



AMERICAN SOCIETY OF CIVIL ENGINEERS 215 S. 16th Street, Suite 16, Philadelphia, PA 19102

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National ASCE Central Number 1-800-548-ASCE • Toll Free

The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

## Our 100th Year

January 2013

### **ASCE, PHILA. SECTION MEETING SCHEDULE 2012–13**

Vol. 85-5

The Section Meeting program for the upcoming season is set, and the dates shown below are the Section meetings remaining for this season, after February. We would suggest that you use this to mark your calendar at this time and hold the dates. In coming issues of THE NEWS, we will provide updates as information becomes available. We also suggest you visit the Section website for the latest changes in our meeting program.

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 where joint meetings will preclude this. As always, you are welcome to attend the meeting presentation without dinner at no cost if you prefer to do so.

The remaining dates are March 14 and April 11. Also, please watch this space for more information on the 2013 Spring Social/100th Anniversary gala, scheduled for Saturday, May 4 at the Franklin Institute.

### THE SECTION'S\* CHRISTMAS/ **HOLIDAY MESSAGE**

\*Please note that the ASCE, Phila. Section has NOT endorsed this as its official message but is merely letting its "loose cannon" (i.e. your Editor) come up with what he thinks is becoming a tradition, having done it for the last several years. The annual Lightly Amusing Yuletide Message (LAYM for short) is a variation on a limerick and here it is for your enjoyment or whatever. (We've been told this is best enjoyed while one is in a stupor of sorts, Christmas-cheer related or otherwise...)

The Section's officers and Board happily send Best wishes as 2012 draws to an end And we welcome '13 after the season of yule We pass along this holiday greeting Hope you got some books if you like reading Or a brand spankin' new snazzy slide rule

You won't find PDH's under your tree That we advise with great certainty And on this the State Board won't relent Even if you were a good girl or boy Santa might bring you new underwear or a toy But for a PDH, you must attend a Section event.

### JANUARY JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section American Society of Highway Engineers, Delaware Valley Section

## **WEDNESDAY, JANUARY 16, 2013**

Radisson Hotel, Valley Forge, 1st Avenue and Gulph Road, Valley Forge, PA Cocktails 6:00 PM • Dinner 7:00 PM • Meeting 8:00 PM

SUBJECT: Gustine Lake Interchange Reconstruction

SPEAKERS: Cathy Farrell, P.E., Michael Baker Jr., Inc.; Audrey Corrado, P.E., Michael Baker Jr., Inc.; Joseph Doubet, Urban Engineers, Inc.

COST: \$35 through January 11 (\$20 for government employees and students), \$45 January 12 and after and at the door

PLEASE NOTE: RESERVATIONS MUST BE MADE THROUGH DELAWARE VALLEY SECTION, ASHE. The Philadelphia Section will NOT be accepting any reservations for this meeting. Checks for reservations should be sent to Delaware Valley Section ASHE, 1500 Walnut Street, Suite 1105, Philadelphia 19102. Checks should be made to "Delaware Valley Section ASHE."

Walk-ins will be subject to acceptance on a space-available basis. THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE.

The Gustine Lake interchange is a complicated junction of major roadways in the northwest portion of Philadelphia, sorting out traffic where City Avenue, Kelly Drive, Lincoln Drive, and Ridge Avenue converge, and serving as an adjunct facility for traffic to and from the City Avenue interchange of the nearby Schuylkill Expressway (I-76). The interchange, which encompasses an area once occupied by the body of water that gives it its name (now a series of man-made pools), was completed in the early 1960's and features six bridges that separate the various movements of traffic. The bridges were in need of replacement and that presented a unique opportunity to "tweak" the interchange to improve traffic movement and flow, enhance pedestrian movements, and, in one case, allow the replacement of an overpass with an at-grade signalized intersection that is more context-sensitive to its surroundings. The project was completed in late 2011 and was the "large" effort recipient of the Delaware Valley ASHE's Project of the Year award program in 2012.

Cathy Farrell is a Project Engineer in the Transportation group at Michael Baker Jr., Inc. at the firm's office in Horsham. She has been with Baker for nine years and specializes in highway design and computer-assisted Engineering. In addition to serving as Project Engineer for the Gustine Lake effort, she has been a critical team member on local projects on the Route 202 Parkway effort in Montgomery and Bucks Counties and improvements in the Washington Crossing Gateway Park. She is a graduate of Villanova University, where she earned her Bachelors and Masters degrees. She is an active member of ASHE and ASCE and serves as our Section's Membership Secretary.

Audrey Corrado serves as the Structures Department Manager at Baker's Horsham office and was the lead Structural Engineer on the Gustine Lake effort. She has been with Baker for the past 13 years and has over 20 years of experience in transportation projects, including work on projects for DOT's in New Hampshire, Rhode Island, Connecticut and Massachusetts, and locally on the Route 202 Parkway and several bridge replacement projects. Continued on Page 7

## Resolve to attend ALL Section Meetings!

### FEBRUARY DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

## THURSDAY, FEBRUARY 14, 2013

Information will be provided in the February edition of THE NEWS. Please hold this date and mark it in your calendar.



