

2019 SPRING SCHEDULE SIGN UP FOR THESE EVENTS AT <u>HTTPS://</u> <u>SEACOLORADO.ORG/</u>

#### SEAC Breakfast Meeting

January 17, 2019 Lakewood Country Club 6800 W 10th Ave. Lakewood, CO 80214 7:30am-9:00am **Out-of-area may participate via WebEx** 

#### SEAC NoCo Meeting

January 17, 2019 CTL Thompson 400 North Link Lane Fort Collins, CO 80524 7:30am-9:00am

#### SEAC/CAGE YMG Ski Trip

February 15, 2019 Transportation to Winter Park from TRex RTD Lot Morrison, CO 7:00am-6:00pm

Business Management Committee Meeting February 14, 2019 Martin/Martin 12499 W Colfax Ave. Lakewood, CO 80215 7:30am-9:00am

### STRUCTURAL ENGINEERS OF COLORADO NEWSLETTER

### **January General Meeting**

#### at the Lakewood Country Club

What Structural Engineers Should Know About Mine Subsidence Presented by: Marino Engineering Associates, Inc.

Mine subsidence engineering is a multi-discipline field in engineering. This technical presentation will brief the audience on the fundamental elements of underground mining as it related to overlying construction. Building on these fundamental principles, various construction site-mining scenarios will be given. Then, a basic understanding of the various risk factors will be provided.

The power point presentation will also cover how the engineer can approach mining related problems, and the associated pros and cons of the solutions. Cost-effective measures where subsidence mitigation is necessary will also be discussed. The talk will touch on all aspects of subsidence engineering providing case history examples for illustration and will be presented assuming the audience has limited experience in subsidence. The focus will be on mine subsidence conditions found in the Midwest.

Hosted with CAGE and ASCE Denver Branch. The ASCE Denver Branch will also be hosting a canned good drive for Food Bank of the Rockies. If you would like to participate, please bring your canned goods to the meeting and drop them off at the registration table.

Our Presenter: Gennaro G. Marino, Ph.D., P.E., D.GE is the president and principal engineer of MEA. He has been practicing geotechnical engineering since 1973, starting as a staff engineer, graduating to a project engineer, founded MEA, and now is one of the nation's top expert consultants on more difficult geotechnical-related engineering projects. In addition, Dr. Marino has given expert testimony on numerous occasions within his range of engineering experience. As an educator, Dr. Marino has written and delivered technical training



programs. Also during the course of his career he has authored over 100 articles and research publications on advanced engineering projects and authored a textbook: Earthquake Damage: Inspection, Evaluation, and Repair.

Click here to register.







January 2019

### PRESIDENT'S MESSAGE

#### Structural Engineers Association of Colorado

It is that time of year again where many people view it as a fresh start. Here at SEAC I do not believe it is a new start, as I am very thankful for all past and present Board Members, Committee Chairs and Volunteers who have given of their time to make the organization what it is today. Rather it is a time to thank those who have given of their time, welcome those who have just been elected to the Board, and challenge ourselves to be involved to help progress the organization.

The Ballots for the 2019 Board of Directors have been counted and finalized. For those of you that are eligible to vote and did, thank you. For those who did not, please participate in these votes as this is your organization and your vote truly matters. I'd like to take this opportunity to introduce you to this year's Board of Directors. Paul Doak will be rotating off the Board of Directors. Jeannette Torrents will be moving into the role of Past President, following another busy year of overseeing the re-write of the Bylaws and Operations Manual, another revamp of the website and increased programming. Chad Mitchell is going to be stepping into the role of Vice President/Treasurer, and I (Jeremy Crandall) will be the President of your organization. Donald Harvey and Maryann Davis will continue as Directors, and Greg Black will be stepping down from the director position. This comes after a very successful year Greg had of growing the Northern Colorado Committee as well as doing a great job getting student involvement. Lacey Goetz is joining the Board as the Secretary and Mike Piper will be your new Director. I would like to thank the Nominating Committee, Jerry Maly, Ben Nelson and Brenda Yockstick for yet again a strong slate of candidates. I also would like to recognize and thank John Hart and Scott Hargrove for their willingness to run for the opportunity to serve on your Board.

