

The Civil Engineer

Monthly Newsletter for Members of the San Francisco Section, ASCE

Golden Gate / San Jose / Redwood Empire / North Coast / Fresno

Celebrating Our 109th Year

May 2014, Volume 61, No. 5

Call for Nominations

2014 SECTION AWARDS

Submission Deadline: June 30, 2014

The Section Annual Awards recognize individuals and organizations who deliver excellence and inspire others through outstanding contributions in the field of Civil Engineering.

Nomination Submittal Information:

Applications are being accepted for outstanding Individuals and Project awards. To download the Nomination forms visit the following link:

http://asce-sf.org/san-francisco-section-awards/

For questions, please contact the SF Section Awards Chair, Rune Storesund:

rune@storesundconsulting.com



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PRESIDENT'S MESSAGE

by Daren Gee, P.E., M. ASCE, President, San Francisco Section

As engineers in the course of day to day business, it's all too easy to get lost in the details of work. We need to take time to applaud our efforts and recognize great engineering work and great leadership in engineering. We'll take a moment to do so here. This article is separated into two sections; Society Business (nationwide recognition) and SF Section business (with recognition at the Region level).



Society Business

Leadership and Management is one of the four focus areas of ASCE. As part of this focus, ASCE recognizes our leaders of industry through a series of awards. These are the recipients who live or work within the boundaries of the San Francisco Section that recently received "nationwide" recognition from ASCE:

Anne S. Kiremidjian, Ph.D., EMI, is recently elected Distinguished Member by the ASCE Board of Direction. ASCE Executive Director, Patrick J. Natale, P.E., F. ASCE, notes that, "prior to this year's election of 11 new Distinguished Members, only 626 other engineers in the 162-year history of ASCE have been similarly honored." This is a high and rare honor. Professor Kiremidjian teaches at Stanford University, holds four engineering patents, has written over 300 papers, serves on National Academy of Engineering (NAE) and National Institute of Standards and Technology (NIST) committees, serves as editor on eight journals, is a well-respected private consultant, and is a leader in research and application of probabilistic seismic hazard assessment (PSHA). A former student of Dr. Kiremidjian will honor her in much more detail in an upcoming newsletter article later this year. Stay tuned.

Armen Der Kiureghian, Ph.D., P.E., F. EMI, M. ASCE, NAE, is recently selected by the Structural Engineering Institute to receive the George Winter Award. This recognition is "for his scholarly contributions to the field of structural reliability, risk analysis, random vibrations, and earthquake engineering, for his outreach activities with significant societal impact, and for his contributions to fine arts." Armen's fine art contributions are through landscape and still life painting.

Nicholas E. Malasavage, Ph.D., P.E., M.ASCE, is recently selected by the Environmental and Water Resources Institute to receive the Samuel Arnold Greeley Award. This recognition is for "Aging Effects in Field-Compacted Dredged Material: Steel Slag Fines Blends," Journal of Hazardous, Toxic, and Radioactive Waste, April 2013. The paper highlights important research findings.

Lisa Alvarez-Cohen, Ph.D., NAE, is recently selected by the Environmental and Water Resources Institute to receive the Simon W. Freese Environmental Engineering Award. This recognition is "for her outstanding achievements in environmental microbiology and biotechnology, in supporting environmental engineering educa-

tion, and in advancing the civil and environmental engineering profession." The awards committee especially recognized Lisa's outstanding body of published work.

Robert K. Reitherman, is recently selected by the History and Heritage Committee to receive the Civil Engineering History and Heritage Award. This recognition is "for compiling and authoring the outstanding book *Earthquakes and Engineers – An International History* (ASCE Press, 2012) that provides an extremely comprehensive coverage of the seismology and earthquake engineering fields and the notables involved, from ancient times to present." Robert's coverage of the subject matter is comprehensive.

Michael A. Jordan, P.E., F.ASCE, is recently selected by the Coast, Oceans, Ports and Rivers Institute to receive the John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award. This recognition is "for significant contributions to the port industry, particularly innovations with container cranes that have revolutionized the shipping industry, for service to the profession and for his reputation among peers as that of a brilliant teacher and mentor." Michael's contributions to port structural engineering are highlighted.

Alexandre M. Bayen, Ph.D., A.M.ASCE, is recently selected by the Committee on Technical Advancement to receive the Walter L. Huber Civil Engineering Research Prize. This recognition is "for pioneering design and deployment of mobile sensing and measurement to the design and management of civil engineering systems, and path breaking research on algorithm design and implementation in the control and optimization of transportation networks." Alexandre's contributions to the Mobile Millennium project began in 2008.

SF Section Business

On Friday, March 14th, more than 220 civil engineers attended the Annual Infrastructure Symposium and over 240 attended the Region 9 Awards Dinner. They enjoyed a beautiful San Francisco venue with a view of the Bay Bridge from the outer balcony. Among the hundreds in attendance was Mr. David Hook, P.E., M. ASCE, who mentioned to me how happy he was during the symposium. Hook said, "This event was better than the national conventions I've attended in the past." As Section President, I'm personally grateful for everyone's support and each Board member's extraordinary efforts this year. Special thanks go out to Brent Siemer, Mike Kincaid, Kwame Agyare, Dr. Camilla Saviz, Jennifer Epp, Jay Higgins, Ken Miles, Radha Gallup and Lori Campbell who were just a few of the people who accounted for every detail of the event. In thanking everyone for making everything great, Jennifer Epp, Region 9 Director, mentioned, "Even the weather was perfect."

