Newsletter

Central Ohio Section November, 2015 Volume 20, Issue 3 CONTENT President's Letter 2 **Latest News** 2-7 Calendar of Events Newsletter Ads 7-8

NOVEMBER LUNCHEON

DATE: Thurs. Nov. 19, 2015, 11:30 A.M. Registration, 12:00 P.M. Lunch

LOCATION: Confluence Park, 679 W Spring Street, Columbus OH 43215

TOPIC: Dam Safety Program for City of Columbus, Ohio, Department of Public **Utilities, Division of Water**

Dams have been constructed, operated and maintained by societies for millennia for a multitude of beneficial purposes. However, the fluid nature of the materials stored behind dams poses hazards to people and structures downstream ranging from

engulfment to damage from the sudden release of potential energy stored in the material should the dam fail. Because of the risks associated with these hazards owners of dams bear great responsibility for the careful construction, operation and maintenance of them. Because the consequence of failure can be devastating, many organizations have developed standards and best practices, and governments have established laws and agencies (FERC*, ODNR etc.) to regulate these activities.

The City of Columbus owns and operates a portfolio of 10 dams associated with various aspects of the storage and/or treatment of the community's drinking water. To manage the intricacies inherent with these tasks in a systematic fashion the Division has developed this Program.

SPEAKER: Miriam C. Siegfried, PE. Ms. Siegfried is a Project Manager in the Technical Support Section of the City of Columbus Division of Water. She has served in an official capacity as the Division's Chief Dam Safety Engineer since the duties of the position were documented in the Division's Dam Safety Program in 2013 having been responsible for the same since 2009. She has worked on projects at multiple water facilities including the Division's three water supply dams and reservoirs and two intake dams and at all three water treatment plants. She is a founding member of the Columbus Municipal Users Forum coordinated by Trenchless Technology Center, Louisiana Tech, founding board member of Midwest Society of Trenchless Technology (MSTT), and an active member of the American Society of Civil Engineers (ASCE). She has twice been recognized as Central Ohio Section of ASCE Outstanding Section member, in 1996 and 2005 for her work was as Minority Committee Chair.

MENU: Deli buffet: Wraps, salads, soups, assorted dessert, drinks...

CPD: A certificate for one 1 CPD hour will be issued.

COST: \$20 ASCE Members and Guests, \$15 ASCE Life Members, \$10 Students.

REGISTER: Registration is due by 5:00 PM on Friday, Nov. 13, 2015. Late registrations and walk-ins may not be accepted. Registration fees may apply for no-shows and registrants canceling after the deadline. Contact A.J. Smith at 614-793-9070, or register@centralohioasce.com to register.

PAYMENT: The preferred method of payment is online (click HERE) before the registration deadline. Payment on the day of the event is available by cash or check payable to Central Ohio ASCE.



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LETTER FROM THE PRESIDENT

Central Ohio Section Members:

Feedback from the joint meeting between the Central Ohio Chapter of Structural Engineers Association of Ohio and the Central Ohio Chapter of the American Concrete institute indicates that the meeting was a success. We had well over 100 attendees. My thanks to Charles Kiner and Brian Davidson, both Project Managers from ODOT District 6 for their presentation on "The trench" project.

Last month, we discussed our student chapters within our section boundaries and their activities. This month, I would like to talk about another very important group within our Central Ohio Section: Our Younger Members! The Younger Members (YM) Forum, compromises of graduated engineers 35 years or younger. The main focus of the Younger Member Forum is to help our younger colleagues grow personally and professionally, find a network of professional peers, develop leadership skills, and have some fun as well. Yes, you read right... engineering is more than just work. \odot

Our YM group holds social and technical events throughout the year. In recent years their leadership has expanded many of their activities to include the Section in general as well as the student chapters. Have you been to one of the pro sport events, (i.e. Hockey, soccer, baseball) organized by ASCE recently?

The leadership of our Younger members is actively involved in community outreach as well. One of my favorite events is the annual STEM Expo that takes place during Engineer's week in February. If you or your company would like to help this year, we are looking to expand the event again. We will share more information on this event in a future newsletter. Other technical events include tours of construction sites as well. Recently, they have been experimenting with CAD classes for Ohio State CE students.

