# Newsletter

# entral Ohio Section November, 2014 Volume 19, Issue 3 CONTENT President's Letter **Latest News** 2-6 Calendar of Events Newsletter Ads 8-9 **Pay Securely** Online On Our Web Site

### NOVEMBER LUNCHEON

**DATE**: Thurs. Nov. 20, 2014 11:30 AM Registration, 12:00 P.M. Lunch & Presentation

**LOCATION:** Villa Milano, 1630 Schrock Road, Columbus, OH 43229

TOPIC: Interstate 270/US33 Interchange

The reconstruction of the I-270/US 33 interchange was identified as an intermediate project in the I-270/US 33 Northwest Freeway Study (NFS), completed by the Mid-Ohio Regional Planning Commission (MORPC) and the Ohio Department of Transportation (ODOT) in



2006. Eight conceptual alternatives were studied to improve traffic operations, promote economic growth and eliminate hazardous crash areas while minimizing environmental and right-of-way impacts. The interchange improvements will be constructed in phases, with Phase 1 construction beginning in 2015 and Phase 2 construction approximately 15 years after completion of Phase 1. Project highlights include:

- Accelerated design schedule Selection of preferred alternative to final tracings in 14 months
- First project to use the Highway Safety Manual's Freeway and Interchange crash prediction methodologies to evaluate safety performance
- Phased construction approach
- Widening US 33 from two lanes to four lanes in each direction for approximately two miles
- Realignment and reconstruction of seven ramps
- Eight new bridges and three widened bridges
- Eight new retaining walls
- Aesthetic enhancements

SPEAKER: Andy Wolpert - CH2MHill Project Manager

MENU: Lasagna with meat sauce or vegetarian lasagna cacciatora.

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

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

**REGISTER:** Registration is due by 5:00 PM on Friday, Nov. 14, 2014. Late registrations and walk-ins may not be accepted. Registration fees may apply for no-shows and registrants canceling after the deadline. Contact Carlos Vazquez at 614-634-7132, 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:

There is a lot going on this fall for the section. In October we had another interesting luncheon covering the Scioto Greenways project in downtown Columbus, and a successful OTEC happy hour serving 200 to 250 professionals. In November we are keeping the ball rolling. Matt Baxendell has been good enough to represent ASCE in scheduling yet another hockey outing with our friends at ASHE and the Engineers Club of Columbus. We also have two ASCE webinars covering LRFD retaining walls hosted by Korda/Nemeth Engineering, Inc. These section-subsidized outings and webinars are another way that we are trying to bring benefit to our membership. We all have busy lives between family, work and profes-

sional organizations, so we truly appreciate your continued involvement in Section activities.

On a personal note, if you don't see me at any of the upcoming events it is because I have a son that is due to arrive any moment and I have been busy getting ready for my expanding family. His arrival should make the holiday season that much more enjoyable. Thank you very much, and I look forward to your continued involvement.

Sincerely,

Mark Seidelmann, PE, GISP, M.ASCE President – ASCE Central Ohio Section President@CentralOhioASCE.com

### OSU FOOTBALL GAME WATCH

What: OSU Football Game Watch Party When: Sat, Nov. 15, 2014 - Time T.B.A.

Where: BW3 - 2151 N. High St. (@ Lane Ave.)

Cost: Free for Younger Members

\$10 Section Members \$5 Member Guests

RSVP: To kknuppel@hrgray.com

Join the Younger Member (YM) Group event to watch the Ohio State Buckeyes football team play at the Minnesota Golden Gophers. Since this is an AWAY game, we'll be joined by the OSU Student section for the game. This was a

fun event last year, as the audience was about 30 people.

The event is open to all Central Ohio section members and their guests and families. Food and non-alcoholic beverages will be provided.



### MEMBERSHIP RENEWAL

The Race Is On.



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

The 2015 ASCE Section Renewal Race is on! I hope you'll join the Central Ohio Section effort to earn the winning prize and keep our group thriving.

Just go to <a href="https://www.asce.org/renewal">www.asce.org/renewal</a> and renew your ASCE membership by December 12, 2014. Then, go to <a href="https://www.asce.org/finishline">www.asce.org/finishline</a> to encourage other Section members to do the same.

