Fort Worth Engineer Fort Worth Branch ASCE Newsletter

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LETTER FROM THE PRESIDENT

Hello from the Fort Worth Branch of ASCE! I hope y'all have had a great summer so far and continue to enjoy it with family and friends.

For our July branch meeting we always participate in the joint meeting with the Dallas Branch. This year it was our turn to host, and I think it went very well. We had over 800 views with 160 unique viewers. This speaks to the involvement of our membership. We had presentations from all the major technical areas including ethics (which we all need before we renew our licenses). Russell Laughlin, the Executive Vice President for Hillwood, gave our keynote presentation on the future of logistics and mobility. It is important for all of us as engineers to fully understand where our future is taking us. I truly am grateful for all the presenters and the time they took out of their days to pre-record their presentations. I also want to thank the Dallas Branch for their help in promoting the meeting and finding presenters with us. This is truly a joint effort.

We are nearing the end of all the COVID restrictions and are looking to start in-person meetings again for the September branch meeting! We are so glad to get back to normal and be able to socialize with each other in person. That being said, we will not have an August branch meeting as we take this time to enjoy a summer break.

With everything getting back to normal, we are also on track to start the new fiscal year in September. We will be installing new officers for the branch for the start of the new fiscal year. Andrea Taylor will be your new branch president and I am fully confident that she will lead our branch through a great year. I want to thank all y'all for making this past fiscal year a success even in the midst of a global pandemic. Our successes are a testament to the incredible membership that we have.

Thanks,

Andrew Wilson ASCE Fort Worth Branch President

UPCOMING EVENTS

Branch Meetings:

September 20, 2021 Reata Restaurant Speaker TBA

> October 2021 Location TBA Speaker TBA

November 2021 Location TBA Speaker TBA





Meetings From the Previous Quarter

May Branch Meeting

Location: Virtual Zoom Meeting

Speaker: Travis Attanasio, PE, of the

City of Haslet

Topic: A Crisis is a Terrible Thing to

Waste

Attendance: 29

June Branch Meeting

Location: Virtual Zoom Meeting

Speaker: Ty Thompson of the City of

Fort Worth

Topic: City of Fort Worth Design

Manual Updates

Attendance: 97

July Branch Meeting— Joint FW/Dallas Meeting

Location: FW ASCE YouTube

Channel

Speaker: Russel Laughlin of

Hillwood

Topic: Mobility Innovation Zone

Attendance: 160

Mentor's Minute

By: Wayne E. Fowler, PE, Principal, Teague Nall and Perkins

"Those who cannot remember the past are condemned to repeat it." - Jorge Santayana



In 1940, the beautiful, slender, and flexible Tacoma Narrows Bridge opened near Tacoma, Washington. It was the third-longest suspension bridge in the world. As the workers began to install the deck it began to bounce, so they named it "Galloping Gurtie."

After completion it was quite the attraction. Not for its aesthetics, but because it was a carnival ride for those who drove across. Six months after opening, the bridge experienced 42 mph winds which caused vertical and lateral twisting to achieve harmonic resonance. Vertical pitch reached 28 feet and the deck tilted 45 degrees repeatedly. Then it collapsed. A dog in an abandoned car was the only fatality.

After the failure, bridge historian David Billington noted that among modern bridge engineers "there seemed to be almost no recognition that wind created vertical movement at all." They were oblivious to the history of bridges stiffened against wind pressure. The "historical perspective seemed to have been replaced by a visual preference unrelated to structural engineering," he added.

The Tacoma Narrows Bridge engineers didn't learn from previous successes and failures, but those who followed them did. British engineer W.T.F. Austin said, "The whole of bridge engineering has profited by the fall of the Narrows bridge." Post-failure studies identified the design flaws, and designers applied the lessons learned to the replacement (1950) named "Sturdy Gurtie," and its parallel lanes bridge (2007).

A smart team remembers and learns from the past. "You have to make reflection part of the way work is done." The U.S. Army calls this an "After Action Review." It reflects on the questions: What happened? What did we expect? What can we learn? Your team's post-project reviews add to your knowledge and likelihood of success.

Here are some guidelines as you reflect on lessons learned: avoid the blame game and excuse-making, be authentic by listening carefully and offering what you know, dig out the plain facts and be constructive, and include relevant lessons learned in project planning and kick-off meetings.

