

Newsletter for the San Luis Obispo / Central Coast Branch • April 2008

APRIL 2008 MEETING:

Concept to Completion; The \$16 Million Highway 101 and 41 Interchange Project

Did you ever drive through Atascadero on Highway 101 and wonder why there was an enormous hill of dirt in the freeway median? Some thought it looked like a launching ramp, which could definitely add up to an exciting commute. Eventually the dirt pile receded, but a question still lingered in our minds: What are they planning for the Highway 101 and 41 interchange?

At our April meeting, you will have an opportunity to learn about the \$16M Highway 101 and 41 Interchange Project in the City of Atascadero. Steve Kahn (Director of Public Works for the City of Atascadero), Tim Campbell (Caltrans), and Jeff Grimm (Granite Construction) have teamed up to discuss this project, covering all aspects of the project from concept to completion. As Steve Kahn discusses the funding and approval process for the project, Tim Campbell will fill us in on the design and construction management phases. Jeff Grimm will then wrap it up by addressing what is actually happening during the construction phase of the project.

That's not all! Get out your closed-toe shoes, orange safety vests, and hard hats to join the team on a tour of the site! The construction site is within walking distance of the luncheon location, so parking is not a concern. Come join us for what is sure to be an *interchanging* experience.

APRIL 2008 MEETING

LOCATION:

Hoovers 101 Cafe
6900 El Camino Real
Atascadero, CA

DATE & TIME:

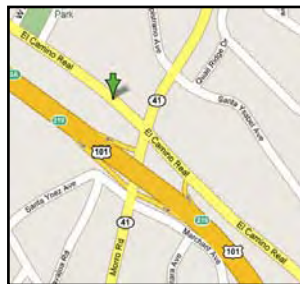
Thursday, April 17th
12:00 pm (Noon)

MENU:

Food served buffet style, including: mexican enchiladas (beef, chicken, or cheese), rice, beans, salad, and soda.

RESERVATIONS:

Please sign up by 1:00 pm Friday, April 11th, at the Branch web site (www.ASCESLO.org). For questions, contact Erin Westmoreland at (805)544-7407 or by email at erinw@cannonassoc.com. The cost is \$20 for members or guests and \$10 for student members.



PRESIDENTS PERSPECTIVE: *The Future Engineer*

When I was in college, studying to be an engineer, learning the technical fundamentals of engineering was the key focus of my education. Sure, I took English and History classes amongst other general education, but I didn't really understand how valuable these classes were in a young, developing engineer's career. Now, as I move up in my profession and see that being a good engineer is not just knowing the technical side of engineering, it is also about having good "soft skills". Writing, speaking, organization, management, communication, and leadership are all key soft skills that engineers use on a daily basis. Many of these skills are innate in everyone; some people just make them look easy. Most, however, have to practice and work to develop these skills.

I have challenged myself to further develop these skills by getting involved in activities such as being ASCE President, joining Toastmasters, and attending leadership classes. I have learned that being a good engineer takes practice and confidence. I still have a long way to go in developing these soft skills, but I know, in time, the hard work that I put in will pay off.

So what does this have to do with the future engineer... EVERYTHING!!! Engineers have never been known for their communication skills. More and more agencies are having harder times finding technically sound engineers that are also good communicators. These agencies are looking for the ideal engineer that can not only think on their feet, but can actually communicate that information to the public in terms that the public can understand. For a vast majority of the engineering profession, this is a difficult task. Because not many engineers have developed these soft skills, many agencies are turning towards other professions to fill these key decision making positions. We, as engineers, should not be acceptable to this alternative. We need to encourage our profession to continue to develop these soft skills and maintain our key positions within public agencies.

For this reason, our local ASCE Branch has decided to offer a couple of webinars, for a nominal fee, to assist our members with the development of soft skills. Additional articles and announcements on the exact topics, dates and times will be provided in the next few weeks. I highly encourage you to attend these webinars. I am expecting that they will provide some valuable information that you will utilize throughout your entire engineering career. Learning and USING these soft skills will help set you apart from others and people will take notice. If you hone your soft skills, you will be able to achieve your goal to be a great engineer.

~ Kari Wagner

MEET THE MEMBER - BRENT NUTTALL

It is with great pleasure that I introduce this month's featured ASCE member, Brent Nuttall, SE. Brent is currently an Associate Professor at Cal Poly, as well as a consultant for Nabih Youssef & Associates, specializing in Earthquake Engineering and Seismic Rehabilitation. He and wife Cintia, live in Atascadero and have three children; Nathan (10), Caleb (6) and Sara (3).

Brent is a Simi Valley native, who came to San Luis Obispo to study Architectural Engineering at Cal Poly. After receiving his BS, he attended UC Berkeley where he earned a Masters in Civil Engineering. Work as a structural

engineer began immediately after college at Albert C Martin & Associates. After two years he left to start a new company, Nabih Youssef & Associates. While at Nabih Youssef Brent passed both his PE and SE and has since worked on projects such as the Getty Museum expansion in Malibu, the Cathedral of Our Lady of the Angels in Los Angeles, retrofitting of Dodger Stadium and the retrofitting of the LA Coliseum. After 15+ years he has risen to Senior Vice President, and although he now teaches at Cal Poly he still finds time to consult with Nabih Youssef.



He was able to combine his work as a professor with consulting through the new Cal Poly Housing Project. This large scale construction of multiple five story buildings has risen from the ground with amazing speed. This swiftness of construction is due in large part to its use of light gauge steel. On top of acting as a consultant for this project Brent now teaches a light gauge steel class at Cal Poly as of the winter '08 quarter.

