

Connecticut Society of Civil Engineers Winter Newsletter

From the President

Dear CSCE Members,

Happy New Year! I would like to thank everyone for the awesome turnout at all our 2022 outings, seminars, conferences, and dinner meetings, and most of all your continued support of CSCE. I hope that everyone had a great and relaxing holiday break and is fully energized for all the upcoming events we have in the new year!

On January 17th we held our first dinner meeting of the year at the University of Hartford. At this well attended event we heard from the writers of the newly released 2022 Connecticut Infrastructure Report Card. They spoke on the development and findings of the Report Card and their significance to our industry and state.

This February 15th we have our second dinner meeting, this time held at CCSU. We will be hearing from Emily Pysh, PMP, on Sustainability and Resiliency Efforts at CTODT. I hope to see you all there.

Also, please put May 23rd, 2023 on your calendars for the night of the Achievement in Civil Engineering Awards (ACE) Dinner. Award applications are now live, make sure to get them in by the deadline of March 17th.

I have a great feeling about 2023 and all that it has to offer. Our dedicated CSCE Board members are constantly looking for ways to improve dinner meetings and organize them with cutting-edge topics of our industry. However, you are what makes the events come together. I hope to see you all soon!

Warm Regards,

Scott Nolan, P.E., M. ASCE

Upcoming Events

2023

February 7 - Connecticut River Museum's STEAMgirls Virtual Program

- Check out this FREE virtual program to serve girls, age 10-16, interested in studying the academic areas of STEAM: Science, Technology, Engineering, Art, and Mathematics.
- Tuesday, February 7, 2023 at 6 pm

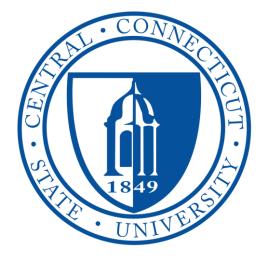
February 15 - In-Person Dinner Meeting at Central Connecticut State University (CCSU)

- 5:30-6:30 pm Social Hour & Registration, 6:30 pm Dinner and Presentation
- Location: Constitution Room in Memorial Hall at CCSU
- Topic: Sustainability and Resiliency Efforts at CT DOT: Storm Ida and TPC River Highlands Project
- Speaker: Emily Pysh, PMP, Supervisor of the newly created Sustainability and Resiliency Unit at the CTDOT
- Sponsors: CSCE's Younger Members Group and the ASCE Student Chapter at CCSU

March 22 - In-Person Dinner Meeting at the Norwalk Inn

- 5:30-6:30 pm Social Hour & Registration, 6:30 pm Dinner and Presentation
- Location: Norwalk Inn, Norwalk CT
- Topic: Unique Design-Build Features of Three 22-Million Gallon Prestressed Concrete Water Storage Tanks at the Baltimore County-Fullerton Reservoir
- Speaker: Daniel McCarthy, P.E., of Preload, LLC

Earn 1 New York State Professional Development Hour (NYS PDH) at each event. Registration is open on www.csce.org for these events.





Submit Your Nominations for the 2023 Achievement in Civil Engineering Awards (ACE)!

The application forms for the 16th annual ACE Awards are now live!

CSCE is honoring the design and construction achievements of Connecticut Civil Engineers. These Achievement in Civil Engineering Awards or "ACE" Awards will commend projects on which significant engineering expertise or innovation was exhibited by Connecticut Engineers and especially CSCE members. The ACE Awards will distinguish the projects, and thereby honor the overall contributions of numerous engineers and other team members.

The CSCE Board is also accepting applications for individual awards recognizing ASCE/CSCE members for their outstanding contributions to the Civil Engineering profession.

The awardees will be honored at the ACE Awards Dinner, held May 23rd, 2023 at The Aqua Turf Club.

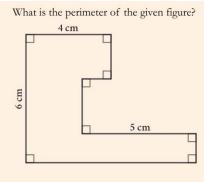
Please see https://sections.asce.org/connecticut/awards for all details and the nomination forms.

The Application deadline is March 17th, 2023.



Brain Teaser Corner





2 - Current Puzzle

Previous Month's Answer: 27 (Solution video and credit)

Solution to be shown in subsequent newsletter. Want to stump your colleagues? If the answer to this question is Yes, please submit your Brain Teaser (and solution) to the Newsletter editor at STurek@chacompanies.com

Project Spotlight



One of the East Coast's largest boat hoists now stands proudly in Bridgeport, Connecticut. This new 700-ton Marine Travellift is capable of lifting and moving some of the biggest vessels in New England, including barges, ferry boats, and mega-yachts. To accommodate this massive travel lift, two new rail piers were installed into the Harbor's Federal Channel. The engineering and construction administration services for this project were provided by RACE Costal Engineering. Due to their successful design and implementation of this project, RACE won the 2022 ACE award for Coastal Structural Engineering.