### PRESIDENT'S MESSAGE

As we prepare to turn the calendar toward 2013, I'd like to take a few moments to reflect upon our accomplishments as a profession in 2012. After decades of planning, design and construction, the Route 202 Parkway was opened to traffic. The Barnes Foundation Museum opened along the Benjamin Franklin Parkway—further solidifying this corridor as the heart of culture for the region.

Construction began on an Intermodal facility at the Philadelphia Zoo—forever transforming the experience of visitors to America's First Zoo. While the scope of these projects varies greatly, they have a common impact on our community and generations to follow. Well done to all!

After years of debate, Congress finally took action and passed the MAP-21 legislation earlier this year. While far from perfect, this action offers some hope. As we look forward to 2013, our friends at ACEC/PA are optimistic that Governor Corbett will make transportation funding a priority for the new General Assembly. With the legislative momentum in the right direction, and extensive impacts from Hurricane Sandy in our recent memory, ASCE is optimistic that infrastructure investment will once again become a national priority. This issue is vital for our safety and crosses political lines and will be highlighted next year as ASCE presents the next Report Card for America's Infrastructure.

Overall, 2012 was a great year to be a civil Engineer in this Region. I look forward to the opportunities that 2013 will bring for our profession. With that, I'd like to wish all of our members, friends and families a safe and happy holiday season.

Sincerely, Jeremy Colello, P.E. President, ASCE, Philadelphia Section

### PSPE PHILADELPHIA ENGINEERS WEEK BANQUET

The Pennsylvania Society of Professional Engineers (PSPE), Philadelphia Chapter, will conduct its 2013 National Engineers Week Banquet on Saturday, February 23 at the Springfield Country Club (400 West Sproul Road, Springfield). This event will recognize, promote and celebrate the role that Engineers fill in the Greater Philadelphia and Delaware Valley Region. Derek Gillman, Executive Director of the Barnes Foundation, will offer the keynote address.

The price per person is \$60.00 for reservations received before February 15 and \$75.00 for reservations received afterward. Reservations can be made on the Chapter's website, www. pspe-philly.org, using PayPal. Sponsorships and table-top exhibits are also available, and information on these can be found on the Chapter's website.

### SECTION AWARDS — PLEASE NOTE

Normally this time of year, you would see our announcement that the Section Awards Program is open for nominations. This year, in honor of our **100th Anniversary**, we have decided to NOT conduct the Awards Program. Instead, we will focus our attention on our anniversary celebration.

In some ways, this is similar to many competitions where every participant gets a trophy, but we believe that all of our members should be equally proud and cited in this special year.

We hope to return to "normal" next year to conduct our Awards Program as we start our second century of service.

## ANACE\*

### WHAT THE FISCAL CLIFF MEANS TO US

Section Board Member **Spencer Finch** provided some background on the next "disaster" we may face, since the Mayan calendar was not quite accurate...

Fiscal cliff is a somewhat melodramatic term—and, trying to follow the news coverage on TV might just get you more melodrama, and not necessarily the information we need to know. Here is our attempt to summarize the issue and the potential consequences.

First, what exactly is the "Fiscal Cliff"? Here is one simple parallel that might help us understand it better. Imagine that the entire country, the entire U.S. is like you or me, that in a bad economy might have to cut expenses, get a second job, and renegotiate credit card debt and rates.

So that is where the country was a couple of years ago - spending more than what tax revenues brought in. With no agreement on which expenses to cut and how to raise additional revenues (anyone ready to offer a second job to Uncle Sam?) achievable, and the clock ticking, Congress had to authorize the country's debt ceiling to go up, or basically the U.S. would default on its debt—"not pay its credit card debt"—for the first time in history. Additionally, this would surely have thrown the whole world back into an even stronger recession. (Imagine the richest guy in town, someone who loaned money to everyone, suddenly running out of money.)

So in the end, Congress raised the debt ceiling—but punted the whole discussion about what expenses to cut and what revenues to raise for later. To create an incentive for Congress to actually find a solution by the time "later" came about, Congress created mandatory, draconian budget changes that would kick in automatically if they again did not come to agreement—the Fiscal Cliff.

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### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION—2012-13 SEASON

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### PUBLICATIONS COMMITTEE

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#### **Staff Writers**

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> COPY DEADLINE FOR FEBRUARY 2013 ISSUE JANUARY 18, 2013

### SCHOLARSHIP PROGRAM — LAST CHANCE

The ASCE, Philadelphia Section's Scholarship Program is open for applications for the 2012-13 season. The Section offers three distinct undergraduate scholarships annually:

ASCE Delaware Valley Engineers Week Scholarship

ASCE Student Scholarship

ASCE Section Member Scholarship

Scholarship winners will be recognized as the Section's guests at our March 2013 dinner meeting.

