

A Message from the President

If you have been reading my newsletter articles over the past few months, you have come to the realization that I am among the group of engineers that believe that our profession does not have a level of stature in society that is anywhere near where it should be. There are a number of reasons for this, and many of them fall squarely at our own feet, since engineers as a group tend to avoid (some would say shun) the limelight. I believe that we can change this over time, but it will take a concerted, committed effort.

Undoubtedly the leading advocate for this improving the stature of our profession is Richard Weingardt, the CEO and Chairman of Richard Weingardt Consultants, Inc., a large firm in Denver. You may know Mr. Weingardt from his monthly articles in *Structural Engineer*, and other magazines in our field. Those of you lucky enough to attend the SEAOC Convention in Vancouver last August were treated to an outstanding keynote speech by Mr. Weingardt. I am extremely pleased to inform you that Mr. Weingardt has accepted our invitation to speak at the annual SEAONC Degenkolb Forum, our monthly meeting program which will take place Tuesday, April 3rd. You can bet that his talk will focus at least in part on the position of the engineer in society, and what we should do to improve it. I am sure that we will be treated to an enjoyable, thought provoking talk; and one that is clearly in keeping with the intent of the Degenkolb Forum. Please mark your calendars and plan to attend!

Along those lines and in sync with the timing of a new Administration, I want to share with you an extended quote from Herbert Hoover's 1929 Presidential Inauguration speech. As you may know, Mr. Hoover was a Civil Engineer by training, and had enjoyed an accomplished career prior to embarking into the political arena. I have always found this quote to reflect a certain amount of satisfaction that we can all enjoy in our chosen profession. (As you read this passage, please forgive the gender insensitivity that was typical

Continued on Page 2

February Program

680 MISSION STREET

by Jamison Curry, Program Chair

Our speakers for the February program are Joe Sanders of Charles Pankow Builders, Ltd. and Brett Kaufmann of Robert Englekirk Structural Engineers. They will be speaking about the design and construction of 680 Mission Street.

When completed in late 2001, the 39 story 680 Mission Street apartment building will be the tallest concrete structure erected on the West Coast in a high seismic zone. The building, standing 425 feet tall, will contain two floors of retail, one floor of commercial office space and 36 stories of apartments. The building's structural and architectural design takes advantage of the newly developed precast concrete hybrid moment resistant framing system. The frame provides all of the seismic resistance of the building from the eighth floor up, with a combination frame and shear wall system below the eighth floor. Besides serving as the structural system of the building, the precast framing members are also exposed architecturally as the facade of the building. Charles Pankow Builders, Ltd. is the Design-Builder of the project, Robert Englekirk Structural



680 Mission Street

Engineers is performing the structural engineering and Kwan-Henmi is the Architect.

EXCELLENCE IN STRUCTURAL ENGINEERING COMPETITION 2001

It's not too early to plan your entry for the Sixth Annual Excellence in Structural Engineering Competition. The purpose of this award is to publicly honor creative achievement and innovation in structural engineering design, and to educate the public about contributions of Structural Engineers to the building industry and to public safety. Watch for entry forms in a near-future newsletter.

Meeting Notice

Tuesday, February 6, 2001

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

The City Club

*155 Sansome Street, 10th Floor
San Francisco*

Fax registration form on the back of this newsletter to the SEAONC office by **12 noon Friday, February 2, 2001**

Seminar Information, page 5

**SEAONC 2001 Spring Seminar
Topic: Foundations**

March 14 & 21, 2001
PG&E Auditorium
245 Market Street, San Francisco

Continued from Page 1

for that time.)

“Ours is a great profession. There is a fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings jobs and homes to men. Then it elevates the standards of living and adds to the comforts of life. That is the engineer’s high privilege.

The great liability of the engineer compared to... other professions is that his works are out in the open where all can see them. His acts step by step, are in hard substance. He cannot bury his mistakes in the grave like doctors. He cannot argue them into thin air or blame the judge like the lawyers. He cannot, like the politicians, screen his shortcomings by blaming his opponents and hoping that the people will forget.

On the other hand unlike the doctor, his is not a life among the weak. Unlike the soldier, destruction is not his purpose. Unlike the lawyer, quarrels are not his daily bread. To the engineer falls the job of clothing the bare bones of science with life, comfort and hope. No doubt, as years go by, people forget which engineer did it, even if they ever knew... But the engineer himself looks back at the unending stream of goodness which flows from his successes with satisfactions that few professionals may know.”

So, even if we do not yet have the level of social recognition and admiration that we think our profession deserves, at least we can reflect on the personal satisfaction expressed by President Hoover. Hopefully, someday we will have both.

- James Malley, President

SEAONC RECOGNIZES AND THANKS SCHOLARSHIP FUND CONTRIBUTORS

A special thanks to the following companies and individuals who have recently contributed to the SEAONC Scholarship Fund! Nearly \$14,000 has been collected so far. If you have not already done so, please consider making a contribution so that we can add you to this auspicious list.