2018 was a very busy and fruitful year for SEAC. The Board pushed to get many items completed such as securing Insurance for the organization, coming up with increased programing though the Education Committee, updating the Bylaws and Operation Manual as well as completing a dues study and proposing and passing a dues increase. The last one is never a fun topic; however, I think we all can see the benefits received from our organization whether it be local or national. The Bylaws update and the Dues increase were approved by our voting members. so once again, if you voted, thank you.

2019 will be a great year for the organization and you. We are finalizing the website as a response to our members, looking to increase programing, and develop a new Strategic Plan for the organization just to name a few. Programming is getting set for the general breakfast meetings which will be at the Lakewood Country Club this year.

I look forward to seeing you at the first meeting of the year that will be a joint meeting with CAGE.

Happy New Year and choose to make today a great one!

Jerenny S. Crandell

Jeremy Crandall, SEAC President

## **BOARD OF DIRECTORS**

#### Structural Engineers Association of Colorado



Jeremy Crandall President Lam-Wood Systems, Inc. 303-458-1736

President@seacolorado.org



Chad Mitchell VP/Treasurer S.A. Miro, Inc. 720-407-1031

treasurer@seacolorado.org



Lacey Goetz Secretary Integral Engineering 303-804-7003

secretary@seacolorado.org



Jeannette Torrents Past President JVA, Incorporated 303-444-1951

pastpresident@seacolorago.org



Mike Piper Director Martin/Martin 303-431-6100 director3@seacolorado.org



Donald Harvey Director Atkinson-Noland & Associates, Inc. 303-444-3620 director1@seacolorado.org



Maryann Davis Director Drake-Williams Steel 720-354-4664 director2@seacolorado.org

<u>We Want to Hear from YOU!</u> The SEAC Board of Directors is interested in hearing your suggestions, comments, and ideas. Please feel free to contact a member of the BOD at any time.

Thank you to all of our members who continue to support SEAC!

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January 2019

## ANNOUNCEMENTS

Structural Engineers Association of Colorado

#### **SEAC Scholarship Fund**

The SEAC Scholarship Fund, Inc. would like to recognize the following donors for their generous contributions in 2018:

J.R. Harris and Company Stan Neujahr Martin/Martin J.D. Schafer Maryann Davis Brent Norris

If you are interested in helping to support future structural engineers, please visit <u>www.seacolorado.org</u> to make a donation.

### Welcome to our Newest Members

Helena Dopita (Professional Member)

York Engineering

Hillary J. Nicholas (Affiliate Member) JVA Consulting Engineers Nicholas Remington (Professional Member) Remington Engineering

# ANNOUNCEMENTS

Structural Engineers Association of Colorado

### **Membership Renewals**

Renew your membership on line by January 31st in order to maintain access to all of your membership benefits such as:

- 20% Discount on 80+ publications including the 2018 IBC, ASCE 7-16, 2015 NDS, and ACI 318-14.
- Discounted prices for NCSEA Webinars and SE Exam Review Course.
- STRUCTURE magazine subscription
- Structural Connection subscription
- SEAC Newsletter with structural engineering position advertisements, industry developments, and notification of upcoming events such as Young Member Group Happy Hours, Project Presentations, Job Site and Plant Tours, Breakfast Meetings, and Seminars.
- Free live web broadcast of general meetings for out-of-area members.
- Access to recordings of past general meeting presentations.
- Bimonthly breakfast meetings with an opportunity to earn PDHs and network within our industry.
- Discounted prices for the Fall Seminar and Annual Dinner.
- Opportunity to participate in technical and professional committees that shape our profession on topics from code development to business management.

If you have not received a dues notice, need to correct your local or out-of-area status, or want to upgrade your membership type, please contact SEAC at <u>administrator@seacolorado.org</u>.

