PRESIDENT’S MESSAGE

Steven W. Ledbetter, P.E.

We’re excited to announce some changes happening within the Branch. To show our appreciation to our local civil engineers that have made a lifetime commitment to ASCE and the civil engineering profession by remaining a member for at least 35 years and have achieved Life Member status will receive a discounted rate at branch functions. In addition, in an effort to generate more participation from the public sector, public agency employees will also receive a discounted rate at Branch events. Similar incentives have been successfully implemented in other sections and branches of ASCE and we expect a positive impact within our Branch as well. Your first chance to take advantage of the new rates is at our May luncheon.

On May 19th, the Branch will be hosting “The Big One” - 12 Steps to Seismic Design at the Riverside Convention Center. Jeff Mason, P.E. is part of US Pipe’s new educational resource program, SmartSPEAK, created to identify, address and provide solutions in the area of waterworks. Since seismic design for water pipelines is not explicitly included in current AWWA standards, Jeff will explore the guidelines for seismic design of water pipes which allows varying requirements for different types of pipelines depending upon their overall importance as well as the localized risk for earthquakes. The guidelines are easy to implement, easy to understand, universal, applicable to small and large utilities, and geared to be cost effective. With several major waterline breaks making their way into major news headlines recently due to lack of adequate maintenance and replacement, there’s no better time to learn about building our new water ...CONTINUED ON PAGE 4
Anyone that visited or lived in San Francisco between 2002 and 2013 may remember the amazing sight of enormous cranes, trucks, machinery, and people working in unison to replace the eastern span of the San Francisco – Oakland Bay Bridge. The hair pulling traffic may or may not have been caused by rubbernecker admiring the steel ballet, but when it was a parking lot, we always had something to watch.

All Californians understand or will understand the wrath of an earthquake and engineers most of all know the potential for disaster. With a cautious anticipation of the “Big One” set to hit California anytime now, engineers in 1996 understood the potential and determined all portions of the eastern span were at high risk.

Through engineering and economic analysis from Caltrans engineers, it was determined that replacement of the entire eastern span would cost only a few million dollars more than an earthquake retrofit. Also, the replacement bridge would have an expected useful life of 75 to 100 years rather than 30 years with a retrofit. It would be engineered to withstand the largest earthquake expected over a 1500-year period and could last up to 150 years with proper maintenance. The “world-class design” project called for construction of a 1.2 mile skyway viaduct and brand new self-anchored suspension bridge (SAS) to replace the existing aged steel truss.

The most significant design criterion was that the new eastern span bridge should be able to survive an 8.5 magnitude earthquake caused by any of the several faults in the region including the very famous San Andreas. The combination of aesthetic requirements, seismic requirements, and difficult construction led to an unexpectedly high cost of $1.4 billion from only one bidder. Due to the enormous amounts of material
unexpectedly high cost of $1.4 billion from only one bidder. Due to the enormous amounts of material required, the expected cost slowly rose as the project progressed; from $1.1 billion in 1997 to $6.2 billion in July 2005.

Construction of the new eastern span began on January 29, 2002 and the project was segmented into four major components, the Yerba Buena Island Transition Structure (YBITS), the 2,047 feet long Self-Anchored Suspension Span (world’s largest), the elegant 1.2 mile long Skyway, and the 4,229 feet long Oakland Touchdown that joined the eastern span to the Oakland shore.

Constructed by a joint venture of American Bridge and Fluor Corporation, and maintained by Caltrans, replacement of the eastern span is considered the most expensive public works project in California history at a total project cost of $6.4 billion. The new span has a total length of 2.2 miles, width of 258 feet and comprises 10 general purpose lanes. It was officially opened on September 2, 2013 and is a testament to the dedication of engineers to ensure the reliability of our infrastructure and maintaining safety for the public above all else.