There were multiple engineering challenges the design team had to overcome; in large part because the rail piers extend far into the harbor channel. This required a design not only for vertical forces from the lift, but wave and current forces. RACE's costal engineers developed hydrodynamic load conditions through numerical wave modeling utilizing the U.S. Army Corps of Engineering models and empirical equations. They performed finite element analyses of the rails under hydrodynamic and design loads, utilizing RISA 3D FEM software. The concrete rails were designed using a deep beam design. They were constructed with galvanized reinforcing at a minimum concrete cover of 3" for added corrosion protection.

The rail piers required optimized steel piles extending approximately 130' into the ground. To maximize efficiency, steel H-piles were used as the lower section of the piles, while the upper section was steel

pipe with an epoxy coating. The combination of pile types was used to increase capacities within the soils for bearing and gain increased lateral strength. They were connected at the transition with a welded splice plate. (See included photo 4)

Beyond structural design, this complex project was a sizable planning undertaking. As the project was within the setback of the Bridgeport Harbor federal channel, it required significant coordination with the US Army Corps of Engineers (USACE). The USACE required that the rail pier foundation be designed for anticipated dredging depths of the channels. Due to the deep piles utilized, permitting was required from the Connecticut Department of Energy & Environmental Protection. The pile driving machinery was barge based and therefore required planning in regard to tides, winds, and storms impacting Long Island Sound. As a final verification, RACE provided inspection and survey services for an overload test pick using the new lifting infrastructure. A lift of the construction barge, ballasted with 725 metric tons of water, was performed, confirming the success of the project.

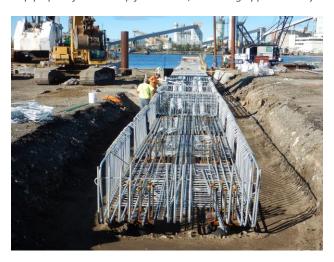
Prior to the addition of the new 700-ton Travellift, Steelpointe Harbor's shipyard previously operated 75-ton and 200-ton travel lifts. With this new high-capacity lift, the shipyard can operate more efficiently and competitively, increasing maritime and job opportunities in Connecticut. This new lift is a significant factor in the continued revitalization of Bridgeport Harbor and advancing Connecticut's status as a maritime hub.



3 - 700-ton Marine Travellift



4 - H-Piles spliced with pipe piles for the deep foundation, extending approximately 130' into the ground.



 ${\it 5-Galvanized\ reinforcing\ used\ in\ pier\ foundation}.$



6 - Wheels of the movable Marine Travellift

Employment Opportunities



- Siefert Associates, LLC
- Structural Project Manager
- Job Posted: February 6, 2023

Siefert Associates, LLC., is a Structural-Geotechnical Engineering firm practicing in the niche field of Construction Engineering. We are the professional service firm of choice for contractors across the Northeast and are proud to call 10 of the top 15 Domestic Heavy Contractors [per ENR] as our Clients. Our specialty is developing working drawings and calculations for heavy highway, building, railroad, & utility projects. Our work includes temporary & permanent design, inspection, & field services.

We seek a Structural Project Manager for responsibilities that include the management & preparation of calculations for complex projects, business development, proposal writing, & training/mentoring of production staff. BS or MS in Civil Engineering, PE license in NY/CT, & 10 years of design experience in construction engineering preferred. Located in Watertown, CT office with hybrid work options.

Apply at: www.siefertassociates.com - email cover letter & resume to info@siefertassociates.com.



- GeoDesign
- Project-Level Geotechnical Engineers
- Job Posted: February 6, 2023

GEODesign has an immediate opening in Connecticut for a project-level geotechnical engineer to provide geotechnical services on design and construction projects in New England and Metro New York areas.

GEODesign is a premier geotechnical specialty engineering consulting firm headquartered in Middlebury, Connecticut, with offices in NJ, VT, NY and OR. We are a regional industry leader providing services in the fields of geotechnical, environmental, forensic, and construction engineering. This position offers an excellent opportunity to work on a wide variety of projects such as highways & bridges, buildings, water front structures, land development, forensic engineering, dam engineering, and environmental remediation. GEODesign offers great growth potential and learning opportunities to those aspiring professionals by working closely with our highly competent, seasoned engineers recognized in the field. For more information/to apply, please visit https://geocompanies.com/ or email resume to hr@geocompanies.com/ or email

GEODesign is an Equal Opportunity Employer



- Nathan L. Jacobson & Associates
- Chief Inspector
- Job Posted: November 23, 2021

Established Civil and Environmental Engineering firm seeking highly motivated technical personnel with excellent communication skills for a Construction Chief Inspector position. Experience in bridge and roadway construction inspection, testing and CTDOT four volumes. Minimum AS degree in CE or CE Technology desired, and; Microsoft Word, Excel and Outlook experience required. NICET 3 certification or PE required. For more information and to apply, visit our website; www.nlja.com.



