

March 2020

President's Message.....	2
Membership Benefit Question.....	3
El-adaway Team Wins Thomas Fitch Rowland Prize	4
Younger Member Group Update...5	
8th Annual Legislative Drive-In to Jefferson City	6
Structures Congress 2020	7
Geo-Institute News	8
Workshop Basic Design of Piled Foundations	9
2020 Environmental & Water Resources Spring Symposium/Workshop	10
EWRI St. Louis Monthly Speaker Series Event	13
Engineers Without Borders Trivia Night.....	14
7th Annual Work Zone Awareness 5K	15
Employer Networking Event	16
UIUC IStructural Engineering Conference.....	17
Employment.....	18
Submit items to the newsletter...27	

Upcoming Events

March

- 10 – March Luncheon
- 12 – YMG Meeting
- 13 – EWRI Symposium/Workshop
- 19 – EWRI Monthly Webinar
- TBA – Geo-Institute Meeting

April

- 5-8 - Structures Congress 2020

Follow the Section and share with your network.



Update your bookmarks with our new Section website

<http://sections.asce.org/st-louis/>



ASCE March 2020 Luncheon - Geo-Institute Ameren Osage Bagnell Dam Stabilization Project

Date: Tuesday, March 10, 2020

Time: 11:30 AM - 1:00 PM

Bagnell Dam is a concrete gravity dam located in Central Missouri, about 170 miles west of St. Louis. It is owned and operated by Ameren Missouri. Construction on the dam began in 1929 and completed in 1931. It is composed of an 8-unit power house, 12 radial spillway gates. It forms the largest recreational lake in Missouri and one of the largest in the United States. In the 1980s, 277 post tensioned anchors were installed vertically from the crest of the Dam to meet required stability factors of safety. These anchors had an expected life of 30 years. Since the existing anchor's current condition could not be verified and the stability analysis indicated that the safety factors of for the Dam did not meet the Federal Energy Regulation Commission's stability criteria, without the 1980's anchors, Ameren elected to invest in diversified design solution. This design included multilayered corrosion resistant, post tension anchors that were re-testable, foundation drains to reduce the uplift pressure, mass concrete to reduce the number of anchors, and a concrete overlay to provide aesthetic improvement as well as tie in the mass concrete to the structure. This combination provides an optimum financial design which meets FERC required stability targets. The project was completed 1 month ahead of schedule and on budget.

About the Presenter

Jeffrey Greer is the Manager of Dam Safety and Hydro Licensing for Ameren Missouri. He was the Project Manager for the Bagnell Dam Stabilization Project. He has over 15 years of experience in Mechanical and Project Engineering. For Ameren Missouri he has experience in project management, engineering, construction and commissioning for dam safety and power generation projects. He earned his bachelor's degrees in General Agriculture from the University of Missouri-Columbia and Mechanical Engineering from Washington University in St. Louis and is a licensed Professional Engineer in Missouri. Mr. Greer is certified as a Project Management Professional (PMP) and a member of the Association of State Dam Safety Officials and Center for Energy Advancement through Technological Innovation.

Time, Date, Location 11:30am to 1:00pm, March 10, 2020, at The Engineering Center, 4359 Lindell, St. Louis 63108. Registration starts at 11:30am and lunch is served at 11:45am. The program will begin promptly at 12:00pm. One (1) PDH available.

Cost \$20/person for members and \$5/person for members in transition and students.

Registration

Please register [here](#).

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President's Message



In this month's issue you will find announcements of numerous professional development programs. Three of our very active institutes, G-I, SEI and EWRI each have a major activity in either March or April, and more at other times over the course of the year. These excellent educational programs are brought to by the tireless efforts of many dedicated ASCE volunteers that plan and make those opportunities possible for our members and other colleagues to benefit from. You will also find a variety of technical, professional and fundraising events posted in this newsletter, on our website or via

direct email announcements throughout the year. This month I want to feature some of the organizational functions that help to make the Section your valuable source for many of the benefits we sometimes take for granted. More directly, I stress the following volunteer opportunities that we have posted about for quite some time, so they may look familiar to you.

Pre-College Outreach (formerly Career Guidance) - 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. The committee provides speakers and participates in Career Days, Shadowing Days, and other volunteering opportunities relating to Civil Engineering. They also maintain a database of school counselors, and keep an inventory of materials (including brochures, pamphlets, videos) used by the Committee in their activities. The Society provides many resources and materials to be utilized by the Committee in their efforts.

I have been a speaker for some of these pre-college-age speaking engagements (Cub Scouts through high school). My take from that experience is that students, parents and teachers welcome our participation, that we are willing to give some of our time and talents to help them to better-understand how civil engineering and *Civil Engineers* work to develop and preserve a better quality of life. I recall many times from my younger days where a professional visited our school to tell us about what they do in their work life. Those memories and examples surely have influenced my desire to give back to our younger generations.

Student Involvement Chair - The purpose is to serve as a bridge between the student chapters at SIU-Edwardsville, SIU-Carbondale, MUS&T, University of Missouri-Columbia, and St. Louis University, keeping both the student chapters and the Section informed about the activities of each. The Student Involvement Chair also informs the student chapters of the Section funds available to them and assist them in requesting the funds, and assist the Past-President in soliciting scholarship nominees.

The key emphasis here is to serve as a bridge between the ASCE Student Chapters and the St. Louis Section. In other words, you can help to maintain a personal connection that the students may tap in to for finding speakers, or mentors, career options and employment.

