President's Message

by Jon Balzer, P.E., President

THE VALUE OF THE NEXT GENERATION
If you want happiness for a lifetime, help the next generation.
Chinese Proverb

It is ironic how often fulfillment and genuine happiness can be found in helping others. My journey through ASCE began at a time when I was eager to make a difference, and with the start of the Construction Institute in Sacramento, I found an opportunity to network and get involved. These involvements started with student outreach programs and refining scholarship systems. The rewards and satisfaction that accompanied these efforts were quickly realized, and I found that in working with students and young professionals, I was not only giving back and helping make a difference in their lives, I was also making a difference in my own. I was remembering why I chose this profession. I was remembering how fortunate I really am. More importantly, I was also reminded of my dreams and ambitions, and how important it is to hold them especially during times of adversity.

As the years have passed, my involvements in ASCE have grown to encompass new perspectives and responsibilities; however, one fact remains certain: the importance of the next generation cannot be understated. It is a lesson that continues today, for the youth of our profession holds not only the answer to our future, but also embodies many of the ambitions and dreams that gave rise to our beginnings. For ASCE in Sacramento, the importance of younger members and students is at the forefront of our focus. As we enter the summer months with internships and scholarship programs at center stage, we find ourselves presented with ample opportunities to extend a helping hand to the next generation.

ASCE Scholarship & Younger Member Opportunities:

Look at the primary goals for almost any ASCE committee, institute, branch, or section and a reoccurring theme one discovers is the importance of students and younger members. Scholarship programs and events often focus on younger members. Banquets, job fairs, activities, and events, almost always provide a spotlight for students and young professionals. Even during times of hardship, scholarship programs continue to be available to students, and they have become a fundamental element to many ASCE programs. Simply stated, students and young members are at the heart of our profession, and at the heart of ASCE. Yet, ASCE has much more than financial support and networking to offer students, it is also a place that builds engagement and connects the profession.

Perhaps the greatest opportunity ASCE offers students and younger members is getting involved and connected to the profession through its many resources, programs, and members. There is a tremendous Younger Member Forum (YMF) in Sacramento, and there are many groups in ASCE welcoming students and new professionals with open arms. These groups not only provide valuable resources to help network students and new professionals, but they also provide leadership opportunities to assist in the development of tomorrow’s leaders. The challenge is then to recognize and share these resources with the many students and new professionals of our industry. For each of us has an opportunity to invite a student or starting professional to an ASCE meeting, to introduce them to a YMF member, or to open the door and begin the networking process for them with the professionals of our industry. With the many scholarship programs in ASCE, each of us should inform the students and interns in our lives and encourage them to apply. When we incorporate the importance of the next generation in our daily routines, we may discover that buried inside each of us is both a mentor and a student.

The irony with students and younger members is when one realizes how much they have to teach about imagination, passion, and learning. The enthusiasm to learn and strive for more and the

IN THIS ISSUE

| 2012 Tours and Presentations of SFOBB Projects | 5 - 6 |
| Advertising Rates | 2 |
| ASCE Region 9 - California Historic Land Marks | 6 - 7 |
| ASCE Region 9 - This Month in Sacramento | 7 - 9 |
| Calendar | 3 |
| Capital Branch | 3 & 12 |
| Capital Branch News | 9 - 10 |
| Central Valley Branch | 3 |
| Computer Crime and ASCE | 10 - 11 |
| Dr. Dafalias Wins Norman Medal | 3 |
| Feather River Branch | 3 |
| Officer Contacts | 2 |
| Outstanding Project | 4 - 5 |
| President’s Message | 1 |
| Shasta Branch | 3 |
| Volunteers Needed | 5 |

Continued on Page 3
The Engineerogram is the official publication of the Sacramento Section of the American Society of Civil Engineers and made available to ASCE members paying local dues to the Section. It is published regularly at the beginning of the month. To contribute articles, mail, fax, or e-mail to ASCE/Sacramento Section Executive Secretary, Vivian Mevorah, at asce@asce-sacto.org. Deadline for articles is on the 20th of the month prior to the issue.