In addition, the YM leadership regularly attends ASCE regional meetings and leadership workshops designed to developed professional skills needed by ASCE's future leaders. Getting involved with the Younger Members by attending local events or actively participating in their leadership is an excellent way to grow personally and professionally. This in turn helps the Central Ohio Section and ASCE as well. Zach Stolarsky (Korda/Nemeth Engineering) is this year's president. Zach and the YM leadership are always looking for feedback, event ideas, and leadership volunteers. You can contact them at ym@centralohioasce.com. To subscribe to their e-mail list, visit our website www.centralohioasce.com. On the left side menu select E-mail lists.

At board meetings, we always look forward to their reports as they are a busy bunch!

At the Society level, in October during the ASCE annual convention in New York City, now Past-President Bob Stevens passed the gavel to President Mark Woodson. Norma Jean Mattei was installed as President-Elect as well. I had the privilege to see Bob and Mark again and meet Norma Jean at an ASCE leadership workshop in an event last August. We wish them the best on the year ahead as leaders of an engineering society with more than 150,000 members all over the world representing all civil engineering disciplines, across all public, private, and education sectors.

I am looking forward to seeing you at future events!

Sincerely,

Carlos Vazquez, PE, M. ASCE President ASCE Central Ohio Section president@centralohioasce.com



LEGISLATIVE UPDATE

Several Central Ohio Section members, combining to represent both the Section and Ohio Council, met with Senator Portman's Ohio office. Members thanked the Senator for support of the DRIVE Act. The Senator is also a sponsor of the Federal Permitting Improvement Act of 2015, designed to improve and streamline federal permitting processes. The Sentator's staff assisted in expediting the permitting process for Columbus' Scioto Greenways project.

Surface Transportation Bill

In late July, the Senate passed Senate Bill 1647 - Developing a Reliable and Innovative Vision for the Economy Act (DRIVE Act). The bill passed by a vote of 65-34. Senator Portman (R) voted for the bill. Senator Brown (D) voted against the bill. The bill is awaiting the House of Representatives companion bill before moving to Conference. The six-year bill increases funding levels to \$361 billion, but funding is only identified for the first three years.

On November 5, 2015, the House of Representatives passed House Resolution 3763 - Surface Transportation Reauthorization and Reform Act of 2015 (STRR Act). The

bill passed by a vote of 363-64. Central Ohio Section representatives voting for the bill were: Wenstrup (R - District 2), Beatty (D - 3), Johnson (R - 6), Tiberi (R - 12), and Stivers (R - 15). Against the bill was Jordan (R - 4). The bill now moves to Conference with the Senate's DRIVE Act. The six-year bill keeps funding flat at \$325 billion, but does provide for a full six years of funding.

With both houses passing their bills, the House-Senate conference committee needs to come to an agreement by November 20, which is when the latest (of 35) short-term 3-week extension of MAP-21 funding expires. Both versions of the bill include streamlines to environmental review and permitting processes. However, they do not increase the federal gas tax, a measure that ASCE supports.

We encourage all members to meet with their local representatives and staff on issues important to them, the Society, and our profession. You can also sign up to be a Key Contact to be notified of legislative efforts that warrant support, and various methods for providing that support. Click HERE for additional information.



WOODSON ASSUMES ASCE PRESIDENCY

New ASCE president Mark Woodson was installed as president at the recent 2015 ASCE Convention held in New York City. Woodson was joined by his family, including his wife, mother, four children, and eight grandchildren. Family is



an essential value to Woodson both personally and professionally.

The installation of 2016 officers also included Norma Jean Mattei, Ph.D., P.E., M.COPRI, F.SEI, F.ASCE, as the new President-elect. The ceremony marked Bob Stevens' final act as ASCE president. He passed the presidential pin and gavel to Woodson and now transitions to his role as 2016 past-president.

NATIONAL BOARD OF DIRECTION UPDATES

STRATEGIC INITIATIVES

The National ASCE Board of Direction voted to realign the Society's strategic initiatives as it also reaffirmed continuing efforts. The adopted initiatives include:

- 1) sustainable infrastructure, which continues ASCE's long-time emphasis on infrastructure and sustainability:
- 2) the ASCE Grand Challenge, a call to action for ASCE and the profession to increase the value and capacity of infrastructure and optimize infrastructure investments. Its achievement will include major legislative, regulatory and policy changes, increased infrastructure funding, and leading significant improvements in the delivery of infrastructure investments through innovation, performance-based standards, life-cycle cost analysis, and enhanced resiliency; and,

3) Raise the Bar, the Society's effort to align engineering education with a changing world. Added to that leadership initiative is a new look at efforts to attract youth to civil engineering careers.