The content was informative, including federal updates

from Jason Albritton, Senior Policy Advisor, U.S. Senate Committee on Environment and Public Works; and new football stadium logistics, transportation planning, and construction updates from Jim Mercurio, Vice President Stadium Operations, San Francisco 49ers, who covered the new stadium. At the symposium, I attended three Transportation Track sessions, one of which included a presentation from my boss, Carolyn Gonot, VTA's Chief SVRT Officer. Ms. Gonot provided an update on VTA's BART to Silicon Valley Project early in the morning. I also very much enjoyed Will Kempton's talk on the future of transportation funding; and the perspectives of Port of Long Beach, Port of Oakland and Union Pacific Railroad, as each of their infrastructure upgrades are in preparation for the completion of the Panama Canal expansion project. The final session I attended was the public private partnership panel discussion in the Water and Infrastructure Financing Track. Learning from experts like Barbara A. Lloyd from Impacts USA and her associate Megan Matson of Table Rock in boutique banking was great, since the details that make up a P3 project are not yet well known to our Section's membership.

My fellow participant, Mr. Hook, happened to attend the symposium sessions that I missed, as there were two tracks. He and I traded notes during the event, and he felt the same as I did. The speakers were great experts of industry, and we both felt much more enlightened than when we arrived. The event chairmen received a lot of great feedback from those in attendance. Everyone very much enjoyed the three dozen industry expert panelists, and the 3 dozen awards presentations. The Region 9 awards were formally celebrated during the dinner event. Region 9 represents ASCE members throughout California. Our individual engineer and project recipients are recognized by ASCE as the best in the Golden State. These are the winners from San Francisco Section:

Region 9 "California" Individual Award Recipients

Xavier J. Irias, P.E., Director of Engineering and Construction, East Bay Municipal Utilities District, won the Outstanding Civil Engineer in the Public Sector award.

Rachel Coyner, Project Engineer, U.S. Army Corp of Engineers, received the Outstanding Young Civil Engineer

Region 9 "California" Project Award Recipients

San Francisco – Oakland Bay Bridge East Span, Caltrans, T.Y. Lin International, Moffatt-Nichol, Parsons Brinkerhoff, AECOM, WKE, won the coveted Project of the Year award.

Brannan Street Wharf, Port of San Francisco, GHD Inc., Structus Inc., received the Outstanding Airports & Ports award.

REGION 9 GOVERNOR'S REPORT

2014 ASCE Region 9 Infrastructure Symposium and Awards Banquet

By Brent Siemer, P.E., F.ASCE, ENV SP, Event Chair

On March 14th, Region 9 and the San Francisco Section cohosted this year's Infrastructure Symposium and Awards Banquet on the waterfront at the Delancey Street Foundation with over 200 in attendance.

The morning keynote speakers were Jason Albritton, EPW Committee Senior Policy Advisory for California State; Senator Barbara Boxer, who provided a federal perspective on transportation and water infrastructure; and S. Bry Sarté P.E., Sherwood Institute, who provided perspective on sustainable infrastructure. During the lunch hour, Jim Mercurio, VP, Stadium Operations for the San Francisco 49ers presented the "Levi Stadium Transportation Plan" to provide safe and efficient access to all events by car, bus, BART, Caltrain and on foot.

The symposium included two full-day tracks on water and transportation. Both tracks featured engaging discussion by a broad array of panelists from state and local governments, national agencies, engineering firms and the private sector.

The Water Track covered four topics on Regional Water Projects, California Bay Delta, Water Sustainability and Public Private Partnerships.

The Transportation Track was divided into Current Regional Transportation Projects, Ports and Waterways "Goods Movement in the 22nd Century," Future Vision for Regional Transportation and Tunnel Projects.

Later that evening, 240 attended the annual Region 9 Awards Banquet with presentations to 22 project and 17 individual award winners.

The Lifetime Achievement Award was presented to Thomas Morgan, P.E. Mr. Morgan has been a Registered Civil Engineer since 1953. He worked on the Central Valley Project, the construction of Santa Felicia Dam, and many projects for the County of Ventura from 1956 to 2012, where he was Chief Engineer (Deputy Director of Public Works) from 1956 to 1991. He served ASCE as President of the Santa Barbara-Ventura Branch of the L.A. Section, Chairman of the Local Qualifications Committee, and the ASCE delegate to the Associated General Contractors (AGC). For 20 years he was an active member of the APWA-AGC Green Book Committee, serving as secretary and chairman. He is a graduate of the California Maritime Academy and University of Southern California.

Project of the Year was awarded to the San Francisco-Oakland Bay Bridge East Span. Engineers of Record were Caltrans, T.Y. Lin International, Moffatt-Nichol, Parsons Brinckerhoff, AECOM and WKE. Building the new East Span of the Bay Bridge has produced many firsts. The Self-An-

chored Suspension Span, at 2,047 feet, is the longest bridge of its kind in the world. This is the first suspension bridge without a connection between the road-decks and the tower. It is the first to use fusible shear links in its tower to protect the tower shafts during an earthquake, and its tower has the world's largest cable saddle for a suspension bridge. The new bridge was designed to meet the most stringent earthquake standards and to act as a regional lifeline structure, opening to traffic within a day or two after the strongest ground motions that engineers expect in a 1,500-year period.

PROJECT AWARDS

Project of the Year

San Francisco-Oakland Bay Bridge East Span

Owner: Caltrans

Engineers: Caltrans, T.Y. Lin International, Moffatt-Nichol,

Parsons Brinckerhoff, AECOM, WKE.

Airports & Ports Project

Brannan Street Wharf Project
Owner: Port of San Francisco
Engineer: GHD Inc. and Structus, Inc.

Architectural Engineering Project

Newport Beach Learning Center

Owner: Coastline Community College District

Engineer: LPA, Inc. Bikeways & Trails Project

Stevens Creek Trail Reach 4 Segment 2
Owner: City of Mountain View
Engineer: Mark Thomas & Company

Bridge Project

Mike Gotch Memorial Bridge
Owner: City of San Diego
Engineer: T.Y. Lin International

Community Improvement Project

7th & H Street Housing Community
Owner: Mercy Housing California
Engineer: Miyamoto International, Inc.

