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President’s Message

Happy Spring! Well I may be getting ahead of myself, but after much anticipation Punxsutawney Phil did after all predict an early spring. Although according to Wikipedia Phil’s accuracy rate is only around 40%, so we shouldn’t put too much credence in a ground hog.



Engineer’s Week 2019 was celebrated February 12-23. Volunteers from the Section participated in the Education Outreach at the Whitaker Center. This is a great opportunity to teach civil engineering principles and inspire the next generation of engineers. Although Engineer’s Week is over for 2019, we don’t have to end the celebrations. We as engineers need to continue to inspire the next generation of engineers year-round. Speaking of inspiration, congratulations goes out to Warwick Middle School from Lititz, PA for winning the 2019 Future City Competition held in Washington, D.C.!

We recognized our 2019 Life Members at the February dinner meeting. A Life Member is an individual who has made a lifetime commitment to ASCE and the civil engineering profession by remaining a member for the full length of their professional career. On behalf of the Section, we congratulate these distinguished individuals who have reached this status. Our 2019 Life Members are Jay Fitzgerald, Kenneth Nadler, James Orbison, Thomas Skibinski, and George Stine.

We have several exciting upcoming events in the next few months. The following dinner meetings and events have been scheduled:

- March 9th – Transportation Technical Group Live Presentation – David A. Hamlet, P.E., Vice President and Highway Section Manager, Gannett Fleming – **Diverging Diamond Interchange Projects in Pennsylvania**
- March 13th Dinner Meeting - Robert Connor, PhD, Purdue University, T.R. Higgins Lectureship Award Winner – **Fracture Critical Members – Current Views and How to Move Forward**
- April 10th Dinner Meeting – Mr. Brandon Buschmeier, P.E., Director of Engineering, Menard Group – **CMC Rigid Inclusions – Concept, Design, and Quality Control**

You can find more details about upcoming events on the Section website at <http://sections.asce.org/central-pennsylvania/events>

WELCOME NEW PROFESSIONALS:

Ryan Cumming
Darren Liptak
Chad Hoover
Brian Zickefoose
Angela Brackbill
Mitchell Harbold
Daniel Stevenson
Alison Kennicutt
Andrew Warner
Andrew Hibbs
Jean Bastista Abreu
Mark Reider
Peter Digiovanoni

WELCOME NEW STUDENTS:

Troy Staats
Carlos Arias
Daniel Klapper
Matthew Juliana
Josh Relin
Katie Lee
Macayla Murdick
Ikeoluwa Ogunranti
Matthew Miekley
Adam Weissend
Lam Ngo
Ningdong Zhang
Brandon Smith
Amber Brush

We also post events on our Facebook page and Twitter https://www.facebook.com/pg/ASCE.CentralPA/events/?ref=page_internal and <https://twitter.com/ascecentralpa>

I hope to see you at upcoming Section events!

Sincerely,

Kerry E. Henneberger, P. E., M. ASCE
2018-2019 Central PA Section President
kheneberger@larsondesigngroup.com

Family Christmas Party

Submitted by: Tim Carre, P.E., Vice President

The family Christmas party was held on December 12th. We received positive feedback from those attending. The gathering provides an enjoyable time spent with family and friends, including a coloring contest for the children and a visit from Santa. Many thanks to Andy Ottinger for making all the dinner arrangements and to Joe and Michelle Eberly for conducting the coloring competition.



2018 November Dinner Meeting

Submitted by: Tim Carre, P.E., Vice President

The November Dinner Meeting presentation was given by Mr. Gary Kleist, P.E. At PennDOT, Mr. Kleist is considered an aficionado of P3 projects. He is currently the lead for PennDOT's P3 Rapid Bridge Replacement project (RBR) and has been since its inception. Through his presentation, he shared his experiences with P3 touching on the good, the bad and the ugly.

Mr. Gary Kleist or Gary, as he is known at PennDOT, talked about the origins of P3 in Pennsylvania. He explained how a change to legislation (Act 2012-88) was required to allow this innovative approach to be used in PA. Gary explained that P3 is a method to deliver more projects faster. He stressed, it is not a new funding source, it's just a better way to maximize efficiencies. P3 helps to manage project risk by assigning that risk to the partner best equipped to manage it. He praised the successful use of P3 to deliver projects in other areas where successes have been realized; including waste management, energy, technology and transportation. He cautioned, successful projects are not without problems.

Mr. Kleist noted the complexity of setting up a P3 project. P3 projects require extensive planning on both sides. He learned firsthand that there are mountains of documents to sort through. Unlike our regular practice of project delivery this new process required extensive planning. There was the securing and mapping of funding, the assignment of risk, and the need to detail the partnership through the varied stages to determine the level of private involvement. Only after hours of meetings are the roles defined and clarified and, in the end, both sides must agree, and work can move forward. PennDOT with the use of P3 has delivered more bridges faster than was possible before.