# SEAC COMMITTEES

Structural Engineers Association of Colorado

### Have you considered joining a committee?

Your participation is what makes our organization so successful.

| Committee              | Chairperson                           | Contact Phone                | Board Liaison        |
|------------------------|---------------------------------------|------------------------------|----------------------|
| ВІМ                    | Desiree Mackey                        | (303) 431-6100               | Jeremy Crandall      |
| Building Dept. Liaison | Jerry Maly                            | (303) 914-4300               | Chad Mitchell        |
| Business Management    | Paul Hause                            | (303) 399-5154               | Lacey Goetz          |
| Construction Industry  | TBD                                   | TBD                          | Jeremy Crandall      |
| Denver Building Dept.  | Jerry Maly                            | (303) 914-4300               | Chad Mitchell        |
| Education              | Irena Kahanek<br>Holly Janowicz       | 720.296.7595<br>303.860.9021 | Jeannette Torrents   |
| Ethics                 | Peter Marxhausen                      | (303) 947-5375               | Donald Harvey        |
| Existing Structures    | <u>Gene Stevens</u>                   | (303) 860-9021               | Donald Harvey        |
| Membership             | Matthew Hood                          | (303) 318-6539               | Maryann Davis        |
| Nominating             | Jerry Maly                            | (303) 914-4300               | Jeremy Crandall      |
| Northern Colorado      | Greg Black                            | (970) 619-8986               | Donald Harvey        |
| Southern Colorado      | TBD                                   | TBD                          | Chad Mitchell        |
| Western Slope          | Bob Patillo                           |                              | Mike Piper           |
| Precast Concrete       | Trevor Kirkley                        | (303) 298-1900               | Jeremy Crandall      |
| SEER                   | <u>Brent Norris</u><br>Mike Piper     | 303.860.9021<br>303.431.6100 | <u>Mike Piper</u>    |
| Scholarship            | Jeannette Torrents                    | (303) 444-1951               | <u>Maryann Davis</u> |
| Seismic Standards      | Rob Jackson                           | (303) 843-2850               | Lacey Goetz          |
| Snow Loads             | Jeannette Torrents                    | (303) 444-1951               | Jeannette Torrents   |
| Standard of Practice   | Jim Ness                              | (303) 623-4927               | Chad Mitchell        |
| Steel Materials        | Ben Cook<br>Eric Sobel                | 3039144300                   | Maryann Davis        |
| Wind Loads             | Dale Jones                            | (970) 568-2919               | Jeannette Torrents   |
| Young Members          | Katie Courtright<br>Charlie Petzinger | 303.399.5154<br>303.783.4797 | Jeremy Crandall      |

### GINGERBREAD BRIDGE COMPETITION

#### Structural Engineers Association of Colorado

Congratulations to all of the teams that participated in the 2018 Gingerbread Bridge Competition. This year's showing was truly remarkable! We hope everyone had a great time building and decorating their bridges and enjoyed some friendly competition. We know everyone learned from this year's event and we look forward to seeing what improvements everyone comes up with next year.

#### Recap of the 2018 Gingerbread Bridge Competition:

- 18 teams participated
  - 3 middle school teams
  - 5 college teams
  - 11 professional teams
- Architectural Design Results
  - 1st Place: Thrustmaster 5000 WJE
  - 2nd Place: Mambo's Revenge University of Wyoming (Sponsored by Lamwood)
  - 3rd Place: Bridge Over Gummy Bear Village Campus Middle School (Girls in STEM, Sponsored by SCI)
- People's Choice
  - 1st Place: Great Pyramid of Freez-a Fortis
  - 2nd Place: Thrustmaster 5000 WJE
  - 3rd Place: RMG Bridge RMG Engineers
- Structural Design
  - 1st Place: WJE
    - Total Load = 4322.4 lbs
    - Strength-to-Weight Ratio = 198.3
  - 2nd Place: Burns & McDonnell
    - Total Load = 3103.8 lbs
    - Strength-to-Weight Ratio = 165.1
  - 3rd Place: Foothills Bridge Co.
    - Total Load = 993.8 lbs
    - Strength-to-Weight Ratio = 124.2
    - Honorable Mention: Campus Middle School (Girls in STEM, Sponsored by SCI)
    - Total Load = 1383.3 lbs
      - Strength-to-Weight Ratio = 57.2

More detailed results for the 2018 Gingerbread Bridge Competition can be found in the attached spreadsheet. Please let us know if you have any questions. The event results and links to the Gingerbread Bridge Competition Facebook page can also be found at <u>gingerbreadbridge.com</u>.