Construction Project

Crestmoor Neighborhood Reconstruction

Owner: City of San Bruno Engineer: BKF Engineers

Energy Project

Sunrise Powerlink Project

Owner: San Diego Gas & Electric Company

Engineer: Burns and McDonnell

Environmental Engineering Project

Alum Rock Fish Passage

Owner: Santa Clara Valley Transportation Authority

Engineer: GHD, Inc.

Region 9 Report continued on page 4

Flood Management Project

Upper Yuba Levee Improvement Project

Owner: Three Rivers Levee Improvement Authority

Engineer: HDR, Inc.

Geotechnical Engineering Project

Sunrise Powerlink Project Geotechnical and Geologic Hazards

Investigations

Owner: San Diego Gas & Electric Company

Engineer: URS Corporation

Historical Renovation Project

UC Berkeley Memorial Stadium Seismic Upgrade

Owner: University of California Engineer: Forell/Elsesser Engineers, Inc.

Museum/Educational Project

The Exploratorium

Owner: Exploratorium

Engineer: Rutherford and Chekene

Parks & Recreation Project

Echo Park Lake Rehabilitation Project

Owner: City of Los Angeles, Department of Public

Works, Bureau of Engineering

Engineer: Black & Veatch Corporation

Roadway & Highway Project

Tom Lantos Tunnels
Owner: Caltrans

Engineer: HNTB

Small Project

Harbor Drive Failed 48' SMH at 32nd and Harbor Emergency

Repair

Owner: City of San Diego Engineer: Harris & Associates

Structural Engineering Project

USC John McKay Center

Owner: University of Southern California Engineer: John A. Martin & Associates, Inc.

Sustainable Engineering Project

Elk Grove Rain Garden Plaza
Owner: City of Elk Grove
Engineer: Willdan Engineering

Transportation Project

Metro Orange Line Extension

Owner: Los Angeles Metro – LACMTA

Engineer: Iteris and AECOM

Urban/Land Development Project

Civita

Owner: Quarry Falls, LLC

Engineer: Rick Engineering Company

Water Project

Pala Mesa Tank

Owner: Rainbow Municipal Water District
Engineer: Infrastructure Engineering Corporation

Wastewater Treatment Project

Atwater Regional Wastewater Treatment Plant

Owner: City of Atwater Engineer: West Yost Associates

INDIVIDUAL AWARD RECIPIENTS

Lifetime Achievement Award

Thomas Morgan, P.E.

Outstanding Civil Engineer in the Public Sector

Xavier J. Irias, P.E.

Outstanding Civil Engineer in the Private Sector

Louay M. Owaidat, P.E.

Outstanding Civil Engineer in Community Service

Andrew Easterling

Outstanding Civil Engineer in Legislative Activities

Phillip Davies, P.E.

Outstanding ASCE Section Officer

Brad Dybel, P.E.

Outstanding Branch Officer

Mario Carreon, P.E.

Outstanding ASCE YMF Officer

Ravi Shah. P.E.

Outstanding ASCE Practitioner Advisor

CaroyIn Berg

Outstanding ASCE Faculty Advisor

Rupa Purasinghe, Ph.D., P.E.

Outstanding ASCE Life Member

Steve Dalrymple, P.E.

Outstanding ASCE Life Member

Timothy Stanton, P.E.

Outstanding Younger Civil Engineer

Rachel Coyner

Outstanding Younger Civil Engineer

Lise Muco, P.E.

Outstanding Civil Engineering Student

Elizabeth Jachens

State Legislator of The Year

The Honorable Doris Matsui

Excellence in Journalism Award

Thomas Curwen, Los Angeles Times

For a complete listing of the award winners, please go to the Region 9 website: http://www.asce.org/region9/awards/

The Infrastructure Symposium and Awards Banquet would have not been a success without the following sponsors:

Symposium Sponsors

Presenting: AECOM
Water Tract: Atkins
Transportation Tract: URS

Silver: HDR, Hatch Mott MacDonald,

Kleinfelder, GEI, GHD

Bronze: HNTB, BKF, Cinquini & Passarino,

Urban Design

Reception Sponsor: Vali Cooper & Associates, Inc.

Dinner Sponsors

Gold: Atkins Global, HNTB, T.Y. Lin

Silver: HDR

BRANCH REPORTS

Golden Gate Branch

April 24th Dinner Meeting: A Historical Perspective on Bay Area Infrastructure

Our April program featured experienced contractor Jay Murphy presenting "A Historical Perspective on Bay Area Infrastructure" and was held at Scott's Seafood in Jack London Square. Mr. Murphy was on the construction team for some of the Bay Area's more memorable construction projects and was able to share his unique perspective on some signature projects. Everyone in attendance was treated to entertaining stories and a lovely waterfront dinner.

May Dinner Meeting: Sea Level Change

On May 29th the Golden Gate Branch invites Rebecca Verity to discuss the impacts of sea level change. With so many waterfront facilities in the Bay Area, and new regulations in place that require engineers to account for climate change, this will certainly be a most insightful and educational topic for those who join us. May's program will be held at Sinbad's Pier 2 Restaurant in San Francisco. Check out our branch website for additional details.

Date and Time:

Thursday, May 29th, 2014 from 6:00 to 8:30 p.m.

Location:

Sinbad's Pier 2 Restaurant, 141 The Embarcadero, San Francisco

Entrée choices:

Salmon, Chicken, Snapper, London Broil, Shrimp Louie Salad

RSVP:

Russ Moore, goldengate@asce-sf.org

Redwood Empire

Monthly Luncheon

Date and Time:

Thursday, May 8th, Noon - 1:00 p.m.