### **ENGINEERS WEEK SCHOLARSHIP**

As part of the Delaware Valley Engineers Week celebration, the Section will continue to offer one \$2,000 undergraduate scholarship. The application deadline for this Scholarship has passed (November 19).

### STUDENT SCHOLARSHIP

At least one \$1,000 scholarship will be awarded by the Section to an undergraduate Civil Engineering student who meets the following requirements.

The applicant must be matriculating in a full-time Civil Engineering or Architectural Engineering program at one of the five colleges which have Student Chapters in the Philadelphia Section: Drexel University, Swarthmore College, Temple University, Villanova University, or Widener University.

The applicant must be an active participant in the ASCE Student Chapter.

The applicant must be in their sophomore or junior year (and Pre-Juniors at Drexel).

### Application Requirements:

The applicant's name, GPA and/or class rank, and an address/telephone number where they can be reached must be included with the scholarship application. Additional information for consideration (such as need) is allowed. A letter and/or resume is an acceptable means to provide this information.

A recommendation letter from the applicant's faculty advisor is not required but is strongly suggested.

The applicant will be required to submit an essay, limited to 1,000 words, on ONE of the following topics:

- 1) When there are publicly-noted failures in Civil Engineering designs (i.e. New Orleans levees, Minnesota bridge collapse, etc.), how do you think the Civil Engineering profession should respond?
- 2) Why do you want to become a Civil Engineer? As part of your education what course has been your favorite? Why? How does it relate it relate to your desire to be a Civil Engineer?

### Submittal Deadline:

Applications (including recommendations) must be submitted by January 28, 2013.

Scholarship winners will be notified by **February 25, 2013**.

Applications and recommendations should be submitted by mail or email to:

Mr. Jeff Bade, Scholarship Committee Chair

American Society of Civil Engineers 215 South 16th St., Ste. 16 Philadelphia, PA 19102 jbade@hardesty-hanover.com, (609) 538-8233

### **SECTION MEMBER SCHOLARSHIP**

At least one \$1,000 scholarship will be awarded by the Section to an undergraduate Civil Engineering student who is the child of an active Philadelphia Section member and meets the following requirements.

### Eligibility Requirements:

The applicant must be the child of an active Philadelphia Section member.

The applicant must be matriculating in a full-time Civil Engineering or Architectural Engineering program at an accredited college or university.

The applicant must be an active participant in the ASCE Student Chapter at his/her school.

The applicant must be in their sophomore or junior year (and Pre-Juniors at Drexel).

Application requirements and submittal deadline are the same as for the Student Scholarship above.

We encourage all eligible students to apply. Good luck!

### **YOUNGER MEMBER FORUM NEWS**

Amanda Kessler, Forum Editor Kazi Hassan, Forum President 2012-13 Pennoni Associates, Inc. 3001 Market Street, 2nd Floor Philadelphia, PA 19104 215-222-3000 kazihassan@pennoni.com

### **ASCE-ASHE JOINT HAPPY HOUR**

On December 4, the YMF co-hosted a joint happy hour event with the newly-formed Younger Members Committee of the Delaware Valley Section, American Society of Highway Engineers (ASHE) at Rock Bottom Brewery in King of Prussia. The event was quite successful with attendance of about 60 Young Engineers (and a few "seasoned" ones like your Editor!). Light fare was provided for everyone while they socialized with co-workers and colleagues. There were several new faces in attendance, many of whom wish to become more active in YMF or ASHE. Both groups are optimistic that events like this will initiate more activities and involvement from Young Engineers in the suburbs. Thanks to everyone who participated!

### SEPTA CONTROL CENTER TOUR—WEDNESDAY, JANUARY 9

The YMF has coordinated with SEPTA for another tour of the transit control center at 1234 Market Street. If you missed out on this popular event last year this is your chance to see it. Additional information and the RSVP form can be found on the website (www.ymfphilly.org). Space is limited so if you're interested don't delay in reserving your space.

### **MEMBERS IN THE NEWS**

### FLICKER ON "INSIGHTS"

Eric Flicker was a featured guest on a recent segment on "Insights," a monthly podcast series with noted Civil Engineering industry leaders discussing their perspectives and insights into the successful practice of Civil Engineering. "Insights," sponsored by the ASCE Industry Leaders Council, features honest, straightforward viewpoints, based on unique experiences and interests. The discussions tackle a wide range of compelling issues. The podcasts are presented as a series of discrete episodes/audio files that can be downloaded from ASCE National's website (www.asce.org) for listening anytime from portable devices such as iPods or from any personal computer.

### **HAAHS NOMINATED TO FEDERAL POST**

On December 6, President Obama announced several nominations for key Administration posts. Among these was **Tim Haahs**, who was proposed for the position of Member, Board of Directors of the National Institute of Building Sciences. The President noted, "I am grateful these accomplished men and women have agreed to join this Administration, and I'm confident they will serve ably in these important roles. I look forward to working with them in the coming months and years." Congratulations to Tim on this honor.

