

### PHILADELPHIA SECTION

### AMERICAN SOCIETY OF CIVIL ENGINEERS

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The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

# Our 96th Year

December 2008 January 2009

# ASCE, PHILA. SECTION MEETING SCHEDULE 2008-09

Vol. 81-4

The remaining dates for the Section Meeting program for the 2008-09 season are provided below as a reminder and for your planning purposes. We would suggest that you use this to mark your calendar at this time and hold the dates. Updates on topics and speakers will be provided in coming issues of *THE NEWS* as information becomes available. We also suggest you visit the Section website for the latest changes in our meeting program.

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

Our last two meetings will be conducted on Thursday, March 12, 2009 and Thursday, April 9, 2009.



We thought we heard that the Phillies added a Ruben to the team management shortly after winning the World Series in October, but little did we know...

Resolve to attend ALL Section Meetings and Functions This Year!

### JANUARY JOINT DINNER MEETING

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

### **WEDNESDAY, JANUARY 21, 2009**

Radisson Hotel, Valley Forge • 1st Avenue and Gulph Road, Valley Forge, PA
Cocktails 6:00 PM • Dinner 7:00 PM • Meeting Presentation 8:00 PM
Cost \$30 before January 16 (\$20 for government employees),
\$35 January 16 and after and at the door

**SUBJECT:** Smart Transportation

SPEAKER: Lester Toaso, District Executive, Pennsylvania Department of Transportation

(PennDOT) District 6-0

### RESERVATIONS MUST BE MADE THROUGH DELAWARE VALLEY SECTION, ASHE.

The Philadelphia Section will NOT be accepting any reservations for this meeting. Payment for reservations must be received at ASHE by the January 16 deadline. Those who reserve past this date and walk-ins will be charged the higher rate.

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.

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."

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### FEBRUARY JOINT DINNER MEETING

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

### THURSDAY, FEBRUARY 12, 2009

**Crowne Plaza Hotel •** 2349 W. Marlton Pike (Route 70), at Cuthbert Road, Cherry Hill, NJ Cocktails 5:30 PM • Dinner 6:30 PM • Meeting Presentation Follows

Please note the date in your calendar. The topic and speaker of the meeting will be provided in the February edition of THE NEWS.

# A JOYOUS HOLIDAY SEASON TO ALL!

It's that time of year again, and whether you celebrate Christmas, Hanukkah, Kwanzaa, or your own particular event (or all of them), the Officers and Board of Directors of the ASCE, Philadelphia Section extend our best wishes to all Section Members, their families and friends



for the best holiday season, and we hope the coming year brings all good things your way.

As always, we hope your holiday season is full of good cheer and is safe, enjoyal

As always, we hope your holiday season is full of good cheer and is safe, enjoyable and memorable!

Your Editor would also like to send the same good wishes along and leave you with his

Your Editor would also like to send the same good wishes along, and leave you with his special holiday gifts of continued bad puns, lame attempts at humor, and an endless supply of run-on sentences (like the one that's the first paragraph of this piece, as well as this one!) for your diagramming delight. It's the least he can do (believe me!).



### PRESIDENT'S MESSAGE

The start of our 2008-2009 meeting schedule has brought CHANGE to the ASCE Philly Section... and it is a refreshing change. The ASCE, Phila. Section Board had talked in past years about different ways to revive our outreach activity. It seems the ASCE student chapters have made it happen on their own! **Temple University** has had students in force at each Section meeting this year. **Dr. Vicki Brown,** one of our Section Directors, brought a party of twenty from Widener's Civil Engineering group to the November dinner. And **Drexel University** was featured at the December dinner, coinciding with a presentation of the latest

developments at Philadelphia International Airport. The City, which operates the Airport, has been a strong supporter of the Drexel cooperative education program. We are in the process of scheduling Swarthmore, Temple, and Villanova for their respective dinners.

Staying in the spirit of the election season, I was recently honored to meet a presidential candidate! **Moustafa A. Gouda, PE, F ASCE, our** speaker at the November dinner, will be a candidate for the ASCE National President position. Mr. Gouda has been active in the Philadelphia, South Jersey, and Central Jersey ASCE Branch for many years.

The **Younger Member Forum (YMF)** has two big events that will quickly be upon us in 2009. The **YMF Social** on **January 12th** is always a great event, so please come join us. Also, our region is host to the **Younger Member Leadership Conference** on **February 6th and 7th.** The conference will be in Cherry Hill, New Jersey, and will include members from Regions 1, 2, 4, and 5, covering 24 states. The YMF board is hard at work to finish the details of this event.

