



**ASCE March 2023 Luncheon**

Tuesday, March 14, 2023

**"War Games" - Evaluating Risk**

**Presentation Description:** Problem statement: What are the geologic risks present on a large, active slope failure and how does understanding those hazards aid in risk assessment and mitigation programming?

In the 1960's, an installation was developed during the Cold War to provide for our Nation's defense. The complex, generally referred to as NORAD was built inside of Cheyenne Mountain and was surrounded by steep slopes, both upward and downward. The slopes generally consist of either colluvium outwash or shear granite faces along the front-range near Colorado Springs. The geometry of the colluvial fill deposit has led many researching the area to conclude that the slope was formed from a large historic bedrock landslide event, perhaps coinciding with an earthquake event. The stability of the area is impacted by concentrated run off events, resulting in erosion and slope movements which have caused significant damage to structures in the general area of the installation. In September 2013, after a period of heavy rain, a landslide occurred that blocked the main entrance to the mountain, preventing staff from entering or exiting through the main gate. Recently, the Air Force undertook a study to evaluate the potential risks the facility faced as they relate to slope instability. SCI performed a thorough exploration program that included a drilling program using ODEX and Sonic drilling methods, with supplemental geophysical testing, to determine soil layer and behavior profiles for the colluvium and shale bedrock. The geophysical methods included ReMi, Seismic Refraction, Electric Resistivity Testing (ERT), and Multichannel Analysis of Surface Waves (MASW). Advanced triaxial testing was conducted to better predict the strength envelop from the samples of Pierre Shale collected. The results of the study are being used by the Air Force to help prioritize programming to address the risks.

**Presenter:** Thomas J. Casey, PE - Chief Geotechnical Engineer, SCI Engineering, Inc.  
Mr. Casey joined SCI Engineering in May of 2009 where he currently serves as Chief Geotechnical Engineer. He has over 22 years of experience working on a myriad of geotechnical related projects. He received a Bachelors in Civil Engineering and a Masters in Geotechnical Engineering from Georgia Tech after serving in the United States Army.

**Please click here to sign up!!!**

**Please register by 4:00pm, Tuesday, March 7.**

**When:** Registration starts at 11:30am, lunch is served at 11:45am. The program will begin promptly at 12:00pm. One (1) PDH available.

**Where:** Engineers Club of St. Louis, 4359 Lindell Blvd., St. Louis, MO 63108

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**Upcoming Events**

March	9 YMG March Meeting
	14 EWRI Webinar
	14 GI Meeting
	16 SEI Meeting
April	6 YMG April Meeting
	19 Geoinstitute Case Histories
May	11 YMG May Meeting



Follow the Section and share with your network.  
Update your bookmarks with our new Section website  
<http://sections.asce.org/st-louis/>

## Officers & Directors 2022 - 2023

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## President's Message



Hi all! We've just wrapped up a busy Engineer's Week and I'm thrilled that we were able to get lots of our members involved in activities! I hope you were able to participate in this annual celebration of all things engineering.

On Tuesday, we attended the Engineering Center's E-Week luncheon, where we caught up with industry colleagues and heard a talk from **Maxine Clark**, the founder of Build-A-Bear Workshop. She gave an inspiring talk about her current project, The Delmar Divine, that is supporting women and minority entrepreneurs by revitalizing the old St. Luke's Hospital building on Delmar Boulevard. It's amazing what a difference can be made

when people use their imaginations and work together – just like the engineering projects we work on every day.

On Wednesday, we partnered with ACEC, APWA, and MSPE for Engineers Day at the Capitol in Jefferson City to educate legislators on engineering issues and get more involved as a profession in the public policy process. I joined several members from St. Louis and Kansas City Sections met up to join 60 engineers in their collective efforts! Next up, I'll be personally attending the Legislative Fly-In on March 1-3 in Washington DC with other civil engineers from across the nation. We can all make an impact just by showing up and sharing our expertise with legislators. We are seen as credible, friendly, and non-partisan!

On Friday, we attended the Engineering Center's Career Fair with our civil engineering display booth to engage with college students and encourage them to stay involved with ASCE after graduation as a Younger Member.

On Saturday, we volunteered at **SciFest: An Engineering Expo** at the St. Louis Science Center. The Section brought our civil engineering project exhibit board, a demonstration MSE wall, shake table, and traffic simulations. It was a great opportunity to engage kids with civil engineering activities and talk to parents about what it takes to become a civil engineer.

Looking ahead to March, our Board, Committee Chairs, and Institute chairs will be embarking on a new **Strategic Plan** for the Section! This 3-5 year plan will last beyond my term as President and will establish our goals and direction to best serve you, the membership. To kick off the effort, we will be sending out a membership survey via email to gather information that will drive our decisions. We want to know what you want out of ASCE so we can provide the opportunities you're interested in. The survey promises to be VERY SHORT and take less than 5 minutes. We'd love your input – this is for you after all! On March 31<sup>st</sup>, we will be holding a full day Strategic Planning Session, facilitated by a Region 7 Governor who has experience assisting other Sections through this process. I look forward to sharing the results with you and getting to work to improve the Section.

Happy March!

