



### SECTION MEETING SCHEDULE 2017-18

Our “look-ahead” schedule of remaining meetings is provided below for your planning purposes and to add to your calendar to hold the dates. We suggest you visit the Section website and view our regular e-mail blasts for the latest changes and additions in this program.

As always, you are welcome to attend the meeting presentation without dinner at no cost if you prefer to do so. This may be subject to space available at the particular venue.

**April 12** – Multi-topic meeting/breakout sessions. Villanova Conference Center. Topics being finalized.

**May 3** – Spring Social, SkyPhiladelphia, Center City

#### ASCE VISION

*Civil Engineers are global leaders building a better quality of life.*

#### ASCE MISSION

*Provide essential value to our members and partners, advance Civil Engineering, and serve the public good.*

### TIME FOR NOMINATIONS FOR SECTION OFFICERS

It seems like we just did this, but it is indeed that time again. If you have an interest in being a part of the Section’s governance, your opportunity has arrived. In accordance with the Constitution and Bylaws of the Section, President **Cathy Farrell** will be appointing a Nominating Committee to recommend a slate of officers for all Section elective offices for the 2018-19 administrative year. The positions which will be open for nominees are President Elect, Vice President, Secretary, Membership Secretary, and at least three Director positions.

Please feel free to nominate yourself or a colleague if you are interested in serving the Section in one of these capacities. We are looking for hard-working, dedicated volunteers who have fresh ideas.

The deadline for nominations is **Thursday, February 15**. Any inquiries or nominations should be submitted to Section Director **Troy Illig** ([troy.illig@wsp.com](mailto:troy.illig@wsp.com)).

### FEBRUARY MEETING – NOTICE

American Society of Civil Engineers, Philadelphia Section

Due to scheduling conflicts, the meeting topic originally considered for February cannot be presented at this time, thus there will be no formal Section Meeting conducted this month.

In March, we will return to our regularly-scheduled meeting program, as noted below.

We apologize for any inconvenience this may have caused.

### MARCH DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

### THURSDAY, MARCH 8, 2018

**Maggiano’s Little Italy**, 1201 Filbert Street (corner of 12th Street), Center City  
Cocktails 5:30 PM, Dinner 6:30 PM, Meeting Presentation Follows (approximately 7:30 PM)

**SUBJECT: Longwood Gardens Fountains Restoration**

**Resolve to attend ALL Section Meetings!**

### MARK YOUR CALENDARS

#### ENGINEERS WEEK EVENTS SCHEDULED

The Engineers’ Club of Philadelphia, through its Delaware Valley Engineers Week Committee, will be celebrating **Engineers Week 2018** from **February 16 through February 24** and will continue its schedule of three events which will highlight the various contributions of Engineers and Engineering students in the Delaware Valley. Please note this information in your calendar and plan to participate.

More information on price and reservations is available at [www.dvewc.org](http://www.dvewc.org).

#### LUNCHEON: FRIDAY, FEBRUARY 16

Sofitel, 120 S. 17th Street, Center City

#### YOUNG ENGINEERS SOCIAL: TUESDAY, FEBRUARY 20

U-Bahn, 1320 Chestnut Street, Center City

#### AWARDS RECEPTION: THURSDAY, FEBRUARY 22

IATSE Ballroom, 2401 S. Swanson Street, Philadelphia

### NEW MEETING CHECK-IN PROCEDURES

Our new dinner meeting check-in procedure has been successfully implemented in our first two meetings of this season. As you may have seen, the new process, started at the October meeting, employs an “express” line for people who paid in advance (electronically via PayPal). Once you show your printed ticket (and remember to bring this!), you will be permitted to enter the meeting room and get to the bar for happy hour. For those utilizing at-the-door payment (reserved paying by check or walk-ins), the check-in process will

continue to be as before with a “manned” table for registration. Name tags for all attendees will be placed in the dining area at a self-serve table. Thus, less time outside to check-in equals more time to network inside, so it’s to your advantage to use our electronic payment system.

We will be employing this system once again in March, our next sponsored meeting.

We appreciate your cooperation and understanding as we attempt to streamline this process.



## PRESIDENT'S MESSAGE

Dear Section Members,

I hope everyone is having a good start to 2018. ASCE had a good start to the year with a sellout crowd of 220 people for our joint meeting with the **American Society of Highway Engineers** for the presentation of the Scudder Falls Bridge replacement project. I especially appreciated **Roy Little's** and **Kevin Skeels'** use of construction photos to help educate us on the construction techniques of this exciting project. I also would like to extend a big 'Thank you' to **Jack Mitchell** and the ASHE board for hosting this meeting and working through the logistics for accommodating a crowd of this size.