#### PEIRCE COLLABORATES ON PUBLICATION

John Peirce will participate in the revision of Chapter 7 of "Temporary Structures in Construction," 3rd Edition, by Robert T. Ratay. John and Thomas J. Tuozzolo of Moretrench American Corporation were approached to revise and update Chapter 7, Earth-Retaining Structures. Together, they updated the chapter to reflect new developments in tieback anchor construction, soil nailing, jet grouting, and secant pile walls for use as temporary excavation support systems. Ratay's 3rd Edition contains significant improvements to an already excellent reference book for Engineers.

### WINTER SOCIAL

The YMF will be hosting its annual Winter Social event on Monday, January 28 from 6-9 pm at McGillin's Olde Ale House in Center City. This event regularly attracts over 150 Young Engineers in the Philadelphia area. More information and the RSVP form are available on the website (www. ymfphilly.org). The YMF is currently soliciting donations for raffle prizes. If interested, please contact Chris Gray by email at cgray@timhaahs. com or by phone at (484) 472-3421.

FACEBOOK: https://www.facebook.com/YMFPhilly TWITTER: http://twitter.com/Philly\_YMF

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### **DECEMBER JOINT DINNER MEETING**

December 13, 2012

Loews Hotel—Center City

The Making of the Philadelphia Flower Show

by Robert Wright, Editor

The third meeting of our 100th anniversary season found us once again at the Loews Hotel, the only difference from the last two events being the floor and room for the meeting (this time on the 3rd floor). The Engineers' Club of Philadelphia (ECP) was the coordinator of this one, also known as the annual "multi-society meeting", as it has rounded up a number of technical organizations for this purpose, and this year would be a little bigger than last, with a total of 20 societies (!) taking part. Over 130 Engineers and/or fans of the Flower Show showed up to hear about the Show and enjoy the camaraderie of the big meeting. The relatively (for December) warm temperature outside had at least a few of the attendees thinking spring, we're sure.

ECP Past President Bob Wright filled in for President Mitchell Swann, who was unable to attend, and called the meeting to order, corralling the many attendees from a nice cocktail hour into the room and asking for a moment of silence for everyone's private blessing of the meal. Following that, Past President Wright recognized the representatives of the societies in attendance, including the "lead" sponsors (CMAA, SAME and our own ASCE, Phila. Section), one financial sponsor (Microsol Resources), and the various co-sponsors (ASHRAE, ASHE, ASNE, AACE, EAP, EWB, IES, IEEE, IIE, ITSPA, NCMC, PSPE Delco, PSPE Philadelphia, PMI, SNAME and SWE), a veritable alphabet soup of groups which banded together to make the evening a success. (To save space here, the full names and representatives of the organizations are included on our website.) Two United States Marines were then invited into the room to collect the Toys for Tots donations that were generously provided by attendees and deliver them to needy children for Christmas.

**Paolo Belfiore** of Engineers Without Borders USA (EWB), one of the co-sponsors of the meeting, was brought to the podium by Past President Wright to give some background and an update on EWB's activities, which have always been supported by our Section.

Following dinner, Past President Wright introduced the evening's featured speaker, Sam Lemheney of the Pennsylvania Horticultural Society (PHS), the Chief Designer and Coordinator of the Philadelphia Flower Show, who began his presentation with some background and history. PHS has been around for 185 years and the Spring Flower Show, as it was originally known, has been a mainstay of its existence. It has been conducted at several different locations over the years, including a hall of its own which burned down twice (!), before it found its place at the old Civic Center. With the opening of the Pennsylvania Convention Center in 1993, the Show has relocated to it, but the current location lacks the dramatic entrance down the escalator that the Civic Center offered. A new dramatic grand entrance is provided and tied to the main theme of each Show.

Mr. Lemheney explained the logistics of the Show, noting that the 9-day event requires 7 days to set up and 3 days to take down. Truckloads of soil and mulch must be brought in and placed to accommodate the plants. The plants themselves must be transported in from various nurseries and greenhouses. With the Show's schedule in early March, many plants must be "forced" to bloom outside of their normal seasonal cycles, and this often takes its toll, with many plants requiring changing out 2-3 times during the Show's schedule. The "nuts and bolts" of various displays, including the grand entrance feature, must be constructed quickly and living materials that decorate the displays must be brought in and set up on a tight schedule as well. A time-lapse video of the setup was played to show how complicated the process is.

Some background on PHS and the Show was outlined by Mr. Lemheney. In addition to the public show hours for nine days, there is a blacktie gala preview the night before the opening, and this has become a main event for socialites, benefactors and local celebrities. He also showed slides which illustrated PHS' role in many local beautification projects and efforts and its cooperation with government agencies as well as private industry.

To add a seasonal note, Mr. Lemheney added that the poinsettia plant was introduced at one of the Flower Shows and has since become a popular Christmas decoration plant.

For his "finale", Mr. Lemheney gave a "sneak peek" at the 2013 Flower Show, which will have the title of "Brilliant!" and will highlight the gardening and landscaping styles of the United Kingdom. As an added bonus, for the first time, a construction tour of the Show will be offered by PHS, with reservations available at PHS' website (www.pennhort.com) for those who may be interested.