Reference:
http://www.dot.ca.gov/hq/esc/tollbridge/SFOBB/Sfobbfacts.html
http://www.baybridgeinfo.org/
https://www.library.ca.gov/crb/04/13/04-013.pdf

504 FT SECTION FROM THE BAY BELOW THE NEW EAST SPAN
504 FT SECTION OF ORIGINAL EAST SPAN ALONG SIDE THE SKYWAY SECTION OF THE CURRENT BAY BRIDGE

Photos courtesy of Sam Burbank

Interested in writing the Engineers Column next year?
Contact the Newsletter Editor Melissa Barbosa, PE at mbarbosa@ci.azuca.ca.us
President’s Message

...CONTINUED from PAGE 1

system infrastructure that will not only withstand the test of time, but will better withstand seismic events and maintain the availability of our precious resources. See the flyer herein for more information. Hope to see you there!

CALLING ALL LEGISLATIVE ADVOCATES!!! The 2016 ASCE Region 9 Legislative Day will take place in Sacramento on Wednesday, May 18, 2016, during Infrastructure Week. Region 9 has put together two distinctive tracks at this year’s Fly-In; one for new grass roots advocates and one for seasoned grass roots advocates. No experience is necessary for new advocates; Region 9 will provide specialized training on public relations and an inside look at the legislative and political process in the morning, then you'll be teamed up with seasoned advocates in the afternoon for appointments with legislators. Seasoned advocates will attend a morning session providing a legislative overview and talking points and morning appointments with legislators; followed by an afternoon mentoring new advocated for appointments with legislators. There is no registration fee to attend; however, participants are responsible for their own travel expenses and must register so that legislative appointments may be scheduled. For more information, please contact Mojgan (MJ) Hashemi, Chair, ASCE Region 9 Government Relations Committee at mhashemi@mwdh2o.com.

Sincerely,
Steven W. Ledbetter, P.E.
San Bernardino and Riverside Counties Branch President

Lighter Side

How many Civil Engineers does it take to change a light bulb???

“Will this question be on the PE Exam?”
April ASCE Membership PE Booth & Happy Hour

By: Michael Andersen, P.E.

April the famous month for the PE Exam!!! Members from the San Bernardino/Riverside, Orange County, and Los Angeles Younger Members Forums gathered to encourage the latest round of future Professional Engineers as they tackled the National Exam on Friday April 15th at our bi-annual PE Booth event. During the event we got the opportunity to chat with test takers about the day ahead of them, ASCE and the Younger Members Forum, give them encouragement...and of course give out our ASCE YMF seat cushions. It’s our way of making their day a little more comfortable and letting them know that the YMF supports them in their professional development goals! Seat cushion pun accomplished! We wrapped up the event in the evening with a happy hour at the Cal Poly Innovation Brew Works where the YMF provided the Pizza’s and members and test takers had a chance to relax and have a brew. A big thanks to everyone who attended the event!

Annual ASCE Softball Tournament at Ellena Park

By: Ibrahim Ibrahim, EIT

Members from the San Bernardino/Riverside ASCE Branch, San Bernardino/Riverside ASCE Young Member Forum, Cal Poly Pomona University (CPP), and California Baptist University (CBU) gathered for the softball tournament at the Ellena Park in Rancho Cucamonga on April 16, 2016 at 9:00AM. Three teams gathered: the Branch team, CPP team, and CBU team. Multiple games were played between the teams, and participants showed their great skills and eagerness to win the title. CBU was announced the tournament winner after a very challenging close-scoring game with the Branch in the final. CBU was down for a while, but managed to take the winning streak from the Branch! In addition, food was prepared during the last game and was ready as the players finished their game. We wrapped up the event in the afternoon after having lunch and great conversations. The event went as planned, and participants enjoyed a great day in the park. A big thanks to everyone who attended the event!
Water In the Coachella Valley - Technical Inspection Tour

By: Michael Andersen, P.E.

ASCE Branch and YMF members from the LA Section enjoyed an incredible Technical Tour of water infrastructure in the Coachella Valley on Saturday, April 29, 2016! It was an all day event and an early start for most of us, but an inspiring day seeing what incredibly talented Civil Engineers from the past & present have made possible: farming, cities & resorts in the desert! We especially want to thank the Coachella Valley Water District (CVWD) for planning and being a sponsor of the tour and ASCE SB/Riv Branch for sponsoring the event.

