



PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS Web site: http://www.asce-philly.org National ASCE Central Number 1-800-548-ASCE • Toll Free

The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Vol. 91-6

# Our 106<sup>th</sup> Year

February 2019

#### **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.

## SECTION MEETING SCHEDULE 2018-19

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 18** – Multi-topic meeting/breakout sessions, to be finalized; Inn at Villanova

**May** – Spring Social; Date and location to be finalized

# 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 **Angelo Waters** will be appointing a Nominating Committee to recommend a slate of officers for all Section elective offices for the 2019-20 administrative year. The positions which will be open for nominees are President Elect, Vice President, Treasurer, 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 hardworking, dedicated volunteers who have fresh ideas.

Nominations should be submitted to Section Vice President **Troy Illig (troy.illig@wsp.com)** by the date of our February meeting (February 21).

## **FEBRUARY LUNCH MEETING** THURSDAY, FEBRUARY 21, 2019

Urban Engineers, 530 Walnut Street, Center City Lunch 12:00 Noon, meeting follows

SUBJECT: Ethics – Panel Discussion

SPEAKERS: Elaine Elbich, PE, Pennsylvania Department of Transportation;

Matthew Marquardt, PE, Urban Engineers, Inc.; Michael Zettlemoyer, BN&M Attorneys at Law; Robert Wright, PE, McMahon Associates, Inc.

**RESERVATION DEADLINE – THURSDAY, FEBRUARY 14.** The cost per attendee is \$15.

Reservations can be made through our website (www.asce-philly.org) and paid via PayPal or by check. This option will NOT be available after the reservation deadline. Checks, made payable to "Philadelphia Section ASCE", will be accepted at the reservation table at the door as an option to electronic payment.

PLEASE NOTE – This event is open to ASCE members ONLY.

Ethics remains an important but sensitive topic in the workplace and in the Engineering profession. The panel will discuss current ethics questions and issues from the perspective of government (Ms. Elbich), private industry (Mr. Marquardt), and the legal side (Mr. Zettlemoyer). Mr. Wright will serve as the panel moderator.

This session is anticipated to satisfy the requirements for one professional development hour (PDH) in ethics, required by several states for professional licensure renewal.

## **Resolve to attend ALL Section Meetings!**

## **MARCH DINNER MEETING** THURSDAY, MARCH 14, 2019

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

More information will be provided in the March edition of THE NEWS.

# SCIENCE FAIRS COMING UP -- LOOKING FOR JUDGES

Our Section will be offering Special Awards at the **Delaware Valley Science Fairs**, as has become our tradition of over 25 years (!). The Fairs will be conducted on **Wednesday**, April 3 at the **Greater Philadelphia Expo Center** in Oaks. Four Special Awards for individual student projects that have a Civil Engineering theme will be available, 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 shortlisting 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**. You will also need to register for this and this can be done through the Fairs' website **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.



## **PRESIDENT'S MESSAGE**

Happy New Year to all and hope everyone had a safe, relaxing, and fun holiday season. As one esteemed (? - Ed.) newsletter editor recently told me... I am over the "hump" as the 2018-19 President. I hadn't really thought about it, but the time has flown since being sworn in last May at our annual Spring Social. So with the New Year and me being over the proverbial hump, I thought it would be good to reflect on my term so far and also look forward to what is in store. So here goes....

#### Looking Back:

- I was very proud to host an informational session in the fall of 2018 at the ASCE National Presidents and Governors Forum. My topic focused on what makes the Philadelphia Section a success and sharing information across ASCE.
- In November of this past year all four Sections in the Commonwealth released the 2018 Pennsylvania Report Card (PARC) on Infrastructure. I was honored to emcee the event along with local dignitaries and infrastructure experts.
- Our Section has led the charge in promoting the PARC by embarking on an 18 month campaign highlighting the 18 categories within the PARC. This month is Wastewater and information can be found on our social media outlets, our website, email blasts, and within this very newsletter.
- Our Younger Member Forum (YMF) has continued to deliver beyond expectations with social functions, critical issue seminars, mentor programs, and K-12 outreach.