A number of insightful questions were posed by the audience and ably answered by Mr. Lemheney.

Past President Wright thanked Mr. Lemheney for his enjoyable and informative presentation.

### ANACE\* FISCAL CLIFF

Continued from Page 2

The problem is that "later" is now. If Congress does not find agreement by December 31, 2012, the automatic budget cuts and automatic tax increases would kick in. So what will happen on January 1, 2013 — and what will be the consequences for us in the Engineering and construction sector? There are three basic options:

The most hopeful is that Congress actually reaches agreement on a deal. Any such deal at this point seems would need to raise \$4 trillion (yep, that's "trillion" with a "T") in savings. There have been several proposals batted back and forth, as you have likely seen in the news.

The second most likely scenario is one where no

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### **SPONSOR PROFILE**

## JBC ASSOCIATES RECEIVES NATIONAL RECOGNITION

As it nears its 25th anniversary year, local woman-owned construction management firm, **JBC Associates, Inc.**, has garnered national and regional recognition for its continuous growth during challenging economic times.

In June, JBC Associates was recognized nationally by Engineering News Record (ENR) magazine as a 2012 Top 100 Construction Management-for-Fee firm. The list published annually by ENR ranks the nation's 100 largest construction management firms, both publicly and privately held, based on agency CM fees for project-related construction management projects. JBC entered the list for the first time this year at No. 88 based on its annual gross revenue for 2011.

JBC Associates also joined The Zweig Letter "Hot Firm" List at Number 20 and as the top Pennsylvania–headquartered firm on the list. The "Hot Firm" List recognizes the top fastest-growing architecture, Engineering, planning and environmental consulting firms in the United States and Canada.

Locally, JBC Associates was recognized by the Philadelphia 100 as one of the fastest growing, privately-held businesses in the Philadelphia region, based on verified revenue growth by the Wharton Small Business Development Center, the Entrepreneurs' Forum of Greater Philadelphia, and the Philadelphia Business Journal. JBC Associates previously made the Philadelphia 100 list in 1995, 1996 and 2002.

When company CEO and Founder, **Janet B. Cunningham, P.E.**, started the construction management firm in 1988, she based the business on her philosophy of doing your professional best and treating others with respect. That philosophy has served the firm well as JBC Associates has averaged over 20% growth per year for the last 24 years.

JBC Associates was the Construction Manager for the new \$60 million Rt.29 All-Electronic Interchange Exit 320 of the Pennsylvania Turnpike which opened in early December. The firm also provided construction management and inspection services to PennDOT for the \$118 million Reconstruction of I-476 (Blue Route) from I-76 (Schuylkill Expressway) to the Mid-County Interchange of the PA Turnpike. In addition, JBC recently served as Construction Manager on two campus and athletic facility improvement projects on the Lincoln University campus for PA Department of General Services.

JBC Associates, Inc. provides project management, construction management including CPM scheduling, construction inspection, contract administration, and dispute resolution services to public and private sector clients in the transportation, education, government and institutional market sectors. JBC Associates will celebrate its 25th anniversary year in business in 2013.

## PLANNING FOR ENGINEERS WEEK

The Delaware Valley Engineers Week Committee will be celebrating Engineers Week 2013 from February 15 through February 23 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.

## AWARDS AND PROCLAMATION LUNCHEON FRIDAY, FEBRUARY 15, 2013

DoubleTree Hotel, Center City

The Awards and Proclamation Luncheon will include:

- A poster session with presentation of student paper winners from 11:00 am to 12 noon, prior to the Luncheon
- The Awards and Scholarships presented at the Banquet in previous years will now be featured at the Luncheon
- Engineers Week proclamations will be displayed
- Project and individual awards of all participating Engineering societies in the Delaware Valley will be recognized
- The Engineer of the Year and Young Engineer of the Year will make brief remarks

## YOUNG ENGINEER SOCIAL EVENT TUESDAY, FEBRUARY 19, 2013

Fado Irish Pub & Restaurant, Center City

This event will be a happy-hour type event geared to younger Engineers. The **Young Engineer of the Year** will make brief remarks.

### CELEBRATION OF ENGINEERING RECEPTION Thursday, February 21, 2013

Lathem Hall, Widener University, Chester

The culminating event of Engineers Week will be a social/networking gala event to celebrate Engineering, with cocktails, appetizer stations, and dessert stations. Other features of the event include:

- Award recipients will be honored with posters/exhibits/running PowerPoint in the networking area
- Future City Competition Regional winners will display their first place model
- The Engineer of the Year and Young Engineer of the Year will provide brief remarks, followed by a brief recognition of the Hall of Fame, Outstanding Service, and Engineering Achievement award recipients

The **2013 Delaware Valley Engineer of the Year**, **Charles Clerecuzio**, was elected on November 13, and will be formally installed and recognized at the Awards and Proclamation Luncheon.

