



PHILADELPHIA SECTION 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

Vol. 85-2

Our 100th Year

October 2012

ASCE, PHILA. SECTION MEETING SCHEDULE 2012–13

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 the 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, and the "look-ahead" schedule will show details that are available at that time for your advance awareness.

We also noted the success of the varied locations of meetings and will continue to schedule a mix of Center City and suburban venues to make them as convenient as possible for you. More details will be provided on meeting locations as they are set.

Dinner meetings generally follow a schedule of a cocktail hour starting at 5:30, 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 dates as of this printing are:

2012

December 13 – "multi-society" joint meeting with Engineers' Club of Philadelphia, Society of American Military Engineers, Construction Management Association of America, and others

2013

January 16 (NOTE: Wednesday) – joint meeting with American Society of Highway Engineers February 14 March 14 April 11 May 4 (NOTE: Saturday) – annual Spring Social/

100th Anniversary Gala, Franklin Institute

OCTOBER DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

THURSDAY, OCTOBER 18, 2012

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

SUBJECT: 1-95 CPR SPEAKER: John Eagan, P.E., Alfred Benesch & Company

RESERVATIONS MUST BE SUBMITTED BY FRIDAY, OCTOBER 12.

For reservations submitted by the deadline, the cost per attendee will be \$40, with a half-price (\$20) cost per government agency employee and students. 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. THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE.

Checks should be made payable to "Philadelphia Section ASCE" and sent to ASCE, Engineers' Club of Philadelphia, 215 S. 16th Street, Suite 16, Philadelphia, PA 19102. Reservations can be made on the Engineers' Club message center (**215-985-5701**) or electronically through our website (**www.asce-philly.org**) and pay via PayPal. PLEASE NOTE THAT PayPal WILL NOT BE AVAILABLE AS A PAYMENT OPTION AFTER THE RESERVATION DEADLINE.

The **I-95 Section CPR project** is actually a series of projects involving reconstruction, upgrades and enhancements to I-95 in the vicinity of Cottman Avenue. Section CPR highlights include: 1.4 miles of Interstate mainline reconstruction and widening, 2 new I-95 SB on-ramps, 1 new I-95 NB slip-ramp, 7 bridge replacements, 1 bridge widening, 16 retaining walls, 1150' of 84" water main, 825' of 10.5'x10.5' sewer culvert, 16 traffic signals, along with installation of added lanes on the local street network including Cottman Avenue (1 EB lane), Princeton Avenue (1 WB lane) and State Road (1 SB lane). With the 4th and final section (SR95-CP2) beginning construction in August, 2012, Mr. Eagan will discuss many of the unique challenges encountered over the 12-year project design life.

John Eagan, P.E. is a Vice President and Assistant Division Manager with Alfred Benesch & Company in their Pottsville, Pennsylvania office. He received his BSCE from Penn State University in 1984 and maintains Professional Engineer's licenses in PA and MD. Professional affiliations are numerous and include ASCE, NSPE, ACI, and others. The majority of his 28+ years of experience has concentrated on the transportation field, with an emphasis on structural design. Beyond his involvement with I-95 Section CPR, local design projects of note include bridge rehabilitations on City Avenue over the Schuylkill River and I-95 over the Darby Creek. *Continued on Page 3*

Resolve to attend ALL Section Meetings!

NOVEMBER DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

THURSDAY, NOVEMBER 15, 2012

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

INFORMATION ON THE TOPIC AND SPEAKER(S) for this meeting will be included in the November edition of *THE NEWS*.



PRESIDENT'S MESSAGE

As we begin our 100th Anniversary season, I think this is a great time to look back and celebrate our accomplishments. Our collective efforts have helped build and shape the City and the region. Since our ASCE, Philadelphia Section was founded, we have earned **National Historic Civil Engineering Landmark** recognition for four projects: **Philadelphia City Hall**, the **Philadelphia City**

Plan, the **Philadelphia Municipal Water Supply** (the Waterworks), and the **Frankford Avenue Bridge**. Each is notable for improvements to the region as well as for advancements in the profession.

City Hall was designed to be the tallest building in the world and is the largest municipal building in the country. The Philadelphia City Plan was the first of its kind — providing open public squares and accommodating long-term growth. The Waterworks provided a clean and reliable water supply to, at that time, the nation's capital and largest city. The Frankford Avenue Bridge, which carried George Washington to his presidential inauguration, is the oldest roadway bridge in the country.

