

MAY GENERAL MEETING

Findings of the March 2003 Snowstorm

The snowstorm that dumped on the Denver region in March of 2003 resulted in known damage to over 6,000 structures with failure, or partial failure, of many of these. Even DIA's famous tension roof fabric showed signs of distress. Fortunately, lives were not lost in these failures, but damage to property was substantial. Colorado's structural engineers were called to evaluate noticeably damaged buildings in droves. Homeowner's were awakened to the sound of cracked rafters, and businesses were unsure whether it was safe to have employees working under deflected ceilings. The snow storm was a significant structural loading event about which much speculation has been made and from which lessons can be learned.

The results of the snowstorm created many questions—some not answered a year later. What snow loads were actually reached? Are code requirements sufficient when such damage occurred? What structural systems and details did not fare well subjected to these loads? To what extent do design codes require rehabilitation of a structural system if only a few members behaved poorly? What types of repairs were solutions to damaged structures? And what was the financial impact of the repairs?

Our May General Meeting will explore these questions. A panel of the Denver area's structural and forensic engineers who have been very involved in evaluating the results of the snowstorm have volunteered to share their findings. Each panel participant has a unique perspective to share with SEAC's membership.

John Lund, P.E., Principal with Martin/Martin, Inc. and head of the firm's Structural Investigative Group, will monitor the discussion. John has been assessing existing structures for 20 years, as well as responsible for design of new buildings. Two other engineers within Martin/Martin's investigative department will further contribute. **Bruno Lutz** has been developing a paper that compares code requirements for rehabilitation of damaged structures. He has discovered a number of inconsistencies amongst codes and can help direct us toward appropriate interpretations. **Greg Gillmor** observed and evaluated numerous damaged buildings from the snowstorm and will refresh us on the type of damage that occurred.

Dick Cunningham, P.E., Principal with S.A. Miro, Inc., has been developing snow density equations as Chair of SEAC's Snow Load Committee. He will provide statistical insight to what snow loads actually occurred last year, how they compare to previous storms, and how they varied through the Denver/Boulder area.

Jim Royston, P.E., Principal and president of Western Engineering, has analyzed structural, architectural, and construction failures and performance problems of a wide variety of building systems for over 25 years. His firm investigated over 200 structures affected by the March snowstorm and has repair solutions to share with us and will share cost implications with us.

Each member of the panel will present their findings and then time will be allotted for questions from the audience. Please join us to participate in these discussions.

Date: Thurs. May 20, @ 7:30 am

Don't Miss Out

Speaker(s): John Lund, Martin/Martin, Inc.

Please e-mail your reservations to Caryn

Dick Cunningham, S.A. Miro

Bauer at: cbauer@martinmartin.com.

Jim Royston, Western Engineering

Reservations MUST be made By 12:00

Location: Renaissance Denver Hotel

noon on Monday, May17, 2004.

3801 Quebec Street (south of the I-70 and Quebec intersection)

Schedule

Mark Your Calendar (2003)

General Membership Meetings

(Breakfast 7:30 a.m.)

January 15

March 18

May 20

July 15

September 16

Business Practice Committee Meetings

(Breakfast 7:30 a.m.)

February 12

April 8

June 10

August 12

October 14

SEAC Board of Directors Meetings

(7:30 a.m.)

January 8

February 5

April 1

June 3

August 5

October 7

Annual Dinner Meeting

November 4

6 - 9 p.m.

Officers & Board Members



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

Caryn L. Bauer
SEAC Executive Assistant

Natalie's News.....

This newsletter provides the perfect opportunity to elaborate on a few announcements made at the March General Meeting and spread news to those who could not attend. Two of the announcements were requests for volunteers on a couple endeavors that SEAC is presently undertaking: updating the Building Department Survey and organizing our Fall Seminar.