2019 February Dinner Meeting

Submitted by: Andrew Orlovsky, P.E., Environmental and Water Resources Chair

On Wednesday, February 13, 2019, attendees gathered to hear Mr. Thomas Lawson, P.E., P.L.S. who presented on the design and construction of the \$29 million Bloomsburg Pa. Flood Risk Management Project which was completed in the fall of 2016. The Bloomsburg Flood Risk Management Project, located along the Susquehanna River in Columbia County, is a complex system consisting of earthen levee, mechanically stabilized earth (MSE) wall, H-pile wall, road and railroad closure structures, sanitary sewer control structures, and pump stations. The presentation described all stages of the project, from obtaining funding, ensuring that all lands were acquired and existing utilities were properly addressed, obtaining the environmental permits, the geotechnical investigation, obtaining the Conditional Letter of Map Revision (CLOMR) from FEMA, the hydraulic and structural design, the construction of the first phase, plus the proposed construction of future phases.

Mr. Lawson is a Senior Engineer at Borton-Lawson, a diversified engineering firm he and Chris Borton founded over 30 years ago. The firm now has over 165 staff with three offices in Pennsylvania. Unlike some engineers that specialize in a particular field, Mr. Lawson's design career included dams and flood control projects while with the Army Corps of Engineers, but then expanded to include airports, bridges, highways, storm water management facilities, land development, design of low and high-rise buildings, prisons, traffic studies, hydrology and hydraulic studies, and on and on.

His community and professional service organizations roles included Chairman of the Board of the Pennsylvania Professional Engineers in Private Practice, President of the Luzerne County Chapter of the Pennsylvania Society of Professional Engineers, Chairman of the Board of the Wilkes-Barre Chamber of Commerce, and Chairman of the Pennsylvania Highway Information Association, just to name a few.

Life Member Recognition

Submitted by: Chris Messner, P.E., Transportation Technical Group Co-Chair

As part of the Central PA Section February Dinner Meeting, we took the opportunity to recognize our members who attain Life Member status in 2019. Our Membership Committee Chair, Mr. Chris Messner, recognized and presented Life Member certificates with lapel pins to the following individuals: Mr. Jay Fitzgerald and Mr. Thomas Skibinski. In addition, three other members from the Section became Life Members and they are Mr. Kenneth Nadler, Mr. James Orbison, and Mr. George Stine. The Section is very proud to have members like these who have dedicated such a large portion of their life to the civil engineering profession.



Younger Member Group New Year Update

Submitted by Bill Kingston, PE, CFM, YMG President

The Central PA Younger Member Group (YMG) kicked off 2019 with a happy hour social at Marzoni's Brick Oven & Brewing Co. in Mechanicsburg, PA on Thursday, January 24th. The event brought together Younger Members from across the Central PA area to socialize, network, and sample some of Marzoni's in-house craft beers and brick oven pizza. The YMG sponsors these events at a different local restaurant/bar approximately every one to two months, providing food for all in attendance. Watch for future email announcements regarding our upcoming socials.

On January 30th, the YMG helped to coordinate an informal Question and Answer Panel with student members from the York College of Pennsylvania's ASCE Student Chapter. Our panel consisted of volunteers with varying levels of experience from different backgrounds who were able to speak to different aspects of the profession and answer whatever questions the students had about ASCE, the workplace, obtaining jobs, and life after college in general. This was our second year holding this event at York College and we had over 30 student members in attendance. The YMG would like to thank the following volunteer panelists: Bill Kingston, PE, CFM (Gannett Fleming, Inc.), Chris Beauregard, PE (Nutech Group), Chris Messner, PE (Greenman-Pedersen, Inc. (GPI)), Gerald Maragos, PE (Gannett Fleming, Inc.), Keith Kassees, PE (American Testing Laboratories, Inc.), and Robert Hoffer, PE (AECOM). The YMG would also like to thank Dr. Scott Hamilton, PhD, PE, F.ASCE and the student officers from the York College ASCE Student Chapter for inviting us and helping us to coordinate the event.



Question and Answer Panel between ASCE Professionals and Student Members from the York

This spring, the YMG is looking forward to our annual Engineer's Week event at Harrisburg's Whitaker Center for Science and the Arts' Harsco Science Center on February 16th and 17th, a March Happy Hour Social, and our bi-annual Adopt-A-Highway litter clean-up with free Cracker Barrel breakfast in mid-April. Be on the lookout for email announcements for these events.

We are always on the lookout for new events to hold or co-sponsor/participate in and volunteer opportunities, so if you have any ideas, we'd love to hear about them. Additionally, we are looking for motivated individuals who would like to get more involved in the YMG and help plan and lead events. If you are interested, please contact Bill Kingston at wkingston@gfnet.com or speak to an officer on the Section Board at a future ASCE event.

