



### PHILADELPHIA SECTION

### AMERICAN SOCIETY OF CIVIL ENGINEERS

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The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Our 97th Year

February, 2010

## ASCE, PHILA. SECTION MEETING SCHEDULE 2009-10

Vol. 82-6

The ASCE, Phila. Section Meeting program for the upcoming season is nearly set, and currently-planned dates have been provided below for your calendar.

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.

After March, there is one remaining Section meeting on April 8 and the Spring Social on May 14. Please mark your calendars for the Social, especially you baseball fans. More information will be forthcoming in the March edition of *THE NEWS*.



### E-WEEK BANNERS ARE BACK!

Banners proclaiming the celebration of *Engineers Week* will be making their appearances on the street light poles on Market Street near the Loews Hotel (the site of the Awards and Proclamation Luncheon on February 12) in early February. ASCE, Philadelphia Section helped developed the design of the banners, which were first placed for 2006 Engineers Week, and is funding the hanging of the banners in conjunction with this year's E-Week festivities.

### FEBRUARY JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section American Society of Civil Engineers, New Jersey Section, South Jersey Branch

### **THURSDAY, FEBRUARY 11, 2010**

Crowne Plaza Hotel Philadelphia-Cherry Hill

2349 W. Marlton Pike (at Cuthbert Blvd.), Cherry Hill, NJ Cocktails 5:30 pm • Dinner 6:30 pm • Meeting Presentation Follows

SUBJECT: New Jersey Turnpike Widening Program

SPEAKER: John M. Keller, P.E., New Jersey Turnpike Authority

**RESERVATIONS MUST BE SUBMITTED BY FRIDAY, FEBRUARY 5.** All reservations should be made through ASCE South Jersey Branch's reservations system. The Philadelphia Section will NOT be accepting any reservations for this meeting. *Please make your reservations through South Jersey ASCE's system (rsvp@sjasce.org).* 

The cost of dinner will be \$35 per member or guest, \$20 per ASCE Student Member. Payment will be accepted at the door. 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 New Jersey Turnpike provided 118 miles of modern limited access highway when it opened in November 1951, extending from the Delaware Memorial Bridge to Route 46 and a connection with the George Washington Bridge. Traffic growth on the Turnpike has been explosive with ongoing development as well as its critical location in the Northeast Corridor.

The Turnpike was widened north of Exit 9 (New Brunswick) in the 1960's and 1970's to provide inner and outer lanes which separate car and truck/bus traffic in a 12-lane cross section. Between Exit 8A (Jamesburg) and Exit 9, two 2-lane outer lane segments were added in the late 1980's. The current program will construct a full 12-lane cross section from just south of Exit 6 (Pennsylvania Turnpike) through to Exit 9, a total length of 35 miles. This will consist of 25 miles of new 3-lane outer sections from Exit 6 to Exit 8A and 10 miles of an additional lane in the current 2-lane outer sections from Exit 8A to Exit 9.

The total cost of the program is estimated at \$2.7 billion. It will add 170 lane-miles and include over 100 new structures. This widening is necessary as the traffic volumes on this portion of the Turnpike are anticipated to increase by 68% northbound and 92% southbound by 2032. Construction is underway and expected to be complete in 2014.

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### **MARCH DINNER MEETING**

American Society of Civil Engineers, Philadelphia Section

### THURSDAY, MARCH 11, 2010

Down Town Club, Public Ledger Building

6th and Chestnut Streets, Center City Philadelphia (enter from 6th Street) Cocktails 5:30 pm • Dinner 6:30 pm • Meeting 7:30 pm

SUBJECT: Green and Sustainable Stormwater Management in the Philadelphia Region SPEAKERS: Robert Traver, Ph.D., Villanova University, Dominic Rocco, Pennsylvania Department of Environmental Protection, and Chris Crockett, Philadelphia Water Department

SPECIAL FEATURE: Drexel University and Temple University Night

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



### PRESIDENT'S MESSAGE

The ASCE, Philadelphia Section Board of Directors' fourth major goal for the year has been to organize monthly meetings that are educational and relevant. Since our membership is comprised of a variety of civil engineering disciplines, the General Membership Meetings Committee strives to select topics of general interest or that emphasize local projects or multidisciplinary challenges.

From a technical perspective, attending the monthly Section dinner meetings is a way to keep up with relevant issues and educate ourselves on the tools/techniques that our colleagues are using to solve today's civil engineering problems. The knowledge we gain helps us understand the "big picture" and benefits our project teams and clients/customers.

