

December 2020

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**Upcoming Events**

**December**

- 9 YMG ASCE Show and Tell
- 10 YMG Meeting
- 11 G-I Monthly Meeting
- 17 EWRI Monthly Speaker Series Webinar

**January**

- 12 ASCE/SAME Monthly Meeting
- 21 EWRI Monthly Speaker Series Webinar

*Follow the Section and share with your network.*



*Update your bookmarks with our new Section website*

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



**January Monthly Meeting  
Tuesday, January 12, 2021**

**American Society of Civil Engineers (ASCE) St. Louis Section  
EWRI St. Louis Chapter  
Society of American Military Engineers (SAME) St. Louis Post**

**ADDRESSING THE LEVEE RISK CHALLENGE**

**PRESENTATION:** The 2019 flood holds the record for the longest consecutive days above flood stage and second highest recorded river stage measured on the St. Louis gauge. While river stage can certainly pose a risk to levee system performance, flood duration can pose an even greater risk to levee performance. This is evident as we evaluate resource allocation between the 1993 and 2019 floods, the only number that increased was the number of days our emergency operations center was open.

What is the basis for this reduced resource allocation? (1) Investment in levee infrastructure to include improvements and correction of performance deficiencies; (2) Local sponsor Operation and Maintenance (O&M) including prioritization of that O&M to make necessary levee repairs before the onset of major floods; (3) Shared responsibility of state and local allocation of resources in flood response; (4) Flood Mitigations such as extensive structure buyouts and demolitions to reduce impacts to individual structures via FEMA and State Programs to include local investments, since 1993.

We also experienced that the 2019 levee repair costs are roughly one-quarter of the escalated costs in the aftermath of the 1993 flood (\$40M vs \$147M escalated to 2019 dollars). This is further indicative of improved levee system performance since 1993 from those federal and local investment and improved O&M by local levee district commissions. However, this is the third flood in the last five years where we have needed to make post flood levee repairs in the tens of millions of dollars per flood event. What might we do differently to minimize future flood damages and build resiliency into these levee systems and how do we overcome the challenges that limit their implementation?

**SPEAKER: Shawn Sullivan, Strategic Planning Coordinator, US Army Corps of Engineers, St. Louis District.** Mr. Sullivan serves as the St. Louis District’s Strategic Planning Coordinator where he works with all units of government in connecting their technical and/or water resource challenges with new or existing authorities, budgeting and identifying resources necessary to solve the identified challenges. Shawn earned his Bachelor of Science in Ecology from the Southern Illinois University-Edwardsville in 1997. He is a graduate of the District’ Leadership Development Program and the Mississippi Valley Division’s Emerging Leaders Program.



**Time and Date: 12:00pm to 1:00pm, January 12, 2021.** One (1) PDH available.

**Cost:** Free!

**Registration:** Please register [here](#) by **9:00 PM on January 11, 2021.** A link will be sent the morning of the event to access the webinar.

## Officers & Directors 2020 - 2021

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## President's Message



So... who else is ready to close the books on 2020?

Anyone?

In all honesty, there is no way this year will be forgotten. Work from home. Teleconferencing (SO much teleconferencing). Virtual Happy Hours. And Social Distancing. Lots of phrases I am ready to leave behind. This time last year we had our holiday social at the A-B brewery. I really wished we could have had our Social this year. But, trusting science, we had to cancel.

Around this time every year our Section fills out its application for Section of the Year award and our Annual Report. It is a wonderful way to recap the wonderful ways we adapted to this pandemic, and still provide benefit to our membership. I am very proud of the ability for our Section, our Region, and our industry to adapt and continue to thrive. We were able to continue with our monthly luncheons online. Attendance at our luncheons have been very encouraging. And I am grateful to see a strong interest and attendance in these; especially when the number of teleconferences has increased so much (the fatigue can be real!). A huge thank you to our Programs Committee chairs Stephen Noeth and Tony Roth.

Reviewing this last year also serves as a nice reminder to ask you fill out your renewal for ASCE membership. By now the first reminder has been sent out. If you have not received anything yet, what a wonderful time to go online and update your contact information!

Go to [www.asce.org/renew](http://www.asce.org/renew)

I want to highlight some of the wonderful benefits included your membership.

