



PHILADELPHIA SECTIO AMERICAN SOCIETY OF CIVIL ENGINEERS 215 S. 16th Street, Suite 16, Philadelphia, PA 19102 Telephone/Reservations: (215) 985-5703 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

Our 102nd Year

October 2014

ASCE, PHILA. SECTION MEETING SCHEDULE 2014–15

Vol. 87-2

The ASCE, Philadelphia Section Meeting program for the upcoming season is starting to take shape. Our meeting program committee is busy lining up speakers and topics for what we hope will be an interesting and informative series of meetings. The TENTATIVE dates have been provided below for your planning purposes. We would suggest that you use this to mark your calendar at this time and hold these dates.

In coming issues of THE NEWS, this information will be "fine-tuned" to provide updates as they are available. We also suggest you visit the Section website for the latest changes in our meeting program. As we have done, each month's edition of THE NEWS will feature detailed information on that month's meeting along with as much information as is available for the following month's meeting. The "look-ahead" schedule will show details that are available for future meetings at that time for your advance awareness.

Dinner meetings generally follow a schedule of a cocktail hour starting at 5:30 PM, dinner at 6:30 PM, and the meeting presentation following at approximately 7:30 PM, unless otherwise noted. We also intend to follow our second-Thursday pattern except as noted below.

As always, you are welcome to attend the meeting presentation without dinner at no cost if you prefer to do so.

Information on future meetings this season as of this printing are:

December 8 (Monday)

"Multi-society" meeting (Engineers' Club of Philadelphia and others); DoubleTree Hotel, Center City; Navy Yard Update

January 21, 2015 (Wednesday)

Joint meeting with American Society of Highway Engineers, Delaware Valley Section; Radisson Hotel/Valley Forge Casino, Valley Forge; ASCE PA Report Card; Cocktails 6 PM, dinner 7 PM, meeting 8 PM

February 12, 2015 - To be determined

March 12, 2015 - To be determined

April 9, 2015 – Multi-topic meeting/breakout sessions; Villanova Conference Center, Radnor

May 2015 – Spring Social to be determined

OCTOBER JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section American Society of Landscape Architects, Pennsylvania-Delaware Chapter

THURSDAY, OCTOBER 9, 2014

Loews Hotel, 1200 Market Street, Center City Philadelphia Cocktails 5:30 PM, Dinner 6:30 PM, Meeting 7:30 PM

SUBJECT: Cleaning Philadelphia's Waters through Green Infrastructure SPEAKER: Chris Crockett, Ph.D, PE, Deputy Commissioner of Planning & Environmental Services, Philadelphia Water Department

RESERVATION DEADLINE — MONDAY, OCTOBER 6. The cost per attendee is \$40, with a half-price (\$20) cost for government agency employees and students, for reservations received by this deadline.

RESERVATIONS RECEIVED AFTER OCTOBER 6 — Reservations received after the deadline and "walk-ups" without prior reservations paying at the door will be charged \$50 (government agency employees and students will be charged the regular \$20 rate), but will be subject to acceptance on a space-available basis. Please note that payment via PayPal will NOT be available at the close at the reservation deadline.

THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE. Walk-ins and anyone without a reservation will be handled on a space-available basis.

Reservations can be made via e-mail at info@asce-philly.org or electronically through our website (www.asce-philly.org) and pay via PayPal. As noted above, the PayPal option will NOT be available as a payment option after the reservation deadline.

Advance payment can be made by check as an option to electronic payment. Checks should be made payable to "Philadelphia Section ASCE" and sent to ASCE Philadelphia Section, 215 S. 16th Street, Suite 16, Philadelphia, PA 19102. Checks will also be accepted at the reservation table at the dinner.

As always, guests will be welcome to attend the presentation without dinner at no charge. This may be subject to room capacity constraints in the event of a large turnout for dinner.

"Green City, Clean Waters" is Philadelphia's 25-year plan to protect and enhance the City's watersheds through the management of stormwater using innovative green infrastructure. This will allow the dependence on the combined sewer system to be reduced over time and decrease the amount of storm runoff that is redundantly handled and treated at the City's sewage treatment plants. Through the use of a wide array of green infrastructure interventions, ranging from green bumpouts to stormwater tree trenches, the Philadelphia Water Department is investing in a 21st century infrastructure system that saves money, cleans Philadelphia's waters, and enhances the livability of city neighborhoods. With such tools as the Green Infrastructure Design Manual, the Stormwater Management Incentives and Greened Acre Retrofit Programs, Philadelphia is building a revolutionary

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NOVEMBER DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

THURSDAY, NOVEMBER 6, 2014

Loews Hotel, 1200 Market Street, Center City Philadelphia Cocktails 5:30 PM, Dinner 6:30 PM, Meeting 7:30 PM

SUBJECT: Comcast Tower 2

Information on the topic and speaker(s) for this meeting will be included in the November edition of THE NEWS. Please mark this date in your calendar to hold it for now.



PRESIDENT'S MESSAGE

While this newsletter may make it seem like we are gearing up to kickoff our 102nd year as a Section, I assure you the ASCE, Philadelphia Section has had a very busy summer. Back on June 25th, the Philadelphia Section, along with our friends in the other three Pennsylvania Sections, simultaneously released the 2014 Report Card for Pennsylvania's Infrastructure across the state. By all accounts it was a very successful release that garnered a lot of

publicity in the newspapers and on local television news reports. If you have been hiding under a rock the last couple months and have not seen or heard of the Report Card, I suggest you visit the Report Card website (http://www.pareportcard.org) and take a look. A lot of hard work went into making this Report Card possible and it took a lot of volunteers from across the state to make it happen. To name everyone that helped would take up more space than our Editor will allow, but I do want to thank ASCE Philadelphia Past President **Ann Tomalavage** who led this State-wide effort and got everyone moving in the right direction. Great work Ann!