Location:

Cattlemen's, 2400 Midway Drive, Montgomery Village, Santa Rosa

Menu:

A) Sirloin Steak; B) Teriyaki Chicken; or C) 3-Cheese Pasta; each choice includes salad, bread, coffee, and tea

Cost:

\$20 (\$10 for students)

RSVP:

Email Blake Caricato at **blake@summit-sr.com** with your lunch order by Tuesday, May 6th.

San Jose Branch

Annual Student Essay Competition Awards Banquet

The student essay awards banquet will be held on Wednesday, April 30th at San Jose State University. The winning essay contestant will present their essay with the group during the dinner meeting.

Each year the San Jose Branch invites students from San Jose State University, Santa Clara University and Stanford University to write a one page essay with an opportunity to win prize scholarship money. This year the topic chosen by the San Jose Branch Board is "California's Drought and Water Policy."

The essay question asks the students to discuss California's water policy relating to its northern, central, and southern areas and how the Bay Delta Conservation Plan will affect the long-term goals of the State Water Project.

Last year, the San Jose Branch handed out approximately \$10,000 in prize money with the top prize receiving a handsome \$1,500 check from the help of local Bay Area firms and individual ASCE members. Continued financial support for this meaningful program is critical especially in these tough economic times. The San Jose Branch is looking forward to another year of this event as well as having the opportunity to meet talented civil engineering students from local universities.

ASCE members are encouraged to attend and you may contact Bill Zehrbach if you wish to make a contribution at bzehrbach@earthsys.com.

We hope to see you there!

ASCE San Jose Branch Assistant Treasurer Position

The ASCE San Jose Branch is looking for interested members to join the Branch as a Board Member. An upcoming position as an assistant treasurer will become available this fall. Please contact the current San Jose Branch president Karl Neuman at KNeuman@valleywater.org.

YOUNGER MEMBER FORUM

San Jose YMF

Super Charge Your Career Seminar with Kwame Agyare

Developing a successful career in civil engineering is a challenge for each of us. How do you figure out what you like to do? When do you need to take risks or be conservative? What ways is your time best spent? Should you get involved in more professional organizations? How to manage a proper work/life balance? What is the best way to set goals and monitor progress? How do you know you're on the right track?

Join SJ YMF as ASCE Region 9 Governor Kwame Agyare provides guidance to take control of your own career path so you can have a job that is sustainable, challenging, and rewarding. This workshop is for any young professionals and students who are interested in taking an active role in shaping their career. We look forward to an energetic and informative discussion. Dinner and networking opportunities will be provided, free of charge.

Date and Time:

Wednesday, April 30th, 2014, 5:30 - 6:30 p.m. (dinner and casual reception), 6:30 - 7:30 p.m. (workshop)

Location:

Hatch Mott MacDonald Office, 181 Metro Drive, Suite 510, San Jose

Cost:

Free

RSVP:

To assist us with food estimates, please RSVP to asce.ymf.sj@gmail.com.

San Jose City Council Meeting

Save the Date for a legislative and community outreach opportunity with YMF SJ. As a civil engineer, it is practically a given that a project you are working on to be discussed at a city council meeting. This is where many issues are decided that affect our projects and our city (think: zoning, funding, planning). Don't wait until it's too late, see what the fuss is all about. Don't be a typical "head-down" engineer, take the first step in actively participating in public process. Afterwards, there will be opportunities to hang out in San Jose with fellow YMFers.

Date and Time:

Tuesday, May 13th, 2014, 7:00 p.m. - 9:00 p.m. Location:

City Council Chambers ,200 E Santa Clara St, San Jose Cost:

Free

RSVP:

To assist us with planning, please RSVP to asce.ymf.sj@gmail.com.

San Francisco YMF

YMF has a New Look

The Younger Member Forum is proud to present our new website and logo! After struggling to get a new website off



the ground last fall, the board voted unanimously to hire a consultant to create a new and modern look for YMF. The website was created in record time and since the launch, the positive feedback has been overwhelming! Click on our link to see our new look! www.sfymf.org.

2014 Charity Golf Tournament

TOURNAMENT, GAMES, PRIZES & BANQUET





JUNE 20TH, 2014 . SUNOL VALLEY

2014 ASCE San Francisco and San Jose YMF Charity Golf Tournament and Dinner Banquet

Date and Time: June, 20, 2014 - 11:30 a.m. - 8:00 p.m. Location: Sunol Valley Golf Club, 6900 Mission Road, Sunol

Tournament, Games, Prizes and Banquet

Come golf with peers and colleagues in the engineering, architecture, and construction community. The half-day event features a shamble format tournament, lunch, a goodie bag, men's and women's longest drive competitions, circle-hole competition, closest-to-the-pin competition, a high-tech raffle, and an awards banquet.

Benefiting ACE Mentor San Francisco Bay Area

The ACE Mentor Program gathers volunteer professionals from the architecture, construction and engineering fields to mentor high school students and enlighten them to the career options in these fields and the construction trades. ACE teams run for 15 weeks during the school year. The ACE Mentor San Francisco Bay Area, Inc. affiliate has teams in San Francisco, Oakland, Contra Costa County, Peninsula, San Jose and Vallejo.

Registration and Sponsorship Information

The registration deadline is June 1, 2014. Contact Shawna Von Stockhausen at (925) 398-7262 or by email **Shawna.VonStockhausen@hatchmott.com** for sponsorship or registration questions. You can also visit the website: www.sjymf.org/golf.html or http://sfymf.org/events/2014-asser-ymf-charity-golf-tour

http://sfymf.org/events/2014-asce-ymf-charity-golf-tournament-and-dinner-banquet/

INSTITUTE REPORTS

Construction Institute

Scholarship Fund

The Construction Institute continues to build its scholarship fund and bring exciting presentations on significant construction projects in the Bay Area and beyond. There is currently about \$6,000 available for scholarship awards to deserving students in late summer. Plans are also underway to co-sponsor an event with the Younger Member Forum in June.