For those of you who have yet to attend one of our events, we encourage you to come out and see what the YMG is all about and what we have to offer. We hope to see you at a future event!

The Younger Member Group of ASCE is for any ASCE member under the age of 36 who is interested in community service, supporting local charities, professional development, and social networking with other professionals in the area. The YMG is always open to new ideas and activities to better serve you, the members. If you have any ideas for future activities or events, or would simply like more information, please contact Bill Kingston at wkingston@gfnet.com.

What Does Long-Gone Infrastructure Offer Us Today?

Submitted by Benton Webber, Lancaster Township Municipal Engineer

If you're like me, you've spent most of your engineering career trying to understand existing conditions and figure out ways to make improvements. I've been mildly interested in big engineering projects of yore. But over the last year or so, there's been an epiphany for me, as I've come to realize "what used to be" right here in my neck of the woods.

Throughout the county, Lancaster had trolleys and parks that are now gone and forgotten. Various public & private facilities have risen and been replaced. We've improved our transportation facilities and had dramatic impact on our waterways. We keep struggling to be good stewards of the funds available so that aging utilities installed can be expanded, repaired, or replaced, as needed. I find myself pondering the old road beds that are barely visible and the vestiges of bridges that were mostly removed. Several railroads used to run right through the center of town and it's stunning to realize how different things once were.



"Map and Profile of Conestogo River for improving the Navigation from Lancaster to the Susquehanna | As Explored November 1824 By E. Beach"

	Erie Canal built 1815-1835 (opened 1824)	PA Canal Commissioners formed	Susquehanna & Tidewater Canal system chartered	Roughly 2,600 miles of canals were built or begun			Cholera outbreak. Panic of 1837. Many canals were struggling.	Pennsylvania defaulted on its bonds.	Railroads provided speedy, reliable, and cost-effective means of transportation.
1710-1730	1770-1820	1824	1825	1826	1827	1828	1830s	1840s	1850-1930
Lancaster area settled.	Lancaster City established.	Petition to State for charter	Conestogo Navigation Company formed.	Land purchases & negotiations	Additional charters granted by State	January 2: Gay's report that the work was completed.	Sale of Conestogo Navigation Company to Edward Coleman, who chartered new company.	Edward Coleman sold his holdings to Lancaster, Susquehanna and Slackwater Navigation Company	Dams converted & deteriorated.
County formed.	Several charters granted; none implemented.	Preliminary planning (see above map)	Bids received & contract awarded.	First dam & lock finished.	Construction continued.	Commercial traffic commenced.	Repeated repairs needed	Steamboat passenger service advertised.	Commercial traffic ceased.
Agriculture and Industry were booming			Engineer Edward Gay (24 years of age) hired to oversee the work.	August 2 ceremony	Repairs and more fund-raising needed.		Two dams removed.	Commercial traffic continued.	Property sold.

A case in point are the canals built throughout Pennsylvania during the early 1800s. There's an incredible museum site for the Portage Railroad. It'll blow your mind. But, back to my neck of the woods... In the 1820s, private citizens in Lancaster undertook to make the Conestogo (as they spelled it then) navigable. Rather than excavating a conventional canal parallel to the river, they built nine dams across it, each with its own lock. Eighteen miles of towpath guided the barges from the City to the Susquehanna with vertical elevation change of sixty-four feet.

This type of improvement is called "slackwater" and was believed by its proponents to be cheaper to build, although they appear to have given little thought to the cost of maintaining these dams across such a volatile river. Back then, they weren't recognizing the additional run-off from the changing land uses around them. We have a lot of farmland in Lancaster and that made a big difference in runoff after so much of the native forestland was cleared for agriculture. So, there were constant repairs and re-builds of the dams and locks.

It's fascinating to learn about the engineers involved. Beginning with Captain Ephraim Beach (presumably a graduate of the only engineering school in North America at the time, West Point) who prepared an initial survey and plan in November of 1824. Plotted on linen and trimmed with silk, it's an 8'x3' map kept in the museum at the LancasterHistory.org, along with the meeting minutes book of the "Conestogo Navigation Company" who hired him for this preliminary planning.

This client, like many today, didn't want to heed his counsel about the slackwater navigation. When asked if he'd oversee the works being installed, Beach deferred, claiming that he'd become ill. Another famous engineer of that time, Simeon Guilford, was asked to assist Beach and also declined the offer to oversee the construction. It's shocking today to realize that construction bids were received and a contractor (Caleb Hamill of New York) was hired first and then asked to find a suitable engineer to oversee his project. Twenty-four year old Edward F. Gay, experienced through his work on the Erie Canal, was ultimately hired by the Conestogo Navigation Company and continued employment with them for a few years after the initial completion.