The monthly section meetings also provide us the opportunity to network with the broader civil engineering community and develop business contacts in complementary disciplines that we might not normally interact with. Joint meetings (e.g., with SAME, ASHE, etc.) further facilitate this type of networking.

We are currently planning a new type of dinner meeting with multiple technical topics. In lieu of our traditional format, our April meeting will feature four concurrent break-out sessions after dinner. Attendees will be able to choose from one of four technical presentations in each of the areas of Environmental & Water Resources, Geotechnical, Structures, and Construction/Transportation/ Engineering Management. The meeting will combine the technically-focused programming of our technical groups with the larger networking opportunities of our monthly dinner meetings.

As you can see, there are many reasons to attend the monthly Section dinner meetings, and there is much planning involved to make them successful. We hope you find your attendance at these events worthwhile and always welcome your ideas for topics and speakers.

Happy Valentine's Day, and remember:

Roses are red, Violets are blue, ASCE meetings are super fun, Especially with you!

Kristen Bowman Kavanagh, P.E. President, ASCE, Philadelphia Section

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

### ENGINEERS WEEK — READY OR NOT, IT'S HERE!



This might be your last reminder that *Engineers Week in the Delaware Valley* will be celebrated *February 12-20.* The Delaware Valley Engineers Week Committee

has planned the following events to celebrate Engineers Week. Please note this information in your calendar and plan to participate accordingly.

We will welcome the 2010 Delaware Valley Engineer of the Year, **Dr. Selçuk Güçeri,** the Dean of Engineering at Drexel University, and the 2010 Delaware Valley Young Engineer of the Year, **Michael Witkowski,** an Associate at McHugh Engineering Associates in Fort Washington.

**Awards and Proclamation Luncheon – Friday, February 12, 12 Noon,** Loews Hotel (12th & Market Streets, Center City) — \$50 (after February 5, \$60)

The Luncheon will include a poster session with presentation of student paper winners, starting at 11 AM. Scholarships and Awards will be featured and Engineers Week proclamations will be displayed. The Engineer of the Year and Young Engineer of the Year will make brief remarks.

**Young Engineers Social – Monday, February 15, 6:00 PM,** Yards Brewing Company (901 N. Delaware Avenue) — \$20 (after February 5, \$25) This will be a happy-hour type event for

networking and socializing. The Young Engineer of the Year will make brief remarks.

**Celebration of Engineering Gala – Saturday, February 20, 6 PM**, Chemical Heritage Foundation (315 Chestnut Street, Center City) – \$90 (after February 5, \$100)

The culminating event of Engineers Week will be a social/networking gala event to celebrate engineering, featuring cocktails, appetizer stations, and dessert stations. 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

Please visit **www.dvewc.org** for the latest information and on-line registration. We hope to see you at one or more of these events.

As always, *volunteers are needed!* If you are interested in volunteering for one of the many activities of Engineers Week, please contact Mike McAtee, P.E., Committee Senior Vice Chair, at (215) 922-8081, ext. 2622, or at mjmcatee@urbanengineers.com.

### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION — 2009-10 SEASON

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### **TECHNICAL GROUPS/CHAIRS**

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

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### **DELAWARE VALLEY GEOINSTITUTE**

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### **STRUCTURAL**

Dr. Mohiuddin Ali Khan JMT Inc. 1300 Rt. 73 South, Suite 313 Mt. Laurel, NJ 08054 856-778-5517 mohidin@temple.edu

## TRANSPORTATION and URBAN DEVELOPMENT

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

## **MEMBERS IN THE NEWS**PLOURDE STEPS SIDEWAYS

**Rod Plourde** stepped down as President of McMahon Associates as of December 31. As he puts it, it's "down" but not "out", as he has shifted his office from our area to McMahon's Mid-Atlantic regional office in Bowie, MD to be closer to his new home. **Joe DeSantis** succeeds Rod as President. Best of luck to Rod and Joe in their new positions and adventures.

### FEBRUARY DINNER MEETING

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John Keller is the Supervising Engineer for the NJ Turnpike Authority and serves as the Program Engineer for the Turnpike's Interchange 6 to 9 Widening Program. His responsibilities include management of all Engineering, construction oversight, legal agreements, right-of-way acquisitions, utility relocations, permitting and public outreach for the Program. He has directed other significant Turnpike efforts, including the currently-underway \$300 million Interchange 15X Program, consisting of the Secaucus Interchange, Seaview Drive Extension and New County Road projects, and the Potter's Field Disinterment project, the single largest disinterment contract ever performed in the United States.