Infrastructure projects and economic stimulus funding are headline topics on a daily basis. It appears that significant added funding will be available for highways, bridges, aviation, transit, water/sewer, and school projects in the beginning of 2009. ASCE members will be front and center to recommend, plan, and execute the associated projects. The availability of funding should go a long way to accomplish the Action Items noted by ASCE National. ASCE National has prepared an Action Plan as a follow-up for the nationwide ASCE Report Card on infrastructure (see www.asce.org/reportcard/2005/actionplan07).

And now for the biggest buzzword of this President's message: **BAILOUT**. We need your help. Corporate sponsorship is down for this year. And the YMF needs our assistance with financial support for the conference in February. If your firm is able to support the Section, either through corporate sponsorship or by a conference sponsor, this will help to improve our 08-09 budget. Thank you in advance for any help you can offer.

On behalf of the Philadelphia Section officers, have a happy and safe holiday! Go Eagles! E-A-G-L-E-S EAGLES!

Mark J. Tiger, P.E. President, ASCE, Philadelphia Section

### **MEMBERS IN THE NEWS**

### **Cunningham Cited Among PA's Best 50 Women in Business**

Janet Cunningham has been named one of Pennsylvania's Best 50 Women in Business for 2008. This recognition comes as Janet's company, JBC Associates, celebrates its 20th Anniversary in business. Janet is the President and founder of JBC, located in King of Prussia, a 75-person firm is involved with projects having a construction value total more than \$500 million.

An independent panel of judges selected the top 50 candidates based on their dedication to business growth, professional and personal accomplishments, community involvement, and advocacy for women in business. The winners were acknowledged during a private reception held at the Governor's Residence followed by an awards ceremony at the Whitaker Center in Harrisburg. In announcing the recipients Governor Rendell said, "All of the winners have one thing in common – they're all hard-working people who are making Pennsylvania a better place to live, work and play."

When asked what others can learn from her experiences, Janet replied, "Accept challenges and do not be afraid to take the path of most resistance, take risks and be patient." She is committed to mentoring young women and men

interested in the field of engineering or construction, regularly shares her passion with students and women's groups. Last year her alma mater, Penn State University, honored her with the distinction of commencement speaker for the College of Engineering Class of 2007.

# THE SECTION ENCOURAGES MEMBERS TO BECOME FELLOWS

If you're not already there, the ASCE, Phila. Section would like to encourage you to apply for the membership grade of Fellow. This distinguished level is an acknowledgement of leadership and progressive achievement, and Fellows occupy the Society's second-highest membership grade, exceeded only by Distinguished Members.

There is no direct admission to the grade of Fellow — applicants must advance from the grade of Member, have at least 10 years exceptional responsible charge, and be a licensed Professional Engineer or Professional Surveyor. Any Member that has been at the Member grade for 10 years meets the initial criteria for advancement to Fellow Grade.

For additional information about the Fellow guidelines and a PDF version of the Fellow application packet visit <a href="http://www.asce.org/fellows.">http://www.asce.org/fellows.</a>

### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION — 2008-09 SEASON

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### Secretary — AnnMarie L. Vigilante, P.E.

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COPY DEADLINE FOR FEBRUARY '09 ISSUE JANUARY 21, 2009

### **TECHNICAL GROUPS/CHAIRS**

Information on the ASCE, Philadelphia Section's Technical Groups is given below. President-Elect **Kristen Bowman Kavanagh** will coordinate 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 Group Chair.

#### CONSTRUCTION

Dennis MacBride SEPTA 1234 Market Street, 12th Floor Philadelphia, PA 19107 215-580-3404

### **DELAWARE VALLEY GEOINSTITUTE**

Theodore A. Thomson, Jr., PhD, PE Duffield Associates, Inc. 5400 Limestone Road Wilmington, DE 19808 302-239 6634

### **ENGINEERING MANAGEMENT**

William J. Mulloy US Army Corps of Engineers Philadelphia District Wanamaker Building, 7th Floor 100 Penn Square East Philadelphia, PA 19107 215-656-6583

## ENVIRONMENTAL and WATER RESOURCES

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

### **STRUCTURAL**

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

## TRANSPORTATION and URBAN DEVELOPMENT

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

### **TECHNICAL GROUP MEETING**

### **Environmental & Water Resources Technical Group**

SUBJECT: The 'New' Philadelphia Storm Water Management Code

**DATE:** January 27, 2009

TIME: 12 Noon to 1:30 PM

LOCATION: Municipal Services Building, 15th Street & Kennedy Blvd., 16th Floor, Room C

SPEAKER: Dan Meier, P.E., Duffield Associates

Other information was not available at presstime. Please consult our website for details and reservations.

