

May 6th Dinner Meeting Program, The City Club, San Francisco

The New Carquinez Bridge

Mark Ketchum, OPAC
Consulting Engineers and
Bart Ney, Caltrans

by Jamison Curry, Program Committee Chair



Bart Ney, the Carquinez Bridge Public Information Manager will be the speakers.

Following Dr. Penzien's April presentation about transportation structure seismic design criteria, our May meeting will feature a presentation about the design and construction of the New Carquinez Bridge. Dr. Mark Ketchum, who worked on design development of the bridge and Mr.

Caltrans writes, "The New Carquinez Bridge is the first new suspension bridge built in the United States since the Chesapeake Bay Bridge in 1973. The bridge will replace the existing Westbound Interstate 80 Bridge (built in 1927) between the town of

Continued on page 5

April 1st San Francisco Program Wrap-up

Degenkolb Forum
Dr. Joseph Penzien
International Civil Engineering
Consultants, Incorporated

by Jamison Curry, Program Committee Chair

This year's Degenkolb Forum speaker, Dr. Joseph Penzien, began the evening by speaking a little about his personal recollections of working with Henry Degenkolb. The Structural Engineers Association of Northern California was once a fairly small group that talked about structural engineering over drinks and cigars at the Engineers Club. Dr. Penzien remembered being invited to eat at Mr. Degenkolb's home. Henry

Degenkolb's collegiality and professional interest was a characteristic that influenced those around him.

Dr. Penzien then presented his paper on *Earthquake Engineering for Transportation Structures—Past, Present, and Future*. This paper was published in the February 2001 issue of *Earthquake Spectra*, the journal of the Earthquake Engineering Research Institute. He began by giving a broad overview of the history of seismic design criteria for bridge structures, which were once simply an admonition to consider earthquake-induced stresses. The 1961 edition of the American Association

Continued on page 5

Meeting Notice

May Dinner Meeting
May 6th, 2003

The City Club
155 Sansome Street, 10th Floor
San Francisco

Assembly 5:45
Dinner 6:30
Program 7:30

Fax Registration Form on
back page to the office by:

12 noon Friday, May 2nd

SEAONC/ UC Berkeley
Extension Short Course
SE Exam Review

\$595

- FREE copy of *Structural Engineering License Review: Problems and Solutions* by Alan Williams.
- 6 Weeks (consecutive Saturdays, for 6 hours per day)
- Emphasizes tips and techniques rather than problem solving in class.
- Designed and taught by a group of younger SEAONC members that recently passed the SE Exam.

See Enclosed Registration Form
for more information

I'm A Structural Engineer, Not An Architect!

By Ruth V. Gordon, SE

Have you ever been introduced as an architect after you have told someone you are a structural engineer? Most of us have had that experience and wish we could inform the public about what a structural engineer is and what a structural engineer does.

I started giving talks on structural engineering and earthquakes in 1975 with a talk on the subject to the Sacramento Section, American Society of Civil Engineers (ASCE) on "Senate Bill 519 and California Hospitals." Why Sacramento? Because I was on the SEAONC Legislative Committee and a delegate to the state legislative committee and met Sacramento people there. I had access to the wonderful earthquake slide collection of the Office of the State Architect. I made copies to start my own collection to which I added after future earthquakes. My collection also included pictures of good details.

Later that year I was invited to talk to the Stanford Student Section of ASCE because I am a Stanford Alumna. My subject was "California Earthquakes and Building Safety."

Over the years, I made presentations at UC Berkeley and San Francisco State University as well.

My first talk to non-technical people was to the Union Square Business and Professional Club (BPW) of which I was a member. I called that talk "The Faults of San Francisco." Someone from that club asked me to speak to her church group.

The word got around and the next group that I was involved with was the San Francisco Bay Girl Scout Council Project to provide career exploration to 12 and 14 year old girls in the world of construction and the women involved in it. I led them on a field trip to a school building under construction.

Over a twenty-year period I talked to a wide variety of groups—technical and general. I became pretty adept at adapting my talks to the interests or occupations of the audience. For example, I spoke to the engineers at a local hospital about the importance of anchoring and bracing equipment. The same hospital asked me to speak to their Grand Rounds for physicians. For them,

I pointed out that since they would be required immediately at the hospital after an earthquake they should be sure that their homes and their contents are adequately secured.