#### Looking Forward:

- Our Section has some exciting events in the coming months, including Engineers Week, a members-only Ethics Panel Session, our March technical dinner meeting, our April dinner event honoring our Past Presidents and Life Members, and of course our annual Spring Social (the venue this year is sure to impress...)
- Our YMF is leading the planning for the much anticipated 2020 ASCE Leadership Conference, which is geared towards bringing together the eastern regional section, younger member, and student leaders from Maine to Florida. Stay tuned for more details on this, as it will be an event to remember!
- Looking beyond May 2019, I am excited to work with our President-Elect, Kazi M. Hassan, and the Section Board for building on the successes of this year and laying the foundation for continued growth of Section in the years to come.

Our Section is only as strong as its members, so I challenge everyone reading this message to reach out to me and let me know your thoughts on how our section is doing and what can be done to enhance it. Thank you and I wish everyone a healthy and prosperous New Year!

Best.

Angelo J. Waters, PE, LEED<sup>®</sup> AP President, ASCE Philadelphia Section ajwaters@urbanengineers.com | 215-284-3161

## **MARK YOUR CALENDARS! ENGINEERS WEEK EVENTS SCHEDULED**

The Engineers' Club of Philadelphia, through its Delaware Valley Engineers Week Committee, will be celebrating Engineers Week 2019 from February 14 through February 23 with a revised schedule of events which will highlight the various contributions of Engineers and Engineering students in the Delaware Valley. Among those being cited are Section Life Member John Peirce, the 2019 Delaware Valley Engineer of the Year. Please note this information in your calendar and plan to participate.

#### **OPENING CEREMONY: Thursday, February 14**

DoubleTree Philadelphia Hotel, Broad & Locust Streets, Center City. Price: \$80 (\$60 for government agency employees and students) for reservations received by February 6

**YOUNG ENGINEERS SOCIAL: Tuesday, February 19** Ladder 15, 1528 Sansom Street, Center City Price: \$36 (\$25 for government agency employees and students) for reservations received by February 6

Reservations will be accepted after the deadline at slightly-higher prices and on a spaceavailable basis. Please note that a meal choice is available for the Opening Ceremony and you will be asked to select this when you reserve your place.

Please visit **www.engrclub.org** for additional information and to make your reservations.

### 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** for more details.

#### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION—2018-19 SEASON

#### PRESIDENT

Angelo Waters, Urban Engineers, Inc.

**PRESIDENT ELECT** Kazi M. Hassan, Pennoni Associates, Inc.

VICE PRESIDENT Troy Illig, WSP

SECRETARY

Briana Earle, Langan Engineering & Environmental Services

ASSISTANT SECRETARY Caroline "Cricket" Slattery, Advantage Engineers

#### TREASURER

Jennifer Reigle, Pennoni Associates, Inc.

ASSISTANT TREASURER Joseph Natale, DVRPC

MEMBERSHIP SECRETARY Mohamed Elghawy, Traffic Planning

& Design, Inc.

#### DIRECTORS

Andrew Bechtel, College of New Jersey, 2017-19 Kevin Brown, Vaughan Buckley Construction, 2017-19 Spencer Finch, Langan Engineering & Environmental Sciences, 2018-20 Joseph Natale, DVRPC, 2018-20 Nha Truong, Ernst & Young, 2018-20 Jeanien Wilson, Phila. Dept. of Streets, 2017-19

#### PAST PRESIDENTS\*

Cathy Farrell, HNTB Guy DiMartino, Traffic Planning & Design, Inc. AnnMarie L. Vigilante, Langan Engineering & Environmental Sciences

\* In accordance with our Constitution and Bylaws, only the immediate Past President will serve on the Board, and only for a one-year term. We show the most recent three Past Presidents as has become our tradition.

We wish these brave and generous folks our collective good luck for the coming season.

