



Fort Worth Civil Engineer

LETTER FROM THE PRESIDENT

The Fort Worth Branch would like to welcome the new Texas Section Executive Director Lindsay O'Leary P.E.

We recently had great meetings in October at Ruth's Chris with Dr. Seo from UTA and our November meeting at UTA with Russell Poer, P.E. of Aguirre-Fields and Ram Gupta, P.E. with TxDOT. We look forward to our upcoming December meeting with Congressman Joe Barton (RSVP early because the meeting is filling up fast) and are appreciative of his willingness to speak at our December meeting.

In this season of thanks I am thankful for our current officers and committee members. The branch is in great hands with our leadership and we have exciting events planned in the remainder of this year and into the next. Niraj Acharya, P.E., CFM, the branch VP, has been busy working to line up speakers and he has done a great job!

October was a busy month for my family as we have had our beautiful new addition, Averie, and am thankful she is a good sleeper! Jennifer and I are truly blessed and every day is an adventure as we are outnumbered by three kids to two adults! I am thankful to be a part of a wonderful organization and I'm thankful for the leadership that past leaders have provided!

As the year winds down I would like to say thank you for being a part of the Fort Worth Branch of ASCE and encourage you to spend a few moments this season to think about all we have been blessed with in the profession in which we work.

- Clint Hoover, P.E., MBA, M.ASCE
Branch President 2016-2017



UPCOMING BRANCH MEETINGS

December Meeting

Date: December 19, 2016

Location: Ruth's Chris Steakhouse

Speaker/ Presentation:
Congressman Joe Barton

January Meeting

Date: January 16, 2017

Joint meeting with SAME

Location/Presentation: TBD

February Meeting

Date: February 21, 2017

Regular Branch Meeting

Location: Ruth's Chris Steakhouse
Speaker/ Presentation: TBD

TREASURER'S REPORT

by Niraj Acharya, P.E.

As of November 2016, the Fort Worth Branch has an account balance of approximately \$26,000. Please note that the Fort Worth Branch is a Section 501.3(c)(3) non-profit organization.

We encourage all members to pay for meetings online. Doing so automatically enters you into a drawing for a \$25 gift card.

We appreciate and thank all of the members and firms that continue to support the Fort Worth Branch!

MEETINGS THIS QUARTER

by Jennifer Roberts, P.E.

September Branch Meeting

Date: Sept 12, 2016

Location: Ruth's Chris Steak House

Speaker: Jeff Williams, P.E., Mayor of Arlington

Attendance: 117

Mayor Williams,
Travis Attanasio
(Past President),
Clint Hoover
(President) and Niraj
Acharya (Vice-
President)



Clint Hoover, Niraj Acharya and Dr. DJ Seo

October Branch Meeting

Date: Oct 17, 2016

Location: Ruth's Chris Steak House

Presentation: iSeeFlood App

Speaker: Dr. Dong-Jun "DJ" Seo, Professor of Water Resources at UT Arlington

Attendance: 82



Packed house at October's Meeting

November Joint Fort Worth Branch and UTA Student Chapter Meeting

Date: Nov 21, 2016

Location: UT Arlington, Maverick Activity Center (MAC)

Presentation: IH-30/360 Interchange Update

Speaker: Ram Gupta, P.E. – TxDOT and Russell Poer, P.E. - Aguirre & Fields, LP

Attendance: 128 (including 77 students!)

Dr. Jim Williams (UTA ASCE Student Chapter Faculty Advisor), Maria Frias (UTA ASCE Student Chapter President), Russel Poer (UTA Graduate), Ram Gupta and Clint Hoover



Another well attended meeting by both students and members – this time at UTA

OUR STUDENT CHAPTERS: UNIVERSITY OF TEXAS AT ARLINGTON (UTA) and TARLETON STATE UNIVERISITY (TSU)

Scholarship Opportunity

The Fort Worth Branch of ASCE (ASCE-FW) is proud to be the host chapter of both UTA and TSU - two Metroplex-area universities that are committed to providing strong civil engineering curriculum and educations. ASCE-FW is pleased to announce that a one-time scholarship in the amount of \$1,500 will be made available to one civil engineering student from each institution. Details regarding application requirements and dates are still being determined and will be disseminated by the Branch through future communications. Interested parties should contact ascefortworth@gmail.com.

UTA ASCE Student Chapter Happenings

The first general body meeting of the semester was held on September 5th. President Maria Frias made announcements about the interest meetings for both concrete canoe and steel bridge. The UTA ASCE Concrete Canoe and Steel Bridge teams meets weekly on Saturday and Thursday afternoons, respectively.

On September 17th the UTA ASCE Student Chapter had a volunteer event at the 25th Annual Fall TRWD Trash Bash. On an average, each member collected two bags full of trash from the riverside.