Also in January, my alma matter, **Villanova University**, teamed up with **Schnabel Engineering** to host a special screening of ASCE's 'Dream Big' movie in King of Prussia. I was overjoyed to share this movie with my six-year-old son. Not only did he get to see how Civil Engineers enhance the human experience, but he saw Civil Engineers having fun using their imagination to solve problems. Of the 300 people in attendance, I was inspired to see two Girl Scout Troops and that most attendees were not Engineers.

In February, we will be sending **Angelo Waters** and **Troy Illig** to represent the Philadelphia Section at ASCE's Regions 1, 2, 4 and 5 Workshop for Section and Branch Leaders. It's a long title, but essentially, this is a leadership conference for board members from Sections along the entire east coast and it allows for our volunteers to learn from each other. Previous conference topics included: how to run a meeting, motivators of your peers, working across age differences, conflict resolution and many others. The opportunity to receive this leadership training is a perk of being a board member of ASCE. Speaking of which, if you're interested in serving on the 2018-19 Philadelphia Section board, please contact **Troy Illig (Troy.illig@wsp.com)** by **February 15th**.

February also marks **Engineers Week**. Congratulations to Civil Engineer **Alexa Harper** for being named this year's **Young Engineer of the Year**. Alexa is a great role model to show that it is possible to find a balance among working as an Engineer, volunteering with a professional society and having a family.

**Government Relations Update** – To help keep myself abreast of what is happening in government affairs, I signed up to be an **ASCE Key Contact (www.asce.org/keycontacts)**. As a 'key contact' I receive 'This Week in Washington' which is a weekly recap of infrastructure policy happenings at a national and state level. Through this I learned about the bipartisan BUILD act and the status of two presidential nominations to serve on Amtrak Board of Directors.

Sincerely,  
Cathy Golata Farrell, P.E.  
President, ASCE Philadelphia Section  
cgfarrell@hntb.com | 610-290-5108

## DUES PAST DUE!

**If you haven't paid your 2018 dues at this point, now you're late!** Please don't forget to pay your ASCE and Philadelphia Section dues (both were due on January 1). As noted on the invoice, you can pay by check or electronically.

Keep in mind that your membership entitles you to be eligible for ASCE Member Advantages. These encompass benefits in several member discount programs including professional liability insurance, life insurance, credit cards and banking services, and rental car discounts. ASCE always looks to negotiate the best deal for members. Similarly, when members save through these programs, ASCE earns revenue that helps keep your dues rates as low as possible. Please check **asce.org** for the details on these offers and programs.

There are additionally a number of free eLearning Webinars available to help you develop critical career skills, with topics covering a broad range of technical interests, leadership development tools, and key member programs. One of the most popular benefits of membership is that every year you can earn up to five free PDHs for the eligible ASCE On-Demand Webinar courses you successfully complete. Every year we update the

list of courses to ensure we have relevant and timely topics across all the major facets of Civil Engineering.

This benefit is perfect to share with your peers as part of your referral efforts for the Member Get a Member program, as it will help them stay current and up-to-date with their professional requirements. Through this program you can receive a \$50 Amazon.com Gift Card for each new professional member you refer. Please visit **asce.org** and review the Member Get a Member page for more information. You can refer up to five colleagues at a time, by providing their name and email address, and they will be sent a few emails with information about ASCE on your behalf.

Your dues are vital to the support of our Section's activities. We appreciate your ongoing support.

**One has to watch out for  
Engineers — they begin  
with the sewing machine and  
end up with the atomic bomb.**

— Marcel Pagnol

## ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION — 2017-18 SEASON

### PRESIDENT

Cathy G. Farrell, HNTB, Inc.

### PRESIDENT ELECT

Angelo Waters, Urban Engineers, Inc.

### VICE PRESIDENT

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Briana Earle, Langan Engineering  
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Andrew Bechtel, College of New Jersey ('17-'19)

Kevin Brown, Urban Engineers, Inc. ('17-'19)

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Troy Illig, WSP ('16-'18)

Joseph Natale, WSP ('16-'18)

Jeanien Wilson, Phila. Dept. of Streets ('17-'19)

### PAST PRESIDENTS\*

Guy DiMartino, Traffic Planning & Design, Inc.

AnnMarie L. Vigilante, Langan Engineering &  
Environmental Sciences

Joseph Platt, Traffic Planning & Design, Inc.

*\*2nd and 3rd Past Presidents are non-voting members.*

*In addition, we have a number of Committees which handle various activities. Please visit our website for more information on how you can serve on one or more of these.*

## President — Cathy G. Farrell, PE

Department Manager, Transportation  
HNTB, Inc.

