



SEAU NEWS

The Newsletter of the Structural Engineers Association of Utah

Volume VII- Issue VII April 2003

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This newsletter is a monthly publication of the Structural Engineers Association of Utah.

Articles or advertisements appearing herein may be submitted by anyone interested in expressing a viewpoint on structural engineering.

Articles for publication may be submitted to:

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(801) 486-3883

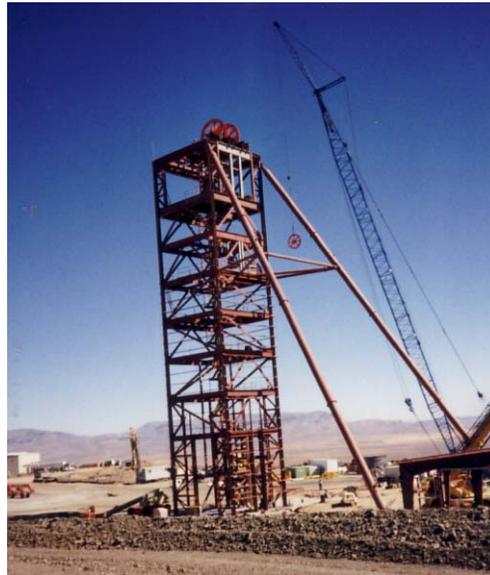
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Head Frame for a gold mine at Turquoise Ridge, Nevada, by Larsen and Malmquist Inc., Consulting Engineers & Land Surveyors, Salt Lake City, Utah.

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APRIL EVENT

- *Utah Amendments to IBC 2000*
- *Emergency Response*
- *“Punchlock” Metal Deck Fastenening*

▼
Presented by:

Mark Harris, P.E.

Barry Welliver, S.E.

Collin Lowry

Program Date:

Thursday, April 17, 2003

5:30 p.m. Social

6:00 p.m. Program
▼

Location:

University of Utah

EMCB Room 103
▼

MESSAGE FROM THE BOARD

CONTINUING EDUCATION



By Julie Ott,
SEAU UEC Delegate

Effective 4/1/2003 all licensed Professional Engineers and Structural Engineers will be required to maintain 24 hours of continuing education credits for every license renewal period (2 years). See

proposed rule changes following this article.

Currently a large number of the Professional members of SEAU have licenses in several states that currently require continuing education. For these members the continuing education requirements will not be alarming or difficult to meet.

While a large number of SEAU's Professional members are only licensed in Utah, or states that do not require continuing education, the 24 hours every 2 years may appear to be a large amount of class time. However, upon examining how to meet the continuing education requirements, it appears that it will not be difficult for the majority to fulfill.

The requirement:

24 hours of continuing education required.

CONTINUED ON PAGE 3

MEMBER FORUM

FOCUS

Utah Structural Engineers provide a significant contribution to a wide variety of projects for commercial, government, industrial, and residential clients. Each month, SEAU would like to focus attention on the accomplishments, successes, and hard work of our Utah Structural Engineering firms. This month the focus is on:

GEM Buildings

Golden Empire Manufacturing, also known as “GEM Buildings,” started in the mid-80’s as the design department of a general contractor, with one engineer and one draftsman/detailer. As it grew, the “design department” was incorporated into a stand-alone design/build firm. Currently GEM has 9 engineers on staff collaborating with 13 draftsmen/detailers. GEM still does a lot of its own fabricating. With experience, the variety and complexity of our projects have grown considerably.



Neways International Corporate Offices

Located in Springville, Utah, this 85,000 square foot, 5-story office complex utilizes a combination of special moment frames and braced frames. Different floors incorporate office space, large meeting areas, and a 400-seat theater. The fifth floor design is unusual due to a variety of finished floor elevations. The building is topped with a unique “floating” architectural feature showing off the corporate logo.



Horizon Air Hangar and Corporate Offices

Horizon Air is a regional air carrier headquartered at PDX in Portland, Oregon. The challenge was to

design a clear span space for a 245-foot x 300-foot open hanger. GEM designed and fabricated the welded wideflange trusses with four bolted splices. Along both lengths of the hangar are 70’ wide, 2-story lean-tos that laterally brace the structure and house the corporate offices.