The above are accomplishments which have been recognized as Landmarks. However, there are numerous landmark projects around us every day. Some have been built, some are under construction, and yet others are still under design. Over time, perhaps one of these projects will earn recognition as a Landmark.

In this business we are fortunate in that every day we work on projects which improve our community and advance our profession. So, in between reviewing the latest design manual updates and finalizing those proposals, take a quick break. Take a minute to consider all that you have accomplished. Imagine how many people have been positively impacted by your projects. Recognize that every one of your projects is likely a landmark for the community. Then, give yourself a pat on the back. Keep up the good work.

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

100TH ANNIVERSARY HISTORICAL PERSPECTIVE

As we promised in the Summer edition of *THE NEWS*, we will be providing some historical references, snippets, trivia and odd facts during this season for your reading enjoyment and to show what we've done over the past one hundred years that we've been around. Here are some for September and October:

SEPTEMBER

1985 – Our Section celebrated the recognition of the Center City Commuter Rail Tunnel as the Outstanding Civil Engineering Achievement for that year with a reception conducted in the mezzanine at the new Market East Station. The plaque noting this Achievement is mounted in the mezzanine near the stairways to the former Reading Terminal headhouse.

OCTOBER

1912 – On the 17th, twelve men met to formulate the plans of what was to become the Philadelphia Section of the American Society of Civil Engineers. Their primary objective was "... to promote closer professional and social contact among its members and to further the aims of the Society...". The plans for the Section were submitted to ASCE and the National Board of Directors approved, resulting in the official creation of our Section on June 14, 1913.

1926 – The 56th Annual National Conference opened in Philadelphia under the direction of Section Vice President Richard Humphrey. Pennsylvania Governor Gifford Pinchot, the driving force behind the state's early efforts to pave roads and get travelers "out of the mud" (creating the State Highway system), presented the opening address at the Convention. Revenue received from the Convention was set up as an annuity fund which became the Section's financial backbone. After Mr. Humphrey's death in 1928 the fund was renamed in his honor and continues in effect today.

1958 – Past Section President Francis Friel was inaugurated as National President.

1963 – Our Section began celebration of its 50th anniversary.

1991 – Past Section President C. R. "Chuck" Pennoni was inaugurated as National President.

1999 – On the 6th, our Section dedicated its mural on the Schuylkill Expressway with a ceremony at the Water Works. Unfortunately, the mural was damaged and had to be removed in November 2004.

SPONSOR CARDS — NOTE

The sponsor's business cards shown on pages 7 and 8 of this edition reflect ASCE, Phila. Section Sponsors from last season. Our sponsorship program, explained in more detail on page 5, was a little late in getting out this season, so the new "lineup" of Section Sponsors for 2012-13 will be reflected starting in November. Please note we have an expanded program for our 100th anniversary year.

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

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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 khassan@pennoni.com

ASCE YMF BOARD MEMBERS 2012-2013

The YMF Board for this season is: President: Kazi Hassan, Pennoni Associates Vice-President: Chris Gray, TimHaahs Secretary: Drew Sirianni, McMahon Treasurer: Jennifer Reigle, Pennoni Associates Professional Development Chairs: Marc Preim, STV and Eammon Farley, TPD Technical Groups Chairs: Zack Suralik, STV and Stephen Maakestad, HatchMott Outreach Coordinators: Jesse Gormley, Pennoni Associates and Kolleen Backlund, AGES College Contacts: Colette Montague, Urban and Kevin Brown, Urban

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JOINT YMF PHILLIES GAME – AUGUST 8

On August 8, the Philadelphia and South Jersey YMF's hosted their annual Phillies game outing. Every year, the hosts invite their members, as well as guests, to network during a tailgate and enjoy a baseball game at Citizens Bank Park. This year, all 124 tickets were sold out for the game and there were over 100 members and guests that attended the tailgate. Luckily the rain that threatened all day held off and everyone was able to enjoy the event despite the home team loss to the dreaded Mets.

WELCOME BACK

As summer drew to an end and the collegiate year began, the YMF hosted a "Welcome Back" event at Pep Bowl in South Philadelphia on September 25. The two hour event was only \$10, FREE for students. Admission included pizza and shoe rental. We'll report more on this event next month and see if we have any aspiring bowling pros in our midst.