Contribution Level: \$1000 to \$1999

Forell/Elsesser Engineers Inc.
Middlebrook & Louie

Contribution Level: \$100 to \$499

Alan Kren
KL&A of California

Contribution Level: \$50 to \$99

Jon P. Kiland

DESIGN AND CONSTRUCTION OF THE AIRTRAIN SYSTEM AT SAN FRANCISCO INTERNATIONAL AIRPORT

Joint Meeting with American Concrete Institute

by Jamison Curry, Program Chair

Thanks to our January speakers, Bruce Barnett of Adtranz and Anthony Powers of HDR Engineering, USA, and to our colleagues at the American Concrete Institute for providing the first dinner meeting presentation of the new year.

Mr. Barnett and Mr. Powers spoke about the new AirTrain System, which will transport people within and around the San Francisco International Airport.

Mr. Barnett began by giving a brief history of Adtranz, which began life in 1963 as a division of Westinghouse.

Adtranz has since provided transportation systems at London’s Gatwick airport, at Leonardo da Vinci airport in Rome, at airports in Frankfurt and Kuala Lumpur, as well as at the airport in Atlanta, Georgia.

The system at San Francisco International Airport will have approximately 6 miles of guideway track with 9 stops. The guideway is supported by a concrete structure built by Tutor-Saliba and is as much as 90 feet above the surrounding ground surface. The system will transport people among the various terminals, the airport parking facilities, and link to the new BART station in the airport. A future stop is being planned for a planned-for on-site hotel. The system will initially have twenty-four 100-person vehicles.

Mr. Powers explained some of the details of the system, which consists of an elevated superstructure (which was built by Tutor-Saliba), the steel guideway beam, the concrete running beams, a precast concrete emergency walkway, and the rubber-tired, computer-operated vehicles themselves. The 1994 California Building Code design criteria for “Lateral Forces on Nonstructural Components and Equipment Supported by Structures” was used for design. The Z factor chosen for design was 0.7; the Importance Factor was 1.5. Effective forces on components, used for design, was 2.1 times the element’s weight. Besides the challenges of coordination between several contractors and the fast-track construction delivery system utilized by the owner, one of the largest challenges was designing a safe seismic joint for the guideway and running beams. This joint was described in the December 2000 SEAONC newsletter.

JOHN F. MITCHELL

SEAONC Life Member SE, John F. Mitchell died Monday, January 1, 2001, at the age of 84. He was a resident of Twain Harte, California. Mr. Mitchell attended the University of Utah and the University of California. He worked at Mare Island Naval Shipyard during World War II. After the war he worked as a structural engineer in San Francisco until his retirement in 1989.

He joined SEAONC in 1945 with Professor Bruce Jameyson, Walter Koller and Herman V. Yank as his sponsors. Mr. Mitchell became a Life Member in 1981.

Mr. Mitchell is survived by his wife, two sons and two granddaughters. He will be greatly missed.

SEAONC NEEDS YOUR ASSISTANCE

SEAONC needs your help in updating our records with current information on the following members of our association. If you know the whereabouts of any of the individuals listed below, please contact the SEAONC office, or have the individual(s) listed contact us directly, at 415/974-5147 so that we can update our database. Thanks for your help!

- Bachar Baba
- Rick L. Barrett
- Eric Louis Buehlmann
- Ruth A. Coleman
- Shari E. Day
- Angela (Ginger) De Contereras
- Mike T. de Guzman
- Natalie L. Gibson
- Karen Groppi
- Peter M. Grossman
- Benjamin C.S. Ip
- Ye Jiang
- Erik Young Lin
- H. Daniel Low
- Alex Mack
- Gerard Madden
- Majid Sarraf
- Arun S. Shah
- Eugene V. Spevakov
- Steven Sun
- Troy M. Swenson
- Mark Thomas Swingle
- E. Leroy Tolles
- Carlos Vasquez
- William E. Wahbeh
- Todd Adair Wilson
- Yann Zsutty

OBSERVED FILLET WELD CRACKING

by Ross Esfandiari, Chair
and Rich Denio, Past Chair

For your information, we would like to pass on an interesting fillet weld-cracking problem that was observed by a testing agency while doing fabrication inspection in a large local fabrication shop. Acting as the special inspection firm, they have seen cracking in the all-around fillet welds of heavy wide flange columns to thick base plates (say 1 1/2 inch or thicker base plates). These welds were made in the shop. The columns were on the order of 200 pounds per foot or larger with 1" or thicker flanges. On this project, the engineer specified full bearing of columns

on the base plates. To achieve this fit the fabricator chose to mill the mating surfaces, which is part of the AISC requirements for certain base plates per section M2.8 of the Specifications.

It is not clear exactly when the cracking initiated. The cracks were mostly observed in the middle of the weld profile. The cracks were identified using **magnetic particle testing, and the cracks could not be detected by visual inspection or the use of dye penetrant.**

It was determined that changes in pre-heat, post-heat or other welding procedure specification items did not prevent the cracking observed. It seems cracking was caused by the tight fit of members since the surfaces were milled, and the restraint from the heavy members being joined. This tight fit would tend to prevent any gaps for shrinkage of the weld metal. To prevent the cracking, the fabricator

increased the fillet weld size to 7/16" or 1/2" fillet in lieu of 5/16" or 3/8" as specified. With the new procedure, no cracking of the weld metal was observed. Note that to our knowledge, no metallographic analysis was made to determine the exact causes of the cracks.