- Free membership in one of Society's technical institutes.
- Over 1/3 off of ASCE sponsored webinars.
- Free subscription to *Civil Engineering* magazine.
- 25% discount on PE review material.
- Discounted conference registrations.
- Several 3<sup>rd</sup> party discounts (rental car discounts!)
- And, ten (10) free PDHs worth of webinars. In Illinois and Missouri, that's over 2/3 of your PDHs paid for.

Go to [www.asce.org/member-benefits](http://www.asce.org/member-benefits) to recap the full list of discounts and programs offered.

As I said at the close of our November luncheon, I encourage you to utilize the virtual platforms we use for meetings to keep in touch with your loved ones during this holiday season.

Have a wonderful and blessed holidays, and a safe and joyous New Year's celebration!

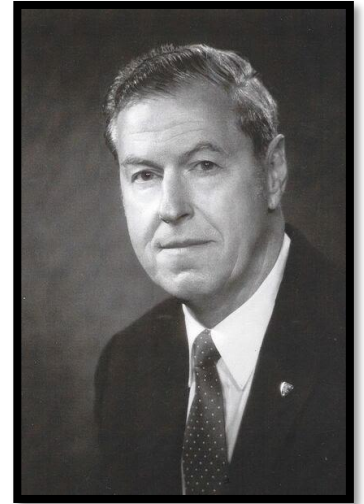
- Jordan

## Bob Bay: Civil Engineering and St. Louis Icon

St. Louis engineering and civil engineering overall lost an icon this past month.

Bob Bay passed away peacefully Sunday evening November 15<sup>th</sup> at home, at the age of 94. Bob was a consummate engineer, decorated soldier, dedicated husband and father, and leader in all he ever endeavored to accomplish.

Bob was a World War II veteran in the Pacific theatre, and rose to Major General, Corps of Engineers in the US Army Reserve. His military service and engineering were always intertwined. He started at the Missouri School of Mines (MSM) in the freshman class in fall 1943, and he then registered for the draft on his birthday (September 15, 1944), and then served in the Philippines. Bob served with distinction, receiving the Distinguished Service Medal, the second highest military honor. He returned to MSM, graduating in 1949 with his Bachelor's of Science degree in civil engineering. As a student, Bob was active in ASCE, the Baptist Student Union, and Kappa Sigma.



He had a storied career as a civil engineer in St. Louis with Laclede Steel. He was jointly responsible for a number of patented technologies, including the design and implementation of the composite floor joist system for the New York World Trade Center, the development of load transfer devices, and for deformed wire fabric used in continuous highway pavements. Bob was then a principal of Black and Veatch managing large projects across the US and internationally.

In ASCE Bob was a life-long contributor. He served as Chapter President and served in roles all the way through to be St. Louis Section President in 1972 and ASCE National President in 1986. As ASCE President Bob was one of the first Presidents to visit China and was active internationally to advance ASCE on the global stage. His challenge to civil engineers was to do their best professionally at all times. As part of that, he championed a program of "Commitment to Excellence." A highlight among the many honors throughout his career was the privilege of being the keynote speaker in Sydney during the 100th anniversary of engineering in Australia. Bob was also honored as the 58<sup>th</sup> Chi Epsilon National Honor Member in recognition for his broad commitment and service to the profession of civil engineering.

While Bob had a global influence, he was a steadfast servant to his local community and his alma mater. Amongst his career accomplishments, many were unique among our 150 years of civil engineering in Rolla Mo, and Bob's influence spanned from Missouri School of Mines, to University of Missouri – Rolla, to Missouri S&T. He was awarded the S&T Chancellor's medal; he was commencement speaker; and he was in the initial class of S&T Alumni of Influence on 2011. Bob was in the first class of our Academy of Civil Engineering in 1972, and helped found the fledgling organization and served as the first president. Until very recently Bob hardly ever missed an S&T alumni association meeting, and was active and contributing until his last meeting earlier this year.

I was fortunate to count Bob and his late wife Peggy as my friends. Bob was simply a wonderful human being in every way possible. He enriched a profession he loved dearly and was a positive force to all that had the honor to know him.