#### Event Photos: Facebook - Gingerbread Bridge Competition: Denver 2018

Based on the generous contributions our corporate sponsors and donations made to this year's raffle, the SEAC YMG was able to raise approximately \$5,100. Based on the competition results, a contribution of \$2,600 will be made to a contribution will be made to Engineers Without Borders-Rocky Mountain Professionals on behalf of WJE. Additional donations will be put towards a scholarship to send one member of the SEAC YMG to the 2019 NCSEA Summit which will be held November 12-15 at Disneyland. Applications for the SEAC YMG Scholarship will be available later in the year.





### **GINGERBREAD BRIDGE COMPETITION**

Structural Engineers Association of Colorado

### Thank You to the 2018 Gingerbread Bridge Competition Sponsors

Your support helps make this event possible!



#### Looking Ahead:

The SEAC YMG Committee has already started preparing for the 2019 Gingerbread Bridge Competition. Please be sure to share your feedback with us so we can help improve the event for next year. This was our first year at a new venue and we'd love to hear about your experiences and suggestions for improvement. Email your feedback, suggestions and/or rule change suggestions to <u>ymg@seacolorado.org</u>. Want to help plan the Gingerbread Bridge Competition? Get involved in the SEAC YMG Committee to help shape future Gingerbread Bridge Competitions!

This year, the SEAC YMG Committee made progress in increasing student involvement in the Gingerbread Bridge Competition. We had teams from 3 different colleges, including a team who travelled all the way from the University of Wyoming. We also had volunteers mentor 2 student teams from North Arvada Middle School and Campus Middle School. These volunteers shared tips and tricks for the design, construction and transportation of gingerbread bridges, as well as lessons learned from their experiences with the Gingerbread Bridge Competition. We would love to see this outreach program expand. If you would like to help spark a passion for structural engineering in middle school and high school students, we encourage you to volunteer your time next year to mentor student teams in the greater Denver area.

This event is also made more accessible to students through corporate sponsorship. Based on the generous contributions of our 2018 sponsors, we were able to waive the entry fee and provide a stipend of up to \$100 stipend for construction materials to 8 student teams! This event is an avenue to get middle school and high school students thinking about structural engineering as a potential career path. At the college level, this event is a great way to connect potential employers with proactive students who can get excited about unique design challenges. Your firm's support can help grow the Gingerbread Bridge Competition outreach program.

# YOUNG MEMBERS GROUP

#### Structural Engineers Association of Colorado

SEAC Young Member Group will be hosting a ski trip with Colorado Association of Geotechnical Engineers' Young Member Group on Friday, February 15, 2019. This event is open to anyone from SEAC or CAGE that is interested. The trip will include round trip transportation from Golden (T-Rex Parking Lot, Morrison Exit off I-70), lunch, and your lift ticket. Reduced prices are available for those that may already have a ski pass. Come join us for a fun day of skiing and networking on the slopes! We are seeking Sponsorships—these would include 2 free lift passes! Go to www.seacolorado.org for more information.







Sponsorships are just \$500 and include two tickets for the day. Go to <u>www.cagecolorado.org</u> for more information.

## **2019 CALENDAR OF EVENTS**

Structural Engineers Association of Colorado

### **SEAC Calendar**

| - |                              |
|---|------------------------------|
|   | Important Dates              |
|   | BOD Meetings - 7:30am        |
|   | Thursday January 2, 2019     |
|   | Thursday February 7, 2019    |
|   | Thursday March 7, 2019       |
|   | Thursday April 4, 2019       |
|   | Thursday May 2, 2019         |
|   | Thursday June 6, 2019        |
|   | Thursday July 11, 2019       |
|   | Thursday August 1, 2019      |
|   | Thursday September 5, 2019   |
|   | Thursday October 3, 2019     |
|   | Thursday November 7, 2019    |
|   | Thursday December 5, 2019    |
|   | Business Management - 7:30am |
| - | Thursday February 14, 2019   |
|   | Thursday April 11, 2019      |
|   | Thursday June 13, 2019       |
|   | Thursday August 8, 2019      |
|   | Thursday October 10, 2019    |
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### **EMPLOYMENT OPPORTUNITIES**

Structural Engineers Association of Colorado



#### STRUCTURAL ENGINEER - CONCRETE REPAIR SPECIALIST

Martin/Martin, Inc. is looking for a structural engineer to join our focused Concrete Repair and Parking Garage team within the Existing Building Services group in the Lakewood, Colorado office. Click <u>here</u> to see what our team does while having fun at the same time.