Agripac Produce Processing Plant

Agripac is the packaging cooperative of several large produce companies including Birds-Eye. This 400,000 sq. foot facility incorporates a -40-degree freezer and dock, fresh pack area, and dry warehouse, all under one roof. Preventing thermal transmissions from one area to another was a major design consideration. An unusual feature of the 60,000 square-foot fresh pack area is a suspended ceiling designed for 40-psf maintenance traffic live load. Air movement is critical in the freezer area, so open-web girder moment frames along with joists were utilized to promote the free flow of refrigerated air.



Ameritel Inn

This is a 5-story, 93,000 square-foot hotel in Boise, Idaho. Attached to the main structure is an all-glass natatorium. Design had to account for strict low vibration tolerance in an 18-inch total floor thickness. No first floor interior columns matched up with upper-level column lines because of the large open spaces required for lobbies, meeting rooms and a conference center.

MESSAGE FROM THE BOARD (continued from page 1)

The credit:

- 6 hours maximum for full time practicing engineers.
- 6 hours maximum for ACTIVE participation in professional societies.
- 4 hours maximum preparation of technical papers/books.
- 12 hours maximum for College/University teaching.
- UNLIMITED HOURS for attending seminars & presentations.

Example 1:

Full time practicing engineers:	6 hours maximum
ACTIVE ⁽¹⁾ SEAU member:	6 hours maximum
Prepare Technical papers:	4 hours maximum
Attend one all day seminar ⁽²⁾	<u>8 hours</u> 24 hours

Example 2:

University Teacher:	12 hours maximum
Attend two all-day seminars ⁽²⁾	16 hours
Attend 8 SEAU membership meetings ⁽²⁾	<u>8 hours</u> 36 hours

⁽¹⁾ Active members include Members of the Board, Technical Committees, etc.

SO GET INVOLVED – JOIN A COMMITTEE AND PARTICIPATE!!

⁽²⁾ Unlimited credit hours for attending technical seminars are allowed.

When a licensee obtains more than the required 24 hours of credit the licensee may carry forward a maximum of 12 hours of qualified continuing professional education into the next two-year period.

In addition, the licensee is responsible to maintain all continuing education credits. Please note that records shall be kept for four years following the completion of the licensing period.

If extenuating circumstances occur that kept the licensee from meeting the required credit hours, ie. major medical emergency, the licensee may request a one year extension to meet the requirements (this variance is subject to review by DOPL).

Several other minor “bookkeeping” changes have been included in this rule change which we do not anticipate having any effect on SEAU members.

Please note this article has been written prior to the April 1, 2003 effective rule date. SEAU will notify the members if any substantial changes are made to the Continuing Education rule.

R156-22-501. Continuing Education for Professional Engineers, Structural Engineers and Land Surveyors.

In accordance with Subsection[s] 58-22-303(2) and Section 58-22-304[(1)], the qualifying

continuing professional education standards for professional engineers, structural engineers and land surveyors are established as follows:

(1) During each two year period commencing on January 1 of each even numbered year, a licensed professional land surveyor shall be required to complete not less than 24 hours of qualified professional education directly related to the licensee's professional practice.

(2) The required number of hours of professional education for an individual who first becomes licensed during the two year period shall be decreased in a pro-rata amount equal to any part of that two year period preceding the date on which that individual first became licensed.

(3) Qualified continuing professional education under this section shall:

- (a) have an identifiable clear statement of purpose and defined objective for the educational program directly related to the practice of a professional engineer, structural engineer, or land surveyor;
- (b) be relevant to the licensee's professional practice;
- (c) be presented in a competent, well organized and sequential manner consistent with the stated purpose and objective of the program;
- (d) be prepared and presented by individuals who are qualified by education, training and experience; and
- (e) have associated with it a competent method of registration of individuals who actually completed the professional education program and records of that registration and completion are available for review.