The structural engineer of record had followed one of the recommendations of FEMA 353, "Recommended Specifications and Quality Assurance Guidelines for Steel Moment-Frame Construction for Seismic Applications", in specifying that 100% of these welds be non-destructively tested using the magnetic particle method. At the onset of the project the contractor and testing lab thought this requirement was excessive and had agreed to reduce M.T. to 20% of the connections. However, as a result of this cracking, the testing lab ended up testing 100 % of the joints.

Public Affairs and Membership

THE SEAONC COMMUNITY INVOLVEMENT AWARDS PROGRAM!

SEAONC would like to recognize its members who are highly involved in their community. This involvement exemplifies the SEAONC endeavor to "...enhance life safety, environmental health, and economic well being of the public". The *SEAONC Community Involvement Awards* program recognizes the members' commitment to SEAONC and the community, and appreciates the improved public perception of structural engineering and of SEAONC, as a result of their work.

The *SEAONC Community Involvement Awards* winner will be selected by the SEAONC Board and the Public Affairs & Membership Committee, and presented during the May dinner meeting. The award consists of \$500 donated to the recipient's charity of choice, and a plaque bearing his/her name and the name of the charity. All nominees will be recognized in the monthly newsletters, in appreciation of their commitment to the community. Do you know a SEAONC member who fits the description? Examples of community involvement include leadership in parent/ teacher associations, high school tutoring, career day presentations, Habitat for Humanity,

Christmas in April, neighborhood safety programs, earthquake preparedness seminars, public policy lobbying, dedication to the arts, and many other community outreach programs! If you know of a member who is committed to SEAONC and the community please let us know! Look for the nomination form in this newsletter.



CHRISTMAS IN APRIL NEEDS CONTRIBUTIONS!

Happy New Year! Christmas in April has transformed into an organization called Rebuilding Together. The transformed organization not only provides the Weekend Rebuilding projects, but also provides a year-round Home Safety & Independence Program to help the needy.

This year's Rebuilding Together Day is April 28, 2001. Rebuilding Together is a nationwide, nonprofit organization that coordinates volunteers and sponsorship in an effort to improve the living conditions of disadvantaged home owners who do not have the ability or means to maintain their homes. This is SEAONC's tenth year of participation in this annual charity event benefiting low-income, elderly, and disabled home owners in San Francisco.

Last April, San Francisco's neediest neighborhoods received an early Christ-

mas gift when over 4,500 Christmas-in-April volunteers pooled their labor and resources to renovate 38 homes and 20 community facilities in the city of San Francisco. SEAONC was there, and with 59 volunteers we helped restore the home of Ann Collins in San Francisco's Mission Heights District. The day was a huge success!

In order for SEAONC to participate this year, we will need volunteers come April, but right now we need donations. For SEAONC to become a "Home Renovation Sponsor", we need to raise \$4000. We'll be asking firms to participate in sponsoring the event, but even small donations from members will help us reach our goal. If every member gave even \$1, with 1800 members...

Please consider contributing to Rebuilding Together 2001. Your contribution puts hammers, saws, and paintbrushes into volunteers' willing hands, and it provides the "bricks and mortar" needed to build a better San Francisco. And the knowledge that your contribution makes Rebuilding Together Weekend possible will bring special joy to your New Year.

Mail tax-deductible donations, payable to Rebuilding Together. Send all donations to:

Rebuilding Together
c/o Regan Bramblett
Degenkolb Engineers
225 Bush Street, Suite 1000
San Francisco, CA 94104

Thanks!

*Ram International
Repeat Full Page Ad*

Continuing Education

2001 SPRING SEMINAR:

Foundations

Dates: Wednesday March 14th and 21st
Place: PG&E Auditorium, San Francisco
Time: 6:00 P.M. - 9:00 P.M.

The 2001 Spring Seminar is coming up quickly! The seminar will focus on several different aspects of foundation design and analysis, including performance-based design, soil-structure interaction, rocking and overturning, deep foundation systems, shoring, and soil improvement techniques. The seminar will be separated into two separate evenings, with three topics presented each evening. Vendors with foundation-related products and services will be at the seminar, and food will be provided during the registration hour and the break.

To sign up, just fill out the enclosed seminar registration form and submit it to the SEAONC office. Also, watch for more detailed information in next month's newsletter.

Business Forum

FEBRUARY LUNCHEON

Date: Thursday, February 15, 2001
Time: 12:00- 1:30 p.m., Lunch/Program
Place: City Club, 155 Sansome Street, San Francisco
Pfleuger Room, 9th Floor
Speaker: Mr. David Ericksen
Topic: "Design in the E-World, Seizing Opportunities and Managing Risk"
Cost: \$20.00 Business Forum Member, \$30.00 Non-Forum Member

Make reservations by calling the SEAONC office (415/974-5147) by Monday, February 12, 2001.