Now that the Report Card is out, we're done, right? Well, not entirely. Over this upcoming season, the members of the Philadelphia Section will continue reaching out to anyone that will listen to our message of raising infrastructure awareness. We will also be investigating some promotional options to reach a broader audience and will be highlighting a portion of the Report Card at each of our Section dinner meetings. At the Board of Directors summer planning meeting, we formed a committee of volunteers to spearhead these efforts locally. If you are interested in participating, please let me know and I will put you in touch with the committee.

The Section, along with our Technical Groups and Institutes and the YMF, have a lot of great events planned for this year. This year we will be using some new means of communication and event planning to better serve you. I'll talk more about that next month.

Hope to see you at our October dinner meeting.

OCTOBER DINNER MEETING

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green infrastructure program. Greening Philadelphia and cleaning its waters requires understanding the intersection between programmatic goals, funding, and engineering green infrastructure.

Dr. Crockett has over 20 years of experience in the water, stormwater, and wastewater industry participating and leading innovative projects to improve customer service, performance, revenue, and regulatory compliance. He has been responsible for stormwater and combined sewer outfall (CSO) compliance and managed teams to provide green infrastructure and watershed management approaches. Among his accomplishment are the implementation of the Department's source water protection programs and implementation of new stormwater management requirements for development and studies of impervious cover based stormwater billing for non-residential customers. He has been involved in several national and worldwide groundbreaking environmental projects using information technology for early warning systems for drinking water supplies and public notification for recreation. He has received his Bachelors, Masters and Doctorate degrees in Civil and Environmental Engineering from Drexel University.

Better to know nothing than to half-know many things.

- Friedrich Nietzsche

Sincerely, Joseph Platt, P.E. President, ASCE Philadelphia Section

MEMBERS IN THE NEWS

THE NEWEST FARRELL...

Section Secretary **Cathy Farrell** and husband Tim welcomed new addition Avery Pearl on August 22. She joins big brother Dean in the Farrell brood. Congratulations!

COLELLO NOW AT HNTB

Past Section President **Jeremy Colello** has accepted a position as Department Manager – Transportation at HNTB's offices in Center City. Good luck to Jeremy in his new endeavor.

CHRZAN MOVES TO TOOLE

Past Younger Member Forum President Jeremy Chrzan has relocated to Silver Spring, MD as of August to take on the role of Senior Engineer at Toole Design Group. He noted that, "While this will be a scary change for me, the national initiative for bicycle and pedestrian improvements is my passion, and I have to give this job a try." We wish Jeremy good luck in his new spot.

TECHNICAL GROUPS UPDATE CHANGE AT THE HELM OF SEI

Fred Baumert has taken over the role as Chair of our Structural Technical Group for this season. Fred succeeds Khalid Shaikh, who led the group last season. We thank Khalid for his service and diligence in the leadership of SEI.

ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION-2014-15 SEASON

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E. J. Walsh, McCarthy Engineering

*Our Constitution recognizes only the immediate Past President as a part of our Board but, following tradition, we list the immediate three Past Presidents to acknowledge their service.

President—Joseph Platt, P.E.

Senior Project Manager Traffic Planning & Design, Inc. Sanatoga Commons 2500 E. High Street, Suite 650 Pottstown, PA 19464 (610) 326-3100 jplatt@trafficpd.com

Secretary—Cathy G. Farrell, P.E. Project Manager – Transportation Michael Baker, Jr. Inc 201 Gibraltar Road, Suite 120 Horsham, PA 19044 (215) 442-5316 cfarrell@mbakerintl.com

> PUBLICATIONS COMMITTEE Editor of THE NEWS Robert Wright Staff Writers

James Markham Joe Syrnick

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> COPY DEADLINE FOR NOVEMBER 2014 ISSUE OCTOBER 10, 2014

YOUNGER MEMBER FORUM NEWS

Kristin Leese, P.E., Forum Editor Drew Sirianni, P.E., Forum President 2014–15 Pennoni Associates 3001 Market Street Philadelphia, PA 19104 (215) 222-3000 dsirianni@pennoni.com

The YMF had a very busy and interesting spring and summer.

PENNDOT SR202 CONSTRUCTION TOUR – APRIL 23

The YMF coordinated a construction tour of the PennDOT SR202 Section 300 Widening and Improvement Project, located along the 6.5 mile stretch of the southbound side of US Route 202 between the Swedesford Road/Route 252 Interchange in Tredyffrin Township and the US Route 30/Exton Bypass Interchange in East Whiteland Township, Chester County. The project has a combined cost of approximately \$250 million. Attendees were able to gain information from representatives of R.E. Pierson (Section 320 GC), Alan Myers (Section 330 GC), Urban Engineers (CM) & Michael Baker (Designer) and tour the on-going construction activity, observing various phases of construction, including concrete slip-form paving, site grading, low mobility grouting, concrete formwork construction, temporary shoring, ITS, utility work, bridge replacement, and the construction of soil nail walls, retaining walls, and an AngleWallTM sound wall.