After breakfast and an overview presentation at the CVWD Administration Bldg in Palm Desert, CA, we boarded a charted bus and headed to the CVWD Control Room in Coachella, CA where they control the delivery of water from the Colorado River to farms and their ground water replenishment facilities. Tour stops following this were at the Ion Exchange (arsenic & chromium-6 removal) water treatment plant, the Coachella Canal and a bell pepper farm where we saw the latest in irrigation technology. We then made a stop at the Salton Sea State Beach for lessons learned in a civil engineering failure from the past that formed the Sea and plans for the future. After the unpleasant smells from the Sea, we enjoyed an incredibly good lunch, date samples and date shakes at the Oasis Date Garden.

The afternoon portion of the tour included stops at sewer treatment facilities in the valley, touring recent modernization projects, new headworks facilities, and the construction of recycled water delivery infrastructure to the golf courses in the Coachella Valley that has significantly reduced the pumping of groundwater. A fascinating stop was at the ground water recharge ponds in the La Quinta area, where the CVWD pumps Colorado River Water up to the this location where they found that the water can very quickly percolate down to the aquifer.
Every year the American Society of Civil Engineers Legislative Fly-in brings together 200+ ASCE members from across the country to share their every-day engineering experiences with Congress. ASCE scheduled meetings with our local congressmen and congresswomen to talk about the funding needs for infrastructure. We, as constituents, requested that our elected officials support a new Water Resources Development Act, additional funding for water infrastructure, and Federal Aviation Administration Reauthorization.

We received updates on critical legislation related to the civil engineering community and met with our elected officials and their staff on Capitol Hill. We also learned tips and suggestions on how to make those meetings successful and continue those relationships when we return home.

This experience was amazing! I was able to talk about my local infrastructure concerns. I was very fortunate to talk with Mark Takano, the Congressman that represents the cities of Riverside, Moreno Valley and Perris, about one of my major concern: public safety at rail crossings in the City of Riverside.

ASCE offers a Key Contact Program that encourages members to influence the policy process at the state and federal levels by developing relationships with elected officials. Having the one on one conversation with someone that can make a difference in your... CONTINUED ON PAGE 8
community can be very powerful. By meeting and making contacts with your elected officials in several ways, you can achieve true conversations about issues important to the profession, and can become a trusted advisor when bills are drafted or considered.

Become a Key Contact today at https://s.zoomerang.com/Survey/WEB22ACT8HMDBG

Congressman Mark Takano

March 23, 2016
The Honorable Mark Takano
United States House of Representatives
1507 Longworth HOB
Washington, D.C. 20515

Dear Rep. Takano:

Thank you for taking time out of your busy schedule to meet with me on March 16.

The purpose of the meeting was to talk about the funding needs for infrastructure. As discussed with your staff, I hope you will support a new Water Resources Development Act, support additional funding for water infrastructure, and Federal Aviation Administration Reauthorization. A perfect example of the importance of infrastructure is the shut-down of the Metro in Washington D.C. and passengers it affected. It is important to construct and maintain infrastructure so that our public is safe.

I was extremely happy to hear that one of your concerns in the City of Riverside is public safety, specifically at rail crossings. This is also a great concern of mine because the lack of pedestrian safety caused devastation in my family. At around 6 p.m. on Thursday, October 10, 2013, Serafin “Angel” Gonzalez, my nephew, was waiting to cross the dual tracks on Madison Street near Indiana in the City of Riverside. After a freight train passed, he rode his bike across the tracks and was hit and killed by a Metrolink train coming from the opposite direction. Serafin was launched 170 feet. Serafin owns a piece of my heart and when I heard the news it instantly broke. I’ve never felt so much pain in my life. Since the very moment he was born I’ve watched over him like one of my own and now he is gone.

Because of this tragedy and because our goals are similar when it comes to public safety, I would really like to help in any way that I can.

