

The Bulletin

Mark your Calendar:

Jan. 10
 NC Future Cities
 Competition Finals
 NC State Talley Student
 Center
 Raleigh

Feb. 6-7
 Regions 1, 2, 4, and 5
 Multi-Region Leadership
 Conference
 Cherry Hill, NJ

Feb. 15-21
 Engineers Week

April 2-4
 Carolinas Conference
 UNC Charlotte

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PRESIDENT'S ADDRESS

Joe Moore, PE

Mission: The North Carolina Section of ASCE will be the state's recognized source in promoting the Civil Engineering Profession by focusing on sustained career development, advocacy, and leadership growth while ensuring to protect the health, safety, and welfare of the public.

Leadership Goal: Be the leader in increasing awareness of the Civil Engineering profession through education, public relations, partnering, and mentoring.

As the days grow short and we gather together among family and friends, our awareness that we are a part of a larger community is probably at its most acute. Unlike the carefree days of summer, the winter offers us a chance to reflect upon and plan how we will reach out to others in the year ahead. At ASCE, our biggest outreach events, the Future City Competition and E-week, are just weeks away.



The Future City Competition is a national competition in the United States focusing on improving student's math, engineering, and science skills. The mission of the Future City Competition is to provide a fun and exciting educational engineering program for seventh- and eighth-grade students by designing a futuristic city and discussing its important elements (i.e. transportation, environment, energy, economy, and urban planning). Since August, several dedicated members have mentored middle schools throughout North Carolina. One of our own, David Simpson, is a long-time Regional Coordinator of the event. David reports that response by those who've mentored student teams and agreed to be judges has been tremendous, but there is still room for event-day volunteers at N.C. State's Talley Student Center on January 10, 2009. David welcomes all calls and e-mails by those interested in participating in this rewarding experience (919-852-0468, dsimpson@simpsonengr.com).....(Continued on Page 3)

...the Future City Competition is just one step towards the greater Engineer's Week activities.

Member Profile – Henry Petroski, Ph.D., P.E., Dist.M.ASCE

Henry Petroski, Ph.D., P.E., Dist.M.ASCE, NAE, professor at Duke University, was recently named a Distinguished Member of the American Society of Civil Engineers (ASCE). Formerly known as honorary membership, distinguished membership is the Society's highest accolade and recognizes those who have achieved eminence in a branch of engineering. The active roster of distinguished members is comprised of only 193 of the Society's more than 140,000 members worldwide. Petroski—who is being honored for his advancement of the practice of civil engineering and civil engineering education, his achievements as a renowned educator, author, researcher and lecturer, and for his efforts to increase the public's understanding of the role of the engineer through his considerable published works—will be formally inducted on Thursday, November 6, 2008, at ASCE's Annual Civil Engineering Conference in Pittsburgh.

At Duke University, Petroski serves as the Aleksandar S. Vesic professor of civil engineering and professor of history, and from 1991 to 2000 he was chair of the department of civil and environmental engineering. Prior to his teaching career at Duke University, Petroski was a mechanical engineer and group leader at the Argonne National Laboratory in Argonne, Ill. Along with his son, Stephen J. Petroski, he invented the "radial store system"—a store system laid out with shelves and aisles radiating out from a central hub area. Petroski has also previously held teaching positions at the University of Texas at Austin and the University of Illinois at Urbana-Champaign.

.....(Continued on Page 3)

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Editor: RD Odell, PE
PO Box 646
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Email: nc.asce.bulletin@earthlink.net
Section Website: <http://nc.asce.org>

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Terracon
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Fax 919.873.9555
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Fax 704.377.4185

Email brian.reinicker@devinetarbell.com

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Voice 828.687.9080

Fax 828.687.8003

Email jgarner@smeinc.com

President's Message (Continued from Page 1)

While significant in its own right, the Future City Competition is just one step towards the greater Engineer's Week activities. Held from February 15 through February 21, 2009, Engineer's Week is designed to celebrate the profession and reach out to current and future generations of engineering talent. Through a coalition of engineering societies and companies, several activities such as "Introduce a Girl to Engineering Day", "ZOOM into Engineering", high school job shadowing, or elementary school visits are planned throughout the entire state. Our own Jason Philbin has tirelessly chaired ASCE's efforts in this partnership for years and is already ordering materials for the many events. You'll hear more specifics about the planned events in your area from your Branch Presidents, but don't feel you have to wait. Engineer's Week has many opportunities that can fit your individual time frame and interests. Jason welcomes all e-mails from those interested in the many opportunities offered during E-week (Jason@barriergeocon.com).

Don't let these opportunities pass you by. I personally attest to the rewarding experience. What you receive back far outpaces what you contribute.

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Member Profile (Continued from Page 2)

Petroski has published 14 books and numerous articles and essays for journals, newspapers and magazines, including *The New York Times*, *The Washington Post* and *The Wall Street Journal*. Known for his ability to make engineering exciting and understandable to the public, he has become a sought after source for the media both in the United States and abroad.

