decomposition methods, multi-objective design, life-cycle cost optimization.
- **Structural Control:** protective systems, intelligent structures, control devices and sensors, damage detection, system identification and health monitoring, teleoperation and telecontrol.

The 19th Analysis and Computation Specialty Conference will provide a forum to discuss educational concepts, research, and practice of all forms of computation related to the analysis and design of civil engineering structures.

C1 **Advanced Structural Analysis Methodologies**
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

C2 **Key Findings From the Structural Control Benchmark Problems**
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

C3 **Emerging Trends in Structural Engineering Education and Practice**
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

C4 **Methods and Tools for Performance-Based Earthquake Engineering**
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

C5 **Multi-Functional Sensing for Structural Health Monitoring**
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

C6 **System Reliability, Stability and Behavior of Bridges**
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

C7 **Nonlinear Analysis Methods for Earthquake Engineering**
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

C8 **State-of-the-Art Research in Structural Control**
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

C9 **State-of-the-Art and Future Challenges in Structural Optimization – Part 1**
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

C10 **State-of-the-Art and Future Challenges in Structural Optimization – Part 2**
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

BUILDING DESIGN

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

G1 Wind Effects on Low-Rise Buildings
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

G2 Floor Vibration Serviceability
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

G3 Structural Integrity
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

G4 Evaluation and Repair of Existing Structures
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

G5 Recent Advances in Light Framed Construction
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

G6 Challenges and Recent Developments in Structural Connections
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

G7 Workshop on Direct Strength Method Design of Cold-Formed Steel Members
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

G8 Evaluating Existing Wood Structures
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

G9 Lateral Bracing of Steel Frames Using Hybrid Masonry
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

CONCRETE & MASONRY STRUCTURES

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

M1 Design Analysis and Testing of Blast-Resistant Curtain Walls – Non-Structural Session 1
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

M2 Design, Analysis, and Field Testing of Blast-Resistant Curtain Walls Session II
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

M3 Curtain Wall and Blast Cubicle Design
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

M4 Performance-Based Engineering
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

M5 Fracture Toughness Testing of Concrete
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

M6 Reinforced Concrete Slabs & Deep Beams
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

M7 Assessment, Repair and Rehabilitation of Concrete Structures
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

M8 Design and Behavior of Prestressed Concrete Subjected to Blast and Impact Loading
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

M9 Recent Developments in Seismic Performance of Concrete Columns
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

NON-BUILDING STRUCTURES

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

N1 Design & Analysis of Large Non-Building Structures
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

N2 Seismic Performance of Suspended Ceilings: Code Requirements, Field Surveys, and Experimentation
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

N3 Design Aspects of Wind Energy Structures
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

N4 Estimation of Seismic Demands and Capacities of Nonstructural Components and Subsystems
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

N5 Seismic Evaluation of Electrical Power Equipment
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

N6 Tanks and Towers
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

N7 Design of Anchorage in Petrochemical Facilities
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

N8 Structural Glass in Architecture
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

N9 Glass & ETFE Elements – Innovative Transparency
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

N10 Fun in the Sun – Space and Entertainment Projects in Florida
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

BUILDING – SEISMIC

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

H1 Seismic Design: Damage Control
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

H2 Seismic Design: Dampers and Base Isolation
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

H3 Seismic Design: Efficient Retrofit
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

H4 Hot Topics in Structural Fire Engineering I
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

H5 Hot Topics in Structural Fire Engineering II
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

H6 Limit State Evaluation of Steel Framed Structures Using ATC 63 Methodology
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

H7 Building Risk & Failures
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

H8 New Provisions for Composite Construction in the 2010 AISC Specification for Structural Steel Buildings and the 2010 AISC Seismic Provisions
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

H9 Transforming Seismic Design in Low to Moderate Seismic Regions I
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

H10 Structures and Energy-Efficient Building Envelopes
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

EXTREME LOADS & EDUCATIONAL REFORM

L1 New Seismic Provisions in ASCE/SEI 7-10
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

L2 New Developments in Seismic Analysis, Materials, Retrofit, Experimentation, and Modeling
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

L3 Research – Hurricane Loads
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

L4 New Maps in ASCE 7 – Wind and Seismic
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

L5 Design and Analysis Issues for Structural Response to Fire
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

L6 Research on Learning and Education Reform Session 1
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

L7 Research on Learning and Education Reform Session 2
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

BUSINESS & PROFESSIONAL PRACTICE

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

Q1 Educating Structural Engineers in Sustainability: Professional and Academic Perspectives
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

Q2 Structures in Coastal Zones
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

Q3 Structural Engineer (S.E.) Licensure
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Q4 BIM and the Standard of Care, What Are You Going to Do About It?
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

Q5 Integrated Project Delivery: Next-Generation BIM for Structural Engineering
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

Q6 Building Information Modeling in Academia and Practice
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

Q7 BIM Standards: The Current State of the Industry
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

Q8 Trial Design
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

Q9 Integrated Steel Design and Delivery – Challenges, Pitfalls, and Opportunities
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

Q10 Legal Claims
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

RESEARCH

W1 Student Structural Design Competition
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

W2 Panel Session on Multiple Dimensions of Risk
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

W3 Life-Cycle Performance of Structures and Infrastructures: Current Status and Research Needs
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

TALL BUILDINGS

Visit **www.aisc.org/nascc** and click "schedule" to view more information on these sessions.