The Section with the highest percentage of renewed members by December 12, 2014 will win a cash prize of \$1,000! Your renewal supports valuable local programs and is always appreciated!

Results will be posted and updated regularly at www.asce.org/finishline to monitor progress and keep a lively spirit of competition!

Now it's Ready...Set...Go to www.asce.org/finishline!



### WILLOW ISLAND HYDROPOWER DAM TOUR

What: Construction site trip

When: November 21, 2014 - Afternoon

Where: Willow Island Hydropower Project,

Pleasant County, WV

Cost: FREE!

Contact: Please contact Dave Pritchard at 614-519-4819 or davepritchard@sbcglobal.net with any questions or to RSVP. Carpool options are

available.

The project is a hydroelectric powerplant currently under construction on the West Virginia side of the Ohio River at the US Army Corps of Engineers Willow Island Locks and Dam. Willow Island is located in Pleasant County, West Virginia, approximately 162 river miles downstream of Point Bridge, Pittsburgh. It is about 2.5 hours from Columbus, between Parksersburg and St. Marys, WV reached via I-70 and I-77.

The project will divert water from the existing locks and dam through bulb turbines to generate



an average annual output of approximately 239 million kilowatt-hours (kWh), enough to power approximately 22,000 homes. The site will include an intake approach channel, a reinforced concrete powerhouse and a tailrace channel. The powerhouse will feature two horizontal FERC rated 17.5-MW bulb-type turbine and generating units with an estimated total FERC rated capacity of 35 MS at a gross head of 20 feet. A 1.6-mile 138 kV transmission line is planned to connect to the plant.

Safety equipment including hardhat, boots, safety vest and safety glasses will be required for the tour. There will be a few available on-site, but please bring your own if possible.

Directions: I-70 east to I-77 south. First exit after Ohio River bridge turn right, then left on 31. Take Rt. 31 to a stop sign at Rt. 2. Turn left at Rt. 2. Proceed for about 8 miles, the project will be on your left after a credit union. Turn left on fishing access after you pass the doublewide office trailers. Turn left into the trailer compound and proceed to the MWH trailer, 3rd on the left.



### ASCE STRUCTURES CONGRESS





Save the Date STRUCTURES CONGRESS 2015 Portland, Oregon - U.S.A April 23 - 25, 2015

### CALL FOR PROPOSALS

Submit your abstract and/or full session proposal today for Structures Congress 2015.

We are currently accepting proposals for complete sessions and abstracts for individual papers to be presented at Structures Congress 2015. The Congress provides a forum to advance the art, science, and practice of structural engineering. All proposals are due

June 11, 2014. Visit the conference website for all the details www.structurescongress.org

Top 5 Reasons to Attend this Congress

- Network and make connections with leaders in your profession
- Gain Knowledge by attending outstanding technical sessions - over 110 from which to choose
- · Earn Professional Development Hours (PDH's) in technical sessions
- Interface with students and young professionals
- Visit Portland for roses, parks, museums, outdoor adventure, great food, and so much more.



### FREE WEBINAR - LRFD FILL RETAINING WALL DESIGN

What: Free Webinar - 1.5 PDH When: Monday, Nov. 17, 2014

11:30 AM - 1:00 PM Bring your own lunch

Where: Korda/Nemeth Engineering, Inc.

1650 Watermark Drive, Ste 200

Columbus, OH 43215

Topic: LRFD for Earth Retaining Structures:

Fill Walls

RSVP: To newsletter@centralohioasce.org by Thursday, Nov. 13, 2014.

\*Open only to Central Ohio ASCE Section Members.

\*Seating is limited to the first 25 people.

### Purpose and Background

Fill walls have a wide range of applications and range in configuration from the basic gravity and cast-in-place (CIP) semi-gravity walls to complex mechanically stabilized earth (MSE) walls. The LRFD platform offers a rational framework for consideration of different types of fill walls. The webinar will use the 6th Edition (2012) American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications as a basis for the technical content. Applicable articles in Sections 11, 10 and 3 of the AASHTO LRFD Specifications will be used as a basis of discussion.

