

AISC Announces New Seminar Series: "Designing Steel for Serviceability"

The advent of powerful computer software allows engineers to readily review a myriad of alternative design schemes to obtain optimum strength designs. Today's successful designer must look beyond just strength, however, and consider a building's function and maintenance requirements. In short, serviceability issues are becoming increasingly important.

AISC's new 49-city Seminar Series, "Designing Steel for Serviceability", covers five important topics: frame layout options & strength design; roof ponding; floor elevation & levelness; control of lateral drift; and control of floor vibrations.

Frame Layout Options & Strength Design: This portion of the seminar will include information on selection of a steel system, frame layout options and trade-offs, structural analysis, member selection for strength, and serviceability design concerns.

Roof Ponding: Most commercial buildings are designed and constructed with near-flat roofs. Too often, this is not well coordinated with roof drain location, which can create an unforeseen ponding load on the roof structure. If not considered in design, this ponding effect can cause leakage, damage or even partial roof collapse. This presentation provides an explanation of the ponding mechanism and through design examples shows how to minimize structural complications.

Floor Elevation & Levelness: The placing of fresh concrete on flexible floor systems to achieve a level floor requires an understanding of the interactive effect of construction floor deflections and the additional loading that may be created in the leveling process. For the unwary, this can result in: non-level floor surfaces; interference with ceiling plenum elements; additional concrete to compensate for the sagged supporting systems; failure to attain specific floor elevations; and potential construction collapse. This portion of the seminar will discuss these issues and through design examples provide alternative solutions to this troublesome problem.

Control of Lateral Drift: Lateral drift

of a building has always been an index of structural performance under service loads. And as structural materials have become stronger while non-structural materials have become lighter and less rigid, its importance has only increased. This portion of the seminar provides new information by correlating the racking effect of lateral deformations with damage to various non-structural components. A design example will be presented.

Control of Floor Vibrations: Excessive vertical motion of floors can cause significant occupant discomfort and sometimes alarm. Modern construction materials and methods, where both structural and non-structural systems are lighter, have only exacerbated the problem. Serviceability guidelines in the past emphasized stiffness limits that have been inefficient in neutralizing potential vibration in floors: Only when both mass and damping are included in the total design can effective control be expected. This portion of the seminar will provide guidelines for controlling this problem.

The seminar series has a CEU value of 0.55 (5.5 PDH). Registration is \$120 (\$90 for AISC members). The registration fee includes a wide range of handouts.

Please note that all MSC subscribers will automatically receive a registration form six weeks prior to the seminar scheduled in their area.

For more information, call 630/369-3772, fax 630/369-3773 or point your favorite web browser to: <http://www.aiscweb.com>

1997-98 Seminar Series Schedule

| 1997 | |
|-------------|----------------|
| June 16-17* | San Diego |
| June 18-19* | Orange County |
| June 24 | Minneapolis |
| June 26 | Milwaukee |
| July 1 | Charlotte |
| July 2 | Greenville, SC |
| July 9 | Rochester, NY |
| July 10 | Albany, NY |
| July 16 | Cincinnati |
| July 17 | Charleston, WV |
| July 22 | Washington, DC |
| July 23 | Richmond, VA |
| July 24 | Norfolk, VA |
| July 29 | St. Louis |
| July 31 | Omaha |
| Sept. 17 | Dallas |
| Sept. 18 | Oklahoma City |
| Sept. 24 | Sacramento |
| Sept. 25 | San Francisco |
| Oct. 8 | Chicago |
| Oct. 15 | Philadelphia |
| Oct. 16 | Edison, NJ |
| Oct. 21 | Detroit |
| Oct. 23 | Indianapolis |
| Oct. 28 | Raleigh |
| Oct. 30 | Birmingham |
| Nov. 5 | Portland, OR |
| Nov. 6 | Seattle |
| Nov. 12 | New Orleans |
| Nov. 13 | Houston |
| Nov. 18 | Meriden, CT |
| Nov. 19 | New York City |
| Nov. 25 | Atlanta |
| Dec. 2 | Memphis |
| Dec. 4 | Nashville |
| Dec. 11 | Salt Lake City |

| 1998 | |
|---------|------------------|
| Jan. 14 | Los Angeles |
| Jan. 15 | Los Angeles-East |
| Jan. 21 | Columbus, OH |
| Jan. 22 | Cleveland |
| Jan. 27 | Jacksonville |
| Jan. 29 | Tampa |
| Feb. 4 | Boston |
| Feb. 5 | Portland, ME |
| Feb. 11 | Albuquerque |
| Feb. 12 | Phoenix |
| Feb. 18 | Pittsburgh |
| March 3 | Kansas City |
| March 5 | Denver |

*Seminar will be held over the course of two evenings

Innovations In Structural Design

A two-day symposium honoring Theodore V. Galambos is scheduled for June 6-7 in Minneapolis. Galambos is well known for his many contributions to steel design. Particularly significant achievements include his key involvement in the development and ongoing improvement of the AISC LRFD Specification, his long-time membership on ASCE-7: Committee on Minimum Design Loads for Buildings and Other Structures, his development of the AASHTO Guide Specification for the design of steel curved girder bridges, his key contributions to the work of the Steel Joist Institute, and his research on stability, reliability and the use of high-performance steels.