Communications Committee - *The primary goal is to communicate to all local members news of past, present, and future activities and programs for the purpose of stimulating greater interest and participation in section affairs. The committee is expected to work closely with the Board of Direction, institutes and other committees to obtain information of vital interest to the membership. Correct and timely information should be obtained from the program committee regarding forthcoming meetings. Valuable news will also be found in the Section Leader, a regular publication issued from ASCE headquarters. An informal but regular system of contacts or reporters is an essential ingredient to the collection of interesting news.*

I know this one rather well. I began my active participation with the Section before the turn of the century, soon after landing my first full-time CE job. Later, newsletter production moved from bulk mailing hardcopies to nearly a thousand members, then to the current system of distribution by email to over 1500 members, and then finally archiving on our website. We have been blessed with many volunteers that helped to keep us informed of Section activities.

A couple of years ago we decided to merge the Newsletter Editor position with the Membership Committee to form the Communications Committee. We saw this as a better way to keep up with technology and our expectations of it to serve our members even better. The committee has three main tasks: 1) edit the newsletter; 2) maintain email contact lists; 3) compose and send email messages for various committees or institutes to our members. I want to personally thank our most recent Communications chair, Sophie You, for her leadership in keeping us informed through newsletter and related communications for the past two years. We think that this important committee needs to have a team of at least two volunteers to share the tasks, although one person could continue to do the job. Please consider volunteering for this essential committee.

If you would like to become more involved with the Section, to learn more about these and other volunteer activities and how vital they are for our mutual benefit, please ask me or any of our other officers.

'Til next time,
Brent M. Vaughn, PE

brent.vaughn.asce@gmail.com

Membership Benefit Question

As a result of our note in the December newsletter, we had a question about the free PDHs offered by ASCE with respect to Ethics, as one member needed 2 PDHs in Ethics. Unfortunately, there are no free webinars available that cover this. There was one titled "The Ethics of Leadership", but it has been found to have some technical issues so isn't available at this time. The list of free webinars can be found at the following link:

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

There are several other Ethics webinars available on the ASCE website but those are more to be hosted in a group setting and have a cost associated with them. Please consider one of these that your company or organization may host in a group setting.

<http://mylearning.asce.org/diweb/catalog?dp=0&c=79&t=2125&q=ethics&f1=1>

Please contact Lyle Simonton at lsimonton@subsurfaceconstructors.com with any other questions regarding your membership benefits.

UPDATE: We may have a second luncheon added for later in March or April that will feature Ethics. Please watch for a notification later about this.

El-adaway Team Wins Thomas Fitch Rowland Prize

We are pleased to acknowledge and congratulate Islam El-adaway, Ph.D., P.E., F.ASCE whose writing team has won the **Thomas Fitch Rowland Prize**. In his letter congratulating Dr. El-adaway, Thomas W. Smith III, ASCE Executive Director writes

Your writing team has been selected by the ASCE's Construction Institute to receive the 2020 Thomas Fitch Rowland Prize for the paper "First Attempt Toward a Holistic Understanding of the Interdependent Rippled Impacts Associated with Out-of-Sequence Work in Construction Projects: System Dynamics Modeling Approach," published in the September 2018 issue of Journal of Construction Engineering and Management.

From the ASCE webpage (<https://www.asce.org/templates/award-detail.aspx?id=6698>) that describes the prize, "The Thomas Fitch

Rowland Prize was instituted by the Society at the Annual Meeting of 1882. It was endowed in 1884 by Thomas Fitch Rowland, past

Vice President and Hon.M.ASCE." The general selection criteria for the prize includes "...preference is given to papers whose author or authors describe in detail accomplished works of construction or which are valuable contributions to construction management and construction engineering."

Islam H. El-adaway is the Hurst-McCarthy Professor of Construction Engineering and Management, Professor of Civil Engineering, and Founding Director of the Missouri Consortium of Construction Innovation within the Department of Civil, Architectural and Environmental Engineering & the Department of Engineering Management and Systems Engineering at Missouri University of Science and Technology (formerly known as, University of Missouri – Rolla). He had prior appointments at the University of Tennessee – Knoxville and Mississippi State University. Dr. El-adaway earned his Ph.D. in Civil Engineering from Iowa State University, and his M.Sc. and B.Sc. in Construction Engineering from the American University in Cairo.



Younger Member Group Update



Community Service Projects – The YMG is looking to replace a community service project in the spring, if you know of or hear of any in the St. Louis or metro-east areas please pass the information along to us at ascestlymg@gmail.com.

Younger Member Highlight – We are starting a new recognition feature for our younger members, if you would like a chance to be recognized, please fill out [this survey](#). A Younger Member, potentially two, will be chosen each month and featured on our Facebook page and in the newsletter on our YM update.

March YMG Meeting:

Thursday, March 12, 2020

1860's Hardshell Café

1860 S. 9th St. 63104

6 pm to 8 pm

www.1860saloon.com

Upcoming meetings

April YMG Meeting:

Thursday, April 9, 2020

SqWire's Restaurant & Annex

1415 S. 18th St., 63104

6 pm to 8 pm

www.sqwires.com

May YMG Meeting:

Thursday, May 14, 2020

Hair of the Dog

1212 Washington Ave, 63103

6 pm to 8 pm

Like us on Facebook for more frequent updates and potential pop-up activities!