Petroski serves as chair of ASCE's History and Heritage Committee and is a fellow of the American Society of Mechanical Engineers (ASME), the Institute of Engineers of Ireland and the American Academy of Arts and Sciences. He is an honorary member of the Moles and a member of both the American Philosophical Society and the National Academy of Engineering. He has received ASME's Ralph Coats Roe Medal, the Western Society of Engineers' Washington Award and ASCE's History and Heritage Award. In 2004, Petroski was appointed by President Bush to the U.S. Nuclear Waste Technical Review Board.

Petroski received his bachelor's degree from Manhattan College and both his master's degree and doctorate from the University of Illinois at Urbana-Champaign. He is a resident of Durham, N.C.

Important Notice to all Members: Changes have occurred at *The Bulletin*

The Section Board of Directors has voted to change the method of delivering *The Bulletin* to members of the NC Section. Beginning with the May/June 2008 issue, most members will receive *The Bulletin* via the Section website (<http://nc.asce.org>) in the form of a pdf file. Members will be notified by their Branch Secretary when a new issue is available. You will be able to read the issue online, or download and print the pdf as a hardcopy.

Advantages to the electronic version?

- Most ads are in color, which isn't available with the current mailed version.
- Issues will be available immediately upon release. We won't be dependent on the Post Office to deliver them.
- The Section will save an average of \$2,000 per issue, which can be used for programs to benefit the membership.
- Less paper waste, less clutter in your inbox.

If the all-electronic version will cause a hardship to you, please contact *The Bulletin* staff or your Branch Secretary or President.

A limited number of hard copies of each issue will be produced and mailed via regular mail to those members who do not have access to the internet. We want all members to receive each issue of *The Bulletin*. If you need to receive a hard copy by mail, please inform the editorial staff or your Branch Secretary as soon as possible.

Want to place an ad in the next issue of *The Bulletin*?

Simply contact the editor and staff at nc.asce.bulletin@earthlink.net

Rates are posted on the website at <http://nc.asce.org>.

Deadlines for submissions are listed in the calendar on the back cover.



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Branch News

The **Southern Branch** has held two board meetings and two branch meetings since the September NC/SC conference that was held in Charlotte. The first branch meeting held on October 28th was on the Status of Stormwater and Erosion & Sediment Control Regulation changes and design standard changes in the region. This was presented by Susan Yates, CPESC, with Shield Engineering and held at the Charlotte Mecklenburg Government Center. The second meeting was held on November 18th was on the Latest Updates and Changes in NC Law that affect the engineer, our contracts and the relationships with the owners, contractors and other design professionals. The presenters of this were Allan West and Adam Horner with the law firm of Rosewood, Hamilton, Moon, Stephens, Steele & Martin and was held at the Red Rocks Café. Both meetings had over 40 people in attendance and the change in venue was a great success and we have had great feed back for the quality of food and service.

Our January meeting will be on held on the 20th of January and will be covering Leadership. Other meeting topics to come this winter and spring include Construction Management and the Charlotte Douglas International Airport. We look forward to seeing at one of these upcoming meetings.

Other items that the board has completed include the Southern Branch's UNCC Scholarship for the school of Civil and Environmental Engineering. The first scholarship will be awarded this spring to a student active in the ASCE student chapter and its activities and having a 3.0 GPA or higher. The planning of our spring golf tournament is underway and more details will be coming after the Holidays.

The **Eastern Branch** once again participated in collecting toys for the Salvation Army Christmas Toy Drive this year. In conjunction with the toy drive, the branch also collected calculators for a member-related Guatemala trip to support the creation of a learning resource center.

The Eastern Branch Board met on two (2) occasions since our last report: on November 6th at HNTB's Raleigh office and on December 4th at Kimley-Horn's Raleigh office and The Oxford Pub downtown to celebrate the branch's successful year. The Younger Member Group also hosted a member and student Social Hour on November 6th at the Carolina Ale House in Raleigh that was enjoyed by 30 attendees.

As of October 2008, the Eastern Branch Officers and Coordinators for 2008-2009 are as follows:

President: Gabe Lang

President-Elect: Natasha Rodevick

Past President: Kathryn Benson

Secretary/Treasurer: Vish Chervu

Branch Representatives: Dave Lubitz and Andy Batts

Younger Members Coordinators: Kristin Rogers and Janelle Hygh

Education Outreach Coordinator: Shweta Chervu

NCSU Liaisons: Josh Griffin and Matt Sumpter

Duke University Liaison: Matt Bowers

The **Coastal Branch** plans to meet in Jacksonville on January 13, with members and guests that don't usually make the trip to Wilmington for their monthly meetings.



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Campus Adventures: Student Chapter of ASCE at Duke

Duke University's student chapter of ASCE has had a busy year so far! Our group has spent the majority of the fall semester preparing for CANstruction, an event in which we build a themed structure out of food cans. The structure goes on display in January 2009 at the Marbles Kids Museum in Raleigh, North Carolina, and the food cans are later donated to the Food Bank of Central and Eastern North Carolina. This year's theme is "The Garden of Eatin'", and our entry will be an "Upside-Down Underground Garden" of carrots, onions, and beets. We are the only all-student group to participate in this event. This year, our chapter will be donating over 3,000 cans to the food bank!