-Alison [agraves@civildesigninc.com](mailto:agraves@civildesigninc.com)

## Nominations Open for Director

Dear Section Members,

The ASCE St. Louis Section is accepting nominations for the position of Director of Administration for a two-year term beginning October 1, 2023. This position is currently filled but will be vacated upon the beginning of ASCE's next Fiscal Year on October 1 as the individuals currently holding Board of Director positions will accept new positions or rotate off the Board of Directors. A description of this position is available on the ASCE St. Louis Section website, within the Section's [Constitution and Bylaws](#) and [Handbook](#). Acceptance of the position for Director of Administration generally will involve graduating to subsequent positions on the Board of Directors, resulting in a multi-year commitment to serving on the Board of Directors.

Please submit nominations in writing via email to Past President and Nominating Committee Chair John Weiland ([jweiland@wadetrim.com](mailto:jweiland@wadetrim.com)). Nominations shall include the name of the individual and a brief description of their qualifications and interest in the position. Please submit nominations no later than March 31, 2023.

Thank you,  
John Weiland  
ASCE Past-President  
Nominating Committee Chair

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## Open Committee Opportunities

We're looking for members to volunteer to kickstart some committees that took a break during COVID or are ready to transition to a new chair. Chairing or serving on a committee is a great way to get to know people, build leadership skills, and give back to our community! You can do as much as you have time for – committees are expected to plan at least one activity this year. Ideas could include seminars, roundtable discussions, site visits, happy hours, joint activities with other committees or organizations, community service, mentoring, etc. We're here to help you! Please reach out to any Board Member to get involved.

### **Diversity and Inclusion**

The Diversity and Inclusion (D&I) Committee will coordinate, promote, and execute events and programs that advocate for inclusion and visibility of all people within the civil engineering profession without regard to gender or gender identity, race, national origin, ethnicity, religion, age, sexual orientation, disability, political affiliation, or family marital, or economic status. Historically, the D&I Committee has participated in and supported career outreach events organized by the National Society of Black Engineers (NSBE) and the Society of Women Engineers. Other past events included organizing volunteering opportunities with Girl Scouts and Introduce A Girl To Engineering Day.

### **Pre-College Outreach**

The purpose of the Pre-College Outreach Committee is to inform elementary, middle, and high school students and staff about Civil Engineering. This information includes the requirements for becoming a civil engineer, and how civil engineers improve the quality of life for all citizens. Past activities have included coordinating classroom presentations, Engineer's Week SciFest at the Science Center, and Project Lead the Way in several High Schools. There are lots of members who want to help volunteer – they just need someone to coordinate with the schools.

### **Fundraising**

The purpose of this committee is to raise funds for use by the Section for the Student Scholarships and Career Guidance Activities. In past years, funds were raised by hosting a golf tournament. However, other fundraising ideas could include organizing a technical seminar, corporate sponsorship program, trivia night, exam prep programs, etc. The Society has a ton of best practices for more ideas!

## E-Week 2023!

### 2/21 - Engineering Center's E-Week Luncheon at the Clayton Plaza Hotel

The St. Louis Section purchased a table at this year's luncheon to provide 10 members with the opportunity to attend. The guest speaker was Maxine Clark, the founder of Build-A-Bear Workshop. She gave an inspiring talk about her current project, The Delmar Divine, that is supporting women and minority entrepreneurs by revitalizing the old St. Luke's Hospital building on Delmar Boulevard.



St. Louis Section attendees: **Alison Graves, Jordan Pettibone, Melantha Norton, Dennis Boll, Jeff Fouse, Lowell Seaton, Nichole Witushynsky, Alicia Padilla, John Weiland, and Samantha Keaven**

### 2/22 – Engineer's Day at the Capitol in Jefferson City

This year we partnered with ACEC, APWA, and MSPE for Engineers Day at the Capitol in Jefferson City to educate legislators on engineering issues and get more involved as a profession in the public policy process. 65 engineers attended, including Dennis Boll, Alison Graves, and Shawna Erter representing the St. Louis Section. The day kicked off with a meeting with Representative Doug Mayhew (an engineer!) in the House Lounge, followed by being introduced by Rep. Mayhew on the House Floor. We had time for individual and group meetings with our legislators to really make a collective impact. It was a wonderful collaboration with other organizations and we look forward to next year's event!



2/22 – Engineer’s Day continued...



ASCE attendees:  
Shawwna Erter, Sean  
Purdue (KC), Danny  
Hotson (KC), Dennis  
Boll, Sheryl Gallagher  
(KC), Alison Graves

2/24 - Engineering Center Career Fair

On Friday, February 24<sup>th</sup>, **Amanda Rademacher, Jeff Fouse, John Weiland, and Alison Graves** attended the Engineering Center’s Career Fair with our civil engineering display booth. We engaged with college students and encouraged them to join ASCE and stay involved after graduation as a Younger Member. It was a great opportunity to talk with students one on one about their careers and taking that next step into the professional world.



St. Louis Section  
volunteers  
**Amanda  
Rademacher & Jeff  
Fouse** talk Civil  
Engineering with a  
student.