#### President—Angelo J. Waters, PE

Vice President Urban Engineers Inc. 530 Walnut Street Philadelphia, PA 19106 215-922-8081 x1273 ajwaters@urbanengineers.com

Secretary—Briana Earle, PE Senior Staff Engineer Langan Engineering and Environmental Services PO Box 1569 Doylestown, PA 18901-0219 (215) 451-6500 bearle@langan.com

#### 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 2019 ISSUE FEBRUARY 15, 2019

#### **YOUNGER MEMBER FORUM NEWS**

Sean McCreesh, Forum Editor Eammon Farley, Forum President 2018-19 Michael Baker International eammon.farley@mbakerintl.com

#### FRIENDS OF WISSAHICKON CLEANUP JANUARY 12



On January 12, YMF board members Scott Cepietz, Jesse Gormley, Caroline Voigtsberger and Joe Natale, along with 9 other volunteers, partnered with Shawn Green from the Friends of Wissahickon to clean up a section of the Yellow Trail in Wissahickon Valley Park. The volunteers completed the removal of an encampment that had been a hazard in the park since the summer, and cleaned a very densely littered section of trail near the Henry Avenue Bridge. Despite the cold start to the day, volunteers stayed warm and collected 23 large bags of trash and recycling, as well as one human arm-full of aluminum and steel piping, and a small boat motor. Look for the next community service event in the coming months!

#### **ENGINEERS WEEK K-12 OUTREACH EVENTS**

During Engineers Week last year, the YMF K-12 Outreach Team visited two high schools, Spring-Ford High School, in Royersford, and North Penn High School, in Lansdale. During the visits, Outreach Co-Chairs, Assunta Daprano and Caroline Voigtsberger were joined by over a dozen volunteers to lead the presentations on various disciplines of Civil Engineering to over 165 high school students at both schools. With many of the students currently applying to colleges, the volunteers also focused on discussing the college application process, what to expect in an Engineering curriculum, and answering any other questions from the students. The Outreach Team will be revisiting both Spring-Ford High School and North Penn High School this year. Additional information regarding dates and times will be provided in the upcoming weeks.

If you are interested in volunteering during this year's Engineers Week, please contact YMF K-12 Outreach at ASCEPhilaYMFK12@gmail.com!

## ALL YOU NEED IS LOVE. But a little chocolate now & then doesn't hurt.

– Charles M. Schulz

# PARC CATEGORY OF THE MONTH: WASTEWATER

Our recently-released Pennsylvania Report Card (PARC) assessed and graded 18 categories of infrastructure. We will provide a summary of one category each edition in upcoming issues of *THE NEWS*. This month, it's wastewater.

Pennsylvania retains the unfortunate title as the state with the most combined sewer overflows, which threaten the health of our public.

Aging wastewater management systems discharge billions of gallons of raw sewage into Pennsylvania's surface waters each year. The average age of most sewer systems is approaching 70 years with many having pipes over 100 years old. Over 1.6 million homes in PA are served by on-lot systems with failure rates of nearly 20%. Half of the State's Sewage Facilities Plans are over 20 years old. It is estimated that the Commonwealth has a funding gap of \$8.4 billion over the next 10 years to repair existing systems, upgrade existing systems to meet regulatory requirements, control Combined Sewer Overflows, address Sanitary Sewer Overflows, and construct new or expand existing systems and treatment facilities to meet increasing demands. Available funding over that time is estimated to be \$900 million, approximately 10% of the required annual investment.

Please visit **www.pareportcard.org** for more information on this and how you can inform your elected officials on actions that should be considered to address this.

# **N-ASCE**\*

#### A BRIDGE TOO FAR

One of the biggest events in China this fall was the opening of the Hong Kong-Zhuhai-Macau Bridge, so named after the three major cities in China's Pearl River Delta which the bridge connects. The 34-mile-long structure took nine years and \$20 billion to complete, and now holds the title of World's Longest Sea Bridge. It also may be the world's most difficult bridge to use.

In order to drive on the bridge, you need to obtain a special permit and carry insurance that is valid in all three of the cities connected by the bridge. Reports indicate that permits are only granted to people who pay a lot of taxes in China, donate significant sums to mainland charities, or belong to certain political groups. If you aren't a VIP, your options for crossing are limited to a private coach or shuttle, or a private hired car, all of which are specially licensed.

Those allowed to drive on the bridge are required to wear heart and blood pressure monitors, which are tracked by workers in the bridge's control center.