8th Annual Legislative Drive-In to Jefferson City

On February 11th, 2020, the St. Louis and Kansas City Sections teamed up with NSPE-MO, ACEC, and Missourians for Transportation for their Legislative Drive-In to Jefferson City. Local attendees included **Alison Graves**, **Dennis Boll** and **Greg Hempen** from St. Louis. The day started at the NSPE-MO/ACEC office with issue briefings by lobbyists and legislative updates from the week. Members then attended group meetings with Senator Dan Hegeman, Governor Mike Parson's staff, Speaker Elijah Haahr, and Senator Doug Libla, in addition to meetings with their respective legislators.

With the Missouri gas tax ranked 49th out of 50 states, transportation funding was a big topic, in addition to threats to professional registration. *Read more about the Report Card for Missouri's Infrastructure at the [MO Report Card Website](#).*

For more legislative updates, follow us on the [St. Louis Section LinkedIn](#) page!

Are you an **ASCE Key Contact**? Sign up [here](#) to receive legislative alerts when things are moving in Missouri and DC. They provide an easy form to contact your legislators and help our organization make a difference.



REGISTER NOW



STRUCTURES CONGRESS 2020

St. Louis, Missouri | April 5–8

NEW
Group Discount

for 5+ full registrants from an organization

Closing Keynote:

**Museum of the Future:
Trends & Technologies Shaping
the Future of Structural Engineering,
with**

**Christopher Wodzicki, P.E.,
BuroHappold Engineering**

Michael Gustafson, P.E., Autodesk



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- Are you a bridge person? Or buildings? The special sessions have something for everyone from liability case studies to structural safety with CROSS-US! Register for Structures Congress 2020 today and join us in St. Louis.

Learn more at www.structurescongress.org.

Geo-Institute News

We are having our next committee meeting before the March 10th ASCE Luncheon at the Engineers Club (10:30 AM). Topics will include the rescheduled Dr. Fellenius event, as well as planning for the Case Histories event.

The Geo-Institute will be looking for geotechnical related topics to present at the Case Histories event to be scheduled later this spring. We are also asking universities from around the St. Louis regional area to provide student poster presentations at the Case Histories event. The goal of the poster session is to encourage students to showcase their research within geotechnical engineering or related. Please pass this request to any students that could be interested. Jake Schaeffer (jschaeffer@millennia.pro) and Xiaomin You (Xiaomin.You@wsp.com) should be contacted for additional details.

Workshop Basic Design of Piled Foundations



**GEO-
INSTITUTE**
St. Louis Chapter



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

Basic Design of Piled Foundations: One-day Workshop and Seminar by Bengt H. Fellenius

DATE: Wednesday, March 25, 2020

LOCATION: Engineer's Club of St. Louis, 4359 Lindell Boulevard, St. Louis, MO

8:00 am	Registration and networking
8:30 am	Program begins
12:00 pm	Buffet lunch
5:00 pm	Program ends

This one-day event addresses the practice of the design of piled foundations. What data one must pull together and what processes of analysis and calculations necessary for a design of a specific project are presented. Negative skin friction and associated drag force and downdrag are emphasized along with settlement analysis. Various methods and aspects of determining pile capacity are presented and discussed, but the emphasis is on deformation and settlement. Indeed, the seminar makes it clear that design of deep foundations involves a good deal more than finding some value of capacity.

Specifics of where to install instrumentation, perform a test, and analyze the test data are addressed. How to consider and compare straight-shaft piles to piles with changing cross section, e.g., expanded base piles, open- vs. closed-toe pipe piles, is also addressed. Brief comments are given on some Code and Standards requirements for Limit States Design, LSD, (Ultimate Limit States, UL S, and Serviceability Limit States, SLS, by Canadian terminology, and Load and Resistance Factor Design, LRFD, by US terminology). The lectures are illustrated with case history examples throughout. Much emphasis is placed on the design and performance of pile groups and piled raft foundations in regard to load response and settlement, the so-called unified piled design.

COST: \$275.00 for ASCE Members; \$300.00 for Non-ASCE Members. Registration includes a buffet lunch. Vegetarian meals are available by contacting [Jake Schaeffer](mailto:jschaeffer@millennia.pro) (jschaeffer@millennia.pro), before January 17.

Attendees will receive up to 7.5 PDH credits.

Please register at <https://conta.cc/2Tf5h8n> (case sensitive) by March 18

Advance registration is required for all attendees. Refunds must be requested before March 18, 2020. Any refund will be subject to a 15 percent cancellation fee. Registration may be transferred to another person by advanced email notice to Jake Schaeffer.

A limited number of sponsorship opportunities are available for this event. If interested, please contact Jake Schaeffer.

2020 Environmental & Water Resources Spring Symposium/Workshop



ENVIRONMENTAL &
WATER RESOURCES
INSTITUTE
St. Louis Chapter



EWRI of ASCE - St. Louis Chapter

2020 Environmental & Water Resources Spring Symposium/Workshop

WATER, WATER, EVERYWHERE

Join us for a full-day educational symposium/workshop for professional development to learn about water-related technical topics in our region, including the Metropolitan Sewer St. Louis District's current program and projects, and to develop skills useful in the region related to hydrological and hydraulic analysis with HEC-RAS.

Please bring your laptop with appropriate software for the training session.

Location: The Engineering Center of St. Louis (Engineers' Club)
4359 Lindell Blvd., St. Louis, MO 63108

Friday, March 13, 2020

Registration 7:30 AM to 8:00 AM, and 12:00 PM to 12:30 PM
Technical Program 8:00 AM to 4:00 PM

Up to 6 Professional Development Hours
Full-day Technical Program in the Following Continental Breakfast
and Lunch

Who should attend: Water resource engineers, environmental engineers, hydraulic engineers, water resource designers, MSD engineers, hydrologists, students, etc.