The Construction Institute is entirely volunteer run with almost all the proceeds going towards the scholarship fund. The Construction Institute strives to share important knowledge of construction in a fun, informal setting over a meal. The Construction Institute is seeking new members and volunteers to keep the organization alive and moving forward.

Construction Institute Dinner Meeting: Interstate I-580 Widening Through Livermore

The presentation will highlight the current widening of I-580 through Livermore. This project utilizes chemical soil stabilization and the Full Depth Reclamation (FDR) process where existing pavement materials are mixed with cement and water and then compacted. This material serves as a support base for new hot mix asphalt. Construction costs for FDR are often 40% less than the traditional "remove and replace" method.

The presentation will demonstrate the economic, environmental, construction schedule and structural advantages of chemical soil stabilization and Full Depth Reclamation (FDR).

Speakers:

Tony Lusich | Principal Engineer | HSI Engineering
Jackie Cheng | Project Engineer | Ghilotti Construction
Date:

Tuesday, May 20, 2014

Registration Fee:

Regular/Advance Payment: \$30; Regular/Pay at Door: \$35; CI Officer: \$30; Student/Advance Payment: \$10; Student/Pay at Door: \$15; Speaker Only: No Charge Registration:

http://events.r20.constantcontact.com/register/event ?oeidk=a07e97m1l4f4cff58fe&llr=tynn6tjab

Pre-Registration closes Monday, May 19th. There will be no refunds after Friday, May 16th.

The program will conclude with the CI Section Scholarship Fund raffle. Please bring donations of raffle prizes to this event so we can ensure the success of this fund.

Bring your questions and your appetite!

EWRI

EWRI Dinner Meeting: Hydraulic Fracturing

Date and Time:

Tuesday May 13, 2014 from 6:00 p.m. to 9:00 p.m.

Location:

Scott's Seafood Restaurant, #2 Broadway, Jack London Square Oakland

Cost:

Pre-paid by 05/12/14: \$45; Pay-at-the-door: \$50; Students: \$35.

Menu:

Salmon, Chicken, or Pasta

RSVP:

https://events.r20.constantcontact.com/register/eventReg?oeidk=a07e96rfdob731c8993&oseq=&c=&ch=

More information:

sf-ewri@asce-sf.org

Geo-Institute

32nd GeoEngineering Distinguished Lecture Series

Registration is now open for the 32nd Distinguished Lecture Series, Friday, May 9th, 2014, jointly sponsored by the San Francisco Geo-Institute Chapter (SFGI), and UC Berkeley. The lectures will be held Friday afternoon in the Sibley Auditorium, the hosted social and dinner will follow in the Hearst Memorial Mining Building on the UC Berkeley campus. Please join us for an exceptional set of lectures, a wonderful hosted social and poster session, and a dinner that celebrates the Geoengineering profession in the San Francisco Bay area.

The 2014 topics and Distinguished Lectures will be:

- "The Case for Quality Lab Testing," Dr. Michael F. Riemer, Professor, UC Berkeley, Berkeley CA
- "Management of Risks in Foundation Construction and Design for Transportation Infrastructure Projects," Dr. Dan A. Brown, Dan Brown & Associates, PC, Sequatchie, TN
- "Geotechnical Lessons Learned from the 2011 Great Tohoku Earthquake," Dr. Kohji Tokimatsu, Professor, Tokyo Institute of Technology, Tokyo, Japan

Date and Time:

Friday, May 9, check-in begins at 12:15 p.m.; lecture begins at 1:00 p.m.

Cost:

Non-student: \$90 Lecture & Dinner; \$75 Dinner Only;

\$35 Lecture Only

Student: \$30 Lecture & Dinner; \$30 Dinner Only;

\$10 Lecture Only

For more details please go to:

http://peer.berkeley.edu/geoengineering_lecture/

INSTITUTE REPORTS

Geo-Institute

Los Angeles Section Geo-Institute Local Chapter By Kartik Atyam, LAGI Secretary

The ASCE Los Angeles Geo-Institute (LAGI) hosted or co-hosted 7 dinner presentations over the 2013 calendar year in addition to its annual Queen Mary Spring Seminar (QMSS). The presentation topics ranged from Pile Foundations in Liquefied Soil to Microtunneling in Difficult Ground, which was attended by engineers, students, and professors from Ventura County to San Diego County. Co-hosted presentations were organized with ASCE Younger Members Forum and The Association of Engineering Geologists.

The 2013 QMSS was headlined by Dr. John T. Christian, who was honored as the Ken Lee Memorial Lecturer. He spoke about "Failure and Reliability of Large Projects." The afternoon lecturers included Dr. James Martin and Mr. Jerry DiMaggio. Dr. Martin discussed "Recent Earthquake Ground Improvement Case Histories" and Mr. DiMaggio focused on "Application of the Load Resistance Factor Design Platform to Geotechnical Features (Fact of Fiction)."

The 2013 QMSS was supported by Gregg Drilling, AGI, Middle Earth Drilling, and many other companies. Our sponsors were able to interact with local practitioners, professors, students, and local and state officials. The attendees also networked with each other over coffee breaks and dinner while on the historic Queen Mary ocean liner docked in Long Beach.