"Innovations in Structural Design: Strength, Stability, Reliability" will feature three technical sessions and 25 distinguished speakers, including Lynn S. Beedle, Reidar Bjorhovde, Wai-Fah Chen, Karen C. Chou, Bruce R. Ellingwood, John W. Fisher, Yuhshi Fukumoto, Paul Galambos, Phillip L. Gould, Miklos Ivanyi, Nestor R. Iwankiw, D.J. Laurie Kennedy, Lawrence A. Kloiber, Hitoshi Kuwamura, Maxwell G. Lay, George C. Lee, Roberto T. Leon, Donald Murphy, M.K. Ravindra, S. Sridharan, Raymond H.R. Tide, Nicholas S. Trahair, Tsutomu Usami, Donald W. White and Joseph A. Yura.

Registration for the conference costs \$130. In addition, a banquet will be held June 7 (keynote speaker is John W. Fisher). Cost for the banquet is \$45.

For more information, contact: Susan Johnson, Program Secretary, Professional Development and Conference Services, University of Minnesota, 212 Nolte Center, 315 Pillsbury Dr., S.E., Minneapolis, MN 55455; ph: 612/626-5886.

Structural Stability Research Council

The Structural Stability Research Council is planning to conduct its Annual Technical Session with a special Theme Session entitled "North American Stability Design Criteria". The emphasis of the special Theme Session of the conference will be to compare design philosophies among the major countries of North America, to identify differences and common approaches in their design specifications, and to address the need of the engineering communities in North America to unify future North American codes for metallic and metal-concrete structures. The meeting is scheduled for June 10-12 in Toronto.

Presentations will be made by Roger Brockenbrough, Chairman of the AISI Cold-Formed Steel Structures Specification Committee; Stan Lindsey, Chairman of the AISC Specification Committee; Reini Schuster, Chairman of the Canadian Standards Association (CSA) S136 Cold-Formed Steel Structures Committee; Laurie Kennedy, chairman of the CSA S16 Committee on Steel Structures for Buildings.

During the Annual Technical Session, presentations will be made on the assessment of bridge, transportation, building, offshore, and other special structures related to design criteria and structural stability. Therefore, if you are currently engaged in any work related to aspects of stability of metal or composite metal-and-concrete structures, The Structural Stability Research Council would encourage you to participate in the 1997 Annual Technical Session & Meeting.

A post-conference short course, The Bracing of Steel Structures, will be held on June 13. This course covers stability bracing for frames, columns and beams with emphasis on simplicity and practicality. The six lectures and the 80-page handout document present principles, case studies, and recommendations along with an extensive compilation of design examples. The design methods presented are the basis for bracing provisions that are being developed for the next edition of the AISC Specification. Physical models are used to experimentally verify the design methods.

Faculty for the course are Joseph A. Yura, University of Texas-Austin and Todd A. Helwig, University of Houston.

For information regarding conference registration, contact the Structural Stability Research Council: Ph: (610) 758-3522, Fax: (610) 758-6405 or register electronically through the SSRC HomePage at: www.lehigh.edu/~inssrc/reg97.html

Correspondence

Dear Editor:

As a retired structural design engineer, I thoroughly enjoy reading every issue of *Modern Steel Construction* that comes to my address. I've pretty much understood most everything that has been written in the publication. But one thing has me puzzled. And that is the increasing proliferation of acronyms with little if any explanation of what they represent.

Personally, I never gave it much thought until I heard a comment from a young engineering student who was reading the January 1997 issue. She asked me what RCSC (page 9) stood for. This was a new one that I couldn't give an answer to. Most other acronyms, like AISC, AREA, AWS, LRFD have been in use long enough that I knew how to define their meaning. But they still had to be defined for her understanding.

I think a publication as widely read in the civil-structural-architectural environment as *Modern Steel Construction* should be as thorough and detailed as possible in its writing. There are many young engineers using the magazine. Could they too be having difficulty in understanding what is written? And, like most of us, they may be a little hesitant about asking a "dumb question".

Charles H. Monroe
Bristol, IN

Editor's Response: You're absolutely right on all counts. Sometimes when you're working on something for so long you slip into industry jargon—which is always dangerous for a magazine. We'll try to be more careful in the future. And by the way, RCSC is the Research Council on Structural Connections.