1650 Arch Street, Suite 1700

Philadelphia, PA 19103

610-290-5108

cgfarrell@hntb.com

## Secretary — Briana Earle, PE

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## PUBLICATIONS COMMITTEE

### Editor of THE NEWS

Robert Wright

### Editorial Assistants

Lindsay Chateauvert, Assunta Daprano

### Section Outreach Coordinator

Briana Earle

### SEND COPY TO:

ASCE, c/o Urban Engineers, Inc.

530 Walnut Street

Philadelphia, PA 19106

## COPY DEADLINE FOR

March 2018 ISSUE

February 23, 2018

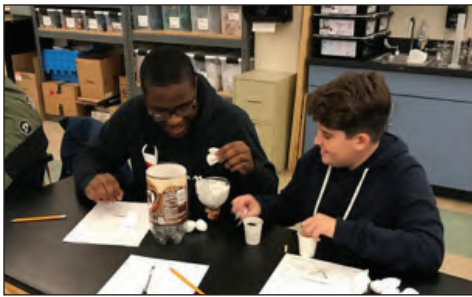


## YOUNGER MEMBER FORUM NEWS

**Lindsay Chateauvert**, Forum Editor  
**Nha Truong**, Forum President 2017-18  
 Philadelphia Water Department  
 1101 Market Street  
 Philadelphia, PA 19107  
[nha.truong@phila.gov](mailto:nha.truong@phila.gov)

### CIVE CLUB: WATER FILTRATION COMPETITION DECEMBER 4

Our Civil Engineering Club at the Chester A. Arthur Middle School spent the fall semester learning about Transportation Engineering, Urban Planning, and Water Resources Engineering. One water resources meeting centered around the need for and design of effective water filtration systems. Following a short presentation on the topic, our CivE Club members were divided into five teams to compete against their peers in a friendly competition of who could design and build the best filtration device. With a variety of building materials to choose from, each team sketched out a design, and then began construction under the supervision

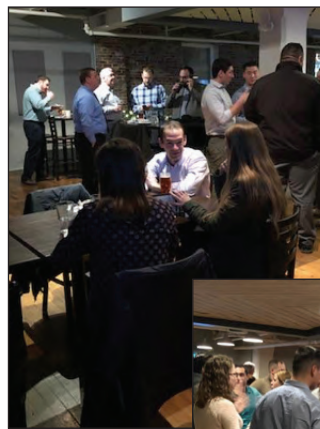


of teacher **Michael Franklin**, as well as YMF volunteers, **Lindsay Chateauvert**, **Sean McCreesh**, and **John Doyle**. After construction, the operation and efficiency of each device was tested simultaneously with a mixture of water, dirt, and oil. The students cheered for the success of their designs as the polluted mixtures moved through the treatment apparatuses, ultimately creating (somewhat) cleaner water. Points were awarded for the lowest turbidity, fastest filtering speed, and highest water retention, and a winner was announced! Despite the students' best attempts at convincing Mr. Franklin to drink the filtered water, he and the rest of the club indulged in Oreo cookies to wrap up a successful club meeting at the school.

The YMF is currently seeking the help of local civil engineers to volunteer with the program as meeting hosts, presenters, or field trip hosts for the upcoming spring semester. Additionally, the YMF is seeking assistance in planning local, exciting, Civil-Engineering-related field trips for our middle school student club members. For more information, or to get involved, please contact YMF CivE Club Co-Chairs, **Tim Abel** ([tabel@pennoni.com](mailto:tabel@pennoni.com)) or **John Doyle** ([jdoyle@trafficpd.com](mailto:jdoyle@trafficpd.com)). We look forward to the rest of the year and hope you will join us in educating middle school students about the field of Engineering!

## JOINT HAPPY HOUR WITH ASHE DECEMBER 7

The YMF teamed up with the ASHE Delaware Valley Section for a joint happy hour at Conshohocken Brewing Company in Bridgeport. About 40 attendees enjoyed happy hour specials and an amazing selection of appetizers, including nachos, hummus, wings, and more! With the event held approximately 30 minutes outside of the city, members who usually can't easily make it to Center City from the suburbs, had a chance to come out and network. For those coming from the city, it was exciting to



successful, and we look forward to working together with ASHE again soon!

try out a different location and to create new connections. As usual, the annual joint event was extremely



## ANNUAL WINTER SOCIAL JANUARY 22

YMF held its Annual Winter Social at McGillin's Olde Ale House in Center City. This is typically the YMF's largest event of the year, and this year was another great success. Over 160 Engineering professionals and students were able to catch up with colleagues, network with students and young professionals, and celebrate the Eagles recent NFC Championship victory. Attendees consumed some great food and drinks, met other local Engineers, discussed career opportunities, and learned about each other's companies.