Advertising Rates:
- Full Page $250 - A page is 7 1/2" x 9 1/2"
- Half Page $130 - 1/2 page (either horizontal 7 1/2 x 4 3/4; or vertical 3 3/4 x 9 1/2)
- Quarter Page $75 - 3 3/4 x 4 1/4
- Professional Card $150 for a full year - 2 1/2 x 1 1/2 (reduced down from 2 x 3 1/2); OR $175 for a full year for 2 x 3 1/2 size business card
- Classified Ad in Newsletter or Website $50/100 words - no logo

(To our contributing writers: The Engineerogram reserves the right to make revisions, correct spelling and grammatical errors, to prioritize information and to summarize content. Articles may be shortened as editorial requirements dictate. Questions regarding this policy may be directed to the President of the Sacramento Section. Thank you for your understanding. Editors.)

For more ASCE activities if you wish to be active in a committee, career opportunities, complete text for the legislative activities, go to the Sacramento Section web site at www.asce-sacto.org, or contact a current officer. To MAKE CHANGES OR RENEW YOUR MEMBERSHIP, go to website: www.asce.org. For MEMBERSHIP APPLICATIONS, please e-mail to memapp@asce.org.
President’s Message - Continued from Page 1

ambition to dream without limits are lessons that any professional at any age can appreciate. It is this same approach that has led to many of the great achievements or our profession. For these reasons, perhaps the greatest gift we can offer is encouragement to continue to strive and reach for your goals and aspirations. In 2005 I was fortunate enough to see Steve Jobs (founder of Apple and Pixar) give a commencement speech to a Stanford graduating class. In it he encouraged graduates to follow their heart, have faith the “dots will be connected,” and embrace life’s adversities as lessons. He concluded his speech stating that something he had always wished for himself, and today he wished for them, to “Stay Hungry, Stay Foolish.” It is a lesson that transcends profession and age – continue to strive for more, and always believe in your dreams.

Thank you, and if you are interested in getting involved, finding out more about scholarship opportunities, or just want to share some thoughts, contact ASCE Sacramento Section at: asce@asce-sacto.org.

Sincerely,
Jon Balzer

Central Valley Branch Meeting

For more information about the Central Valley Branch meetings, please contact Jason Tokheim at jtokheim@ksninc.com.

Feather River Branch

For more information about the Feather River Branch meetings, please contact Amie McAllister at amie.steel@gmail.com.

Shasta Branch

For more information about the Shasta Branch meetings, please contact Dale Roper, P.E., at droper@shn-engr.com.

Dr. Dafalias Wins Norman Medal

by Jackie Simon, Manager, Geographic Services

Dr. Yannis Dafalias, Ph.D., M.ASCE, Dept. of Civil & Environmental Engineering, University of California, Davis, is a member of the Capital Branch, Sacramento Section, and has been selected to receive the Norman Medal. The award will be presented at the Annual Award Ceremony. Additional information and recipient photographs are available at www.asce.org/awards.

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<td>Sacramento Section Board Meeting</td>
<td>GEI Consultants, 2868 Prospect Park Dr., #400, Rancho Cordova, CA 95670</td>
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<td>Wednesday, 20th</td>
<td>EWB Meeting</td>
<td>RBF Consulting, 4540 Duckhorn Dr. Suite #202, Sacramento</td>
<td>Dustin Harrison <a href="mailto:sacpropresident@gmail.com">sacpropresident@gmail.com</a></td>
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<td>Woodlake Hotel Highway 160 at Cal Expo Exit</td>
<td>Alfred R. Mangus <a href="mailto:mangusalf@yahoo.com">mangusalf@yahoo.com</a></td>
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<td>Central Valley Branch Meeting, Page 3</td>
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<td>TBA</td>
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[The Engineerogram June 2012](#)
The new Cypress Avenue Bridge replaced tired old steel girder structures built in the late 1940s and ‘60s. The existing bridges were determined to be structurally deficient and functionally obsolete. The new bridge features were designed to complement the visual beauty of the Sacramento River and provide a statement and vision for Redding.

Some of the features that set this bridge apart from others include the textured pier walls and rounded pier noses that extend beyond the bridge deck and are capped off with modern, highly stylized lanterns that light up the bridge in the night. Overhang accent lighting shines down on the five-span haunched girders to enhance the simple but elegant look.

The bridge provides improved pedestrian access across the river on textured and multi-shaded concrete side-walks. Near mid-span, walkway overlooks encircle the lanterns and provide pedestrians the opportunity to take in the vistas of the Sacramento River and perhaps spot some migrating salmon.