(4) Credit for qualified continuing professional education shall be recognized in accordance with the following:

- (a) unlimited hours shall be recognized for professional education completed in blocks of time of not less than one hour in formally established classroom courses, seminars, or conferences;
- (b) a maximum of 12 hours per two year period may be recognized for teaching in a college or university or for teaching qualified continuing professional education courses in the field of engineering and land surveying;
- (c) a maximum of four hours per two year period may be recognized for preparation of papers, articles, or books directly related to the practice of professional land surveying and submitted for publication;
- (d) a maximum of six hours per two year period may be recognized for active

professional practice of engineering and land surveying; and

(e) a maximum of six hours per two year period may be recognized for active membership in any state, national or international organization for the development and improvement of the profession of engineering and land surveying.

(5) A licensee shall be responsible for maintaining records of completed qualified continuing professional education for a period of four years after close of the two year period to which the records pertain. It is the responsibility of the licensee to maintain information with respect to qualified continuing professional education to demonstrate it meets the requirements under this section.

(6) If a licensee exceeds the 24 hours of qualified continuing professional education during the two year period, the licensee may carry forward a maximum of 12 hours of qualified continuing professional education into the next two year period.

(7) A licensee who documents they are engaged in full time activities or is subjected to circumstances which prevent that licensee from meeting the continuing professional education requirements established under this section may be excused from the requirement for a period of up to three years. However, it is the responsibility of the licensee to document the reasons and justify why the requirement could not be met.

BULLETIN BOARD

SEAU MEMBERSHIP APPLICANTS

The following individuals have submitted an application for approval by the SEAU membership committee for new members:

1. Patrick Alcorn - Associate
2. John W. Coffey - upgrade from Associate to Professional
3. Peter Leichliter - Professional

SEAU OFFICER NOMINEES

Pursuant to Article V Section 2 the Nominating Committee has met and the following Members have been nominated to serve as Officers and Members of the Board of Directors for SEAU beginning next fiscal year.

President Elect/Vice President:
Barry K. Arnold

Secretary/Historian (second year Treasurer):
Kimberley Robinson

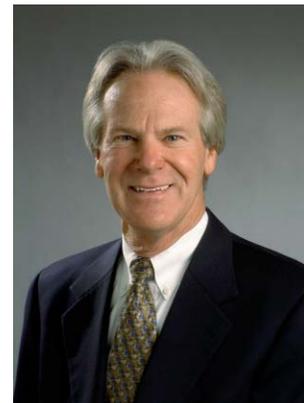
Director (second year UEC Representative):
Brent A Maxfield

Utah Seismic Safety Commission Representative:
Barry H. Welliver

Up to the April general membership meeting, additional nominations may be made by petition to the President Elect/Vice President; (Ronald Dunn) of at least 5% of the voting grade members.

Before May 1, all voting grade members shall be mailed a ballot.

ENGINEER OF THE YEAR AWARD



Congratulations to Eric Kankainen of Calder Kankainen Consulting Engineers, Inc., who was selected as Engineer of the Year by the Utah Engineer's Council. He also won the Grand Conceptor Award for Calder Kankainen's work as the engineer of record overseeing the planning, design, and construction of all temporary structures for the Salt Lake Olympic Organizing Committee during the 2002 Winter Olympic and Paralympic Games. The awards were announced at the Utah Engineer's Council Annual Banquet on February 20, 2003. Eric was SEAU's nominee for this award from among 6 nominees representing Utah's 16 professional engineering societies. Eric is also a founding member of SEAU.

BULLETIN BOARD

BULLETIN BOARD EDUCATOR FEATURE

Each month for the next several months, SEAU NEWS will highlight a Structural Engineering educator from one of Utah's engineering schools. This month's feature is on:



DR. LAWRENCE D. REAVELEY

This month's educator is no stranger to the SEAU organization and is in fact one of the organization's founding members, not to mention that he is currently President of SEAU.