More information will be provided on price, location, and other details in the coming months. Please visit **www.dvewc.org** for up-to-date announcements.

As always, volunteers are needed! If you are interested in volunteering for one of the many activities of Engineers Week, please visit **www.dvewc.org**.

## MAP-21 IS HERE — WHAT DOES IT MEAN FOR US?

Section Board Member **Spencer Finch** volunteered to assemble this analysis of the recent federal transportation legislation. We thank him for his good effort and explanantion.

So after long periods of uncertainty, MAP-21 (Public Law 112-141, the Moving Ahead for Progress in the 21st Century Act) was approved by both houses of Congress and signed into law by President Obama on July 6, 2012. What does it mean for us in the Engineering profession and here in Southeast PA, Southern NJ, and DE?

First, the uncertainty is somewhat over, at least for two years. The current bill is the twelfth multi-year transportation bill ever issued by Congress, became effective on October 1, 2012 and will run until September 30, 2014. However, it is sad to note that the bill reverts to a two-year funding period, similar to the first three transportation bills issued in 1964, 1966, and 1968—and not to what had become the more standard 4 to 6 year period since the 1980s.

This shorter period makes it harder for transportation officials—and Engineering firms— to conduct long-range planning and sustain longer-term implementation efforts. So, the uncertainty is reduced—at least for the next year or so-, but not eliminated.

Overall, the bill will fund \$105 billion per year in transportation investments nationwide—or about the current levels of funding, corrected by inflation. Because the Highway Trust Fund cannot sustain these levels of investment at current revenue levels, Congress authorized a transfer of \$18.8 billion from the Federal Government's general funds. So, the good news is that funding levels will not decline in these two years. The bad news is that the Highway Trust Fund gap continues to grow and will have to be addressed in the next transportation bill.

The bill also instituted structural reforms in the transportation program, consolidating over 60 different programs (from 90 to less than 30). The most obvious consolidations were the merging of the old Interstate Maintenance, National Highway System, and Highway Bridges programs into the new National Highway Performance Program; and the old Transportation Enhancements, Safe Routes to School, and Recreational Trails programs into a new Transportation Alternatives program.

The goal of the first was to refocus on maintenance needs. For the second merger, the goals were different for different groups of Congressmembers—for some, the goal was to altogether eliminate funding for modes they felt were superfluous, such as pedestrian and bicycle funding; for others the motivation was to seek more efficient funding.

Overall, it remains to be seen if these consolidations will result in significant cost savings. The more serious long-term funding challenges (Highway Trust Fund gaps, for example) and infrastructure management issues were not addressed in the bill.

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### CONSTRUCTION TECHNICAL GROUP, TRANSPORTATION TECHNICAL GROUP AND ENGINEERS' CLUB OF PHILA.

**LUNCHEON MEETING** 

TUESDAY, JANUARY 29, 2013

**SUBJECT:** Estimating Construction by the Numbers

SPEAKER: Jeffrey D. Given, P.E.

*TIME:* Tuesday, January 29, 12:00–1:30 PM *LOCATION:* Urban Engineers, 530 Walnut

Street, 7th Floor *COST*: \$15

Mr. Given is the Director of Procurement for Loftus Construction, Inc. He will present estimating techniques utilized by contractors in today's market place. A discussion on the importance of a detailed and defined scope of work will be examined and how the lack of the same can lead to vast cost ranges. A full view into the direct expenses that drive the project costs will be discussed, including labor, material, equipment and the use of specialty subcontractors. Soft and indirect costs will be examined such as supervision, overhead, schedule, owners payment terms, and unique project conditions. The impact of current trends in the construction industry will be considered and how they have impacted bid proposals.

Participation in this presentation entitles each attendee to one (1) PDH for the Commonwealth of Pennsylvania's Professional Engineer Continuing Education Requirements. PDH certificates will be distributed at the end of the presentation.

Lunch will be served starting at 12:00 noon.

Reservations should be made through the Engineers' Club of Philadelphia (http://engrclub.org/to/2013-01-29 or call 215-985-5703).

## 100TH ANNIVERSARY HISTORICAL PERSPECTIVE

In keeping with our 100th Anniversary celebration, here are this month's historical references, snippets, trivia and odd facts for your reading and enjoyment. Some of you may even remember these two items.

**1989** — The first joint meeting between the Section and the Delaware Valley Section, American Society of Highway Engineers, was conducted, with then-Streets Commissioner (and later President of the Philadelphia Zoo) **Alexander "Pete" Hoskins** presenting on the challenges of solid waste disposal in Philadelphia. The joint meeting has been conducted every year since except for 1995 and is one of our more popular events, with large attendance numbers each year.

**1991** — After two years of discussion, the Section's Humphrey Fund Scholarship program was begun. In the twenty years since then, numerous scholarship awards have been made to deserving students and the effort has expanded to provide a separate scholarship through the Delaware Valley Engineers Week program.