The objectives of the seminar are: Provide cost-efficient, cutting edge design & client service; Avoid costly errors and omissions; Respond to wrongful allegations; Trace errors and omissions to their source and correct them. Mr. Ericksen will cover voice-mail, e-mail, electronic design, extranet project web sites and the world of tomorrow: object oriented design.

David Ericksen is a member of the law firm of Severson & Werson. Mr. Ericksen leads the Firm's construction and environmental litigation and transactional practice as well as focusing on professional liability and insurance issues.

Disaster Emergency Services

2001 POST EARTHQUAKE DAMAGE ASSESSMENT VOLUNTEER TRAINING SEMINAR LOCATION AND DATE SET

Date: June 3, 2001
Location: Golden Gate Club, Fort Mason Center

by Mark Okamura, Chair

Happy New Year's greeting to you all. It is with great pleasure and a little bit of a sigh of relief that I present to you the location for the Post Earthquake Damage Assessment Volunteer Training Seminar (a.k.a. ATC-20) to be held in 2001. The DES committee has selected the Golden Gate Club at the Presidio as our site for this year's seminar and arrangements are underway. Due to its popularity for holding weddings and other functions, we were in competition with many to reserve a date for our seminar. We have secured Sunday, June 3, 2001 to hold our seminar. It promises to be an ideal site and date for the seminar as we should be out of the rainy season and able to enjoy the beautiful scenery the site has to offer. Several of the members of DES visited the facility during our selection process and were impressed as soon as we lay foot on the site. They were in preparation for a Christmas party, which may have set us in the right spirit of things.

To give you a little taste of what to expect, let me provide you with some specifics. The capacity for the Golden Gate Club for the set up we are looking for is 150 people. That means space will be limited. Therefore once you see the application for the seminar, please complete and submit it promptly. There are several conference rooms ranging in sizes for the classroom case studies as well as interesting structures within walking distance for evaluation purposes.

The preliminary agenda includes expert speakers from the field covering topics such as (1) procedures for post-earthquake safety evaluations of buildings based on ATC-20; (2) hearing from real-life safety assessment engineers who have experience utilizing the ATC-20 system post earthquake; (3) hazardous materials awareness; and (4) case studies for volunteers to apply what they learned.

The all-day seminar is planned to start with registration at 8:30 AM and conclude at 4:00 PM with box lunches provided for

the participants. The cost will be \$100 for SEAONC members and \$120 for non-members.

Please mark your calendars so you won't miss this quality seminar and to obtain authorization to act as a safety assessment engineer by the State Office of Emergency Services (OES).

Updated information will be provided on a regular basis as the date draws nearer, so keep your eyes on future newsletters. Should you have any questions or would be interested in participating in the planning and implementation process of the event, please contact Mark Okamura, Chair - DES Committee at 510/874-2295.

Posting for Membership

MEMBER

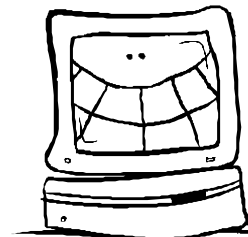
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Project Engineer, Ben C. Gerwick, Inc.
Markus J. Williams
Jr. Engineer, Ben C. Gerwick, Inc.

March NEWS deadline: Friday, February 9, 2001

Submit your articles by
e-mail! SEAONC@ix.netcom.com

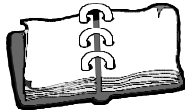


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Bulletin Board

CALENDAR OF EVENTS



February 7-10, 2001

"2001 EERI Annual Meeting: Dealing with Issues of Acceptable Risk"

Location: Monterey, CA

Contact: EERI, 510/451-0905

MEMBERS IN THE NEWS

Forell/Elsesser Engineers Celebrate 40th Anniversary

Forell/Elsesser Engineers, Inc., the Bay Area structural and civil engineering firm that was responsible for the major seismic upgrades of San Francisco City Hall and Oakland City Hall following the Loma Prieta earthquake, recently celebrated its 40th anniversary at year's end 2000. The firm is also known for such significant projects as the Museum of Modern Art in Yerba Buena Gardens and the new San Francisco State office Building at Civic Center.

The 40-person company is currently providing structural engineering services for the seismic upgrade and conversion of the city's old Main Library into the new Asian Art Museum, the renovation and expansion of the historic Olympic club, and is a key member of the engineering team for the important Laguna Honda Hospital renovation, amongst the firm's many other projects.

Company cofounder and SEAONC Fellow Member, Eric Elsesser, remains actively involved with several major projects including the Presidio Letterman Complex. He is supported by eight principals who are now engaged in the day-to-day management of the company's future.