T1 Organic and Natural Forms in Building Design
Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

T2 Engineering Iconic Towers
Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

T3 Wind Effects on Tall Buildings
Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

T4 Damping Systems for Tall Buildings
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

T5 Monitoring of Tall Buildings
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

T6 Performance-Based Seismic Design in China
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

T7 Twisting Tall Towers
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

T8 Developing Innovative Solutions for Design of Precast/Prestressed Concrete Structures
Thursday 1:15 p.m. – 2:15 p.m. **0.10 CEUs/1.0 PDHs**

T9 Corrosion in Buildings
Thursday 3:00 p.m. – 4:00 p.m. **0.10 CEUs/1.0 PDHs**

T10 OptimizingTall Building Design Using Wind Load Reduction Strategies
Thursday 4:15 p.m. – 5:15 p.m. **0.10 CEUs/1.0 PDHs**

EDUCATION & LOADING

Z1 Cable Supported Bridges
Saturday 10:30 a.m. – noon **0.15 CEUs/1.5 PDHs**

Z2 International Wind Standards and the Design of Steel Structures
Saturday 2:15 p.m. – 3:45 p.m. **0.15 CEUs/1.5 PDHs**

Z3 Examples and Training Materials for ASCE 7-10 Seismic Design
Saturday 4:00 p.m. – 5:30 p.m. **0.15 CEUs/1.5 PDHs**

Z4 Advances in Research and Education
Saturday 8:30 a.m. – 10:00 a.m. **0.15 CEUs/1.5 PDHs**

CASE SPRING RISK MANAGEMENT CONVOCATION

The Council of American Structural Engineers (CASE) is a national association of structural engineering firms that operates as a coalition of the American Council of Engineering Companies (ACEC) in Washington, DC.

CASE's mission is to improve the practice of structural engineering by reducing the frequency and severity of claims. To this end, it provides a form for action to improve the quality of structural engineering through enhancement of business practices, decreased professional liability exposure, and increased profitability.

CA1 CASE Breakfast—Changes to AISC Code of Standard Practice—What SE's Need to Know

Friday 6:45 a.m. – 8:00 a.m. **0.10 CEUs/1.0 PDHs**

Speaker: David B. Ratterman

The AISC *Code of Standard Practice* has served as a specification guideline and statement of custom and usage in the fabricated structural steel industry since approximately 1921. The *Code* is regularly updated and maintained by a balanced committee of industry professionals; approximately one-third of the Code Committee is comprised of practicing structural engineers. David Ratterman is a graduate engineer and counsel to the Code Committee. He will discuss the relationship of the *Code* to the practice of structural engineering.

David B. Ratterman is a member of the Construction Service Group of Stites & Harbison, PLLC, where he represents a wide cross-section of the construction industry. David Ratterman's immersion in the construction industry began as a laborer and water boy in a family construction business at age ten. He is a graduate engineer and lawyer, with a Master's degree in Business Administration and practical "on-line" experience as a contractor and construction owner. He is a Fellow of the American College of Construction Lawyers, a Fellow of the American Bar Foundation, and listed in "Who's Who in American Law"© and "Best Lawyers in America"©. He serves as Secretary and General Counsel of the American Institute of Steel Construction, and in an advisory capacity to not less than 12 construction industry professional societies, trade associations, code and standards committees, and design policy panels.

CA2 A Day in the Life of a Project Manager

Friday 1:45 p.m. – 3:15 p.m. **0.15 CEUs/1.5 PDHs**

Speakers: John Aniol, Walter P. Moore;
Corey Matsuoka, SSFM International

Follow the day of a Structural Project Manager as he struggles through a day filled with risk and discovers tools to help him mitigate those risks. Some of the tools he will discover will cover communication, corporate culture, planning and prevention, education, scope and contracts, construction documents and construction.