We operate in a fast-paced environment and strive to support a culture that is collaborative, innovative, and creative. Each project presents unique challenges and opportunities to learn and grow as an engineer. The successful candidate will join a team that works on many thought-provoking projects with a core market focus on the parking industry. He/she will develop expertise within the concrete industry as well as be exposed to structural steel, masonry, and wood construction for small to medium-sized projects.

Our group serves several institutional clients needing help with long-term repair and maintenance of their facilities. The projects will be local, regional, or national offering the opportunity to travel to sites around the nation from California to New Orleans to several Midwest cities and other locations in between. Travel is typically for short periods of time (2-5 days per trip for max of 2 trips per month) to assess the structural conditions and develop repair documents. We use non-destructive testing to assist our investigations, perform complex repair design calculations, and detail repairs that are creative yet cost effective for our clients. The position allows for site visits during construction, interaction with owners' property managers and contractors early in career, and career advancement opportunities in a growing market sector.

Company benefits are plentiful and include payment options for more than 40 hours of work per week, 401k match and profit sharing (when appropriate), fully employer-paid healthcare options, flextime, short-term and long-term disability, and opportunities for ownership. See more of our Benefits and Perks<u>here</u>. The office is located on the west side of Denver allowing for quick access to both the city and the mountains. Our staff typically spend less time in traffic and more time with family and friends.

#### **Required Qualifications:**

Bachelor's degree in Architectural, Civil, or Structural Engineering

- EIT certification or currently registered as a Professional Engineer in Colorado
- 2 years of progressive structural engineering experience
- Good knowledge of building and design codes
- Strong work ethic with excellent time-management and organizational skills
- Self-motivated and able to work independently for extended periods of time
- Demonstrates a strong commitment to continued personal growth and development in all aspects of their work
- Good written and verbal communication skills
- Committed to client service and a team-based approach

#### **Desired Qualifications:**

3-8 years of progressive structural engineering experience

Master's degree in Architectural, Civil, or Structural Engineering

Experience using Autodesk Revit to produce building construction documents

Demonstrated ability to design, detail, coordinate, and model projects

Experience in analyzing structures using SAP, ETABS, or RAM

Completed several concrete design projects

#### **Directions to Apply:**

Please fill out our online job application by visiting the following link:

#### https://www.martinmartin.com/apply/

Martin/Martin, Inc. is dedicated to the principles of equal employment opportunity. We prohibit unlawful discrimination against applicants or employees on the basis of age 40 and over, color, disability, gender identity, genetic information, military or veteran status, national origin, race, religion, sex, sexual orientation or any other applicable status protected by state or local law.

Structural Engineers Association of Colorado



In addition, the Excellence in Structural Engineering Awards were presented for exceptional structural engineering projects in:

- New Buildings Under \$20 Million
- New Buildings \$20 Million to \$100Million
- New Buildings over \$100 Million
- New Bridges/Transportation Structures
- Forensic/Renovation/Retrofit/Rehabilitation Structures up to \$20 Million
- Forensic/Renovation/Retrofit/Rehabilitation Structures over \$20 Million
- Other Structures

For more information on these awards, visit www.ncsea.com/awards/excellenceinstructuralengineeringawards.

The Summit also marks the end for the 2017-2018 NCSEA Board of Directors, and ushers in new members for 2018-2019. The Board welcomes new directors Richard C. Boggs and Paul J. Rielly. Williston "Bill" Warren IV shifted from President to Past President as former-Vice President, Jon Schmidt entered the President Position.

"I am honored and humbled to serve as your president... As I emphasized in my remarks at the awards banquet in Chicago, it just goes to show that any practicing structural engineer can be a leader in our profession; the most important qualification is simply getting involved." says Schmidt.

The board said goodbye to Past President, Tom Grogan, and Director, Chun Lau. The complete 2018-2019 Board of Directors includes: Jon Schmidt, P.E., SECB, President; Susan Jorgensen, P.E., SECB, LEED, Vice President; Emily Guglielmo, S.E., P.E., Secretary; Ed Quesenberry, S.E., Treasurer; Richard C. Boggs, P.E., SECB, LEEP AP, Director; David Horos, Director; Paul J. Rielly, P.E., S.E., SECB, Director; and Stephanie Young, Director.