YMF would like to extend a HUGE thank you to the companies that donated to this year's event,



with contributions exceeding \$4,500 (please visit [ymfphilly.org](http://ymfphilly.org) for the list of sponsors and prizes). This year's raffle consisted of 27 prizes, worth over \$2,700, all raffled off at the event. The remaining donations and money collected for the raffle will allow the YMF to contribute to local, non-profit organizations, such as Future City, Philabundance, and other worthy causes as voted upon by the YMF Board.

This event could not be successful without all the help of our fellow YMF members, so another big thank you to everyone who helped make this event run smoothly, particularly YMF Vice President, **Eammon Farley**, who led the event coordination! The time and effort that all our members put in is greatly appreciated.

We are already looking forward to another successful Winter Social next year!

## YMF CANSTRUCTION TEAM

YMF is looking for volunteers for this year's CANstruction team. Each year YMF participates in the Philadelphia CANstruction competition. The competition involves teams designing and building a structure out of canned goods to match that year's theme. All canned goods are later donated to **Philabundance** to be distributed back into the Philadelphia community.

Currently, YMF is seeking help for the planning, design, and construction phases of the competition. The planning phase includes funding and the development of an idea for the structure. The design phase consists of modeling the structure using CADD software and determining the types of cans needed. The construction phase includes building materials to ensure structural stability and constructing the structure. For more information, please contact **Jacob Nichols** ([jnichols@pennoni.com](mailto:jnichols@pennoni.com)).

## THANKS TO OUR SPONSORS

We thank those firms who have made the financial commitment to Section Sponsorship for this season. The business cards of these 15 firms are included in the sponsor section of *THE NEWS*. Sponsor logos are also displayed in a special Sponsors section of our website. Through a click on the particular sponsor's logo, we provide direct links to its own website so prospective employees can review all available and up-to-date positions being offered by that firm. Sponsors can additionally provide a profile article in *THE NEWS* (see one of these elsewhere in this edition).

If you have an interest in joining our sponsorship program, please contact **Bob Wright** at [newseditor@asce-philly.org](mailto:newseditor@asce-philly.org) for more details.

**Arriving at one point  
is the starting point  
to another.**

— John Dewey

## JANUARY JOINT DINNER MEETING

January 17, 2018

Radisson Hotel, Valley Forge

### *The Delaware River Joint Toll Bridge Commission's (DRJTBC) Scudder Falls Bridge Replacement Project*

*by Robert Wright, Editor*

Early winter has been particularly cold and a bit snowy, and we got a bit of each on January 17 for our annual trek to "King of Prussia-land" for our traditional joint meeting with the **Delaware Valley Section of the American Society of Highway Engineers (ASHE)**, something we've been doing in January since 1989 (with one year skipped in the 90's for reasons no one seems to recall). Fortunately the snow was early in the day and not much, although the re-freeze at the end of the meeting made the parking lot a little tricky. Neither snow nor cold, to borrow from the Postal Service, deterred a sell-out room-filling crowd of 220 attendees from the combined Sections from showing up at the Radisson Hotel and Valley Forge Casino to hear about the Scudder Falls (no, not Scudders...) Bridge project currently underway.

Delaware Valley Section President **Jack Mitchell** got the crowd settled and seated, with a blessing of the meal offered by Past President (of each Section) **Bob Wright**, who reached back into his somewhat-shaky memory to deliver a prayer in Latin and subsequently find out that there were fewer altar boys of his genre in attendance than he thought. After a few announcements by President Mitchell and Section President **Cathy Farrell**, Section Director **Spencer Finch** presented an update on legislative and government activities. Following Spencer, Widener University ASCE Student Chapter President **Carley Atkisson** and Vice President **Christian Antisell** reported on recent happenings at the Chapter, which was featured at this meeting. As dinner wound down, President Mitchell introduced the featured speakers from the Commission, **Roy Little**, Chief Engineer and **Kevin Skeels**, Assistant Chief Engineer.

Mr. Little opened the presentation with some basic information about the project and the history of the bridge. The structure was built in 1959 and opened to traffic in 1961 and carries I-95 across the Delaware River. It is a pin-hanger design that was utilized extensively at that time but has since been found to be potentially

problematic and the bridge has been retrofitted with redundant measures to circumvent pin failure. It has two lanes directional with no shoulders and interchanges on each side of the river with substandard acceleration and exit lanes. The new bridge, with a cost estimate of \$530 million (about 30% of the Commission's total capital program), will feature nine lanes, with 3 thru lanes directional and additional add-drop lanes for the interchanges. The project extends for 4.4 miles, from the PA 332 interchange in Pennsylvania to the Bear Tavern Road interchange in New Jersey. Construction is currently underway and completion is anticipated in 2020. Additionally, as part of the I-95/Turnpike interchange construction nearby, I-95 in this area will be redesignated as I-295 in August.