CA3 Managing Expectations and Risks During the Steel Detailing Process

Friday 3:30 p.m. – 5:00 p.m. **0.15 CEUs/1.5 PDHs**

Speakers: Glenn Bishop, LBYD;
Will Ikerd, RLG Engineers

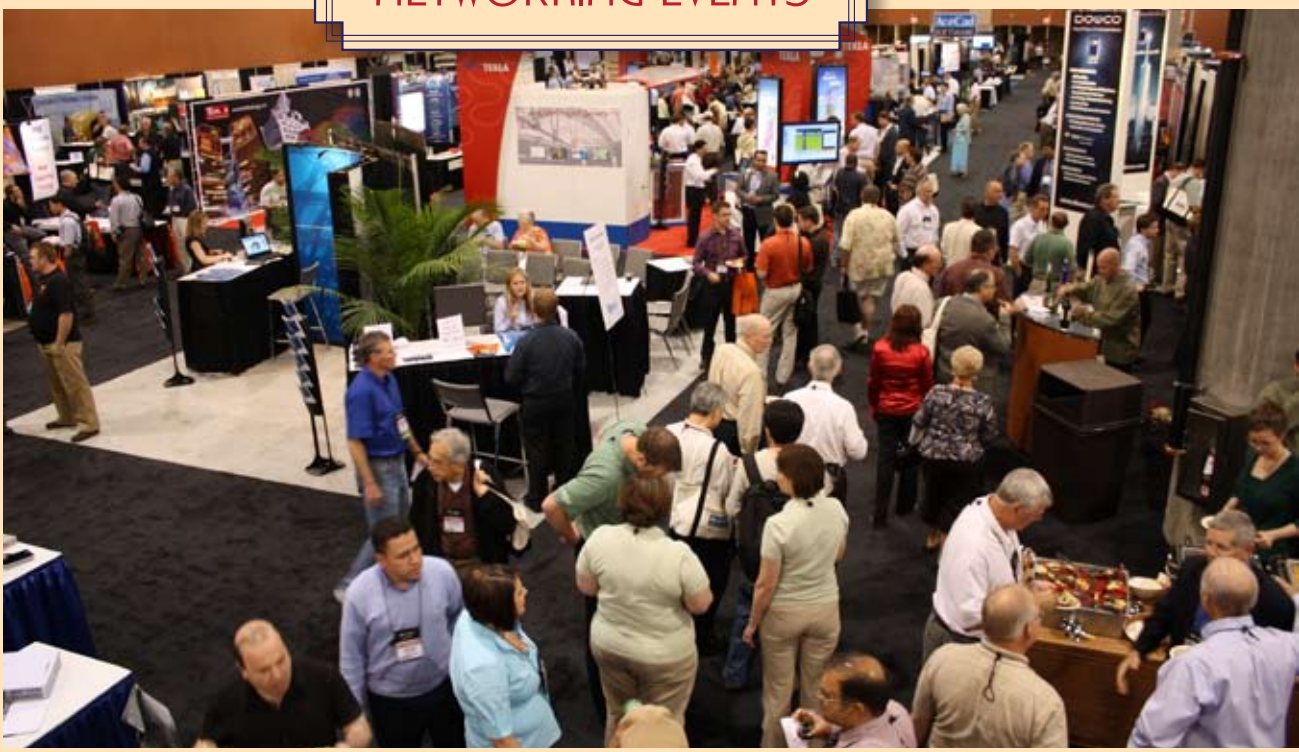
The AISC *Code of Standard Practice* provides two options for structural steel connections, either fully detailed by the engineer or selected and completed by the detailer. After much discussion, AISC is considering adding a third option for connection: design by a specialty structural engineer retained by the fabricator. This session will explore the needs and expectations of both the engineer and the fabricator for each of these three options. Finally, we will discuss how these expectations might change in the BIM world.

CA4 Steel Design Dos & Don'ts—A Construction Friendly Perspective

Friday 8:00 a.m. – 9:30 a.m. **0.15 CEUs/1.5 PDHs**

Speakers: Carol Drucker, Drucker Zaidel

This session will be led by a licensed structural engineer specializing in connection design who will comment on the document quality as it relates to potential risk management issues for the structural engineer of record. Often, problems in steel design are not so apparent until after the job has been awarded and is in detailing, fabrication or erection. Small oversights can have big impact and may cause delays or additional costs.Potential issues are avoidable by understanding structural steel systems and their connections. This seminar will address different aspects of lateral system design, main member design, connection design and avoidable problems. Actual examples from real projects will be highlighted and discussed. The session will include discussion from a steel detailer and a steel fabricator related to the associated construction costs and/or change orders resulting from document quality and clarity.



Welcome Reception

Wednesday, May 12 ✦ 6:00 p.m. – 8:00 p.m.
Cost: Included in all full registration options. Single tickets also available. See registration form on page 38.