A spiral staircase leads pedestrians off the bridge at each abutment. On the west, down to Park Marina Drive and access to Parkview Park; on the east, down to future river trail access.

The project also included the reconstruction of signalized intersections on both ends of the bridge and Park Marina Drive which passes under it.

**Construction**

**Bridge Stats**

The Cypress Avenue Bridge is a signature 1025-foot x 120-foot, five-span, haunched, cast-in-place, post-tensioned, box girder bridge on a 10,000’ radius curved alignment with a variable depth superstructure ranging from 9’ at midspans to 15’ at piers. Other significant features include:

- 24 8 ft. dia., 85 ft. deep CIDH piles
- Six piles per pier
- Four pier walls
- Three retaining walls
- Six 12 ft. lanes
- 12 ft. median
- Two 8 ft. shoulder/bike lanes
- Two 10 ft. sidewalks
- 52 PTFE spherical bearings
- Eight architectural lanterns
- Overhang and abutment accent lighting
- 24” DIP waterline
- 16” DIP sanitary sewer line
- Numerous electrical/fiber optic conduit
- 4,300,000 pounds of rebar
- 18,000 cubic yards of concrete

The replacement of the existing bridges required multi-year staging of the project. Construction began in April of 2007. Work was completed in three stages and consisted of building three bridges consecutively. Tight confines of the City right of way and environmental permit requirements provided increased challenges.
in completing the bridge. The environmental permits limited in-river pile driving work to day-time hours between October 15th and April 15th of each year. Approximately 400 24” diameter temporary pipe piles were installed for trestles and falsework.

Stage 1 — consisted of building work trestles for access and construction of the south portion of the bridge while maintaining traffic on the existing structures.

Stage 2 — required shifting traffic to the new stage 1 bridge and demolition of the 1968 west bound structure. The north bridge was then constructed in this location.

Stage 3 — included switching traffic to the stage 2 bridge and demolition of the 1948 east bound bridge. The middle bridge was then built and deck closure pours where used to tie all three bridges together.

Project Completion

The construction completion of this project was celebrated with a ribbon cutting in April of 2011. It culminated over ten years of planning, design, environmental studies and construction. Successful project completion required the assistance of local and out of area consultants and contractors. Other essential partners included many federal and state agencies. It was the community – local residents and businesses – however, which endured more than three years of disruption to this major link between east and west Redding. Their patience has been rewarded with this new signature bridge, which will serve close to 50,000 plus drivers, pedestrians and bicyclists to provide easy travel on one of the City’s vital commutes across the Sacramento River for the next 100 years.

(Editors’ Note: This project received ASCE, Sacramento Section 2011 “Bridge Project of the Year” as well as the Shasta Cascade Branch and Sacramento Chapter APWA “Project of the Year: Transportation Category $50M - $100M.” It was one of three finalists for California Transportation Foundation 2012 Transportation Awards for “Structure Project of the Year.”)

Volunteers Needed!

The Sacramento Valley Professional Chapter of Engineers Without Borders is seeking volunteers to serve as officers as part of its annual election process. Nominations are due by June 30th for the positions of President, Vice President, and Treasurer (you can nominate yourself). From the nominations received, the current executive council will determine whether elections will be held for each position at the July chapter meeting. Newly elected officers will begin service on September 1st.

For the position of Secretary, nominations are being accepted now, and a new Secretary will be appointed to replace the departing Secretary at the June Chapter meeting.

Please send nominations and/or questions to sacpropresident@gmail.com and sacprovp@gmail.com.

2012 Tours and Presentations of San Francisco / Oakland Bay Bridge Seismic Retrofit Projects

Members of ASCE, SEI, and SEAOC are invited to a technical presentation and field tour by boat of the SFOBB Seismic Retrofit Projects. http://baybridgeinfo.org/
2012 Tours and Presentations of SF-OBB - Continued from Page 5

Tour 1: Tuesday, July 24 at 9:30 AM
Tour 2: Thursday, August 2 at 1:30 PM

For more information, or to RSVP, please contact Joyce Copelan at 530-908-8372 cell; or jcopelan95694@yahoo.com.

On the boat tour, you will see the falsework, the superstructure, the new self-anchored suspension spans, cables, and tower for the new San Francisco / Oakland Bay Bridge. The boat capacity will be exactly 25 people on each tour. Meals and transportation will be on your own. In the event of inclement weather, the tour (but not the presentations) will be moved to the visitor’s information display next to the harbor on Treasure Island.