CRITICAL ISSUES SEMINAR – APRIL 30

The YMF teamed up with the Mid-Atlantic Section, Institute of Transportation Engineers (MASITE) and the Delaware Valley Section of the American Society of Highway Engineers (ASHE) to host the Critical Issues Seminar at The Field House in Center City. The Seminar is a yearly event that brings together a diverse panel of speakers holding various positions within the civil engineering industry, and gives the audience the opportunity to ask a variety of questions regarding the topic at hand. This year's topic involved maintaining and modernizing infrastructure, the need for continued investment in infrastructure improvement, and what we, as engineers, can do to continue the momentum of this awareness and investment movement. A special "Thank You" to this year's panel of speakers:

- Mike Boyer, Manager, Office of Long-Range Planning and Economic Coordination, DVRPC
- Ann Tomalavage, Past Section President, and Chair, ASCE PA Report Card Committee, and President, Malarkey Consulting
- Chuck Davies, Assistant District Executive Design, PennDOT District 6-0
- **Roy Denmark, Jr.**, Vice President and Director, Ports, Waterways and Environmental Services Division of Urban Engineers, Inc.
- John Zarsky, Transportation Technology Principal, Pennoni Associates Inc.

CANSTRUCTION 2014 – MAY 9

The YMF CANstruction team competed in the 8th Annual CANstruction Philadelphia Competition held at Liberty Place in Center City. A strong fundraising effort, along with a very generous donation from Campbell's, allowed the team to build a trash vehicle titled "Hauling Off Hunger", and ultimately donate more than 14,000 cans to Philabundance, the region's largest food bank and hunger relief organization. The CANstruction Gala was held to celebrate the event, and the YMF team was awarded the "Most Cans" plaque for donating the largest number of cans of the 16 participating teams. A big "Thank You" goes out to our sponsors, including AECOM, Baker, Campbell's, Gilmore & Associates, Hatch Mott MacDonald, Jacobs, JBC, JMT, KMJ, Pennoni, TimHaahs, TranSystems, Urban Engineers, Costco and Wegman's.

PHILLIES TAILGATE AND BASEBALL GAME – AUGUST 7

The YMF teamed up with neighboring YMF's from Delaware and South Jersey to hold our annual Philadelphia Phillies Tailgate and Baseball Game. The event was a huge success, bringing in 100 Engineers from various engineering firms and related organizations. Not only was the weather perfect for the tailgate, but the night ended with a Phillies win (one of those rare home victories...)! This event was also successful at providing a great opportunity for both social and professional networking for all in attendance.

UPCOMING EVENTS

WELCOME BACK BOWLING EVENT - OCTOBER 7

The YMF will be hosting its annual **Welcome Back Bowling Event** at Pep Bowl, located at 1200 South Broad Street, Philadelphia, on Tuesday, October 7. This event is free to all students and will provide all attendees with a fun night of bowling along with the opportunity to meet young professionals in the various fields of Civil Engineering. Please RSVP on the YMF website to reserve your spot.

SAVE THE DATE!

The YMF will be hosting our annual **Winter Social** at its usual spot, McGillin's Olde Ale House in Center City, in January 2015. The official date and additional event details will follow.

ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP MEETING

SAVE THE DATE - THURSDAY, NOVEMBER 13

SUBJECT: Upper Dublin Flood Control Structure – Saving a Business Park SPEAKER: John C. Volk, P.E., URS Corporation

LOCATION: Michael's Restaurant and Deli, King of Prussia

Mr. Volk will present the design and construction of two flood retardation structures in Upper Dublin Township that are reducing the flooding in the Fort Washington Business Park and the Township.

More details and RSVP information will be provided in the November edition of *THE NEWS*.

BACK ISSUES OF THE NEWS AVAILABLE ON OUR WEBSITE — CATCH THE ISSUES YOU MAY HAVE MISSED!

We have managed to find and post many of the older editions of *THE NEWS* and now have a nearly complete "set" dating to the start of the 1973-74 season on our website (back before there was an Internet, even! Back when a website was where a spider lived?). The digitized versions are available in **"The News Paper Archive"** section of our website for your viewing pleasure.

Thanks to **Joe Syrnick** and **Bob Wright** for making these past issues available so you can catch all the editions (or at least many of them) that you may have missed, or, in the case of many of our members, before you were born. And, speaking of "before being born", thanks to **Jeremy Chrzan**, who was indeed not around when many of these "ancient" editions came out, for his help in posting the issues on our website.

If you have any old editions of *THE NEWS* that you would consider contributing to the cause (or at least lending them to us for us to digitize and then return them to you), please contact us either through our website or at **newseditor@ascephilly.org.**

FIRMS IN THE NEWS

KEAST & HOOD PROJECTS EARN NATIONAL RECOGNITION AND AWARDS

Earlier this summer, two projects for which **Keast & Hood** provided Structural Engineering have earned recognition and awards.

LeBow College of Business is a signature new 12-story building on the campus of Drexel University. The project earned recognition with an Excellence in Structural Engineering Outstanding Project Award from the Delaware Valley Association of Structural Engineers.

Lincoln Ballroom at the Union League of Philadelphia underwent restoration and historic preservation as part of interior upgrades to the National Historic Landmark club. Keast & Hood has been involved with multiple phases of interior and exterior renovations at the Union League since 2003. The project was honored with a Preservation Achievement Grand Jury Award from the Preservation Alliance for Greater Philadelphia.