The most interested audience I addressed was at the Exploratorium shortly after the Loma Prieta earthquake. One of my acquaintances who had heard me speak suggested that I make a presentation. It was scheduled for two days, a Saturday and a Sunday. On Saturday, the large room was full. On Sunday the audience was so large that a loudspeaker was installed outside the auditorium to accommodate the crowd.

People are really hungry for information in this earthquake-prone area. Every one of you has knowledge to share. Based on my experience, it takes just one or two talks and by word of mouth you will have more invitations than you can handle. In my case, it ended with my having made 77 presentations!

This is one way to define what we do and that we, indeed, are not architects.

Letter to the Editor

Editor:

I agree strongly with the opinions expressed by Ron Mayes in the March Open Forum. Rutherford & Chekene has designed several highly regarded buildings using base isolation, and also has been very active in utilizing the new technology of Buckling Restrained Braced Frames (BRBFs). Although members of our firm have been major participants in the further development of the BRBF system and the code provisions for it, I, like Mr. Mayes, have been dismayed by the articles in several publications touting BRBFs as providing equivalent performance to Base Isolation. In my opinion, properly designed BRBF systems are the best available "conventional" lateral force resisting system, providing the potential for significant energy dissipation without much damage to the primary building frame. However, BRBF systems cannot be compared to base isolation as a means of minimizing overall earthquake damage to the structure and particularly to the contents. Those who are making such claims in national publications, or to their clients, are doing a disservice to those clients and to the public.

--Mark Saunders

A Summary of the Spring 2003 Seminar

By Julia Hunting, CEC Chair

The SEAONC Spring 2003 Seminar was held at the PG&E auditorium on March 12th and 19th, 2003. About 200 people attended the seminar, which was entitled "New Trends in Performance Based Earthquake Engineering." The topics ranged from a brief introduction and history of the performance based earthquake engineering movement and discussion of recent testing and research projects to more practical discussions on foundations, current computer analysis methods, and anchorage of nonstructural components.

Bill Holmes from Rutherford and Chekene began the seminar with an introduction to Performance Based Earthquake Engineering and his description of the current state of the practice. He was joined by Ron Hamburger of Simpson, Gumpertz and Heger, who spoke briefly about the ATC-58 Project and the development of the "next generation" in performance-based seismic guidelines. He was followed by Dr. Greg Deierlein of Stanford University, whose presentation was entitled "Framework Methodology and Supporting Technologies for Performance-Based Earthquake Engineering," which presented findings from his recent research and laboratory testing with the PEER program. Evan Reis from Comartin-Reis concluded the first night with his presentation on Benefit-Cost Analysis and the practice of quantifying risk and better communicating

PBEE to building owners in clear economic terms.

The second evening of the seminar, Craig Comartin of Comartin-Ries began with his presentation of Practical Performance-Based Design of Foundations, using for his design example an existing medical office building that was damaged during the Northridge earthquake. Mr. Comartin was followed by Andrew Mole of Arup, who spoke on Selection of Analysis Tools, who gave a brief summary of the four different FEMA 356 analysis methods and then presented several examples of his recent work modeling and analyzing a variety of different structures using non-linear procedure. Robert Bachman concluded the seminar with his discussion of Performance Seismic Engineering of Nonstructural Components, and the need to assign responsibility for the seismic design implementation of nonstructural components and coordinate drawings between subcontractors.

Many thanks to all of the speakers for their informative presentations and thanks to the SEAONC office and Continuing Education Committee members Troy Morgan, Taryn Williams, Reina Farah, Jackie Bassett, Scot Listavich, C.S. Hwang, Nancy Aiello, Marci Uihlein, Howard Zee and Berta Rodriguez for all their help. Look for the announcement in this newsletter regarding the upcoming CUREE-SEAONC joint seminar on June 11th and 18th entitled, "Recommendations for Earthquake Resistance in Design and Construction of Woodframe Buildings" at the PG&E Auditorium.

New SE's On The Block

SEAONC would like to recognize the following members who have recently passed their SE Exam.

Congratulations!