Mr. Keller received a Bachelors degree in Engineering from the Indiana Institute of Technology in Fort Wayne, Indiana in 1987, and is a Certified Project Management Professional in the Project Management Institute. He joined the Turnpike Authority in 1998 after experience at three consulting firms. He is an active member of the New Jersey Section and serves as a Section Director.

### **DIRECTIONS TO CROWNE PLAZA HOTEL**

From Center City Philadelphia – Take the Ben Franklin Bridge to New Jersey and follow US 30 after reaching the Toll Plaza. Follow US 30 and stay left for the NJ 38/70 junction, which follows an overpass over the Airport Circle. At the end of the overpass, stay to the right and follow the signs for NJ 70. Follow NJ 70 to the Cuthbert Blvd. interchange. The Hotel will be on your right just past the interchange.

From the North – Take I-95 to the Betsy Ross Bridge. Follow the Bridge into New Jersey. Exit for US 130 South and follow US 130 to the Airport Circle (junction with US 30, NJ 38/70). Make a left turn onto NJ 38/70 and proceed east. Stay to the right and follow the signs for NJ 70. Follow NJ 70 to the Cuthbert Blvd. interchange. The Hotel will be on your right just past the interchange.

From the South (Walt Whitman Bridge) – Take the Bridge to New Jersey, staying in the right lane. Exit for US 130/NJ 168 at the end of the bridge. Follow this roadway to the US 130 North exit. Take US 130 North to the Airport Circle (junction with US 30, NJ 38/70) and follow the ramp to NJ 38/70. Stay to the right and follow the signs for NJ 70. Follow NJ 70 to the Cuthbert Blvd. interchange. The Hotel will be on your right just past the interchange.

For more information on the Hotel location and directions, visit www.ichotelsgroup.com/h/d/cp/1/en/hotel/cpcrw/transportation?start=1

The difference between getting somewhere and nowhere is the courage to make an early start.

The fellow who sits still and does just what he is told will never be told to do big things.

- Charles Schwab

## **MEMBERS IN THE NEWS**FISCINA CITED BY ITSPA

The Intelligent Transportation Society of Pennsylvania (ITSPA) has announced the recipients of the 2009 Person of the Year and Project of the Year awards. ASCE, Phila. Section Member Carmine Fiscina of the Federal Highway Administration has been named Person of the Year.

Carmine is a Technology and Safety Engineer at the Federal Highway Administration at its Metropolitan Office in Philadelphia. He has dedicated almost 20 years to the growth of intelligent transportation systems (ITS) in southeastern Pennsylvania. ITS uses information technology to improve traffic congestion and safety. Examples include variable message signs, traffic signal control systems, and speed cameras.

With Carmine's help, ITS in the Philadelphia region has progressed from a couple of dynamic message signs and a few closed circuit television cameras on I-95, to advancing ITS on major roadways such as I-476, I-76, US 202, PA-23, and PA-309. In 2009, he played an instrumental role in the programming of federal stimulus funds under the American Recovery and Reinvestment Act for ITS deployments throughout southeastern Pennsylvania. These efforts led to the creation of three stimulus projects totaling over \$50 million, which will effectively double the region's capacity to provide traffic management and coordination capabilities. Once these three systems are implemented, PennDOT District 6-0 will have a state-of-the-art ITS network that will rival many metropolitan areas in the nation.

We congratulate Carmine on this award.

### **GABOR RETIRES**

Congratulations to Michael Gabor of Urban Engineers on his retirement. A luncheon in Mike's honor was held on January 14. He served as Vice President of Urban's Marine Engineering Division since 1992 and has extensive marine infrastructure experience, including project work for such organizations as the Philadelphia Regional Port Authority, the Delaware River Port Authority, the South Jersey Port Corporation, the City of Philadelphia, the Delaware River & Bay Authority, and the Pennsylvania Department of Transportation. His experience includes participating as a Project Engineer, superintendent, and manager of the construction and/or maintenance of virtually every pier facility on the Delaware River and Bay and the Schuylkill River. He has had 49 years of professional experience in several firms during his successful career.