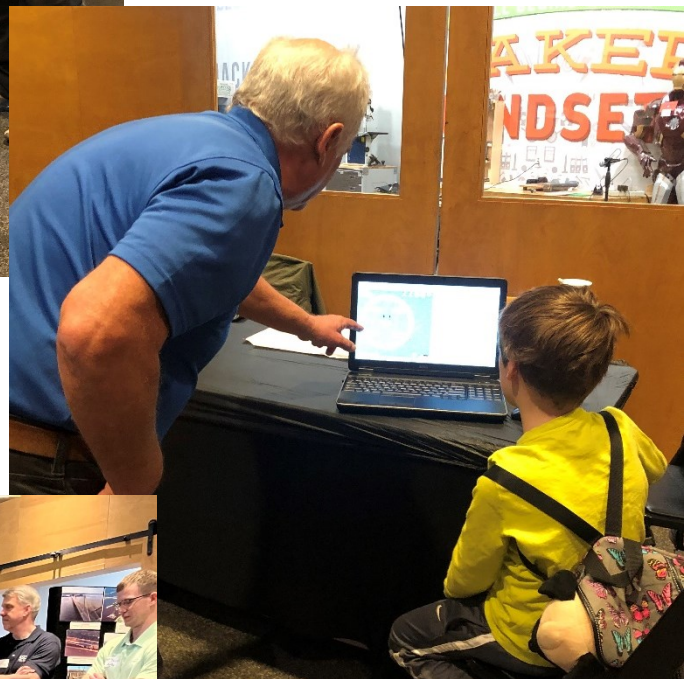
## 2/25 Sci-Fest: Engineering Expo at the Science Center

On Saturday, February 25<sup>th</sup>, we volunteered at *SciFest: Engineering Expo* at the **St. Louis Science Center**, one of our best K-12 outreach events of the year. The event attracted nearly 4,000 visitors for the day and we were one of 300 exhibitors/outside partner volunteers. We brought our Historical CE projects photos and ASCE exhibit, cable stay bridge model activity, MSE retaining wall demonstration, and traffic flow simulation.

Huge thanks to our volunteers for the day – **John Weiland, Chris Toenjes, Brent Vaughn, Jeff Fouse, Nichole Witushynsky,** and *Younger Members Alicia Padilla, Jacob Mette, Jennifer Kengovskiy* and **Gene Kengovskiy**.



St. Louis Section volunteers **Brent Vaughn, Jacob Mette, Nichole Witushynsky,** and **John Weiland** show kids and their parents how to construct a cable stay bridge, see how traffic patterns are affected by various factor, and simulate the design and testing of model bridges.



## Multi Region Leadership Conference

On February 3-4 members of the St. Louis Section attended the Multi Region Leadership Conference (MRLC) in Denver, Colorado. Attendees from the St. Louis Section included ASCE President Elect **Marsia Geldert-Murphey**, Region 7 Governor **Shawna Erter**, board members **Shari Cunningham** and **Tony Roth**, and YMG members **Alicia Padilla** and **Brenan Pool**. This annual conference brings together upcoming leaders from the region to network, gain knowledge of the society and region, and improve leadership skills. There were presentations to improve soft skills and breakout sessions to allow members of different sections to brainstorm together. Overall, it was a great success and we look forward to the conference being held in Kansas City next year.



Alicia Padilla, Tony Roth and Brenan Pool



Alicia Padilla at the Award Banquet



Tony Roth and Marsia Geldert-Murphey



Marsia Geldert-Murphey with Students



## EWRI ST. LOUIS MONTHLY SPEAKER SERIES EVENT

The St. Louis Section of EWRI is pleased to announce our monthly webinar on **Thursday, March 16, 2023 from 12:00 pm-1:00 pm Central Time.**

This presentation will be broadcast live over a webinar. Registration is free to ASCE members. **Advance registration is required by Tuesday, March 14, 2023.** Please register online at the following link:

[EWRI March 2023 Speaker Series Presentation](#)

Registrants will receive detailed Webex link information prior to the event.

### **National Water Service Hydrologic and Climate Resources and Overview of July/August Flash Flood Events**

In this presentation, we will examine web-based resources for hydrologic and climate information from the National Weather Service. This will include hydrologic data in the Advanced Hydrologic Prediction Services (AHPS) website, the National Water Model (NWM) website, on-going interface upgrades which will combine NWM with AHPS data, and Multi-Radar Multi Sensor (MRMS) information that incorporates NOAA14 Atlas rainfall frequency data. Finally, we will review how the MRMS Flooded Locations and Simulated Hydrographs (FLASH) data performed during the historic flash floods that affected the St. Louis area and eastern Kentucky during the summer of 2022.

### **SPEAKER**

#### ***Megan Terry, CFM - Service Hydrologist / Meteorologist, NWS Springfield, MO***

Megan Terry is the Service Hydrologist (SH) at the National Weather Service (NWS) in Springfield, Missouri, a position held since 2009. Megan is responsible for overseeing the NWS Springfield hydrology program, which includes conducting hydrology training and sharing the latest research applications with the staff at NWS Springfield. She also coordinates with partners at the USGS, USACE, and Emergency Management Officials, develops new river forecast points, and conducts water safety outreach at area schools and science fairs. Megan is celebrating her 7th year as a Certified Floodplain Manager.