Cost:

Full day: \$80 for Members (EWRI, MSPE), \$110 for Non-members, \$30 for Students

Training Session PM only: \$60 for Members, \$80 for Non-members, \$20 for Students

Online Registration available

<http://events.r20.constantcontact.com/register/event?oeidk=a07eqws29gp64032d61&llr=yonzmehab>

Questions?

Dr. Azadeh Bloorchian

Spring Symposium/Workshop Chair, ASCE-EWRI St. Louis Chapter
636-343-5852 (work) azadeh.bloorchian@stantec.com

AGENDA

- 7:30 AM to 8:00 AM** **BREAKFAST/REGISTRATION**
- 8:00 AM to 8:05 AM **Welcome**
EWRI St. Louis Chapter Chair: Jim Zhou, Ph.D., P.E., Professor, Civil Engineering, Southern Illinois University Edwardsville
- 8:05 AM to 9:00 AM Investing for the Future of the Gateway City
Speakers: Brad Nevois, Assistant Director of Engineering, Metropolitan St. Louis Sewer District
- 9:00 AM to 9:55 AM Rainscaping the City of St. Louis: A Look at Functionality, Aesthetics and Cost of Materials Used in Raingarden Projects
Speaker: Matt Koesterer, P.E., Senior Civil Engineer, the Design Division, Metropolitan St. Louis Sewer District
- 10:00 AM to 10:10 AM** **BREAK**
- 10:10 AM to 10:35 AM Changes in Rainfall Frequency and Updates to Bulletin 70
Speaker: Trent Ford, Ph.D., Illinois State Climatologist, Illinois State Water Survey, University of Illinois, Urbana-Champaign
- 10:35 AM to 11:00 AM Developing a Stormwater Management Device
Speaker: Kathleen M. Trauth, Ph.D., P.E., Associate Professor, Civil and Environmental Engineering, University of Missouri Virginia G. Trauth, E.I., Infiltronics Environmental LLC
- 11:00 AM to 11:25 AM Reducing Coastal Land Loss: The Mid-Breton Sediment Diversion
Speaker: Matthew Hoy, P.E., Principal, Stantec Inc.
- 11:25 AM to 11:50 AM Sediment-Water DO Exchange and Near Bottom Turbulence in Two Aerated Lakes
Speaker: Binbin Wang, Ph.D., Assistant Professor, Civil & Environmental Engineering, University of Missouri, Columbia
- 12:00 PM to 1:00 PM **Lunch**
- 1:00 PM to 2:15 PM HEC-RAS Training Workshop
Speaker: Gary Moore, P.E., University of Missouri St. Louis/Washington University in St. Louis
- 2:15 PM to 2:25 PM** **BREAK**
- 2:25 PM to 3:55 PM HEC-RAS Training Workshop
Speaker: Gary Moore, P.E., University of Missouri St. Louis/Washington University in St. Louis
- 3:55 PM to 4:00 PM** **Closing**
Speaker: Azadeh Bloorchian, Ph.D., Stantec Inc.

2020
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ENVIRONMENTAL &
WATER RESOURCES
INSTITUTE

St. Louis Chapter

Three Sponsorship Levels Available

Meramec River Bronze

\$100, includes recognition in advertising, materials, and programming for the EWRI Water, Water, Everywhere Spring Symposium on March 13, 2020.

Missouri River Silver

\$200, includes benefits from Meramec level plus year-round recognition for 2020 in advertising materials and programming for the monthly Webinar series.

Mississippi River Gold

\$300, includes Meramec and Missouri level benefits plus one complimentary registration and an exhibit table at the Spring Symposium.

Your support enables the St. Louis Chapter of EWRI to actively promote water resources stewardship and a sustainable future for the St. Louis area. Sponsorship funds allow EWRI STL to:

- Support Student Outreach, the student-focused Mid-American Environmental Engineering Conference, and Student Awards
- Perform outreach in collaboration with local water resources organizations
- Provide a local *free* PDH water-resources monthly webinar series to our membership
- Host an annual water resources seminar
- Bring national speakers to the St. Louis engineering community

Thank you for your consideration of support for St. Louis EWRI! To sponsor, please complete two simple steps:

- 1. Register and pay for your sponsorship level online [here](#)***
- 2. Send your logo to Elise Ibendahl at elise.ibendahl@jacobs.com.***

Ms. Ibendahl is also the contact for questions related to sponsorship.

EWRI St. Louis Monthly Speaker Series Event



The St. Louis Section of EWRI is pleased to announce our monthly webinar **on Thursday, March 19, 2020 at 11:30 am-12:30 pm Central Time.**

This presentation will be broadcast live over a webinar. Registration is free to ASCE members. **Advance registration is required by Noon, Monday, March 16, 2020.** Please register online in advance at the following link:

<https://docs.google.com/forms/d/e/1FAIpQLSett23vrZ79L3B3VtnV5nxypqgVBOXiwBalpaOJF2ZFROB4ng/viewform>

Registrants will receive detailed login and dial-in information or directions for in-person attendance prior to the event.