SEAOC and ASCE SEI members age 18 or over will receive registration priority on a first RSVP first served basis. We hope you can come.

Each member of the tour group will need to bring the following items on the day of the tour: Work construction boots or hiking boots with thick soles, sunglasses or eyeglasses, long pants (weather on the Bay area can be cold and windy, dress in layers, bring warm clothes), water, sun screen, camera. Participants will be required to sign liability waivers. Failure to sign will bar the individual from the tour.

Registration Form (please provide one registration form for each person)

Date and Times: Select
Tour 1: ____ Tuesday, July 24 at 9:30 AM, or
Tour 2: ____ Thursday, August 2 at 1:30 PM  Please allow approximately 3 hours.

Name: _______________________________________________________

Affiliations: ASCE SEI _____, SEAOC _____, University _____, Other _____

Address, City, State, Zip:________________________________________________________________________________

Phone: ___________________________ Email: _______________________________(required for directions/RSVP confirmation):

To RSVP, please complete and e-mail this registration form to jcopelan95694@yahoo.com.

Directions to the San Francisco Oakland Bay Bridge site will be provided upon receipt of registration. For questions about the tours, please contact Joyce Copelan at 530-908-8372 cell; or jcopelan95694@yahoo.com. For more information about the project, please visit http://baybridgeinfo.org/ before the tour.

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ASCE Region 9

by Brent C. Siemer, P.E., F.ASCE
ASCE Region 9 Governor

California Historic Civil Engineering Landmarks

As I get older, I find myself contemplating the hereafter. I walk into a room and wonder, “Now what was I here after?” I know the information is up there, but the little grey cells just won’t pass it along. And why does it require that trip back to the other room to reboot my system? Trying to recall what I already know continues to be one of life’s unending challenges.

So then, what do hieroglyphics, petroglyphs, punched cards, paper tape, floppy discs and CDs all have in common? The all represent mankind’s attempts to save important information so it can be recalled in the future. Unfortunately, it never fails that each successive advance in technology seems to lose as much as it saves. While the “data” might be preserved, our ability to read and interpret is frequently lost. Even when a culture inscribes and applies their “data” to solid lasting rock, the meaning can still be lost to the ages. Even after years of study, an archeologist might learn what the hieroglyphics say, but may never really know what they mean. Even an Internet search of “petroglyphs” will reveal widely differing opinions as to their significance and meaning.

More recently, our constantly evolving technology is creating exponentially more data even as it is leaving behind “legacy” or “dead media.” In 1997, filmmaker Terry Sanders (Into the Future) found that archives of analyzed NASA space exploration data were now “dead media” because the computers that read the tapes were already obsolete. On a personal level, I have drawers full of cassette tapes and floppy discs, all of it dead (or dying) media that I have created or inherited. I hang on to it only because my desire to remember the past is a powerful one.

And so, I finally segue to Historic Civil Engineering Landmarks. Our Society established the National program in 1964 to recognize engineering achievements in a permanent and lasting way. This program serves to help us preserve and recall the significance of these projects and the engineers who designed and built them. Over 250 National Historic Civil Engineering Landmarks have been designated, of which fourteen are within California. These, along with the year they were built, include:

Continued on Page 7
California Landmarks - Continued from Page 6

Alvord Lake Bridge, 1889
Arroyo Seco Parkway, 1940
Bidwell Bar Bridge, 1856
Blimp Hangars, 1943
Bridgport Covered Bridge, 1862
Central Pacific Railroad, 1863–1869
Colorado River Aqueduct, 1933–1941
First Owens River - Los Angeles Aqueduct, 1913
Folsom Hydroelectric Power System, 1895
Golden Gate Bridge, 1937
Pelton Impulse Water Wheel, 1878
San Francisco – Oakland Bay Bridge, 1937
Sweetwater Dam, 1888
Tehachapi Pass Railroad Line, 1876

As a state, all of our four Sections have actively promoted State Historic Civil Engineering Landmarks. This activity was especially heightened during our Nation’s Bicentennial in 1976. However, interest has ebbed over time and this has become a concern to the Region. Therefore, Region 9 Board has recently adopted Rules of Policy and Procedure for California Historic Civil Engineering Landmark Designation.