Mike is also very active in the community and serves on the Board of Directors for several organizations, including the Seamen's Church Institute of Philadelphia and South Jersey, Four Chaplains Memorial Foundation, and the Maritime Academy Charter School. He was a Director of the Section for a number of years as well. We wish Mike well in his well-deserved retirement.

## UPDATE ON PROFESSIONAL DEVELOPMENT REQUIREMENTS

### INERTIA IN PENNSYLVANIA, BUT PROGRESS IN NEW JERSEY...

As you may be aware (and as previously reported in *THE NEWS*), Professional Engineers, Land Surveyors and Geologists in Pennsylvania are required to obtain continued professional development (CPD) credit to renew their licenses in 2011. This is effective as of October 1, 2009.

Exactly how this is to be done is still up in the air as the enabling legislation has not been passed by the Senate as of presstime. It has certainly been the topic of considerable confusion, with one law from 2006 already "on the books" and the status of subsequent modifying legislation still in limbo.

We would suggest you contact your Senator and urge that he/she take action on this bill. PSPE has a sample letter in the Legislative Action Center section of its website (www.pspe.org) that can be used in this regard. Please take action and help yourself and your profession.

The news is a little different for those of you who hold PE licensure in New Jersey. Assembly Bill 3835 was reported favorably out of the State Senate Commerce Committee in December and was signed into law by then-Governor Corzine on January 17. This will require CPD for continued licensure in New Jersey. It will take effect in early 2011. Details will be provided once the State Board completes the necessary regulations.

We will continue to provide updates and information on this important topic as developments occur.

## **CALL FOR NOMINATIONS FOR SECTION OFFICERS**

Throughout the year, you have been asked to volunteer your time and ideas to strengthen the ASCE, Phila. Section. Well, now is your chance to really make your mark!

In accordance with the Constitution and Bylaws of the Section, President **Kristen Bowman Kavanagh** has appointed a Nominating Committee to recommend a slate of officers for all Section elective offices for the 2010-11 administrative year. The positions which will be open for nominees are President Elect, Vice President, Secretary, Membership Secretary, and at least three Director positions.

Don't be shy! Nominate yourself or nominate a colleague. We are looking for hard-working, dedicated volunteers who have fresh ideas.

The deadline for nominations is Friday, February 12. Any inquiries or nominations should be submitted to the Section's Secretary, AnnMarie Vigilante, whose contact information is given on page 2. The Nominating Committee consists of the President, President-Elect Tom Brady, Past-President Carol Martsolf (chair), Past-President Mark Tiger, Past-President Bob Wright, and member Megan Syrnick.

### **JANUARY DINNER MEETING**

January 20, 2010

Radisson Hotel Valley Forge

### Tasty Baking Facility at the Philadelphia Navy Yard

by Robert Wright, Editor

Our annual adventure to the western suburbs to conduct our by-now traditional joint meeting with the Delaware Valley Section, American Society of Highway Engineers was made that much easier by a relatively warm and sunny day. It probably had nothing to do with the weather, but over 160 folks gathered at the Radisson to hear about a sweet topic that is near and dear to many of our hearts. This isn't "sweet" in the sense that many younger folks use it — more in the context of sugary — as we would all learn about the making of Tastykakes. Joining in the mix (no pun intended) was the Engineers' Club of Philadelphia.

As has been the case for several ASHE meetings over the years, the venue was a theatre setup which put all those at the head table on stage in full view of the attendees. Acting appropriately as the MC, Delaware Valley Section President Matt Marquardt opened the event with grace and the Pledge of Allegiance led by Delaware Valley Section Past President Curt Shugars. Section President Kristen Bowman Kavanagh followed with some brief remarks and she introduced Younger Member Forum President Cathy Farrell for updates on Forum activities. They also explained the rules of the contest distributed to each table in the room, covering a variety of things that start with "have you ever...", similar to the Quizzo session conducted at our November Section meeting.

As not advertised in the meeting announcements in *THE NEWS* (your Editor will take full blame for this!), Widener University was featured as the evening's school and Student Chapter. Faculty Advisor and Section Board Member **Vicki Brown** brought **Nate Brown**, Chapter Co-President (and Faculty Advisor's son), to the stage to bring all up to speed on what's happening with the Chapter. **Bonnie Zwissler**, Chapter member and President of the Widener Chapter of Engineers Without Borders, also also gave a brief update on things there.