I have a bachelor’s degree in Civil Engineering, I am a licensed Professional Civil Engineer in the State of California, and I am currently working on a Master’s in Public Administration from California Baptist University. I have some experience in Public Policy and can help draft policy for you to review. I can create an ad-hoc committee with Civil Engineers that focus on grade separation design to provide short-term and long-term recommendations to increase public safety at rail-crossings. I can also share my story in hopes that it supports your request for funding. Please let me know how I can help.

Again, I want to thank you for taking time to meet with me. If you have questions please feel free to contact me at 951-515-4227 or juliannagonzalez85@gmail.com.

Respectfully,

Julianna Gonzalez, P.E.
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**ASCE May Lunch Meeting**

**The Big One**

12 Steps to Seismic Design
Presented by Jeff Mason, P.E. US Pipe/SmartSPEAK

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**Date:** Thursday, May 19, 2016

**Time:** 11:30 am to 1:00 pm

**Location:** Riverside Convention Center
3637 Fifth Street, Riverside CA

**Cost:**
- $35 ASCE Members / Consultants w/ RSVP
- $20 Government employees w/ RSVP
- $20 ASCE Life Members & Students w/ RSVP
- $40 Non-Members / Walk-Ins / No RSVP

**Deadline:** Please RSVP by May 10, 2016

**Additional Info:** Melissa Barbosa, P.E.
(626) 812-5173
mbarbosa@ci.azusa.ca.us
VOLUNTEERS NEEDED
Help us motivate high school students to pursue Civil Engineering!

Friday, May 20

Ramona High School
7675 Magnolia Avenue
Riverside, CA 92504

7:00am-2:45pm
Shifts are available
Class periods are in 55 min. blocks

For questions, contact:
David Cortese  djcortese@rcflood.org
Save the Date May 18 and join ASCE Region 9 in Sacramento to advocate for Infrastructure

**Legislative Training & State Capitol Visits**
May 18, 2016
State Capitol, Sacramento, CA
8:30 AM-11:30 AM
Legislative Process Training; Public Relations Training; Review ASCE Legislative Talking Points
11:30 AM-12:30PM
Lunch and Picture-Taking
1:00 PM-4:00 PM
Legislative Visits at the California State Capitol, 1315 10th Street, Sacramento, CA 95814

For additional information or to participate, contact: Mojgan (MJ) Hashemi, Chair, ASCE Region 9 Government Relations Committee, at mhashemi@mwdh2o.com

**Pre-Event Workshop and Advocacy Training on Raise-the-Bar for Engineering**
May 17, 2016
4:00 PM-7:00PM
Kimley-Horn & Associates, Inc
555 Capitol Mall, Suite 300
Sacramento, CA 95814

For additional information on the pre-event workshop, contact: Kwame Agyare, Chair, ASCE Region 9 Raise the Bar Committee, at agyare.kwame@gmail.com

**SUGGESTED HOTEL ACCOMMODATIONS**
Holiday Inn Sacramento – Capitol Plaza, 300 J St, Sacramento, CA 95814
On December 15, 2016 the San Bernardino/Riverside Branch kicked-off the Inland Empire Infrastructure Report Card update. The update is being coordinated by Edwin Quinonez, P.E. and Julianna Gonzalez, P.E. with Riverside County Flood Control and Water Conservation District. The following members will be leading the Executive Committee and Working Committees:

**Executive Committee:**
- George Johnson - County of Riverside
- Mark Norton - Santa Ana Watershed Project Authority
- Mike Thornton - TKE Engineering, Inc.
- Helen Jung - California Baptist University

**Committee Chairs**
- **Transportation**
  - Brian Wolfe - City of Redlands
- **Water/Wastewater**
  - Bob Tincher - San Bernardino Valley Municipal Water District
- **Flood Control and Urban Runoff**
  - Chris Castaneda - Albert A. Webb Associates
- **Solid Waste**
  - Barbara Spoonhour - Western Riverside Council of Governments
- **School Facilities**
  - Rich Haller - Santa Ana Watershed Project Authority
- **Aviation**
  - Chris Turnage - Parsons Brinckerhoff
- **Parks, Recreation & Open Space**
  - Jarb Thaipejr - City of Loma Linda
- **Energy**
  - VACANT