In other news, Duke ASCE has begun work for the Carolinas Conference being hosted this spring by UNCC. Progress has been made on our form for the concrete canoe and the design for the steel bridge. In January we will be hosting the monthly meeting of the NC ASCE Board of Directors and in February three of our members will be attending the Workshop for Student Leaders Conference hosted by Nationals in Cherry Hill, NJ.



A portion of the building supplies for Duke University's entry in the CANstruction competition.

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Region 4 Younger Member Competition: The Daniel V. Terrell Award

The Region 4 Assembly of the American Society of Civil Engineers is proud to conduct the Daniel V. Terrell Competition for Younger Members. This prestigious competition has been held for over 50 years and commemorates Dean Terrell's many years of work and service to the Society and especially of his leadership in the establishment of the District Council System, the predecessor of the Region 4 Assembly. All Members, Associate Members, and Affiliates of ASCE 35 years of age or less on February 1, 2009, residing in Region 4, are eligible to submit papers in this competition. The following rules are to be observed:

- A. The Daniel W. Mead and Daniel V. Terrell competition have the same topic: "Is it ethical for a Civil Engineer to relax design standards to achieve a sustainable design?" These are two separate competitions but the same paper can be submitted to both.
- B. No individual may submit more than one paper in any one annual Terrell competition. Please put your member ID number and your name on the paper.
- C. The paper shall be of such length that it can be presented orally in not more than fifteen minutes and contain not more than 2000 words.(Continued on Page 7)

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Project Highlight by Eric Rysdon, PE, W.K. Dickson & Co., Inc
Shelby-Cleveland County Regional Airport Parallel Taxiway

The Shelby-Cleveland County Regional Airport began construction on their new Parallel Taxiway on October 20, 2008. The airport, located in Shelby North Carolina, has had an under strength unlit parallel taxiway that has been in use for the past 40 years. During the past few years the City of Shelby has been performing a variety of upgrades and expansions at the airport including Land Acquisitions, taxilanes for new hangars, a new self service Avgas Fuel tank, and currently are in the design phase for a new Terminal Building.

The taxiway was in need of strengthening and the addition of taxiway lights to allow night operations and to bring it up to the current Federal Aviation Administration safety standards which required the taxiway to be relocated to 300 feet from the runway centerline. To meet all these requirements the city determined it would be best to reconstruct a new parallel taxiway in the required location. The Design for the relocated parallel taxiway was funded through the North Carolina Department of Transportation Division of Aviation using a Rural Airport Grant offered to Tier II Counties in North Carolina. The design started in the fall of 2007 and was completed and prepared for bidding in the spring of 2008. The funding for the project was not yet available at the time of bidding in April but by working directly with the Division of Aviation and the FAA's Atlanta District office the project was bid in hopes that grant funds would become available at the end of the state or federal fiscal year. In early August the FAA allocated unused funds for the construction of the Shelby Parallel Taxiway project.

The Parallel Taxiway Project consists of constructing a new 5,000 ft Parallel Taxiway now centered 300 feet from the existing runway centerline. The taxiway will tie into runway turnarounds at each end of the current taxiway alignments that were constructed during a previous runway extension and widening project at the airport. The parallel taxiway will be lighted with approximately 200 taxiway lights, airfield guidance will be provided through the addition of lighted taxiway directional signs, and the addition of runway hold signs will delineate the runway safety area. These new electrical systems will be installed in a new airfield electrical vault that will combine both the new equipment and relocate the existing airfield lighting equipment in one central location on the airfield.

The project currently is approaching the completion of the earthwork, and the contractor is planning on starting the installation of the crushed aggregate base course during the first couple of weeks of December. The current goal is to complete the site work in preparation for paving as the weather warms in the spring of 2009. The new parallel taxiway will be in place for the up-coming summer.

The design team consisted of Greg Kershaw, PE, Crystal Freeburg, EI, and Eric Rysdon, PE, Technical Manager, all with W.K. Dickson & Co., Inc.

Younger Member Competition (Continued from Page 6)

D. Submit one CD with a scan of the paper with a cover letter to your Section President by March 1, 2009.

Each Section is limited to two entries. Entrants may, if they choose, alter their paper based on comments received at the Region 4 meeting prior to submittal to ASCE Awards Department for the Mead Competition.

E. The paper must be presented orally, by the author, before the Region 4 Assembly at its March 27, 2009 meeting to be held in Indianapolis, Indiana.

The award will consist of a bronze plaque mounted on a wooden shield.

Judging of the Terrell Award will be based on the following criteria:

Presentation of Paper: Delivery and Effectiveness (20%); Choice of Words, Literary Style, Pronunciation and Enunciation (10%); Timing (5%)

Content of Paper: Material (40%); Acquaintance with Subject, Scope (10%); Originality, Independence (10%); Arrangement (5%).

Please see the website for more details. <http://region4.asce.org/awards.html>



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Section / Branch Calendar

Year	2008			2009								
Month	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Section BOD												
Coastal				13								
Eastern	16	13		15	19	19	16	21		16		17
Northern												
Southern												
Western												
Bulletin Deadline		14		16		13		15		17		18