### YOUNGER MEMBER FORUM NEWS

Lindsey Glavin, Forum Editor Don Gusic, Forum President 2008-09 Pennoni Associates, Inc. 3001 Market Street Philadelphia, PA 19104 215-222-3000 dgusic@pennoni.com

### YMF 13th ANNUAL WINTER SOCIAL

January 12, 2009

5:30 PM to 8:30 PM (or when the beer stops flowing?)

### McGillin's Olde Ale House

1310 Drury Lane

Center City (near 13th & Chestnut Streets)

The most anticipated ASCE event of the year, this one promises to be the best one yet... so round-up the troops, get your RSVP's submitted and get ready for a great time.

\$20 per person with RSVP; \$25 per person without RSVP. All admittance fees will be collected at the door.Price includes food (pasta, sandwiches, etc.) and beverages (beer, house wine, well drinks, soda, etc.)

Please RSVP by **January 5** by emailing **rsvp@ymfphilly.org.** For additional information, please view the event flyer on our website, **www.ymfphilly.org**. You MUST be 21 or older to attend this event.

# Future City Competition January 24, 2009

**Sheet Metal Union Workers Hall** 

1301 S. Columbus Blvd. (Delaware Ave.), Philly Although the competition is almost here, some of the participating schools still need mentors as of this printing. Check our website to see what schools are available.

If you can mentor at one of the schools, or if you wish to sign-up to be a judge or volunteer for the event, please visit the volunteer opportunities at our website or contact **Jennifer Wetzel** at **volunteer2009@futurecityphilly.org**.



### Friends of the Wissahickon Event

On October 25, twelve volunteers from the YMF joined with volunteers from the **Philadelphia Mountain Biking Association** (PMBA) and **Friends of the Wissahickon** (FOW) to help preserve hiking, horseback riding, and mountain biking trails in the Wissahickon Valley in northwest Philadelphia. The day was part of the **Sustainable Trails Initiative** (STI), which is a three-phased, multi-year project to make the 57 miles of National Recreation Trails in the Wissahickon Valley a physically and

socially sustainable system for all park users.

Each year, the beautiful trails found in the heart of the Wissahickon Valley are damaged by heavy rainwater which erodes the sediment that forms the park's trails. As sediment is eroded from trails, the result is a path of large openly spaced rocks that become dangerous hazards for pedestrians, equestrians, and mountain bikers.

In order to mitigate the erosion of sediment, volunteers were tasked with re-grading the trails while creating a 'rock anchor' at the top of the trail to minimize the flow of rainwater down the trail. The rock anchor helps to create a barrier that prevents the majority of rainwater from flowing through which would otherwise erode the trail below. Instead, water is redirected around the rock anchor, and the trail below, to flow into an existing stream or gully.

The purpose of this outing was to help protect and promote the natural beauty of the trails, by spreading native foliage and leaves from nearby trees on either side of the newly regraded trail. This helps to preserve and enhance the atmosphere of the trail as well as helps to create a defined path for the trail's users.

For the volunteers, this was not just a community service event, but an opportunity to meet and socialize with members of other organizations, hike in the Wissahickon Valley, and enjoy food and refreshments during the event.

# OUR CARTOON HAS A NAME — FINALLY!

You may recall that *THE NEWS* has a cartoon, thanks to the efforts of **Alma Radocaj**, a local art student who agreed to take on the large task of its production. The actual cartoon will return next month.

You may also recall that we were in search of a name for this feature and conducted a "name the cartoon" contest. The groundswell of response was, well, slightly more like a trickle, and we did gather a dozen suggestions for names, but not nearly as many votes.

In order to not prolong the agony, we are proud to announce that one suggestion received unanimous support and won in a landslide (it got both votes). Anyhow, our cartoon will now be entitled "Civilevity" as a result of this exhaustive and down-to-the-wire competition.

When the cartoon returns in February, look for it under its new name — **Civilevity**. And thanks to both of you who voted. The staff of *THE NEWS* didn't want to have this left in our often shaky hands, so we appreciate your input.

### **COMING NEXT ISSUE...**

- Information on the February and March meetings.
- Engineers Week follow-up.
- Report on the January meeting.

Look for this in the February edition of *THE NEWS*, coming in late January.

### **DECEMBER MEETING REPORT**

Wednesday, December 10, 2008

The Down Town Club, Philadelphia

### Philadelphia International Airport (PHL) Expansion Plans

by Robert Wright, Editor

According to the old adage, two's company, three's a crowd. As we Engineers will logically and algebraically take it, therefore, six must equal two crowds. In any event, six technical societies (alphabetically, our Section; the Association for the Advancement of Cost Engineering, Delaware Valley Chapter; the Construction Management Association of America, Mid-Atlantic Chapter; the Engineers' Club of Philadelphia; the Project Management Institute, Delaware Valley Chapter, and; our host, the Society of American Military Engineers, Philadelphia Post) combined to produce a sizable and festive crowd of over 130 attendees, who were welcomed by Post President Kevin Davis. In an attempt to keep things efficient, President Davis acknowledged the other groups present by having their officers stand.