LICENSURE POLICY STATEMENT

The Board approved a new policy statement #547 and revised 11 existing policies, most of which deal with licensure-related issues (click HERE for full list).

REGION RESTRUCTURING

To better balance the number of members in each region, which currently varies from less than 10,000 to almost 25,000 members per region, and to better align commonality between regions, a task committee will study realignment options and seek to reduce the number of regions by one. Click HERE for breakdown of existing regional layout.

2016 MEMBERSHIP RENEWALS



FAST TRACK OUR SECTION TO WIN \$1,000!

The three sections with the highest percentage of renewed members by December 11, 2015 will win a cash prize of \$1,000!

Get into the Renewal Race today, pay your Society and Section dues, and keep our section in the running for the \$1,000 prize. Your renewal supports valuable local programs and is always appreciated!

Go to www.asce.org/finishline to renew...and Thank You!

DEPT OF HEALTH WASTEWATER DESIGNERS

The Ohio Department of Health is preparing a list of consulting engineers qualified and interested in the design of small on-site sewage treatment systems in Ohio.

The Department adopted new sewage treatment systems rules effective January 1, 2015 that establish the standards for the siting, design, installation, monitoring, maintenance



and abandonment of sewage treatment systems including household and small flow on-site systems (systems that can treat up to 1,000 gpd). Several professional engineers participated in the extensive rule development process, and ODH currently has professional engineers represented on the sewage treatment systems technical advisory committee that provides review and recommendations to the Director of Health regarding sewage treatment system products for use in the state. ODH appreciates the contributions that professional engineers have made to the development of the rules and now their implementation.

If you or your firm is interested in being placed on this list, please contact Steven Schmidt at the Ohio Department of Health at Steven.Schmidt@odh.ohio.gov . For additional information on the new rules and submittal information, please click HERE.

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FREE WEBINAR - MODELING, DESIGN & 3-D PRINTING

What: Free Webinar - 1.5 PDH

When: Wed., Dec. 2, 2015

11:30 AM - 1:00 PM

Where: American Structurepoint

2600 Corporate Exchange Dr.,

Room 175*

*Building next to American Structurepoint office.

Columbus, OH 43231

Topic: Modeling, Design, and 3-D Printing of Multiscale

Materials and Structures

RSVP: To tlane@structurepoint.com by

Mon.,

Nov. 30, 2015.

*Open only to Central Ohio ASCE Section Members.

*Seating is limited to the first 25 people.

*Bring your own lunch.

Purpose and Background

Are you interested in new materials that can revolutionize structural design, architecture and sustainability of infrastructure? Have you ever wondered about applications of 3-D printing to Civil Engineering, and sought out approaches to make this technology scalable for large-scale applications? This webinar provides a glimpse into exciting new technologies that address the demand for highperformance materials with superior properties, flexibility, and durability, as a new design paradigm from the molecular scale upwards fundamentally transforms our ability to create novel materials. This webinar covers basic tools and applications in multiscale modeling, synthesis and characterization of structural materials with features at multiple length-scale, including the application of additive manufacturing (3-D printing) and its link to computer optimization. This webinar presents a case study to cover modeling, design, 3-D printing and material characterization of hierarchical bio-inspired composites. It discusses new concepts in autonomous construction through automated 3-D printing of complex material systems. The webinar, accessible to a broad audience, concludes with an outlook to future challenges and opportunities for the Civil Engineering profession in the context of material innovation.

Primary Discussion Topics

- Basic tools and applications in multiscale modeling
- Synthesis and characterization of structural materials

• New concepts in autonomous construction through automated 3-D printing of complex material systems

Learning Outcomes

- Find out the latest developments in material modeling, optimization and synthesis using additive manufacturing techniques such as 3-D printing
- Learn new approaches to practical problem-solving computational tools paired with a detailed discussion of experimental techniques to probe, understand and design the ultimate structure of materials
- Critically evaluate & apply the use of computational tools in materials design (synthesis & testing) for structural materials
- Avoid costly errors in material and structural failure under extreme conditions such as mechanical load, vibrations, moisture, and corrosion
- Examine the possibilities due to revolutionary advances in conventional technologies and how they apply to Civil Engineering
- Assess the emergence of critical tools in design and manufacturing of large-scale infrastructure materials
- Determine precise measures of material properties such as toughness, strength, modulus and environmental effects