"These honors reflect the collaborative teams, creative structural engineering and design, and commitment to client service represented on each of the projects," said Keast & Hood Principal Matthew J. Daw, PE, LEED AP. "We are very appreciative of the support and recognition of our peers in the design and construction community."

The power of accurate observation is commonly called cynicism by those who have not got it.

THE 2014 SPRING SOCIAL — A TRIP TO MONACO...

On May 8, our ASCE, Philadelphia Section found itself in Monaco – the Hotel, that is, not the country (nor were we resurrecting the "themed" Socials we had in past years - maybe we missed an opportunity?), across the street from Independence Hall in Old City Philadelphia, where just over 100 of our members and guests enjoyed a nice evening and camaraderie in one of Philadelphia's newest and finest hotels. The warm weather outside was a nice respite from the polar vortex and spring was definitely in the air as we wrapped up our 101st season. While this year's Social was not meant to be comparable to the once-in-a-lifetime 100th Anniversary event conducted a year ago, there were many memories of our 100th Anniversary Gala discussed among those present.

President **Jenn Walsh** used the remaining hours of her successful term to open the festivities for the evening, corralling everyone from the bar across the hall into the dining room. Past President **Ruben David** gave his usual good and fitting invocation, and dinner followed.

As dinner wound down, the traditional order of business followed, with recognition of the top two Section prize winners at the Delaware Valley Science Fairs (who demonstrated their projects during the cocktail hour), presentation of Section Awards, and induction of new Officers and Board Members. Past President **Ann Tomalavage** ably administered the Oath of Office to the new Officers as well as those completing the second years of their terms, while reminding them that she expected to see them when the PA Report Card would be released in late June (more on that in a separate article elsewhere in this edition).

The last item of the evening had the passage of the gavel, when President Walsh handed off to her successor, incoming President **Joe Platt**, who closed the evening (at least the business part) with his remarks. The "unofficial" continuation of festivities moved to the rooftop deck of the Hotel, where, coincidentally, several of our attendees got to rub elbows with Mayor Nutter.

As noted, the Section's Science Fairs awardees were brought forward by Past President Bob Wright (standing in for Past President Chris Rood, chair of the Section's Science Fairs judging contingent). Since our Grades 9-12 first place recipient was unable to attend the Social, we extended the invitation to our second place winners, and one was available to attend. Recognized at dinner, after displaying their winning projects during the cocktail hour, were Grades 6-8 First Place winner Victoria Glenn, a 7th Grader at Toms River Intermediate East School, in Toms River, NJ, with her project "Would the Shape of a Structure Affect its Ability to Resist Destruction During a Natural Disaster?", and Grades 6-8 Second Place finisher Grades 6-8 Second Place Dennis Newcomb, in the 6th Grade at Edgarton Academy, Elmer, NJ, with his effort "Which Soil Withstands a Simulated Earthquake with a Building on It?".

Six recipients of Section Awards for 2014 were

honored, using the audiovisual show that has been produced for this purpose (and wellreceived, at least we hope) for many years to cover their accomplishments. Information on each of the awardees follows.

PHILADELPHIA CIVIL ENGINEER OF THE YEAR

Our 2014 nominee for the highest honor of our Section's awards program is Ruben David. In August 2013, Ruben retired from his position as Project Director at the City of Philadelphia Department of Public Property after a 36-year career in public service. He began his career with Public Property in 1977 and rose from the entry-level graduate Engineer to project management, handling project budgeting, programming, planning, design, construction management and project administration for capital projects for the city's police, fire, prisons, health and human services, library, recreation, courts and general services facilities. He was involved in critical projects and served in key positions on the design and construction of the Center City Commuter Rail Connection and the renovation of City office buildings, in particular the restoration of City Hall, a National Historic Civil Engineering Landmark.

Ruben has continually been an active member of numerous civic and community organizations, particularly several in which he has helped to increase awareness of Asian-American affairs and further causes in the Filipino-American community. He has also been a tireless volunteer in both the Engineers' Club of Philadelphia and our Section, holding many positions in each, including President. For his efforts, he was cited by the Delaware Valley Engineers Week Committee as the recipient of the Outstanding Service Award to the Community this past February. He also serves as an Adjunct Professor in the Department of Civil and Environmental Engineering at Temple University, helping to educate the next generation of Engineers.

Ruben earned his Bachelors degree in Civil Engineering from the University of the East in Manila, the Philippines, his homeland, in 1974. He and his wife Rosemarie live in the Somerton section of Northeast Philadelphia. They have three adult children and two grandchildren.

YOUNG CIVIL ENGINEER OF THE YEAR

Our Young Civil Engineer of the Year for 2014 is Kazi Hassan. Kazi is a Transportation Engineer with Pennoni Associates at the firm's headquarters in University City. He has over seven years of experience with a concentration in roadway design, development of highway occupancy permit submissions, traffic signal design, roadway geometric design, production of project plans, specifications and cost estimates, and related work for public agencies and private clients. He has worked on several locally-significant efforts including design of the replacement of bridges crossing the Vine Street Expressway in Center City, the utility master plan for the Navy Yard, and evaluation of roundabout treatments for several local townships.

Kazi worked closely with **Jesse Gormley**, our Community Outreach and Service Award winner, on the recent effort to create the Civil Engineering Club at the Chester A. Arthur public school in South Philadelphia, instructing 6th through 8th grade students on Engineering basics and fundamentals.

Kazi received his Bachelors degree in Civil Engineering from Pennsylania State University in 2005. He currently serves as our Section's Membership Secretary and led the Younger Member Forum in 2012-13. He and his wife Sharmin live in West Philadelphia.