Christoher Delp

David Figueira

David Gwie

Jonathan Hsieh

Scot Listavich

Suzanne Maline-Brown

Chiang Ng

Derrick Roorda

Michael Rysdorp

Mark Sarkisian

James Scheld

Derek Westphal

Victor Wu

Wenlin Wu

Opinions expressed in the SEAONC NEWS are not necessarily those of the Structural Engineers Association of Northern California. Advertising rates and information sent upon request. Acceptance of advertising and informational brochures in the SEAONC NEWS does not constitute endorsement or approval by SEAONC of the products or services advertised. SEAONC reserves the right to refuse any advertising.

The SEAONC NEWS is published monthly by the Structural Engineers Association of Northern California, 74 New Montgomery Street, Suite 230, San Francisco, CA 94105-3411. It is distributed to members of SEAONC as a membership benefit. Reproduction for noncommercial purposes is allowed if the source is acknowledged.

**Reminder:
June Newsletter Deadline:
Friday, May 9, 2003**

BART Seismic Standards Recent and Future Projects

Tom Horton, BART

*by Jamison Curry, Program Committee
Chair*

South Bay SEAONC members would like to thank Tom Horton of Bay Area Rapid Transit (BART), who made a presentation about BART's seismic standards.

Mr. Horton, who displayed remarkable devotion to his duties as speaker for the evening, was unavoidably detained, preparing for a meeting with the BART Board of Directors. Just like a BART train, though, he arrived on schedule to deliver his talk. SEAONC is most disappointed that Mr. Horton didn't get dinner, which, besides glory, accolades, and kudos is often the only honorarium our speakers receive.

Mr. Horton presented an overview of seismic design criteria for BART structures. BART uses a combination of at-grade, aerial-supported, and underground trackway. The development of aerial support structures, a major part of BART's system, was used to illustrate the progression of BART's seismic criteria. BART's original system, constructed in the 1960's, used an equivalent static lateral force of 0.10g with the familiar 1.33 allowable stress increase for working stress design. For ultimate strength design, 0.5g was used for structures on alluvial fill and 0.33g for structures founded on rock. Aerial structures were often supported on pre-cast, pre-stressed concrete piles, with 4-dowel connections to footings; these

footings usually had no top mat of reinforcing.

In the mid-80's and 90's, extensions to Dublin and Pittsburg/Bay Point were made. Seismic criteria were based on the 1988 UBC and Caltrans Bridge Design Specifications. These criteria included four distinct soil types, two design spectra, and two time histories – a maximum horizontal spectral acceleration of 0.7g was considered. Components in one principal direction were required to be combined with 30% of the components in the other two directions, simultaneously. Aerial structure footings more often utilized drilled, cast-in-place concrete caissons and had top mats of reinforcing steel. The San Francisco International Airport Extension required the design of many unique structures for BART. Criteria for this design were based on 1995 CBC/1994 UBC criteria. The project delivery system was design build, and the contractor was required to use non-linear time history analysis of "complex" structures, using three sets of time histories provided by BART. The contractor was required to do initial sizing of the structure and then do a performance-based evaluation, to show the ductility and displacement capacity of the design. Aerial structures had much more substantial caisson/footing connections, with hoop reinforcing extending from the drilled caissons into the footing; top and bottom mats of steel in footings were tied together with stirrups.

Current retrofit projects are utilizing 1998 CBC/1997 UBC criteria and Caltrans Bridge Design Specifications. Cost-benefit considerations are made, and a two-level earthquake design approach is taken - a median design earthquake

for operability and median plus 0.5 sigma (e.g. 500 year return period) for life safety. Near-field effects (BART calls this "the fling") are considered and, in some cases, foundation rocking is allowed.

These designs are taking measures to protect piles, supporting aerial structures, from being damaged.

Thanks to Mr. Tom Horton.

Berkeley Lab
1/4 page ad

May 6th San Francisco Program

Continued from page 1

Crockett and the city of Vallejo over the Carquinez Straits.

The new bridge is a main-cable catenary suspension bridge that spans the Carquinez Straits a distance of 728 meters (2390 feet). The width of the roadway on the bridge is 82 feet and increases westbound travel from 3 lanes to 4 lanes. The additional lane will provide for a westbound high occupancy vehicle lane. The added width also allows for a pedestrian/bicycle path on the bridge. There are two main towers of the bridge, each approximately 400 feet

tall, which support each of the two main cables. Suspenders hang from the main cables and support the roadway below.