Webinar Benefits

- Learn how to critically and apply computational tool usage in material designs for structural materials
- Gain a greater understanding of the advances in conventional technologies and how they apply to Civil Engineering
- Understand how automated 3-D printing of complex material systems can revolutionize structural design

The Central Ohio Section sponsors free continuing education webinars as a service to our members. These webinars are produced by ASCE and normally cost \$250 or \$300 for ASCE members. However, the Section is paying the registration fee and inviting any interested section members to attend for free. You can see the complete list of webinars available from ASCE National on their website. If you see one you like, let us know. If you and your company would like to host one, let us know that too. If you open it up to any interested Central Ohio ASCE section members to come, we will pay the registration fee.

FAITH MISSION STEEL TOE BOOT DRIVE



Faith Mission is currently having a steel toed boot drive for the people they serve in the Columbus area. Faith Mission is an organization downtown Columbus that helps out people in

need – primarily the homeless. They offer three meals a day and shelter. In addition, they work to help people find jobs. Many times these folks end up in the construction industry. That being the case, they have seen that there is a need for steel toed boots, which can be expensive.

Faith Mission is requesting donations of new or gently used steel toed boots for the people they serve. Resource International will be collecting boots and delivering them to Faith Mission periodically.

This is a great service opportunity for the civil engineering community. You may drop them off at Resource International (6350 Presidential Gateway, Columbus, OH 43231. Contact Jon Sterenberg at 614-797-9371 or jonathans@resourceinternational.com) or drop them off directly at the Faith Mission office at 245 N Grant Avenue from 7 a.m. to 7 p.m. daily.



DREAM BIG! IMAX MOVIE



All around the world, engineers are pushing the limits of ingenuity and innovation in unexpected, imaginative and amazing ways. Dream Big will take viewers on a journey of discovery from the world's tallest building to a bridge higher than the clouds and a tunnel deep below the earth. Along the way the audience will witness how today's engineers are shaping the world of tomorrow.

Dream Big recently moved into full production thanks to the Bechtel Corporation, which has signed on as the film's presenting sponsor. The film will take advantage of the aweinspiring scope of giant-screen theaters including IMAX to show how engineers have made civilization possible, and to encourage youth to make it a career. ASCE is working with award-winning documentary filmmakers MacGillivray Freeman on the production and associated educational materials. Dream Big will have its world premiere during Engineers Week in February 2017. Click HERE for a preview.

DREAM BIG CONTEST



ASCE wants to hear about your journey as a civil engineer. What big dreams have you achieved? What aspirations do you have for the profession or your future as a steward of the built world? How has a career in civil engineering helped you pursue your personal dreams?

Share your dream by clicking HERE and you could

win a dream experience! Tell us: how has engineering helped you dream big?

3 qualified contestants will win a dream experience:

- A trip for 2 to an international location shoot for the filming of Dream Big; or
- · A trip to attend an exclusive rough cut screening of Dream Big in Laguna Beach, California; or
- A Dream Big premiere event in your local community

Tell us in 250 words or less how you dream big!

Contestants are encouraged to submit supplementary material, whether original work or previously published, that helps to tell their story. This may include, but is not limited to, video clips, news articles, drawings, and photos.

Only ASCE members in good standing are qualified to win. Entries must be received by 11:59 p.m. EST. Monday, February 1, 2016. See contest rules for full details.

FREE ON-DEMAND WEBINARS



As a benefit to members, in 2015 ASCE is offering five free, on-demand webinars good for one PDH each. You may choose up to 5 webinars from the 60 on-demand webinars listed HERE. Each one is a 1-hour webinar worth 1 PDH. That's 5 free PDHs from our comprehensive continuing education library – just for being a member! Categories include Environmental, Geotechnical, Hydraulics and Water Resources, Management and Practice, Structural, and Transportation.

Not a member? Join online or call Customer Service at 800-548-ASCE (2723) or 703-295-6300, Monday-Friday, 9:00 a.m. – 6:00 p.m., ET to take advantage of this exclusive member benefit.