The webinar will assume that the participant has a basic working knowledge of design and construction of fill retaining walls including fundamental aspects of earth pressure theories. It will include discussion on the terminology and types of fill walls, lateral earth pressure theories for fill walls, permanent and transient surcharge loads, applicable load factors, use of minimum and maximum load factors for permanent loads, identification of limit states and resistance factors, pressure surfaces for geotechnical and structural analysis, and consideration of extreme event limit states such as seismic events.

The webinar will concentrate on external stability of CIP and MSE walls. Introductory information on internal stability of

MSE walls in the context of limit states and general concepts will also be presented.

### **Learning Outcomes**

This webinar will help participants perform external stability analysis to size fill retaining walls using the LRFD approach.

### **Seminar Benefits**

- Learn basics of LRFD based analysis of fill retaining walls
- Continue building on the knowledge gained from previous LRFD webinars
- Examine the possibilities and benefits of improved communications between geotechnical and structural specialists for fill wall design

### **Seminar Outline**

- Terminology and types of fill walls
- Lateral earth pressures
- Consideration of surcharges
- Loads and load factors
- Limit states and resistance factors
- External stability analysis for CIP and MSE walls
- Introduction to limit states for internal stability of MSE walls
- Extreme events

The Central Ohio Section of ASCE 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 Central Ohio Section is paying the registration fee and inviting any interested section members to attend for free. Just RSVP by the deadline. Seating is limited, so do not delay.

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.

### CIVIL ENGINEERING REFERENCE BOOKS

Late last year, the Central Ohio Section bought a number of civil engineering reference books and donated them to the Columbus 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

- Building Code Requirements and Specification for Masonry Structures (5-11 & 6-11)
- Urban Stormwater Controls
- Municipal Wastewater Plants
- Structural Steel Designer's Handbook

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





### FREE WEBINAR - LRFD CUT RETAINING WALL DESIGN

What: Free Webinar - 1.5 PDH When: Tuesday, Dec. 2, 2014

11:30 AM - 1:00 PM Bring your own lunch

Where: Korda/Nemeth Engineering, Inc.

1650 Watermark Drive, Ste 200

Columbus, OH 43215

Topic: LRFD for Earth Retaining Structures:

Cut Walls

RSVP: To newsletter@centralohioasce.org by Thursday,

Nov. 27, 2014.

\*Open only to Central Ohio ASCE Section Members.

\*Seating is limited to the first 25 people.

### Purpose and Background

Cut walls have a wide range of applications and encompass a diverse range of wall families including sheet pile, post and panel, H-pile and lagging, slurry and soil mix. These walls resist lateral earth and water pressures through their structural stiffness and anchorages. The LRFD platform offers a rational framework for consideration of different types of walls. This webinar will use the American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge and Structures Specifications as a basis for the technical content. Applicable articles in Sections 11, 10 and 3 of the 6th Edition (2012) of AASHTO LRFD Specifications will be used as a basis of discussion.

The webinar will assume that the participant has a basic working knowledge of design and construction of cut retaining walls including fundamental aspects of earth pressure theories and earth pressure diagrams. It will include discussion on the terminology and types of cut walls, lateral earth pressure design approaches for cut walls, applicable load factors, use of minimum and maximum load factors for permanent loads, permanent and transient surcharge loads, identification of limit states and resistance factors, pressure surfaces for geotechnical and structural analysis, and consideration of extreme event limits state such as scour and seismic events. Introductory information on ground anchor application, construction and design of ground anchor walls in the context of limit states

and general concepts will also be presented. A standalone webinar on ground anchor walls addresses the application of ground anchors in all types of cut walls in more detail.

### **Learning Outcomes**

The webinar will help you perform external stability analysis to size cut retaining walls using the LRFD approach.