Each main cable of the suspension bridge consists of 37 strands with each stand consisting of 232 continuously looped 5-millimeter (1/5-inch) wires. That is a total of 8584 wires in each cable. Each main cable will be 1224 meters (4015 feet) in length. The total length of all of the wires in both cables is approximately 20,771 kilometers (12,903 miles). This is enough wire to stretch from San Francisco to

Hong Kong and back to San Francisco.

The bridge roadway (i.e. bridge decking) was constructed in Japan and shipped to the United States. The bridge deck consists of 24 sections each weighing 600 metric tons (1.32 million pounds).

The final cost of the bridge, interchange, new approaches, landscaping, maintenance facility, and bridge demolition will be approximately \$480 million. The New Carquinez Bridge will be named the Alfred Zampa Memorial Bridge and is expected to open in October 2003.

April 1st San Francisco Wrap-Up

Continued from page 1

of State Highway Officials' Standard Specifications for Highway Bridges contained specific earthquake loading criteria, based on criteria developed for buildings by the Structural Engineers Association of California. These criteria continued to develop and now categorize requirements for "Essential" and "Other" bridges, regular and irregular structures; they contain requirements for performing dynamic analysis for multi-span bridges, using either the single-mode spectral method for regular structures or the multi-degree spectral method for irregular structures.

One of the interesting aspects of earthquake effects on bridge structures is that, because of their often long span lengths, size effects can be an important consideration. Earthquake ground motions may shake different parts of large structures at different rates. Consideration of this effect may result in more economical, safer structures.

Dr. Penzien finished his presentation by talking about the importance of aesthetic considerations in bridges, advocating the involvement of architects in major bridge designs. As an example of this, he showed a slide of the initial conceptual design for the Golden Gate Bridge. The public hated it. The developer, Mr. Joseph Strauss, was forced to go back to the drawing board – this time, he hired an architect, Irving F. Morrow, who was responsible for the aesthetic design of the bridge we see today.

SEAONC thanks Dr. Penzien for a very interesting presentation.

Posting for Membership

Member SE

Stan Siler

Structural Engineer, ABS Consulting

Erik Okada

Project Manager, HNTB Corporation

Member

Ana Akin

Senior Plan Check – Civil Engineer, LP2A

John Hare

President, Holmes Culley

Sohban Shahid

Project Engineer, Walker Parking Consultants

Richard Terrazas

Project Engineer/Civil Engineer, Black & Veatch

Associate

Daniel Bech

Design Engineer, GKO & Associates

Business Forum May 2003 Program

**ARCHITECT AS YOUR CLIENT:
STRUCTURAL ENGINEER COMPANY
COMPENSATION, AGREEMENT,
BILLING AND PAYMENTS**

*AIA OFFICE, 130 SUTTER STREET, SUITE 600
SAN FRANCISCO*

Wednesday, May 21, 2003 from 12:00 – 1:30 PM

ARCHITECT / STRUCTURAL ENGINEER PANEL DISCUSSION

Architects

Peter Wong, AIA, ED2 International
Doug Zuiker, AIA, Gensler

Structural Engineers

Hal Davis, S.E., Rutherford & Chekene
Simin Naaseh, S.E., Forell – Elsesser
Jay Love, S.E., Degenkolb
Reinhard Ludke, S.E, Creegan + D' Angelo

Many Structural Engineers provide their services to Architects in the design and renovation of buildings. The Structural Engineers Association Business Forum committee agreed that Structural Engineers and Architects often discuss the project schedule and scope for the technical engineering services required to prepare construction documents and support construction, but often, we don't discuss the Architects and Owners expectations, schedule and plan for Architect's Services (including Structural Engineer subconsultant), compensation, agreement, billing schedule, and payment schedule. The Panel Members will be discussing:

- Successful Business
- Lessons Learned
- Architects Compensation Agreement with Owner
 - When do we send bills?
 - When do we expect payment?
 - How much and when do we pay the SE?
 - What type of agreement do we use with our SE?
 - How and when should the Engineer bill for service?