WAY TO GO MAVS!

TSU ASCE Student Chapter Happenings



ASCE crew at the Trash Bash



Tarleton State University Engineering Club participated in the school wide Homecoming Parade and Competition. The float came in 2nd overall and received Best in Showmanship.

WAY TO GO TEXANS!!!

UTA College of Civil Engineering Research

Mahnaz Mostafazadeh is pursuing her doctorate a University of Texas at Arlington (UTA) in Civil Engineering under the supervision of the Department Chair, Dr. Seyedali "Ali" Abolmaali. Her research is focused on enhancing the structural behavior of concrete by applying synthetic fibers. She is studying the shear and flexural capacity of zero-slump, dry-cast synthetic fiber-reinforced concrete with the aim of reducing or even eliminating stirrups in box culverts and three-sided structures. Her lab work involves completing test series and comprehensive 3D finite element analysis on box culverts with different fiber volume fractions.

Mahnaz obtained her Master of Science in materials Science and Earthquake Engineering from University of Tehran, Iran, focused on improving the seismic behavior of concrete by using shape memory alloys.

The ASCE Fort Worth Branch is excited to hear of her work and looks forward to highlighting other innovative ideas being explored by our Student Chapter Members.

YES, YOU SHOULD PARTICIPATE IN GOVERNMENT

by Glenn Celerier, P.E., Engineer's in Government Chairman

On July 18, 2015 the ASCE Board of Direction, issued a policy to encourage and support appointing civil engineers to policy level positions in government agencies. The policy states:

America's infrastructure is increasingly deteriorating at a time when it is becoming ever more essential to U.S. efforts to compete in the global economy. Engineering projects that address infrastructure needs are becoming much more complex and must consider long-term, life-cycle costs, integration of new technologies, and sustainability. Engineering decisions on projects of significant magnitude and complexity have a lasting impact on the public health, safety and welfare.

Social, economic, environmental and political considerations must be balanced with engineering judgment in the public policy making process. Civil engineering is the profession with the knowledge, expertise, and judgment that is vital in establishing sound public policy. Coordination of technical activities, regulations, research and development is needed. There should be policy level participation of civil engineers with appropriate expertise in program decisions.

Simply put, the civil engineering profession cannot advocate decisions for rebuilding local, state or national infrastructure to the politicians.

Can the civil engineering profession separate itself from government? Not hardly. Arguably from its origin our profession developed an inseparable relationship with government. The Egyptian, Chinese, Inca, Roman, Greek all practiced the art of engineering in the service of their "governments" long before our profession became an established science. Iconic monuments from the Great Pyramid at Giza to the simple Inca aqueducts bookend this inseparable relationship. More so than most any other engineering discipline civil engineers lead the design and construction of monumental as well as simple public works to advance the public good.

As civil engineers we all know how each civil engineering disciplines improves daily life. Our profession created harbors for transoceanic vessels; dug canals for commercial barges; laid rail across the continent to move freight; connected cities with interstate highways, bridged the oceans with international airports and built complex launch pads to explore the solar system. But did you know that at the birth of our nation President Thomas Jefferson directed the establishment of our nation's first civil engineering school at the United States Military Academy at West Point? Did you know that Abraham Lincoln signed the first Morrill Act in 1862 that established teaching mechanical arts at land grant colleges, which along with a second Morrill in 1890, founded many renowned engineering universities such

as: Cornell, Tuskegee, Iowa State, Rutgers, Michigan State, Purdue, Auburn, Penn State, Ohio State, New Mexico State, Oklahoma State, Louisiana State, Clemson, Texas A & M, Prairie View A&M, Virginia Tech, University of Arkansas and Mississippi State. Did you know that Lt. Colonel Dwight Eisenhower's 62-day motor convoy across America in 1919 inspired the creation of our interstate highway system when he became president? Throughout our nation's history our leaders recognized the need for engineers to "promote the general welfare."¹

In 2017 ASCE will issue the sixth quadrennial "Report Card for Infrastructure" which will describe needed infrastructure improvements. In 2013 ASCE graded our national Infrastructure "D+" a slight improvement from the "D" earned in 2009, but since the inception our national grade has never been higher than a "D+". In 2013, Texas scored a cumulative "C" with only bridges, energy and solid waste earning grades of "B" or higher. Texas dams, drinking water, flood control and roads all earned "D+" or less. Obviously there will be scores of recommendations, and those scores should cause us to reflect upon what can we do other than issue report cards.