Mr. Skeels' portion of the presentation focused on construction details and issues, as he serves as the Commission's project manager for this effort. The project team consists of the construction contractor, Walsh, and several consulting firms which are managing and overseeing the effort. Given the presence of different species of wildlife, both in the River and on land, schedule restrictions are in place to minimize the disruption on the various migration and shelter needs of the species. Tolls will be introduced to the bridge as part of this effort and these will be all-electronic, using EZ Pass or license plate photographs for the transactions. A new 4-story building will be constructed on the Pennsylvania side of the bridge to house the toll equipment and other electronic gear that will monitor the structure. Careful planning and logistics are also needed for the movement of materials to the site, particularly the sizable steel beams, which are currently beginning to arrive from the fabricator for placement.

After the detailed and informative presentation, several questions were elicited from the audience and thoughtful responses were provided by the speakers.

President Mitchell thanked Messrs. Little and Skeels for their efforts and presented them with tokens of the Section's appreciation.

## GOVERNMENT RELATIONS REPORT

As you may have seen, we have been providing regular updates on what's happening in our various legislatures that affects our Section and profession. In addition to verbal reports at each Section meeting, we have an updated synopsis on our website for your information.

This month, the major issues are these:

- PA Budget – while the fiscal 2018 budget is still being debated, discussions will start shortly for the fiscal 2019 version. Keep your eyes and ears open.
- Across the river, New Jersey Governor Phil Murphy is preparing his first budget address,

as well as looking at reforms at the Port Authority of NY and NJ, NJ Transit, and figuring out ways to finance the NYC Gateway project and his campaign promise to convert NJ to 100% clean energy by 2050.

- At the Federal level, changes continue afoot at the EPA, and the Trump administration has delayed its presentation of detailed infrastructure funding strategy until after the State of the Union address.

For more information, please visit ASCE National's legislative page at [https://www.asce.org/issues\\_and\\_advocacy/](https://www.asce.org/issues_and_advocacy/) and our website.

## SCIENCE FAIRS COMING UP — WOULD YOU LIKE TO BE A JUDGE?

As we have for 25 years now (!), our Section will be offering Special Awards at the **Delaware Valley Science Fairs**. The Fairs will be conducted on **Wednesday, April 4** at the **Greater Philadelphia Expo Center** in Oaks. Four Special Awards for individual student projects that have a Civil Engineering theme will be awarded, with two prizes for Grades 6 through 8 and two for Grades 9 through 12.

Volunteer judges are needed for this effort. The judging will require you to spend most, if not all, of your day (approximately 8 AM to 3 PM) at the Fairs, examining and short listing possible projects in the morning and then interviewing the students who assembled them and finalizing the selections in the afternoon. It is always a very interesting and enlightening experience.

If you are interested in being a Special Awards judge please contact **Chris Rood** at [crood@drjtbc.org](mailto:crood@drjtbc.org). You will also need to register for this and this can be done through the Fairs' website [www.dvsf.org](http://www.dvsf.org).

For more information on the Fairs please visit the above website.

We hope you can join us for a rewarding and interesting day.

## TECHNICAL GROUPS/CHAIRS

Information on the ASCE, Philadelphia Section's Technical Groups is given below. If you have any topics that you think would be of interest to the Groups, please feel free to pass this information along to the appropriate Group Chair.

### CONSTRUCTION

Dennis MacBride  
[dmacbride@septa.org](mailto:dmacbride@septa.org)

### DELAWARE VALLEY GEO-INSTITUTE (DVGI) [www.dvgi.org](http://www.dvgi.org)

Archie Filshill  
[archie@aeroaggregates.com](mailto:archie@aeroaggregates.com)

### ENVIRONMENTAL AND WATER RESOURCES

Eric Lindhult  
[eric.lindhult@gmail.com](mailto:eric.lindhult@gmail.com)

### STRUCTURAL ENGINEERING INSTITUTE (SEI) [www.sei-philly.org](http://www.sei-philly.org)

Joe Fazio  
[jfazio@hntb.com](mailto:jfazio@hntb.com)

### TRANSPORTATION AND URBAN DEVELOPMENT

William T. Thomsen  
[wthomsen@urbanEngineers.com](mailto:wthomsen@urbanEngineers.com)

Please check the noted websites as well as the main Section site ([www.asce-philly.org](http://www.asce-philly.org)) for up-to-date information on Technical Group meetings and events. These will be included in our regular e-mail blasts as well.