His full obituary gives greater detail of an incredible life. <https://www.schrader.com/obituary/robert-bay>

- Contributed by Joel G. Burken

Other memoriams about Mr. Bay:

<https://source.asce.org/1986-asce-president-bay-dies/>

<https://www.chi-epsilon.org/XEWebGeneral2/About/NHMBio.aspx?MemberId=58>

## Geo-Institute St. Louis News

The Geo-Institute is having our December virtual meeting this upcoming Friday, December 11 at 7:30 AM. Contact Jake Schaefer at [jschaeffer@millennia.pro](mailto:jschaeffer@millennia.pro) for more information.



**GEO-  
INSTITUTE**  
St. Louis Chapter

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## EWRI St. Louis News

### EWRI St. Louis Chapter Meeting

January 19, 2021 at 12pm, Virtual on WebEx

You are invited to attend our Chapter's meeting on Tuesday January 19, 2021, 12pm-1:30pm, virtual on WebEx. **Please register by 12pm Wednesday January 13, 2021** at

[https://docs.google.com/forms/d/1FN635Hh50gUjbZTXejN6emHuCQpBGkTY\\_QVrt1orROo](https://docs.google.com/forms/d/1FN635Hh50gUjbZTXejN6emHuCQpBGkTY_QVrt1orROo)

WebEx invite link will be sent to registered emails on 1/18/2021 by Len Madalon, [ljm@edm-inc.com](mailto:ljm@edm-inc.com).

This meeting will provide Chapter's status report and discussions of chapter activities including financial update. You are invited to send proposed agenda items to Chapter Chair Jim Zhou at [jzhou@siue.edu](mailto:jzhou@siue.edu) by January 6, 2021.

### EWRI January Webinar

The January 21, 2021 EWRI webinar will feature a discussion with Author Seth M. Siegel on his book "Troubled Water: What's Wrong with What We Drink". Seth M. Siegel is a serial entrepreneur, water activist, and a New York Times bestselling author. His critically acclaimed award-winning book *Let There Be Water: Israel's Solution for a Water-Starved World* has been published in 19 languages and is on sale in more than 50 countries. His newest work, *Troubled Water: What's Wrong with What We Drink*, sets forth an ambitious agenda for a fundamental rethinking of America's drinking water system. Seth has another book coming out next May called *Other People's Words: Wisdom for an Inspired and Productive Life* that reflects a lifetime of collecting inspirational quotations.



**ENVIRONMENTAL &  
WATER RESOURCES  
INSTITUTE**  
St. Louis Chapter

## EWRI Monthly Speaker Series



### EWRI ST. LOUIS MONTHLY SPEAKER SERIES EVENT

The St. Louis Section of EWRI is pleased to announce our monthly webinar **on Thursday, December 17, 2020 from 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, December 14, 2020.** Please register online in advance at the following link:

[EWRI December 2020 Speaker Series Presentation](#)

Registrants will receive detailed login and dial-in information prior to the event.

#### **ASCE COLLABORATE**

ASCE Collaborate is an interactive web-based forum intended to be a significant benefit for ASCE members. In ASCE Collaborate, members share their experience, discuss technical or career-based issues, ask professional questions and receive feedback from the entire ASCE community. In this webinar, we will cover basic information on setting up and customizing profiles, participating in open forums, networking within Collaborate. The webinar will also cover information related to using Collaborate for management of committees, including management of committee member rosters and notifications, conducting discussions, keeping a calendar, use of library for document archiving, and reporting of committee activities.

#### **SPEAKERS**

**John Weiland, PE, Senior Project Manager**  
**Wade Trim Group**

John Weiland, PE, a Senior Project Manager with Wade Trim, has over 20 years of civil engineering experience in wastewater, stormwater and construction management. His career includes extensive work with municipalities and sewer authorities on projects ranging from pump station and force main improvements, wastewater treatment, wet weather flow management, and sewer conveyance.

John is currently managing design and construction for multi-million-dollar wet weather storage and treatment facilities for clients in the Midwest to address CSOs, SSOs, and sewer system surcharging. John currently serves as Secretary of the Engineers' Club of St. Louis, President-Elect of the American Society of Civil Engineers (ASCE) St. Louis Section, and serves on the Environmental & Water Resources Institute (EWRI) Member Services Executive Committee and is a Past-Chair of the EWRI Communications Council. The EWRI Communications Council, in collaboration with EWRI staff and volunteers, assisted with the development of the EWRI Collaborate we-based portal, which was subsequently adopted by ASCE for the use of all of its members.