YMF SOCIAL NETWORKING

Don't miss a future event because you missed that email or forgot to check our website. Instead, stay up-to-date on YMF events, networking, and volunteer opportunities through social networking! Like us on Facebook for chances to win free entry to events. Follow us on Twitter for the most recent happenings. Scan our QR code for a direct link to the YMF website. If you don't want to miss out, see the links below:

A PERSPECTIVE ON MAP 21 AND OUR REGION

Nat Hayes, Legislative Affairs Chair for ASCE's Pittsburgh Section, authored this informative piece on the new federal transportation legislation. Nat has served as a Design and Construction Engineer on various energy, road, bridge, airport and mass transit projects. He currently performs Environmental and Geotechnical Engineering services for various land development, municipal and energy projects.

The new federal surface transportation authorization, **Moving Ahead for Progress in the Twenty-first Century (MAP 21)**, is the Bald Eagle of U.S. federal surface transportation policy. That is, it steals from others, it's praiseworthy when aloft, it bounds awkwardly when on the ground, and, with all its perceived majesty, it shrieks the callow sound of a lesser, maimed creature.

Congress anticipates the Highway Trust Fund — the sole source of federal surface transportation funding since Eisenhower — going bankrupt before September 2014, which is when MAP 21 expires. Due to this, Congress has taken revenues and savings from other programs not related to highways, bridges, transit, aviation or railroads and directed them to transportation. As it relates to Pennsylvania surface transportation programs, we have 27 months worth of certainty.

Your State Representative and Senator, along with Governor Corbett, must develop a plan to use the little money in MAP 21 to benefit you. The policy must be comprehensive, that is, make roads, transit, airports, rivers, and rails all work together, leverage federal funding where appropriate (that is, spend state dollars on projects that will get more federal dollars) and generate adequate, dedicated, long term funding (not financing) for bringing our regional infrastructure back up to good condition. That means paying for what we use as we go, fully implement long-term regional planning goals to rehabilitate and repair deficient existing infrastructure, and replace obsolete transportation systems to meet our needs now and in the future

Locally, our regional metropolitan planning bodies (locally, the Delaware Valley Regional Planning Commission – DVRPC), make lists of the transportation projects in order of priority. Money from Washington and Harrisburg is then applied to the prioritized list. This Transportation Improvement Program (TIP) list is made by local public servants, who gather information from politicians, and officials, to determine what projects to do and to how much federal surface transportation funding they require. Most projects on the TIP are not new construction, but instead

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OR CODE:



are repairs, rehabilitation, and replacement of transportation systems and equipment for local, state and county roads and bridges, mass transit systems, and public and private railways and waterways. Statewide, the regional TIP's have lists of projects in need of funding and on a schedule through 2016.

Beyond the angry arguments about Mass Transit vs. Roads and Bridges, if we used all of the \$400 million state and federal funds allocated to transit — which is approximately half of the Governor's Commission transit funding recommendation ---we will not fill the growing \$1.2 billion annual gap of unfunded road and bridge liabilities. Also within the new MAP 21, the Governor could decide not to receive the 50% funding of Transportation Alternatives to score political points from those opposed to bikeways, sidewalks, and other "non-traditional" items which have been funded with federal transportation dollars in the past. This would amount to redirecting \$14 million, based on 2009 funding, which would still not fill a \$1.2 billion gap.

Pennsylvania requires considerably more federal and state funding than we currently get to repair or replace existing deficient transportation systems. After the Stimulus Bill, the American Recovery and Reinvestment Act (ARRA) and use of part of our Turnpike tolls under Act 44, we still have more repairs than we have money. We have a growing backlog of potholed roads and weight restricted bridges to repair, and both urban and rural transit systems raising fares and cutting service. Our local, state and federally funded transportation systems connect people to jobs, shopping, recreation, and family; and are as diverse as the ways in which we attempt to fund them. We enjoy the freedom to move over, under and through natural and man-made creations, over rivers, streams and hollows, climb and go down slopes and over and along ridges, battle the rockfalls, landslides, fallen trees and swollen stormwater pipes just to get by.

But our freedom isn't free. The best we can do for ourselves is to huddle up with your elected representatives at home and in Harrisburg, and give them the support and courage to craft and complete a firm, but fair surface transportation bill for Pittsburgh, Philly and all in between.

