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President's Message



For my final message as Central PA Section President I wanted to take some time to highlight three topics that are the current focus of ASCE: the next installment of the Failure to Act Report, the Dream Big Imax movie and updates for the (sometimes controversial) Raise the Bar strategic initiative.

ASCE has issued the next installment of the Failure to Act: Closing the Infrastructure Investment Gap for America's Economic Future report. This updated report lays out the costly consequences to the economy, families and businesses if our infrastructure problems are left unaddressed. It is an update of the 2011 and 2012 reports and quantifies how the persistent failure to invest in our aging infrastructure impacts the economy, including Gross Domestic Product, jobs, personal disposable income, and business sales. Underinvesting in the Nation's infrastructure comes at a high cost. According to the study, this underinvestment costs each family \$9 a day or \$3,400 a year sitting in traffic, vehicle repairs due to rough roads, etc. A recently released video by ASCE's Government Relations team, uses bold, clear graphics and terms to make the case and offer a solution; the video can be viewed [here](#).

National Engineers Week in February 2017 is going to inspire future civil engineers, this time on the big screen. ASCE's IMAX movie, Dream Big: Engineering Wonders of the World will have its world premiere on February 17th. As co-chairs of EWeek, ASCE and Bechtel are working with the DiscoverE foundation on a major coordinated outreach campaign. The hope is that the Engineers Week platform and the movie will significantly boost the interest in civil engineering for a number of children and youth across the country and world. The trailer for the Dream Big movie can be viewed [here](#).

Many of you are aware of ASCE's strategic initiative that aims at increasing the minimum amount of education required for professional licensure also known as Raise the Bar. The goal of this initiative is to bring civil engineering education in line with other professional majors that require more than a 4 year degree for professional licensure. The National Society of Professional Engineers has joined examination body NCEES to effectively endorse additional education as a requirement for professional licensure. ASCE President Mark Woodson provides a more comprehensive update about this initiative in a brief ASCE News article that can be read [here](#).

Finally, it has truly been my pleasure to serve the Central PA Section and its membership as Section President over the past year. I have met and worked with many great civil, environmental and architectural engineers as well as some very bright engineering students attending our five participating Colleges and Universities. I will certainly reflect positively on my years as a member of the Central PA Board of Directors and I plan to remain involved in Section operations as Past President and Student Awards Chair. I look forward to speaking with you at future ASCE Central PA Section events.

Sincerely,
Christopher W. Smith, P.E., M.ASCE
2015-2016 Central PA Section President

WELCOME NEW MEMBERS

Jeffrey Bucher, PE
Scott Trout, PE
Timothy Nolt, PE
Thomas Witt, PE

Region 2 Director's Message - May 2016

Submitted by: Christopher Menna, P.E. Region 2 Director

During the summer, many things are going on within the Region. At the time of this writing, we are trying to get the word out as much as possible about the importance of Society voting. Please keep in mind that the Society has specific policies and eligibility requirements in place that must be followed. Only certain member grades may vote. For example Student members and Affiliate Members are not eligible to vote. We often emphasize the importance of Student Member to Associate Member transition. This is not automatic. All Student Members upon graduation must contact ASCE to upgrade their membership.

Schedule of Activities

- A Regional Governor contingent will attend with me at the 6/3/16 - 100th Anniversary NCS Section Celebration/Symposium in Washington, DC.
- The Region 2 Board of Governors will host its annual summer face to face planning meeting on 6/18/16 in Mount Airy, MD. This meeting will be extra special, as this will mark the beginning of the Director transition.
- Over the summer we will strive to become 100% whole before I leave, by:
 - Working to fill an Appointed Governor Position and a new YMG Region 2 Representative.
 - We work to get our new website up and running and get our file structure in order
 - Finish and evaluate our year-long student chapter pizza party pilot project
 - Firm up planning for our next Assembly on November 14, 2016 at Morgan State University, Baltimore and
 - We assist the Philadelphia Section with the future of its Reading Branch.