Document and review your lessons learned and you will have less Galloping Gurties and more Sturdy Gurties in your project portfolio.

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Branch Leadership Spotlight: Florencia Rangel

This section highlights viewpoints from budding future civil engineers. This issue features Florencia Rangel — here are a few facts to help you get to know her a little better!

What company do you work for? Teague Nall & Perkins in the transportation/roadway design field.

What is your role in ASCE? I am currently the Fort Worth branch golf tournament chair.

What college did you attend?

Texas Tech

What brought you to the civil engineering profession and ASCE? Prior to college, I had the opportunity to help rebuild/construct an elementary school in a developing country. I was so amazed with the process, experience, and the product of what my team had accomplished that I decided to pursue civil engineering. Not knowing 100% of what civil engineering entailed, I joined ASCE to surround myself with like minded individuals I could grow and learn from.



We can't wait to see you in person THIS September! If you have any ideas you'd like to share, please email Allison Stamper (astamper@jonescarter.com) or Brandon Oliver (boliver@ieaworld.com). Watch our social media pages for a Welcome Back event! We're on LinkedIn, Facebook, and Instagram!



What is something you see changing in the industry? In all honesty, you could pull out archives and see the overall blue-prints have not changed much, but the technology has. We are now able to build 3-D models of the roadway to have an idea of what the design would look like after construction.

What would you like to learn from PE's or mentors? I am interested in design and project management issues engineers have encountered during their career and what strategies they used to overcome them. I'd also like to know if they listen to certain podcasts or read any books that have helped them in leadership, daily life, or even self-improvement.

Did you have any internships? How did that aid your career? I had two internships in construction. The first in heavy civil working on I-35 and the second in commercial construction on the American Airlines Headquarters in DFW. I believe these internship experiences aided my career by giving me the hands-on field experience of how plans are constructed and inspected for approval.

PE Spotlight: Niraj Acharya

This section highlights the PE journey and provides insight for young engineers into the rewarding opportunities of a career in civil engineering. This issue features Niraj Acharya, PE—here are a few facts to help you get to know him a little better!

Where and in what field of civil engineering do you work? I am the Director of Business Development (with a background in Water Resources Engineering) for TNP, Inc.

What is your role in ASCE? I've had many. I previously served as several chair and board positions and, ultimately, was the president in 2017/2018. I now serve as the Continuing Education Chair.

What college did you attend? UT Arlington for both my bachelor's and master's degrees in Civil Engineering (Go Mavs!)



What brought you to the civil engineering profession? My father, who is now a retired structural engineer, encouraged me to consider civil engineering because of my interest how infrastructure projects get built. I followed his advice and pursued a Civil Engineering degree at UTA. There, I joined the student chapter of ASCE to network and become better acquainted with the profession. As a professional, I continue to support and attend FWASCE meetings and events.

What are some lessons learned in your career you wish you learned earlier on? I would highly recommend all young engineers focus not only on being strong technically, but also focus on becoming strong writers and public presenters. These are skills that will pay dividends as you progress in your career.

What software/programs do you frequently use or recommend for young engineers to learn? For stormwater engineering, I used software such as HEC-HMS, HEC-RAS, XPSWMM, AutoCAD and ArcGIS

extensively to analyze and design projects. As a manager, I used Microsoft Project and financial tracking applications a lot. I would recommend others gain proficiency in as many different types of design and management software as possible – there are so many. When combined properly, you can really expedite and enhance project delivery.

Is there a project from your career you would like to share? I've had the fortune of working on several cool projects, but the ones I am most proud of are the series of neighborhood flood improvement projects on which I consulted the City of Arlington. On each of these projects, we were able to use advanced modeling techniques to resolve some extreme flooding conditions for residents.

What aspects of the civil engineering field have you seen evolve over the last few years and what do you think will change in the future? As a society, we have moved nearly exclusively to mobile communications and computing platforms. We are already seeing the benefits of this as we've been struck by a pandemic. I believe these innovations will continue to improve and impact the way we work with clients and deliver infrastructure projects.

What advice would you give to young engineers? Network. Network. Its important.

Edmund Friedman Young Engineer of the Year

Lindsay Lafferty, PE was selected as the 2021 Edmund Friedman Young Engineer of the Year by the Fort Worth Branch of the American Society of Civil Engineers. This award recognizes young members of ASCE that exhibit outstanding contributions to the public welfare of the civil engineering profession.