PUBLICATIONS



ATC-32-1 Report, Improved Seismic Design Criteria for California Bridges: Resource Document

The Applied Technology Council (ATC) is pleased to announce the immediate availability of the ATC-32-1 Report, *Improved Seismic Design Criteria for California Bridges: Resource Document*, on a CD-ROM in fully indexed PDF format. Written for practicing design engineers and researchers, this 365-page

report is intended to serve as a companion document to the ATC-32 Report, *Improved Seismic Design Criteria for California Bridges: Provisional Recommendations*, which was funded by the California Department of Transportation and published by ATC in 1996.

The ATC-32-1 CD-ROM documents pertinent background material and the technical basis for recommendations provided in ATC-32, including potential recommendations that showed some promise but were not adopted. Topics include:

- Design Concepts: performance criteria, design philosophy, and design strategies;
- Seismic Loading: methods for determining improved rock spectra and improved soil amplification factors;
- Dynamic Analysis: guidelines for selecting the type of dynamic analysis to use under different circumstances;
- Foundation Design: improved methods for designing abutments, pile foundations, and drilled shafts; guidelines for the seismic design of retaining walls; and discussions of slope stability issues;
- Ductile Component Design: methods for determining Z factors (adjustments for ductility and risk assessment), for determining the flexural strength of plastic hinges, and for designing transverse reinforcement for ductility in plastic hinges;
- Capacity Protected Design: recommendations for improved ϕ factors to be used in calculating component strength, and alternative methods for determining the shear strength of beams, columns, and walls;
- Reinforcing Details: recommendations for the anchorage and splicing of reinforcing bars, column and pier reinforcing bar details, joint reinforcement details, and pile and pile-cap connections;
- Steel Bridges: methods for the seismic design of bolted joints, components composed of flanged sections, and stiffened box sections; and
- Results from trial designs using the recommendations of ATC-32 on several bridge structures.

The CD-ROM also includes the recommended ARS design spectra in digital format. In addition to the CD-ROM, ATC-32-1 is available as a bound report.

Copies of the ATC-32-1 CD-ROM and the ATC-32-1 Report can be obtained from the Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065 (phone,

650/595-1542; fax, 650/593-2320; e-mail, atc@atcouncil.org; web site, www.atcouncil.org). Prices: CD-ROM, \$32.50; Report, \$65.00. (Within California, please add applicable local sales tax; for destinations outside the United States, please contact ATC for the cost of shipping).

CALL FOR PAPERS

2001 SEAOC Annual Convention

The Structural Engineers Association of California issues this Call for Papers to be presented at its 2001 Annual Convention, held at the Loews Coronado in San Diego, California. The dates of the Convention are Wednesday, September 26 through Saturday, September 29.

It is anticipated that the technical program will be composed of papers in the following areas:

Practical Design

Papers of this type will focus on information that can be readily utilized by structural engineers in day to day design. Pertinent topics would include (but not be limited to) the design or retrofit of buildings, bridges, marine structures, tanks, and towers.

Research/New Methods/New Application

These papers will focus on recent research with application to structural engineering, new methods of analysis, and the use of new materials or new applications of traditional materials.

Business

These papers will discuss the business of structural engineering and could address any of the following issues: new markets, liability, fees, human resources, insurance, publicity, or professional services.

Interested parties should fax a brief (300 words or less) abstract of their paper before April 1, 2001 to:

Eric Lehmkuhl

Technical Program Committee
2001 SEAOC Convention

KPFF Consulting Engineers, Inc.

3131 Camino Del Rio North, Suite 1080
San Diego, CA 92108

Phone: 619/521-8500

Fax: 619/521-8591

Authors will be notified of acceptance by May 1, 2001 and papers ready for publication will be due around July 1, 2001. Authors will be provided with detailed guidelines for publication.

Ahearn, Knox & Hyde have an opportunity for a good entrepreneurial type S.E. with an interest in a career change that would track toward attainable participation in future shared ownership. Established in Silicon Valley for the past thirty years, we are looking for the right person who wants more than just employee status in their future. Control your own career potential. If interested in the possibility of joining us send your résumé to Ahearn, Knox & Hyde, Inc., 1505 Meridian Ave., Suite B, San Jose, CA 95125, or e-mail: ahearn@akhse.com.

Immediate Openings: Civil and Structural Engineer. **Bevier Structural Engineering**, a Sacramento, California based firm has immediate openings for senior and mid-level engineers who can assume leadership and responsible roles. Projects include schools, hospitals, commercial, and industrial buildings. Our firm offers excellent opportunities for growth and advancement for civil and structural engineers with building design experience. We offer a competitive compensation and benefits package as well as a positive work environment. California CE or SE license preferred. Please fax or e-mail résumés to: Bevier Structural Engineering, phone 916/631-3030, fax 916/631-8996, e-mail: bill@bevier.net

Biggs Cardosa Associates has immediate openings for various levels of structural engineers in San Jose, San Francisco, Fresno and Eugene (OR). Come work for a leading and fast growing structural engineering firm on either building or bridge projects. Please check our web site for full details: www.biggs-cardosa.com. You can also send your résumés to Biggs Cardosa Associates, Inc. 1871 The Alameda, Suite 200, San Jose, CA 95126, or by e-mail through our web site. EOE