In another change from the usual, it was decided that dinner would be served after the presentation to accommodate the needs of our speaker. At last count, despite the late dinner, most attendees survived without major complications from hunger.

President Davis introduced our speaker, **Charles Isdell,** Director of Aviation for the City of Philadelphia Department of Commerce.

### PHL (Philadelphia International Airport)

Mr. Isdell began by noting that he was proud to cite that PHL won the J. D. Power Award for Customer Satisfaction in 2008 based on a survey of frequent airport users. While we often hear of less than complimentary experiences from PHL users, it has improved to the point that is now winning awards. Since J. D. Power is not doing the survey in 2009 because of budget issues, PHL is able to purchase a license to keep the title and "win" again for another year.

Perceptions and experiences are being changed at PHL because things are changing. Mr. Isdell outlined some of the "new stuff" happening.

- There are numerous non-stop international services, mainly to Europe and the West Indies, which did not exist several years ago. A nonstop flight to Beijing is in the works, but will not start next year as planned because of economic conditions.
- A new flight information display system has been installed. It is easy to read, and it can show other messages in addition to flight status.
- Added security programs are facilitating security clearances and reducing lines and waits. The new "Black Diamond" inspection program offers faster service to frequent flyers, families and travelers with special needs.
- Parking garages have added signs that indicate available spaces by garage level to help those in search of a space.
- The old Overseas Terminal building, unused since the opening of Terminal A-West in 2002, is being demolished. Over 800 economy parking spaces will replace it.

• The Terminal D-E connector, with a construction cost of \$300 million, is nearing completion. It will feature more security lanes (14, as opposed to 4 now) and provide a continuous secure area from Terminals A to E. It will also include new concessions. This will affect nearly 23% of PHL passengers, particularly those who use Southwest Airlines. Three new gates and a waiting area with a rotunda ceiling will be added at the airfield end of Terminal E.

### The Airfield

Significant operational improvements need to be effected on the airfield side to address the ongoing difficulties with flight delays. Mr. Isdell emphasized that there are big challenges there, which will result in big changes, and this is needed to be able to accommodate anticipated future volume.

The existing east-west main runways 9-27 are too close together and cannot be used simultaneously. The recently added east-west runway 8-26 needs to be extended so jets can use it. The north-south runway 17-35 is being lengthened on each end by a total of 1040 feet to result in a 6500-foot runway at a cost of \$65,000,000. This required the closure of the Industrial Highway and relocation of Route 291 to Bartram Avenue. It will be completed by the end of 2008.

Mr. Isdell added that this is a short-term fix and will reduce delay by 8%. In 2007, total delays at PHL placed it at number 27 among the 32 major airports in the United States. This was reduced to 22nd in departures and 24th in arrivals this year, and was helped by some operational changes at US Airways, airspace redesign, and improvements at New York airports. Current economic conditions have led to reduced flight schedules and flights using larger-capacity planes resulting in decreased traffic.

In 2007, the average flight delay at PHL was 10 minutes. This is projected to increase to 29 minutes in 2015 if no action is taken. The FAA acceptable level is 5 minutes.

One deficiency that PHL has that is not easily resolvable is that it is one facility. Mr. Isdell noted that other markets, such as New York, Washington and Boston, have three airports to handle the load. PHL is handling the fifth largest market in the country with only one relatively small facility.

The long-range solution to the airside issues is runway development. Mr. Isdell reviewed three options to extend runways and build new runways. Two of the options are currently under environmental impact review. A third, the total reconstruction of PHL with a midfield terminal, is unfeasible as it would require a completed shutdown of operations. It has accordingly been rejected.

Each of the two options being considered would be costly (\$5 billion) and take 12-15 years for full implementation. The environmental impact decision is expected in one year after a public comment period, which is currently underway. Mr. Isdell welcomed comments to the plan from those in attendance.

A number of questions were posed by the audience and Mr. Isdell ably responded to them.

President Davis presented Mr. Isdell with tokens of the Post's and our Section's appreciation.

Then we got to eat! During dinner, President Davis introduced representatives of the **United States Marines**, who were there to thank those who brought donations to the **Toys for Tots** drive being sponsored by the Post. Also, he welcomed those attending from the **Drexel University ASCE Student Chapter**, the evening's featured college. **Dr. Joseph Martin** and **Chapter President Mo Majd** updated those present about all things Drexel.

# PHILADELPHIA SECTION 2009 AWARDS PROGRAM

### NOMINATIONS NOW OPEN!

The ASCE, Phila. Section's Awards Program for 2009 is now open for nominations. These Awards recognize Section members and others for their contributions to the Civil Engineering profession. All Awards will be presented at the Spring Social/Dinner Dance. (More information on the Spring Social will be included in upcoming issues of *THE NEWS*.)