### **Seminar Benefits**

- Learn basics of LRFD based analysis of cut retaining walls
- Continue building on the knowledge gained from previous LRFD webinars
- Examine the possibilities and benefits of improved communications between geotechnical and structural specialists for cut wall design

### **Seminar Outline**

- Terminology and types of cut walls
- Lateral earth pressures
- Consideration of surcharges
- Loads and load factors
- Failure modes and limit states
- External stability analysis for sheet pile, H-pile, slurry and soil mix walls
- Introduction to ground anchor application, construction and design
- Extreme events

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### FREE ON-DEMAND WEBINARS

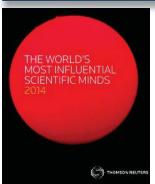
As a benefit to members, in 2014 ASCE is offering five free, ondemand webinars good for one PDH each. You may choose up to 5 webinars from the 60 on-demand webinars listed HERE. Each one is a 1-hour webinar worth 1 PDH. That's 5 free PDHs from our comprehensive continuing education library – just for 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. Webinars must be taken by December 31, 2014.



### INFLUENTIAL SCIENTIFIC MINDS 2014



Thompson Reuters recently published World's "The Most Scientific Influential Minds 2014". The list is compiled of highly cited researchers who are shaping the future of their fields. The scientific community recognized has

group as leaders by vigorously citing them in their own scientific research papers, thereby valuing their opinions and research.

Central Ohio Section member Hojjat Adeli, Dist. M. ASCE, Fellow AAAS, Fellow IEEE, Fellow American Neurological Association and professor at the College of Engineering at The Ohio State University, has been named to this list for his research in the area of engineering.

### PIPELINES 2015 CONFERENCE

Abstracts are now being solicited for ASCE's 2015 International Pipelines Conference which will take place August 23-26 in Baltimore, Maryland. Our own Firat Sever, secretary of the Central Ohio Section, serves as co-chair for this technical program.

The conference theme is 'Recent Advances in Underground Pipeline Engineering & Construction' within the transmission, distribution, and collection of pipelines and tunnels in the water, wastewater, stormwater, drainage, and oil & gas sectors. Abstracts for technical papers are welcomed in the following five thematic broad areas of interest, and may present historical evolution of practice, current practice, technical innovations, case histories of successful projects, lessons learned from failure investigations, and academic research:

- Planning & Analysis
- Design & Construction
- Regulatory, Safety & Risk Considerations
- Assessment & Rehabilitation
- Operations, Maintenance & Management



### PIPELINES CONFERENCE

BALTIMORE, MARYLAND | AUGUST 23-26, 2015

Prospective authors for ASCE's Pipelines 2015 Conference are invited to submit a one-page abstract in English not to exceed 500 words outlining the scope of the paper and the principal points they believe would benefit the professional community. The abstracts must be prepared in MS Word and submitted electronically by Thursday, November 13, 2014 to ASCE at http://submissions.mirasmart.com/ASCE/Pipeline Abstracts for Pipelines 2015 should 2015. include the following information about the primary author and any co-authors: name, credential (e.g., P.E., Ph.D., M. ASCE), title, affiliation of authors, complete mailing address, telephone and fax numbers, and email address. Pipeline Division or ASCE membership is not required for submission.

For additional information please visit http://www.pipelinesconference.org/program/sub missions/

### ASCE MUSICAL MISSION



Why aren't there more songs about Civil Engineering? ASCE is announcing a 2014 Music

Video Contest for students and younger members.

Create a short parody of a popular song, or create your own song. Include lyrics that align with you experience as a civil engineering student or civil engineer, and you could win money for the Student Chapter or Younger

Member Group. Videos will be judged on content, creative delivery and relevancy to the profession of civil engineering.

The grand prize is \$5,000 awarded to the Student Chapter or Younger Member Group! Prizes will be awarded to the top videos in two categories: Student Videos and Younger Member Videos. Those who submit the first 100 qualified entries will receive a \$100 bonus just for entering.

The deadline is December 14, 2014. Submit your entry at <a href="http://woodbox.com/VHV8X9">http://woodbox.com/VHV8X9</a>. For full contest rules and additional information please click HERE.