TRANSPORTATION ENGINEER OF THE YEAR

AnnMarie Vigilante has been nominated for Transportation Engineer of the Year honors in 2014. AnnMarie is an Associate with Langan Engineering and Environmental Services at its office in Doylestown. She was named as an Associate at the firm earlier this year and has been with Langan for the past ten years. She oversees the Traffic and Transportation Department for the firm's Pennsylvania operations, which includes four offices, and manages several highway and roadway projects associated with commercial, industrial and residential uses. She led the recent effort for the planning, design, permitting and construction of the \$40 million Route 33 Main Street interchange project in Palmer Township, Northampton County, which is expected to result in considerable economic activity for the County. Her other local projects include the design and permitting for roadway improvements at the Metroplex in Plymouth Meeting, and design for the upgrading of the Pennsylvania Turnpike's Northeast Extension.

AnnMarie obtained her Bachelors degree in Civil Engineering with a minor in Environmental Engineering in 1996 from Penn State University and returned to school to earn her Masters degree in Engineering Management from Drexel University in 2002.

She is the incoming President Elect of our Section. In March, she was cited as one of several recipients of the 2014 Lehigh Valley Women of Influence Award. She lives in North Wales.

GEOTECHNICAL ENGINEER OF THE YEAR

This year's nominee for our Geotechnical Engineer of the Year award is William Petersen. Bill is a Senior Associate with Schnabel Engineering at its office in West Chester. In this capacity, he handles site investigations, geotechnical analyses, design recommendations, expert witness testimony and construction services for projects covering highways, railroads, and commercial, industrial and residential facilities. He has acted as Geotechnical Discipline Leader for major highway reconstruction projects, which has included project management, subconsultant coordination, oversight of subsurface exploration, and construction phase services, among other duties. Among his many projects are local efforts on the Pennsylvania Turnpike, US 202, the reconstruction of the I-95 Girard Avenue Continued on Page 5

SPRING SOCIAL

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Interchange, the award-winning Germantown Avenue Bridge, and Schuylkill River Park.

Bill earned his Bachelors degree in Geology from Bowling Green University in 1985. He returned to school at Purdue University to obtain his Bachelors degree in Geological Engineering in 1988 followed by a Masters degree in Engineering Geology in 1989. He chaired the Delaware Valley GeoInstitute technical group for our Section from 2011 to 2013. He is a member of the Editorial Board for GeoStrata magazine, which is published by ASCE National's GeoInstitute. He, his wife Cindy and son live in King of Prussia.

ENGINEERING MANAGER OF THE YEAR

Christopher Gubeno has been selected as our Engineering Manager of the Year for 2014. Chris is a Vice President at Urban Engineers at its headquarters in Center City and serves as Practice Leader for both the Aviation and Land Development divisions. He has been with Urban for the past 21 years, starting as an intern while in college and returning after graduation. His involvement has been in project development, design and construction administration, primarily on aviation projects, and more recently with land development efforts, where he has helped to grow the Division from a staff of two to its current complement of eight Engineers. Among his major projects are the Runway 8-26 Development and the Runway 17-35 Extension, both at Philadelphia International Airport, and multi-million-dollar efforts at Dulles International Airport in Virginia, BWI International Airport in Maryland, and Bradley International Aiport in Connecticut. In 2013, he led the winning retail retrofit design for the infill Soak It Up National Competition, which transformed an urban shopping center into a community focal point.

Chris received his Bachelors degree in Systems Science and Engineering with a concentration in civil engineering from the University of Pennsylvania in 1990. He is an active member of two aviation professional societies in addition to ASCE and has served his community on the Whitemarsh Township Planning Commission. He, his wife Ann and their two dogs live in Conshohocken.

COMMUNITY OUTREACH AND SERVICE AWARD

This year, we instituted a new award to recognize significant contributions to community service, our goal as Citizen Engineers. The recipient of the 2014 Community Outreach and Service Award is **Jesse Gormley**. Jesse is an Associate Engineer with Pennoni Associates at the firm's headquarters in University City. In this position, he is involved with all phases of preliminary and final structural design, contract document preparation, and calculation of construction quantities and cost estimates. His concentration is in structural design, inspection and load rating analysis for bridges, design of retaining walls and structures for highway signs and water and sewer systems. Among his current projects are the Crum Creek Viaduct replacement on SEPTA's Media Elwyn Regional Rail line and design of the replacement of overhead structures over the Vine Street Expressway west of 17th Street in Center City.

Jesse was instrumental in the formation of the Civil Engineering Club at the Chester A. Arthur public school in South Philadelphia, one of 13 nationwide, where he and others had the opportunity to work with 6th through 8th grade students on engineering basics and fundamentals.

Jesse received his Bachelors degree in Architectural Engineering from Drexel University along with a Masters degree in Civil Engineering in 2010. He is a Board member in our Section's Younger Member Forum. He lives in South Philadelphia.

The Section added a surprise and cited Past President **Bob Wright** with the 2014 Presidential Award, which he humbly accepted.

THANKS TO...

Special thanks are extended to those who helped make the Spring Social a success once again this year. This includes the Program Committee (Jeremy Colello and Cathy Farrell), the Awards audio narrators, who once again stayed inside on a nice spring evening to donate their voices to the effort (Carol Martsolf, Ann Tomalavage, Jenn Walsh and Bob Wright), and the Awards Committee (Carol Martsolf, Allan Moore and Bob Wright).