As we look toward the fall, we will try to visit as many geographic entities as possible and perform new officer installations. We will also promote the 2017 roll out of the Dream Big Initiative Region wide, encouraging events such as red carpet promotions and movie viewing for school aged children. On behalf of the Board, I wish all of you a safe and happy summer.

2016 State Infrastructure Day

Submitted by: Jason Bowes, P.E., Legislative Committee Chair

On Tuesday, May 17th, ASCE members from across the state met in Harrisburg for ASCE PA's annual State Infrastructure Day. Previously known as the State Fly-In, the event brings together civil engineers and industry professionals to lobby for a number of issues currently affecting the civil engineering community. A total of 16 members spent the day in Harrisburg, meeting with members of the state legislature and their staff. The group was accompanied by team members from Duane Morris Government Strategies (DMGS), a consulting and legislative services firm, who assisted with everything from final messaging to scheduling the 20+ meetings throughout the day.



ASCE PA members chat with DMGS staff at the Harrisburg Hilton,

Building upon last year's message, the group spent the day discussing several water industry-related priorities. Specifically, ASCE members requested that the Legislature consider implementing three separate actions:

- Conduct a comprehensive study that investigates PA's stormwater needs. ASCE PA recommends updating the 2008 report submitted by the Governor's Sustainable Infrastructure Taskforce. Most importantly, the report should include a financial needs assessment to stormwater.
- Support the passage of HB 1325, HB 1394, and HB 1661, which enables municipalities to implement stormwater management ordinances and collect a reasonable stormwater fee without creating a municipal authority.
- Require that any utility serving the public implement asset management planning to provide the most cost effective level of service.

In the weeks following ASCE's State Infrastructure Day, HB 1325, which enables Second Class Townships to collect such stormwater fees, was sent to the Governor's desk and approved. The future of HB 1394 and 1661, which apply to Boroughs and First Class Townships, respectively, remains to be seen. Thank you to the ASCE members and DMGS staff involved for all of their hard work in getting this accomplished. It is sometimes important to stress that regardless of whether a senator or representative believes localities and their utilities are being overregulated, the bottom line is these changes are being mandated and small communities are being hit especially hard. ASCE is committed to helping municipalities find a fair and reasonable way to pay for them.

Did you know that, nationwide, we average 700 water main breaks every day, resulting in up to 7 billion gallons of water lost daily? (CNN/ASCE) Asset management is a proven technique that can eliminate a major portion of the high costs associated with failed systems. It does not necessarily involve the cheapest user rates and fees, but rather establishes rate schedules that will remain stable, provide for maintenance of existing systems, and allow authorities and localities to plan for future upgrades. The common analogy is, "Would you buy a car and not change the oil?" *Probably not.* "So why build these facilities if we are not going to maintain them and, in turn, extend their useful lives?"

Regarding asset management of public facilities, ASCE members received some feedback from lawmakers about first taking the time to educate local officials on what asset management is and the benefits of implementing such a system. ASCE PA is currently looking at different ways to have these discussions. It is important to keep everyone informed, from the operators to the managers and ultimately, the tax payers themselves. Keep an eye out for future ASCE involved events focused on these type of asset management strategies.

Structural Engineering Institute (SEI) Holds HSS Design Seminar

Submitted By: Michael McGowan, P.E., Structural Chair

On Thursday, July 7th, 30 engineers from 18 companies attended the seminar entitled "HSS Design with the Latest Codes and Material Specifications" presented by Kim Olson, P.E., technical advisor to the HSS Committee of the Steel Tube Institute. The webinar was held at Gannett Fleming, Inc. in Camp Hill, PA.

Those in attendance received knowledge in the design and detailing of hollow structural section members. Kim introduced updates in the uses and materials specifications of HSS members. Kim explained that the new HSS material specification, ASTM A1085, will once again allow the designer to use the full nominal thickness for member and connection strength calculations.

The Steel Tube Institute (STI) understands that designers have struggled to know the availability of HSS sections due to lack of direction and information. There are many different shapes that can be made, but a shape that is most economical may not be available. Kim explained that STI has put together an availability tool that is updated by STI's HSS-producing members as their productions change.