Don't miss this great networking opportunity in the exhibit hall! The Steel Conference Welcome Reception is a great way to kick off the conference and get a preview of what exhibitors will offer for the rest of the conference. Stroll through the aisles with your peers and experience the industry's latest trends in software, coatings, connection products, and more! Live demonstrations from equipment manufacturers will be ongoing. Enjoy a great evening of soft drinks, cocktails and hors d'ouevres.

Wednesday's Welcome Reception is sponsored by:

Reddinghaus Corporation
Innovative Steel Fabricating Technologies

Conference Dinner: A Taste of Florida

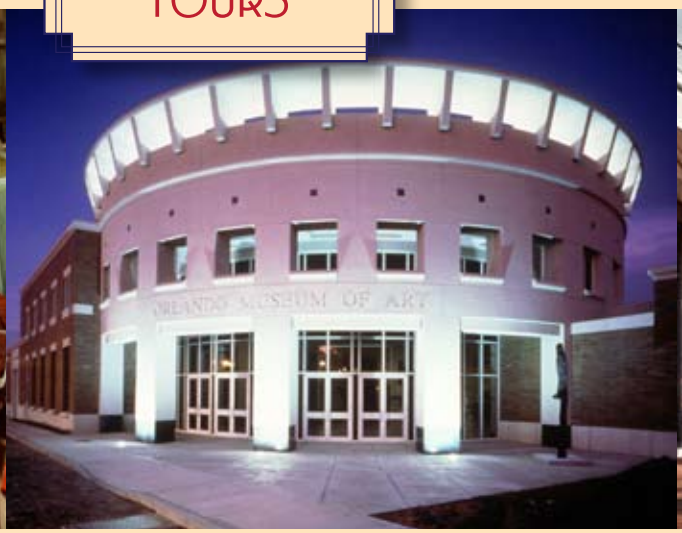
Thursday, May 13 ✦ 6:30 p.m. – 9:30 p.m.
Cost: $60 per person advance registration; $85 per person on-site. See registration form on page 38.

Whether you're tapping your feet to the beach tunes in Key West or having your photo snapped with the scaly animals of the Everglades, this year's conference dinner will surely offer something for everyone. Come experience A Taste of Florida and leave feeling like you just spent a week on vacation in the Sunshine State…all under the atrium at the Gaylord Palms Resort! There's no better networking opportunity than the NASCC Conference Dinner—you won't want to miss this great event!

Thursday's Conference Dinner is sponsored by:

NUCOR

TOURS



AISC reserves the right to cancel or modify tours based on confirmed attendance. All tours will depart from the hotel transportation lobby located inside the main lobby at Gaylord next to the Bell Services stand. Tour confirmations and specific transportation details will be available on-site at the NASCC main registration desk. Space is limited, so please register early. See registration form on page 39.

Truffles and Trifles Cooking Class with Lunch

Named one of the top five cooking schools in the United States, Truffles and Trifles offers a relaxed atmosphere where everyone can discover the joy of cooking. You will learn how simple it is to create an extraordinary gourmet meal in 30 minutes with normal items you find in your refrigerator. Once you create your meal, you'll enjoy your masterpiece! Then you'll have time to roam the beautiful facility and browse through the merchandise in the gourmet gift shop.

Wednesday, May 12 ✦ 11:30 a.m. – 3:30 p.m.
$116 per person (lunch is included)

The Splendor and Culture of Orlando

The day will begin with a tour through Central Florida's secret treasure, Leu Gardens, home to Harry P. Leu in the late 1800s. The gardens span across almost 50 acres along the shores of Lake Rowena. Stroll through the paths lined with camellias and azeleas, sheltered by majestic southern oaks and camphor trees. Scenic walkways take you through garden settings, including herb, butterfly, palm and bamboo gardens. You'll tour the Leu House museum, restored to reflect turn-of-the-century Florida living. Visit the formal Rose Garden with its statues and Italian fountain and watch time drift by on a 50-foot floral clock.

Next the tour will head to the Orlando Museum of Art. When you visit the Museum, you will discover exciting dimensions of participation, enrichment and entertainment that can only be offered by a major art institution. The museum holdings include a growing permanent collection of 19th and 20th Century American art, pre-Columbian artifacts and African objects. A diverse schedule of outstanding national and international exhibitions will introduce you to a wide variety of artistic styles and media.

Thursday, May 13 ✦ 9:00 a.m. – 1:00 p.m.
$59 per person

Animal Kingdom's Backstage Safari

Take a peek behind the scenes at Walt Disney World's Animal Kingdom. This in-depth three-hour educational tour provides guests with an insider's look at the innovative ways the Animal Kingdom is meeting challenges in animal conservation, nutrition and medicine, landscaping, animal care and behavioral studies. Highlights include visits to the backstage animal housing area, forage (food) warehouse and the Conservation Station Veterinary Hospital. This program takes place completely behind the scenes—this means there will be no opportunity to view animals during the course of the program.