Section 401 Water Quality Certification and More

Within the Missouri Department of Natural Resources (MoDNR), the Stormwater and Certification Unit contains four technical staff and is responsible for implementing the Section 401 Water Quality Certification Program; drafting renewals for 42 Section 402 NPDES and Missouri State Operating Permit program master general permit templates (industrial stormwater, industrial process wastewater, construction/land disturbance stormwater, and municipal stormwater); and implementing aspects of the NPDES eReporting Rule. Today's presentation will mainly focus on the Section 401 Water Quality Certification Program, how it interacts with other federal programs (namely Section 404 Department of the Army permits), and what it means for the applicants and their consultants, with a small amount of time introducing the audience to the wastewater and stormwater permitting programs.

Speaker

Stacia Bax is the Environmental Supervisor of MoDNR's Stormwater and Certification Unit. Stacia has over 20 years of experience with the department having worked on Section 401 Water Quality Certification Program, Section 402 National Pollutant Discharge Elimination System (NPDES) and Missouri State Operating Permits program, Section 319 Nonpoint Source and Section 604(b) Planning grants, Water Quality Standards rulemaking, TMDL development, state parks, and various fieldwork in the beautiful Ozarks of Southwest Missouri. In her personal time, she enjoys spending time with her husband, daughter, and son (and two dogs) hiking, camping, and kayaking as well as coaching NASP archery, leading Scouts BSA and Girl Scouts, and watching her daughter play volleyball. In her spare time, Stacia loves to read, cook and bake (pies are her favorite), explore new places, and craft fiber arts (knitting and crocheting namely, though she has a loom she would love to learn to weave on). She lives in Central Missouri.

Thank you to our joint seminar sponsor, **EDM Incorporated!**

Please contact **Len Madalon** (ljm@edm-inc.com) with any questions, if you are interested in presenting, or have an idea for a topic.

Engineers Without Borders Trivia Night



TRIVIA NIGHT

ENGINEERS WITHOUT BORDERS-USA
GATEWAY PROFESSIONAL CHAPTER



WHEN:

Friday, April 24th, 2020
Doors open at 6:30 PM
Trivia Begins at 7:30 PM

WHERE:

The Engineers' Club of St. Louis
4359 Lindell Blvd, St. Louis, MO 63108

DETAILS:

\$200 per table of 8 (\$25 per person)

Team reservations are appreciated by April 17

To sign up, please email Chad Olney at chadolney1@gmail.com

- OR - visit the event page at <https://support.ewb-usa.org/Trivia2020>

This event will also include RAFFLES, SILENT AUCTIONS, 50/50 RAFFLE, and cash prizes for the top 3 trivia teams!

PLEASE NOTE: Our new venue does NOT allow BYOB.

Two complimentary drink tickets are included with your ticket to the cash bar and you can still bring snacks!

YOUR DONATIONS...

...help support the community of Komucala, Bolivia to have the capacity to sustainably meet their basic human needs. Our chapter just traveled for a sixth time this past October to implement the second phase of our bathroom project with the community. We successfully installed five additional bathrooms. Funds raised at this event will go to support the continued infrastructure improvements within the community. Ten built, fifteen to go!

SPONSORSHIP OPPORTUNITIES

Please help us support the community of Komucala by sponsoring this year's trivia event! Sponsorship Levels include:

BRONZE SPONSOR: \$250

SILVER SPONSOR: \$350

GOLD SPONSOR: \$500

PLATINUM SPONSOR: \$750



Want to know more about our chapter or get involved?

Follow us on Facebook at: www.facebook.com/EWBGateway/

Or come see us at one of our upcoming meets: Feb - 11, and March - 10

@ 5:30 PM in Urban Chestnut Brewing Company (on Manchester)

7th Annual Work Zone Awareness 5K



5K
Run & Walk



April 18, 2020

8 a.m. • MoDOT TMC

S. Outer Forty Road, Chesterfield, MO 63017

[Click here to Register!](#)

Bring your family, friends and co-workers to run, walk or jog for work zone awareness. See the BIG truck show, take a selfie with Barrel Bob, or in the photo booth!



2020 MCSC Employer Networking Event

University of Missouri – Columbia



Would you like to interact with over 300 of the most active civil engineering students from 15 universities in the Midwest? Become a sponsor for the 2020 Civil Engineering Mid-Continent Student Conference! This conference will be held April 16th-18th at the University of Missouri. Student events include the ASCE Concrete Canoe Competition, ASCE Innovation Competition, ASCE Technical Paper Competition, AISC Student Steel Bridge Competition, and Geo-Institute Geo Wall Challenge.

All sponsors receive a booth in the Employer Networking Event. Our hope for this event is to provide interactive exhibits where students can learn more about opportunities in civil engineering. Booths can include demonstrations, activities, and employer information. The goal is to show the students what they can accomplish and get them excited about their degree. The Employer Networking Event will be held Thursday, April 16th from 2-5pm. If your company is interested in securing a booth, please visit our sponsorship page [here](#).

To learn more about this conference and how you can support us, please visit our website [here](#).

Questions? Contact us via email:
2020MidContConf@gmail.com



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 6.5 professional development hours (PDH) for professional engineers.

Register Today!

<https://my.cee.illinois.edu/isec-2020>

Thursday, March 26th 2020

I Hotel and Conference Center 1900 S.

First Street, Champaign, IL 61820

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





Academic Employee: Research Engineer Position No. 00075187

The Center for Intelligent Infrastructure at Missouri University of Science and Technology (formerly University of Missouri-Rolla) seeks to expand its research capabilities in autonomous inspection and maintenance of civil infrastructure (e.g., bridges and tunnels) by inviting applications for a research engineer position, commencing around October 15, 2019. The annual salary for this position with full benefits is around \$60,000, depending on candidates' background and experience.