OCTOBER DINNER MEETING

Continued from Page 1

He is currently working on the rehabilitation of the Market and Chestnut Street Schuylkill River crossings around Philadelphia's 30th Street Station. Within the past 4 years, Mr. Eagan has delivered nearly \$300M worth of project lettings for PennDOT District 6-0.

SOO MILLION REASONS TO RETHINK THE

It doesn't matter whether you have a Prius or a Hummer, you have the same environmental impact. So argues MIT landscape architecture and planning professor **Eran Ben-Joseph** in his new book, "*ReThinking a Lot: The Design and Culture of Parking*." Whatever could he mean?

Cars, on average, are immobile 95 percent of the time, taking up the same 9-by-18-foot paved rectangle. All of those paved spaces increase runoff into streams and wetlands, create heat islands, increase glare and light pollution, and shape the character of our cities. To grasp the magnitude of the problem, consider that there are 500 million surface parking lots in the U.S. alone. In some cities, parking lots take up onethird of all land area, "becoming the single most salient landscape feature of our built environment," Ben-Joseph writes.

He notes that parking lots are considered a "necessary evil" – they may be unsightly, but they are essential to the market success of most developments. So the time is definitely ripe to redesign the lot. Therein lies the material for an incredibly boring book, you might be thinking. But Ben-Joseph's book is so clearly written and designed and includes such great photos you'll find yourself drawn in. Take the history, for example.

Back in 705 B.C., Assyrian King Sennacherib posted signs on his highway to ensure it was cleared of parked chariots. The signs read: "Royal Road — let no man decrease it." Whereas nowadays, you'd just get a ticket, then an improperly parked chariot could result in death by beheading. Later, the Romans actually implemented parking laws. Julius Caesar instituted rules preventing chariots from entering busy commercial zones during peak hours to limit congestion.

Two millennia later, as cars, the "horseless chariots," overtook horse-drawn carriages, they started to consume too much road space, so needed to be stored somewhere. To respond to this need, municipalities and entrepreneurs started to offer off-street parking. Beginning in the 1930s, off-street parking began to appear in planning and urban zoning strategies. Guidelines were produced over the years, culminating in the Institute of Transportation Engineers' handbooks on Trip Generation and Parking Generation in the 1980s, which Ben-Joseph says are still the go-to guidelines for many transportation and community planners. The guides helps communities estimate the number of parking spaces needed for a particular development.

However, a simplistic use of these guides alone has resulted in masses of underutilized parking lots. The aesthetics of a parking lot were considered important back in the 1920s to 1940s, but over the years, the design of these spaces was increasingly left up to developers. Even very progressive cities like Cambridge, MA offer over 30 pages of regulations on parking lots' size and organization, but no rules about how they should look. The result was that many developers simply cut corners.

All of those parking lots are not only expensive but represent an opportunity lost. The average parking lot cost is \$4,000 per space, with a space in an above-grade structure costing \$20,000, and a space in an underground garage \$30,000-\$40,000. To give us some sense of the opportunity lost, 1,713 square miles (the estimated size of all surface parking lots in the U.S. put together) could instead be used for spaces that generate 1 billion kilowatt-hours of solar power. With just 50 percent of that space covered with trees, this space could handle 2 billion cubic meters of stormwater runoff, generate 822,264 tons of oxygen, and remove 1.2 million tons of carbon dioxide annually (for those of you who like facts and figures).

Still, so few communities impose even basic landscape requirements to make these places just a bit more green and permeable. Ben-Joseph points to many well-designed examples created by landscape architects and architects, but unfortunately, they remain very rare birds. In Turin, Italy, Renzo Piano created a beautiful parking lot without parking islands and curbs, just rows of trees in dense grids intermingled among the spaces. Other high-performing parking lots incorporate solar panels or wind turbines, add new trees or even preserve old ones, and incorporate bioswales and permeable pavement. One parking lot in Duck, N.C., is even designed to serve as a detention pond during minor flooding.

Beyond the environmental benefits, more flexible parking spaces help communities build social connections. Already, as Ben-Johnson notes, in parking lots, children learn how to ride bicycles, teenagers learn how to drive cars, and high school students hang out after school "where the drama of youth plays out." In many communities, farmers markets and flea markets take over lots on weekends. In Manhattan's Lower East Side, there's Shakespeare in a Parking Lot. Outside of stadiums, there are tailgating parties. In Walmart lots, you can find RVs "boon-docking." In a number of cities, festivals of food trucks turn a sad parking lot into a space for food, beer, and bands. What's important is that community leaders and planners actually enable these activities and remake regulations so that parking areas can provide multiple social functions.