LAGI is excited to present the 2014 QMSS on April 16, 2014. The 10th annual Ken Lee Lecturer will be Dr. Robert D. Holtz who will discuss "Geosynthetic Reinforced Soil: From the Experimental to the Familiar." The afternoon lecturers are Dr. Craig H. Benson and Dr. Thomas L. Brandon who will discuss "Adverse Geochemical Interactions in Bentonite Barriers: Novel Solutions Using Bentonite-Polymer Composites" and "Use and Measurement of Fully Softened Shear Strength in Design," respectively. The focus for this year's event is geo-environmental concerns.

Our bi-monthly dinner presentations include a variety of topics from local and national practitioners and professors. Our most recent dinner talk was by Professor John McCarthy from the University of Colorado, Boulder. He presented his continuing research on Pile Load Conditions for Geothermal heat exchangers. He discussed the importance of taking temperature effects into consideration during the design phase of the project for heat exchangers and for any deep pile.

Upcoming dinner meetings will be held at Steven's Steakhouse, centrally located in City of Industry. LAGI is excited to host presentations by Dr. Tarek Abdoun, Dr. Tim Stark, and many others during the 2014 calendar year.



L.A. Section Geo-Institute Board Speakers and Volunteers at the annual Queen Mary Spring Seminar

LAGI will host the 12th annual International Symposium on Geo-Disaster Reduction in the USA for the first time. The symposium will be held at Cal State Fullerton on September 5-6, 2014. The deadline for submitting abstracts to the organizing committee is June 15, 2014.

LAGI is always looking forward to practitioners, academics, and local and state agency representatives to get involved with the group. LAGI will have a position available on the board this September. Please feel free to contact the LAGI Secretary, Kartik Atyam, at atyamk@gmail.com if you are have any questions. Also, please visit our website for more information on upcoming meetings and past presentations — www.lageoinstitute.com.

SF Section Sustainability Committee Call for Members

- Did you know that in 1996, ASCE revised its Code of Ethics to make the principles of sustainable development part of the canon of civil engineering practices?
- Are you passionate about sustainability in our industry?
- Do you have a few hours a month to dedicate to the advancement of sustainability programs and projects?

If you answered "yes" to any of these questions, please consider being a charter member of the San Francisco Section Sustainability Committee. Qualifications include being a member of ASCE SF Section, having a passion for advancing sustainability initiatives in our field. To learn more about Sustainability in ASCE, visit the webpage at http://www.asce.org/sustainability/ or feel free to e-mail Russ Moore, Golden Gate Branch President at russell.moore@valicooper.com.

THIS MONTH IN SACRAMENTO

By Richard Markuson, Region 9 Legislative Advocate

Aside from the indictment of several Legislators, the big news from Sacramento is some progress on placing a revised water bond on the November ballot. While the Brown administration hasn't publicly engaged, most in the Capital believe that **AB 1331** by Assembly Water Committee chair Anthony Rendon will be the probable vehicle.

http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1331&search_keywords=

The Association of California Water Agencies (ACWA) opposes AB 1331, arguing that the bond should have more funds for Delta sustainability, similar to that in the current 2014 bond, and that storage funds should be continuously appropriated to the California Water Commission. The continuous appropriation will be essential to secure Republican Legislator support. Some believe that without this feature, the opponents to new storage will withhold funding in future years.

- AB 1331 contains:
- \$1 billion for maintaining and improving drinking water quality;
- \$1.5 billion to protect rivers and watersheds;
- \$1 billion for integrated regional water management that will improve regional self-reliance and reliability;
- \$1 billion for recycling and conservation projects;
- \$1 billion to protect the Delta as a critical element of the state water supply system and a key ecological resource; and
- \$2.5 billion for surface and underground water storage projects

The Sacramento Bee pointed out "time is of the essence. By law, the Legislature and the governor must pass a new bond by June 26 to replace the earmark-laden 2009 bond deal that is on the November ballot. Stakeholders and legislators have been meeting for more than nine months on various issues that are addressed in AB 1331."

The Bee's Dan Walters observed AB 1331 was "on the receiving end of sharp criticism from the Senate water committee's chairwoman, Sen. Fran Pavley, other senators and representatives of stakeholders in the notoriously fractious issue." He summed up "everyone involved acknowledges that writing a final version of a 2014 bond issue that can achieve a two-thirds legislative vote and gain Brown's approval will be a very tough slog at best."

Recent Reports

The Legislative Analyst's Office (LAO) released its report, "The 2014-15 Budget: State Worker Salary, Health Benefits, and Pension Costs," outlines budget proposals for scheduled pay increases, rising health and pension benefit costs, and proposed increases in the number of state positions, also highlights historical trends of state employee compensation costs and state worker take-home pay and recent decisions made by the California Public Employees' Retirement System concerning actuarial assumptions.

http://www.lao.ca.gov/Publications/Detail/2958

The California Research Bureau has released its short subject, "Hydraulic Fracturing in California: An Overview," provides history of the oil and gas recovery technique, says the biggest hydraulic fracturing project in California to date was an experimental operation conducted in 1978 by Tenneco Oil Co. and Halliburton Services, says the companies used 500,000 pounds of specially-prepared bauxite and a series of pressurized pumps in the Paloma field, southwest of Bakersfield.

http://www.library.ca.gov/crb/14/S-14-001.pdf

The LAO released its report, "The 2014-15 Budget: Transportation Proposals," finds Governor's proposed \$16.7 billion for transportation funding in 2014-15 is \$560 million, or 3.2%, below estimated expenditures for current year.

http://www.lao.ca.gov/Publications/Detail/2966

Caltrans released "2010-2012 California Household Travel Survey Final Report," finds that "nearly 23 percent of household trips were taken by walking, biking, and public transportation," a figure that has more than doubled since 2000.

http://dot.ca.gov/hq/tsip/otfa/tab/documents/chts_finalreport/FinalReport.pdf

The Delta Stewardship Council released "2013 Year in Review," highlights some of its accomplishments in implementing the Delta Plan and other provisions of the Delta Reform Act.