Friday, May 14 ✦ 9:00 a.m. – 1:00 p.m.
$121 per person

Dolphin and Manatee Encounter

On this fascinating educational journey you will experience unique Eco-systems and wildlife on the backwaters of the Banana River. Except it's not really a river, it's America's largest estuary. The Banana River, part of the Indian River Lagoon system, contains over 5,000 species of plants and animals, a virtual nursery of wildlife and its endangered. Learn of its significance and explore the smooth, inland waters around the wild, uninhabited thousand islands aboard a shallow-draft, 50 passenger pontoon boat. Observe Bottle Nose Dolphins as they feed and swim around the boat. Keep your eyes open for the endangered West Indian manatees, as more of these unique marine mammals live in these waters than any other area in Florida. Water wildlife abounds. Binoculars will be supplied, but don't forget your cameras! The pontoon boat is completely covered and has surround speaker system.

Saturday, May 15 ✦ 10:00 a.m. – 4:00 p.m.
$107 per person (lunch is included)

ACTIVITIES ON YOUR OWN

photos courtesy Orlando/Orange County Convention & Visitors Bureau, Inc.®

Come early, stay late and bring the family! Contact the hotel concierge for assistance in visiting any of these destinations. Visit www.aisc.org/nascc for additional information and links to Orlando sites offering discounts and special packages to these activities and more.

Shopping

Orlando may be the theme park capital of the world, but in recent years it has emerged as a shopping capital as well. From upscale malls to outlet centers and trendy boutiques. Orlando is the only place on Earth that has such a concentration of unique shopping experiences within a 15-mile radius. Don't miss the Festival Bay Mall at International Drive, The Florida Mall, The Mall at Millenia, Lake Buena Vista Factory Stores, Orlando Premium Outlets, Park Avenue in Winter Park, Pointe Orlando and the Prime Outlets International Orlando.

Golf

Grab your clubs and head to one of the area's 176 golf courses, some of which have been designed by golf legends like Arnold Palmer, Jack Nicklaus and Greg Norman. Some of the biggest names in golf live, work and play in Orlando. Tiger Woods, Arnold Palmer, Chris DiMarco, Se Ri Pak, Ernie Els and Mark O'Meara call the area home. Visit one of the top-ranked golf academies in the area, including David Leadbetter's Golf Academy and Annika Sorenstam's newly opened ANNIKA Accademy at Ginn Reunion Resort.

Theme Parks

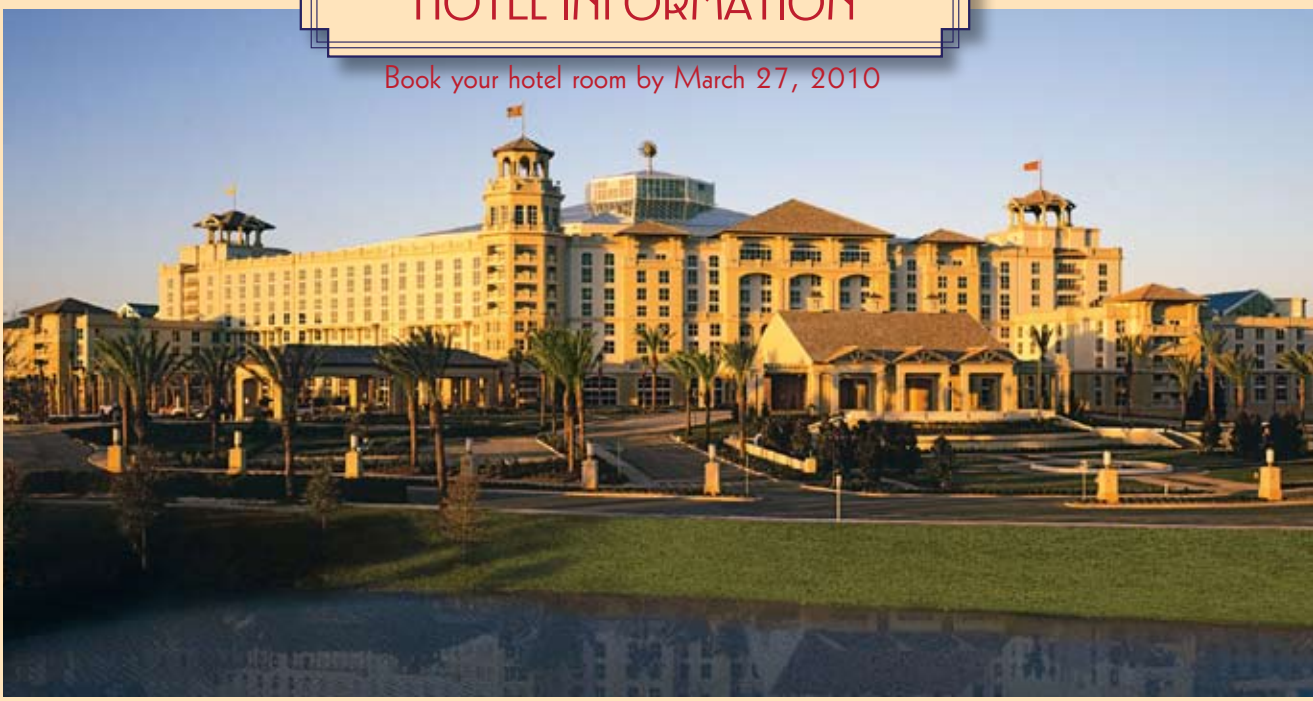
Be entertained, amazed and excited in Orlando's home of fairy tales. From Animal Kingdom to Epcot, Magic Kingdom to SeaWorld to Universal—there's so much to see! Visit www.disneyworld.com, www.seaworld.com, and www.universalorlando.com for details on attractions and ticket information. Visit www.aisc.org/nascc for special offers and reservation information.

