

Agenda

Presented by David Troxell S.E., P.E., Project Manager

Understanding Structural Loads

Types of structural loads
General structural integrity
Classifying buildings and structures
Modifying and expanding existing structures

Dead Loads, Soil Loads and Hydrostatic Pressure

Weight of materials and structure
Soil loads and hydrostatic pressure

Live Loads

Uniformly-distributed loads
Concentrated loads
Required live loads
Impact loads

Flood Loads

Design loads
Loads on breakaway walls
Hydrostatic and hydrodynamic loads
Wave loads

Rain, Ice and Snow Loads

Calculating rain, ice and snow loads on roofs
Design coefficients
Unbalanced, drifting and sliding loads

Wind Loads

Wind speed, importance factor, exposure, enclosure classifications
Allowed procedures (methods 1, 2 and 3)
Basic definitions and requirements
Main wind force resisting system vs. components and cladding

Earthquake Loads

Scope and applicability
Seismic ground motion values/geologic hazards and geotechnical investigation
Importance factor and occupancy category
Seismic design category
Simplified structural design criteria for bearing walls and building frame systems
Design requirements for non-structural components

Structural Design Loads under the ASCE 7-16 Standard
Tempe, AZ - Thursday, August 30, 2018

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Learning Objectives

You'll be able to:

Identify various types of structural loads.

Define design standards for live loads, dead loads and soil loads.

Learn how to design for loads resulting from flood waters and waves.

Calculate rain, ice and snow loads on roofs.

Determine wind loads, factoring in wind speed, exposure and enclosure classifications.

Explore earthquake loads and seismic design criteria.



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Learn how to design for live loads, dead loads, and soil loads

Understand how to design for loads resulting from flood waters and waves

Calculate rain, ice and snow loads on roofs

Explore wind load factors including wind speed, exposure, and enclosure classifications

Receive design guidance related to earthquake loads

Continuing Education Credits

Architects

7.0 HSW Continuing Ed. Hours
7.0 AIA HSW Learning Units

Professional Engineers

7.0 PDHs

Contractors

Non-Credit Continuing Ed.

International Code Council

.7 CEUs (Building)



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Faculty

David Troxell, SE, PE *Caruso Turley Scott Structural Engineers in Tempe*



Mr. Troxell is a project manager with 20 years of experience. He leads structural engineering teams through successful project completion, for one of the largest structural engineering firms in the southwest. Mr. Troxell has extensive experience with multiple project management where he oversees all aspects to insure on-time and on-budget completion. He has proven technical expertise, innovative designs and critical coordination skills. Mr. Troxell holds professional registration in three states; Arizona, California, and Pennsylvania, and he is registered as a Model Law Structural Engineer with the National Council of Examiners for Engineering and Surveying (NCEES). He received his B.S. degree in Engineering in 1998 from Geneva College in Beaver Falls, Pennsylvania. The professional associations Mr. Troxell belongs to are the following: SEAoA (Structural Engineers Association of Arizona), where he is a Structural Engineer Emergency Response (SEER) Committee Chair; NCSEA (National Council of Structural Engineers Association), where he is a Structural Engineer Emergency Response (SEER) Committee Regional Representative; ASCE (American Society of Civil Engineers) where he is a member; and SEI (Structural Engineering Institute) where he is a charter member.

Seminar Information

**Residence Inn Tempe
Downtown/University**
510 South Forest Avenue
Tempe, AZ 85281
(480) 967-2300

Registration
8:00 - 8:30 am
Morning Session
8:30 - 11:45 am
Lunch (on your own)
11:45 am - 12:45 pm
Afternoon Session
12:45 - 5:00 pm

Tuition
\$279 for individual registration
\$259 for three or more registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual. Registration does not include a copy of ASCE 7.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers a professional enrichment opportunity to Arizona architects and engineers. It offers 7.0 HSW continuing education hours to architects and 7.0 PDHs for professional engineers in most states with continuing education requirements.

This seminar is approved by the American Institute of Architects for 7.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is deemed an approved continuing education sponsor for New York architects. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

The International Code Council has aproved this event for .7 CEUs in the specialty area of Building.

This program offers a continuing education opportunity to construction contractors. It has not been approved by any contractor licensing board for mandatory continuing education credit.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

AutoCAD 3D

- **Using Key Commands and Tools**
Part I: Wed., July 11, 2018, 11:00 AM - 2:15 PM CDT
Part II: Thurs., July 12, 2018, 11:00 AM - 2:15 PM CDT
- **Building a Solid Model**
Part I: Wed., July 18, 2018, 11:00 AM - 2:15 PM CDT
Part II: Thurs., July 19, 2018, 11:00 AM - 2:15 PM CDT

Septic Systems Series

- **Onsite Wastewater Treatment Technologies, Regulations and Contaminant Removal**
Thurs., July 19, 2018, 11:00 AM - 12:30 PM CDT
- **Evaluating Sites, Setting Treatment Goals and System Design**
Thurs., July 19, 2018, 1:00 - 2:30 PM CDT
- **Alternative and Sustainable Treatment Technologies**
Fri., July 20, 2018, 11:00 AM - 12:30 PM CDT
- **Management Programs for Onsite Wastewater Treatment Systems**
Fri., July 20, 2018, 1:00 - 2:30 PM CDT

Retaining Walls and Slope Stabilization

- **Retaining Wall Basics**
Thurs., July 26, 2018, 11:00 AM - 12:00 PM CDT
- **Geosynthetics and Retaining Walls**
Thurs., July 26, 2018, 12:30 - 3:00 PM CDT
- **Slope Stability and Geosynthetics**
Fri., July 27, 2018, 11:00 AM - 12:30 PM CDT
- **Slope and Retaining Wall Failures, Fixes and Prevention**
Fri., July 27, 2018, 1:00 - 3:00 PM CDT

National Electrical Code

- **National Electrical Code, Part I**
Tues., July 24, 2018, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part II**
Weds., July 25, 2018, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part III**
Thurs., July 26, 2018, 11:00 AM - 3:30 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the CD/Manual Package:
A full recording of this seminar is available for \$289, which includes shipping and handling. This learning method does not qualify for the continuing education requirements of Ohio engineers, AIA members or architects. No contractor credit available. Please allow five weeks from the seminar date for delivery.

Registration

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____
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Fax: 715-835-6066		Name: _____ Occupation: _____ Email: _____ Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		Name: _____ Occupation: _____ Email: _____ Phone: _____
Complete the entire form. Attach duplicates if necessary.		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.

() I need special accommodations. Please contact me.

Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.
- () **I am not attending.** Please send me the CD manual package for **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____
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