Degenkolb Engineers, has opportunities for engineers to join our creative, enthusiastic, motivated team. Recognized leaders in seismic engineering, our firm offers a diverse, challenging mix of projects on both new and existing structures. Our firm growth is rooted in the career development of our engineers to leadership positions. Bay Area offices are located in downtown San Francisco and Oakland, adjacent to BART. Regional offices are located in Los Angeles and Portland. Our benefits package is unsurpassed in the industry. Openings are available at all levels and all locations. Minimum requirements are MSSE, excellent communication skills, and a desire to work in a challenging, collaborative environment. For more information, visit our web site at www.degenkolb.com. Submit cover letter, résumé and references via e-mail or to Degenkolb Engineers, 225 Bush Street, Suite 1000, San Francisco, CA 94104-4207. EOE

DeSimone Consulting Engineers, an award winning engineering firm, seeks engineers with excellent communication skills; MSSE desired. We are a very successful firm with offices in New York, San Francisco and Miami. Engineering positions are available in the San Francisco office, located immediately adjacent to BART and MUNI. Presently, we are seeking ambitious engineers from entry level to Senior Project Managers

for the design of multi-story buildings. For more information about DCE and for a general overview of our Company and project mix, visit our web site at www.de-simone.com. To join our outstanding team of engineering professionals, send your introduction letter and résumé to Ted Canon at DCE, 10 United Nations Plaza, Suite #410, San Francisco, CA 94102.

EQE has immediate openings in Oakland office for engineers at various levels of exp. Seeking Project Manager with min. 10 years exp. in structural/seismic design and analysis of buildings (concrete exp. preferred) verbal/writing and business development skills, and S.E. lic. Also seeking engineer with 3-5 years exp. in analysis and design (P.E. preferred). Send résumé to: EQE International, Attn: Ken Mark, 1111 Broadway, 10th Floor, Oakland, 94607 or e-mail to kmm@eqe.com.

Forell/Elsesser 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.

KPFF Consulting Engineers seeks Project Managers and Project Engineers w/5-15 years experience in the analysis and design of buildings. Experience in all building materials req'd. CE license required; MS degree preferred. Applicant must be motivated and possess excellent written and verbal skills. Send résumé with references to: KPFF Consulting Engineers, 180 Pacific Avenue, San Francisco, CA 94111. EOE

Landtech Consultants, a structural and civil engineering firm, has openings for engineer and designer positions. We offer a competitive salary package, nice work environment and excellent opportunity to grow with the firm. If you are interested in working on a variety of building projects in a small firm environment, send us your résumé to: 3845 Beacon Avenue Suite D, Fremont, CA 94538 or fax to 510/505-9503.

MKM & Associates of Santa Rosa, CA seeks engineer with minimum 2 years experience with emphasis in timber construction in residential & commercial low-rise buildings. Salary with Bonus considerations dependent on experience & availability to start. Excellent benefits. Please fax résumé to 707/578-7153 or e-mail office1@mkmassociates.com.

Nishkian Menninger seeks experienced registered structural engineer with 10 or more years experience in various types of structures; office buildings, high rises, schools, multiple-tenant residential & other commercial projects, garages and seismic rehab. Résumé & salary requirement to: 510 Howard Street, San Francisco, CA 94105 or e-mail: levon_n@nishkian.com.

Rinne & Peterson, a medium sized Structural Engineering firm, seeks self motivated, self-starter engineers with effective communication skills from Entry-Level through Senior-Level to work on a wide variety of challenging projects. This is an opportunity with long term growth potential. Ongoing professional development is encouraged and supported. Generous employee benefits including flexible work schedules, great staff, and a very desirable work environment. Send résumé and ref. to: Human Resources, 1121 San Antonio Rd., Suite C200, Palo Alto, CA 94303-4311; fax# 650/428-2861; e-mail: sharonberman@rpse.com.

Rutherford & Chekene is currently offering outstanding career opportunities to engineers and Cad drafters with all levels of experience in both our San Francisco and new Oakland offices. In addition to our generous benefits package, we offer the opportunity to learn from some of the best engineers and Cad professionals in the Bay Area while working on exciting projects - all in a supportive office environment. If you wish to learn more, contact Peter Revelli at: Phone: 415/495-4222, Fax: 415/546-7536, or E-mail: prevelli@ruthchek.com. Also visit our web site at www.ruthchek.com.

Rutherford & Chekene is also seeking licensed CE's and SE's for a challenging 8-12 month forensic engineering project. Position requires 2 days/week in L.A., but offers flexible schedule, generous compensation, and perks. Candidates must be detail-oriented and capable of independent thought, with excellent critical thinking and communication skills. Wood frame residential experience a plus, but no substitute for a sharp mind. Perfect transition job for self-motivated engineers seeking a change of pace. Full time commitment preferred. Contact Peter Revelli or David Bonowitz at: phone 415/495-4222, fax 415/546-7536, email prevelli@ruthchek.com or dbonowitz@ruthchek.com.