Cost: \$20.00 Business Forum Member
\$30.00 Non-Business Forum Member

—Sandwiches will be served—

RSVP: E-mail: seaonc@ix.netcom.com or phone
415/974-5147 by **Monday, May 19th**
Space is limited so register early.

Younger Member Forum

**Young Members Forum &
Continuing Education Committees**

present:

**Young Members Design Forum
Foundation Design**

*by Jackie Bassett
of KPFF Consulting Engineers*

May 6th 5:30-6:30

The City Club, Game Room 10th Floor

Please join us for an informative talk and appetizers before the May monthly dinner meeting.

Baseball season has begun! and the Annual YMF Baseball Game is right around the corner. This year we are sitting in View Reserved for the June 27th Friday night Giants game vs. Oakland at Pac Bell Park. RSVP ASAP to myself at lauray@tippingmar.com to reserve your seat! They will go fast. Young members (34 and under) can go for free, all others can join us for the cost of the ticket, \$22. You can invite friends, family, co-workers - the more the merrier.

SEAONC's New Multimedia Projector



SEAONC has a new In Focus LP290 Multimedia projector which is available for rental to SEAONC committees and SEAONC voting members. The rental fee remains at \$100 per day of use in addition to a deposit of \$1800.

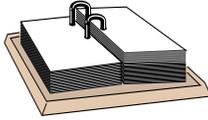
The SEAONC office also offers a Sony digital camera for rent at \$25 per day with a \$1000 security deposit. Equipment is reserved in advance, so call the SEAONC office at 415/ 974-5147 to check on availability

Bulletin Board

EVENT CALENDAR

May 6 - Dinner meeting--The City Club, San Francisco

**May 6
ATC -20
Training
4:30-6:30 pm
City Club
Bechtel Room, 9th Floor**



**May 6 -YMF Design Forum
5:30-6:30 pm City Club
Game Room, 10th Floor**

**May 15 - AEG Seismic Hazard
Workshop, UC Davis**

**May 21 - Business Forum
Luncheon, joint with AIA, at
the AIA Office**

AEG Workshop on Seismic Hazard Analysis

Seismic Hazard Analysis (SHA) requires knowledge in the fields of geology, seismology, geotechnical and structural engineering. The Association of Engineering Geologists, Sacramento Section is pleased to offer a one-day workshop highlighting the critical features of effective Seismic Hazard Analysis.

It will be held Thursday, May 15, 2003 from 8:00 am – 5:00 pm at the University Club Conference Center, University of California, Davis, CA. For more info, Contact Bruce Hilton at 916/366-1701, or go to: <http://www.aegsacto.org/SHA.pdf> to download a registration form.

ATC Announces 10th U.S. – Japan Workshop Maui, Hawaii June 30-July 2

The Purpose of the Workshop is to provide a forum for the interchange of ideas and information relating to the improvement of current building design and construction practices in the United States and Japan. The special focus of the workshop will be on seismic design and blast effects mitigation. The workshop is the 10th in a series started in 1984, and repeated every two years. The workshop program has been designed for practicing structural engineers and researchers, and will include presentations by participants from both countries. For more info and to register, go to: <http://www.atcouncil.org>.

New Members

Member SE

Igor Kharitonoff

*Structural Engineer, DES Architects
+ Engineers*

Suzanne Maline-Brown

*Project Engineer, Swinerton Management
& Consulting*

Derek Westphal

*Project Engineer, Forell/Elsesser
Engineers, Inc.*

Chris Willcox

Engineer, Forell/Elsesser Engineers, Inc.

Member

Douglas Gadow

Engineer 2, Wiss Janney Elstner Associates

Stuart Lowe

Hohbach-Lewin, Inc.

Glenn Mah

Senior Project Manager, UC Santa Cruz

Timothy Van Schoonenberg

Owner, VS2R Engineering

Milo Zabala

Construction Engineer, Strocal, Inc.