And on top of all that, the bridge has "yawn cams" that will alert staff if a driver yawns more than three times in a 20-second period while crossing the bridge.

Thanks to *Roads and Bridges* magazine for this information.

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

## ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP MEETING

#### WEDNESDAY, FEBRUARY 27

SUBJECT: Philadelphia's Green Infrastructure Program

SPEAKER: Marc Cammarata, PE, Deputy Commissioner, City of Philadelphia Water Department

LOCATION: Peppers Restaurant, 239 Town Center Road, King of Prussia

*TIME:* 5:30 PM registration, dinner and presentation follow

*COST:* members \$35, government employees and students \$25

#### **RSVP by Tuesday, February 26**

In June 2011, the City of Philadelphia entered into a groundbreaking agreement with state and federal regulatory agencies to take on stormwater runoff and combined sewer overflows, using a program that relies on substantial green infrastructure investments. The presentation will discuss what has been accomplished in the past 7+ years and what the City's Water Department has in store for the future.

Reservations and payment can be made by PayPal at our Section's website (asce-philly. org). Payment for reservations by check can be made at the event (checks should be made payable to "Philadelphia Section ASCE"). Contact Eric Lindhult (215-852-0068 or eric.lindhult@ gmail.com) if you have any questions or if you will be unable to attend after you have registered.

Attendees are eligible for one (1) Professional Development Hour (PDH) for attending this presentation.

#### **GEO-CONGRESS 2019**

The ASCE National Geo-Institute (GI) invites you to attend **Geo-Congress 2019**, The Eighth International Conference on Case Histories in Geotechnical Engineering, which will be held **March 24-27** at the Pennsylvania Convention Center in Center City.

This conference will feature experiences and observations from hundreds of geoengineering projects, including recent "MegaProjects" and will include a wide range of knowledge-enhancing technical and panel sessions, short courses, and workshops.

Registration can be made at **www.geocon**gress.org/registration and the conference program can be reviewed at **www.geocongress.org/** program.

> Today is Valentine's Day— or, as men like to call it, Extortion Day!

– Jay Leno

## JANUARY JOINT DINNER MEETING

January 16, 2019

Radisson Hotel, Valley Forge

### DUES — IF YOU HAVEN'T PAID YET, YOU'RE LATE...

## Frankford Avenue Bridge – Rehabilitation of the Oldest Bridge in the United States

by Robert Wright, Editor

Our first meeting in the '19 half of the current season found us, as has been the case for nearly 30 years, venturing out to King of Prussia, where we joined our counterparts at the Delaware Valley Section of the American Society of Highway Engineers (ASHE) for our traditional joint meeting. The ballroom at the Radisson Hotel and Valley Forge Casino was full with a crowd of over 180 attendees from the combined Sections coming in out of the chilly weather, wanting to hear more about how one restores a 322-year-old structure (a hint – very carefully...).

Delaware Valley Section President John Caperilla opened the meeting with the traditional Pledge of Allegiance and a blessing of the meal. After a few announcements he handed off to Section President Angelo Waters, who brought everyone up to speed on recent happenings and upcoming events in our Section. Dinner followed, and as it wound down, President Caperilla returned to the podium to introduce the evening's presenters, Mike Cuddy, Senior Vice President of TranSystems, the effort's design consultant, and Alex Craft, Project Manager of Loftus Construction, the construction contractor.

Mr. Cuddy gave an overview of the history of the Frankford Avenue Bridge, which all good Section members know (!) is the oldest bridge in the United States, dating to 1697, and a National Historic Civil Engineering Landmark, as well as being listed on the National Register of Historic Places. The original construction was handled by Lower Dublin Township, which was the political entity within Philadelphia County at the time, and able-bodied male residents of the Township were requested to help build it or pay taxes to support the work. The 3-span stone arch structure, roughly 75 feet in length, had approaches that consisted of retaining walls that were a total of 450 feet long. The bridge crossed the Pennypack Creek and provided a vital link in the King's Highway, which linked the 13 colonies at the time at a combined length of over 1300 miles. A second structure was appended onto the northwest side of the bridge in 1893, raising it to match the grade of adjacent development and doubling the width of the roadway to 44 feet. Trolley tracks were also added at that time to accommodate electric streetcar service which connected the outposts of Holmesburg and Torresdale to the rest of Philadelphia.