### 2014-2015 CENTRAL OHIO ASCE MEETINGS

Meeting Date	Topic	Group(s)	Location	Coordinator
Thursday November 20, 2014 Lunch	SR33/I270 Interchange	ASHE/ ASCE	Villa Milano	David Lenzer
Thursday December 18, 2014 Lunch	Blueprint Columbus	ASCE	TBD	Greg Barden
Thursday January 22, 2015 Lunch	EWB Update - Santo Domingo Flood Control	ASCE/ EWB	TBD	Amanda Engle
Thursday February 26, 2015 Lunch	Engineers Week	All	TBD	Engineers Week Committee
Thursday March 26, 2015 Lunch	Bridge Park Development	ASCE/ SEAoO	TBD	Fae Garstang
Thursday April 22, 2015 Dinner	OU/OSU Student Chapter Presentations Portsmouth Bypass	ASCE	TBD - Chillicothe, OH	Tony Klimek - Lower Scioto Valley Chapter
April/May 2015 (TBD) All Day	ASCE Spring Seminar	ASCE	TBD	Chris Nye
Thursday May 21, 2015 Lunch	ASCE National President Elect & Awards Luncheon	ASCE	Schmidts	TBD
June, 2015	2015-2016 Planning Meeting	All	Tommy's Pizza - Dublin, OH	A.J. Smith
Friday June, 2015 (TBD) Lunch & Dinner	Annual Golf Outing	ASCE	Darby Creek Golf Club	Jim Pajk

### OSU MASTERS LEVEL STRUCTURES COURSES

The Ohio State University Department of Civil, Environmental & Geodetic Engineering announces the introduction of structures graduate-level courses beginning at 4:00 PM that may be of interest to Central Ohio working professionals. These courses start in the Spring semester of 2015 and include Earthquake Engineering and Advanced Behavior and Design

of Metal Structures.
Additional
information may be
found the
University's College
of Engineering

GRADUATE SCHOOL

Advancing graduate education for over 100 year

website at https://ceg.osu.edu/graduate.

### KEEP UP TO DATE

### Join Our E-Mail List!

Stay up to date with current news - go to http://centralohioasce.com/e-mail .

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

### BOARD MEETING

Our Next Board Meeting
Will Be 11:30 AM
December 4, 2014
Location: Stantec
1500 Lake Shore Drive, Suite 100
Columbus OH 43204



### REGIONAL CONTINUING EDUCATION SEMINARS

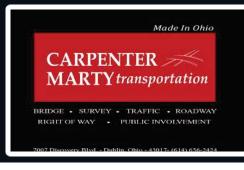
ASCE's Continuing Education Department is proud to announce the schedule of seminars and workshops for the fall in winter in the Region 3 geographic area. Additional information on these seminars may be found at the following website: http://mylearning.asce.org/diweb/catalog/t/2116/c/79. These face-to-face seminars are comprised of small groups of like-

minded individuals, allowing personalized attention from instructors to meet your needs. More than 200 courses take place across the nation for a variety of specialty areas. Register two or more individuals from the organization same for the same Seminar (title, date, and location) and save 10% on each seminar registration.

Program	Full Dates	City/State
Design of Concrete Pavements — NEW	November 6—7, 2014	Cincinnati, OH
Structural-Vibration Analysis: Design and Troubleshooting	November 19—21, 2014	Chicago, IL
Designing Nonbuilding Structures Using ASCE/SEI 7-10 ~NEWLY UPDATED	December 4—5, 2014	Cincinnati, OH
Managing the Design Process: Keeping on Schedule, within Budget, and Selecting the Right Resources	December 11—12, 2014	Chicago, IL
Instrumentation and Monitoring Bootcamp: Planning, Execution, and Measurement Uncertainty for Structural and Geotechnical Construction Projects	February 26—27, 2015	Chicago, IL
Wind Loads for Buildings and Other Structures	February 5—6, 2015	Chicago, IL
Leadership Development for the Engineer	March 5-6, 2015	Cincinnati, OH

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- Environmental Compliance & Permitting

70 West Columbus Street, Pickerington, OH 43147 ph: 614.837.4750 www.SpenceEnv.com











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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.



### OUR PROFESSIONAL SPONSORS







Jones-Stuckey

















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Double Business Card Ad

\$350 / year

To purchase a newsletter ad, email your request to newsletter@centralohioasce.com



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www.ctconsultants.com 614.885.1700

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