Kim also discussed efficient solutions in HSS member and connection design, and recent developments in design codes were highlighted. The session also informed engineers of resources available to make designing HSS members and connections more streamlined and efficient.

Lunch was provided and attendees earned 1.0 Professional Development Hours (PDHs).

If you have any questions or comments, or would like to become more involved in the Central PA Section of the ASCE Structural technical committee/Structural Engineering Institute, please contact Mike McGowan at (717) 763-7211 or mmcgowan@gfnet.com.

ASCE Members Elect a New National President-Elect

Submitted by: Christopher W. Smith, P.E. – Section President, 2015-2016

The 2016 national election concluded on June 1 and Kristina L. Swallow, P.E., ENV SP, F.ASCE will be ASCE's 2016-2017 President-Elect to succeed to Society President in Fall 2018. Ms. Swallow is the fourth woman elected President in the Society's 164 year history.

In her Vision Statement, Ms. Swallow notes that ASCE's stated vision is 'Civil engineers are global leaders building a better quality of life.' The Vision of 2025 closely mirrors and further articulates the Society's vision and was developed by a diverse group of industry leaders from across the globe, including ASCE leadership, engineers in multiple disciplines, architects, educators, and others. It states 'civil engineers will serve as master builders, environmental stewards, innovators and integrators, managers of risk and uncertainty, and leaders in shaping public policy.' Our vision is clear and achievable. It should guide us individually as we develop in our own careers and define how our profession is regarded by society at large.



Ms. Swallow earned a Bachelor of Science degree in Civil Engineering from the University of Arizona in 1994, and a Master of Science in Engineering in Civil and Environmental Engineering from the University of Nevada, Las Vegas in 2004. Kristina is a Licensed Professional Engineer in Nevada and has worked for several engineering consultants and public organizations and has been working for the City of Las Vegas since 2012 as Engineering Program Manager. More information regarding Ms. Swallow's Vision for the Society, ASCE Experience, Work Experience and more can be found [here](#).

In addition to the National elections, Region 2, of which the Central PA Section is a part, elected three members to Regional positions. John G. Casana, P.E., D.WRE, LEED AP, M.ASCE, from the National Capitol Section was elected Region 2 Director-Elect for 2016-2019. William F. Brittle, P.E., F.SEI, F.ASCE, from the Maryland Section, and Jack A. Raudenbush, P.E., M.ASCE, from the Central PA Section, were elected Region 2 Governors for 2016-2019.

Modjeski and Masters Develops New Concrete U-Girder Standards

Submitted by: James Nugent, Marketing Manager, Modjeski and Masters, Inc.



MECHANICSBURG, PA | Modjeski and Masters is pleased to announce that new Spliced Post-Tensioned Concrete U-girder Standards, which we helped develop, have recently been approved by the Pennsylvania Department of Transportation (PennDOT). PennDOT issued Strike-Off Letter 483-16-04 for this new product. This new bridge concept is immediately available for use throughout Pennsylvania by designers, contractors, and owners. Presently, this bridge concept can be used for Design-Build projects, or as an Alternate Bridge Type at the discretion of the PennDOT District Executive or included in the As-Designed documents with approval of the Chief Bridge Engineer.

Gregg Reese, PE, President of Summit Engineering Group, a subsidiary of Modjeski and Masters, led the development of the Standards. Reese and Summit have already deployed similar design techniques with great success in Colorado, Texas, and Florida.

"We've developed a set of standards that can help designers, contractors, and project owners be more efficient, cost-effective, and innovative," said Reese. "With the economies of concrete being what they are at the moment, these standards can help budget-conscious organizations do more with less. They also assist in accelerated construction, meaning less interruption to the general public. We know Pennsylvania will benefit from these new standards in the same ways we've seen across the country."

The spliced post-tensioned concrete U-girder used in a continuous unit is permitted either for tangent structures or horizontally curved structures. The U-girders are to be designed/analyzed to meet AASHTO LRFD and Design Manual, Part 4 criteria. Once post-tensioned, the U-girders act similarly to a standard girder and will accommodate future redecking with no issues commonly experience with traditional segmental concrete bridges. The Standards provide details, erection alternates, grouting specifications and a live load rating procedure.