**I believe in getting  
into hot water;  
it keeps you clean.**

— G.K. Chesterton



# N-ASCE\*

## AN "ELECTRIC" CELEBRATION

Streetcars have been on Philadelphia's roads since 1858. The original version usually had one or two horsepower (meaning it was drawn by horses). In later years this changed to other modes of propulsion, as detailed below. On December 15, 1892, just over 125 years ago (and you may have overlooked this anniversary somehow...) the city received a "shock" to its transit system. On that date, the electric trolley hit the city's rails for the first time, on the Catharine-Bainbridge Line in South Philadelphia. Remarkably, this line, which later became Route 63 and then part of bus Route 64, was Philadelphia's first horse-drawn line as well.

For close to 160 years, streetcars have served the Philadelphia area and helped Center City Philadelphia retain its commercial, retail, and entertainment supremacy in an ever-expanding region. By the Centennial year of 1876, Philadelphia could claim the largest street railway system in the country. Although true, this claim was also a result of the city's many narrow, one-way streets that meant that many streetcars traveled out of the city on one street, then returned on another, thus doubling the length of track in use.

Although the motive power switched from horses to electricity (with short detours into steam and cable), most change has been evolutionary instead of revolutionary. For example, the Great Epizootic, a fast-moving equine flu in the mid-1870's, affected most horses throughout the nation. Although many horses recovered, the outbreak caused streetcar operators to consider other means of power. Operators first tried steam engines on the street railways in 1876-78, but these were unsuccessful and unpopular. In 1883 a trio of entrepreneurs, William Kemble, Peter A. B. Widener (yes, the family that founded the University of the same name), and William Lukens Elkins, formed the Philadelphia Traction Company to acquire existing streetcar lines and convert them to cable operation. By the mid-1880s, however, the invention and successful application of the electric trolley was underway and it was clearly the technology of the future.

At its peak in the mid-1920's, the system, which had morphed into the Philadelphia Rapid Transit Company (PRT), operated over 2500 streetcars on nearly 600 miles of track. Each of the numbered streets, from 2nd Street to 23rd Street, had rails and was served by at least one trolley route. Ironically, Broad Street had no trolley line - by local ordinance it could not be occupied by trolley tracks other than on cross streets - so one of the city's first bus lines, Route C, operated on it with double-deck coaches.

When the Broad Street Subway began service beneath North Broad Street in 1928, many of the north-south trolley routes were consolidated and some discontinued, with the emphasis on routes that acted as feeders to take patrons to and from the subway. (And, consequently and remarkably,



traffic congestion in what is now known as Center City decreased noticeably with all those trolleys removed from the streets!) However, the electric trolley remained the predominant mode of transit in the city until 1957, when most lines were converted to bus operation.

SEPTA's Route 11 is the oldest trolley line in Philadelphia still operating over a considerable portion of its original route. Horse car service over that route, operating from 32nd Street and Woodland Avenue to 9th and Main Streets in Darby, Delaware County, commenced on December 24, 1858. The line was electrified in May 1894 and was extended to Front and Chestnut Streets in August 1896. Route 11 began service in the Subway-Surface tunnel from West Philadelphia to Center City (15th Street Station) in December 1905. The tunnel was extended to 13th Street in June 1908. In September 1955, the tunnel grew

again, to the west, allowing trolleys to operate in the subway from its previous endpoint just east of the Schuylkill River to new portals at 36th and Ludlow Streets and 40th Street and Woodland Avenue. Today, the Route 11 operates out of SEPTA's Elmwood Depot, from 13th and Market Streets in Philadelphia to Darby Transportation Center at 9th and Main

Streets in Darby. Five routes, 10, 11, 13, 34 and 36 operate in the Subway-Surface tunnel. Together, the five lines operate on about 39.6 miles (63.7 km) of route.

The light-rail vehicles that currently serve the Subway-Surface lines arrived in 1980 to replace trolleys that dated to the 1940's. These LRV's, built by Kawasaki, have proven to be dependable and remain in daily service. Replacements are being considered but the Kawasakis will likely soldier on until at least their own 40th birthdays.

To celebrate 125 years of electric streetcar service in Philadelphia, SEPTA has wrapped one of the current trolleys to resemble an 1892 streetcar (below, courtesy of SEPTA). The anniversary trolley will operate on Routes 11, 13, 34 and 36 throughout the year.