John is also an active member of the Missouri Water Environment Association. John received his Bachelor's and Master's degrees in Civil Engineering from Missouri University of Science and Technology.

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

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



## Younger Members Group

### Please join us for our virtual meeting! December YMG Meeting:

Thursday, December 10, 2020

Join Zoom Meeting

<https://zoom.us/j/96072333694?pwd=Mk1tem9xSHdBWV4S2psTFBIRmpkZz09>

Meeting ID: 960 7233 3694

Passcode: fU78EL

**Virtual Meetings** – We are moving forward with virtual meetings until further notice. Each meeting will offer important section updates, professional development opportunities, volunteer opportunities, and of course, door prizes.

*Set your calendar!*

- January 14, 2021 6:00 - 7:00 pm
- February 11, 2021 6:00 - 7:00 pm
- March 11, 2021 6:00 - 7:00 pm
- April 8, 2021 6:00 - 7:00 pm
- May 13, 2021 6:00 - 7:00 pm

### **Upcoming ASCE YMG Events** –

#### **ASCE SHOW & TELL**

*A Night of Virtual Connection*

**December 9, 2020** at 8:00 pm ET

*Virtual Event*

Join us for a uniquely curated night of Show and Tell! Four younger members will tell their stories in a creative format (think mini TED Talk—20 images for 20 seconds each) that will bring folks together to laugh, learn and connect with members from across the country. Register here:

<https://docs.google.com/forms/d/e/1FAIpQLSeHeMeCfkoxybUEMHtat5YhEvtcj8t8I6xMQKiHEIU4FYEKOQ/viewform>

**Volunteer Opportunities** – We are looking for ways to safely stay connected with our community.

Please complete the linked survey to help us better understand your interest in future service opportunities: <https://forms.gle/ZctmPYiwMPmRjKmp7>

Contact Michelle Bresnahan, YMG Chair, at [MBresnahan@lochgroup.com](mailto:MBresnahan@lochgroup.com) if you would like to be added to the email list or if you have any questions or comments regarding the YMG Update.

## Open Committee Positions

**Communications Co-Chair** - The Committee's 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 Co-Chair is expected to work closely with the president and chairmen of 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.

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## Volunteer Opportunity through Community Engineering Corps (CE Corps)

CECorps is a program that was started in 2014 by an alliance between ASCE, the American Water Works Association (AWWA) and Engineers Without Borders USA (EWB-USA). CECorps advances local infrastructure solutions by providing pro-bono engineering services in partnership with communities that need it most. Members of these three organizations can volunteer their time and expertise to assist communities that do not have the resources to access engineering services in a traditional manner. Visit [https://www.asce.org/community\\_engineering\\_corps/](https://www.asce.org/community_engineering_corps/) for more information.

There is a CECorps project team in Hartford, IL that is in need of a Responsible Engineer in Charge (Civil PE licensed in Illinois). The project team is currently made up of EWB-USA members. The team has done one site visit and is holding virtual team meetings.

The project involves utility planning and permitting for the construction of a new church building in Hartford, IL. The Church will be utilizing a pre-fabricated steel structure for the new church. The placement of the church will be on a plot of formerly farmed land, which does not currently have water or sanitation services from the street to the building site. Current permitting or planning for these utilities has not yet been done. On the nearest access road to the site for the new build, there are municipal water and sewer services, but no outreach has yet been conducted to those municipalities. A project team will be conducting any necessary design as well as assisting with permitting for construction. In addition, the team may examine potential alternatives due to the fact that tie-in to the sewer system would necessitate digging up a town-owned roadway and thus be potentially cost prohibitive. The church is a nonprofit church group located within the town of Hartford, IL., and has been a part of the community for over 90 years.

Learn what the [Responsible Engineer in Charge Role](#) entails. If interested in volunteering, email Melissa Prelewicz, ASCE's CECorps staff liaison, at [mprelewicz@asce.org](mailto:mprelewicz@asce.org).

## MSPE Call for Awards Nominations

### CALL FOR NOMINATIONS SOUGHT FOR MSPE AWARDS

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Please consider nominating a fellow member, colleague, customer or company for one or more of the Missouri Society of Professional Engineers St. Louis Chapter's Awards this year. The awards will be presented at the annual Engineers Week Awards Banquet. Deadline for submitting nominees and applications is the **December 18th, 2020**. Nominations should include resume, biographical sketch or completed application form.