Simpson Gumpertz & Heger Inc. (SGH), is a growing and dynamic consulting engineering firm with offices in Arlington, MA and San Francisco, CA. SGH has an international reputation in design, investigation, research and development of structural and building envelope systems, mechanical components, and materials. The variety of our expertise enables the firm to undertake investigative, research, and design projects of a complex and unusual nature. We seek creative, enthusiastic, motivated individuals for two Structural Engineering positions in our downtown San Francisco office in the area of structural design analysis of office and institutional buildings: SR ENGINEER: S.E., 5 - 10 yrs exp; ENGINEER: C.E., 2 - 5 yrs exp. We offer an excellent compensation and benefits package in a corporate culture based on learning and growth. At SGH you'll gain the strength of our reputation and the creativity of diverse and complex projects. To learn more about SGH, please visit our web site at www.sgh.com. We are an equal opportunity employer and value the diversity of our workforce. Please forward your résumé and letter of interest to Dept. DEJ, SGH, 222 Sutter Street, San Francisco, CA, 94108, FAX 415/981-7125, e-mail dejerome@sgh.com

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Structural Design Engineers seeks staff/project structural engineers with experience in wood, masonry, concrete and steel design. Min. 4 years experience. MS and C.E. license preferred. Computer analysis skills important. Send résumé to: Structural Design Engineers, 120 Montgomery St., Suite 1410, San Francisco, CA 94104.

URS, a leading professional engineering and environmental consulting firm, is seeking Structural Engineers for its San Francisco office. With over 16,000 employees worldwide and a staff of 650 in the Bay Area, URS is one of the world's most diverse and fastest growing architectural and engineering companies. We offer a broad range of exciting worldwide project opportunities in Facilities Design, Surface Transportation Design, and Aviation Facilities Design. We are seeking Civil/Structural engineers to join our team in San Francisco. The positions require a BSCE, with MSCE preferred. We are seeking qualified candidates at all levels, from entry level to 20+ years of experience. Training and/or experience in building design, seismic analysis, seismic evaluation, retrofit design, and production of structural design documents is preferred. Candidates must be familiar with California Building Codes. We offer a competitive salary/benefits package. Send résumé with salary history to URS, Human Resources – SSE, 100 California St., Suite 500, San Francisco, CA 94111 or email to Barbara_Noel@urscorp. Equal Opportunity Employer.

Watry Design, Inc. which is located in the San Francisco Bay Area, is in search of highly motivated engineers to join our rapidly growing team. Watry is a full service Architectural/Engineering Firm specializing in the design of large concrete structures, including high-rise hotels and apartments as well as award-winning parking structures. This position offers the right individual an opportunity to play an integral role in the design of multi-million dollar projects with a firm that fosters a cohesive family like environment. The applicant must possess a B.S. in Structural Engineering (or equivalent) with a P.E. or S.E. license being highly desirable. A background in the design of concrete and post-tensioned structures, strong computer skills, and excellent communication skills are beneficial. If you would like further information regarding the Watry Design, Inc., please visit our web site at www.watrydesign.com. Submit all résumés to: Watry Design Inc., 815 Hamilton Street, Redwood City, CA 94063 attn: Julie Snaman or you can send electronically to: jsnaman@watrydesign.com.

ZFA Structural Engineers seeks all levels of engineers for all three of its growing offices – in San Francisco, Santa Rosa, and Sacramento. Minimum 2 years experience for positions open in Sacramento and Santa Rosa. Senior or Associate positions for S.E.'s also available for all three offices. Diverse and challenging project areas include: schools, hospitals, industrial, wineries, commercial, public, low-rise office and light frame buildings. A great place to further your career, ongoing training and professional

development is encouraged and supported by ZFA and we have an excellent profit-sharing and benefits package. Whether you want to enjoy the relaxed lifestyle of wine country in Sonoma County or being close to Tahoe and gold country in Sacramento, or the excitement of San Francisco, we have the professional opportunity for you! Send résumé and cover letter to: ZFA Human Resources, 1212 Fourth Street, Suite Z, Santa Rosa, CA 95404 or email to: MichaelD@zfa.com.

City of San Jose, Plan Check Engineer. Under direction, performs plan review in accordance with structural engineering principles and Uniform Codes. Requires Bachelor's Degree in Civil Engineering or a closely related field from an accredited college or university, four (4) years of progressively responsible professional civil and structural engineering experience, and registration as a Civil Engineer in California for at least two years. A Master Degree in structural engineering and Plans Examiner ICBO certification is highly desirable. Salary Range: \$2,496.00 - \$3,041.60 bi-weekly, plus excellent management benefits. Last Date for Filing: Open Until Further Notice. For Application and Announcement: Contact Human resources Dept., City of San Jose, 801 N. First St., Room 207, San Jose, CA 95110-1779, 408/277-4205

DASSE Design Inc. seeks Project Engineers for its SF and Oakland offices to work on exciting, high profile projects for top architects in high tech, public, education and health care markets. Career growth opportunities with potential for rapid advancement. Minimum preferred qualifications are: MSCE, PE license, and 5-10 years of relevant design (new and retrofit) experience and the desire to grow in a collaborative environment. Come join our team of enthusiastic, talented professionals. Email résumés to andrews@dasse.com. Learn more on our website at www.dasse.com.