Thank you to our joint seminar sponsors, **EDM Incorporated and Southern Illinois University Edwardsville (SIUE)!**

*Please contact **Rohan Benjankar, PhD** ([rbenjan@siue.edu](mailto:rbenjan@siue.edu)) with any questions, if you are interested in presenting, or have an idea for a topic.*



## GeoInstitute News

### Next GI Meeting

The next GI meeting will take place on Tuesday (03/14/2023) morning at 10:30 AM. It will be a in person meeting and virtual option will be provided per request. Contact [Zachary Fallert](mailto:Zachary.Fallert@geosyntec.com) for meeting details.



**GEO-  
INSTITUTE**  
**St. Louis Chapter**

### Call for Topics and Sponsorship Opportunities

The St. Louis Geo-Institute Chapter is seeking potential speakers for the following upcoming events. Please don't hesitate to reach Xiaomin (Sophie) at [Xiaomin.You@wsp.com](mailto:Xiaomin.You@wsp.com) or Travis at [Travis.Kassebaum@terracon.com](mailto:Travis.Kassebaum@terracon.com) you are interested in deliver a speech at any of the events.

- Call for abstracts for the **Case Histories** event coming in spring of 2023. A limited number of **sponsorship opportunities** are available for this event. If interested, please contact Zachary Fallert ([ZFallert@Geosyntec.com](mailto:ZFallert@Geosyntec.com)).
- The committee is setting up a series of **seminars**, either virtually or in-person with 1-hr length. Suggestions on speakers of topics from research or case histories are welcome!

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### St. Louis Chapter of the Geo-Institute of ASCE Presents

### Case Histories Seminar and Student Projects

**DATE AND TIME:** Wednesday, April 19, 2023  
5:30 pm Registration and networking; Student poster displays  
6:00 pm Buffet dinner  
6:30 pm Student posters presented  
7:00 pm Program begins

**LOCATION:** Engineers Club of St. Louis, 4359 Lindell Boulevard, St. Louis, MO 63108

**COST:** \$50.00 for ASCE Members; \$60.00 for Non-ASCE Members; \$25.00 for Full Time Students. RSVP and payment need to be completed online. Registration includes a buffet dinner. Vegetarian meals are available upon request. Registration link will be provided later.

Attendees will receive up to 2.5 PDH credits.

**REGISTRATION:** Information to be provided.

**Advance registration is required for all attendees.** ASCE is charged for all reserved meals. If you've signed up and can't make it, please cancel by email to Zachary Fallert ([ZFallert@Geosyntec.com](mailto:ZFallert@Geosyntec.com)).

**Student research posters** will be on display during the registration/networking period, and selected students will give brief presentations on their topics.

A limited number of **sponsorship opportunities** are available for this event. If interested, please contact Zachary Fallert ([ZFallert@Geosyntec.com](mailto:ZFallert@Geosyntec.com)).

# Structural Engineering Institute

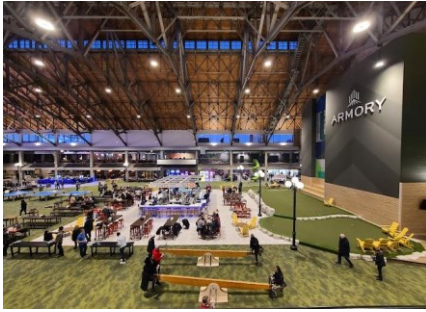
Please join us for our SEI St. Louis monthly meeting on the third Thursday, March 16 at noon. All are welcome.

Call-in information: 1-605-475-4350; Access code: 5056289

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## Younger Member Group Updates

Join us for our monthly meeting and happy hour! This is a great way to meet other local engineers and catch up on our upcoming events and volunteer opportunities.



**March YMG Meeting**  
**Thursday, March 9, 2023**  
Happy Hour at Armory STL  
3660 Market St, St. Louis, MO 63110  
5:30-6:30pm  
Find Facebook event [here](#)



**April YMG Meeting**  
**Thursday, April 6, 2023**  
Happy Hour at Global Brew  
2329 Plum St, Edwardsville, IL 62025  
5:30-6:30pm  
Find Facebook event [here](#)



**May YMG Meeting**  
**Thursday May 11, 2023**  
Happy Hour location at Narwhal's Crafted  
3906 Laclede Ave, St. Louis, MO 63108  
5:30-6:30pm  
Find Facebook event [here](#)

## YMG Meet a Professional Event

On February 16th ASCE YMG members **Alicia Padilla, Amanda Rademacher, and Jacob Mette** hosted a **Meet a Professional Event** at **Saint Louis University**. Alicia gave a presentation on ASCE, including its background and how students and professionals can get involved, as well as a presentation on networking which included tips and tricks to be successful. Afterwards, students had the opportunity to mingle with all the professionals. Students and professionals discussed a variety of topics, including day-to-day activities at work, current projects, career path advice, and internship openings. There were 13 students and 7 professionals who participated and between the attendees all Civil disciplines were represented. The professionals included **Megan Achs, Alison Graves, Jacob Mette, Alicia Padilla, Amanda Rademacher, Meghan Stukel, and Jiaman Xu**.