Parking lots can also become sites for activism. San Francisco landscape architect John Bela created the nonprofit Rebar and launched the annual Park(ing) Day, which has become a global movement. In 2009, some 700 parking spaces were designed as mini-parks in 21 countries and 140 cities. Some have even been made permanent in San Francisco, Vancouver, and other cities. These spaces can also become sites for art. Martha Schwartz created a funky parking lot for an amusement park, while artist Toshihiro Katayama and landscape architecture firm Halvorson Design created a stunning shared space for cars and pedestrians in Boston.

Unfortunately, once you exclude the small share of well-designed lots, the average parking space hasn't really changed much since the 1950s. Still, these bland expanses of asphalt aren't "no-places," and they could still be so much more.

Thanks to "Grist" and author Jared Green for this information.

*ANACE – Almost Nothing About or Concerning Engineering

ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP

NOVEMBER LUNCH MEETING WEDNESDAY, NOVEMBER 14

SUBJECT: Vapor Intrusion: Practical Strategies & Regulatory Updates

SPEAKERS: Flint Kinkade, CHMM, Director; Viridian Environmental Field Services, and David Brown, PG, Pennsylvania Department of Environmental Protection

TIME: 12:00 PM – 1:15 PM; 11:45 AM Registrations

LOCATION: Department of Environmental Protection – Southeast Regional Office; 2 East Main Street; Norristown, PA 19401

COST: \$15.00 per member/ nonmember / \$10.00 per full-time student

Mr. Kinkade will provide a general overview of vapor intrusion (VI), discussing the background of the VI issue and the resulting environmental and health concerns. He will present how to assess, model, and mitigate VI. Messrs. Kinkade and Brown will then provide updated technical information on the VI issue, along with regulatory updates, including proposed changes to PADEP guidance.

DIRECTIONS: Directions to the DEP office (both by car or public transportation) can be found at http://www.portal.state.pa.us/portal/server.pt/ community/southeast_regional_office/13778/ directions/593147.

Parking is available in various lots

RSVP: 11:00 AM, Monday, November 12.

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** or Eric **Lindhult** at **267-464-3613** if you have any questions.

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

ASCE NATIONAL ITEMS OF INTEREST

OVER ELECTED AS 2013 PRESIDENT-ELECT

Congratulations to **Randall S. "Randy" Over, P.E.**, *District 12 Construction Engineer for the Ohio Department of Transportation*, winner of ASCE's election for 2013 President-elect. Mr. Over will assume office this October during ASCE's annual business meeting in Montreal, in conjunction with the 142nd Annual Civil Engineering Conference. The incoming President-elect has been active in ASCE for 30 years, since serving as student chapter president at Ohio State University, where he graduated with a Bachelor of Science degree in Civil Engineering. He has chaired or served on numerous ASCE committees over the years and was director of District 7.

Over received 52.6% of members' votes, ahead of **Garland P. Rose Jr., P.E.**, chairman emeritus of Barge Waggoner Sumner and Canon of Nashville, TN, with 47.4%.

ASCE members in most Regions also elected directors and governors to three-year terms, plus selected an at-large director and a technical director. See who won in your Region, and in all races. Find out the views of the incoming President-elect on Civil Engineering issues via Q&A interviews Over gave to *ASCE NEWS*, to the Committee on Younger Members (PDF), and recorded in a podcast.

REGISTRATION OPEN FOR ASCE'S 142ND ANNUAL CIVIL ENGINEERING CONFERENCE!

Join your fellow Engineers **October 18–20** in Montreal, Quebec, where the Conference's theme will be "*Civil Engineering in the New Global Economy*." Dynamic discussions will explore the changes shaping our profession both now and in the future. Information will be provided on how technology is spurring innovation and accelerating productivity, how global capital is impacting infrastructure construction, and how the global supply chain is affecting project delivery. Visit **www. asceannualconference.org** for more information.

The Preliminary Program is featured in the June edition of *Civil Engineering* magazine.