*\*N-ASCE - Not always something concerning Engineering...*

## VOLUNTEER SPOTLIGHT

This month, **John Caperilla** has been nominated for the Spotlight. John is a Project Manager with Borton-Lawson's Highway Infrastructure Group in the firm's Bethlehem office. When John relocated to the Lehigh Valley professionally in 2014, he became involved with the ASCE Lehigh Valley Section and served as Section President for 2016-17. (And we specify ASCE for a reason... you shall see.)



During his tenure as President John worked with our Section to successfully transfer the Reading Branch, where he resides, to the Lehigh Valley Section. He also oversaw the implementation of ASCE's *Dream Big* release in the Lehigh Valley, which included a reception and multiple screenings during Engineers Week where over 1,000 students from several Lehigh Valley school districts participated. As Immediate Past President of the Lehigh Valley Section, John currently Chairs the Nominating/Awards and Government Affairs committees and is a member of the Pennsylvania State Council, where he is Co-Chairing the 2018 Report Card for Pennsylvania's Infrastructure along with our own Section President **Cathy Farrell**.

John has and continues to work with several of the ASCE Student Chapters in our Section where he speaks to students about where his career path has taken him and advises students to build their professional networks while they are still undergraduates. John is a graduate of Temple University and has worked closely with Temple faculty as an alumni.

For his work, John was honored as the 2015 Young Civil Engineer of the Year by the Lehigh Valley Section and was awarded with the 2017 ERYMC Award for Outstanding Younger Member in Government Relations.

And that's just ASCE - as noted above, we had to specify, as John is also an extremely active member of the Delaware Valley Section of our "sister" society, the American Society of Highway Engineers (ASHE). He has been active on the Section's Board for several years and has worked closely with local schools to cultivate student chapters. He is the Section's current 1st Vice President and is scheduled to advance to the Presidency of the Section in April, at which point he will "run the show" for the 2018-19 season.

John is a well-deserving candidate for this honor and we are therefore proud to cite him in this month's Volunteer Spotlight for his many contributions and efforts.

## SPONSOR PROFILE

## PENNONI RELOCATES CORPORATE HEADQUARTERS TO CENTER CITY

This past spring, Pennoni celebrated the expansion and relocation of its corporate headquarters in Philadelphia. After more than 20 years in the former Philadelphia Bulletin building at 3001 Market Street, the firm relocated to a newly renovated space at 1900 Market Street, in Center City.

"We are thrilled about the opportunity to remain in the City of Philadelphia," said President & CEO **Anthony S. Bartolomeo**. "A lot of careful consideration was put into the selection process of our new home. We consulted with numerous clients and teaming partners. While it was a difficult decision to leave our location in University City, we are delighted about the opportunities presented by the move. Our new location will allow us to continue to grow our firm and serve our clients in the Philadelphia area, as well as across the globe. We are excited to be part of the continued renaissance of the City."

1900 Market Street is a LEED and Energy Star Certified building consisting of nine floors and



over 450,000 square feet. The building was originally built in 1981 by Rouse and Associates,

with the building's main lobby and entrances completely renovated in 2015, which transformed the main lobby into a modern and welcoming entrance for tenants and visitors alike. As you step inside the east and west entrances, tenants are greeted by friendly staff and walls lined with LED video screens. The walls display information concerning bus, train, and subway schedules, the weather for the week ahead, as well as excerpts from the social media pages of various properties. Through the secure entrance gates, the eight-story high central atrium is flooded with natural light and lined with interior landscaping.

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## CONTROL YOUR EMOTIONS

By Anne Weisbord

Did you ever have a day like Ellen's? The phone awakened her at 4:30AM with a wrong number, then she had trouble going back to sleep. She ended up sleeping through the alarm, and in a hurry to get to work on time, she spilled coffee on herself. To add to her good fortune, she was going a little too fast in a school zone, and a police officer stopped her. Finally, arriving at work 30 minutes late, she was ready to explode.

Of course, Marty, her co-worker, didn't know all that Ellen had gone through that morning. So, when he delivered the bad news about the contractor who was working on her project, Ellen lashed out at him. Sadly, he got the brunt of her frustration and anger, and felt like he was in hot water for simply delivering the message.

Then, at the team meeting that Ellen led, Julio mentioned that he got an email from the new client. Ellen jumped on him in front of the team because she was the lead on that project, so why was the client emailing Julio and not her? There was little participation after that eruption. Fear filled the room.

The point of these examples is that you need to be aware of how your emotions can affect other people. It wasn't Marty's fault about the contractor. And why was it so important that Julio received the email? He openly shared the info with Ellen. Ellen took it out on Julio because she was still hanging on to the bad start to her day.

Ellen's outbursts showed lack of self-awareness and self-control. Regrettably, by remaining in her negative mood, she made things worse for herself and for others.