Next year's Structural Engineering Summit will be held November 12–15 at the Disneyland Hotel in Anaheim, CA. Information on attending and exhibiting will be available soon at <u>www.ncsea.com</u>.

Headquartered in Chicago, Illinois, NCSEA is a not-for-profit professional association representing the structural engineering field, whose mission is to advance the practice of structural engineering by representing and strengthening its Member Organizations.

Structural Engineers Association of Colorado



#### Category 3: New Buildings Over \$100 Million

#### <u>Winners</u>

*Project:* King Abdulaziz International Airport - Jeddah, Saudia Arabia *Engineering Firm:* Arup - New York, NY

**Project:** Salesforce Tower - San Francisco, CA **Engineering Firm:** Magnusson Klemencic Associates (MKA) - Seattle, WA

#### **Outstanding Project Winner**

**Project:** University of Texas Engineering Education and Research Center - Austin, TX **Engineering Firm:** Datum Engineers/Datum Gojer Engineers - Austin, TX

#### **Category 4: New Bridges or Transportation Structures**

<u>Winners</u> *Project:* Gut Bridge Replacement - South Bristol, ME *Engineering Firm:* Hardesty & Hanover - Yarmouth, ME

**Project:** Lincoln Avenue Pedestrian Bridge - Lone Tree, CO **Engineering Firm:** Thornton Tomasetti - New York, NY

#### **Outstanding Project Winner**

**Project:** Nigliq Bridge - Colville River, AK **Engineering Firm:** PND Engineers Inc. – Anchorage, AK

#### Category 5: Forensic/Renovation/Retrofit/Rehabilitation Structures up to \$20 Million

#### Winners

**Project:** E. Claire Raley Studios for the Performing Arts - Sacramento, CA **Engineering Firm:** Buehler & Buehler Structural Engineers, Inc. - Sacramento, CA

**Project:** Hotel Nikko Pre-Northridge PJP Column Splice Repair - San Francisco, CA **Engineering Firm:** Degenkolb Engineers - San Francisco, CA

#### **Outstanding Project Winner**

**Project:** Preservation and Seismic Strengthening of Congregation Sherith Israel - San Francisco, CA **Engineering Firm:** Wiss, Janney, Elstner Associates, Inc. - Emeryville, CA

Structural Engineers Association of Colorado



#### Category 6: Forensic/Renovation/Retrofit/Rehabilitation Structures over \$20 Million

#### Winners

**Project:** Aramark Headquarters - 2400 Market Street Renovation and Overbuild - Philadelphia, PA **Engineering Firm:** The Harman Group - King of Prussia, PA

*Project:* Many Glacier Hotel - Glacier National Park, Babb, MT *Engineering Firm:* JVA, Inc. - Boulder, CO

**Project:** Polynesian Cultural Center Renovation - Laie, HI **Engineering Firm:** J.M. Williams & Associates, Inc – Salt Lake City, UT

#### **Outstanding Project Winner**

**Project:** University of Connecticut Downtown Hartford Campus - Hartford, CT **Engineering Firm:** Silman - New York, NY

#### **Category 7: Other Structures**

#### **Winners**

**Project:** The Grant Street Pier - Vancouver, WA **Engineering Firm:** Martin/Martin Consulting Engineers - Lakewood, CO

**Project:** Wiikiaami - Columbus, IN **Engineering Firm:** Pierce Engineers, Inc. - Madison, WI

#### **Outstanding Project Winner**

**Project:** Halo Board at Mercedes-Benz Stadium - Atlanta, GA **Engineering Firm:** HOK – Atlanta, GA

More information about the NCSEA Excellence in Structural Engineering Awards can be found on www.ncsea.com/awards/excellenceinstructuralengineeringawards.

Headquartered in Chicago, Illinois, NCSEA is a not-for-profit professional association representing the structural engineering field, whose mission is to advance the practice of structural engineering by representing and strengthening its Member Organizations.