Lindsay currently serves as the Newsletter Chair and a Director on the Board for the Fort Worth Branch. Lindsay consistently provides branch members with an amazing newsletter that contains valuable professional content and event updates to keep all members informed.

Lindsay graduated from the University of Texas at Arlington with a bachelor's degree in civil engineering. Upon graduation, she began working at Baird, Hampton and Brown - a multi-disciplinary firm that provides the integrated services of civil, structural, and MEP engineering, as well as land surveying and landscape architecture. Lindsay currently has four years of experience in the land development field and has worked on a wide range of projects including those in the municipal, industrial, and higher education sectors.

In her free time, Lindsay enjoys baking, rock climbing, and spending time outdoors with her family and dog.

On behalf of the Fort Worth Branch, congratulations Lindsay! The Fort Worth Branch thanks you for all your hard work as you continue to uplift our profession, society, and branch.



<u>A note from Lindsay</u>: Virtual meetings have their own unique set of pros and cons—one major downside in this setting is the inability for me to personally thank the Fort Worth Branch members and leadership for the honor of accepting the Young Engineer of the Year award.

I've had the privilege of being involved in ASCE at multiple levels; first through the student chapter at UTA and now at the professional level with the Fort Worth Branch. It's not always easy to put yourself into a room full of unfamiliar people and make connections, but I've found my membership in ASCE to be more meaningful than I ever imagined. In the years I have been involved in ASCE I have seen several leaders come before me, setting an example of what it means to be a valuable member of our profession and society. I am continually inspired by the dedication and commitment shown by those involved in ASCE, and I have each of you to thank for encouraging me to set and achieve lofty goals.

It is truly an honor to be recognized as the Fort Worth Branch's Young Engineer of the Year. I look forward to seeing the Fort Worth Branch continue to flourish and provide value to its membership in the years to come. I hope to see you all in person soon!

Congratulations to all of the Fort Worth Branch's Newly Licensed PE's!

Make sure to check in with our membership chair Brandon Oliver (boliver@ieaworld.com) about getting your branch membership status updated!

Treasurer's Report

We has a successful virtual joint meeting with the Dallas Branch, We raised \$1,935 for the scholarship fund and \$1,935 for the Tarrant County Food Bank. Thank you to all of our presenters and participants!

Company Corner: TranSystems

This section highlights current civil engineering projects designed by companies in the DFW area. This issue features TranSystems and their work on the BNSF Alliance Intermodal Facility.

Alliance, Texas is an unparalleled regional success story that has transformed the North Texas economy and connected the area to global industry. Due to substantial growth within the distribution and warehousing space in the Fort Worth market, BNSF increased capacity at its Alliance Intermodal Facility, which includes new production tracks and incremental parking stalls and new lift equipment.



A multi-phase project involving more than 1,200-acres of development to effectively absorb forecasted yearly lifts of 1.4 million lifts per year, the project includes reconfiguring and retrofitting the existing Alliance Intermodal Facility (IMF) with a new three-track rubber tire gantry crane module, parking expansions to the east, a new inbound and outbound Automated Gate Systems (AGS), new fueling facilities, and a new employee and administration building. The project also includes a 6-mile mainline relocation, lead extensions, and a reconfiguration and repurposing of the existing BNSF North Yard. Future phases include a wide-span crane module to replace the existing Alliance manifest yard to the west of the existing Alliance IMF, and eventual automation with straddle carriers and stacking cranes.

TranSystems is providing design and construction management of a phased expansion to the Alliance IMF utilizing Construction Manager/General Contractor (CM/GC) contract delivery. Collaboration across six to seven TranSystems offices allowed this project to be successful, including the efforts of Chad Gartner, PE and Kameron Boggan, EIT from the Fort Worth office.

Volunteers Needed!

It is time to start thinking of ASCE Fort Worth Leaders that would be great at the Texas Section Level as an Officer. The Section Level officer positions are listed on the website at https://www.texasce.org/resources/volunteer. If you know of such a leader, please contact Kimberly Cornett, P.E., CFM, F. ASCE at kcornett@obrieneng.com with your nomination.



Continuing Education Opportunities

We continue to see increased in-person continuing education opportunities with several organizations!

