



Structural Engineers Association of Colorado Newsletter

### SEPTEMBER GENERAL MEETING

### Washington Monument Post Earthquake Assessment

# Schedule

Mark Your Calendar (2012)

General
Membership
Meetings
January 18 (Wed.)
\*\*Lakewood Country
Club\*\*

Renaissance Hotel (Breakfast 7:30 a.m.) March 15 May 17 July 19 September 20

Business
Management
Committee
Meetings
(Breakfast 7:30 a.m.)
February 9
April 12
June 14
August 9
October 11

SEAC Board of Directors Meetings (7:30 a.m.) January 5 February 2 April 5 June 7 August 2 October 4

Fall Seminar
October 18
Sheraton
Annual Banquet
November 15
6:30 p.m. - 9:00 p.m.

On Tuesday, August 23, 2011 at 1:51pm EDT, a magnitude 5.8 earthquake was recorded approximately 84 miles southwest of Washington, DC. Due to the geology of the eastern United States, seismic events are felt across a far wider region than an earthquake of equivalent magnitude in the west. The USGS estimates that this event was the most widely-felt earthquake in U.S. history.

Following the earthquake, the National Park Service requested Wiss, Janney, Elstner Associates, Inc. (WJE) evaluate the impact of the potential interior and exterior seismic damage on the iconic Washington Monument. The tasks performed by WJE included the initial emergency response and make-safe operations, comprehensive condition surveys, and development of repair programs and strategies to meet the unique needs of this structure and its custodians

The make-safe operations and condition survey consisted of teams of architects and engineers familiar with typical masonry distress, as well as seismic damage evaluations. These teams of engineers and architects utilized various means of access to conduct the surveys, including visual surveys from the ground with binoculars, and close range surveys utilizing industrial rope access techniques. The result has been a comprehensive assessment of the earthquake's impact on this structure, recommendations for appropriate repairs, and an evaluation of the need for seismic upgrading.

Dan Gach is a Senior Associate at WJE, having been with the firm for the past 12 years. He holds a Master of Architecture degree from the University of Illinois (Urbana/Champaign), is a licensed Architect in Colorado and Illinois, and a certified Level III Technician with the Society of Professional Rope Access Technicians. He has focused his career on the evaluation and repair of existing structures, many of which were historic masonry.

### **Don't Miss Out - September General Meeting**

Date: Thursday, September 20, 2012 - 7:30 a.m.

Speaker(s): Dan Gach, Wiss, Janney, Elstner Associates, Inc. Location: Renaissance Denver Hotel 3801 Quebec Street, Denver, CO 80207 (South of the I-70 & Quebec Intersection) Please RSVP on the SEAC website at:

www.seacolorado.org: or email Caryn Farrell at: seac@martinmartin.com

Reservations MUST be made by: Monday, September 17, 2012.

#### Officers & Board Members



David Poe President Anchor Engineering, Inc. 303-783-4797 david@anchoreng.com



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#### Submit comments/articles to:

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WWW.SEAColorado.org

Information for inclusion in the newsletter must be received one month prior to the next general meeting.

Caryn L. Farrell
SEAC Executive Assistant
seac@martinmartin.com

# President's Message

rode my bicycle on my usual route from my house this past Saturday up along Highway 128 past the NREL wind energy research site, towards the foothills, but this time it was a little different. Instead of turning around at Hwy. 93 I stopped for a while to watch the USA Pro Challenge Bike Race whiz past me. It is a fun thing to see a major road bicycle race return to Colorado. When I was a kid I loved going up to Boulder to watch the Coors Classic. It has been quite a long drought, so to speak, for bicycle racing fans here in Colorado. This year's race was also nationally televised and the commentators couldn't stop talking about how great Denver and Colorado in general is. This of course is not news to us, but it was good to see some positive news replacing the news out of Colorado from earlier in the summer. We are indeed lucky to live in such a great state with so many opportunities for outdoor activities.

... But enough about bicycle racing. There is positive news within our organization as well. The fall seminar this year will blow you away. Why? You ask.... The answer my friend is blowing in the wind. We will be learning all about the changes of the wind provisions in ASCE7-10. Thanks to the hard work of the education committee for putting together what promises to be an excellent half-day seminar! Specific information is in this newsletter cost, etc. Be sure to "save the date" (October 18th) in your calendar and register early!

You won't want to miss this year's Annual Meeting! Every once in a while we do something a little different and this year we will be in for a treat, with an evening of good food, drink, conversation, comedy, and celebration of another great year for SEAC. Mark your calendars for the evening of November 15. Stay tuned for more information!

I am sure that the rest of this year is going to fly by just as fast as it seems to have gone so far. The rest of the year will no doubt be filled with news surrounding the November elections as well as our senators and representatives in Washington D.C. dealing with the looming challenges facing our country. A lot may happen (or not happen as sometimes it seems in Washington) in the upcoming months that could have profound impact on the US economy and hence impact our members.