- Luchs Consulting Engineers, LLC
- Chief Inspector, Office Engineer, Senior Inspector, and Inspector positions
- Job Posted: October 18, 2021

Luchs Consulting Engineers, LLC, a Meriden based Consulting Engineering firm is seeking candidates for a Chief Inspector, Office Engineer, Senior Inspector and Inspector positions. Experience with State of Connecticut and Municipal Construction Inspection procedures is required. Current NICET, NETTCP, ACI, ATSSA and NACE Certifications are a plus.

Competitive Benefit Package

Email: dcrandall@luchs.com

An Affirmative Action Employer (EOE)



89 Colony Street Meriden, CT 06451 (203) 379-0320

- Luchs Consulting Engineers, LLC
- Civil Design Engineer
- Job Posted: October 18, 2021

Luchs Consulting Engineers is a multi-disciplined engineering, surveying firm based in Meriden, CT. We have immediate opportunities for professionals who are ready to join our dynamic team.

Civil Design Engineer BS Degree in Civil Engineering; EIT or NICET a plus

- 3-7 years' experience in CTDOT design environment
- Roadway Drainage Design/HEC-RAS Hydraulic experience required
- Knowledge of MicroStation or AutoCAD required

Comprehensive Benefit Package

Please email resumes to: <u>dcrandall@luchs.com</u>

http://www.luchs.com/



Structural Engineering Geotechnical Engineering Historic Preservation

- GNCB
- Sr. Geotech Engineer

• Job Posted: July 22, 2021

GNCB seeks Sr. Geotech Engineer to serve as Project Manager. Responsibilities: Manage projects including all aspects of field & lab investigations, project design, & construction administration; prepare budgets, proposals, reports & contracts; build and maintain Client Relationships. Minimum Quals: B.S. or M.S. in Civil Engineering with geotech concentration; P.E. in Connecticut; 8 to 12 years' experience showing proficiency in job responsibilities & knowledge of local subsurface conditions.



- Hardesty & Hanover
- Civil Engineers
- Job Posted: June 22, 2021

Hardesty & Hanover is currently seeking engineers to join our expanding civil engineering design group in New England. Our New Haven office seeks experienced Civil Engineers with expertise in roadway, drainage, traffic, and highway safety design. Applicants should be able to perform design tasks, lead small groups, communicate effectively, and collaborate to meet objectives. Our firm offers a close-knit employee-based culture and opportunities for professional growth and leadership. Please visit https://www.hardestyhanover.com/current-openings/ for further details.



- Conlon Engineering, LLC
- Structural Engineer
- Job Posted: June 21, 2021

Conlon Engineering, a growing structural design firm in Brookfield, CT is seeking a structural engineer with 0-3 years of experience doing design work and calculations. We are looking for a smart, hardworking engineer who wants to be part of a profitable firm that is set up for sustainable growth. Visit our website at conlonengineering.com and email resumes to



- Down To Earth Consulting, LLC
- Geotechnical Senior Project Engineer
- Job Posted: June 21, 2021

Down To Earth Consulting is seeking a Senior Project Engineer to join our geotechnical group in Naugatuck, CT. The successful candidate should have a BS degree from an ABET accredited civil engineering program, 5 to 10 years of experience, and be a licensed PE. Down To Earth Consulting is an Affirmative Action/Equal Opportunity Employer. To learn more about this opportunity, please submit your resume to ray@downtoearthconsulting.com.



7 - https://www.facebook.com/PereiraEng/

- Pereira Engineering
- Civil Engineer, Land Surveyors & Survey Technicians
- Job Posted: June 21, 2021

Pereira Engineering is an established Civil/Environmental/Land Surveying firm located in Shelton, CT. PE is seeking a Civil Engineer as well as Land Surveyors and Survey Technicians (at all levels of experience) to expand our Survey Department. PE offers a very competitive salary and benefits. Please email resume to:

Volunteer Opportunities



Volunteers Needed: Lend Your Expertise

IIBEC needs volunteers to help complete its Certified Building Enclosure Commissioning Provider (CBECxP) program certification exam. Participation involves attending three to four online meetings.

Each meeting will last two to three hours. We expect this final stage to occur in the late November to mid-December time frame. *To volunteer or to request further information, please email Nancy Barnes, PhD, at* nbarnes@iibec.org.