### **GUIDELINES/RULES**

- Nominations must be postmarked by Friday, February 6, 2009, or faxed/e-mailed to the Awards Committee Chair by the close of business that day. Nominations should be submitted on nomination forms which are available from the Committee Chair.
- Individuals may be nominated for awards by a member in any grade of membership.
- Individuals may receive only one award in a single year, but may be nominated for more than one award in a single year.
- Award recipients are subject to the approval of the Section's Board of Directors.
- All awards are presented only in years in which, in the judgement of the Selection Committee or the Board, there is at least one suitable candidate.
- The Selection Committee, at its discretion, may nominate an alternate for each Award for Board consideration.
- The Selection Committee will recommend to the Board whether the recipient should also be nominated for applicable National or Regional awards by the Section.
- A nominee for any award MUST be a member in good standing of the Philadelphia Section in the year in which the nomination is made, with two exceptions (Government Service Award and Philadelphia History and Heritage Award).
   For these awards, membership in the Philadelphia Section is NOT required.

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### AWARDS PROGRAM

Continued from Page 4

#### **AWARDS**

The Section has a total of 13 awards which cover various specialty areas. In addition, the Section President can nominate an individual for the Presidential Award at his/her discretion. The awards are as follows:

- Philadelphia Civil Engineer of the Year
- Philadelphia Young Civil Engineer of the Year
- Philadelphia Government Engineer of the Year
- Philadelphia Young Government Engineer of the Year
- · Government Service Award
- · Educator of the Year
- · Philadelphia History and Heritage Award

#### **Individual Technical Awards:**

- Civil Engineering Manager of the Year
- · Construction Engineer of the Year
- · Geotechnical Engineer of the Year
- Structural Engineer of the Year
- Transportation Engineer of the Year
- Water Resources Engineer of the Year

If you are interested in submitting a nomination for consideration, please contact Bob Wright, Committee Chair, at (215) 922-8081, x1647 (or via e-mail at newseditor@ascephilly.org) to obtain a nomination form. You may also call Bob if you have any questions or need any additional information on the Section Awards Program.

# FIRST ANNUAL ENGINEERS' CLUB OF PHILADELPHIA NIGHT AT THE SIXERS

The **Sixers** are teaming up with the Engineers Club' of Philadelphia to *RUN WITH US* as we take on the **Boston Celtics** on **Tuesday**, **February 3!** 

The Club, in collaboration with its Young Members Forum and Student Chapter, is cosponsoring this event with our Section.

As an added benefit, you are welcome to join us before the game at 5:30 PM to meet Sixers Executives in the Hall of Fame Room for a Q&A on their careers with the team.

(If you are attending the pre-game event, please enter the Wachovia Center at the main gate on the Broad Street side.)

Family, friends, potential members, and members are cordially invited to join the group for the game!

Discounted seating will be available on the mezzanine level of the Center — \$24.50 for corner areas (regularly \$30) or \$37.50 (regularly \$45) for center court. Each ticket comes with a food voucher for a hot dog, a soda and a popcorn. A jersey or a hat can be purchased for an additional \$4 on each ticket price.

# Always do more than is required of you.

- George S. Patton

### **NOVEMBER MEETING REPORT**

Wednesday, November 18, 2008

The Down Town Club, Philadelphia

### Great Gorge Dam Rehabilitation

by Robert Wright, Editor

An early winter feel outside brought over 70 attendees inside to hear about a dam project. And it wasn't just any old dam project, but a significant dam project at that. While one could argue that not all in attendance were dam engineers or students, opinions could vary on this. (OK, enough on the word play already!)

The November dinner meeting was a joint effort between the Section and our co-host, the **Philadelphia Chapter of the Pennsylvania Society of Professional Engineers** (PSPE), so, indeed, there were quite a few dam engineers in the "house" (alright, last one, I promise!). ASCE, Phila. Section President **Mark Tiger** welcomed the crowd, followed by a nice invocation/grace from Section Director Ann Tomalavage and remarks from Chapter President/Section Director **Soheila Rahbari.** 

President Tiger recognized the contingent of faculty, staff, alumni and students of **Widener University** in attendance as the evening's featured school. Civil Department Chair/Section Director **Vicki Brown** welcomed Student Chapter Co-President **Scott Cepietz**, who brought everyone up to date on happenings at Widener and explained why there are Chapter Co-Presidents and Co-Vice Presidents.

Chapter President Rahbari introduced the evening's program and our featured speaker, **Moustafa Gouda**, Senior Vice President of CMX.