Applications for State designation will be sponsored by the Section and reviewed by the Region board. The criteria under which these applications will be evaluated are as follows:

- The nominated project must be of historic civil engineering significance within the State of California.
- The project does not have to be designed or constructed by a civil engineer.
- The projects must have some special uniqueness (e.g., a first project constructed); or have made some significant contribution (e.g. the first project designed by a particular method); or utilized a unique or significant construction or engineering technique.
- The project itself must have contributed to the development of the State of California or at least a very large region.
- Projects should be generally available to the public view.
- Nominated projects should be at least 50 years old.

Now is the time to consider submitting an application for California Historic Civil Engineering Landmark Designation. I freely admit that it requires a great deal of time and hard work to prepare an application; however, it will only be more difficult if the records of our greatest engineering achievements become “legacy” or “dead media.”

Please feel free to contact Region 9, your Section, or me at bslemer@simivalley.org for more information on how to recognize and honor a project as a California Historic Civil Engineering Landmark Designation.

This Month in Sacramento - ASCE Region 9

by Richard Markuson

Continuing Education Bill Set for May Hearing

Region 9 supported Senate Bill 975 that clarifies who can impose by regulation, the experience and education required to practice engineering is scheduled to be heard May 7 in the Senate Business & Professions Committee.

Licensure Bill Dead

Senator Mimi Walters has let her SB 1061 die in the Senate Business & Professions Committee without a hearing. The bill was identical to a bill she introduced in 2011 that was defeated in the same committee just a few months ago. Region 9, ACEC-CA and PECG all opposed the bill as unworkable. It would have converted the nine existing title acts into practice acts and permitted any licensee to practice in any branch – without any requirement to demonstrate minimum competency.

Public Employee Bill Shelved

A controversial bill — AB 1808 — that would have defined as public employees, many workers hired by public agencies under a professional services contract has died without a hearing. The bill would have placed many public agencies that utilize on-call contracts for engineering, surveying and inspection in a difficult position.

VMT Measure Runs Out of Gas

AB 1627 by Assembly member Dickinson has died. It would have required the Office of Planning and Research, not later than January 1, 2014, to prepare and make available a manual containing specified information designed to be used by local governments, local agencies, and project developers to evaluate and incorporate measures and strategies to reduce vehicle miles

Continued on Page 8
traveled (VMT) in new residential and commercial building projects. Many were concerned that the study would have resulted in an eventual requirement that new projects include a VMT reduction mandate. Still active is AB 441 that would require that the California Transportation Commission, by no later than 2014, include voluntary health and health equity factors, strategies, goals, and objectives in the guidelines promulgated by the commission for the preparation of regional transportation plans.

Plan for Food Deserts

A new website from the US Department of Agriculture (USDA) shows that 10% of the country is now a “food desert”. The Food Desert Locator is an online map highlighting thousands of areas where, the USDA says, low-income families have little or no access to healthy fresh food. First identified in Scotland in the 1990s, food deserts have come to epitomize urban decay. They suggest images of endless fast-food restaurants and convenience stores serving fatty, sugary junk food to overweight customers who have never tasted a Brussels sprout. AB 1897 plans to address this by requiring the land use element of a city or county general plan to identify food deserts within the city or county and consider zoning changes to mitigate those areas currently designated as food deserts.

Interior Designer Bill Falters

A long running battle to establish a state license for interior designers has again failed to advance. AB 2482 would have established the California Registered Interior Designers Board for the purpose of licensing and regulating registered interior design. This effort to license designers dates back over 20 years and is opposed by Community Colleges (who train interior designers) and contractor groups as adding to the complexity of new construction and remodeling.

QBS Bill Killed

PECG killed SB 1424 in the Senate Business and Professions Committee. The bill would have required Architects, Engineers and Land Surveyors to comply with QBS for public contracts or be subject to discipline by their respective licensure boards. PECG stated that the “qualification based selection system does not provide the best deal to the taxpayer because cost is not the primary rationale for awarding contracts.” In the face of PECG’s opposition, none of the Democrats on the Committee would vote for the bill.

Rainwater Capture Act of 2012

AB 1750 is on the floor of the Assembly awaiting final passage. This bill would enact the Rainwater Capture Act of 2012, which would authorize residential, commercial, and governmental landowners to install, maintain, and operate rain barrel systems, as defined, and rainwater capture systems, as defined, for specified purposes, provided that the systems comply with specified requirements.