MEMBERS IN THE NEWS WAGNER MOVES UP

Michael Wagner has been selected as the Ports and Waterways Practice Leader at Urban Engineers. Mike joined Urban in 2001 and has gained increasing responsibilities in his positions in the Bridge Group and Ports and Waterways. In addition Mike served as President of the Younger Members Forum and was elected our Section's 2011 Young Engineer of the Year. Mike's design experience and his leadership skills will serve him and Urban well in his new position. Congratulations, Mike!

VILLANOVA STORMWATER SUMMIT 2012 BIORETENTION / BIOINFILTRATION "ASK THE RESEARCHER SUMMIT"

OCTOBER 18–19 VILLANOVA UNIVERSITY WWW.VILLANOVA.EDU/VUSP

Bioretention and BioInfiltration rain garden design, construction, and maintenance continue to evolve as the practice has become the most popular small-site stormwater control measure in the Mid-Atlantic states. However, design standards, construction specifications, and maintenance plans often lag behind what recent applied and lab research has discovered. The purpose of this training is to deliver the most up-to-date researchbased information that will lead to perhaps dramatic improvements in how bioretention cells are credited by regulators, designed by engineers and landscape architects, and built and maintained by contractors and maintenance personnel. This course has been revised considerably since its 2010 offering at Villanova.

Below is a sampling of some of the issues to be discussed:

- How bioretention / bioinfiltration rain garden cells can be designed to capture larger fractions of water to meet infiltration and evapotranspiration goals
- The benefits of using an internal water storage layer to enhance performance
- How designs can be tailored per specific target pollutants, including emerging pollutants such as thermal loads and pathogens
- What's the best fill media
- How can bioretention construction be improved to increase infiltration
- Are bioretention devices really low maintenance Course Specifics: The training is unique because it brings together three prominent Mid-Atlantic bioretention researchers to answer these and more questions. In fact, registrants are encouraged to submit questions in advance to the instructors via the website registration form so that they may be addressed during the workshop. There is ample Q&A time embedded in the training as well. The summit will feature a tour of Villanova bioretention and bioinfiltration research sites upon which some of the presentedfindings are based, as well as many other campus SCM's. The ultimate goal of the training is to improve the state-of-the-art for designers, plan reviewers, and regulators: better functioning designs going into the ground that improve hydrology and water quality.

Lead Presenters:

Dr. Robert G. Traver, Professor, Villanova University

Dr. William F. Hunt, Associate Professor and Extension Specialist, North Carolina State University

Dr. Allen P. Davis, Professor, University of Maryland – College Park

Philadelphia ASCE Members are eligible for a discounted registration fee (\$450) prior to September 21. Further discounts are available for the Public Sector. To Register go to www. villanova.edu/vusp.

AN IMPORTANT WORD TO ALL MEMBERS ON INFRASTRUCTURE

Following Hurricane Issac's landfall last month, USA TODAY printed a compelling editorial, "Hurricanes vs. Infrastructure Improvements", highlighting how the investment in post-Katrina flood-protection worked. The editorial noted that areas outside the new system did not fare as well when Gulf waters overtopped the levees and flooded the area, once again forcing residents to their rooftops. This led the editors at USA TODAY to wonder about the country's other infrastructure projects that have been delayed. "What about other expensive, long-term public works projects needed in other parts of the country? Like the pre-Katrina levees, most have been left to fester," the paper said.

In 2010, the four ASCE Sections in Pennsylvania jointly issued the Report Card for Pennsylvania's Infrastructure. Some important facts of note:

- 44% of Pennsylvania's 22,280 bridges are considered deficient or obsolete
- More than 300 dams across the state are considered deficient
- 38% of Pennsylvania's roads are rated as fair or poor
- Investments totaling \$15.5B over 20 years are necessary to maintain Pennsylvania's safe drinking water
- Pennsylvania needs to invest \$28.3B to maintain wastewater management facilities

As we approach Election Day, please take a moment to reach out to your elected officials and candidates. It is our responsibility to make them aware of the condition of our infrastructure, the current infrastructure funding shortfalls, and the job creation opportunities associated with infrastructure investment. You can utilize ASCE National's website to reach out to your elected officials or become an ASCE Key Contact.

ONCE AGAIN, THANKS TO OUR SPONSORS !

As you have seen, the ASCE, Philadelphia Section Sponsorship Program was once again popular this past season, with 19 firms participating in it. 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.

To cite our 100th Anniversary this season, we are offering several different varieties of sponsorship.