Kennedy Space Center

On the East coast of Florida, where the waves of the Atlantic crash up onto the sands of Cocoa Beach, in the heart of 140,000-acre national wildlilfe refuge, lies one of America's most important and inspiring historical landmarks—a technological marvel and a tribute to mankind's bravery. Kennedy Space Center is the birthplace of America's space program and the only place on Earth where man has launched into space to set foot on the Moon.

HOTEL INFORMATION

Book your hotel room by March 27, 2010



Reserve a Hotel Room

To take advantage of the special NASCC rates, book your reservations by March 27, 2010. After March 27, the official NASCC blocks will be released and the hotel may charge higher rates. To reserve a hotel room do one of the following:

- **Internet:** Link to the NASCC housing page through the NASCC website at www.aisc.org/nascc.
- **Telephone:** Hotel reservations can be made by calling 407.586.2000.

All reservations require appropriate name, mailing address and a valid form of payment. AISC prefers that you provide your company name when making a hotel reservation.

Confirmations

Gaylord Palms will send you a confirmation of your reservation. Please review all information for accuracy. Email confirmations will be sent within 72 hours of reservations being processed. Fax and mailed acknowledgements will be sent by request only; please contact the Gaylord Palms Reservations department at 407.586.2000.

The Fine Print for Hotels

All hotel rates are per room night and are subject to 13% tax and a 1% Osceola Assessment Fee (subject to change without notice). When making reservations, please provide room and bedding preferences. The hotel will assign specific room types, based upon availability, upon check-in.

The hotel requires a major credit card (MasterCard, Visa, American Express or Discover) at the time of making a reservation. Your credit card will be charged one night's deposit plus 13% tax and 1% Osceola Assessment Fee. Deposits are only refundable for cancellations occurring three days prior to arrival.

Hotel Information

Gaylord Palms Hotel & Convention Center
6000 West Osceola Parkway
Kissimmee, FL 34746
407.586.2000
$204 single/double*

Cancellation Policy

Cancellations must be received 72 hours prior to arrival date to avoid a cancellation fee equivalent to the first night's room plus tax.

*The following is included in this specially discounted conference rate:

- USA Today (weekdays) and Wall Street Journal (weekends) delivered to your door every morning
- Wireless Internet access available in your guest room and in public spaces throughout the hotel in the three main atriums
- High-speed Internet access in your guest room
- Two bottles of Dasani water delivered daily to your guest room refrigerator
- Complimentary local and toll free telephone calls (up to 20 minutes)
- Use of the Relâche Spa Fitness Center
- Complimentary scheduled shuttle service to Walt Disney World theme parks