Following dinner, **Tom Friese**, Project Manager of Pennoni Associates, started the feature presentation with a brief introduction of the evening's three speakers (the three people on stage who were not Presidents of some sort, as far as we know) and the project. Mr. Friese immediately grabbed the attention of all in the room as his associates got busy handing out small samples of Tastykakes to everyone. (It wasn't quite Oprah giving away cars, but...)

### NOBODY BAKES A CAKE THAT'S BETTER THAN A TASTYKAKE...

First up was **Bill Fisher**, Project Manager of Liberty Property Trust (LPT), the developer of the effort. LPT assists the Philadelphia Industrial Development Corporation (PIDC) in the management and development of the Navy Yard. At 1200 acres, the Yard is comparable in size to

Center City. He added that he has 25 years of experience in property management and saw the Tasty Baking (TBI) facility as a very complicated project that had to be accomplished on a fast track. As an additional element, the project would be required to have a substantial sustainability component, with the goal of being able to receive Leadership in Energy and Environmental Design (LEED) certification.

LPT's role, as described by Mr. Fisher, was to manage the 345,000-square foot new TBI facility on a site formerly occupied by the Navy's "brig" (jail) and fire training center on 26th Street just south of Penrose Avenue. A total of 14 existing buildings would need to be demolished and would need considerable remediation. TBI supported the concept of an iconic structure and, by using the Navy Yard site, would be eligible for \$25 million in assistance as a public/private partnership based on the project's ability to provide jobs and serve as an economic generator. The facility will replace two other TBI facilities in North Philadelphia and Chester County and will result in operational savings to the company of over \$15 million annually.

The six aspects of LEED certification were addressed by Mr. Fisher. Among these are enhanced transit access for employees (via expanded SEPTA bus service), landscaping with natural vegetation to create a meadow-like environment, reduced water use, computerized energy management, and optimal energy performance. The percent of recycled content in the building is quite high, with concrete being crushed and reused on site for subbase and bedding. An educational element was added after design as accommodations for plant tours were provided. The facility is the largest LEED-certified bakery in the world.

Roadway access will be improved as 26th Street will be upgraded to accommodate the plant's needs. A gateway treatment will be added in the future along the roadway to demarcate the entrance to the Navy Yard.

Mr. Fisher acknowledged the contributions of many firms in this effort, including several represented in the room such as Pennoni, Kleinfelder and JMT.

### THE BUILDING WITH BUTTERSCOTCH FROSTING?

Next up was **Steven Kopp** of Environetics Design, the Project Architect, who has 17 years of background in design projects. He showed a slide noting that a basket of Tastykakes was available at every project meeting for inspiration. He showed the way the flow of materials dictated the basic design of the building, with one function handled per side — raw materials delivered by truck/rail on the east side, truck loading docks for long-distance shipping on the

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### **TECHNICAL GROUP ACTIVITIES**

### Construction Technical Group — Luncheon Meeting

Wednesday, February 17, 2010

**TOPIC:** Delay Claims from the Owner and Contractor's Perspectives

SPEAKERS: Mr. Michael Radbill, PE, Vice President, Urban Engineers, Inc. and Mr. Dennis MacBride, PE, Manager, Project Scheduling and Claims, SEPTA

TIME: 12:00 Noon to 1:30 PM

LOCATION: Conference Room X, 16th floor, Municipal Services Building; 15th Street and

JFK Boulevard, Philadelphia, PA

COST: \$12 per person

When a project is delayed due to an owner's actions, a contractor may incur extra costs and seek compensation for those losses. When a project is delayed by a contractor's actions, the owner may seek compensation in the form of liquidated or actual damages. In both cases, it is important that both parties understand the basics of delay claims. Messrs. Radbill and MacBride will discuss contract language related to delays, the types of delays and damages, and the requirements for a successful claim. The presentation will also include an interactive case study.

A buffet lunch will be served starting at 12:00 noon. For reservations, please contact **Dennis MacBride** at (215) 580-3404 or **dmacbride@septa.org** no later than **Friday**, **February 12**.

## SCIENCE FAIRS COMING UP - WANT TO BE A JUDGE?

The **Delaware Valley Science Fairs** will be conducted on **Wednesday, April 7.** The location remains the same as last year, the **Greater Philadelphia Expo Center** in Oaks. The ASCE, Phila. Section will once again participate in the Fairs and offer four Special Awards for projects that have a Civil Engineering theme, with two awards for Grades 6 through 8 and two for Grades 9 through 12.

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

If you are interested in being a Special Awards judge for the Section please contact **Chris Rood** at **chris.rood@aecom.com**. You will also need to register for this and this can be done through the Fairs' website **www.dvsf.org**.