ASCE Dallas Branch Meetings | August 9 | in-person

The Dallas Branch is back in-person. Visit https://dallasasce.org/news.php

TSPE Fort Worth Branch | August 12 | in-person

TSPE Fort Worth also caters to civil engineers. Visit www.tspefortworth.org

TFMA Technical Summit | August 24 – 27 (Bastrop, TX) | in-person

The Texas Floodplain Management Association resumes its annual fall conference in-person. Visit www.tfma.org.

ASCE Texas CECON 2021 | September 15 - 17 (San Marcos, TX) | in-person

The Texas Section will host its flagship conference again in-person. Visit www.texascecon.org for more details.

ASCE Fort Worth Branch | September 20 | in-person

The Fort Worth Branch will be back and in-person! The next Branch Year begins in September.

Visit http://branches.asce.org/ft-worth

TX-APWA Conference | October 20 – 22 (Galveston, TX) | in-person

The Texas Chapter of the American Public Works Association will host its conference in-person. Visit texas.apwa.net.

TBPELS Ethics Webinars | Ongoing

The Texas Board of Professional Engineers and Land Surveyors continues to host free ethics webinars on a near monthly basis. Register here: http://www.tbpe.texas.gov/webinars.html

ASCE Texas Section Webinars | Ongoing

Upcoming webinars: July 27 (Introduction to Dam Safety) and August 10 (What Makes an Engineer?)

Visit https://www.texasce.org/events/category/webinars/

ASCE National Webinars | Ongoing

ASCE National allows all paying members access to 10-hours of PDH webinars, with over 200 on-demand webinars from which to choose.

Visit https://sa360.asce.org/ASCEWebApp/Benefits/Membership/Freeondemandwebinars.aspx

WE'RE ON SOCIAL MEDIA! COME FOLLOW US! ASCEFORTWORTH FORTWORTHASCE FORTWORTHASCE

Student Chapter Updates

As a small student chapter, Tarleton State ASCE's main goal is to recruit underclassmen and encourage continued participation and commitment to ASCE. This is a difficult task due to COVID pushing many students to virtual platforms. However, TSU ASCE thinks recruitment during the fall will be easier when things return in -person. Additionally, the student chapter hopes to continue their fundraising efforts in the fall to ensure the necessary funds to participate in the 2022 Student Symposium.





We are looking forward to hearing from UT Arlington's ASCE student chapter and learning about their recent progress!

Section Director's Update

The Fort Worth branch was well represented this year at the Leadership Development Weekend in Houston, TX. The goal of the Leadership Development Weekend is to empower Texas Section members as professionals and volunteers by providing relevant information, resources, and contacts. The workshop is intended to encourage members to become leaders within ASCE and in the civil engineering profession.

The Fort Worth branch had several take-aways from the week-



end, including: a thorough understanding of ASCE and the Texas Section, as well as specific volunteer roles and responsibilities as a Section or Branch leader, knowledge regarding how to further develop critical leadership skills through group presentations and breakout sessions, and built relationships with other Texas Leaders. Attendees included: Allison Stamper, Bob Stevens, Derek Baker, Kimberly Cornett, Jessica Hilscher, and Travis Attanasio.





The Texas Civil Engineering Conference (CECON) offers a snapshot of the best in Texas civil engineering, while providing unique opportunities to learn and build relationships across the state and beyond, contributing to the industry's technical diversity as never before. Register at texascecon.org.

Don't forget to renew! The perks of being an ASCE member have gotten better! Now your membership includes **10 free PDH** on-demand webinars. To see a full list of member benefits visit the ASCE website at http://www.asce.org/member-benefits/

www.asce.org/myprofile	Update your contact information
www.asce.org/renewal	Membership renewal
www.asce.org/join	Membership applications
www.asce.org/cemagazine	Civil Engineering magazine online
blogs.asce.org	ASCE news online

This newsletter is distributed quarterly on the first week of February, May, August, and November. If you have any information you would like published in the newsletter, please contact Lindsay Lafferty, Newsletter Chair, at llafferty@bhbinc.com.

Member Referral Program

All you have to do is click the link and refer up to five people to join ASCE. ASCE will do the rest. If your referrals join, they get 50% off their initial membership dues and you get a \$50 Amazon gift card. At the end of the year, the member with the most successful referrals will get a \$500 Amazon gift card! Refer a friend here: http://message.asce.org/mgam

Branch Sponsors

























Branch Sponsors



















For corporate sponsorships please contact Jeff Philipp, Treasurer, at jphilipp@tnpinc.com.

2020-2021

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