#### **Dam Basics**

Mr. Gouda started with some background. There are over 82,000 dams in the United States. They provide a variety of functions including benefits for recreational users, navigation, flood control, water storage, irrigation, collection of mine tailings, debris control, and electric generation. Pennsylvania passed the first known legislation on dam safety and regulation in 1913 in response to catastrophic failures such as the infamous Johnstown Flood in 1889.

Since they are structures, dams need to be maintained and inspected. There are over 3200 dams in Pennsylvania, and they are regulated by the state's Department of Environmental Protection (DEP). DEP can take jurisdiction of a dam if its impound drainage area is more than 100 acres, its maximum water depth is greater than 15 feet, and/or its maximum storage capacity meets or exceeds 50 acre-feet. Mr. Gouda explained that the intent of regulation is to protect people and property; oversee planning, construction, maintenance and operations; protect natural resources, and; conserve water quality. Dams are classified by structure height or storage, whichever is greater.

Dams are categorized according to the magnitude of potential damage that could result from a failure. The scale generally breaks into a high hazard grouping, those that would have the most catastrophic effect on people and property, medium hazard, and low hazard. In Pennsylvania,

roughly 780 dams are graded as high hazard. In New Jersey, its own DEP manages over 1600 dams, of which 195 are high hazard potential and 372 are significant hazard potential. Mr. Gouda showed photos of the damage resulting from various dam breeches and failures. The classification as high hazard prioritizes the actions that must be taken to avoid such failure.

### **Great Gorge Dam**

Mr. Gouda presented information on the Great Gorge Dam in Vernon Township, Sussex County, New Jersey, a recent rehabilitation project performed by CMX. The dam has a 33-foot maximum height with a 12-inch corrugated metal pipe spillway. During an inspection in 2000, it was determined to be unsafe as the spillway was not sufficient to handle a 100-year storm. CMX was brought in to evaluate the hydrology and hydraulics to determine the hazard classification of the facility.

Because of the potential adverse impact on two nearby homes and an adjacent road in the event of the dam's failure, it was classified as a Class I high hazard location. Mr. Gouda outlined the evaluation undertaken to remedy this and efforts focused on four alternative solutions for the spillway. A roller-compacted concrete (RCC) option was selected because of its reasonable construction cost, durability, limited maintenance costs, and comparative ease of construction.

The RCC would be provided from an on-site batch plant. It was designed with a 7.5% cement content and would be compacted to 98% of dry density, with a maximum density of 150 pcf. Mr. Gouda showed construction photos and explained the various operations necessary to provide the spillway. The work was completed and has provided a successful solution to the initial problem.

### **Feedback**

Mr. Gouda noted that, since PDH's would be granted for this meeting, his 35-minute presentation had to be followed by 25 minutes of questions to make it a full hour.

The audience accepted Mr. Gouda's challenge with several insightful questions which were ably answered. In response to one question on New Jersey's regulations, he noted that NJDEP took jurisdiction on dams with a height greater than 5 feet. There are many dams that do not meet this requirement. He referenced a beaver dam close to the Great Gorge location that had the potential to be problematic and was approaching 5 feet in height. (Obviously the dam beavers were sufficiently smart to know the regulations and how to circumvent them!)

Presidents Tiger and Rahbari thanked Mr. Gouda for his insightful presentation and offered a token of the Section's and Chapter's appreciation for his efforts.

# UPDATE ON PROFESSIONAL DEVELOPMENT REQUIREMENTS IN PENNSYLVANIA

As you may be aware (and as previously reported in *THE NEWS*), professional engineers, land surveyors and geologists in Pennsylvania will be required to obtain continued professional development (CPD) to renew their licenses, as stipulated in legislation signed by Governor Rendell in November 2006 (Senate Bill 655). Don't stop reading just yet, however — the State Board has not developed the requisite regulations and mechanism to implement this and approve acceptable coursework, so the CPD requirement will likely not be in place for your next license renewal (October 2009) as planned.

Additionally, another bill was introduced into the Legislature last February (Senate Bill 1264) on this subject. SB 1264 would have slightly different requirements and is more in line with those of neighboring states and the National Council of Examiners for Engineering and Surveying (NCEES) than SB 655 is, and it is more liberal in the allowance of what may be counted as CPD. SB 1264 was referred to committee but no action was taken, and consequently, it expired at the end of the 2008 legislative session.

It is also unclear whether another bill that may be introduced in the 2009 session will move at all. Those of us affected by this are urged to contact our representatives to express our opinions and recommend that action be taken to complete the "loop" on this. As we have been told by our elected officials, they need to hear from us to help us. Let's take this as an invitation and proceed accordingly.

Watch this space in coming editions of *THE NEWS* as the drama unfolds (?). We will keep you posted on developments as they occur.