DES Architects + Engineers, a leading mid-Peninsula A/E firm, seeks Structural Design Engineers with CE or SE license, minimum 5 years experience in wood, steel, concrete and masonry. Projects include schools, hospitals, corporate campuses, etc. Competitive salary and complete benefit package. Send résumé with intro letter and salary requirements to DES, PO Box 3599, Redwood City, CA 94064. Fax to 650/364-2618, Attn: Niki Hithe or email to jobs@des-ae.com. Visit our website at www.des-ae.com.

D. H. Charles Engineering of Santa Rosa seeks all levels of engineers incl. entry-level. Min. BSCE with structural emphasis and proficiency with computers/internet. Fast growing state-of-the-art structural firm working in 25 states, licensed in 50. Wide variety of interesting projects including many structures for Salt Lake City Olympics. Permanent work includes small bridges, ret. walls, building/winery retrofits/expansion, seismic/anchorage supports, etc. Temp. work incl excavation support, falsework, scaffolds up to 300'-high, jacking systems, etc. Big opportunity to advance. Excel salary & benefits. Opening branch off. in No. San Diego late fall. Fun work Environment. Fax résumé w/cover to 707/537-8338 or don@charlesengineering.com.

Hobbach-Lewin, Inc., a 30 person firm in Palo Alto, seeks entry level/project engineers in the analysis and design of steel, masonry and wood buildings. Company emphasizes professional development. Salary with bonus considerations dependent on experience. Résumés to 260 Sheridan Avenue, Suite 150, Palo Alto, CA 94306. Fax 650/617-5932. E-mail: alee@hobbach-lewin.com

An Outstanding Place to Work-**Interactive Resources** (www.intres.com) offers competitive compensation & benefits, ongoing career development, interesting projects, and a unique firm culture in a great historic coastal town in the East Bay. We also offer ownership potential. Registered PE minimum, SE preferred. CA/West Coast experience necessary. See our website for more information. Send résumé to 117 Park Place, Point Richmond, CA 94801. Fax: 510/232-5325.

MBA Structural Engineers, Inc. seeks project structural engineers with 3 yrs. min. experience. Tired of the commute? Looking for something new? Come join us in downtown Walnut Creek in our small (but growing) office environment. We offer a strong compensation package, including flexible hours, and full family medical coverage. The usual materials, commercial and residential projects. Send your résumé to 1717 N. California Blvd., Suite 2A, Walnut Creek, CA 94596, or fax to 925/933-6140, or e-mail to mbaeng@pacbell.net.

Teter Consultants, LLP (www.tetercon.com), a Central Valley based multi-disciplined A&E consulting firm with offices in Visalia and Fresno, is seeking an experienced senior structural engineer interested in competitive compensation & benefits, ongoing career development, interesting projects, and a unique firm culture to join its growing and dynamic organization. We also offer ownership potential and desire a long term working relationship. Registered PE minimum, SE preferred. See our website for more information. Send résumé to 1025 N. Demaree, Visalia, CA 93291. Fax: 559/625-5282.

Are you stuck in a rut at your current job? Looking to branch out, to do some creative cutting edge design work? To have the opportunity to hone your skills on diverse projects, at a firm nationally recognized for its innovative approaches? Consider **Tipping Mar + associates**. We are a staff of twenty five, working in a collaborative, enthusiastic environment. Our projects range from seismic upgrades to new construction, in the commercial, residential, and institutional sectors. We are seeking a bright, creative, motivated engineer who enjoys challenging work to join our downtown Berkeley office. Please send your résumé with a cover letter to Tipping Mar + associates, 1906 Shattuck Ave., Berkeley, CA 94704, fax to 510/549-1912, or e-mail steve@tippingmar.com.

*Job Forum insertion fee:
\$150 up to 450 characters/spaces
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- MAR 6 SEAONC MONTHLY MEETING
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Foundations
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Registration

Structural Engineers Association of Northern California *February 6th SEAONC PROGRAM*

5:45 PM
General Assembly

6:30 PM
Dinner

7:30 PM
Program

"680 Mission Street"

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

BART:
Montgomery Street
Exit,
San Francisco

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

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ FAX _____

RSVP by fax to: 415/764-4915 or phone: 415/974-5147
Make check payable to **SEAONC** and bring with you to the door.

Deadline for preregistration: 12 noon, Friday, February 2, 2001
Dinner and program reservations are limited to 180. Register early! No cancellations after 12 noon, Friday, February 2, 2001. *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.*

COST:	PRE-REGISTERED	LATE REGISTRATION
SEAONC Member	<input type="checkbox"/> \$32	<input type="checkbox"/> \$37
Junior Mbr (34 and under)	<input type="checkbox"/> \$28	<input type="checkbox"/> \$33
Non-Member	<input type="checkbox"/> \$35	<input type="checkbox"/> \$40
Student	<input type="checkbox"/> \$15	<input type="checkbox"/> \$15