#### Structural Engineers Association of Colorado



FOR IMMEDIATE RELEASE November 2, 2018 Dana Long, dlong@ncsea.com 312-649-4600

#### Structural Engineering Summit Draws Record Attendance

Chicago, IL - The National Council of Structural Engineers Associations (NCSEA) attracted more than 600 attendees from across the country to Chicago, IL to celebrate the profession at the annual Structural Engineering Summit. The event featured over 45 education sessions for the practicing structural engineer, social and networking events, and a trade show with 68 exhibitors.

NCSEA was assisted by the local member organization, the Structural Engineers Association of Illinois (SEAOI), to host a one-of-a-kind river cruise. The Structural Engineering River Cruise was held on the new Odyssey that hit Chicago's shore line at the end of September. The glass-enclosed boat allowed views of the skyline and provided a unique venue for SEAOI representatives to present about select structures on the river.

The 2018 Summit featured a keynote by Ron Klemencic, P.E., S.E., Hon. AIA, who described engineering as an ever-evolving discipline. Klemencic reviewed how some of the most impactful innovations in recent years were developed, and what areas are ripe for the next wave of advancements. NCSEA also invited local mentor and influencer, Stacy Hanke, to inspire attendees to build trust, project confidence, and stay accountable. The Summit held a Friday luncheon with another keynote from Ashraf Habibullah, S.E., who emphasized the importance that education plays for young engineers to enter the professional world "to lead, influence, and inspire."

The NCSEA Awards Banquet at the Summit featured the presentation of NCSEA Special Awards, including:

- NCSEA Service Award to Barry Arnold, P.E., S.E., for work on behalf of NCSEA that is beyond the norm of volunteerism.
- James M. Delahay Award to Jonathan (Jon) C. Siu, P.E., S.E., for outstanding contributions towards the development of building codes and standards.
- **Robert Cornforth Award** to Ryan A. Kersting, S.E., for exceptional dedication and exemplary service to an NCSEA Member Organization and to the professin.
- Susan M. Frey NCSEA Educator Award to Ronald O. Hamburger, S.E., for his genuine interest in, and extraordinary talent for, effective instruction to practicing structural engineers.

For more information on these awards, visit <u>www.ncsea.com/awards/specialawards.</u>

Structural Engineers Association of Colorado

#### Earthquake Training at CU-Boulder!

#### ATC-20, Postearthquake Safety Evaluation of Buildings

#### and Safety Assessment Program

#### TRAINING DESCRIPTION

Training on the Applied Technology Council's <u>Procedures for Postearthquake Safety Evaluation of Buildings</u> (ATC-20), provides instruction on rapid and detailed evaluation procedures for earthquake-affected buildings and posting them as:

INSPECTED (apparently safe, green placard), LIMITED ENTRY (yellow placard), or UNSAFE (red placard).

The training familiarizes attendees with the framework needed to evaluate building damage conditions, assess potential risks to occupants, and recommend which of the three placards should be posted on the building. These evaluations and placards can be used in planning and executing evacuation, re-entry, and rebuilding strategies.

Note: Licensed engineers, architects, and building officials are eligible for <u>Safety Assessment Program</u> (SAP) certification.

#### TARGET AUDIENCE

The target audience for these trainings includes building officials, engineers, architects, building owners, emergency managers, risk analysts, and other interested citizens and volunteers.

#### **GENERAL INFORMATION**

| Time:       | 8:00 am – 5:00 pm   |
|-------------|---|
| Date:       | Sunday, January 13th, 2019  |
| Location:   | University of Colorado Boulder, Engineering Center Civil Engineering Room 1B41        |
| Instructor: | Keith Porter, PE, PhD, Research Professor (CU-Boulder) and Principal, SPA Risk LLC    |
| Materials:  | ATC-20-1 Field Manual, Postearthquake Safety Evaluation of Buildings, Second Edition. |
| Cost:       | \$24 (to cover course materials)  |

#### REGISTRATION

To register for these trainings, please provide the following information to Sean McGowan, PE, FEMA Region VIII Earthquake Program Manager (sean.mcgowan@fema.dhs.gov) by December 20th:

Name Organization Address Phone number Email address

Are you seeking *Safety Assessment Program* certification? (Note: Attendance is open to all, but you must be a licensed engineer, architect, or building official to receive this certification)

Structural Engineers Association of Colorado



You are invited to see Denver's demise of "We've Always Done It That Way" 1/24/2019



When Denver Health set out to build the Outpatient Medical Center, they turned to Turner Construction Company, but with a twist: No rules except to find the best solution for building efficiency and cost savings.