If interested in volunteering at events like this in the future, please email [ascestlymg@gmail.com](mailto:ascestlymg@gmail.com) to be put on the YMG email list.



Jacob Mette, Amanda Rademacher, Alicia Padilla



Presentation by Alicia Padilla



Presentation by Alicia Padilla



Students & Professionals Mingling

## D&I Volunteering

### Girl Scouts of Eastern Missouri 'Think Like a Programmer Journey'

On February 12th, ASCE St. Louis Section members **Alison Graves**, **Xiaomin You**, **Jiaman Xu**, and SLU Student Chapter Members **Nguyet Nguyen** and **Amelie Buchard** helped with Girl Scouts of Eastern Missouri (GSEM) for the STEM-based 'Think Like a Programmer Journey', facilitated by Mary Fuller of GSEM. There were 20 girls (Grades 6, 7 & 8) who participated in learning about how computer programmers think through big problems by creating algorithms and breaking big problems down into smaller ones. The girls did three computational thinking activities: categorize various objects as "Computer" or "Not a Computer" to explore the four tasks that define a computer (input, memory, processing, and output), create a card-sorting algorithm to learn about processing and design technology that will best meet a user's needs using user-centered design. For the last activity, the girls partnered up to design a wearable technology garment and gave presentations to us – they were so creative!

It's so important that girls see and meet women engineers to open their eyes to possible careers in STEM fields!

**"If she can see it, then she can be it."**



Programming algorithms on [www.code.org](https://www.code.org)



Presentation by Mary Fuller, GSEM

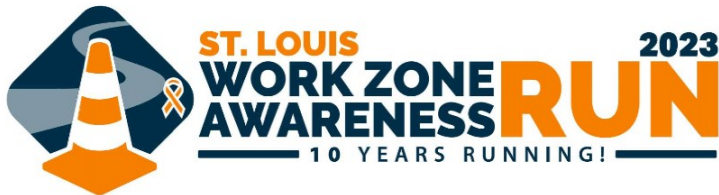


St. Louis Section Volunteers  
(left to right): Nguyet Nguyen (SLU),  
Jiaman Xu, Alison Graves, Amelie  
Buchard (SLU), and Xiaomin You

## Work Zone Awareness

Help us raise awareness for safe driving as the construction season kicks off with National Work Zone Awareness Week! We're hosting a 5K Run and 1 Mile Fun Run/Walk for all ages! Everyone gets a short sleeve moisture wicking t-shirt. Get out in the spring weather and spread the message to **Work Safe. Drive Safe. Save Lives.**

The link to the signup site is <https://runsignup.com/Race/MO/Chesterfield/WorkzoneAwareness5K>.



**Timed 5K, 1-Mile Fun Run,  
or Virtual Participant**

**SAT., APRIL 15 @ 8 A.M.**

**MoDOT Transportation  
Management Center  
14301 S Outer Forty Road  
Chesterfield, MO 63017**

**Register to run *here.***

[runsignup.com/Race/MO/Chesterfield/WorkzoneAwareness5K](https://runsignup.com/Race/MO/Chesterfield/WorkzoneAwareness5K)

**#STLWZARUN**



## ACI Snell Lecture

# 2<sup>ND</sup> ANNUAL SIUE ACI STUDENT CHAPTER “THE ACI SNELL LECTURE”

WEDNESDAY, 12 APRIL 2023 AT NOON (CDT)

This event is being held at SIU-Edwardsville and virtually via Zoom.

## *The National Veterans Memorial and Museum (NVMM) Columbus, Ohio*

Presented by Mike Schneider  
ACI Fellow and Past President

The National Veterans Memorial and Museum (NVMM) will be a place where the stories of veterans and their families will be told together. The NVMM is not service specific and will represent all branches of the armed forces. NVMM will be the one place where history and current events will combine in one unique structure on the banks of the Scioto River in Columbus, Ohio.

This presentation will cover the planning and construction of the concrete frame for this unique structure. Featured challenges of the project include: Architectural off the Form Concrete, building a concrete frame with no dimensions and building a complex concrete structure with curved walls and sloping voids.

To register go to ACI Missouri Events or  
[https://bit.ly/ACI\\_Snell2023](https://bit.ly/ACI_Snell2023)



Once registered, you will be provided with an event reminder and the zoom link three days prior to the event.

For questions contact Dr. Anne Werner,  
[awerner@siue.edu](mailto:awerner@siue.edu)



Mike Schneider is a veteran of the concrete industry. He started with Baker Concrete Construction (Monroe, Ohio) as a Project Manager in 1978, and is currently Sr. Vice President/Chief People Officer. He also serves as the company champion of Baker's Incident & Injury Free (IIF) Program and is responsible for safety within Baker on a Global basis. Mike has been a member of ACI since 1981, served as ACI President 2016-2017. In 2006, he was named an ACI Fellow and received the Rogers H. Corbetta Concrete Construction Award in 2011. He's also a member and past President of ASCC (American Society of Concrete Contractors). Mike received the Lifetime Achievement Award from the Spirit of Construction Foundation of Greater Cincinnati in 2012. Mike is involved with the Boy Scouts of America and serves on numerous boards throughout the Cincinnati community.