A full list of past award winners, award descriptions and specific qualifications is available on the website <https://mspe.org/st-louis-chapter> under *St. Louis Chapter History*.

Questions or nominations should be directed to MSPE Awards Committee Chair, Bently Green, at [greenb2@bv.com](mailto:greenb2@bv.com)

#### **Engineer of the Year**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Young Engineer of the Year**

- Age 34 or younger as of January 1, 2020
- Membership in MSPE and NSPE *is* required

#### **Outstanding PE In Government**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Outstanding PE Private Practice**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Outstanding PE in Construction**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Outstanding PE in Industry**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Outstanding Professional Engineer in Education**

- PE in Missouri
- Membership in MSPE/NSPE *is not* required

#### **Qualifications-Based Selection (QBS)**

- Company award

#### **Private Practice Professional Development (PPPD)**

- Company award





## **JOB OPENINGS**

Horner & Shifrin, Inc. is currently looking for candidates to fill the positions of:

**Project Engineer (Transportation)**

5+ years experience, proficient in Microstation & AutoCAD, Northwest Arkansas

**Project Manager (Water/Wastewater)**

5+ years experience in water & wastewater design, Poplar Bluff, MO

**Project Manager (Civil/Site)**

10+ years experience using Civil 3D CAD Modeling, O'Fallon, MO

**Complete Streets Planner**

ACIP certification preferred, BS in Urban Planning, St. Louis

**Sr. Level Plumbing Designer or Engineer**

10+ years exp., strong ability to work in AutoCAD and Revit, St. Louis

**Design Engineer (Transportation)**

Full time, 2 years experience, EIT certificate Chicago/St. Louis

**Project Manager (Transportation)**

10+ years experience, knowledge of GEOPAK SS4 or Civil 3D, Poplar Bluff, MO

**Sr. Environmental Scientist**

Experience working on NEPA projects St. Louis

**Engineer (Structural Bridge)**

Previous bridge design experience, OSHA 10 preferred, Chicago/St. Louis

**Project Engineer (Structural Bridge)**

5+ years exp., proficient in Microstation and/or AutoCAD, Northwest Arkansas

Please visit our website at [www. https://www.hornershifrin.com/careers/](https://www.hornershifrin.com/careers/)



## **Job Title: Professional Land Surveyor**

**Location: St Louis, MO**

Civil Design, Inc. is a Certified Woman Business Enterprise, civil engineering firm of 70+ team members committed to building stronger communities in the markets we serve. Areas of focus include site development, surveying, transportation, water resources, structures and infrastructure and analytics. Civil Design Inc. is in its 24th year of business and has offices in St. Louis, MO, Effingham, IL and Louisville, KY.

Culture: CDI has a strong family-oriented culture with the drive to build stronger co-worker, client, and local communities. Guided by the values of continuous learning and growth, mutual trust and respect, ownership, and responsiveness – CDI offers a spirited team atmosphere driving quality engineering and strong client relationships

Job Description: Responsible for making precise measurements to determine boundaries and providing topographic data utilizing survey equipment and data collection software.

### **Essential Job Functions**

- Coordinate, direct, and lead team members in the completion of Boundary and Topographical Surveys, Route Surveys, ALTA/NSPS Land Title Surveys, Utility Surveys and Constructional layout for private and government projects.
- Create and execute project work plans
- Manage multiple projects and delegate project tasks to team members.
- Managing day-to-day operational aspects of projects and scope.
- Perform reviews and quality assurance to insure adherence to project standards and methodologies.
- Experience with Trimble Robotic, GNSS and Conventional equipment, LiDAR Scanning equipment.
- Adhere to safety policies, procedures, and requirements of CDI.
- Primarily Office work, if needed some travel.

### **Knowledge, Skills and Abilities**

- Comprehensive understanding of the principles and practices of land surveying.
- Advanced knowledge of mathematics through trigonometry and geometry and its application to field surveying.
- Proficient with Microsoft Office, MicroStation and other relevant software.
- Skilled in the use of surveying instruments including Trimble Robotic and GNSS equipment.
- Thorough knowledge and understanding of processing collected data through the completion of projects.
- Ability to work effectively in a team environment and possess strong interpersonal skills.
- Strong organizational and time management skills.
- Excellent verbal and written communication skills.
- Must be physically able to work outdoors and on construction sites under all weather conditions.
- Commitment to a safe working environment following safety policies, guidelines, and procedures.
- Ability to troubleshoot and problem solve.
- Familiarity with and knowledge of geographic area.