Temporary License

Business and Professions Code §6760 allows for the State to grant a temporary, 180-day license to an engineer not licensed in California if he/she meets a variety of criteria. ASCE Region 9 has been asked if this authority should be modified or sunset. If you have an opinion, please contact Region 9 Government Relations Committee Chairman Shahn Ahmad, sahmad@saassociates.net.

Spring 2012 Board Bulletin

The Board for Professional Engineers, Land Surveyors, and Geologists Spring 2012 Board Bulletin is now available on the Board’s website.

New Fees Take Effect

New application and examination fees for engineers and land surveyors are now in effect. New examination fees for geologists will go into effect on May 23, 2012. For more information, click on the link below or copy and paste it into your browser. http://www.pels.ca.gov/applicants/new_fees.pdf

Recent Reports

The Legislative Analyst’s Office has released a report that provides update on the 2011-12 year-to-date state personal income tax and corporation tax collections, finds “to date, results for April alone are on track to be over $2 billion below the administration’s most recent budget forecast for the month,” also says the state’s revenues “could be a few billion dollars below the administration’s January forecast in both 2011-12 and 2012-13.” Full report here.

The Senate Office of Oversight and Outcomes has released its report “Finding The Sweet Spot: Green Energy Incentives and Job Creation,” recommends creating a “state-sponsored ‘green bank’ that would loan money to new businesses willing to manufacture in California.”

The LAO has released its report, “The 2012-13 Budget: Funding Requests for High-Speed Rail,” recommends the Legislature “not approve” the Governor’s budget proposals to provide “$5.9 billion to continue the high-speed rail project—$2.6 billion in state bond funds matched with $3.3 billion in federal funds,” finds funding for the project “remains highly speculative and important details have not been sorted out.”

Gov. Brown released two lists containing “more than 700 unnecessary bureaucratic reports currently required by law” he proposes for elimination, says Dept. of Finance “will direct” Legislative Counsel to stop tracking these 343 reports, “which will effectively end agency and department production requirements,” identifies these 375 reports which “require legislative action to eliminate.”

Next 10 releases its “California Green Innovation Index,” examines CA’s solar industry in the wake of Solyndra’s collapse; tracks state’s clean tech patents, investment, innovation, energy productivity, emissions, etc.

The LAO has released its hearing handout, “Meeting the Environmental Goals of the Tahoe Regional Planning Agency,” which was presented to the Senate Budget Subcommittee No. 2 on Resources, Environmental Protection, Energy and Transportation,
says Tahoe Regional Planning Agency seeks to improve water clarity through the Tahoe Environmental Improvement Program (EIP), says the Governor’s budget proposes a total of $32 million for various state departments to implement EIP projects in 2012-13, which is a decrease of about $11 million (26 percent) from the current year level of expenditures.

Dept. of Water Resources releases Draft Urban Level of Flood Protection Criteria, seeks comments on draft rules to help cities and counties approve developer permits in flood zones.

Dept. of Water Resources reports that its fourth snow survey of the season (conducted April 2) has found CA’s mountain snowpack is “only 55 percent of the April 1 full season average,” says an unusually wet March improved conditions, but “did not make up for the previous dry months.” Details here.

Capital Branch News

(This is the remainder of the Capital Branch News Article published in the May issue of The Engineerogram.)

by Alfred R. Mangus, P.E.
President, Capital Branch

75th Anniversary of the Golden Gate Orthotropic Bridge:

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Table 1. Selected Signature Bridges that are tourist destinations.

Table 1 shows various signature bridges that are tourist destinations. Another very unique feature is the statue of Chief Engineer, Joseph Strauss, who died about one year after the bridge opened to traffic. This may be the only statue of an engineer next to his project.

There is a combination of factors that make the Golden Gate Bridge fun to visit. I would say it is mostly the weather, combined with the beautiful scenery.

The San Francisco / Oakland Bay Bridge was built without pedestrian or bicycle access. The value system in the 1930s was to take cars, trucks, or mass transit to cross the bridge. Today, bicycling is considered beneficial to the longevity of humans.

The 50th anniversary of the Golden Gate Bridge was too successful, with over 50,000 people jamming onto the bridge. This was the largest gravity loading placed on the bridge.
The Golden Gate Bridge is one of less than 100 bridges with its own gift shop. The final engineers’ report was pulled from the gift shop, but over 10,000 copies are in circulation. I purchased a report and a piece of cable from this bridge. The original vertical suspender cables were cut up into souvenir pieces when removed in the 1970s. Items can be ordered online. My passion is engineering, and I am proud to be a civil engineer!

