



Structural Connection

May 2009 E-Newsletter

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Annual Conference Registration Now Open

NCSEA is now taking registrations for the [NCSEA Annual Conference](#) in Scottsdale, AZ, October 15-17, 2009. This year's theme is "Learning from Experience" and will highlight topics such as the I-35W Bridge Collapse and the ongoing 9/11 lawsuits against structural engineers. Two full days of courses will be offered, along with a third day to learn more about NCSEA and working with the different generations in your local structural engineering association. And don't forget about visiting with vendors and other engineers for plenty of networking opportunities! All details can be found online at www.ncsea.com.



To reserve your hotel room at the Radisson Fort McDowell, visit www.radisson.com/ncsea. Use promotional code A74H9AF for a 5% discount on [American Airline](#) tickets.

Call For Entries

NCSEA announces the [Call for Entries for the 2009 NCSEA Excellence in Structural Engineering Awards Program](#). The purpose of the program is to recognize creative achievement and innovation in structural engineering.

Eligibility

Each entry must be submitted by a licensed Professional Engineer or Structural Engineer whose practice or activity is primarily in the field of structural engineering.

Projects must have been completed between January 1, 2006 and December 31, 2008, or must be sufficiently complete such that they clearly show the basic design of the structural system. The submittals will be judged based on the quality of the structural "design" portion of the project. Within the context of this awards program, "design" refers to the overall concept of any structure or structural system within a project. New projects, renovations, rehabilitation, structural upgrades and adaptive reuse of buildings, other structures, and bridges are eligible. Projects may be located anywhere in the world.

Categories of Awards

Awards will be presented in five project categories:

- New buildings under \$30 Million
- New buildings \$30 Million to \$100 Million
- New buildings over \$100 Million

New Website Features

[Recorded Webinars](#)

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MO Events

[June 4-5 SEAKM Annual Meeting](#)

Now more time with vendors and 2 tracks to choose from. Located in the Westin, St. Louis.

[June 6 SEAIO Awards Banquet](#)

Recognizing Excellence in Structural Engineering Awards in Chicago, IL.

[June 19-20 SEANM Annual Meeting](#)

Start the meeting out with a golf tournament at the Isleta Resort and Casino in Albuquerque, NM.

- New bridge and transportation structures
- Other structural design projects

Up to three entries in each category will be chosen to receive an NCSEA Excellence in Structural Engineering Award. From those three winners, one will be chosen as an "Outstanding Project". Non-winning projects from last year's program may be re-submitted, as long as they are still eligible based on completion date.

Deadline for Entries

All entries must be received at the NCSEA office by 4:00 p.m. CDT on Friday, July 17, 2009. Entries should be sent to:

NCSEA Awards Program
645 North Michigan Avenue, Suite 540
Chicago, Illinois 60611

Please contact Carrie Johnson, 2009 Award Committee Chairperson and NCSEA Director, at cjohnson@wallacesc.com.

New NCSEA Webinar Package Prices

Now you can buy your continuing education in bulk at NCSEA. Available in [Flex-Plan packages of 5 or 10](#), registrants will have access to any NCSEA webinar over the course of 12 months for one low price. Choose 5 webinars for \$1,100 or 10 webinars for \$1,950. A savings of over \$30 - \$55 per webinar! SECB certificants in good standing receive an even lower price.

With your successful attendance at all 10 webinars, you will have 15 technical continuing education hours that are Diamond Review approved, meaning they are acceptable in all 50 states, plus most are AIA approved. In fact, all NCSEA webinars presented during or after September 2008 are AIA approved!



E-mail Melissa Matarrese at Melissa@ncsea.com, for more details or to purchase your 10- or 5-webinar package, good for 12 months!

New NCSEA Publication



Available now, [Guide to the Design of Diaphragms, Chords and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05](#). NCSEA members can purchase online through ICC for the ICC member rate.

Diaphragms may be one of the most overlooked, under-designed, and/or inappropriately detailed areas of a building. They should respond elastically to design wind and earthquake forces, and their failure could lead to a nonductile complete or partial collapse of the entire structure; yet, surprisingly, structural engineers have been given little guidance on how to design and detail these systems. NCSEA is filling the void with this new book that provides detailed examples of how to determine the seismic forces and design the diaphragm, chords and collectors for various types of buildings located in Seismic Design Category (SDC) B and D.