The successful candidate will be expected to demonstrate ability to work in laboratory and field environments and willingness to do heavy lifting and long distance travel. Candidates must have an earned undergraduate degree in civil engineering from an ABET/EAC accredited program or equivalent, and at least 1 year of practical experience in bridge inspection and maintenance, particularly with the state department of transportation. Superior communication and interpersonal skills, leadership capabilities, the ability to engage in collaborative and interdisciplinary research projects, and the ability to motivate and inspire undergraduate and graduate students are also required attributes. Licensure as a professional engineer in civil engineering is required or must be attained in the State of Missouri within 1 year of appointment. Knowledge about any bridge management software such as PONTIS is strongly encouraged. Familiarity to nondestructive evaluation and test of bridges is a plus.

The Center for Intelligent Infrastructure has recently been established at Missouri University of Science and Technology in recognition of nation's growing interests in infrastructure research using advanced technologies such as robots, remote sensing, nondestructive evaluation, structural health monitoring, data analytics, and asset management. The Center currently has expertise in civil engineering, computer science, economics, electrical engineering, engineering management and systems engineering, power engineering, and multi-hazards engineering (earthquake, tornado, flood, etc.). Its current research programs are focused on the preservation, safety, resilience, and sustainability of transportation infrastructure systems. The Center is envisioned to extend its autonomous inspection and maintenance capabilities from bridges to other infrastructures such as dams, building, levees, offshore platforms, pipelines, power plants, roads, transmission towers, and tunnels. The successful candidate will have the opportunity to interact with interdisciplinary research teams across campus, including the Tier I University Transportation Center (see <http://inspire-utc.mst.edu/>), Mid-America Transportation Center (see <https://matc.unl.edu/>), the National Center for Transportation Infrastructure Durability and Life-Extension, the Center for Infrastructure Engineering Studies (see <http://cies.mst.edu/>), the Wei-Wen Yu Center for Cold Formed Steel Structures (see <http://ccfssonline.org/>), the Intelligent Systems Center (see <http://isc.mst.edu/>), and the Materials Research Center (see <http://mrc.mst.edu/>).

Review of applications will begin on September 15, 2019 and will continue until the position is filled. Interested candidates should electronically submit an application consisting of a cover letter, a current curriculum vitae, a statement of research interests and goals, and complete contact information for three references to the Missouri University of Science and Technology's Human Resource Office using the following link <https://hr.mst.edu/careers/>. All submitted application materials must have the position reference number 00075187 in order to be processed. Acceptable electronic formats that can be used for email attachments include PDF and Word; hardcopy application materials will not be accepted.

Missouri University of Science and Technology participates in E-Verify. For more information on E-Verify, please contact DHS at 1-888-464-4218. The final candidate is required to provide official transcript(s) for any college degree(s) listed in application materials submitted. Copies of transcript(s) must be provided prior to the start of employment. In addition, the final candidate may be required to verify other credentials listed in application materials. Failure to provide official transcript(s) or other required verification may result in the withdrawal of the job offer. Females, minorities, and persons with disabilities are encouraged to apply. Missouri University of Science and Technology is an affirmative action / equal opportunity employer and is responsive to the needs of dual-career couples.



Horner & Shifrin is seeking a full-time Engineer to work in our Transportation division in our St. Louis or Poplar Bluff, MO office. This position requires **4+** years of experience. 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.

POSITION RESPONSIBILITIES/DUTIES:

- Candidate will work under licensed engineer
- Responsible for the development of engineering plans, specifications and estimates (PS&E)
- Work as part of a team to complete general transportation engineering services for municipal, county and state agencies
- Provide good and effective written/verbal communication skills

POSITION REQUIREMENTS:

- Must have an Engineer Intern certification; Professional Engineer license is preferred
- Must have a valid driver's license
- Must be able to pass a background check
- Proficient in the use of Microsoft Office software (Outlook, Excel, Word, Project)
- Proficient in the use of MicroStation and GEOPAK SS4 or AutoCAD Civil 3D

EDUCATIONAL REQUIREMENTS:

BS in Civil Engineering

SALARY RANGE:

Salary will be commensurate with experience.

Horner & Shifrin, Inc. is a Federal Contractor, Equal Opportunity Employer M/F/Disability/Veteran. We are a 100% Employed Owned firm, offer a generous benefits package, and named a 2017, 2018 & 2019 Top Workplace by the St. Louis Post-Dispatch.

If you are interested, you must apply through our website at www.hornershifrin.com/careers. Visits and phone calls will not be accepted.

Learn more about us at www.hornershifrin.com.



Prairie Engineers, P.C. is seeking a Structural Engineer to join their team.

Prairie Engineers is a full services engineering, geospatial, and environmental science firm with a goal of delivering sustainable infrastructure solutions and maintaining our natural and built environment. We are a woman-owned firm with offices in Columbia, Hillsboro, Peoria, and Springfield, Illinois and Hazelwood, Missouri. The firm provides services to federal, state, and local governments, utilities, industries, and private businesses. Prairie Engineers is a growing company, looking to add a Structural Engineer to their team to assist primarily in the office with project planning, structural engineering design, and construction document development. This position will be a full time position with benefits and a competitive salary based on qualifications. This position is available to be filled in any of our office locations.