If I am counting right, SEAC has added 17 new members to our roles so far this year. SEAC is growing! Being President this year has made me appreciate SEAC even more as an organization. So much has been done this year and yet there are several things that I wish we could have "squeezed in". That just makes me more excited for next year!

David A. Poe, P.E., S.E. President

# GENERAL NOTES - Keep them CLASSIFIED!

Structural Engineers Association of Colorado Newsletter Classified Section



The Investigative Team at Martin/Martin specializes in the evaluation and repair of existing structures. Our work includes investigation of structural damage or distress, historical structure assessment, expert witness services, design of remodel and restoration projects, periodic condition surveys, load testing, and the assessment of building envelopes, facades, and waterproofing systems.

We seek a professional engineer to join our investigative team. Duties will primarily include investigations with an emphasis in building envelope and waterproofing systems. Must not be afraid of heights! Requirements include a minimum of four years structural design experience and a desire to learn.

Send resume via email to John Lund at ilund@martinmartin.com



Larsen Structural Design is a smaller structural engineering firm in Fort Collins, Colorado. Our size allows an engineer the opportunity to utilize all skills necessary to complete a building project including project management and significant client interaction. Project types include commercial, industrial, municipal, educational, residential and multi-family. Revit software utilized heavily.

We are looking for a dynamic individual with 2 to 10 years experience who wants to grow along with our firm. We offer competitive wages and benefits with a fun and relaxed working environment.

Please email resume and cover letter to: blake@larsensd.com

Larsen Structural Design 19 Old Town Square, Suite 238 Fort Collins, CO 80524 970-568-3355 www.larsensd.com



S. A. Miro, Inc. is a highly recognized engineering / architectural firm, located in the Denver Tech Center. We have completed notable large commercial projects requiring sophisticated and complex design problem solving.

Currently seeking Structural Project Engineers with the following qualifications;

- MS/Structures or equivalent, Licensed Engineer with six years+ experience designing commercial projects.
- Responsible for carrying out independent project assignments as well as supervision of less experienced engineers.
- Must be capable of making independent engineering decisions using mature judgment. Typically experiences frequent contact with clients, other consultants, contractors and agencies.
- Revit experience a must.

Send your resume to <a href="mailto:employment@samiro.com">employment@samiro.com</a>. When applying include "STR-PE 0112" in the subject line of your email to indicate the position you are applying for.



JVA, Inc. has an opening for a Structural Project Engineer or Structural Project Manager in our Fort Collins office located in historic Old Town. We are looking for a licensed engineer with 5-10 years of design experience in a variety of building systems. Successful candidates will be motivated, service-oriented, experienced with REVIT, RAM, and RISA; and possess strong written and verbal communication skills. Send résumé to JVA, Inc.; 1319 Spruce St.; Boulder, CO 80302 or e-mail <a href="mailto:info@jvajva.com">info@jvajva.com</a>. JVA offers competitive salaries and comprehensive benefits in a rewarding work environment. To learn more about JVA, please visit <a href="www.jvajva.com">www.jvajva.com</a>.

# GENERAL NOTES - SPONSORS/ANNOUNCEMENTS

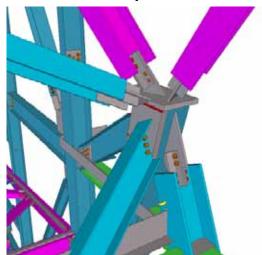
## SEPTEMBER SPONSOR: ZIMMERMAN METALS INC. THANK YOU



Zimmerman

Metals Inc.

Over 75 Years of Quality Workmanship and Service.



A connection from the Hamilton Building, Denver Art Museum

www.zimmerman-metals.com

## JULY SPONSOR: SIMPSON STRONG-TIE THANK YOU



"A group of prestressed concrete manufacturers, working together to promote the application and use of precast/prestressed concrete in construction"



SEAC wants to hear from you! Do you have ideas/suggestions for SEAC? Please contact a Board member with any suggestions. Thanks!

# GENERAL NOTES - ANNOUNCEMENTS

# In The Spotlight

2012 SEAC FALL SEMINAR
October 18, 2012
Sheraton Denver West
360 Union Boulevard
Lakewood, CO 80228

Changes to the ASCE 7-10 Wind Provisions and Their Application to the Front Range

ADVANCE REGISTRATION DISCOUNT MUST BE MADE BY OCTOBER 4, 2012

COST IF REGISTERED BY OCTOBER 4TH Students/Members: \$60.00 Non-Members: - \$75.00

COST AFTER OCTOBER 4TH
Student/Members/Non-Members - \$100.00

RSVP (early) on the SEAC Website at www.seacolorado.org

See attached Seminar Flyer and Registration Form

# Welcome

Please welcome our newest members to SEAC:

**Zachariah Brownson** (Professional Member) KL&A Structural Engineers

**Michael Negler** (Professional Member) AKM Engineering Consultants, Inc.

**Jeremy Crandall** (Professional Member) Structural Consultants, Inc.

**Duncan Cornell** (Affiliate Member) Quality Engineering, LLC

Eric Visage (Student Member)

# Important

SAVE THE DATE
SEAC ANNUAL DINNER
Thursday, November 15, 2012

This promises to be a very FUN evening for ALL!!! Watch for more details.