Henry Lopez is Chair of the Building Department Survey committee. Anyone who is willing to participate in making one of SEAC's most used publications current should contact Henry or Caryn Bauer. So that the task of communicating with Colorado's many building departments is not overly-daunting for any one person, hopes are that there will be enough participants to divide the work reasonably. In addition to creating an educational tool for our membership, this process gives SEAC the opportunity to educate some of the smaller building departments of code interpretations and needed information.

J.R. Barker is heading the organization of one of three components of the upcoming October seminar—the “vendor seminar”—and would like your help. This could be an opportunity for some of our newer members to get to know representatives of the products that we as structural engineers need to be familiar. If interested, please give J.R. a call.

Another item that was mentioned at the last meeting was the Colorado Board of Registration's approval of development of a Task Force to review the practice of forensic engineering in the state. The origin of this course of action was allegations to the Colorado Board that some forensic engineers were creating a litigious environment and reporting extreme predictions of building behavior. SEAC, along with ACEC Colorado, the Colorado Association of Geotechnical Engineers, and ASFE: Professional Firms Practicing in the Geosciences, expressed support of the Task Force's development. This is an issue that affects many members of SEAC, so minutes from the first meeting of the Task Force, that took place April 9th, are included within this month's newsletter (see page 3). I think it is significant to point out that the first item noted in the minutes is that the meetings are open to all interested parties, and at the first meeting, forensic engineers were the largest participants.

Lastly, a quick note of thanks should be made to **Mike Piper** and **Brent Norris** for orchestrating the Structural Engineers Emergency Response committee's presence at an Urban Search and Rescue training on March 26th and 27th. There was impressive attendance—particularly for the end of a Friday and Saturday. Attendees were able to observe some of USAR's methodologies for rescuing victims from damaged buildings, hear the presentation Mike gives to USAR personnel on structural systems, and see Mike and Brent decked out in their Structural Specialist gear. A worthwhile activity for all.

Forensic Engineering Task Force of
Colorado State Board of Registration
For Professional Engineers and
Professional Land Surveyors
April 9, 2004

Meeting Notes

Following Introductions of everyone in attendance ground rules were given.

Peter Monroe provided overview of Task Force operation as follows:

1. Meetings are open to all interested parties.
2. A series of meetings are contemplated.
3. The Task Force will work to develop consensus on issues.
4. Recommendations when be presented to State Board for possible inclusion in rule making.

A round table discussion was held asking everyone to provide their ideas on issues. Issues identified are:

1. Practice outside area of expertise.
2. Bundling of engineering reports with legal work.
3. Enforcement of minimum standards in construction.
4. "Standard of care" definition being determined by non-practicing and out-of-state experts.
5. Expert witness's unlicensed in Colorado.
6. Standards needed for engineering "surveys" of existing buildings.
7. Lack of professional curiosity.
8. Experts acting as advocates.
9. Large diversity of opinions based on some information.
10. Extreme repair recommendations .
11. Ethics
12. Different opinions for trial than for settlement.

Meeting was concluded with consensus that issues above are important enough to warrant additional task force meetings.

Our next meeting will be 7:30 to 9:00 on Friday, May 14th in conference room 1380 at 1560 Broadway, Denver, Colorado

POSITION AVAILABLE

Senior Structural Engineer: WLS Engineers, a consulting structural and civil engineering firm in suburb of Denver, Colorado is seeking a structural engineer with 12 - 20 years of experience, with preferably a Masters Degree in structures who has Project Management experience, to eventually take over the management and ownership of the firm. Please send a resume and salary requirements to:

WLS Engineers
8795 Ralston Road, Suite 112
Arvada, CO 80002
P: 303.431.2406
F: 303.431.0341

MEMBERSHIP ROSTER UPDATE

The Membership Roster has now been updated on SEAC's website! Our Administrator, Caryn Bauer has included the most up-to-date contact information she has for our members, but some of that information may still require further updates.

Please view the new Roster of the website to verify your contact information and send all revisions to Caryn to incorporate in the next update.