Thanks to PSPE and the Engineers' Club of Philadelphia for this information.

### NEW PRESIDENT KLOTZ DECLARES "YEAR OF THE CIVILIZATION ENGINEER"

The successful 2008 Annual Conference in Pittsburgh has come to a close with the passing of the gavel from Past President David G. Mongan, P.E., F.ASCE, to 2009 President D. Wayne Klotz, P.E., D.WRE., F.ASCE. Society traditions were upheld as new ASCE members were initiated into the Order of the Engineer, a new Board of Direction was inducted and the contributions of several members were honored with award presentations. In his inaugural address, the new ASCE President reiterated the priorities for his year as "ABC" — advocacy, benefits and change. Calling on fellow professionals to speak up more about the work they do, Klotz said, "We have been using the term 'Civil Engineers' for short. But today, I declare this to be the Year of the Civilization Engineer! To do anything else would diminish our contribution to society."

# 2009 ENGINEERS WEEK ON THE HORIZON

Engineers Week 2009 kicks off on Friday, February 13 and will run through Saturday, February 21. As you may be aware, Engineers Week is held in February each year to highlight the birthday of our nation's first president, George Washington, who supported extensive engineering and surveying activities throughout his military service. It is a time during which various engineering accomplishments throughout the nation are cited and honored.

Locally, Engineers Week programs have been held since 1953, and these include the selection of the Delaware Valley Engineer of the Year, the Delaware Valley Young Engineer of the Year, and other honors. Activities will kick off with the **Proclamation Luncheon** at the Union League in Center City on **Friday, February 13**. The 2009 Delaware Valley Engineer of the Year, Section Member **David Lowdermilk,** will be introduced as the guest of honor.

The 2009 Delaware Valley Young Engineer of the Year dinner is scheduled for Wednesday, February 18 at the Union League, at which time the incoming Young Engineer of the Year (to be determined) will be honored, along with all candidates nominated for this award.

The culmination of the Week's events, the Engineers Week Banquet, will take place at **The Springhaven Club (Wallingford)** on **Saturday**, **February 21.** Numerous award winners and projects will be recognized, including the Engineer of the Year, the Young Engineer of the Year, the Outstanding Engineering Achievements in the Delaware Valley, the Outstanding Math Teachers, Student Paper Contest winners, Scholarship recipients, and the winners of the local Future City Competition.

Please consult the Delaware Valley Engineers Week website, **www.dvewc.org**, for more details and information on prices and reservations for these events.

The ASCE, Philadelphia Section is well represented on the Delaware Valley Engineers Week, which coordinates Engineers Week activities locally.

### KENNETH J. ZITOMER

Longtime ASCE, Philadelphia Section Member **Ken Zitomer** passed away suddenly on November 12, 2008.

He was very active in the Section's activities and served as an Officer and Director, including Section President in 1979-80.

He was a longtime employee of the City of Philadelphia Water Department, where he rose through the ranks during his career to become Chief Engineer, Deputy Commissioner and Commissioner. After his retirement, he continued to work as a private consultant and as an adjunct faculty member at Drexel University.

Ken is survived by his wife, Marie, three sons, 10 grandchildren and 1 great-grandchild.

### **OUR NEW ADDRESS IS HERE!**

As reported previously, the ASCE, Phila. Section is in the process of changing the way we accept dinner reservations and mail, with the intent and goal that our methods of communication become more streamlined, efficient and easier to use. This will take place over the next several months and we will keep you updated through information in coming issues of *THE NEWS* as well as on our website.

As of the new year, the Section will formally begin to use the Engineers' Club's mailing address for our mail and its telephone numbers for our reservations. This change is reflected in our masthead on the cover of this edition. (Of course, for this month, the Delaware Valley Section ASHE is handling all reservations, so you'll need to contact ASHE as indicated for dinner RSVP's.)

Longer-range plans include online meeting reservation and payments, which, for the first time, will allow you to use a credit card and PayPal for this purpose.

We hope these changes make things easier for our members, and we welcome your comments, observations, input, etc.

### D'ONOFRIO NEW CHAIR OF ENVIRONMENTAL AND WATER RESOURCES GROUP

Eve D'Onofrio, principal of E S Design LLC, recently assumed the Chair of the Section's Environmental and Water Resources Technical Group. She has 30 years experience in civil engineering, site development, and stormwater analysis and extensive experience in industrial, commercial, residential and institutional infrastructure projects and NPDES, E&S, and SWPPP permit and plan submittals. Eve received her BSCE from Drexel University in 1975 and her MSCE from Villanova University in 1993 with emphasis in Water Resources and Environmental Engineering. In addition, she is a Certified Professional in Erosion and Sedimentation Control (CPESC) and a Certified Professional in Storm Water Ouality (CPSWO). She is licensed as a Professional Engineer in PA and has been a member of ASCE since 1975.