Section Sponsor: \$300 (Standard Section Sponsorship); 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

THE 2012 SPRING SOCIAL – ON THE HIDDEN RIVER

On May 18, our Section officially kicked off a vear-long celebration of our 100 years of existence, and appropriately enough, we chose a National Historic Civil Engineering Landmark for the location of our annual Spring Social and Dinner Dance. The venue was the Water Works Restaurant at the old Philadelphia Water Works, which got its start as part of the Municipal Water Supply in the 1800's and has since been carefully restored as a non-functional facility. Over 100 members and guests found their way to the Water Works, behind the Art Museum and near Boat House Row, but, like the Schuylkill River (given that hard-to-spell name by the Dutch, who arrived here and noted that it was the "hidden" river), it is somewhat secluded and a quiet oasis in an otherwise busy part of town.

Outgoing Section President **Ann Tomalavage** opened the evening after guests spent the cocktail hour on the outside terrace, enjoying the end of a warm spring day. Past National and Section President **Chuck Pennoni** gave a fitting invocation, and dinner followed. For the first time in recent memory, live music was provided throughout the evening by "Straight Sax".

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. Region 2 Governor **John Grieshaber** ably administered the Oath of Office to the new Officers as well as those completing the second years of their terms. The last item of the evening had President Tomalavage pass the gavel to her successor, incoming President **Jeremy Colello**, who closed the evening with his remarks.

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). The Grades 6-8 First Place winner, **Daniel Barlow**, from North Coventry Elementary School in Pottstown, conducted his experiment on "'Windtricity' — Does the Amount of Blades and Their Length Affect How Much Electricity a Wind Turbine Generates?" Our Grades 9-12 First Place finisher was **Catherine Messina**, a sophomore at Villa Joseph Marie School in Holland, who presented her effort entitled "Fighting Seismic Activity".

Six recipients of Section Awards for 2012 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 2012 nominee for the highest honor of our Section's awards program is **Dr. Joseph Martin**. Joe is a Professor in the Civil, Architectural and Environmental Engineering Department at Drexel University. He has been on the Drexel faculty for the past 30 years and has risen from Assistant Professor to full tenure. He served as the Department head from 1994 to 2002 and has been the Associate Director of the Engineering Management Program since 2008. During his time at Drexel, he has instructed and mentored numerous civil engineering students, many of whom have remained in our area to start their own careers in engineering. His research activities include geosynthetics, infrastructure performance evaluation, and project delivery methods.

Joe received his Bachelor's degree in Civil Engneering from Tufts University, with a Masters with a concentration in Water/Environmental from Northeastern University and a Doctorate with a concentration in Geotechnical from Colorado State University. He is an active member of several technical societies and industry groups and has served as a Board member of the Section. Earlier this year, he was recognized as the Delaware County Engineer of the Year by the Delaware County Chapter of the Pennsylvania Society of Professional Engineers. He is active in his township and serves as a member of its School Board.

YOUNG CIVIL ENGINEER OF THE YEAR

The Section has selected Jeremy Chrzan as our Young Civil Engineer of the Year for 2012. Jeremy is a transportation engineer at Pennoni Associates at the firm's headquarters in Center City. He has been with Pennoni since 2003 and specializes in highway geometric design, streetscape and bicycle/pedestrian facility design, traffic analysis and mitigation, stormwater and drainage analysis, permitting, and related duties. He has recently been involved in the design review and analysis for highway occupancy permits required by PennDOT for utility facilities and private driveways within the highway right-of-way. He has served as Project Engineer for several local efforts including the Frankford Avenue/Mayfair Streetscape Improvements and the rehabilitation of the historic wooden covered bridge on Rapps Dam Road Historic in Chester County.

Jeremy is a graduate of Drexel University, where he earned dual Bachelor's and Master's degrees as part of a dual degree program in Drexel's honors program. He has been an active member of our Section's Younger Member Forum for the past eight years and completed his term as Forum President for the 2011-12 season. He is an active volunteer for various Section activities as well as in the Future City Program, MathCounts, and the ACE Mentor program.

ENVIRONMENTAL/WATER RESOURCES ENGINEER OF THE YEAR

Our 2012 Environmental/Water Resources Engineer of the Year is **Eveann S. D'Onofrio**. Eve is the founding principal of her own firm, ES Design LLC, which she started in 2008. She has over 30 years of experience in the areas of stormwater analysis, land development design for industrial, commercial, residential and educational projects, site analysis and civil engineering design, stormwater and hydraulic analysis, sanitary design, and sustainable site infrastructure. Her firm specializes in engineering site design and stormwater management. She has played a key role in a number of local projects, including the Schuylkill River Trail in Phoenixville and streetscape design in West Chester.