In the 1950's curb barriers and a cantilevered sidewalk were added to the structure and a general rehabilitation was performed. Mr. Cuddy noted that moment slabs placed to support the sidewalk were very substantial (5 feet deep in some locations) and when these had to be removed in this effort, it proved to be a challenge. The bridge received some much-needed rehab work in the mid-1980's, but when it was inspected in the early part of the present decade it was found that some

stone bulging and fill settlement needed to be addressed. A recent vehicular accident additionally damaged a substantial section of the retaining wall on one approach, thus the inspection indicated that major work needed to be done to address the noted deterioration as well as substandard and outdated elements such as the curb barrier. Accordingly, PennDOT District 6, the owner of the bridge, and TranSystems developed a \$7.5 million rehabilitation and restoration program to sensitively address the noted deficiencies and implement restorative measures that would maintain the bridge's historic character and integrity.

Mr. Cuddy described the approach to the work, which would remove the deck, replace the arch backfill with lightweight concrete to address settlement and drainage problems, concentrate the existing utilities on the bridge into a utility "bay," repair the concrete liners in the arches, and address missing stones and pointing. Pointing materials, colors and techniques were evaluated to ensure that the historically-correct treatment would be performed. Because of the various past construction and rehabilitation efforts, the existing pointing differed in technique and appearance.

Mr. Craft outlined the construction process and details. As noted in the first paragraph of this report, the "mantra" of the effort, if there were such a thing, was to handle everything with care to both respect the historical nature of the structure as well as to minimize the impact of construction. He noted that, often, the suggestions made by the inspection staff were to remind the contractor that "if you break it, you bought it." A number of unexpected and undocumented elements were uncovered during construction, including the cantilevered sidewalk moment slabs previously described, and the contractor's approach when this occurred was to consider the situation and look to remedies that would be able to be addressed with as little impact to the bridge as possible.

The damaged retaining wall previously described was able to be rebuilt with many of the original stones, as the City had managed to salvage and store these. Mr. Craft explained how the needs for additional replacement stone were addressed to keep the look of the bridge as close as possible to existing. Several mock-ups were developed to show proposed treatments to get input from the owners and historical experts. The existing decorative pedestrian railing was salvaged, sent off-site for repairs and painting, and reinstalled on the bridge.

President Caperilla thanked Messrs. Cuddy and Craft for their efforts and good presentation and presented them with tokens of the Section's appreciation. Retaining membership in ASCE allows you to stay connected to the latest industry trends and keeps you linked to the best professional development programs and engaged with a worldwide network of peers. Your continual involvement builds a solid foundation to keep your career on track and moving toward achieving your professional and personal goals.

Dues for the current year were payable by January 1, but, if for whatever reason, you have not renewed, please avoid an interruption in your benefits and renew now. Choose the renewal option most convenient to you: online at **asce. org/renewal** (the quickest and easiest way), by phone at **800-548-ASCE (-2723)**, or by mail, using the invoice sent to you last fall (if you still have it). Ensure a positive return on your investment in a Civil Engineering career by renewing with ASCE.

Also, new this year, the number of free ondemand webinars available has increased from 5 to 10. As a member, you can choose up to 10 ondemand webinars from the more than 200 available, each worth 1-1.5 PDHs, on various topics.

### SPONSOR PROFILE JBC ASSOCIATES CELEBRATES 30 YEARS OF SUCCESS

**JBC** Associates, Inc. (JBC), one of the Common-wealth's largest and most respected women-owned professional construction management firms, recently celebrated its 30th Anniversary — 30 years of supporting the key infrastructure that is propelling the Philadelphia region forward into the national and international spotlight.