Associate

Cathy Ge

*Structural Engineer, Skidmore, Owings
& Merrill*

John Gordon

*Structural Engineer, Skidmore, Owings,
& Merrill*

Timothy Graf

Designer, Degenkolb Engineers

Tiffany Martindale

Engineer, St. Onge & Associates

Nicholas Murray

Design Engineer, T.Y. Lin International

Dimity Ozeryansky

Engineer, Rutherford & Chekene

Student

Amy Gac

*Graduate Student, San Francisco State
University*

Heinz Kuo

Graduate Student, UC Berkeley

Ahearn, Knox & Hyde, Inc. is a medium size structural firm in San Jose providing design services to the bay area for the past 32 yrs. We are looking for a self-motivated engineer with a minimum of 5 yrs. of experience in analysis & design of various types of buildings. We offer a very good benefits package along with SEP IRA plan, all fully funded by the firm. Salary is competitive & commensurate with experience & skills. Superb working conditions with congenial atmosphere. Fax résumés to 408/267-7919 or e-mail hyde@akhse.com.

Biggs Cardosa Associates is the largest structural engineering firm in the South Bay and the ONLY California Structural Engineering Design Firm to be ranked in the Zweig White HotFirm 2002 list, which ranks the 100 fastest growing U.S. Architectural, Engineering and Environmental Consulting Firms. Would you like to join us and become part of our dynamic, growth-oriented team? We have an immediate opening for a Senior Structural Engineer or Structural Project Manager for our San Jose office. Do you have a minimum of 8 years experience in building design and a California SE? Please contact us by visiting our website at www.biggs-cardosa.com and submitting your resume online, or by calling Michael Thomas at 408/296-5515. The exact position and compensation will be based on the candidate's experience.

Bevier Structural Engineering. Sacramento area engineering firm seeks qualified engineers with minimum two years experience in structural design and detailing of buildings. Multiple positions available. California CE or SE preferred. Strong communication and team work skills essential. Project management skills a plus. Excellent benefits and competitive salaries offered. Send or E-Mail résumé to: Bevier Structural Engineering, 2479 Sunrise Boulevard, Gold River, CA 95670-4344, E-Mail: bill@bevier.net

DeSimone Consulting Engineers (DCE) has immediate openings in our San Francisco office for outstanding PEs or SEs with excellent communication skills and experience in new design and seismic rehabilitation of existing buildings. We offer a competitive benefits package and a great work environment. Please fax resume to Ron Polivka at 10 United Nations Plaza, Suite 410, San Francisco, CA 94102 (415/398-9834) or e-mail to: rpolivka@de-simone.com

Forell/Elssesser Engineers, an award-winning structural/civil engineering firm, offers outstanding career opportunities to engineers and CAD drafters with all levels of experience who seek a dynamic, challenging and rewarding work environment (www.forell.com). Work on exciting projects and collaborate with innovative design engineers. We offer an unparalleled salary & benefits package, including employer matched 401(k), pension and incentive compensation plans. Contact: Jim Guthrie, 160 Pine St. #600, San Francisco, CA 94111; fax 415/837-0800 or jim@forell.com

Harris & Sloan Consulting Group, Inc., a growing full-service structural engineering consulting firm in Davis, Ca., offers a relaxed, professional working environment in the heart of downtown Davis. Our firm has immediate openings for outstanding individuals seeking to grow professionally in a positive work environment. We offer excellent compensation and benefits packages and a great working environment. We are currently seeking Project Managers, Project Engineers, and CAD Operators to join our growing team of quality individuals. Project Managers will have leadership ability and demonstrated experience in all materials and building types with a strong background in design and detailing of wood-framed structures. Requires P.E. and 5-10 years of relevant experience. Project Engineers require a Bachelor's Degree in Engineering with structural emphasis and a minimum of two years of experience designing and detailing buildings of wood, with concrete, masonry, and steel experience a plus. CAD Operators should have a demonstrated proficiency in the layout, design, and detailing of buildings and at least two years of experience in AutoCad. If you have exceptional interpersonal, communication, and organizational skills and are committed to providing excellent customer service, come and join our growing firm! Fax your resume in confidence to 530/753-5380.

RPSE, www.rpse.com, in business since 1960, has a long AND successful track record of innovative and creative structural solutions. Projects range from relocating historic buildings to retrofitting health care facilities. Our name is well known for quality – something we earned via our quality team members. If your strengths include communication and critical thinking, e-mail: sharonberman@rpse.com or fax cover letter and resume to HR-Sharon, 650/428-2861.