REGISTRATION INFORMATION

Registration Form on Pages 38-39

	Full	Full Day Thursday	Full Day Friday	Full Day Saturday	Exhibit Hall Only	Educator	Student	Guest	Bonus Conference Package
All Technical Sessions (W–Sat)	✔	✔ (Th sessions only)	✔ (Fri sessions only)	✔ (Sat sessions only)	N/A	✔	✔	N/A	✔
Entrance to Exhibit Hall (W–Fri)	✔	✔ (Th access only)	✔ (Fri access only)	N/A	✔	✔	✔	✔	✔
Exhibit Hall Coffee Breaks	✔	✔ (Th only)	✔ (Fri only)	N/A	✔	✔	✔	✔	✔
Wednesday's Welcome Reception	✔	N/A	N/A	N/A	✔ (in W, Th, Fri pass only)	✔	✔	✔	✔
Thursday's Continental Breakfast (Exhibit Hall)	✔	✔	N/A	N/A	✔	✔	✔	✔	✔
Thursday Lunch (Exhibit Hall)	✔	✔	N/A	N/A	X	✔	X	X	✔
Thursday Conference Dinner	X	X	X	X	X	X	X	X	✔
Friday Lunch (Exhibit Hall)	✔	N/A	✔	N/A	X	✔	X	X	✔
Friday CASE Breakfast	X	X	X	X	X	X	X	X	✔
Saturday Awards Lunch	X	X	X	X	X	X	X	X	✔
SSRC Proceedings	X	X	X	X	X	✔	X	N/A	X
Structures Congress Proceedings	X	X	X	X	X	X	X	N/A	✔
Access to NASCC presentations online following the conference	✔	✔	✔	✔	N/A	✔	N/A	N/A	✔

Key: ✔ – Included in Registration X – Sold Separately (see pages 38–39) N/A – Unavailable with Registration Category

Register for the Conference

- **Internet:** Visit the NASCC website at www.aisc.org/nascc to link to the online registration form. You may register online until May 6, 2010. After May 6, 2010, all registrations will be taken on-site at the conference at the increased rates.
- **Fax or Mail:** Complete the registration form on pages 38-39 (or download one from www.aisc.org/nascc). Fax or mail the completed form (see Part 6 of the form) no later than April 23, 2010. After April 23, 2010, please register online (by May 6, 2010) or on-site at the conference at the increased rate.
- **On-Site:** After May 6, 2010, you must register on-site at the higher fees indicated on the registration form (see Part 3 of the form).

For questions about registration, call 972.349.5930 or 800.830.5812 (toll free), or email nascc@wyndhamjade.com.

Exhibitors

visit the exhibitor tab at www.aisc.org/nascc to register.

Badges and Tickets

Badges and tickets will be mailed to you if you register by April 23, 2010. Be sure to bring the entire packet with you to the convention and proceed directly to the "Materials Pick-Up" counter. If you register after April 23, 2010 or if you do not receive your registration materials, please proceed to the "Pre-Registration and On-Site Registration" counter.

The Fine Print for Registration

Requests for cancellation must be received in writing at the address in Part 6 of the registration form on page 39 no later than April 23, 2010 in order to receive a refund, less a $25 processing fee. Requests for cancellation received after April 23, 2010 will not receive a refund.

Special Needs

Please contact the AISC Meetings Department if you have special needs for the conference. All requests should be e-mailed to robelet@aisc.org.

ATTENDEE REGISTRATION FORM

Important Registration Information on Page 37

1. Attendee Information

Badge Name _____

Last Name _____

Title _____

Company _____

Mailing Address _____

City _____ State _____

Zip _____ Country _____

Phone _____ Fax* _____

E-mail* _____

*Please note that conference confirmations can be forwarded via fax or email. It is important that you provide a valid email address and fax number, with city and country codes. CEU certificates will be sent via email following the conference; please print clearly.

❒ I am not interested in learning about the latest products and services from NASCC exhibitors. Please remove my name from the advance mailing list.

The following qualify for Member pricing:
AISC, ASCE, CASE, CISC, FSEA, ICC, IMCA, NISD, SEI, SSRC

Member No. _____

2. Registration Fees (USD)

Please see chart on page 37 to see what is included for each registration type. You may add individual items to your registration by selecting them à la carte, below.

Select one Registration Category

	Pre-registration	On-site
Full Registration		
Member, 1st and 2nd registrant from firm	❒ $390	$490
Member, 3rd or more registrant from firm	❒ $195	$245
Non-member, 1st and 2nd registrant from firm	❒ $550	$650
Non-member, 3rd or more registrant from firm	❒ $285	$385
Educator (includes SSRC Proceedings)	❒ $125	$125
Bonus Conference Package (Member only)	❒ $550	N/A
Student Registration		
AISC Student Member	❒ $0	$0
Student Non-Member	❒ $120	$120
Partial Registration		
Full Day Thursday	❒ $295	$345
Full Day Friday	❒ $395	$345
Full Day Saturday	❒ $215	$265
Exhibit Hall Pass		
Exhibit Hall Only (W, Th and Fri)	❒ $50	$60
Exhibit Hall Only (Th and Fri)	❒ $25	$30
Guest Registration	❒ $40	$40
Guest Name _____		

3. Primary Type of Business
(Please select only one)

- ❒ Structural Engineer
- ❒ General Contractor/CM
- ❒ Building Owner/Developer
- ❒ Fabricator
- ❒ Sevice Center
- ❒ Architect
- ❒ Steel Product Manufacturer
- ❒ Civil Engineer
- ❒ Educator
- ❒ Steel Mill
- ❒ Erector
- ❒ Detailer
- ❒ Student
- ❒ Other