### **Desired Knowledge, Skills and Abilities**

- Understanding of MicroStation, AutoCAD, Trimble Access, Leica Cyclone, Trimble, and Leica Instrumentation is a plus.

### **Education, Training and Experience Requirements:**

- License: Missouri Professional Land Surveyor (PLS) Required. Additional state licenses a plus.

- Minimum of 3 years' experience as PLS.
- Prior experience with MicroStation, MoDOT Standards, AutoCAD, and Records Research.
- Must possess a valid driver's license and have a good driving record.

### **Working Conditions**

Work is generally performed in the office but will include some outside work at various job sites. May be exposed to all kinds of weather conditions including extreme temperatures, rain, snow, high winds, humidity, and dusty conditions. Physical activity is required including walking, standing, carrying equipment, stooping, kneeling, and bending. May be exposed to exhaust fumes, dust particles, insects, wildlife, plants, poison ivy, and other environmental elements. Must be able to lift/carry 30lbs in field conditions. Up to 10% of work performed outside.

### **Core Competencies**

- Building Trust – Interacting with others in a way that gives them confidence in one's intentions and those of the organization.
- Collaboration - Working effectively and cooperatively with others; establishing and maintaining good working relationships.
- Contributing to Team Success - Actively participating as a member of a team to move the team toward the completion of goals.
- Engagement Readiness - Demonstrating a willingness to commit to one's work and to invest one's time, talent, and best efforts in accomplishing organizational goals.

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## **Job Title: Experienced Structural Project Engineer**

**Location:** Civil Design Inc. (Louisville KY, Effingham IL or St. Louis, MO) Remote candidates will be considered

**Civil Design Inc.:** A certified Woman Business Enterprise, Civil Design, Inc. is a civil engineering firm of 70+ team members committed to building stronger communities in the markets we serve. Areas of focus include site development, surveying, transportation, water resources, structures and infrastructure and analytics. Civil Design Inc. is in its 24th year of business and has offices in St. Louis, MO, Effingham, IL and Louisville, KY.

**Culture:** CDI has a strong family-oriented culture with the drive to build stronger co-worker, client and local communities. Guided by the values of continuous learning and growth, mutual trust and respect, ownership and responsiveness – CDI offers a spirited team atmosphere driving quality engineering and strong client relationships.

### **Benefits:**

Competitive Benefit Package including flexible working environment, health, dental and vision Insurance, 401(k) match, PTO and extended sick bank leave.

### **Job Duties**

- In this role, the Structural Engineer will be an integral part of our Structures/Bridge Group designing various bridge types, as well as support our transportation and site development Groups with their design needs.
- Manage structural engineering projects by creating scope and budgets, directing the design and coordinating work with other staff and design team members.
- Strong knowledge of building materials (Steel, Concrete, Masonry, Wood), construction methods, structural inspections, construction document preparation.
- Analyze and design transportation related structures including: bridges, culverts, retaining walls, and sign structure foundations.

- Be a key point of contact with clients, contractors, and local officials.
- Eagerness to work on a wide variety of project types.
- Assist in the preparation of engineering project proposals.
- Work collaboratively with the CDI Group Leader, Project Engineers and other team members to develop effective solutions.
- Ensures compliance with CDI's safety procedures.

### **Required Skills**

- Bachelor's degree in Civil or Structural Engineering
- Illinois, Indiana, Kentucky or Missouri PE required
- Bridge design experience
- Proficiency with MicroStation
- Department of Transportation structures experience (bridges and walls) (MoDOT, IDOT or KYTC).
- Highly proficient with structural analysis and design software
- Ability to work effectively in a team environment and possess strong interpersonal and communication skills

### **Desired Skills:**

- Master's Degree in Civil Engineering or Structural Engineering.