CEO and Founder, Janet B. Cunningham, PE, started the construction management firm in 1988 as its sole employee and today the firm has grown to over 70 employees. She based the business on her personal philosophy of doing your professional best and treating others with respect. "The things that have made JBC successful are the same things that make all firms successful... professionalism, integrity, accountability, resiliency and above all else great employees. Our staff is our greatest asset. Clients want to know that firms are dependable, deliver on their promises, and provide a quality service in a timely manner. We encourage our staff to perform to these standards. I believe our success is the direct result of hitting our mark on all of these principles." That philosophy has served the firm well as JBC Associates has averaged over 20% growth per year.

In 2012 when JBC made *Engineering News Record* magazine's **Top 100 Construction Management-for-Fee Firm** list for the first time at #88, the number was very telling of how far the firm had come and how long it had persevered to rank amongst its top peers in the construction industry in the United States. It had taken nearly 25 years to earn this industry recog-

## ENGINEERS' CLUB OF PHILADELPHIA MULTI-SOCIETY MEETING

December 4, 2018

DoubleTree Philadelphia Hotel, Center City

#### "TomorrowLand" Is Here Today – Smart Cities Big Data and Decision Science by Robert Wright, Editor

A brisk but sunny December afternoon found over 75 members of various technical groups in attendance at the DoubleTree Hotel for the Engineers' Club's annual Multi-Society Meeting, in which our Section has been a participant for its entire existence. Following the traditional Toys for Tots collection during the networking session prior to the meeting, attendees enjoyed lunch and the subject panel discussion was begun as dessert was served.

Engineers' Club President Chris Holliday started things off with a few announcements and an acknowledgement of the meeting's technical group sponsors and representatives in the crowd. He then introduced the panel, moderated by Club Director/Past President Mitchell Swann. The panelists were:

**Dr. Drury Crawley,** Director, Building Performance/Bentley Institute, Bentley Systems, Inc.

Arthur Guzzetti, Vice President – Policy, American Public Transit Association

**Ellen Hwang,** Assistant Director of Strategic Initiatives, City of Philadelphia; Office of Innovation and Technology

**Dr. Steven Weber,** Director, Isaac L. Auerbach Cybersecurity Institute, Drexel University

Mr. Guzzetti was noted as a replacement for Section Past President **William Thomsen** of Urban Engineers, who was unable to attend due to a last-minute conflict.

Mr. Swann posed several questions to the panelists on how management of a large enterprise

### **JBC PROFILE**

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nition. Locally, JBC has been recognized by the Philadelphia 100 as one of the fastest growing, privately held businesses in 1995, 1996, 2002 and 2012.

JBC, headquartered in King of Prussia, provides professional services on a wide variety of projects from its headquarters office and on construction sites regionally. These projects include highways and bridges, transit, airports, government buildings, commercial, educational, recreational and institutional facilities ranging from under \$1 million to over \$500 million in construction. Annually, the firm is involved with projects totaling an estimated \$1.5 billion in construction.

In the Philadelphia area, JBC has served a key role on such notable projects as the Kimmel Regional Performing Arts Center, the International Terminal A-West at Philadelphia International Airport (PHL) and the Singh Center for Nanotechnology at the University of Pennsylvania. JBC was the Construction Manager for the new Pennsylvania State Police Philadelphia Headquarters and the Pennsylvania Turnpike's new Route 29 Interchange at Milepost 320. Recently, JBC provided construction has become much more difficult due to the flood of new information and data and rapidly-changing needs and circumstances, not only for business enterprises, but institutions and cities as well. The questions and responses focused on the explosion of information and communication technologies (ICT), coupled with the increasing economic and environmental demands such as climate change, economic restructuring, the digital marketplace, urban population growth and pressures on public finances. These factors have generated interest in "smart cities" designed to use technology to try to get a better handle on the information driving the issues of the day. The smart city concept integrates ICT tools and systems along with the "Internet of Things" (IOT) to optimize the efficiency of city operations and services and connect to citizens. Smart city technology allows city officials to interact directly with both community and city infrastructure and to monitor what is happening in the city and how the city is evolving. The panel offered its views of smart cities from the technology, application and "big user" perspectives, along with data security and privacy considerations.

Following the discussion, the panelists addressed several questions from the audience and provided meaningful responses. President Holliday thanked the panelists for their participation and the attendees for taking the time to support the effort.