Self-awareness means that you understand your emotions and their effects on your behavior. You know what you are feeling and why. Everyone has bad days like Ellen experienced, but she lost perspective. Ellen needed to take time to realize that the frazzling calamities of the morning were all unfortunate accidents, but that she had to leave those feelings behind. To be

effective in her job, she had to compartmentalize, and move forward with a clean slate. She needed to take control of her emotions.

Self-control means that you know how to manage yourself, your emotions, and your impulses. It means taking responsibility for your own actions, not over-reacting to a situation, but remaining calm and rational. People who have good self-control remain calm even when stressed. This is a quality you need to hone to be perceived as a leader. For Ellen to enjoy a good relationship with her team and be effective and respected, she needs to understand how her lack of self-awareness and self-control can negatively affect the way others see her, their performance, and their openness with her. She needs to choose to change her behavior, find a way to cope with her feelings, interrupt the cycle of negativity, and consider the consequences of her behavior.

There are countless stressors in our lives today, and many of them are in our control. It is critical to your relationships both at work and at home to manage your emotions. Here are some ways to increase your self-control:

1. Be aware of where your body holds tension—your jaw, your chest, your neck—and try to relax that part of you.
2. When you feel tense, center yourself with some deep breathing, get some air, or do a few easy stretches to move the energy around in your body.
3. Stop and evaluate. Understand why you are feeling the way you do, and put things in perspective.
4. React to each situation separately. Do not carry over bad feelings from one event or interaction to another.
5. Focus on what you can do to improve the situation.

*Anne Weisbord, president of Career Services Unlimited, has been a communications consultant for over 20 years. She has worked with professionals in a wide range of industries helping them become more compelling, confident, and articulate speakers. [www.awlearningconsultants.com](http://www.awlearningconsultants.com).*

## PA REPORT CARD — HELP NEEDED!

As you may be aware the four ASCE Sections in Pennsylvania have begun the process of updating the assessment of our statewide infrastructure for the 2018 Report Card. While we have over 70 volunteers already on board for this, we could always use more help to research, analyze, write and promote the Report Card for Pennsylvania's Infrastructure. It is one of ASCE's greatest tools to convey to elected officials and the public the status of Pennsylvania's infrastructure. We anticipate that this will be finalized and released to the public this fall.

We are still accepting volunteers in these categories:

- Transit
- Passenger Rail
- Solid Waste
- Schools

- Freight Rail
- Aviation
- Levees Inland
- Waterways
- Ports
- Hazardous Waste
- Stormwater

Volunteers can anticipate a 4-8 hour/month commitment over a six-month period with most of the work occurring on your schedule. New volunteers and younger members are welcomed!

If interested in helping with the Report Card, please contact **Cricket Slattery** at [cslatte1@gmail.com](mailto:cslatte1@gmail.com) and let her know which category you'd like to help with. If you have questions about the Report Card contact **Cathy Farrell** at [cgfarrell@hntb.com](mailto:cgfarrell@hntb.com).

## PENNONI RELOCATES

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The lower portion of the atrium contains a variety of table and chair arrangements, which are never empty, as tenants and their visitors enjoy morning coffee and afternoon lunch amongst the tranquil atmosphere created by the koi pond, fireplaces, and waterfall.

Occupying the majority of the third floor, the Pennoni Office is designed to promote collaboration and innovation amongst the employees. The office layout is set to promote overall productivity, through the department placement and the use of low-walled cubicles and shared spaces in an open environment. Glass offices line the walls adjacent to the atrium, providing stellar views of the lush courtyard below, as well as allowing natural light into the entire office. The various sources of lighting, natural and electrical, combined with the Pennoni green vibrantly colored accent walls throughout the office, create a welcoming and pleasant atmosphere. As a company dedicated to its history, Pennoni has various project renderings, award trophies, and company antiques on display throughout the office space!

The relocation comes on the heels of the firm celebrating its 50th anniversary in 2016, with all 50 of those years spent headquartered in the City of Philadelphia. What started out as a small Structural Engineering firm in West Philadelphia in 1966 by C.R. "Chuck" Pennoni, has grown to a multidisciplinary firm with over 1,200 employees! The new location serves as home to nearly 200 of these technical and administrative staff.

As affirmed by Founder & Chairman Chuck Pennoni, "Over the last five decades, the firm has been involved in the planning, design, and construction of some of Philadelphia's most iconic landmarks. As we look to the next 50 years in business, we reaffirm our commitment to the City of Philadelphia and relationships we have established with our local clients."

**We don't want everyone to be an Engineer. The fashion crisis alone would be troubling.**

— Bill Nye the Science Guy  
(and a mechanical engineer by trade)