During the April meeting the group discussed the criteria established by ASCE National in 2015 for all report card updates, which includes: 1) capacity, 2) condition, 3) funding, 4) future need, 5) operation and maintenance, 6) public safety, 7) resilience and 8) innovation. The 2016 Inland Empire Infrastructure Report Card will be following ASCE National’s guidance in an effort to maintain consistency with the latest State and National report cards.
ENVIRONMENTAL ANALYST
Charles Abbott Associates

Charles Abbott Associates, Inc. (CAA) is a contract service provider to state and local government agencies. The expertise we provide to agencies includes the departmental functions of building & safety, city engineering/public works, environmental, and fire prevention. With over 31 years of experience as a firm serving the public sector, CAA has earned respect in the industry for the outstanding service we provide our clients.

CAA is currently interviewing for a full-time Environmental Analyst to work in the Counties of Los Angeles, Riverside and San Bernardino.

The Environmental Analyst’s role is to support the Environmental Services Division with providing NPDES MS4 compliance services to local governments, including the development and implementation of storm water pollution prevention programs to comply with current State Water Board Permits. This position requires excellent communication, research and writing skills, ability to work on multiple projects concurrently, and be able to meet tight deadlines and budgets. A writing sample must be submitted with resume. Preference will be given to applicants with relevant experience working with stormwater permits in California.

QUALIFICATIONS: A Bachelor’s degree in Environmental Sciences, Civil or Environmental Engineering or a related field including Geology, Biology, Ecology, Urban Planning. QSP/QSD/CESSWI certificate preferred. Development Plan Review (SUSMP/WQMP/LID) experience a plus.

SKILLS: Ability to participate in the development and implementation of program goals and objectives; prepare clear and concise guidance documents and reports; analyze problems and identify solutions; operate in a variety of work settings; knowledge of power point, spreadsheets, and word processing applications; communicate clearly and concisely, both orally and in writing; establish and maintain effective relationships with clients.

SALARY: Commensurate with qualifications and experience, with excellent benefit package including: excellent medical, dental, vision, life disability, 401(K), vacation benefits, and performance based bonuses

CONTACT: Allison Watters at allisonwatters@caaprofessionals.com or via 949.273.0271

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Melissa Barbosa, PE
at mbarbosa@ci.azusa.ca.us
Free Job Board!
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Question: “How do I take advantage of all this complimentary goodness?”
Answer: Point your browser to the Branch Home Page and click on “CAREERS”, or just click HERE.

Posts will be reviewed for appropriate content.
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Calendar of Upcoming ASCE Events

May 14, 2016 – ASCE YMF Joint Olympics—Everyone is Invited
May 18, 2016 – ASCE California Region 9 Legislative Day in Sacramento Fly In
May 19, 2016 – ASCE The Big One - 12 Steps to Seismic Design 11 AM at Riverside Convention Center
May 20, 2016 – ASCE YMF K-12 Student Outreach at Ramona High School - Volunteers Needed
May 20, 2016 – ASCE SBR Branch Award Winners Notified
May 28, 2016 – ASCE YMF Paintball at SC Village
June 1, 2016 – ASCE Deadline to apply for the Student Sponsorship (Portland Oregon ASCE Convention Sept 28-Oct 1, 2016)
June 3, 2016 – ASCE Branch Board Meeting at TKE
June 2016 – Save the Date! ASCE SBR Branch Award Dinner at Riverside Convention Center

Membership Information

Types of Membership and Annual Dues (National)

Students: FREE
Associate Member: $50 per year of Baccalaureate degree and first year after, then incremental increases to $225 over five years.
Member: $225
Affiliate: $225
Section (Branch) Dues: $55

National ASCE student membership is now FREE! Those who have chapters or clubs still must be a member of them before joining National. Log onto http://www.asce.org/join/, fill out the short application or call 1-800-548-ASCE (2723) and instantly become a member of ASCE.

Online membership renewal is available! Go to http://www.asce.org/membership-communities/ You will need your membership number. All payments must be made with a major credit card. An e-receipt is transmitted to the member upon completion of the transaction.

Newsletter Information

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