Elected officials cannot resolve the complexities of rebuilding infrastructure in a vacuum, they need your involvement in the political processes to prioritize recommended infrastructure improvements. No, you do not have to run for office, work for the city, or endorse candidates to make a difference. However, you can serve on local advisory boards, attend public meetings, or write to your representatives to support sensible projects. Norma Jean Mattei, president ASCE recently stated "If invested wisely, President-elect Trump's proposed \$1 trillion investment in infrastructure represents an important step toward closing the investment gap to raise the grade." She called on President-elect Trump and the 115th Congress "...to prioritize infrastructure repair, replacement, and modernization, to improve our economy, public health, and safety, so that every family, community, and business can thrive." The President, Congress, Texas Legislature and city councils need to hear your thoughts for prioritizing infrastructure improvements. So once the "Report Card" is published look for opportunities to help our public officials understand its findings. Look for opportunities to provide them with your objective thoughts, recommendations and analysis. The story you tell will make a positive difference in determining how our governments will rebuild our infrastructure for the public we serve. So I encourage you to participate in government to promote sensible public works policy.

¹ The Preamble to the Constitution of the United States.



WHAT MEMBERS GET UP TO WHEN NOT AT WORK:

Trans Zion Trek

by Aaron Lam, P.E.

"No job anymore, it's time to go on a trip!" I, Aaron Lam, said to my best friend. Nike Golf had closed its doors at the end of the summer laying everyone off including my friend, a mechanical engineer that designs clubs. No job for him (sad), but now I had a traveling companion. We grabbed two other men, a civil engineer coworker and a Captain in the Army; now we had ourselves a group ready for adventure.

One month out, we booked the flights, rented cars and reserved out backcountry permits. The gear that we didn't already have or couldn't borrow from friends we rented online, then we set off into the Zion wilderness.



Zion's iconic "Angel's Landing". Day 5, mile 50 (Left to right, Bryan McCauley, Robert Stephens, German del Canto Gonzalez, Aaron Lam(me))

Just another day hiking the Trans Zion Trek. Day 6, 60 Miles



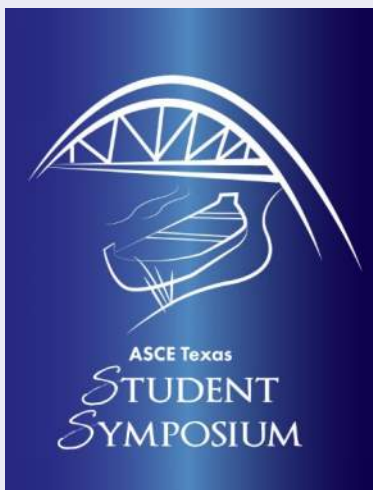
The Trans Zion Trek is a backpacking trip across the Zion National Park. The route we chose was 60 miles long with +20,000 feet of elevation change lasting over 6 days. We hiked from the east entrance of the park to the west entrance and got to experience one of the most beautiful areas of the world. This was the biggest outdoor trip any of us had taken, and it was wonderful. Our next trip is a 4-day canoe trip down the Devils River near Del Rio, Texas in May.

SECTION DIRECTOR'S REPORT

by Kimberly Cornett, P.E.

The Texas Section of American Society of Civil Engineers announces the selection of *Lindsay A. O'Leary PE, LEED AP* as its new executive director.

The Student Symposium 2017 is coming up FAST: March 2-4, 2017



Please consider being a sponsor and make this event a great experience for those students participating in the symposium competitions. There will be students from Universities in Texas and Mexico that attend the conference and they all need our professional support to make the event great. Support the Student Symposium 2017 by being a Sponsor each year or multiple years to come. <http://www.texasce.org/?page=Symposiumsponsor>

The Student Symposium 2017 offers a Career Fair. The Career Fair provides an opportunity for employers to interact with students from universities from across Texas & Mexico over the course of two days. The career fair is a great way to support the event yet meet great students. Please consider hosting a career fair table in El Paso this spring. The benefit could be all yours when you find that one great student to hire. <http://www.texasce.org/?page=Symposiumcareerfair>

Texas Section Webinars: We are still in need of host companies for the Texas Section Webinars that occur the 2nd Tuesday of each month. Please contact Kimberly Cornett, Kimberly.cornett@jacobs.com, if you are interested in being a host. A host provides a conference room with webinar capabilities and ASCE coordinates the rest.

BRIDGING WAR & PEACE

I had an opportunity to visit Dubrovnik, Croatia in 2013. While there I observed one of the longest cable-stayed bridges in Europe. The Franjo Tudman Bridge, at the western approach to Dubrovnik, is 1,699 feet long between abutments and 47-feet wide. It consists of a single pylon tower reaching a height of 464-feet above its foundation, 19-pair of cable stays, and a variable depth pre-tensioned girder spanning 1,066 feet. The deck is 169-feet above the water of the Rijeka Dubrovacka near the port of Gruz on the Adriatic Sea.