Please apply at CDI's career page – [www.civildesigninc.com](http://www.civildesigninc.com) ->Contacts -> Careers

## **Job Title: Senior Water Resources Engineer | Project Manager**

**Location:** Civil Design Inc., St. Louis, MO 63110

A certified Woman Business Enterprise, Civil Design, Inc. is a civil engineering firm of 80+ team members committed to building stronger communities in the markets we serve. Areas of focus include site development, surveying, transportation, water resources, infrastructure & analytics, and structures. Civil Design Inc. is getting ready to celebrate its 25th year in business and has offices in St. Louis, MO, Louisville, KY and Effingham, IL.

### **Culture**

CDI has a strong family-oriented culture with the drive to build stronger co-worker, client and local communities. Guided by the values of continuous learning and growth, first time quality, mutual trust and respect, ownership and responsiveness – CDI offers a spirited team atmosphere driving quality engineering and strong client relationships.

### **Core Competencies**

In addition to the needed technical skills to perform this job successfully, an individual should also demonstrate the following competencies: Strong Communication, Collaboration, Positive Attitude, Adaptability and Analytical Thinking.

### **Responsibilities**

- Design and management of treatment, wastewater collection, and water system conveyance facilities.
- Prepare grant applications, facility plans and coordinate with private and public stakeholders to secure project funding specifically for small and medium sized systems
- Ability to assist on water resources and resiliency aspects of multi-disciplinary projects for integrated water resources planning and watershed master planning
- Design improvements to wastewater treatment facilities to meet environmental regulations. These include wastewater lagoons, package plants, biological and mechanical treatment processes

- Mentor and develop engineering team members, specifically in environmental and wastewater engineering.
- Managing water, wastewater, and reclaimed water supply through planning, modeling and permitting
- Be a key point of contact with clients, contractors, and local government officials
- Work collaboratively with CDI managers, and other Project Engineers to develop effective solutions

**Required Skills:**

- Bachelor's Degree in Civil/ Environmental Engineering from a four-year college or university; PE required
- 7+ years' Experience
- Professional Engineer, licensed in Missouri with design experience with a focus on water resources
- Knowledge with preparation and review of Engineering Plans and Specifications to ensure that all aspects of project implementation are clearly conveyed
- Experience with hydrologic, hydraulic, and groundwater software
- Experienced in working with both governmental, and private clients in Missouri, Kentucky, and Illinois

**Desired Skills**

- Proficiency in XPSWMM, WaterGEMS, SewerGEMS and WaterCAD
- Proficiency with AutoCAD Civil 3D
- Experience with HECRAS, HECHMS, PondPak, HY-8
- Experience with GeoPAK Drainage



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## **Mechanical Engineering Instructor Needed for Missouri Society of Professional Engineers (MSPE) PE Refresher Course**

MSPE has been giving PE refresher courses to help engineers prepare for the PE licensee exam for the past more than 20 years. MSPE currently has an opening for Mechanical Engineering instructors.

Eligible candidate is required to be a Missouri registered professional engineer (P.E.) in Mechanical Engineering with at least 5 years of related working experience. The instructor will give review courses to help participants pass the professional engineer (P.E.) license exam, and the covered disciplines includes HVAC and Refrigeration, Thermal and Fluid Systems, Machine Design and Materials. Two categories of instructors are needed:

(1) The instructor is required to be proficient in all three areas and familiar with the P.E. exam and can adjust the class content flexibly based on the student registration and their desired testing disciplines.

(2) The instructor is required to be proficient in one of the three areas and familiar with the P.E. exam and will either work with the other instructors for the mechanical classes (2-3 sessions per instructor) or work alone on the specialized area (7 sessions) based on the student registration and their desired testing disciplines

The classes are scheduled from January to March and includes 7 separate sessions that are held from 8 am to noon on Saturdays at St. Charles Community College (Address: 4601 Mid Rivers Mall Dr. Cottleville, MO). For details regarding the class and payment, please contact Lisa Cheng at [lisa.cheng@hdrinc.com](mailto:lisa.cheng@hdrinc.com) or call at 919-749-5998.

Note: Class might be temporarily switched to be online due to the ongoing Covid situation.

## Submit items to the newsletter...

Please try to get all announcements for placement in the newsletter to the Newsletter Editor by the 20<sup>th</sup> of the month prior to 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.** PDF files are also acceptable but may not look as sharp when inserted into the newsletter and hyperlinks will probably not carry through to the final version. For multiple page announcements, please consider providing 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  
c/o The Engineering Center  
4359 Lindell Blvd. St. Louis, MO 63108**