Umerani Associates, structural engineering firm located in Palo Alto, specialized in Civic, Educational & Healthcare facilities, is seeking self-motivated engineers with strong technical & management skills. 3 to 10 years of experience in computer analyses and design of steel, concrete, wood & masonry structures is preferred. Firm is also seeking experienced CAD draft-persons. If you are interested in joining a small firm with tremendous opportunities for growth, please send resume to 4020 Fabian Way, Suite 302, Palo Alto, CA 94303. Tel: 650/494-1600, Fax: 650/494-1601, e-mail: jumerani@umerani.com

Jon Brody Consulting Engineers is a small San Francisco firm with a reputation for design creativity and a high level of professional service. We work on a wide variety of new and retrofit project types, with a focus on the integration of structural requirements with architectural design objectives. Committed and focused engineers with strong design, analytical, interpersonal, and communications skills and a minimum of one year of design experience in California are encouraged to apply for a Project Engineer position on our team. Position includes benefits. California registration a plus. E-mail resume/cover letter to jon@jonbrody.com.

H.D. Rueb Structural Engineer seeks project Engineer with C.E. or S.E. license and minimum 3 years experience in design of wood, steel, concrete and masonry structures. Send resume to 360 Civic Drive, Suite F, Pleasant Hill, CA 94523 or FAX 925/825-9540, or e-mail to staff@hdrse.com

Point 2 Structural Engineers Inc. in Sacramento is looking for Civil or Structural Project Engineers to complement our growing firm. If you have 3 or more years of experience and are interested in managing your own projects, we would like to talk to you. We offer competitive salaries and benefits. Fax your resume in confidence to Brad J. Rollins at 916/643-4848 (fax).

Rutherford & Chekene, a recognized leader in structural and seismic engineering, has openings available in its San Francisco and Oakland offices for structural designers and engineers at all experience levels. Our work includes prestigious projects involving health care, re-

Job Forum

search, education, museums, libraries, civic facilities, and other specialized types of structures. We offer competitive salaries, an excellent benefit package, and the opportunity to work in a dynamic and collaborative environment. Inquiries and resumes should be addressed to Peter Revelli at prevelli@ruthchek.com. Also visit our web site at www.ruthchek.com.

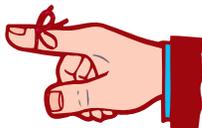
SOHA Engineers has openings:

-Project Engineer with 4-7+ yrs exp. In structural/seismic analysis and design of buildings. CE license. Must have good technical skills, able to work fairly independently, team player with interest in working in a collaborative and technically challenging environment. -Project Manager/Principal Structural Engineer, 10-15+ yrs exp. SE license. Must have excellent technical, verbal and written communication skills. -SOHA offers stability, diversity of projects, and career growth opportunities. Please send resume with cover letter to: SOHA Engineers, c/o Human Resources, 550 Kearny Street, Suite 200, San Francisco, CA 94108 or Fax 415/989-9909.

Job Forum Insertion Fee:

\$150 up to 450 characters/spaces
\$15 for each 45 characters/spaces thereafter. All job forum ads will be posted on the SEAONC web site.

DON'T FORGET



June Newsletter Deadline:
Friday, May 9th, 2003

Submit classifieds and
contact information
via e-mail:

seaonc@ix.netcom.com

Display Ad Rates

Full Page	\$900/mo.
2/3 Page	\$600/mo.
1/2 Page	\$480/mo.
1/3 Page	\$360/mo.
1/4 Page	\$270/mo.
1/6 Page	\$225/mo.

Rates are for finished camera-ready black and white ads or proofed pdf files with embedded fonts. *Full payment is required at time of insertion order.* For advertising contract, specifications, and special rates for running an ad for multiple months, contact the SEAONC Office at seaonc@ix.netcom.com or phone 415/974-5147.