http://deltacouncil.ca.gov/sites/default/files/documents/files/2013_Year_in_Review_Final.pdf

The LAO released "The 2014-15 Budget: Changes to a Local Infrastructure Financing Tool," analyzes Governor's proposed changes to infrastructure financing districts to assist local governments with funding development projects. And released the following hearing handouts: "Improving Management of the State's Groundwater Resources," presented to Assembly Water, Parks and Wildlife Committee and Assembly Budget Subcommittee No. 3 on Resources and Transportation; Funding for High Speed Rail Project.

http://lao.ca.gov/Publications/Detail/2970

http://www.lao.ca.gov/Publications/Detail/2971

http://www.budgettrack.net/Portals/21/BudgetTrack/Docs14/322.pdf#xml=http://www.budgettrack.net/desktopmodules/budgettrack/pdfhitbuilder.aspx?file=322.pdf&btsession=7&uid=740

Public Policy Institute of California has released its report, "Paying for Water in California," finds California's water system "faces funding drought" of \$2 to \$3 billion per year that's needed to pay for making drinking water safe in rural areas, improving flood protection, restricting run-off pollution and protecting aquatic ecosystems.

http://www.ppic.org/main/publication.asp?i=1086

The Environmental Protection and Health and Human Services Agencies have released the "Drinking Water Reorganization Transition Plan," describes "proposed transfer of the Drinking Water Program, currently under the California Department of Public Health, to the State Water Resources Control Board."

http://www.waterboards.ca.gov/drinkingwater/docs/transition_plan031414.pdf

Caltrans has released its "2013 State of the Pavement Report," finds "healthy pavement on the state highway system increased from 75 to 84% from 2011 to 2013."

http://www.dot.ca.gov/hq/maint/Pavement/Pavement_Program/PDF/2013_SOP_FINAL-Dec_2013-1-24-13.pdf

The LAO has released "A Look at Voter-Approval Requirements for Local Taxes," details the state's current system of voter-approval requirements for local taxes, how it evolved, and the outcomes of local tax elections over the last 15 years.

http://www.lao.ca.gov/reports/2014/finance/local-taxes/voter-approval-032014.pdf

The Delta Science Program of the Delta Stewardship Council has released its report on the "third phase review of the draft Bay Delta Conservation Plan Effects Analysis," scientific assessment of the likely effects of BDCP actions on the species of concern and the ecological processes of the Bay-Delta system.

http://deltacouncil.ca.gov/sites/default/files/documents/files/Delta-Science-Independent-Review-Panel-Report-PHASE-3-FINAL-SUBMISSION-03132014_0.pdf

California Research Bureau released a three-part series of reports examining the issues of pharmaceuticals in water, prepared at the request of the Senate Committee on Environmental Quality, reports cover an overview of pharmaceuticals in water, common pharmaceuticals found in water, and methods for their removal.

http://www.library.ca.gov/crb/14/S-14-006.pdf

http://www.library.ca.gov/crb/14/S-14-007.pdf

http://www.library.ca.gov/crb/14/S-14-008.pdf

Caltrans has released "Clean Renewable Energy Bonds (CREBs) Program Annual Report," finds installation of photovoltaic systems at 70 Caltrans sites funded by \$20 million in bonds earning 1.45% will produce \$5.2 million in energy savings.

http://www.dot.ca.gov/docs/2014_Clean_Renewable_Energy_Bonds_Program_Report.pdf

The California Research Bureau has released Aerospace Manufacturing in California's Economy. Finds "aerospace encompasses a diverse range of productive activities, including the manufacturing of both civilian and military aircraft, space vehicles, guided missiles and associated parts. This Briefly Stated provides an overview of the aerospace industry in California; compares it to similar manufacturing sectors in the state; compares California to other states; and considers California's position in two newly emerging areas of the industry—commercial spaceflight and drone manufacturing."

http://www.library.ca.gov/crb/14/B-14-001.pdf

Science has released "Methane Leaks from North American Natural Gas Systems." Finds "According to a comprehensive assessment of more than 200 studies, methane leaks from the production of natural gas negates its benefits and can actually

do more harm to the planet. Although burning natural gas produces 30% less carbon-dioxide compared to burning diesel, the drilling and production of natural gas can lead to leaks of methane, a greenhouse gas 30 times more destructive than carbon dioxide. The study concludes that there is already about 50% more methane in the atmosphere than previously estimated by the Environmental Protection Agency."

http://www.novim.org/images/pdf/ScienceMethane.02.14.14.pdf

Public Policy Institute of California has released Paying for Water in California. Finds "California faces critical funding gaps in five key areas of water management....These areas include safe drinking water in small, disadvantaged communities; flood protection; management of stormwater and other polluted runoff; aquatic ecosystem management; and integrated water management.... The report identifies the overall funding gap in these five areas at \$2 billion to \$3 billion annually. Filling this gap would require a spending increase of 7–10%—or \$150 to \$230 per household—for a water system with annual spending of more than \$30 billion."

http://www.ppic.org/main/publication.asp?i=1086

U.S. PIRG has released "A New Course: How Innovative University Programs Are Reducing Driving on Campus and Creating New Models for Transportation." Finds that "Colleges and universities across the United States use a wide variety of strategies to reduce the number of cars around campus."

http://uspirg.org/sites/pirg/files/reports/US_A_New_Course_scrn_0.pdf

California Research Bureau released Hydraulic Fracturing in California: An Overview. "This Short Subject gives a brief history of this oil and gas recovery technique, as well as some of the major landmarks of government oversight in this state."