Unfortunately, the canals along the Susquehanna weren't completed as quickly as the improvements to the Conestogo. So, there wasn't much traffic that could really come from far-off destinations like Baltimore or Philadelphia until the Susquehanna Tidewater Canal system was operational. Within just a few decades of the slackwater system being completed, railroads were widely developed and put to use. Commerce faltered and ownership changed hands several times with the last known traffic occurring in the 1860s.

Our community also used the river for mill power, generation of electricity, and various waste disposal purposes, aside from the ongoing erosion & sediment that found its way into the river. All this debris, refuse, pollutants and sediment laid in behind the nine dams and locks. Entropy had its way of course, ultimately washing away the dams and sending everything behind them downstream to the Susquehanna and the Chesapeake Bay.

Now, as I travel around Lancaster, it's actually kind of a magical experience, visualizing the old roads, bridges, landscape, and of course the Conestoga as it changed over the last few hundred years. As an engineer, I'm also trying to look farther ahead in my impacts to the pieces and parts of our commonwealth. Hope you'll do the same.

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GOOD DESIGN, which attracted a record number of applicants this year, is the oldest and most recognized global design award in the world.

This award is the latest recognition of Gannett Fleming’s leadership in urban mobility. The team has been educating professionals across market sectors on the new frontiers for urban travel.



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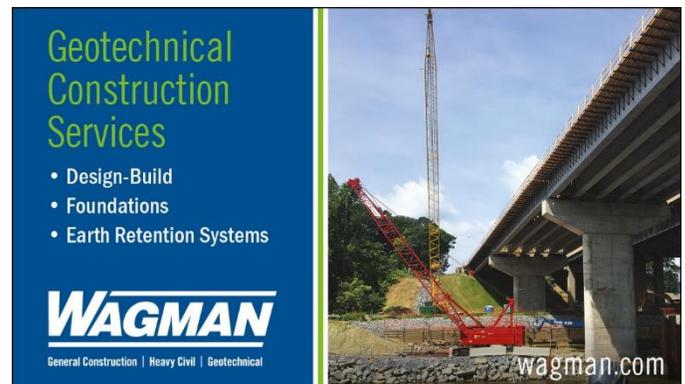
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Larson Design Group is excited to announce that Ashley Heinnickel has joined its executive team as Vice President of Marketing and Communications. Ashley will drive marketing activities that support the strategic and creative direction by leading the marketing and communications team. “We are excited to have Ashley bring her passion for teamwork, continuous improvement and experience in planning and implementing strategic marketing initiatives to LDG,” said CEO Keith Kuzio.



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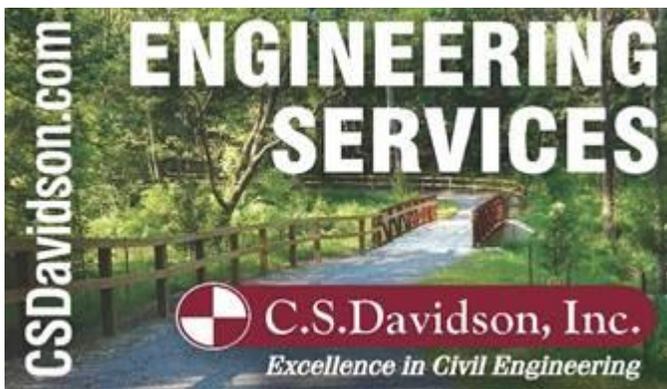
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Modjeski and Masters is pleased to announce the opening of our new office in Austin, TX! The office is the firm's first office in the state, and its 12th location nationwide. John Holt, PE, has been hired to lead the office where he will be responsible for managing operations in Texas and the region. Holt previously served as a bridge engineer on a variety of projects including new and replacement bridge projects for highway, rail and pedestrian use, and as a project director or panel member for over 30 structural research projects. Holt worked for the TxDOT Bridge Division for 30 years.



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Events

Event	Date	Location
March Section Dinner Meeting	March 13, 2019	Park Inn by Radisson, Mechanicsburg
Transportation Technical Group Presentation	March 19, 2019	Gannett Fleming West Building, Camp Hill
April Section Dinner Meeting	April 10, 2019	Park Inn by Radisson, Mechanicsburg

The schedule is growing daily, please visit <http://sections.asce.org/central-pennsylvania> for more information.

Job Postings

C.S. Davidson, Inc – [Engineer-In-Training and Designer \(Bridge Services\)](#)

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Traffic Planning & Design, Inc (TPD) – [Construction Inspection/Manager, Highway Design Specialist, Highway Design Project Manager \(public and Private\), Municipal Traffic Engineer, Traffic Engineer, Traffic Signal/ITS Engineer, Transportation Planning Specialist, Structural Designer](#)

Jobs postings are included on the Section Website at <http://sections.asce.org/central-pennsylvania/node/10>

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@sqcivil.com.