**I** CEE AT ILLINOIS



# **I** STRUCTURAL ENGINEERING CONFERENCE

### About the Conference

The conference is designed for professionals in structural engineering to gather in Champaign-Urbana to discuss exciting new developments in the field, gain timely job-related information, network with colleagues, and renew their sense of professional purpose. The participants are a diverse group of engineers from local, state, and federal agencies; consulting and contracting firms; and universities.

### Conference Planning Committee

The Conference program was developed by a distinguished group of practicing structural engineers from the Chicago, Central Illinois, and St. Louis regions, in cooperation with the structural engineering faculty of the University of Illinois at Urbana-Champaign.

### Professional Development Hours

The conference will provide 7.0 professional development hours (PDH) for professional engineers.

### Register Today!

<https://my.cee.illinois.edu/isec-2023>

**Thursday, March 23, 2023**

**I Hotel and Conference Center**

**1900 S. First Street, Champaign, IL 61820**

<https://structures.cee.illinois.edu/structural-engineering-conference/>

**I** ILLINOIS

### SIUE Geolnstitute Student Chapter Presents

#### ***Challenges and Technical Difficulties in Geotechnical Engineering – A Case Study***

**Venue:** SIUE Engineering Building, Room EB 1033

**Date:** March 16<sup>th</sup>, 2023

**Time:** 4:30PM – 5:30PM

**Location:** SIUE Engineering Building, 61 Circle Dr, Edwardsville, IL 62026

**Parking Info:** SIUE campus visitors may park in Visitor Parking Lot B. This is pay-by-space lot with a cost of \$1.50 per hour. Lot B is located east of the Engineering Building. Google Maps locations for Lot B and the Engineering Building are provided below.

Location of Lot B: <https://goo.gl/maps/fYqsQwKnC42A227w6>

Location of Engineering Building: <https://goo.gl/maps/eGqQCZLqggUX5T3a9>

**Contact Details:** For more details about the seminar, please feel free to reach out at [saullah@siue.edu](mailto:saullah@siue.edu)

Geotechnical Engineering is a highly challenging field that deals with the complexities of soil and rock mechanics. The properties of soil and rock vary greatly depending on their location and geological history. This variability can make it difficult to predict the behavior of the material under different conditions, and engineers must carefully account for this variability in their design. Geotechnical engineering projects often involve construction in challenging environments such as deep water, permafrost, or high altitudes. These environments can pose significant logistical and technical challenges for engineers. Despite these challenges, geotechnical engineers continue to design and construct innovative structures that push the boundaries of what is possible. By combining cutting-edge technology with a deep understanding of soil and rock mechanics, geotechnical engineers are making the world a safer and more stable place. In this seminar Mr. Fernando Del Monte a leading Geotechnical Engineer from Stantec will be discussing technical difficulties from one of his recent Geotechnical Engineering Projects and what his day-to-day work look like as a Geotechnical Engineer in a multi-disciplinary consultancy.





## Employment



**SAINT LOUIS  
UNIVERSITY™**

**SLU**  
CIVIL ENGINEERING™

### **Assistant Professor - Civil Engineering (Environmental Engineering)**

Saint Louis University's Civil Engineering Program invites applications for a tenure-track faculty position in the area of environmental engineering with an anticipated start date of August 1, 2023. Experience in the areas of water quality, water/wastewater treatment, biological or physicochemical processes, system dynamics/complex adaptive systems modeling, sustainable development, or related areas are preferred. Applicants should also be motivated to deliver engaging, hands-on learning experiences to undergraduate and graduate engineering students in a team-oriented, student-focused environment. Preference will be given to applicants at the Assistant Professor level. However, candidates with exceptional qualifications may be considered for appointment at a higher level.

**Learn more about the position and apply here:** [https://slu.wd5.myworkdayjobs.com/en-US/Careers/job/Assistant-Professor---Civil-Engineering\\_2022-06329](https://slu.wd5.myworkdayjobs.com/en-US/Careers/job/Assistant-Professor---Civil-Engineering_2022-06329)

### **Open Rank - Professor of Transportation Engineering - Taylor Geospatial Institute**

Saint Louis University's Civil Engineering Program invites applications for an open-rank faculty position in the area of transportation engineering with an anticipated start date of August 1, 2023. Qualified candidates will be considered for tenure. The program is seeking dynamic, collegial, collaborative, and creative applicants that are dedicated to performing ground-breaking, externally-funded research in the field of transportation engineering with the potential to build an exceptional national/international research reputation. Experience in the applications of geospatial science in transportation engineering is required, with a preference for expertise on geographic information systems, digital twin, smart cities, smart and connected communities, big data analytics and geovisualization, disaster response and network resiliency, or other related geospatial fields.

**Learn more about the position and apply here:** [https://slu.wd5.myworkdayjobs.com/en-US/Careers/job/Open-Rank---Professor-of-Transportation-Engineering---Taylor-Geospatial-Institute\\_2023-06507](https://slu.wd5.myworkdayjobs.com/en-US/Careers/job/Open-Rank---Professor-of-Transportation-Engineering---Taylor-Geospatial-Institute_2023-06507)

## Campus Engineer at Washington University

The Washington University School of Medicine Operations & Facilities Management Department provides a range of services for the medical campus in a customer-focused, efficient, and sustainable manner. The Campus Engineer is responsible for planning and managing the energy, utilities, critical facilities, and infrastructure.