Essential Job Functions:

- Planning, design, and construction administration of transportation and building projects
- Ability to work both independently and as a team leader
- Focus on project delivery and customer service with attention to detail and deadlines

Minimum Qualifications:

- A minimum of five years' relevant design experience
- Current licensure as an Illinois Structural Engineer
- Good verbal and written communications skills
- Ability to work both independently and as part of a team
- Project a professional, positive attitude with a strong work ethic

Preferred Knowledge, Skills, Abilities, and Experience:

- Eight or more years of design experience
- Past project management experience
- Familiarity with Illinois DOT and CDB design standards, procedures, and requirements

We are an equal opportunity employer that recognizes the value of a diverse workforce. All qualified individuals will receive consideration for employment without regard to race, color, religion, creed, gender, national origin, age, handicap, marital status, veteran's status, sexual orientation, or any other legally protected status.

Preference will be given to applicants who reside in a HUBZone as defined by the US Small Business Administration. For a map of certified HUBZone areas, please refer to the following website:

<https://maps.certify.sba.gov/hubzone/map/>

For additional information regarding our company and benefits offered our employees, please visit our website at www.prairieengineers.com.



For more than a century, HNTB has helped deliver infrastructure solutions that best meet the unique needs of our clients. With client relationships spanning decades, we understand infrastructure life cycles and have the perspective to solve technical challenges with clarity and imagination. We are far more than a design firm. We see and help address far-reaching issues of financing, legislation, design, construction, community outreach and ongoing operations. As employee-owners committed to the highest levels of performance, we enable clients to achieve their goals and inspiring visions.

Just like we are committed to delivering for our clients, HNTB is also committed to delivering for you by offering benefits to protect the health of you and your family, help you balance family and career, and build your savings for retirement. Learn more at <https://www.myhntbtotalsrewards.com>.

Senior Bridge Project Engineer

<http://www.hntb.com/careers>

Job ID: 1018-19763

Overview

The time is right to join HNTB Corporation! We are seeking a Senior Bridge Project Engineer to lead projects from our St. Louis, Missouri office.

Job Summary

Provides coordination of project execution and control, in a given discipline area, to achieve continuity of purpose within scope, budget, and time schedules from initial start-up through project closeout. Also accountable for handling specific design aspects on projects appropriate to discipline field. Coordinates efforts of assigned design team to ensure completeness and accuracy of design effort. Serves as technical liaison with client on project efforts. Responsible for gross revenue of \$1-\$2M.

Essential Responsibility

- Responsible for the delivery of project discipline scope elements within budget and schedule.
- Oversees completeness and accuracy of project team's work. Supervises and guides team to overall project objectives.
- Provides senior-level technical expertise to client on project aspects within the discipline.
- Assists with project management duties.
- Performs other duties as assigned.

Basic Qualification

- Bachelor's degree in Engineering
- 10 years relevant experience

Preferred Qualification/Skills

- Master's degree in Engineering
- PE/AICP

General Work Conditions

Combination Office and Field Environment: Most work is performed in an office environment in which there is only minimal exposure to potentially unpleasant working conditions. Incumbent must have the ability to stand and sit frequently and reach horizontally as well as vertically for overhead use. Work may infrequently be performed at client's job site, construction trailer, and in the field. Work may sometimes require working in inclement weather, working in a construction site, being exposed to heavy construction equipment and doing extensive walking. Adherence to applicable safety protocol is required.

HNTB Corporation is an Affirmative Action and Equal Opportunity Employer, Minority/Female/Disabled/Veteran.

The HNTB Companies are an equal opportunity employer and does not discriminate on the basis of race, color, religion, creed, sex, national origin, age, disability, pregnancy status, sexual orientation, gender identity, veteran status, marital status, genetic information, citizenship status, or other status protected by law. In compliance with the Immigration Reform and Control Act of 1986, we will hire only U.S. citizens and aliens lawfully authorized to work in the United States (if the position is or will be one which is subject to U.S. law). We will provide reasonable accommodation for qualified individual with a disability where appropriate.



Oates Associates is a team focused on enhancing our community from the inside outward. That begins internally with a talented staff. If you are interested in a position with Oates Associates, please complete the [employment application](#) and send it along with your resume. Upload your information to our website at www.oatesassociates.com/contact, email us at oai@oatesassociates.com or print and send to:

Oates Associates, Inc.
100 Lanter Court, Suite 1
Collinsville, IL 62234

The firm is an equal opportunity employer that offers competitive salaries, an excellent benefit package, great working environment in new office space, flex-time, opportunity for quick advancement and ownership potential. We seek to develop a more diversified workforce and encourage women and minority candidates to apply for this position.

Civil Engineer - Entry Level to 5+ Years

The ideal candidate will also possess the following attributes:

- Bachelors in Civil Engineering
- EIT certificate or recently received PE license
- 0 – 5+ years civil engineering experience
- Work with both governmental and private clients in Missouri and Illinois is a plus
- Working knowledge of AutoCAD Civil 3D – proficiency is a plus
- Strong technical skills – presentation skills are a plus

Typical responsibilities will include:

- Drawing topographic surveys
- Laying out sites and developing grading plans in AutoCAD
- Coordinating utility service connections and relocations
- Developing of bid and construction documents
- Developing construction cost estimates
- Observing construction operations at work sites and performing material tests

SPECIAL INSPECTIONS & DESIGN

POSITION: Structural Engineer

DESCRIPTION

Special Inspections & Design is a leading provider of specialized engineering services in the structural, civil, industrial, and welding fields in Missouri, Illinois, and California. Our professionals are technical experts in structural engineering design, special inspections, and nondestructive testing.