For more information about Modjeski and Masters' concrete bridge expertise, visit: <http://www.modjeski.com/Services/detail.aspx?service=SegmentalConcrete>

Parfitt Named Interim Head of Architectural Engineering

Submitted By: Samantha Chavanic, P.E., Structural Chair



UNIVERSITY PARK, Pa. – M. Kevin Parfitt, P.E., F.AEI, professor of architectural engineering at Penn State, has been appointed interim head of the Department of Architectural Engineering, effective Aug. 1, 2016. Parfitt will succeed Chimay Anumba, who has accepted a position as dean of the University of Florida’s College of Design, Construction and Planning. Parfitt’s appointment will last one year, while the College of Engineering conducts a national search for a permanent head.

“Penn State AE has long been considered the top architectural engineering program in the country and I am proud to be appointed to this position. I feel extremely fortunate to have the opportunity to work with such an excellent group of students, as well as a dedicated and highly motivated faculty,” he said.

Parfitt has been an architectural engineering faculty member since 1981. Prior to joining Penn State, he served as a structural and project engineer with a number of architectural engineering firms, as well as working for noted architect/forensic structural consultant Raymond A. DiPasquale and Associates.

Amr Elnashai, Harold and Inge Marcus Dean of Engineering, said, “Professor Parfitt has a deep and broad knowledge of the Department of Architectural Engineering that renders him ideally suited to lead the group at this juncture. His steady leadership will smooth the transition between Professor Anumba and an incoming head who will be selected through a national search.” During his more than 34 years in the department, Parfitt has served as the placement coordinator and director of the AE Senior Thesis year-long capstone program. Under Parfitt’s direction, students in multidisciplinary team senior capstone have gone on to compete in the American Society of Civil Engineers (ASCE) Architectural Engineering Institute (AEI) National Student Design Competition. To date, Penn State has won more total awards than any other architectural engineering program in the nation.

He has been recognized by the University and the Penn State Engineering Alumni Society for his teaching and advising excellence, receiving the Lawrence J. Perez Student Advocate Award and the society’s Outstanding Advising, Outstanding Teaching and Premier Teaching Awards. In 2011, he was named a Penn State Teaching Fellow, a University award for distinguished teaching. To date, he is the only architectural engineering faculty member to receive the award. Parfitt received a bachelor of architectural engineering degree from Penn State and a master of engineering in civil engineering (structures) from Cornell University.

Parfitt plays an active role in the department’s research of building failures and dissemination of failures information to the profession. He has been involved in a number of national failures investigations including the David L. Lawrence Convention Center in Pittsburgh, a multiple private hangar snow collapse event at the Dulles Jet Center in Virginia and fire damage repair assessment of parts of a laboratory facility at Fort Detrick, Maryland. Parfitt said this type of professional involvement is invaluable in bringing real-world practitioner-type content into his building failures and forensic course.

Parfitt’s professional affiliations include ASCE where he is actively involved in the Forensic Engineering Division, founding member of the ASCE AEI and a former editor of the ASCE Journal of Architectural Engineering. Parfitt’s goals for the year include capitalizing on the vast knowledge and experience of the faculty to maintain and enhance the multidisciplinary core architectural engineering curriculum.

“One of my primary tasks over the next year will be staying in touch with the students to ensure we are providing them with the highest level undergraduate and graduate education possible,” he said. He hopes to expand the student-practitioner initiatives already underway. This focus on connecting students to practitioners assists Parfitt in leading Penn State’s largest departmental career fair. The AE career fair brings in more than 135 companies looking to hire students for internships and full-time positions. The career fair is seen as one of the reasons students in the major have a near 100 percent job placement rate by graduation.