In researching the history of the bridge I learned of a unique challenge that affected its design and construction. Some civil engineers have periodically encountered this additional issue during other eras, and do even today in other parts of the world. Yes, we are accustomed to designing and constructing

projects while recognizing the varying types of elements that affect a specific site (i.e. geotechnical/soil conditions, topographic and environmental conditions; differing codes/ordinances; weather conditions; permits, and politics as well as client budgetary and time of performance limitations). Indeed, strong winds and a high earthquake classification were factors affecting safety and construction methodology of this Croatian bridge and might not factor into most bridges in Texas. But while the land area of Texas is 12 times that of the Republic of Croatia, civil engineers and contractors undertaking projects located in Texas during the last 150+ years have not had to contend with this even additional challenge. The additional challenge affecting this bridge was.....WAR!

“...one of the longest cable-stayed bridges in Europe. The Franjo Tudman Bridge, at the western approach to Dubrovnik, is 1,699 feet long between abutments and 47-feet wide.”

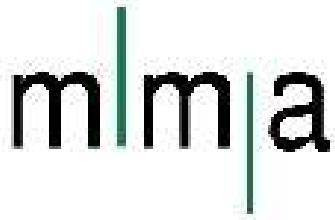


Construction of the bridge began in 1989. Though the total “construction” time was 52 months, the bridge was not completed until 2002. What might have otherwise been a four-year construction project turned into 13 years as a result of interruptions and delays caused by the Croatian War of Independence (1991-1995). Apparently, some redesign of the bridge was also necessary after construction was stopped at the outset of the war.

The war started when Croatia declared (and ultimately gained) its independence from Yugoslavia.

A local guide leading a tour of the old walled city gave us a first-hand account of the life-threatening difficulties facing inhabitants of this beautiful city when water and food was cut off for three months beginning October 1, 1991 during the “siege of Dubrovnik”.

The final cost of the bridge was reported to be \$31 million (US) making it the most expensive bridge in all of Croatia. Despite the casualties, damages, and delays caused by the war, the bridge was at last completed and was not only serving people but was indeed beautiful to behold.



TEXAS-WIDE ASCE YM CAMPING TRIP *by Alexis Clark, E.I.T., Dallas Branch YM Chair 2014-16*



There are few things as determined or rugged as the Spirit of Texas. In times of trials and tribulations, the Texan will adapt and march forward with their ambition. True to their roots, the ASCE Younger Members of the State of Texas carried on in their quest to unite YM's across the vast state in a single weekend to enjoy one another's company and bask in nature's glory.

Early planning begun in October for a spring Camping Weekend, as eight YM leaders from various branches came together to scout locations, dining options, and scheduling weekends around PE exams and collegiate athletic events. After 7 months of preparation and accruing 112 registered campers, the weekend was postponed to the fall due to flash flooding at Lake Whitney State Park. Later that summer, Lake Whitney was closed until 2017 for maintenance due to catastrophic soil conditions (can we get some geotechnical engineers on the scene, please?). The alternate location of Fairfield State Park was selected for the September date.

Friday, September 9th, 40 YM campers from Austin, Dallas, El Paso, Fort Worth, Houston, Rio Grande Valley, and San Antonio branches met at Fairfield Lake State Park to enjoy a dry weekend with relatively nice weather. With plenty of camping spaces reserved in the Springfield Camping Loop and the Group Dining Facilities reserved for the weekend, campers were able to mingle, network, and enjoy the great outdoors. Each branch was responsible for planning and cooking one meal for the entire group of campers to promote camaraderie with their fellow branch YMs and contribute to the group as a whole. Some of the YM campers stepped up to lead a hiking group along some of the different trails throughout the State Park. After an eventful Saturday, campers joined together for s'mores around the campfire.

Despite the obstacles throughout the development of this event, the passion and determination of the YM leaders and campers are what brought this idea to fruition. Without the collaboration of young talent across the Great State of Texas, this weekend of brotherhood and friendship would not have been possible.



Marriage Announcement

Congratulations Andrea!

Andrea McGinley was married on August 19th to Shane Taylor.

They were married in Whitefish, Montana.

<What a View!>





Birth Announcement:
Averie Quinn Hoover
 Born October 1, 2016
 8 lb 2 oz, 21 inches long
 Mother, sister, brother, and
 Father (Clint Hoover)
 are excited that she is
 here and all are doing well!



2016-2017 FORT WORTH BRANCH OFFICERS AND COMMITTEE CHAIRS

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Moving?
 Update your ASCE
 Information at
www.asce.org

This newsletter will be distributed quarterly, the first week of March, June, September and December. If you have information you would like to have published in the newsletter, please contact Jennifer Roberts, Newsletter Chair, at jhroberts@lan-inc.com

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