Eve received her Bachelor of Science in Civil Engineering from Drexel University in 1975 and a subsequent Master's degree in from Villanova University in 1993. She is active in the Delaware Valley Green Building Council as well as ASCE. In our Section, she serves on the Board of Directors and chairs the Environmental and Water Resources Technical Group.

ENGINEERING MANAGER OF THE YEAR

Robert Milliken has been nominated for our Engineering Manager of the Year Award for 2012. Bob is the President of Underground Services, Incorporated, also known as Soft Dig, in West Chester. He began his career with the firm in 1987 as the Director of Operations when the firm itself was just getting started, and rose through the ranks, becoming company president in 2007. His firm provides underground utility locating services for a variety of clients and purposes, including industrial sites, highway and bridge facilities, railroads, and utility companies. This information is valuable for use in design and construction projects which may impact or affect the lines, as well as for the support and integrity of the lines themselves during construction. He has been involved with numerous projects in our area, including current open-end contracts for the Delaware Department of Transportation, DuPont Chemicals and Astra Zeneca Pharmaceuticals.

Bob received a Bachelor's degree in Mechanical Engineering from the University of South Carolina. He is active in the American Society of Highway Engineers, the American Public Works Association, and Common Ground Alliance in addition to ASCE. He served as President of the Delaware Valley Section of ASHE for its 2007-08 season. He is a Navy veteran and a 32nd degree Master Mason.

GEOTECHNICAL ENGINEER OF THE YEAR

This year's nominee for Geotechnical Engineer of the Year honors is Richard Mabry. Dick is a Senior Engineering Manager with GAI Consultants at the firm's local office in Berwyn. He specializes in geotechnical engineering and has a particular expertise in mine subsidence. He has a vast resume of experience in geotechnical applications, including building foundations, commercial and industrial developments, and transportation facilities. He additionally performs forensic analysis and investigation related to insurance claims and litigation. Among the notable local projects on which he has worked are the LeBow College of Business Building at Drexel University, the expansion of the Rodin Museum, the Cyclotron Laboratory at the University of Pennsylvania Medical Center, and the renovation of the Academy of Music.

Dick received his Bachelor's degree in Continued on page 7

TECHNICAL GROUPS/CHAIRS

Information on the ASCE, Philadelphia Section's Technical Groups is given below. Director **Keith Yamatani** 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.

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2012 SPRING SOCIAL

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Engineering from Swarthmore College in 1963 and a Master's degree from the Massachusetts Institute of Technology in 1965. He is active in the International Society of Soil Mechanics and Geotechnical Engineering in addition to ASCE. In our Section, he has served as Chair of the Geotechnical Technical Group.

GOVERNMENT SERVICE AWARD

Mark Gale has been selected as the recipient of our Section's Government Service Award for 2012. Mark was appointed as Chief Executive Officer of Philadelphia International Airport in December 2009. In this capacity, he is responsible for directing the planning, development, and administration of all the activities of the City's Department of Commerce, Division of Aviation, which includes the Northeast Philadelphia Airport in addition to the International Airport. He manages nearly 800 personnel. He additionally serves as the City's chief representative in local, state, national and international affairs in the marketing of the Airport and improving air service. Prior to being named CEO, he served in several positions over a career at the Airport that has spanned nearly 22 years. His next immediate challenge will be the implementation of PHL's Master Plan, which will provide significant expansion and improvements for Airport customers in the next ten to fifteen years.

Mark received his Bachelor's degree in Aeronautical Studies from Embry-Riddle Aeronautical University. He is an accredited member in the American Association of Airport Executives and serves on the group's Board of Directors. He also serves on the Board of Directors for the Aviation Council of Pennsylvania, as well as the Philadelphia Convention and Visitors Bureau's Board of Directors Executive Committee.

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 and Bob Wright), and the Awards Committee (Carol Martsolf, Allan Moore and Bob Wright).

The next Social, which will culminate our **100th Anniversary Celebration**, is already scheduled for **May 4, 2013** at the **Franklin Institute**. More information will be provided as the event plans are formalized.

Waterworks Sponsor: \$5,000

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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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PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS

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