America’s Federal Transportation Funding Cliff and How We Can Solve It
ASCE President Robert D. Stevens, P.E., F.ASCE, Addresses the NCS at September Dinner Meeting

America’s national bank account for transportation, the Highway Trust Fund, has essentially been emptied, and Congress has only narrowly averted another funding “cliff” scenario in August that would impact every state’s transportation budget. The ASCE has taken a strong stand asking Congress to find a sustainable, long-term funding solution to America’s surface transportation funding crisis before May 2015 when the Highway Trust Fund will again reach insolvency. Every American relies on the transportation network that our engineers have helped to build, and unlike some issues, the Highway Trust Fund problem can be solved. When President Stevens speaks in September, he will discuss the outlook for the nation’s transportation funding and how ASCE’s members can help to solve this pressing issue facing our country.

Bob Stevens was installed as the ASCE President-elect at the 2013 ASCE Annual Meeting in Charlotte and will be installed as the 2015 ASCE President at the 2014 Annual Meeting in Panama City, Panama, in October. Bob has been an active ASCE member for 50 years, serving on the ASCE Board of Direction since 2012 when he was assigned to the Executive, Audit, and Strategic Planning Committees. With his election to President-elect, Bob stepped down from his position as Chair of the Committee on Technical Advancement. Bob was also a founding governor and officer of ASCE’s Transportation and Development Institute and Chair of the Technical Region Board of Governors.

Bob graduated from The University of Akron with B.S. degrees in civil engineering and math, Yale University with a Masters in City Planning and a Certificate in Traffic Engineering, and The University of Michigan with an M.S. and a Ph.D. in civil engineering focusing on transportation. Throughout his career, he has worked in the transportation and water specialties of civil engineering leading environmental assessments, and the planning, design, and construction management of roads, bridges, rail, transit, airport, sewer, and water treatment projects.

Bob retired from ARCADIS in 2007 although he continues to work there on a part-time basis as Executive Vice President doing special assignments out of their Fort Worth, TX, office. He is a registered professional engineer in seven states and has taught at The University of Akron, OH, The University of Michigan, and Cleveland State University. He presently lives with his wife, Bonnie, in Keller, TX.

Join us for this informative fall kick-off dinner meeting on Tuesday, September 23, at the Hilton Arlington, 950 North Stafford Street, Arlington, VA, on the second floor in the Gallery Ballrooms. Parking is available at the hotel ($8), at the Ballston Mall garage ($1 after 6 p.m.), and on the street (free after 6 p.m.). The Hilton is on the same block as the Ballston Station on Metro’s Orange Line. Registration and networking will be from 6–6:45 p.m., followed by dinner. The program will end by 8:30 p.m. The cost is $45 for those preregistering, $10 for students, and $55 for walk-ins, as space allows.

Please register by September 17. Click HERE to register. One Professional Development Hour is available to attendees. For questions, please contact Ranjit Sahai at president@asce-ncs.org or 703-994-4849.

Note that no-shows will be charged the full registration fee. We welcome walk-ins, including any registrations made after the guaranteed number of guests is provided to the hotel. However, the cost for walk-ins is higher because the Section is charged accordingly by the hotel for late registrations.
Welcome back! It’s good to be with you again.

I’m currently reading The American Railway: Its Construction, Development, Management, and Trains by Thomas Curtis Clarke. It’s a fascinating look at America from about 1830 to 1888 through the eyes of engineers who transformed how we move goods and people. This era saw the replacement of horse-driven railcars with steam locomotives; the construction of awe-inspiring bridges and tunnels; and the improvement of a nation’s standard of living like never before. And for those of you who enjoy hand-drawn illustrations made by artists in pencil, pen, and ink, you will find a treasure trove of nearly 200 illustrations.

As civil engineers, we play a key role in the planning, design, construction, and maintenance of the built environment such as roads, buildings, canals, dams, water conveyance and treatment, and other infrastructure. It’s books like The American Railway that showcase the significant impact our work has on a nation’s well-being.

Our nation’s highways play just as significant a role, if not more, than the role the railways played in the 19th century. Our Section Meeting this month focuses on the Highway Trust Fund with a presentation by ASCE President Bob Stevens. Bob began his association with the ASCE as a student chapter member in 1961.


His active participation with ASCE Sections and Committees started in 1997 with key leadership roles at the Transportation and Development Institute.

Join us over dinner on September 23 as Bob Stevens speaks on our role in public policy for America’s transportation funding. At this meeting, we will also see the National Capital Section (NCS) transfer its operational responsibilities to a new Board of Directors for the 2014–15 fiscal year under the leadership of Christian Manalo. Congratulations, Chris!