Capital Branch News - Continued from Page 9

Hats-off to the Korean American Scientists & Engineers Association, National Mathematics and Science Competition. The 2012 (KSEA NMSC 2012) was a big success on Saturday, April 21, 2012, at the University of Phoenix in Sacramento. The KSEA Sacramento Valley Chapter (KSEA-SVC) has organized this event in Sacramento since April 2007. The NMSC is open for all students between 4th and 11th grade. The Capital Branch was a sponsor.

Future Leader needed: The ASCE Capital Branch Elections for Oct 1, 2012 - Sept 30, 2013 are soon upon us. Thor is retiring from duties on the Capital Branch Board. Mario will be on to his 2nd year of three years of service as our President. I will serve my final year as President. Dick Weitzenberg will be on the ballot as Treasurer. Doran Glauz will be on the ballot as Secretary, and Ajay Sehgal will be on the ballot as Vice President of Education. So, the toughest job is available. It is a 36-month commitment. The first 12 months are as President Elect, so our team can train you. Months 13-24 you serve as President, with the remainder as Past President. We have about 1900 members, so it’s a great opportunity to develop your leadership skills.

We Want You to provide us with a speech on a diversified ASCE topic. We need speakers for each and every ASCE Institute. Please email us any topic(s) or commitment to aksehgal@comcast.net. We are open to out-of-town visitors who can provide high quality talks.

What’s Up?: Please provide us with news about your project in our area. We are also seeking tours, including “hardhat” tours of local projects. A portion of your section dues goes to funding this newsletter—let’s all utilize this communication resource. Please email us any topic(s) or commitment to our President-Elect Mario.carreon@att.net. Mario has been mentoring younger engineers. Please also contact Mario if you want to stay with the Radisson, now called the “Woodlake Hotel,” or switch to a brown bag meeting location in a government building.

Our international Bridge Event: Ajay and I will co-chair the third www.orthotropic-bridge.org. It’s planned for the last full week in June 2013 in a hotel between Sacramento and the San Francisco Bay area. Precise dates and hotel/meeting rooms have not been selected. The abstracts are due by September 15, 2012. The FHWA (USA Federal Highway Administration) just became a sponsor!

Presidential Pulpit: Computer Crime and ASCE: At 09:58 AM on 05/14/2012, ASCE and I became victims of a computer crime. This email was sent from my AOL (American On Line) account, which I had for about 14.5 years, with about 1000 email addresses. “SPAM: Traumatic Experience” was sent to my employer who has more sophisticated protection than my home account. My mother’s best friend, my second cousin, a key ASCE Staffer in Virginia, and my friend of thirty years, “Banker Bob,” received this email entitled: “Traumatic Experience — I’m writing this with tears in my eyes, We (me and my family) came down here to Rosa, Laguna, Philippines for a short vacation. Unfortunately we were mugged on my way to the hotel where we stayed. All cash, credit card and cell were stolen off, but luckily for us we still have my passports with us. We’ve been to the embassy and the Police here but they’re not helping with our issues at all and our flight leaves shortly from now, but we are having problems settling the hotel bills and the

Contact for General Information: KSEA-SVC President: Young Lee, (916) 396-2493 or ylee0617@hanmail.net.

Computer Crime and ASCE

by Alfred R. Mangus, P.E.
President, Capital Branch

Introduction:
For those of you who do not know me, my name is Alfred R. Mangus, PE, and this is my second time as President of the ASCE Capital Branch (last 2003-2004). My area of interest is orthotropic steel bridges. I have about eight email accounts.

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Computer Crime and ASCE - Continued from Page 10

hotel manager won’t let us leave until I settle the bills, I’m freaked out at the moment, we need help.”

The individuals stressed out did not know anyone who had been victimized with this email technique. The computer criminals broke into my account and emailed everyone on my address book from inside my account. Their goal is getting money. They hope to fool as many people as possible into sending money via western union to them. The crime works, since they earn very little money in a third world country (Robin Hood Theory – steal from the rich Americans, share in a third world poor neighborhood). The criminals will not try to break into all of these 1000 email addresses, including ASCE staffers, and members and orthotropic bridge conference colleagues. This has been my main account for the last 6 months for ASCE activities.