With that in mind, Turner took a long hard look at the SidePlate option that fabricator Drake Williams and Erector LPR suggested. The concept was vetted by SA Miro and the team immediately discovered there would be significant cost savings over the standard concrete shear wall way of doing things.

The use of SidePlate designed field-bolted moment frame steel structure would show savings in concrete, installation crew size, equipment on site and schedule—especially schedule as a six-week reduction was realized.

We would like to tell you more about why "We've Always Done It That Way" is no longer a Denver tradition and the amazing successes this team had on the project, on site, on January 24, 2019.

We will have a Q&A session with the project leaders followed by a site walk at both 9:00 a.m. and again at 10:30 a.m.

Email SidePlate at <u>hkelly@sideplate.com</u> for more information.

#### Structural Engineers Association of Colorado



#### February 14 - Denver, CO (Maggiano's Little Italy - Denver Pavilions)

Increasingly, lateral design of modern wood-frame buildings requires unique approaches to accommodate greater heights, larger openings and more glass. If you're a structural engineer, this workshop will help you excel at these types of structures, which can be challenging due to fewer opportunities for shear walls at exterior wall lines. While corridor-only shear walls are becoming more popular, methods of analysis for open-front structures are also evolving to reflect more complex building geometries. The analysis method demonstrated in this workshop will help you consider and refine your own approaches and techniques.

- When does a loss in stiffness in the exterior walls cause an open-front diaphragm condition?
- What is the deflection equation for open-front/cantilever diaphragms?
- How is diaphragm flexibility defined for open-front/cantilever diaphragms vs. ASCE 7-16, Figure 12.3-1?
- What are the available methods of distributing torsional forces into the diaphragm?
- Do shear walls located along diaphragm chord lines affect the diaphragm chord forces?
- How are torsional irregularities determined and addressed for open-front/cantilever diaphragms?

#### For more information on this event, click here.

#### Speaker:

#### Terry Malone, PE, SE, WoodWorks



Terry Malone is a licensed structural engineer in Washington, Oregon and Arizona with over 35 years of wood design experience. He is an active presenter at ICC chapters and professional engineering organizations. Terry is author of *The Analysis of Irregular Shaped Structures: Diaphragms and Shear Walls*, published by McGraw-Hill and ICC. He is a member of the *Structural Engineers' Association of Arizona* and the *International Code Council*.

Structural Engineers Association of Colorado



# Hanging a Beam?

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January 2019

lssue 1

# **EMPLOYMENT ADS**

#### Structural Engineers Association of Colorado



#### Structural Project Engineer

Are you a licensed Professional Engineer who feels stuck in a job with little opportunity for advancement?

Are you looking for a chance to work in an environment that includes a path to becoming a Project Manager, Associate and Principal?

Are you looking for the chance to work in a team environment and work on a wide variety of projects such as office buildings, retail, industrial, distribution, auto dealerships and more?

If this sounds like the opportunity that you have been looking for, then **Peak Engineering** would like to talk to you about joining our team.

#### Requirements:

A B.S. degree from an accredited institution is required

Must have a Professional Engineer and a minimum of four years of relevant experience

The applicant should have excellent written and verbal skills and be an independent self-starter

#### Structural Design Engineer

Peak Engineering, Inc. is seeking structural engineers with 2-4 years' experience in structural design of buildings for our Lakewood, Colorado office. Our project work includes a wide range of commercial building projects in Colorado and throughout the United States. Duties would include structural design in steel, concrete, masonry, and wood with specifications writing, construction documents and construction administration.

If you are interested in the design of such projects in an active, creative environment, then we would like to talk to you about joining our team.

#### **Requirements:**

A B.S. degree from an accredited institution is required

- Must have passed the E.I.T. exam
- Experience with REVIT Structure would be a plus

The applicant should have excellent written and verbal skills and be an independent self-starter

#### For more information, visit our website at: www.peakengr.com

#### Please send your resume to <u>HR@peakengr.com</u>

# NEWSLETTER ADS

Structural Engineers Association of Colorado



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Consider placing an ad in the bi-monthly SEAC newsletter to reach over 300 members, including professional engineers, suppliers, and vendors.

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