### CONTINUING EDUCATION — THE COLLEGE OF NEW JERSEY

## HYDROLOGY (HEC-HMS) COURSE JANUARY 7-9

This 3-day course is devoted to instruction on how to determine pertinent watershed characteristic information used as part of the most commonly employed hydrologic Engineering methods and how to apply these methods using the HEC-HMS software package. Course topics include acquiring design storm rainfall intensity data, simulating hydrologic abstractions using the NRCS Curve Number Method, Snyder's and NRCS's synthetic unit hydrograph methods, dam breach analysis, river routing, and parameter optimization.

## HEC-RAS COURSE JANUARY 14-16

This 3-day course is devoted to the use of the HEC-RAS program for basic open channel flow analysis. Course topics include water surface profiles, bridge and culvert hydraulics, multiple opening analysis, bridge scour computations.

Each course is worth 24 professional development hours (PDH's).

These courses satisfy the requirements as set forth by the New Jersey State Board of Professional Engineers and Land Surveyors as a means of earning PDH's.

*PRESENTER*: **Dr. Michael Horst**, Associate Professor and Chair for Department of Civil Engineering at TCNJ

COST: \$1000 per course for each participant DISCOUNTS: Members of the New Jersey Association for Floodplain Managers (NJAFM) and the American Society of Civil Engineers (ASCE) are eligible for a \$50 discount.

LOCATION: The College of New Jersey, 2000 Pennington Road, Ewing, NJ 08628-0718

If you have questions about course specifics or would like to register for the course please contact **Dr. Michael Horst** at **(814) 571-5607** or e-mail at **horst@tcnj.edu**.

Please visit the website for specific details about the course including: a complete course agenda, information about the instructor, course materials, and directions to The College of New Jersey—http://www.tcnj.edu/~horst/coned.htm.

### ANACE\* FISCAL CLIFF

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deal is reached, and automatic cuts are enacted. This would be something like a "nuclear option". In that case the tax rates for the wealthiest would go to possibly even over 50%. Consequences to the national economy would be much harsher—with more taxes and less money for investment, unemployment might shoot back up from current levels near 8% to again well over 9%.

For those of us in the Engineering and construction business, a number of automatic cuts (or "sequesters") would kick in, that would affect water infrastructure (\$290 million), Corps of Engineers operations (\$325 million), transportation (\$200 million) and "Superfund" (\$110 million).

The final scenario is less likely, but given the

### **MAP-21**

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In other words, the overall effect might have been to "nibble around the edges," trying to eliminate smaller programs that do not sit at core of the trust fund issues, while ignoring the "elephant in the room," the quickening deterioration of our transportation infrastructure systems (whether land, water, or air) and the increasingly outdated ways transportation funding is raised.

In the bullets below, we list the more direct impacts that we might see in our day-to-day work in the next two years.

- Highway / Transit funding split kept at 80/20
- Focus shifts to funding maintenance and safety
  - Highway funding formulas eliminated, funding now based on state's 2012 share of funding
- Highway Safety Improvement Program funding will increase from \$1 billion to \$2.4 billion per year
- However, funding for pollution reduction also increased—Congestion Mitigation and Air Quality (CMAQ) program funding increased from \$1.7 billion to \$2.2 billion per year
- Transit funding stays at about he same levels, around \$10.6 billion per year
- But many programs eliminated or consolidated, such as the Alternatives Analysis, Job Access Reverse Commute, and Transit in Parks programs
- Ped-Bike funding reduced from \$1.2 billion/year to less than \$800 million/year
  - With additional types of projects (such as vegetation management and highway stormwater structures) now also eligible to compete for these funds, reduction is even more substantial
  - Whole categories of projects no longer eligible, including bike safety education, scenic byways, historic preservation and transportation museums
- New Funding:
  - Transit New Starts program funded at \$1.9 billion per year
  - TIFIA funding increased form \$122 million/yr to \$750 million in Year 1 and \$1 billion in Year 2
- Matched with slightly more incentives for public-private partnerships and slightly more authority for tolling
- Mega Projects grant in FY 2013-\$500 million
   These were collected from MAP-21 summaries
   prepared by the FHWA, FTA, AASHTO, and
   League of American Bicyclists.

state of continuing stalemate in Washington, might be a possibility. In this case, no agreement is reached on a big budget deal. Instead, moderates in Congress can only pass a small part of the budget deal, possibly focused on extending the Bush era tax cuts for the middle class. All other large tax revenue and budget cuts would be punted again.

In this case, immediate impact to the economy would probably be small, even though we cannot be sure how markets would react to the US punting the issue again (credit rating agencies might just decide to downgrade US debt again, which could open up even more economic disruption).

How long could we hold off, until the Federal debt limit issue came up again, and the US would

Continued on Page 7

## THANKS TO OUR SPONSORS — THE LIST IS GROWING!

Our "enhanced" ASCE, Phila. Section Sponsorship Program is underway. The "enhanced" part is that we have revised it to raise additional funds to support planned activities and commemoration of our 100th Anniversary year. Details on the "enhancement" are provided below.