Volunteers who are chosen and participate in all required meetings will be compensated by IIBEC with receipt of a complimentary registration to the 2023 IIBEC International Convention and Trade Show.

Due to the nature of the review activity, prospective volunteers:

Must not have participated in prior CBECxP Program planning activities, including exam development.

Must not provide continuing education-related services pertaining to the design of continuing education training materials or courses or the delivery of continuing education training to individuals for any organization or entity within the building enclosure commissioning profession during this volunteer activity and for a period of twenty-four (24) months following its completion.

Must be willing to sign the following: Conflict of Interest and Impartiality form; Non-Disclosure Agreement form; and any form(s) required by IIBEC's test vendor, Scantron/Meazure Learning.

Must agree to not apply for the CBECxP certification or take the CBECxP exam for a period of twenty-four (24) months following the completion of this volunteer activity.

Memberships

ASCE and CSCE Membership

ASCE members come from all disciplines of civil engineering, from all types of environments, and from all over the world. With benefits geared to meet the high standards of professionalism, ASCE strives to cater to each member's needs.

Membership in CSCE is granted to ASCE members upon receipt of Connecticut Section dues. Connecticut Section dues are \$30 per year. Please include your section dues with your national membership renewal. We can accept mid-year memberships. Please contact our Membership Committee Chair Rich Cohen at rechen@hwlochner.com for more information about CSCE and ASCE. To join the Connecticut section of ASCE, please go to the ASCE website (www.asce.org) and click on Join at the top of the page.

Why join CSCE? Please click <u>here</u> for our PowerPoint Presentation from a Professional Issues Seminar on Tuesday, April 8, 2008 about the Advantages to Joining Professional Associations

Transferring Section Membership

Have you recently moved to Connecticut, or are you about to? If you are a current ASCE and local Section member you can transfer your Section membership to CSCE. Once you move to Connecticut, you may go online to www.asce.org/myprofile and log in change your address information. This will initiate the transfer from your old Section to the Connecticut Section. If you encounter any trouble while online, you can also contact the ASCE Records Department via email at memrec@asce.org or (703) 295-6300 to provide you new address information and the transfer can be handled that way as well.

If you are moving out of Connecticut, you can follow the same procedure to transfer from CSCE to you new local Section. We are sorry to see you go, but hope that you continue to be active in ASCE and your new local Section. For information about the local Section for where you are moving, you can visit the ASCE website @: http://www.asce.org/Regions-Sections-Branches/

Advancing your Membership Grade

Do you need to advance your membership grade? Are you a recent graduate? Did you get your P.E. license? ASCE and CSCE encourage you to advance your membership grade as your professional career progresses. Information and instructions are available on the <u>ASCE website</u>

10 Free PDHs

Did you know ASCE members receive 10 Free PDHs.

Choose up to 10 out of 200 on-demand webinars from the comprehensive continuing education library

All active professional ASCE members have access to the courses. If you have already selected your free courses, go directly to MyLearning. Check out other continuing education opportunities too.

ASCE updates free On-Demand Webinars on January 1. Free webinars must be used (viewed and exam taken) between January 1 and **December 31**. When you join or renew for the next membership year, you can select ten additional free webinars as early as January 1 of the following membership year. Access them at www.asce.org/freepdh. You are required to pass an exam on the webinar's content to receive a free PDH.

Unemployed?

ASCE National has a program to waive dues of unemployed members. For more information,

Write to:

ASCE

Attn: Member Services Dept.

1801 Alexander Bell Drive

Reston, VA 20191-4382

Or Call: Toll free: 1-800-548-ASCE Direct: 703-295-6169 Fax: 703-295-6335

THIS IS THE TIME TO INVEST IN YOURSELF:

RENEW TODAY!

ASCE

FORWARD
FASTER.





About **CSCE**

The CSCE is the result of a merger of two organizations that occurred 30 years ago. The Connecticut Society of Civil Engineers was founded in 1884, while the Connecticut Section of the American Society of Civil Engineers was founded in 1919. In 1958, the Section had 523 members. In 1955 (the nearest comparable year for reliable numbers), the Society had 1,033 members. The two organizations met separately until they merged in 1981, by mutual vote of membership, to become the Connecticut Society of Civil Engineers Section of American Society of Civil Engineers or CSCE.

Civil Engineers design and build our increasingly complex infrastructure; work with government officials, citizens and businesses to promote better infrastructure maintenance and renewal; and build commerce in Connecticut and throughout the World. We serve diverse industries including government, consulting, construction, academics and manufacturing and we work in a variety of disciplines including geotechnical, environmental, structures, transportation, and water resources.

Contact Us

The 2022-2023 CSCE Executive Board thanks you for taking the time to read this newsletter. Should you have any questions, comments, or concerns - feel free to contact one of our members.