Dr. Lawrence D. Reaveley received his BSCE in 1963 and MSCE in 1964 at the University of Utah. He later earned his Ph.D. at the University of New Mexico in 1971. Interim to his masters and doctorate degrees Dr. Reaveley worked as a structural design engineer. From 1974 to 1993 he was vice president of Reaveley Engineers & Associates. Dr. Reaveley has contributed significantly to the development of national guidelines and standards for analysis and rehabilitation of existing building structures and is recognized as one of the nation's pioneers in this field.

In 1993 Dr. Reaveley was appointed Chair of the Department of Civil and Environmental Engineering at the University of Utah. Under his leadership, the department has the charge of educating approximately 300 undergraduate and 75 graduate students on a continual basis. Since assuming his current position at the University of Utah, the department has progressed significantly in both graduate and undergraduate fields of study. His valiant efforts have benefited the Department of Civil and Environmental Engineering and its students in countless ways, including the acquisition and implementation of a state-of-the-art load frame used for full and partial scale testing of structural assemblies and elements. Dr. Reaveley's guidance and influence on students in the department is

noteworthy. Alumni who have graduated from the department during his chairmanship often comment on his effectiveness not only as an educator, but as someone genuinely concerned about students and their progress.

Dr. Reaveley's involvement in national committees is significant. He has played a key role in the development of many of the building codes that we as structural engineers use on a regular basis. Code committees in which Dr. Reaveley has served include: ACI, ATC-21 & 22, ANSI, BSSC, NEHRP, EERI, FEMA, and AISI.

The awards and recognition that Dr. Reaveley has received include 1997 Educator of the Year (Utah Engineers Council), 1988 Design Award for Implementation Action – NEHRP, 1989 Engineer of the Year Award (Utah Engineers Council), 1996 Governor's medal for Science and Technology, 1998 Appointed by Governor Michael Leavitt to the Utah State Capitol Preservation Board, and the 1998 National American Concrete Institute Structural Engineering Award.

Many alumni who have graduated from the Department of Civil and Environmental Engineering at the University of Utah during the past decade often comment on Dr. Reaveley's effectiveness as an educator and department chair. Alumni are extremely appreciative of his efforts and feel fortunate to have been educated in a program under his leadership. SEAU News is proud to feature Dr. Reaveley in this month's newsletter and offers its gratitude to him for having such a positive influence over structural engineers educated at The University of Utah.

If you had an engineering professor at BYU, the U of U, or USU that you believe should be recognized in SEAU NEWS, please contact the SEAU Newsletter committee or send an email to jjohnson@reaveley.com.

CLASSIFIEDS

STRUCTURAL ENGINEER

Dunn Associates, Inc., seeks to hire a Project Engineer with 3+ years of structural design experience. Excellent opportunity for growth and advancement. Applicant must be motivated, and enjoy a great working environment! Full benefit package. Send resume to:

Dunn Associates Inc.
380 West 800 South, Suite 100
Salt Lake City, Utah 84101
Fax: (801) 575-8875
Tel: (801) 575-8877
Email: engineers@dunn-se.com

SEAU Presents:

**2003 UTAH AMMENDMENTS TO IBC 2000,
STRUCTURAL ENGINEERS EMERGENCY RESPONSE PLAN, &
"PUNCHLOCK" FASTENING FOR STEEL DECK**

Thursday April 17, 2003

Presented by:

Mark Harris P.E., Codes Committee Chairman
Barry Welliver S.E., SEERP Committee Chairman
Collin Lowry, VERC0 Manufacturing & Dennis Peterson, Steel Encounters

Social: 5:30 p.m.

Program: 6:00 p.m.

Location:

Engineering & Mines Classroom Building Room 103
University of Utah

Three topics of discussion will include the 2003 amendments to IBC 2000 adopted in Utah; introduction of a Structural Engineers Emergency Response Plan outlining the organization and operation of structural engineers in emergency response situations; and "Punchlock" mechanical deck sidelap fastening system as an equal alternative to welded connections.

STRUCTURAL ENGINEERS ASSOCIATION OF UTAH

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