We are seeking an experienced Structural Engineer (5 – 10 years) for an opportunity to work on a wide variety of projects. The position will be based out of our Collinsville, IL office. You will be responsible for analysis and design of structural systems and components using structural steel, concrete, masonry, wood, and light gage steel. Your duties will include preparation of construction drawings and specifications, visual structural inspections, report preparation, and construction review.

QUALIFICATIONS

Qualified candidates must have:

- BS in Civil Engineering (MS is a plus).
- PE license (SE is a plus).
- Minimum 5 years experience (5 – 10 years is ideal).
- Working knowledge of structural engineering software (RISA is ideal).
- Working knowledge of IBC and other national standard codes.
- AutoCAD proficiency.
- Good written and oral communication skills.

TO APPLY

Please send resume and any questions to Ashlee Peno at ashleepeno@SIDengineers.com

For more information about our company please visit www.SIDengineers.com



We are seeking an energetic Bridge-Structural Project Engineer to join our team!

We currently have an opening for a Bridge-Structural Engineer to serve as a Structural Project Engineer in the St. Louis, Missouri region. This is an excellent opportunity to join a growing firm that is involved in a variety of projects, including highways and bridges for various local public agencies and state DOT's, miscellaneous structural design to support our other business units, and design-build pursuits. The ideal candidate must have a Bachelor's degree in Civil or Structural Engineering and be registered as a Professional Engineer; Structural Engineer registration is a plus. The candidate should also have 5 or more years of experience in bridge and structural design. In this position, you will:

- Develop calculations as necessary for structural engineering components on projects.
- Assist CAD technicians to develop structural plans and develop construction specifications for state and municipal transportation projects.
- Perform structural design and develop details as related to roadway bridges, various types of retaining walls, culverts, miscellaneous reinforced/prestressed concrete and structural steel design.
- Act as part of a team of professionals headed by a Project Manager. This position must be able to work independently or as part of a larger design team and interact well with other team members and the manager relative to assigned aspects of the project.
- Prepare cost estimates, calculate quantities, and assist in writing technical engineering and design reports.
- Utilize various structural design and rating software, spreadsheets, Microstation or AutoCAD to design and analyze structural components.
- Visit job sites as needed to support projects.
- Perform other duties as assigned.

In addition, experience on Missouri and Illinois local agency and DOT projects, and an understanding of the policies and procedures of these agencies, is preferred. Proficiency with Microsoft Office products including Excel, Word, and PowerPoint required. Experience using seismic analysis and design is preferred.

Location: Downtown St. Louis, St. Charles County, Missouri, or Troy, Illinois

Benefits: Lochmueller Group is now an Employee Owned Company and we would be excited to have you to join our talented group of employee-owners! In addition to our ESOP, we provide a 401(k) plan, rich coverage for major medical insurance, basic life insurance, short-term and long-term disability insurance, generous vacation and sick leave, and several others.

Check us out at www.lochgroup.com and submit your resume to: jkelly@lochgroup.com. EOE



UMSL/Washington University Joint Civil Engineering Program Adjunct Instructor open positions

Adjunct Instructors are needed in 4 courses within the UMSL/Washington University Joint Engineering Program. Consider joining our team of instructors in providing academic instruction theory while also providing civil engineering application in practice to the students. Adjunct instruction is rewarding and allows engineers to give back to the profession.

- ***J C ENGR 3360 Civil Engineering Materials Lab: 1 semester hour***
- ***J C ENGR 1430 Introduction to Engineering Design: CADD & GIS 2 semester hours***
- ***J C ENGR 3430 Civil Engineering Design CAD & GIS: 2 semester hours***
- ***J C ENGR 4740 Economic Decisions in Engineering: 3 semester hours***

Course descriptions are provided on the UMSL Engineering website and provided for your convenience: <http://bulletin.umsl.edu/jointundergraduateengineeringprogram/#courseinventory>

It must be noted that J C ENGR 1430 Introduction to Engineering Design: CADD & GIS course description is provided below since Civil Engineering students are being directed to a Civil Engineering CADD & GIS course instead of the current introduction CAD course.

J C ENGR 1430 Introduction to Engineering Design: CADD & GIS 2 semester hours: An introduction to engineering design in the context of civil engineering problems and applications. Students will be introduced to the basics of GIS and computer-aided design and drafting concepts and techniques to learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching, including pictorial and orthographic views, are applied to the design process as well. Topics in solving design problems, dimensioning, tolerancing, multi-view orthographic representation, auxiliary views, section views, working drawings, text creation, instrument usage, charts and diagrams, three-dimensional drawings, pictorial drawings, production drawings, engineering design concepts, and fundamental descriptive geometry. Design project: individual or small group assignments, the design process, preliminary drawings. This course is required for civil engineering majors.

J C ENGR 3360 Civil Engineering Materials Lab is taught in the Summer semester that begins June 8th and ends July 31st.

J C ENGR 1430 Introduction to Engineering Design: CADD & GIS and **J C ENGR 4740 Economic Decisions in Engineering** are both taught in the Fall semester.

J C ENGR 3430 Civil Engineering Design CAD & GIS is taught in the Spring semester.

Experience in the civil engineering field and instruction is considered for the appointment and compensation.

Send inquires to Gary Moore, Senior Lecturer and Civil Engineering Director at gmoore23@wustl.edu telephone 314-935-2592.

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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). 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 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
c/o The Engineering Center
4359 Lindell Blvd. St. Louis, MO 63108**