Advertisement

OLMM ad

Committee Chairs

Business Forum

Reinhard Ludke
415/834-2010 Ext 3003
rludke@cdengineers.com

Bylaws

Vincent deNevers
415/421-0375
cvdenevers@tdnl.com

Computer Applications

Satinder Singh
510/465-3977
psingh@pacbell.net

Construction Quality Assurance

Art Dell
415/989-9900
adell@soha.com

Continuing Education

Julia Hunting
415/989-1004
julia_hunting@kpff.com

Disaster Emergency Services

Joe Zsutty
408/298-9018
jzsutty@aol.com

Existing Buildings

David Bonowitz
415/771-3227
dbonowitz@mindspring.com

Legislative

David Wilson
415/834-2010
dwilson@cdengineers.com

Professional Practices

Bill Andrews
510/433-9370
andrews@dasse.com

Program Chair

Jamison Curry
510/740-3200
jcurry@ruthchek.com

Public Affairs & Membership

Derrick Roorda
415/398-5740
droorda@de-simone.com

Public Relations

Mehri Ansari
415/348-8948
mehri@ansariinc.com

Seismology & Structural Standards

Rafael Sabelli
415/243-8400
sabelli@dasse.com

Website

Darrick Hom
510/272-9040
dbhom@degenkolb.com

Young Members Forum

Laura Yamaguchi
510/549-1906
lauray@tippingmar.com

SEAONC SCHOLARSHIP FUND

**We would like to
acknowledge the
generous contributions
received since the March
publication, from the
following members
and firms:**

\$100 to \$500
Azlan Ezaddin

\$50 and under
E. Leroy Tolles

SAC Announces availability of all SAC Steel Project publications and other products on the Applied Technology Council's new online store

The SAC Joint Venture is pleased to announce the immediate availability of all FEMA-funded SAC Steel Project publications and products in the Applied Technology Council's new online store, including (1) a new four-disk CD set containing the lectures given at the SAC Phase II Training Seminars conducted in September 2000; (2) a new three-disk CD set containing 66 SAC Phase II background documents in PDF format (Reports SAC/BD-96/01 through SAC/BD-00/30); (3) hard-copy versions of all Phase II background reports; (4) hard-copy versions of the six state-of-the-art reports first published on CD in 2000; (5) expedited service for all SAC Phase II reports and CDs now available through FEMA; and (6) all previously available reports from Phase 1 of the SAC Project.

See ATC's Online Store at www.ATCouncil.org for prices and shipping costs. *Also available through FEMA: 1-800-480-2520

Berkeley Extension 1/2 page ad

*Repeat Ad for
Computers and Structures*

MAY

- 6 San Francisco Dinner Meeting
- 6 ATC-20 Training Session
- 6 YMF Design Forum
Foundation Design
- 21 Business Forum/AIA Luncheon

Registration

**Structural Engineers Association of Northern California
MAY 6TH SEAONC DINNER PROGRAM, SAN FRANCISCO CITY CLUB**

If no label is shown above, or for guests, please fill in the form below.

5:45 pm
General Assembly

NAME _____

6:30 pm
Dinner

COMPANY _____

ADDRESS _____

7:30 pm
Program

CITY _____ STATE _____ ZIP _____

PHONE _____ FAX _____

Location:
The City Club
155 Sansome St.
10th Floor
San Francisco

RSVP by Fax: 415/ 764-4915, Phone: 415/ 974-5147, e-mail: seaonc@ix.netcom.com

Deadline for pre-registration: 12 noon, Friday, May 2nd, 2003

Make check payable to SEAONC and bring with you to the door.

Register early! Dinner and program reservations are limited. No cancellations after 12 noon, Friday, May 2nd, 2003. No-shows will be invoiced. Tickets not claimed by 6:45 p.m. on the night of the event are subject to being sold. Note: Individuals with outstanding monthly meeting balances are required to pay in advance for a meeting reservation and pay all outstanding monthly meeting invoices.

BART:
Montgomery St.
Station, Exit on
Sansome Street,
San Francisco

COST:	PRE-REGISTERED	LATE REGISTERED (After May 2nd)
SEAONC Member	<input type="checkbox"/> \$34	<input type="checkbox"/> \$39
Junior Mbr (29 and under)	<input type="checkbox"/> \$28	<input type="checkbox"/> \$33
Non-Member	<input type="checkbox"/> \$39	<input type="checkbox"/> \$44
Student	<input type="checkbox"/> \$15	<input type="checkbox"/> \$15