You may remember Brent from a 2005 Branch Meeting where he and his associates at Nabih Youssef presented "Earthquake Damage to the Atascadero City Hall." Brent has remained active with ASCE through acting as Chair of the Design Practices committee for SEI's Business and Professional Activities Division. Brent helped compile a nationwide test with a fairly simple structural engineering question. He found that the structural codes were so complex that there was no consistency in the answers. To raise awareness for this upsetting problem, Brent has published these results with a call to action in the December 2007 edition of Structure Magazine. Brent urges new engineers to become active with ASCE in order to help develop and become familiar with engineering codes and standards.

~ Daniel Parker-King

CAL POLY GEO-CHALLENGE 2008

The Cal Poly Geo-Challenge 2008 team traveled to New Orleans in March to participate in the National Geo-Challenge student competition and to experience the Geocongress Conference. The team was made up of graduate students Nick Oettle and Wilson Wong, and undergraduate students Matt Tarlecki and Joe Podgegracz (pictured below). The team submitted a design for a miniature mechanically stabilized earth wall and was awarded a \$1,000 prize along with being one of ten schools accepted to participate in the competition.



Pictured, from left to right, are Nick, Matt, Wilson, and Joe.

The design competition consisted of reinforcing a box of dry sand with paper strips attached to a poster paper wall facing with packaging tape. The goal was to use a minimum area of paper strips and sustain a 50 lb. load without failure or deflection more than 3/4 inch. During the competition each team had 30 minutes to cut and tape the paper strips to their poster wall facing, and another 30 minutes to add sand to their boxes with the paper strips in place. Only two teams, LSU and Drexel University, held the load without failure, but LSU used less paper than Drexel. Cal Poly's design was successful in that it was able to hold the 50 lb. load, but deflected more than 3/4 inch.

The intriguing part of the competition was to see the different approaches each team took with their design. Many teams used a relatively small amount of paper to reinforce the sand and although it seemed like some of the designs would never work, some did hold the load but failed in deflection. Every team had a different strategy for compacting the sand during the construction process of the competition; ranging from jumping on the sand to incessant pounding on the side of the box.

REQUEST FOR ASCE SAN LUIS OBISPO BRANCH SCHOLARSHIP PROGRAM DONATION

Dear Civil Engineering Professional:

Here is your opportunity to directly benefit a civil engineering student who demonstrates outstanding potential! Our chapter is dedicated to helping our local students become successful in the civil engineering field, and we know you are too. Please be recognized and assist ASCE-SLO to meet our goal of awarding two deserving students by making a tax-deductible donation to our scholarship fund - we are currently short of our \$1,500 goal by 75%. Please make your check payable to ASCE-SLO and send your donation to:

Attn: Courtney Howard
c/o San Luis Obispo County Public Works
County Government Center, Room 207
San Luis Obispo, CA 93408

Your donation is greatly appreciated and will be recognized by our local ASCE and SCE chapters. If you have any questions, please contact Courtney Howard at (805) 781-1016.

MEMBERSHIP UPDATE

Dear Members:

Please be advised that your 2008 annual ASCE dues were to be submitted by January 1, 2008. Last week, I sent out friendly reminders to those of you in need of submitting annual dues. Please contact me if you need any assistance in this regard. Also, the National ASCE membership staff has discontinued membership for those members in "arrears", meaning that the last dues received by ASCE were prior to calendar year 2007. Based on my review of this database, there were 13 members dropped as a result of this. If you are one of these members, and you desire to continue membership, we encourage you to re-join ASCE via the website (www.ASCE.org). Again, please contact me if I can be of any assistance.

~ Steven G. Tanaka, M.ASCE,
Membership Chair

ADVANCING TO ASCE FELLOW GRADE

If you are a Professional Engineer and have been a Member of ASCE for at least 10 years you may be eligible to apply for advancement to the grade of Fellow of ASCE. The rank of Fellow accounts for fewer than 5% of the entire ASCE membership and is the second highest membership grade after Distinguished Member (formerly called Honorary Member). Questions should be directed to Application Coordinator for the Membership Application Review Committee at (800) 548-2723 or by e-mail at memapp@asce.org. More information on ASCE Fellow can be found at www.asce.org/membership/fellowfaq.cfm.

OTHER LOCAL EVENTS

If you have an event you would like posted at no cost, contact Syllas Cranor at 781-5260 or at scrantor@co.slo.ca.us.

The local chapter of the **American Public Works Association** meets on the second Wednesday of the month, every other month. For details, contact Jay Walter at jwalter@slocity.org.

The Central Coast Branch of the **Institute of Transportation Engineers** holds monthly meetings throughout the tri-county area. Contact Richard Marshall at 781-5252 or rmarshall@co.slo.ca.us for details.

The Central Coast Branch of the **California Land Surveyors Association** usually meets the second Thursday of each month. Contact Rochelle Vierra at 549-3461 or Rochelle_Vierra@dot.ca.gov for more information.

Cal Poly's **Society of Civil Engineers (SCE)** welcomes local professionals to its regular meetings held alternate Wednesdays at 7:00 pm in Room 13-118. For further information, contact Kari Wagner (kariw@WallaceGroup.us) or Jeff Spannbaauer (jeffs@cannonassoc.com).

The Central Coast Chapter of the **International Code Council** meets the first Thursday of the month at Margie's Dinner. Contact Sylvia Aldana at 781-4671 or saldana@co.slo.ca.us for information.

The **American Institute of Architects** meets the 3rd Wednesday of each month at Vista Grande Restaurant (Cal Poly). For information, call Jeff Emrick at 549-8658.

Engineers Without Borders meets on the second Wednesday of each month at Noon. For further information, contact Natalie Ergish at 547-5605 or Secretary@ewb-slo.org.

The **Central Coast Geological Society** meets every second Tuesday. For information, contact Lou Blanck at 542-4626.

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