Operations & Facilities Management maintains 61 university buildings and provides operational, planning, and construction services to over 8.3 million gross square feet of space. We will open three new facilities between 2023 and 2025 with over 1.5M BGSF. In addition, the School of Medicine continues expanding its reach on and off campus in teaching, clinical care, and research. Our team plays a vital and important role in delivering care, research, and services.

[https://wustl.wd1.myworkdayjobs.com/External/job/Washington-University-Medical-Campus/Campus-Engineer---OFMD\\_JR72136](https://wustl.wd1.myworkdayjobs.com/External/job/Washington-University-Medical-Campus/Campus-Engineer---OFMD_JR72136)

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## Transportation Engineer

### St. Louis, MO

Horner & Shifrin is seeking a full-time Engineer to work in our Transportation business unit. This is an entry-level position. This position is assigned specific tasks on project teams; and is expected to resolve engineering problems and tasks, with assistance, as needed, from more experienced staff. Candidate will work as part of a team to complete general transportation engineering services for municipal, county, and state agencies. The preferred candidate would have EIT certification, B.S. in Civil Engineering, and knowledge of MicroStation, PowerGeoPAK, SS4/OpenRoads Designer or AutoCAD Civil 3D.

<https://secure.ipsonline.net/ta/HORNER.careers?CareersSearch>



## Professional Land Surveyor

Horner & Shifrin is seeking a full-time Professional Land Surveyor to work in our Geomatics business unit. This position is expected to assist the GIS and Survey Division with a variety of data acquisition, processing, and modeling. Candidate will perform ALTA/NSPS Land Title Surveys, Boundary Surveys, Topographic Surveys, Construction Staking, Interior/Exterior Scanning for educational, emergency services, energy, industrial, government, healthcare, private, and transportation (DOT's) organizations. This position will perform Aerial (UAS), Mobile and Terrestrial LiDAR data acquisition, conventional survey field collection, along with data reduction. The preferred candidate would have 5+ years of experience, PLS license in MO, IL, or AR, and knowledge of MicroStation/Open Roads, AutoCAD/Civil3D/Revit.

<https://secure.ipsonline.net/ta/HORNER.careers?CareersSearch>

## Senior Level Plumbing Designer or Engineer

### St. Louis, MO

Horner & Shifrin is seeking a full-time Senior Level Plumbing Designer or Engineer to work in our Building Services business unit. This position is expected to design Plumbing and Fire Protection systems for education, commercial, housing, and healthcare buildings. Candidate is responsible for preparing Plumbing and Fire Protection system project construction documents and specifications, assist in the preparation of project fees and budgets, and have ability to develop business and form strong client relationships. The preferred candidate would have 10+ years of experience, degree in Drafting Technology or B.S. in Mechanical Engineering, knowledge of AutoCAD and Revit, and would be a Licensed Professional Engineer, Certified Plumbing Designer, or Certified Engineering Technician.

<https://secure.ipsonline.net/ta/HORNER.careers?CareersSearch>

## Regional Area Engineer (Kansas City)

### **Who we are:**

**Mt. Carmel Stabilization Group, Inc.** is the world's largest and leading stabilization contractor dating back to 1949. The company has a strong emphasis on employee and customer satisfaction and a reputation of superior quality and capability. We are seeking a **Regional Area Engineer** who will be responsible for geotechnical/pavement engineering assistance and regional marketing efforts. The ideal candidate will possess experience in geotechnical and construction materials testing, specifically for chemically stabilized soil and full-depth reclamation. The position will be based in Overland Park, KS.

### **Job Requirements:**

1. Bachelors of Science Degree in Civil Engineering or Construction Engineering
2. 6+ years' experience in civil engineering, construction, geotechnical, and/or pavement engineering
3. Professional Engineer's license in KS or MO or the ability to obtain a license within 6 months
4. General understanding of geotechnical and pavement engineering concepts, specifically chemically stabilized soil and full-depth reclamation
5. Experience with Kansas DOT, Missouri DOT, and FAA specifications and projects
6. Experience troubleshooting construction issues
7. Experience with geotechnical and construction materials laboratory testing
8. Proficiency with Microsoft Office Suite (Excel, Word, Powerpoint)
9. Willingness to learn new skills, attentiveness to detail, and multi-tasking ability
10. Must be able to demonstrate capabilities in all facets of construction marketing including:
  - a. Presentations
  - b. Case Studies including written, web, video, etc.
  - c. Social media
  - d. Technical marketing including engineering, project evaluation, value engineering, etc.
  - e. Other passive marketing efforts, etc.