À La Carte Pricing

Thursday Lunch* (Exhibit Hall)	# tickets		@ $25 = $	$25
Friday Lunch* (Exhibit Hall)	# tickets		@ $25 = $	$25
Conference Dinner: A Taste of Florida	# tickets		@ $60 = $	$85
SSRC Proceedings (pre-reg only)	# copies		@ $25 = $	N/A
Structures Congress Proceedings (pre-reg only)	# copies		@ $85 = $	N/A
Friday CASE Breakfast	# tickets		@ $40 = $	$40
Saturday Awards Lunch and Keynote	# tickets		@ $60 = $	$60

Subtotal Registration Fees $ _____

*Lunch tickets are included in some registration types – see page 37 for details.

ATTENDEE REGISTRATION FORM

Important Registration Information on Page 37

4. Short Courses (USD)

	Pre-registration	On-site
1: HSS Connection Design *Wednesday, 8:00 a.m. – noon*		
Member	❒ $150	$200
Non-member	❒ $250	$300
2: Stability and Bracing Requirements for Beams *Wednesday, 8:00 a.m. – noon*		
Member	❒ $125	$175
Non-member	❒ $175	$225
3: Performance-Based Plastic Design of Earthquake-Resistant Steel Structures *Wednesday, 8:00 a.m. – noon*		
Member	❒ $150	$200
Non-member	❒ $200	$250
4: Making the Outreach Connection: Bringing Civil Engineering to Kids *Wednesday, 8:00 a.m. – noon* CANCELED		
Member	❒ $175	$225
Non-member	❒ $250	$300
5: Workshop on ASCE 24 Flood Resistant Design and Construction Standard *Wednesday, 8:00 a.m. – noon*		
Member	❒ $175	$225
Non-member	❒ $250	$300
6: Simplified Seismic Design Provisions of ASCE 7-10 *Wednesday, 8:00 a.m. – noon*		
Member	❒ $175	$225
Non-member	❒ $250	$300
7: Wind Loads of ASCE 7-10 *Wednesday, 8:00 a.m. – noon*		
Member	❒ $175	$225
Non-member	❒ $250	$300
8: Best Practices: Guidelines for Structural Fire Resistance Design of Concrete and Steel Buildings *Saturday, 8:00 a.m. – 5:00 p.m.*		
Member	❒ $175	$225
Non-member	❒ $250	$300
9: Effective Steel Design: Step-by-Step Design for Commercial Buildings *Saturday, 8:00 a.m. – noon*		
Member	❒ $150	$200
Non-member	❒ $250	$300

5. Spouse and Guest Tours (USD)

Truffles and Trifles Cooking Class with Lunch
Wednesday, May 12, 11:30 a.m. – 3:30 p.m.
tickets ____ @ $116= $ ____

The Splendor and Culture of Orlando
Thursday, May 13, 9:00 a.m. – 1:00 p.m.
tickets ____ @ $59 = $ ____

Animal Kingdom's Backstage Safari
Friday, May 14, 9:00 a.m. – 1:00 p.m.
tickets ____ @ $121= $ ____

Dolphin and Manatee Encounter
Saturday, May 15, 10:00 a.m. – 4:00 p.m.
tickets ____ @ $107= $ ____

P.E. License Number for the State of Florida

If you are a registered engineer in the State of Florida and wish to receive continuing education credits for this event, you must provide us with your Florida P.E. license number.

Florida P.E. License No. _____

Subtotal Short Courses/Tours (Parts 4 and 5)
$ ____

Subtotal Registration Fees (from p. 38)
$ ____

Total Amount Enclosed (USD)
$ ____

When complete, please submit pages 38 and 39 of this registration form.

6. Payment Information

Check, money order, VISA, Mastercard, and American Express are the only payment methods accepted.

1. If paying by check, mail payment (U.S. funds only; payable to AISC) and completed registration form to: AISC – NASCC | 5109 Eagle Way | Chicago, IL 60678-1051
2. If paying by credit card, fax completed registration form to 972.349.7715.

❒ VISA ❒ Mastercard ❒ American Express

Credit Card Number (1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16) Expiration Date (M M Y Y) Security Code (1 2 3)

Address of Card Holder

Name of Card Holder

Signature: I authorize charges to my credit card as indicated.

NASCC THE STEEL CONFERENCE

THE STRUCTURES CONGRESS

Incorporating the: Annual Stability Conference ✦ 19th Analysis & Computation Specialty Conference
NISD Annual Meeting ✦ CASE Spring Risk Management Convocation

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