# ATTENTION:

**ENGINEERS & ARCHITECTS** 

COME SHOW YOUR CREATIVITY



WHEN: Friday, November 18th at 2pm WHERE: Lodo's, 1946 Market St. Denver, CO COST: \$40 per bridge Registration required by Friday, October 28th

Entry fee payment required by Friday, November 4th

Your team will receive four commemorative pint

glasses at the event!



gingerbreadbridge.com





# SEAC 2012 FALL SEMINAR

# Changes to the ASCE 7-10 Wind Provisions and Their Application to the Front Range



### **COURSE DESCRIPTION:**

Significant modifications have been made within ASCE 7-10 that affect the wind provisions used in the design of buildings. In preparation for these changes SEAC is offering a half day course on this topic as our Fall Seminar to explain the modifications themselves, reasons for the modifications, their impact on local design wind pressures, and when wind tunnel testing may be preferable to the analytical provisions. We are honored to have this seminar taught by highly-qualified speakers: Dr. Jon Peterka, P.E., Phd., Emily Guglielmo, P.E., as well as presentation of example problems by SEAC Education Committee members, Don Carroll, P.E. and Matthew Hood, P.E.

This seminar will cover the methodology of calculating wind pressures and the impact of the modified provisions on local design conditions illustrated in Front Range wind maps will be explained. In addition, to make this seminar truly interactive to attendees, seminar registrants will be emailed example problems to solve prior to the seminar. Solutions submitted by participants prior to the day of the seminar, will be used in a comparison of results. All respondents submitting results by October 4<sup>th</sup> will be included in prize drawings at the end of the seminar.

### **COURSE INSTRUCTORS:**

**Dr. Jon Peterka, P.E., PhD** is a co-founder and President of Cermak Peterka Petersen, Inc. (CPP) where he is also Principal-in-Charge for special projects, including extreme or unusual wind, snow, or icing events, power line rating, or projects requiring integration of multiple CPP resources where a unique aspect of the project requires a special approach.

Dr. Peterka's career includes management and direction of all types of wind studies including wind loads, pedestrian comfort, snow loading and drifting, power line rating, siting and technology tests for wind turbines, and forensic engineering for wind effects. His work in wind engineering includes membership on the committee that writes the national wind load standard, development of the non-hurricane wind hazard map for the standard, consulting for the FAA on aircraft wind shear, and participation in a National Research Council report to Congress on wind damage. He is a past member of the Board of Directors for the American Association of Wind Engineering (AAWE) and the chairman of an ASCE Standards Committee on wind-tunnel testing of structures. Dr. Peterka is active in ASCE, AAWE, ASME, AIAA and NSPE.

**Emily Guglielmo, P.E.** has nine years of structural engineering experience with Martin/Martin in the Colorado region. She has been involved in the management and design of a variety of structures for both public and private clients. These structures include garage, office, educational, medical, broadcast, and recreational facilities. She served on the SEAC Building Department Survey committee and is active on several ASCE sub-committees, with a particular emphasis on code-related issues. Emily has recently relocated to the San Francisco Bay Area and established a local branch office of Martin/Martin, Inc.

OCTOBER 18, 2012
Sheraton Denver West
360 Union Boulevard
Lakewood, CO 80228

SEAC Fall Seminar Sponsor



### **=** SEAC 2012 FALL SEMINAR - REGISTRATION FORM



OCTOBER 18, 2012 Sheraton Denver West 360 Union Boulevard Lakewood, CO 80228



### WHAT DO ATTENDEES RECEIVE?

- 3.5 Professional Development Hours
- Binder of Complete Course Notes and Example Problems Worked During the Course

### **SCHEDULE:**

7:30 – 8:10 Registration and Breakfast 8:10 – 9:05 Reasons for change & Local Conditions

Conditions

9:20 – 10:45 Specifics of Code Changes

11:00 - 12:00 Sample Problems

### MUST REGISTER BY OCTOBER 4, 2012 (FOR ADVANCE REGISTRATION DISCOUNT):

### **ADVANCE COST:**

SEAC Members/Students - \$60 Advance Registration Non-Members - \$75 Advance Registration

### **AFTER OCOBER 4, 2012**

SEAC Members/Students/Non-Members \$100.00

RSVP & Pay on the SEAC Website at <a href="www.seacolorado.org">www.seacolorado.org</a> . Reminder - Register by <a href="October 4th">October 4th</a> for the Advance Registration Discount.

#### **NEED TO PAY BY CHECK?**

Make your check payable to **SEAC** and send to the address listed below **with** this Registration Form.

Attn: Caryn Farrell

SEAC

c/o Martin/Martin Inc. 12499 West Colfax Avenue Lakewood, CO 80215

Phone: 303.431.6100x403 - E-mail: <a href="mailto:seac@martinmartin.com">seac@martinmartin.com</a>

Company Name:	
Phone No:	
Names of Attendees:	Fee Amount:
TOTAL	