### **Job Responsibilities:**

1. Provide engineering technical support for active area projects
2. Review geotechnical and pavement data during bidding to assist with proposals and bids
3. Research and provide solutions to stabilization and earthwork construction challenges
4. Review and analyze construction material field and laboratory data during construction
5. Resolve geotechnical and pavement engineering field problems
6. Engage with design professionals on applications of chemically stabilized soil and full-depth reclamation
7. Become an active member in industry-related organizations and activities
8. Prepare and present research and case studies at conferences and industry events Implementing different strategies based on unique conditions in each market
9. The position will have an emphasis in Kansas City, Missouri and neighboring states. However, **extensive travel will be required!**

**For any questions, please reach out to Mackenzie Weinzapfel ([mackenzie@eandestaffing.com](mailto:mackenzie@eandestaffing.com))**

**812-270-0433**

## Career Opportunity: Civil Engineer (Water Resources)



A day in the life of an RDG Water Resources Engineer isn't like a typical day in the life of any other water resources engineer. That's because RDG isn't your typical engineering firm. We're a diverse group of individuals united in our pursuit to create meaning together - and we're searching for a mid-level engineer to join our team.

As an RDG Water Resources Engineer, this individual will have the opportunity to work closely with experienced professionals who have had a direct hand in writing and updating local design standards. In this role, you'll focus on a variety of project types, including work for RDG's College and University, Healthcare and Parks and Recreation Markets, and projects related to urban infrastructure and development. Along the way, you'll hone your skills and contribute to work that enhances communities across the country.

**Ready to have a not-so-typical career? Let's pull on some waders and get our hands dirty.**

### Essential Job Functions:

- Civil engineering site design (utilities, paving, grading)
- Watershed planning and analysis
- Planning and designing stormwater management practices
- Stream condition evaluation and restoration
- Recreational and water trail planning and design
- Design calculation support
- Computer Aided Drafting and Design (CADD)
- Project management, oversight and quality control
- Enhance communities through stormwater enhancements, recreational areas, flood reduction, water quality improvements
- Be outdoors for field assessments, site visits and other evaluations.

### Skill Requirements:

- Organized and detail-oriented
- Ingenuity and creativity
- Able to stay on task and supervise others' work
- Ability to teach skills and pass on knowledge
- Ability to work within multi-disciplinary teams
- Communication skills (writing, verbal and slide presentations)
- Expertise with hydraulic and hydrologic computational methods
- Experience with design drawings and specifications
- Proficient in AutoCAD (Civil3D preferred) and Microsoft Office
- Experience with hydrologic modeling software
- Experience with ArcGIS and/or ArcMap software systems (preferred)
- Expertise with Iowa Stormwater Management Manual or similar design standards (preferred)
- Expertise with Iowa SUDAS Design Manual or other similar design standards (preferred)
- Experience with Bluebeam Revu or other PDF modification software (optional)
- Familiarity with Microstation or Revit (optional)

### Education/Experience:

- BSE in Civil, Environmental or Agricultural Engineering (or a related engineering field)
- 7-10 years' direct experience
- Passed the Fundamentals of Engineering Exam
- Intends to pursue, or has obtained, licensure as a Professional Engineer in any state
- Has obtained or is interested in pursuing Iowa River Restoration Toolbox Training certifications

**Location:** Candidate preferred location is Des Moines, open to Omaha, St Louis, or Denver

Electronic resume and portfolio submission only: [APPLY ONLINE](#)



## Submit items to the newsletter...

Please send all announcements for placement in the newsletter to the Newsletter Editor by the **20<sup>th</sup> of the month prior to the month of publication**. Items may be sent via e-mail to Brent Vaughn (ASCE newsletter editor) at [brent.vaughn.asce@gmail.com](mailto:brent.vaughn.asce@gmail.com).

**MS Word files are the preferred file type**, especially where there are multiple hyperlinks and the formatting and graphics are relatively simple. Floating text boxes, floating images and embedded tables frequently cause formatting problems, so please avoid those. PDFs are welcome to show the desired end result and can be more useful where the doc contains lots of graphics content and just one hyperlink, but text and image sharpness may degrade since we will likely need to insert the doc as an image. (I may be able to insert the PDF, but the formatting typically does not convert well.) I will be delighted to work with you to get the best end-product for the newsletter.

For multiple page announcements, please provide a single-page flyer, concisely worded, with links provided to ancillary pages such as registration forms or other attachments. Also, please clearly include in the email subject line a concise title for the announcement and desired month(s) of publication.

Most news items will be available on the Section's Web Page, which can be reached via the link on ASCE National Website ([www.asce.org](http://www.asce.org)). Click on "Geographical and International Units" to link to the Section or go directly to our page at: <http://sections.asce.org/st-louis/>. The Section's Website Editor is Jeff Smith e-mail: [JESmith@HNTB.com](mailto:JESmith@HNTB.com) or via feedback directly from our website.

For more information and updates see our Web Page: <http://sections.asce.org/st-louis/>

This newsletter will be sent to all Section members via e-mail. Delivery of the newsletter hardcopy by First Class mail will be made upon request. Members have the responsibility to keep their contact information in the ASCE national database up to date. Please note that the St. Louis Section is only provided with members' PRIMARY information on file at the Society level. To ensure that we can contact you, please edit your PRIMARY information to contain the information where you would like the section to contact you and how you would like your information to appear in our annual roster.

**Please be sure to keep your PRIMARY contact information up-to-date by contacting ASCE at <http://www.asce.org>, or call 800-548-ASCE (2723).**



**ASCE – St. Louis Section  
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