More information will be provided on the Spring Social for this season as plans are formalized.

ASCE NATIONAL ITEMS OF INTEREST

ELECTION RESULTS

WOODSON "IN" AS 2015 PRESIDENT-ELECT

Mark W. Woodson, PE was elected to become the ASCE National President-elect this past summer in an uncontested election. Mr. Woodson will assume office this October during ASCE's annual business meeting in Panama, as part of the 144th Annual Civil Engineering Conference (see more information below).

In our "home" Region (Region 2), John G. Casana, PE, was elected to serve as Governor-Elect. He ran unopposed.

SMITH TO TAKE OVER AS EXECUTIVE DIRECTOR

Following a national search, **Thomas W. Smith III** has been selected to serve as the next Executive Director of ASCE. Mr. Smith is the current Deputy Executive Director and General Counsel and has been with ASCE since 1997.

REGISTRATION OPEN FOR ASCE'S 144TH ANNUAL CIVIL ENGINEERING CONFERENCE!

The Global Engineering Conference will be conducted October 7-11 in Panama City, Panama. Please visit **www.asceannualconference.org** for more information.

UPDATE ON PROFESSIONAL DEVELOPMENT REQUIREMENTS — DE NOW "IN"

As you may be aware, Professional Engineers, Land Surveyors and Geologists in Pennsylvania are required to obtain continued professional development (CPD) credit to renew and keep their licenses. PE's in New Jersey have a similar requirement. The specifics are available for PA at www.dos.state.pa.us/eng and for NJ at www. nj.gov/lps/ca/pels/pels_licensee.htm.

Delaware has joined the ranks of states which require continuing education as of July 1. The specific guidelines on this are available at **www. dape.org.** Some of the pertinent details on this are as follows:

- The Delaware Association of Professional Engineers (DAPE), which administers PE licensure, will not be pre-approving courses or providers
- 24 PDH's must be earned during the 2014-16 renewal period
- At least 3 PDH's (with a maximum of 6 PDH's) must be related to professional ethics
- A maximum of 9 PDH's can be related to business or project management
- A maximum of 15 PDH's can be carried forward to the next renewal period
- Individual license holders will be responsible for maintenance of their records to support the PDH's claimed and shall maintain these records for 5 years
- Audits will be conducted on roughly 5% of all licensees in 2016

Our Section's main meeting and Technical Group meeting program provides opportunities for you to pick up professional development hours (PDH's) which will meet PA, NJ and DE requirements, as well as those of many other states, and we have a verification process to help you in your record keeping. Typically, in a given season, there will be at least a half-dozen opportunities for a member to earn PDH's from our program, so we encourage you to take advantage of our offerings for this purpose.

We emphasize that it remains an individual's responsibility to document PDH's and have such documentation ready in case of audit. We do provide certificates of meeting attendance/ completion that you can keep in your record files, and we retain all meeting sign-in sheets in our files for backup and verification of your participation.

ETHICS FOR EVERYONE ...

To help Delaware PE's meet the requirement of at least 3 of their 24 PDH requirement be in ethics, the Delaware Association of Professional Engineers (DAPE) will sponsor an ethics course on October 14. **Christopher Bauer, Ph.D.**, of Bauer Ethics Seminars will conduct this session. The location will be determined depending upon the response.

If you are a Delaware PE and are interested in attending this session, please contact the DAPE office at **office@dape.org** to reserve your seat. You will be provided with a confirmation with all the details.

Sponsor Spotlight DREXEL UNIVERSITY CIVIL, ARCHITECTURAL & ENVIRONMENTAL ENGINEERING

Last year the Department of Civil, Architectural & Environmental Engineering at Drexel graduated 105 seniors. This year's senior class has 112 students — in all three of our majors. We are one of less than a handful of departments in the US which have undergraduate degrees in civil engineering, environmental engineering and architectural engineering. With 29 full time faculty, we are one of the largest civil engineering departments at a private university in the US. We have about 70 MS students and 40 PhD students — some of whom are undertaking the degree on a part time basis.

We have strengthened our traditional areas of Civil, Architectural and Environmental Engineering, while advancing into application areas including: infrastructure performance and health monitoring, risk and reliability, sustainability, information technology, and energy and building sciences. We are strong participants in a new thrust at Drexel — the AJ Drexel Institute on Energy and the Environment.

During the past year we have added the MS and PhD programs in Architectural Engineering. We are now the only department in the US to offer PhD degrees in all three of our disciplines. For the BS in Architectural Engineering we now offer a concentration in "digital buildings" which educates students in the key roles of information technology in the design, construction and operation of buildings — this is in addition to the concentrations in structures and HVAC.

Last year, we hosted the national student AEI conference, which brought program directors and student teams from Architectural Engineering programs around the country. Our senior design team won the Most Innovative Design award at this event. Other important student achievements have been:

- **Conor Bourque**, a rising junior in Environmental Engineering, received the Black & Veatch Scholarship at the national meeting of the American Water Works Association.
- Our concrete canoe team placed first in the regional competition, and 10th in the national competition particularly noteworthy was a 1st place in the final product and design competition.
- Adams Rackes, a doctoral student in the Architectural Engineering program has received a highly competitive NSF Graduate Fellowship, as well as a highly competitive Fulbright Scholarship. For his Fulbright he will join the Laboratory for Energy Efficiency in Buildings (LabEEE) at the University of Santa Catarina, Brazil to develop methods for improving and labeling naturally ventilated buildings.
- Kerry Hamilton, a doctoral student in the Environmental Engineering program has received a 2014-15 Fulbright-CSIRO Post-

graduate Scholarship. She will be conducting a 10-month research project at the Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia where she will be looking at concentrations of waterborne pathogens in roof-harvested rainwater tanks and modeling their association with meteorological factors.