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

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

### JANUARY DINNER MEETING

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south, van loading docks for local markets on the west, and parking/visitors on the north. This is in concert with the linear nature of production — process/ingredients arrival/mixture, employee access, and tour/visitor access.

The energy efficiency aspect of the facility is demonstrated by the different types of ovens specified for different types of Tastykakes. Thermal-oil ovens are very energy efficient and are used for several lines of product, with conventional gas ovens utilized where possible. Mr. Kopp indicated that the poor soil characteristics on site (mostly river silt) required thick pile-supported slabs to bear the concentrated loads of the huge ovens and flour storage silos, as well as the precast fascia panels of the buildings (40' tall, 8" thick). Since the building has an internal steel frame, the fascia is not a structural element.

Mr. Kopp added that the building has three bands of color over its height, with the top light color reminiscent of a butterscotch Krimpet's frosting. A fully-glass lobby contrasts the remainder of the building at the visitors entrance to bring in outside light.

### MAKING THE BUILDING THAT MAKES THE TASTYKAKES

Ric Zappan of Penntrex Construction Company, introduced by Mr. Friese as "not just another pretty face," highlighted his 25 years of background in local large buildings. He started with the observation that the project touches all aspects of Civil Engineering as well as a few in the mechanical discipline. One immediate issue was that there are no nearby utility lines, with the closest water main 1.5 miles away, over a mile to the nearest electric lines, and no storm/sanitary sewers. Thus, an early-action item was the provision of such services.

The poor soil necessitated storm and sanitary lines on piles, with 3000 feet of 72" concrete stormwater conduit and the same amount of 8" sanitary line constructed in 26th Street. The storm line was built with a slip-shoring method, 200 feet at a time, and was completed in four months at a cost of \$15 million. This included an outfall into the nearby Schuylkill River. No stormwater detention was required as the river is so close to the site to make this unnecessary.

Mr. Zappan reiterated the poor soil conditions on the site, which consists mainly of dredged spoils from the Delaware and Schuylkill Rivers. Consolidation was achieved by a unique surcharge system with wicking to draw off water to holding reservoirs. The building pad was surcharged to the desired settlement/ consolidation level, since piles were only needed in the areas of equipment/heavy dead loads and beneath the precast wall panels. This was able to accommodate the varied loading conditions in the building. Roughly 550 piles were needed throughout the site.

It was decided early in construction to have a ceiling roughly 10 feet below the roof level to help

contain flour dust, thus mechanical equipment, ducts and utilities had to be reconsidered to fit in and be supported in this space. The roof framing needed to take the large number of flues, smoke vents, and rooftop equipment into account as well. Mr. Zappan noted that there is an international component to the facility as much of the specialized large-scale baking equipment came from Germany, Italy and Australia, among other countries.

The facility has a large utility room where much of the machinery is housed and this is considered the center of the mechanical processes. There is a great deal of piping needed for transport of the flour from silos to mixing areas, air exchange, heated oil transport for the thermal-oil ovens, and other materials. Mr. Zappan explained that four baking lines are now open and producing Tastykakes, with three more to be completed shortly.

A number of insightful questions posed by the audience were ably handled by the presenters, who were given tokens of each Section's appreciation by the respective President. To close the meeting, President Bowman Kavanagh cited some of the responses on the contest forms and awarded several participants with (what else?) Tastykakes.

TBI's website (www.tastykake.com) has information and updates on the project, as well as some interesting facts and figures about the product, for those of you so inclined:

- It would take 14,080 Tastykake individual pies laid end-to-end to form a mile.
- If one chicken were to lay all of the eggs used for one day of production at Tastykake, it would take that chicken 572 years to lay enough eggs.
- To build a 3-foot wide sidewalk of Butterscotch Krimpets from Center City to Atlantic City you would need 30,412,800 Krimpets.
- To completely cover the Philadelphia Flyers ice hockey rink (60' x 200'), it would take 172,800 Tastykake Juniors.
- Tastykake's oven is half the length, 150 feet long, of a regulation football field.
- Tastykake uses the equivalent of 40,000 bushels of apples each year.
- You could make almost 8 million peanut butter sandwiches with the same amount of peanut butter that is used in Kandy Kakes in a year. (Those of you who have been eating them for more than a few years remember when they were called Tandy Takes.)
- Tastykake products use sugar cane and cocoa from Africa's Ivory Coast, vanilla from Madagascar, cinnamon from Indonesia, nutmeg from the East and West Indies and banana puree from Ecuador.
- The first day of operations in 1914, Tastykake bakers produced 100 cakes. Today, they bake over 4.8 million cakes, donuts, cookies, and pies each day.
- The top-selling item in the entire Tastykake line of products is Peanut Butter Kandy Kakes.
- Tastykake uses 135,000 lb. of sugar daily.