http://www.library.ca.gov/crb/14/S-14-001.pdf

The U.S. Department of Transportation Federal Railroad Administration released Best Practices and Strategies for Improving Rail Energy Efficiency. "This study reviews and evaluates technology development opportunities, equipment upgrades, and best practices (BPs) of international and U.S. passenger and freight rail industry segments for improving energy efficiency (E2) performance and attaining environmental sustainability goals."

http://ntl.bts.gov/lib/51000/51000/51097/DOT-VNTSC-FRA-13-02.pdf

The California Air Resources Board has released its first proposed update to the AB 32 Scoping Plan. The Scoping Plan guides development and implementation of California's groundbreaking greenhouse gas emission reduction programs. The update also "lays out a set of new actions that will move the State farther along the path to a low-carbon, sustainable future.... Some of the actions are near-term, while others are focused on longer-term efforts that will provide major benefits well into the future."

http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm

Appointments

The Governor has made the following appointments:

- To Los Angeles County Metropolitan Transportation Authority Board of Directors (reappointed), to the Ventura County
 Transportation Commission (reappointed), and to the Metro Gold Line Foothill Extension Construction Authority Board of
 Directors: Carrie Bowen, 54, Stockton, has served in multiple position at the California Department of Transportation District 7 since 2013 including director and acting director.
- To the *California Board for Professional Engineers, Land Surveyors, and Geologists*: **Mohammad Qureshi**, 48, Redlands, chief of traffic at the San Bernardino County Department of Public Works; **Karen Roberts**, 52, San Diego, senior structural engineer at the California Department of General Services, Division of the State Architect.

THE LAW AND CIVIL ENGINEERING

More on Contract Clauses

by Eugene Bass, Esq.

On of the main purposes of a contract is to allocate risk between the contracting parties. Generally, the parties expect that contract terms will express normal risk allocation. Sometimes, however, a contract may contain terms that vary from the expectations. Care must be taken to review all the terms of the contract to be aware of the unusual or unexpected provisions that can significantly affect anticipated risk and the contract price.

Clauses requiring a contractor to investigate a job site and related conditions and to acknowledge satisfaction with those conditions are not uncommon. The reason for this type of provision is to protect the owner from changes to the project that may increase the cost if unanticipated conditions are found. If the owner supplies misleading information, such a requirement may not be enforceable, however. If an owner intends that the contractor conduct an extensive investigation before submitting a bid, the price will, of course, reflect those costs, providing the bidders appreciate the necessity for such an investigation. A bidder should be clearly understand if it is the owner's intention to shift the risk of site conditions to the contractor or the bid price will be higher than it should be. Owners should also be aware that to the extent they do not invest in pre-bid site investigations, the price of their project will increase to reflect the added costs to the bidders. Also, there is more possibility that the contractor's investigation may not be as thorough as it should be, thus increasing the risk of problems during construction.

Sometimes contracts seek to limit compensation or damages arising from delays by providing that the only remedy available for a delay is a time extension of the contract. Time delays can be very expensive and often mere time extensions will not provide reasonable compensation for the delayed contractor. If faced with such a provision, a contractor should seek to limit it's application where delays are not within the contemplation of the parties or are unreasonable. Also, such clauses should not be applied to bar any claims for delay that can be passed onto the owner.

Payment clauses that seek to only require payment to a subcontractor after the general contractor is paid, can be very problematic. The legitimate intent of such a clause can be to provide that payment will be made in due course when the submittal, approval and payment process has been completed. Another purpose can be to provide that if the general contractor is not paid by the owner, the general contractor does not have to pay the subcontractor. That may not be a risk that the subcontractor will appreciate, especially after fully performing the work. Special care should be taken to recognize and understand such clauses and to be sure that they are modified, if necessary.

This article is intended to provide general information regarding legal issues. It is not to be relied upon as specific legal advice or in place of the need to seek competent legal advice on specific legal matters. Eugene Bass is an attorney and registered Civil Engineer. He has offices in Redwood City and can be reached at 650-369-7990.

President's Message continued from page 2

Stevens Creek Trail Reach 4 Segment 2, City of Mountain View, Mark Thomas & Company, won the Outstanding Bikeways & Trails Project award.

Crestmor Neighborhood Reconstruction, City of San Bruno, BKF Engineers, received the Outstanding Construction Project award.

Alum Rock Fish Passage, Santa Clara Valley Transportation Authority, GHD Inc., won the Outstanding Environmental Engineering Project award.

UC Berkeley California Memorial Stadium Seismic Upgrade, University of California, Forell/Elsesser Engineers Inc., received the Outstanding Historical Renovation Project award.

The Exploratorium, Rutherford and Chekene, won the Outstanding Museum/Educational Facility Project award.

Tom Lantos Tunnels (Devil's Slide), Caltrans, HNTB, received the Outstanding Roadway & Highway Project award.

It's fantastic to have peer recognition for jobs well done. As President of the Section, I can say that the entire Section Board thanks each of our panelists for sharing their knowledge with us. We also reach out to each of the award recipients. Congratulations on achieving these milestones! If you work in water or transportation engineering, you'll want to consider traveling to Southern California. Next year, the Annual Symposium and Region 9 Awards event will be held in San Diego.

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Region 9 - ASCE 2014 Spring and Summer Continuing Education Seminars and Workshops

as a PDF or jpeg document.

Geographic Services is proud to announce the Continuing Education schedule of seminars and workshops for the spring and summer that are scheduled in your geographic area. These seminars/workshops have been produced by ASCE's Continuing Education Department with your members in mind. Call 800-548-2728 for more information.

Workshop Title	Dates	Location
Project Management	May 15-16, 2014	San Francisco, CA
Design of Concrete Pavements - NEW	June 5-6, 2014	Long Beach, CA
Design and Construction of Launched Bridges - NEW	July 10-11, 2014	San Francisco, CA
Seismic Design of Highway Bridges	September 4-5, 2014	Long Beach, CA