I have been privileged to lead our department for the past 11 years. It is time for me to hand over the reins to new leadership. We have an active search underway with a hope that my successor can be on board by the Fall of 2015. To nominate potential candidates or for further information, e-mail: **CAEE.DH.Search@coe. drexel.edu**.

Charles N. Haas, Department Head – Drexel University Department of Civil, Architectural & Environmental Engineering, F. ASCE, BCEEM AAEES

PA INFRASTRUCTURE REPORT CARD "ON THE STREET" — SOME IMPROVEMENT, BUT STILL NOT GREAT...

Thanks to Board Member Spencer Finch for this article and cartoon.

The ASCE's 2014 Report Card for Pennsylvania's Infrastructure (PA Report Card, or PARC, for short) is out, with release events happening simultaneously within all four Pennsylvania ASCE Sections on June 25. Locally, our Section conducted the release at a press event at the historic 30th Street Station, with more than over 75 ASCE members and supporters, and several media outlets in attendance. Coverage was provided by the *Philadelphia Inquirer*, 6 ABC, and Plan Philly.

Past President **Ann Tomalavage** presided over the event. Agency representatives were invited to speak, and we thank PennDOT District Executive **Lester Toaso**, Philadelphia Department of Streets Chief Engineer and Surveyor (and Past Section President) **Darin Gatti**, Philadelphia Water Department Deputy Commissioner **Christopher Crockett**, and SEPTA Deputy General Manager **Jeffrey Knueppel** for their attendance and remarks. Past President **Jenn Walsh** offered her observations and commentary as well.

As for the Report Card itself, while there was some overall improvement compared to the last version issued in 2010, Pennsylvania rated a little better than the national average, earning a Cversus a national average of D+, and still not a report card anyone would want to bring home. The highest marks overall were B for freight rail and B- for hazardous waste management (Pennsylvania has the model brownfields program in the nation, the PADEP's Act 2 Voluntary Cleanup Program) and for state parks and forest (Pennsylvania has a legacy of open space preservation, which nonetheless has been significantly impacted in the last few years by budget cuts and increasing pressure from Marcellus Shale gas extraction).

The lowest grades were D for public water supplies and mass transit systems, and D- for sewage treatment systems and roads and



highways. In Pennsylvania, all of these systems are of a significant age, and had seen tremendous uncertainty in recent years in relation to funding from state and federal programs. Without steady funding levels, more and more pieces of our infrastructure system entered into disrepair.

As reiterated at the release event, the nation would need to invest \$3.6 trillion by 2020 to bring U.S. infrastructure into good repair. Without this investment, the United States will not only continue to fall behind Europe and Asia, but we will also steadily see congestion, pollution, water scarcity and electricity blackouts increase; and the jobs and the prospects for our future decrease.

The PARC launch was very successful. But this wasn't the end; instead it's just the beginning of the effort to make sure our infrastructure lives up to our aspirations!

It's the commencement for the reason why we wrote the PARC: to spread the word to our elected officials and the public. Each of the ASCE sections across the state is forming an outreach team. We want YOU to join these teams.

You can choose to help out in any or all of the following areas. Even your smallest commitment will help.

- Tailor a presentation we can take to Lions Clubs, Chambers of Commerce, schools (especially kids in STEM programs), etc. The Pittsburgh Section is taking the lead in developing the presentation. We can tailor it to the issues and examples in our own areas.
- Give the presentation.
- Develop a social media campaign.
- Work with ASCE HQ experts to develop brief talking points we can use when we visit our elected officials.
- Visit and/or write to your elected officials. (One-on-one meetings are especially effective, especially during the summer when they're back home in their home districts—and BEFORE election season goes into full swing.)
- Develop a "marketing" plan to spread the word.

Please don't keep the PA Report Card AND Civil Engineering a secret! If you're interested in helping out, please contact **Ann Tomalavage** at **ann@malarkey.us** or **(610)** 405-9423.

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 SEPTA 1234 Market Street, 12th Floor Philadelphia, PA 19107-3780 215-580-3404 dmacbride@septa.org

DELAWARE VALLEY GEO-INSTITUTE (DVGI)

Robert M. Sabanas GAI Consultants, Inc. 1055 Westlakes Drive, Suite 200 Berwyn, PA 19312 610-640-7456 r.sabanas@gaiconsultants.com

ENGINEERING MANAGEMENT

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ENVIRONMENTAL AND WATER RESOURCES

Eric Lindhult Whitman 7 Pleasant Hill Road Cranbury, NJ 08512 732-390-5858 elindhult@whitmanco.com

STRUCTURAL ENGINEERING INSTITUTE (SEI)

Fred Baumert Keast & Hood Co. 400 Market Street, Suite 1250 Philadelphia, PA 19106 215-625-0099 fbaumert@keasthood.com

TRANSPORTATION AND URBAN DEVELOPMENT

William T. Thomsen Urban Engineers, Inc. 530 Walnut Street, 14th Floor Philadelphia, PA 19106 215-922-8080 wtthomsen@urbanEngineers.com



Milliken Infrastructure Solutions, LLC



STRUCTURAL ENGINEERING INSTITUTE CONSTRUCTION TECHNICAL GROUP JOINT DINNER MEETING WEDNESDAY, OCTOBER 22

SUBJECT: Statue of Liberty Restoration SPEAKER: Denise Richards, P.E., Associate, Keast & Hood TIME: 5:30 PM Registration/Social, 6:30 PM

Dinner, 7:15 PM Presentation

LOCATION: Radisson Valley Forge Casino Resort, 1160 First Avenue, King of Prussia COST: Members \$45; non-members \$50; students \$15

Please check our website for more information and registration (not finalized at press time). A choice of menu will be available (chicken, fish or vegetarian) — please indicate your preference when making your reservation.