Contact Us

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In addition, courses are now being offered, based on this recent NCSEA publication and expanding on the subject matter, to address the basics of diaphragms, chords and collectors, minor changes in the 2009 IBC, special wind provisions for high wind zones, and the interpretation of results obtained when using the finite element method. All attendees at the courses listed below will receive a copy of the [Guide to the Design of Diaphragms, Chords and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05.](#)

June 5, 2009 - Washington, DC	June 8, 2009 – Jacksonville, FL*
June 9, 2009 - Orlando, FL*	June 11, 2009 – Tampa, FL*
June 12, 2009 - Miami, FL*	June 22, 2009 – Philadelphia, PA
June 24, 2009 - Manchester, NH	June 26, 2009 – Boston, MA
July 23, 2009 - New York, NY	

*Denotes modified high wind zone presentation for all Florida locations.

To register for a course or to bring a [Guide to the Design of Diaphragms, Chords and Collectors](#) class to your area, please contact Timothy Mays at timothymays@bellsouth.net.

Student Correspondent



Innovation vs. Practicality

“That’s not practical” is an argument that the structural research world seems to hear more and more often. This statement is not delivered without some degree of accuracy, taking into consideration some of the theories created by researchers with blatant disregard for construction and economic practicality. However, I feel that, as time passes, the statement is becoming less of a logical argument and more of an excuse to avoid continued complication of various design codes or more intensive construction restrictions.

As our industry progresses towards a more accurate understanding of the physical nature of the structures we design, it is our responsibility to ensure that related fields such as the construction industry understand the importance of innovation and also become willing to sacrifice a minimal amount of practicality. This task must be conducted carefully, however, and not taken to an extreme. There is no reason to immediately abandon past practices that are time-tested; but where current research indicates that change may produce a safer or more sustainable design, we must be willing to defend our position. A good example of this is earthquake resistant design. Research has shown that a few minor detailing changes can often produce a significantly safer and more sustainable design. Frequently, however, related industries tend to equate higher levels of seismic design with more expensive structures.

It is not a hard and fast rule that the findings of structural research are opposed by other industries. There are many instances where research results are welcomed by our counterparts, particularly when those results are in their economic interest. However, when research impacts to structural design become costly to any degree, the power of local SEA organizations to

influence local building codes becomes critical, as it is our responsibility to encourage useful innovation.

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New Features on the NCSEA Website

Recorded Webinars: Additional webinars have been posted online to offer a bigger selection, whether you choose the Flex-Plan packages or just purchase one to fulfill 1.5 hours of continuing education.

Career Center: Upgrades have been added to the NCSEA Career Center, so if you are looking for the right engineer for the right job, go online and post a position. Recently-made enhancements to our site require job seekers to create a professional profile. All profiles and applications are now presented in a concise, consistent format, to make your screening process more efficient. You can also flag profiles for follow up, or remove them from your search.

Committee Members: NCSEA welcomes two new members to the Seismic Provisions Subcommittee of the Code Advisory Committee: Ryan Kersting and Tom Xia are stepping in for Len Cobb and Rafael Sabelli. The Basic Education Committee also added a new member, Leroy Emkin. Mr. Emkin replaces Lawrence Reavely.

Associate Member: Another member has joined the NCSEA family. Please join us in welcoming Georgia Pacific based out of Atlanta. Georgia Pacific is one of the world's leading manufacturers of tissue, pulp, paper, packaging, building products and related chemicals.

If you would like to submit material or present your views on any Structural Connection content, you may do so by contacting one of the above persons.

Save the Dates: Winter Institute



Don't miss next year's exciting two days of continuing education at the 2010 NCSEA Winter Institute on seismic design in San Diego, CA, at the Marriott Coronado Island Resort, March 12-13, 2010. *Explaining the 'Why' Factor: From One Generation to the Next* is the title. More details, on speakers and the field trip, will be provided in the next *Structural Connection*.

May 21 Webinar: [Understanding Tall Buildings Under Wind: Full-Scale Dynamic Behaviors](#). This topic and speaker participated in the NCSEA Winter Institute and was so well received she was asked back. Find out why! Register now at www.ncsea.com.