At 09:59 AM on 5/14/2012, one of my coworkers told me about the email. I had her make a printed copy. I called America On Line. They were more concerned that I owed them $33 for three months of dial up service. I have high speed DSL with another provider. I refused to give AOL my credit card, and told them that I had mailed them a check. At the time of the break-in, I had 7,400 saved emails, so I really did not want to lose them. AOL staff gave me a new six digit temporary password. I was unsure what to do. I changed my work phone voicemail stating that I was safe in Sacramento. Unfortunately, the week before I damaged my cell phone using the incorrect recharger. After I changed my password via AOL at noon, a 2nd email was sent saying,

“Sorry to bother you with this, but I had to make a sudden trip out of the country to Barcelona, Spain. I am in a terrible situation which I really need to take care of now and my credit card can’t work here. I need a loan of $3,000 from you. I’ll explain better and refund the money immediately when I get back next week. I will really appreciate whatever amount you can come up with, if not all. Please get back to me ASAP, and I’ll advise on how to send it.”

My mother called me long distance upset, and said I needed to email everyone. I told her that I had 1000 addresses and I did not want to spread further problems. Banker Bob left messages on my cell phone. Once I realized Bob was concerned, I called Bob. Bob and I had not talked for about 12 to 18 months, but we were in the Jaycees together starting in 1981. Bob had gone into an email dialogue with the poor criminals in the Philippines. Bob tested them with questions that only I would know. They wrote Bob to wire money via Western Union to the Philippines. Bob and I talked about it on Monday. Tuesday morning the phone rang about 7 AM while I was in the bathroom, but I was unable to answer it. I did not remember to check my voicemail at the house until 10 AM. My second cousin, Matt, was unsure what to think. After leaving a voicemail, he called my first cousin Greg, his uncle. Greg told him to relax and Greg would call my mother. So then I ended up making a round of calls on Tuesday to relatives. Then I pondered on what to do. It occurred to me to surf the internet. The FBI (Federal Bureau of Investigation) is in charge of computer crimes. So I filed a report via their website. You may notify the IC3 by filing a complaint at www.ic3.gov. You may sign up for e-mail alerts on this website. http://www.fbi.gov/scam-safety/e-scams.
A 30-Story Descent to a Dam Inspection,  
The Libby Dam Hemispherical Bulkhead Inspection:

Speaker: Kenwarjit Dosanjh, PE

Bio:
Mr. Dosanjh is a registered Civil Engineer in the State of California employed by HDR Engineering, Inc. He has been part of the HDR Dams and Hydraulics structures section for over 7 years. The section encompasses a large variety of engineering duties ranging from rope access inspections of hydraulic structures to finite element modeling of hydraulic structures. Many of the findings from the inspections performed by the group have led to retrofits of the structures along with forensic analyses to discover the true mechanism for the critical finding found during the inspection. Mr. Dosanjh graduated from UC Davis in 2002 with a degree in Civil Engineering, and received his masters from CSU, Sacramento in 2009. In 2010 he was named as one of ASCE’s “New Faces of Civil Engineering.”

Topic:
The U.S. Army Corps of Engineers’ 422 foot tall Libby Dam located on the Kootenai River upstream of Libby, Montana began construction in April 1967 and was completed in July 1973.

The dam has eight penstocks but the generators in Penstocks #6, #7 and #8 have never been installed. The original construction included giant 20-foot diameter, steel 1/2-ball hemispherical bulkheads which plugged the penstocks for “temporary” closure. There is no record of the bulkheads ever having been inspected since construction. HDR Engineering, Inc. was tasked with inspecting the upstream and downstream side of the bulkheads; the upstream side normally being submerged 100 to 300 feet underwater. The first step in the project was designing and fabricating a temporary drain system that was light enough to be installed on-rope and in a confined space environment, yet strong enough to withstand a possible 300 feet of head. One of the great unknowns prior to attempting to drain the water above the bulkheads was the amount of original constriction debris and accumulated sediment that would be present, potentially clogging the drain system. Those initial challenges and any other unknowns that could surface during the inspection needed to be overcome in order to obtain the ultimate goal of performing both a visual inspection and non-destructive testing on the steel shell members and welds.

Hope to see many of you there!
Alfred R. Mangus, P.E., President, ASCE- Capital Branch

RSVP by Thursday, June 21st through Eventbrite