THANKS TO OUR SPONSORS — STARTING A NEW SEASON

We have started the season a bit strong in the sponsorship department, as there are 12 firms participating at this early point. We extend our special and collective THANKS to each sponsor for their financial commitment and support.

Sponsor logos are displayed in a special Sponsors section of our website. Additionally, we provide direct links to sponsors' own websites so prospective employees can review all available and up-to-date positions. We also offer sponsors the opportunity to have a "spotlight" article in an edition of *THE NEWS* (please see the separate article on one of our sponsors in this issue) as well as service as a sponsor of one of our monthly dinner meetings.

We contacted last year's sponsors in mid-August to determine their interest for this season, so if you were "in" last year but haven't yet renewed, we look forward to having you back.

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





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N-ASCE*

LOVE CAN BUILD BRIDGES...

But apparently it can damage them as well. For over 200 years the Pont des Arts footbridge in Paris has been a romantic destination for couples around the world. This iconic bridge spans the Seine River near the Louvre and apparently is the ideal spot to have a picnic, watch the sunset, or admire the beautiful views that Paris has to offer.

Recently, couples have begun to declare their love using "love locks", in which they buy a padlock, inscribe their names on it, attach it to the bridge's railing, and toss the key into the river, thereby completing their statement of unending love. However, the weight of all the locks began to buckle the bridge earlier this summer. After an 8-foot section of railing collapsed, the bridge had to be closed for several hours. Fortunately, no one was hurt, but it was determined that the locks have added at least 10 tons of additional weight to the structure, and the city is looking for alternatives to the padlocks. There is also concern about the discarded (and likely rusting) keys and their effect on water quality and marine life in the river. The city is taking a cautious approach, however, keeping in mind the allure of the bridge and the tourist industry.

The "craze" of love locks has spread to other cities as well, but in some places (Rome and Venice are two examples), the locks have been banned. In Moscow, locks were removed from bridges over a local canal and metal trees were placed along its banks to provide alternatives for the attachment of locks. When a tree becomes full, the city removes it to become scrap metal.

Thanks to Roads and Bridges for this information.

... AND SO CAN SPAGHETTI...

How much weight can a spaghetti-and-glue bridge sustain? At Johns Hopkins University, teams of young students compete to find out and perhaps find a career path in the process.

Moments before it was time to test a new bridge, its designers grew tense. Could the structure handle the load? At first it seemed sound enough. Then suddenly, the span snapped. The bridge-builders winced. Onlookers groaned. Pasta flew.

The collapse was the culmination of a summer Engineering course at Johns Hopkins University and more than 100 high schoolers were squaring off in a competition to build the strongest span out of a brittle substance: dry spaghetti.

After noodling over the design and construction for weeks, students vied to see whose half-pound pasta-and-glue bridge could bear the most weight. In a crowded auditorium, teams added weight to their spans. And one by one, their decidedly-not-gluten-free structures crashed in crunchy heaps.

Spaghetti bridge competitions are popular with Engineering enthusiasts world-wide. Competitions are held yearly in Canada and Hungary. At Hopkins, they stick to spaghetti. "Lasagna noodles, no," said Michael Karweit, a retired Hopkins research professor. "The flat stuff, linguine, we don't use that."

The Hopkins bridge challenge, now in its ninth year, punctuates a four-week Engineering Innovation program that this year attracted 120 students from 18 states and 11 countries to the Baltimore campus. Instructors cram in much of the same material Hopkins freshmen get in a semester-long introductory class, Mr. Karweit says, touching on a range of Engineering disciplines. Tuition is \$2,300, and students who stay on the Hopkins campus pay an additional \$3,200, though financial aid is available.

Karen Borgsmiller, a Chemical Engineer who is director of the Hopkins program, buys San Giorgio-brand spaghetti by the case during predawn supermarket runs. Then students go into the lab to study how the material responds when pushed and pulled. Regular spaghetti is used because its cylindrical shape makes it behave the same in all directions. Mr. Karweit says it is still "mind-blowing" that thin, brittle pasta can bear so much weight: "There is a real gee whiz factor." Some past winners have withstood more than 130 pounds before failing.

Spaghetti bridges have risen and fallen at Hopkins since the mid-1990s. Many of this year's entries resembled half wagon wheels with varying numbers of spokes. Other teams went with rectangular designs or angular arcs. All had to span 20 inches. As parents and friends watched, teams put their bridges to the test, starting with 1-kilogram weights and progressively adding more. Tense game-show music played at times.

After the contest, pasta shards littered the auditorium floor. Seeing all that pasta wasted has long gnawed at Mr. Karweit: "My biggest disappointment is I could never find a glue or cement that was edible. I would love to be able, at the end of the contest, to throw it all in a pot and have a spaghetti dinner."

Thanks to the Wall Street Journal for this.

*N-ASCE - Not always something concerning Engineering

PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

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