



Guide to the Design of Diaphragms, Chords and Collectors Based on the 2006 IBC and ASCE/SEI 7-05

COURSE DESCRIPTION:

The 2006 *International Building Code* presents clear and stringent design criteria for floor and roof diaphragms as necessary to resist wind and seismic loading. However, diaphragms may be one of the most overlooked, underdesigned, and/or inappropriately detailed areas of a building. Diaphragms 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. Surprisingly, structural engineers are given little guidance on how to design and detail these systems. Simple deep beam models found in textbooks don't apply for typical building arrangements such as L-shaped buildings, buildings with lateral resistance on three sides, buildings with irregularities, and diaphragms with small or large openings. Using practical design examples, this short course presents simple analytical and computer modeling methods that appropriately account for these and other design conditions. The course is based on a recent NCSEA publication titled *Guide to the Design of Diaphragms, Chords and Collectors Based on the 2006 IBC and ASCE/SEI 7-05*, but expands 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 will receive a copy of *Guide to the Design of Diaphragms, Chords and Collectors Based on the 2006 IBC and ASCE/SEI 7-05*.

See next page for information on bringing this course to your Member Organization.

WHAT OTHERS ARE SAYING:

"NCSEA's new book on the design of diaphragms, chords, and collectors for seismic and wind loads is a must have for all practicing structural engineers. Buildings designed to resist lateral seismic or wind loads must have diaphragms detailed to carry horizontal loads to the lateral force resisting system." – Timothy W. Mays, Ph.D., P.E., Associate Professor, The Citadel and Chairman of NCSEA Publications Committee

"NCSEA's short course on diaphragms, chords, and collectors really helps practicing structural engineers visualize load paths associated with diaphragms. It is the perfect complement to *Guide to the Design of Diaphragms, Chords and Collectors Based on the 2006 IBC and ASCE/SEI 7-05*." – Clem McCarey, P.E., Engineers Design Group, Inc., and SEAMASS

WHAT DO ATTENDEES RECEIVE?

- 3.5 Professional Development Hours
- Binder of Complete Course Notes and Example Problems Worked During the Course
- One copy of the NCSEA publication *Guide to the Design of Diaphragms, Chords and Collectors Based on the 2006 IBC and ASCE/SEI 7-05*
- Breakfast

SCHEDULE:

7:45 – 8:15	Registration
8:15 – 8:30	General Provisions (T.W. Mays, Ph.D., P.E.)
8:30 – 9:15	Concrete Diaphragms (B.K. Prasad, S.E.)
9:30 – 10:15	Wood Diaphragms (D.S. Thompson, S.E.)
10:30 – 11:00	Steel Deck Diaphragms (R. Sabelli, S.E.)
11:15 – 12:00	Slab / Metal Deck Diaphragms (R. Sabelli, S.E.)

COURSE INSTRUCTOR:

Timothy Wayne Mays, Ph.D., P.E. is President of SE/ES and an Associate Professor of Civil Engineering at The Citadel in Charleston, SC. Dr. Mays is the Executive Director of the Structural Engineers Association of South Carolina and the Structural Engineers Association of North Carolina. Additionally, he serves as Chairman of the Structural Technical Group for ASCE SC Section, Ocean and Marine Engineering Division Chairman for ASEE National, and NCSEA Publications Committee Chairman. He has received two national teaching awards (ASCE and NSPE) and both national (NSF) and regional awards for outstanding research (ASEE). He is a prolific speaker who sits on several code writing committees and his areas of expertise are code applications, structural design, seismic design, steel connections, structural dynamics, and civil engineering aspects of antiterrorism.



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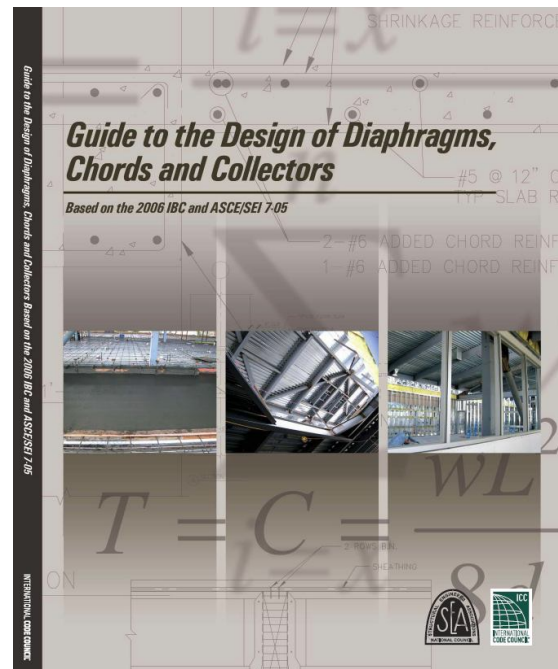
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Registration Form

DATE AND LOCATION*:

Your MO can set the date and location

To Register, Contact Timothy W. Mays, Ph.D., P.E. at timothymays@bellsouth.net and setup a course for your Member Organization.



COST:

\$195 - if received more than one week prior to event

\$225 - if received within one week of event

\$40 discount for each additional registration from the same company (e.g., 3 people from the same company pay 1 x \$195 + 2 x \$155 = \$505)

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