# LONG OVERDUE UPDATES TO CONSTITUTION & BYLAWS!

The Constitution and Bylaws of the Philadelphia Section of ASCE were last updated in 1992. In an effort to update the structure and terminology of these documents per current Society recommendations, an ad hoc committee was formed last spring to recommend revisions. The committee includes Director **Keith Yamatani**, Newsletter Editor and Past President **Robert Wright**, and President **Kristen Bowman Kavanagh**.

The committee has met several times and presented their draft revisions to the Section Board of Directors for preliminary discussions. Additional discussions will ensue at the February 11 Board meeting, and a vote on the proposed amendments is scheduled for the March 11 Board meeting. After the Section Board approves the proposals, the proposed amendments to the Constitution will be presented to the general membership at the April 8 Section meeting. We must also send the proposals to the Society's Committee on Geographic Units for their review and approval. After we receive the Society's approval, the membership will make a final vote on the amended Constitution at the May 14 Spring Social.

Although the draft documents are still undergoing revision, we invite all Section members to review the current documents on our home page at www.asce-philly.org. They will be posted by February 11 and updated if further revised. In the interest of streamlining the process and out of respect for those investing much time and effort on this process, it is important that you raise any questions and concerns now and do not wait until the final vote. Despite substantial changes to the format and terminology of the documents, there are very few substantive changes proposed.

### **Proposed Changes to Section Constitution**

- Numerous changes in format, organization, and terminology have been made for consistency with the Society's current terminology and sample constitution.
- Revised Section objectives to make them more concise and consistent with the Society's recommendations.
- Added a clause to terminate Section membership for non-payment of dues.
- Moved several procedural clauses from the Constitution to the Bylaws per Society's guidelines.
- Simplified the Amendment procedures per Society's recommendations; deleted the requirement that members vote on amendments within 90 days of the Board vote on the amendment. No changes are proposed to the existing requirements for a) 30 days advance notice of vote and b) an affirmative vote by a 2/3 majority of the Section membership present at the voting meeting.

The proposed amendments to the Bylaws do

not require approval by the general membership, but we also invite you to comment on those proposed changes.

### **Proposed Changes to Section Bylaws**

- Numerous changes in format, organization, and terminology have been made for consistency with the Society's current terminology and sample bylaws.
- Added several procedural clauses from the Constitution to the Bylaws per Society's guidelines.
- Redefined the committee organizational structure by redefining officer duties such that each officer is responsible for one or more committees instead of the President-Elect being responsible for all committees.
- Revised references to "publications" and "in writing" to allow for notifications and documentation specifically via electronic means or other regular communications methods.
- Added definition of quorum for Section meetings to be the majority of members in attendance.
- Added requirement that Branch formation requires at least 30 potential members.
- Updated requirements to form and operate an Institute or Technical Group per Society's recommendations.
- Added descriptions of all standing committees.
- Moved procedures for amending the Bylaws from the Constitution to the Bylaws, and added procedures for members to propose amendments.

If you are still reading this article, thank you for caring about the important but sometimes mundane details of Section governance! Questions or comments can be directed to any of the committee members (see page 2 for contact information). You are also invited to attend the February and March Board meetings (starting at 4:30 pm before the regular Section meeting) to participate in the Board's discussions. We welcome your input and encourage you to attend the May 14 Spring Social to have fun and vote on the Constitution.

## ANACE\*

### **Meals on Wheels**

A study published last fall in the *Journal of Mammalogy* includes yet another reason why you shouldn't buy a minivan. (Lee Iacocca probably never envisioned this...)

The study found that 29% of the vehicles attacked by bears in Yosemite National Park between 2001 and 2007 were minivans, despite the fact that minivans were just 7% of the vehicles that visited Yosemite. (Yes, someone did actually get paid to study bear attacks on minivans!)

So why are bears targeting them? The study suggests that it's not so much the vehicle as the owners. Minivans are designed for transporting kids and are therefore more likely to contain food, either packed or spilled. For a bear eating 20 hours a day in preparation for winter hibernation, a minivan smells like a 7-Eleven.