Save the Date: January 25-27, 2017

29th Central Pennsylvania Geotechnical Conference --- Hershey, Pennsylvania

Scheduled Speakers and Topics

- **Joseph Cavey** - 26th Street Emergency Retaining Wall Replacement, Baltimore MD
- **Dr. Joseph Coe** - Application of Nondestructive Testing and Geophysical Methods to Evaluate Unknown Foundation Geometry
- **Dr. David Elton** - A Brief History of Geotechnical Mistakes
- **Dr. George Filz** - Kennedy Space Center
- **Arthur Hoffman** - Future Geo-Business Trends
- **Dr. Robert Holtz** - To Be Determined
- **Eric Klein** - Tied-Back Micropile SOE to Support Active Rail Loads
- **Dr. Michael Malusis** - Soil-Bentonite Cutoff Wall Instrumentation
- **Dr. Michael McGuire** - As-Built Verification and Condition Assessment of Mechanically Stabilized Earth (MSE) and Geosynthetic-Reinforced Soil (GRS) Retaining Structures using 3D Point Cloud Data
- **Sarah Missenda** - East Branch Dam
- **Daniel Ruffing** - A Case Study: Soil Mixing for Soft Ground Improvement at a Landfill
- **Johanna Simon** - A Hybrid Retaining Wall to Conquer a Massive Slope
- **Steve Wendland** - Impacts of Superfast Construction on Slope Stability
- **John Wolosick** - Revisiting Normandy Beach - Bluff Stabilization
- **Joseph Zwetchkenbaum** - Fully Softened Shear Strength of Northern Virginia Potomac Clays



To register, exhibit and obtain further information, visit our website at:
[http:// www.central-pa-asce-geotech.org](http://www.central-pa-asce-geotech.org)

Direct registration questions to Jason Gardner at: jgardner@gfnet.com
Direct exhibit questions to Bruce Stegman at: bruce.stegman@verizon.net

Sponsored by
American Society of
Civil Engineers
Central PA Section

SAVE THE DATE

ASCE 2016 CONVENTION
PORTLAND, OR SEP. 28 - OCT. 1



Have you marked your calendar? Don't Miss the launch of the ACSE 2016 Convention with its respected technical and educational programming, exciting behind the scenes technical tours and enhanced short courses.

More Information is available at
<http://asceconvention.org/>

WELCOME

ASHE Harrisburg WTS *Advancing Women in Transportation* ASCE CENTRAL PENNSYLVANIA SECTION

Picnic & Casino Night

WHERE:
Lower Allen Township
Park Barn
4070 Lisburn Road
Mechanicsburg PA 17055

PRICE:
\$40 per person for
ASHE, ASCE, and WTS Members
AND their guests
\$45 per person for all others

WHEN:
Friday, August 26, 2016
Social and Golf Chipping Contest:
4:30 to 6:00
Dinner: 6:00 to 7:00
Casino Night: 7:00 to 8:30
Prizes: 8:30 to 9:00

PRIZES:
iPad Air 2
And More!!

BUFFET:
Hard Shell Crabs, Steamed Shrimp & Clams, Hot Dogs, Hamburgers, Potato Salad,
Baked Beans, Tossed Salad with Dressings Rolls, Ice Cream Sundae Bar
Beer/Soda/Water

Please RSVP by August 18, 2016

[CLICK HERE](#) for online registration OR Fill out and mail the form below

Name: _____

Company: _____

Email: _____

No. Guests: _____ Name(s): _____

Check Affiliation(s): ASHE ASCE WTS

Amount Enclosed: _____

Mail form with check payable to
"ASHE Harrisburg Section" to:

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c/o Gloria Smith

5001 Louise Drive, Suite 201
Mechanicsburg, PA 17055

Email: Gloria.Smith@KCI.com

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New and Events

Event	Date	Location
ASHE/ASCE/WTS Joint Picnic & Casino Night	August 26, 2016	Lower Allen Township Park
ASCE Annual Conference	Sept. 28 – Oct. 1, 2016	Portland, OR
29 th Central PA Geotechnical Conference	January 25, 2017	Hershey, PA

Please visit www.asce-pa.org for more information

Address Change? Questions About ASCE?

If you are an ASCE member, and wish to update your address information, please visit: www.asce.org/myprofile.

If you are a member of ASCE, and have questions, please email them to: centralpa.asce@gmail.com.

Questions about the ASCE Central PA Section Newsletter? Send an email to Jason Taylor, Newsletter Editor, at jtaylor@aegroup-llc.com.