We thank those who have made the financial commitment for this season so far, and the business cards of our 19 sponsors as of this printing are included in the sponsor section of *THE NEWS* along with their levels of support. We have set a goal of \$50,000 to be raised to support our plans for this season, and we are proud to note that we are just over a third of the way there. Your help to get us to the top is very much appreciated.

As has been done for the past several years, sponsor logos are 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.

The "enhanced" sponsorship available for this season includes several levels of contribution, as follows:

**Section Sponsor**: \$300 ("standard" Section Sponsorship, the same as what has been offered for the past several years); Company business card ad in *THE NEWS*; Company logo listed on Section website

### Frankford Avenue Bridge Sponsor: \$500

Same benefits as Section Sponsor, plus...

Company name listed in 100th Anniversary Events Program

### City Plan Sponsor: \$1,000

Same benefits as Frankford Avenue Bridge Sponsor, plus...

Company name listed in press releases for 100th Anniversary events; Company name listed on Boards to be displayed at all events throughout the year during 100th Anniversary events

### City Hall Sponsor: \$2,000

Same benefits as City Plans sponsor, plus... Company name listed in the Landmark Guide Book; 4 Tickets to the 100th Anniversary Gala Event

### Waterworks Sponsor: \$5,000

Same benefits as City Hall sponsor, plus... One table of 10 to the 100th Anniversary Gala Event; One copy of the Published Landmark Guide; Spotlight article on your Company in an edition of *THE NEWS*.

We will also be starting an individual sponsorship level to allow all members to be part of this. More details will be provided in upcoming editions of *THE NEWS*.

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

### **TECHNICAL GROUPS/CHAIRS**

Information on the ASCE, Philadelphia Section's Technical Groups is given below. Director Eve D'Onofrio will be coordinating the activities of the Groups. 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)**

William K. Petersen **URS** Corporation 335 Commerce Drive Fort Washington, PA 19034 215-390-2157 bill.petersen@urscorp.com

### **ENGINEERING MANAGEMENT**

Michael E. Radbill Hill International 30 S. 15th Street, Suite 1300 Philadelphia, PA 19102 215-496-4926 MichaelRadbill@hillintl.com

### **ENVIRONMENTAL AND WATER RESOURCES**

Eve D'Onofrio E S Design LLC 128 Regency Dr Norristown, PA 19403-1755 610-630-1660 edonofrio@esdesignllc.com

### STRUCTURAL ENGINEERING INSTITUTE (SEI)

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### TRANSPORTATION AND URBAN DEVELOPMENT

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

### ANACE\* FISCAL CLIFF

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have to raise its debt limit again? Most experts say just until February or March.

Think we can handle this whole crazy budget discussion again in just a few months?....

\*ANACE—Almost Nothing About or Concerning Engineering

### **ENVIRONMENTAL AND** WATER RESOURCES **TECHNICAL GROUP**

### JANUARY DINNER MEETING TUESDAY, JANUARY 8, 2013

SUBJECT: Green Roofs for SWM

SPEAKERS: David Plechner, GRP, Design

Sales Manager, C.M. Jones Inc.

TIME: 5:30 PM, Registration/Networking

6:00 PM, Dinner; 6:45 PM, Presentation

LOCATION: Michael's Restaurant Delicatessen; 130 Town Center Rd.; Valley Forge Center, Route 202; King of Prussia, PA 19406

COST: \$25.00 per member/nonmember; \$15.00 per full-time student

The presentation will include an overview of the growing practicality of designing and building green roofs as a cost effective method of storm water management for commercial sites. Examples of green roof projects in both the private and public sectors will be highlighted during this informative and very interactive discussion. Topics of discussion will include cost, benefits, materials, specifications, green roofs and water management as well as types of roofing systems.

### DIRECTIONS to the restaurant can be found at http://www.michaelsdeli.com/directions.asp

RSVP: 1:00 PM, Friday, January 4, 2013

Post reservations to the website: www.ascephilly.org. Payment by PayPal can be done from the ASCE reservation website. Payment by check or cash can be provided at the meeting. Checks should be made payable to "Philadelphia Section ASCE." Reservation cancellations must be made 48 hours in advance or you will be charged for the meeting. Contact Eve D'Onofrio at 610-630-1660 if you have any questions.

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

### JANUARY DINNER MEETING

Continued from Page 1

Doubet provided scheduling, Joseph administrative and public relations on the Gustine Lake project in his role as part of the Construction Management team for the effort. He is a schedule and constructability specialist with Urban Engineers, Inc. in the firm's Philadelphia Office. He has nine years of experience on projects of this type and has worked on the Roosevelt Boulevard Twin Bridges rehabilitation, the US 13 reconstruction effort in Bucks County, and several other local efforts in PennDOT District 6.

### **LOOK WITH FAVOR UPON A BOLD BEGINNING.**

Virail



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Dr. Mira Olson Graduate Advisor (215) 895-2987 mira.s.olson@drexel.edu



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