The study recommends not taking the minivan to your visits to a national park. It would be wise to leave it at home where the only wildlife you have to worry about are the neighborhood teenage boys.

### Press 1 for English...?

All road signs in Wales must be printed in both English and Welsh since the country is officially bilingual.

In the city of Swansea, traffic officials have their own in-house translation group for this purpose. This group takes road sign requests and creates appropriate bilingual messages for printing on the signs.

Recently, a sign was needed to reroute heavy vehicles, and the normal request was e-mailed for translation. The sign was printed and erected, but complaints started to come in. The top half of the sign read, in English, "No entry for heavy goods vehicles — residential site only." The Welsh message on the bottom half translated to "I am not in the office at the moment — send any work to be translated."

Thanks to "Roads and Bridges" magazine for these two items.

\*ANACE — Absolutely Nothing About or Concerning Engineering

### LOOKS LIKE WE MADE IT — WE'RE DIGITAL!

To quote the Barry Manilow song, yes, the operation was a success. *THE NEWS* was successfully delivered digitally to the vast majority of the ASCE, Philadelphia Section's membership in January, and the hard copy went the snail-mail route for the handful of folks who asked for that method to continue. We hope you enjoyed the virtual version as much as you liked the hard copy (yes, we're unashamedly fishing for a compliment here!).

There were a couple of "hiccups" as the new system was trotted out, but our diligent and dedicated team managed to make things work. Pats on the back are due to those who made this happen, namely President **Kristen Bowman Kavanagh**, Treasurer **Joe Platt**, Director **Jeremy Colello**, and YMF Director **Jeremy Chrzan**. Thanks to these folks for doing the dirty work to move us into the 21st century.

As promised, if you decide that reading the computer screen is less enjoyable than the comfort of the hard copy, we're pleased to send you the paper version via "snail mail" as long as you let us know you want this and where you'd like it sent. Yes, we are still printing this and will be happy to send it to you. Please notify us at info@asce-philly.org or via mail to our address at the Engineers' Club so we can add your address to our list of those who like things the old fashioned way. And, as we also promised, we'll not make any snide comments about anyone who prefers the "tried and true" method.

Happy reading!

### YOUNGER MEMBER FORUM NEWS

Lindsey Glavin, Forum Editor Cathy G. Farrell, Forum President 2009-10 Michael Baker Jr., Inc. 201 Gibraltar Road, Suite 120 Horsham, PA 19044 215-442-5316 cfarrell@mbakercorp.com

### **Future City Competition**

The Future City Philadelphia Regional Competition was held on January 23 at the Sheet Metals Union Workers Hall in Philadelphia. Approximately 35 area middle schools competed for a spot to go onto the national competition in Washington, DC. YMF members were on hand to judge ASCE's special award, the "ASCE YMF Award for Ingenious Civil Engineering." All the schools had great ideas for their future cities but in the end, our award went to Queen of Peace Catholic School. For more results check out the Future City website, www.futurecityphilly.org. Thanks to all the ASCE members who volunteered this year!

### YMF Winter Social

The 14th Annual YMF Winter Social was another great success. The event was once again held at McGillin's Olde Ale House in Center City on January 25. There were 158 young Engineers in attendance which made for a great opportunity for networking with fellow colleagues from the area. [Ed. note – at least a few of those in attendance were young only by a very loose definition of the term!]

YMF Board Members raffled off prizes which were generously donated by sponsoring companies. With the money raised the YMF was able to donate \$250 toward the Future City Competition and just under \$1,000 to be distributed between Philabundance and the Haiti earthquake relief efforts.

Many thanks to Mike Wagner, P.E. with Urban Engineers, Inc. Cathy Farrell, P.E. of Michael Baker Jr. Inc. and Jeremy Chrzan, P.E., PTOE of Pennoni Associates for planning the event. Be sure to check out www.ymfphilly.org to see pictures from the event as well as a listing of the sponsors of the event. Thanks to all who participated!

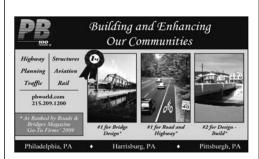
### **Upcoming Events**

To keep up-to-date on all our upcoming events, sign up for our mailing list by emailing secretary@ymfphilly.org to receive regular updates or visit our events page at http://www. ymfphilly.org/events.htm.





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