## FRANCIS J. DEPMAN

We regret to advise all of the passing of Section Past President Frank Depman on January 17. Mr. Depman was Vice President of Kaufman Construction Company, Inc., as well as an owner of the firm. He was with Kaufman for over 38 years until his retirement in 1991. He was involved with the construction of numerous major projects in our area including the Philadelphia approaches to the Walt Whitman Bridge, the I-76 bridge over the Schuylkill River, the I-95 bridge over the Brandywine River, the New Jersey section of the Betsy Ross Bridge, the Center City Commuter Rail Connection, the Passyunk Avenue bridge over the Schuylkill River, and SEPTA's Olney Transportation Center. He was a long-time resident of Abington and most recently lived in Blue Bell.

Mr. Depman received his Bachelors degree in Civil Engineering from the University of Pennsylvania in 1951 after service in the Philippines at the end of World War II. He returned to military service in the Korean Conflict after graduation from Penn. He served our Section in several capacities, including Section President in 1990-91, and was an active member of the American Society of Highway Engineers (as well as a Past President of the Delaware Valley Section). He is survived by his wife, Ruth, five children, 20 grandchildren and 6 great grandchildren.

Memorial donations may be made in Mr. Depman's name to Misíon Santa Maria, Madre de Dios, PO Box 1019, Avondale, PA 19311.



inspection and construction management support to PennDOT for the SR 676 Vine Street Overhead Bridges Replacement project. For over 25 years the firm has continuously provided project and construction management support to the Philadelphia Division of Aviation for projects at PHL and Philadelphia Northeast Airport.

JBC has always nurtured strategic alliances with other firms both locally and nationally. This business approach has afforded JBC the opportunity to become recognized as a valued partner and key consultant to owners and other firms in the engineering and construction industry. JBC has continued to offer diverse professional services in a variety of different market sectors within the construction industry. This diversification has allowed the firm to sustain its continued growth even in times of economic downturns.

So what is Cunningham's advice regarding opportunities for Women in Engineering? "It's a good time to be a Woman in Engineering. There are endless opportunities. I advise women to recognize an opportunity when presented to them, and not be afraid to act on it. Take risks. Often times to achieve one's personal goals, one must take risks that may push them outside of their comfort zones. Women need to realize they can control their own destiny. They need to be bold and speak up."

#### THE NEWS

## SECTION COMMITTEES

Our current Committees and chairs are provided below. If you have an interest in helping and/or would like to join a Committee, please reach out to us at volunteer@asce-philly.org or through our Section Secretary, Briana Earle (contact information is provided on page 2). ASCE PA Report Card Promotion -

Cricket Slattery Audit - Kazi Hassan Awards (includes Engineers Week Hall of Fame Recognition) - Bob Wright Budget and Finance - Jen Reigle Civil Engineers in Government - Jeanien Wilson College Scholarship - Andrew Bechtel Communications (includes E-mail Outreach. Newsletter, Sponsorship, Website) -Briana Earle Continuing Education - Angelo Waters Humphrey Fund – John Zarsky Membership - Mohammed Elghawy Mural - Angelo Waters Nominating (for Board Positions) -Cathy Farrell Program (includes Meeting Check-in/Name Tags and Venue Coordination) -Angelo Waters Society Relations (includes Legislative Affairs, PA Council and Region 2) - Cathy Farrell Subsidiary Groups (includes Technical Groups/ Institutes and Younger Member Forum) -Kazi Hassan Spring Social - Troy Illig

### **JBC PROFILE**

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"As we celebrate our 30th year, I reflect on how rewarding it is to have founded JBC and be at the helm of its growth and prosperity," says Cunningham. "For the future, I see the firm continuing to grow at a steady pace, expanding our market sectors and geographical client base, and being at the forefront of advancements in technology and project delivery methods."

Celebrate with JBC Associates as it highlights 30 projects from the firm's 30 year history in the arts and education, civic structures and bridge structures, transportation and new technologies in their social media posts. Follow along at #JBCTurns30.







lanning	Construction Management
esign	Operations & Maintenance

For career opportunities and/or information, please visit wsp-pb.com/usa

Planning

De