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2015-2016 CENTRAL OHIO ASCE MEETINGS

Meeting Date	Topic	Group(s)	Location	Coordinator
Thursday Nov. 19, 2015 Lunch	City of Columbus Dams	ASCE	Confluence Park	Miriam Siegfried
Thursday Dec. 17, 2015 Lunch	OSU Center for Automotive Research	ASCE/ ASHE	Fawcett Center	David Pritchard
Thursday Jan. 21, 2016 Lunch	ODOT Planning and Projects	ASCE	Villa Milano.	Mark Seidelmann
Thursday Feb. 25, 2016 Lunch	Engineers Week Topic	ALL	T.B.D.	E-week Committee
Thursday March 17, 2016 Lunch	Insight 2050 (MORPC)	ASCE	T.B.D.	Carlos Vazquez
Thursday April 21, 2016 Dinner	OU/OSU Student Chapter Presentations	ASCE	Athens, OH	OSU/OU Student Chapters
April/May, 2016 All Day	ASCE Spring Seminar	ASCE	T.B.D.	Firat Sever
Thursday May 19, 2016 Lunch	OARS/Awards President-Elect "Raise the Bar"	ASCE	T.B.D.	Greg Barden
June, 2016 Dinner	2016-2017 Planning Meeting	All	Tommy's Pizza - Dublin, OH	Chris Nye
June, 2016 Lunch & Dinner	Annual Golf Outing	ASCE	Darby Creek Golf Club	Jim Pajk

CIVIL ENGINEERING REFERENCE BOOKS

The Central Ohio Section bought a number of civil engineering reference books and donated them to the Columbus Main Library for public use. The titles are as follows:

- Minimum Design Loads (7-10)
- Design of Marine Facilities for Berthing, Mooring
- •FRP Composite Connections
- Foundation Engineering Handbook
- Trenchless Technology Piping
- Civil Engineer's Handbook of Professional Practice
- Masonry Structures (5-11 & 6-11) Urban Stormwater Controls
- Municipal Wastewater Plants
- Structural Steel Designer's Handbook

The books are for reference and can't be checked out. They are located on the 3rd floor in a special collection area of the main library (north side of building in the half-height stacks).

Building Code Requirements and Specification for

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Web: www.centralohioasce.com E-Mail: asce@centralohioasce.com

BOARD MEETING

Our Next Board Meeting Will Be 11:30 A.M. December 3, 2015 At W.D. Partners



NCEES & RAISE THE BAR

Delegates at the annual meeting of the National Council of Examiners for Engineering and Surveying (NCEES), the U.S. Engineering and surveying licensure boards that make up the organization recently voted to adopt a position statement that mirrors ASCE's "Raise the Bar" initiative, a position which ASCE has backed. That is, that increased educational requirements will be required for engineering licensure. ASCE has held such a position since 1998, and is intended to better prepare civil engineers of the 21st century for the current industry world, safeguarding the health, safety, and welfare of the public.

NCEES's rational for this position statement is in "NCEES's responsibility to recommend changes to the licensure process that will ensure protection of the health, safety, and welfare of the public now and in the future as described in the NCEES strategic plan and in the mission and vision statements."

NCEES has committed to engaging outside technical engineering societies to identify additional education

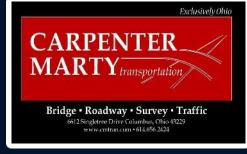
pathways that may meet the requirements. Some identified pathways may include:

- Earning an accredited bachelor's degree and then at least 30 semester hours of appropriate upperlevel undergraduate or graduate-level coursework in engineering inside or outside the university environment.
- Earning an accredited bachelor's degree in engineering followed by an engineering master's degree.

While NCEES member boards maintain the "Model Law" and "Model Rules" as manuals of best practice, each U.S. State and territory sets their own licensing laws and rules. Thus, each state must make its own decision on licensure requirements in the future. The NCEES vote removes an effective date for implementation of these requirements until implementation guidelines can be adequately addressed. The rules had had previously been set to take effect in 2020

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EMPLOYMENT OPPORTUNITIES

As a service to our members and colleagues who may be seeking employment opportunities, we have provided links directly to *Human Resources* or *Careers* pages on the company website below. Please click any of the company logos to visit the site. We thank the companies below for their support of the Central Ohio Section of ASCE.

The ASCE National website also provides employment assistance with hundreds of job postings and additional resources. Please click the image to the right to visit the webpage.



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