### THANKS TO OUR SPONSORS

We have climbed to a total of 20 sponsors thus far. We thank our sponsors for their commitment and support. If your card isn't among this elite group, there's still time to get in on this.

There are several benefits available to you as a Section Sponsor. For a low annual fee, you too can be a part of this program and have your business card appear in each edition of *THE NEWS*, among other perks.

For information on the program, please contact our Editor, **Bob Wright** at (215) 922-8081, x1647 or newseditor@asce-philly.org.

### JANUARY DINNER MEETING

Continued from Page 1

With the increasing volume of vehicles on our highways today and the limited space available for expansion, combined with finite levels of funding and budgets, we continue to realize that we cannot "build our way out of" these conditions. More efforts have been investigated on ways to increase highway capacity and mobility through intelligent transportation systems (ITS) measures, which can optimize how the existing highway network is utilized. This includes variable message signing (VMS) to alert drivers to problems and offer alternative routes, coordination of traffic signals, adjustment of signals to make them more demandresponsive depending on the time of day and levels of traffic, and similar solutions. Mr. Toaso will discuss how District 6-0 is and will be applying ITS to help highway users in our region get around.

Lester Toaso was appointed as District Executive for District 6-0, which covers the five-county Philadelphia Region, by Secretary of Transportation Allen Biehler in February 2007. He is a consummate transportation professional whose wealth of field and management experience will serve the region well. He is responsible for planning and supervising the region's state highway system, including design, construction and maintenance for the District's 3,560 miles of state highway and 2,720 bridges. He oversees a \$480 million annual budget and 860 employees.

Prior to becoming assistant district executive for services, Mr. Toaso worked for 30 years in the District's Maintenance Unit. He graduated from Drexel University in 1984 with a Bachelor of Science degree in construction management.

# DIRECTIONS TO RADISSON HOTEL VALLEY FORGE:

From Philadelphia via I-76 — take exit 327 (Mall Blvd.) Turn right onto Mall Blvd. at the traffic signal at the end of the ramp. Turn right onto Gulph Road at the next traffic signal. Follow Gulph Road for approximately 2 miles to its intersection with 1st Avenue. The Radisson/Scanticon complex will be on your right past 1st Avenue.

From Pennsylvania Turnpike — from the Philadelphia/Valley Forge interchange (exit 326), follow I-76 to exit 327, the first exit past the toll plaza (Gulph Road). Bear right on the ramp onto Gulph Road. Follow Gulph Road for approximately 1 mile to its intersection with 1st Avenue. The Radisson/Scanticon complex will be on your right past 1st Avenue.

Anything the mind of man can conceive and believe, it can achieve.

- Napoleon Hill

### ANACE\*

# DC RE-EXAMINES ITS BUILDING HEIGHT RESTRICTIONS

### (or Where Have We Heard This Before?)

As reported in several places over the past few months, Washington, D.C. is concerned about its low and sparse skyline. The Associated Press reported that, "As vacant land disappears in Washington, concerns about high real estate prices are fueling debate on whether developers should be allowed to build taller, which is prevented under a century-old law."

Land scarcity and concerns about the need to curb suburban sprawl have even spawned talk of eventually bringing office towers to a city long known for its picturesque views, sunlit streets and compact buildings. Within 15 years, according to one analysis, no more space will be available in a 3.5-mile stretch from Georgetown to Capitol Hill. As a result, only the wealthiest businesses and residents will be able to stay in Washington, stunting the city's tax base.

Some think there is a restriction on the books to preserve the prominence of the Washington Monument's 555-foot height. It actually has to do with the appropriately-named Height Act, passed by Congress in 1910 in response to residents' outrage over a 14-story apartment building erected in 1894. This skyscraper near Dupont Circle towered over nearby rowhouses.

There was also a concern that buildings could grow and become too tall for fire engine ladders to reach. The Height Act limits building heights to the width of the adjacent street plus 20 feet. There have been several exceptions to it, including an allowance of elevations of 160 feet on certain segments of Pennsylvania Avenue, but in most places it has limited building heights to 130 feet.

If the restrictions are removed, Washington would not be the first traditionally low-lying city to see its skyline go vertical. Many European cities have created high-rise districts, and Paris is considering this for outer portions of the city. In this country, Los Angeles limited most buildings to 150 feet until 1957 because of concerns about earthquakes.

Besides lowering prices and slowing sprawl, proponents of taller buildings in D.C. note another upside, moving away from what's been dubbed "The Washington Box." Many of the city's office buildings have long been disparaged for their low ceilings and square, unimaginative facades that seek to use every possible square foot rather than dazzling passersby with elegant designs.

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