With the very best of wishes,

Ranjit Sahai
Ranjit S. Sahai, P.E., F.ASCE President, ASCE-NCS 2013–14

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NCS Members on the ASCE Region 2 Board of Governors

John Casana to replace Robert Efimba on the Board

John G. Casana, P.E., D.WRE, LEED AP, M.ASCE, and NCS Past President (2011–12), was recently elected to the ASCE Region 2 Board of Governors for the 2014–17 term. John has served as Region 2 Governor since March 2014 when he was appointed to fill a vacancy in the position to which he was recently elected. John has been employed at Booz Allen Hamilton since 2007, where he currently serves as Senior Lead Engineer in Booz Allen’s Defense Group.

CALL FOR ABSTRACTS

ASCE | PIPELINES 2015 CONFERENCE
Baltimore, MD | August 23-26

Key Dates:
Abstract due: November 13, 2014
Notification of acceptance: December 31, 2014
Draft Papers due: February 24, 2015
Final Papers due: April 23, 2015

For more information, visit www.pipelinesconference.org

About the Conference
Pipelines 2015 will provide a forum for pipeline pioneers and practitioners from all around the world to share their experiences in meeting the challenges of today’s pipeline infrastructure. This premier industry event has become the conference of choice for Utility and Pipeline Owners, Design and Consulting Engineers, Contractors, Manufacturers, Suppliers, Students, Educators, Researchers, and Pipeline Professionals. The conference will provide a dynamic and inspiring venue for participants to share and gain valuable knowledge related to planning, designing, constructing, renewing, operating, managing and maintaining the lifeline assets.

Call for Abstracts
Abstracts are now being solicited for this international forum that supports the conference theme “RECENT ADVANCES IN UNDERGROUND PIPELINE ENGINEERING & CONSTRUCTION” for transmission, distribution, and collection pipelines and tunnels in the water, wastewater, stormwater, drainage, and oil & gas sectors.

Abstracts for technical papers and workshop proposals are welcome in the following five thematic broad areas of interest, and may present historical evolution of practice, current practice, technical innovations, case histories of successful projects, lessons learned from failure investigations, and academic research:
- Planning & Analysis
- Design, Modeling, Construction & Inspection
- Regulatory, Safety & Risk Considerations
- Assessment & Rehabilitation
- Operation, Maintenance & Management

To submit an abstract, please visit www.pipelinesconference.org

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For more information, visit www.pipelinesconference.org

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To submit an abstract, please visit www.pipelinesconference.org

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Hey Students! Need Help Studying for the FE and PE Exams?
“Dr. Z” Provides Free Saturday Study Sessions

The University of the District of Columbia’s (UDC) Dr. Ahmet Zeytinci (aka, “Dr. Z”) provides free study sessions most Saturday afternoons at UDC. Dr. Z is a Professor of Structural Engineering in the UDC Department of Civil Engineering, and has been assisting students in acquiring the skills and problem-solving techniques necessary to pass the licensing exams for many years. Session attendees have a very high success rate for passing the Fundamentals of Engineering (FE) and Professional Engineer (PE) Exams. And, did we mention that these preparation sessions are FREE?

Dr. Z (center) attacking a problem with students.

If you are in school locally (or even recently graduated) and wondering when you’ll have time to independently polish your skills for the FE and PE Exams (and the motivation to follow-through on your own), join Dr. Z and other students from the area for group sessions at UDC on Saturdays. For further information, contact Dr. Z at azeytinci@udc.edu.

Editors Note: We are re-publishing this article from the May 2014 eNewsletter because of its importance and because of the success that resulted from the initial publication. Readers should also note a new feature beginning this month on page 7, Dr. Z’s Corner.

The 11th Street Bridge Park – A New Civic Space for DC

As the old 11th Street river bridges that connect Washington, DC’s Capitol Hill and historic Anacostia neighborhoods are being replaced, the District government and a local nonprofit organization, Building Bridges Across the River at THEARC, are transforming this aged infrastructure into the city’s first elevated park: a new venue for healthy recreation, environmental education, and the arts that will sit over the Anacostia River.

The goal is to create a place unlike any other in the nation’s capital – one that supports the community’s physical, environmental, cultural, and economic health. In March 2014, Bridge Park staff launched a nationwide design competition to envision this new space and realize community-inspired programming concepts. Four design teams have been shortlisted and received stipends to create full renderings. The teams are:

- Balmori Associates / Johnson, Mirmiran & Thompson, Inc. (JMT) / Cooper, Robertson & Partners;
- OLIN / Arup / OMA;
- Stoss Landscape Urbanism / Robert Silman Associates / Höweler + Yoon Architecture; and
- Wallace Roberts & Todd (WRT) / Magnusson Klemencic Associates / NEXT Architects.

The public will be able to view the innovative final design concepts for the Bridge Park at three exhibitions that will run concurrently from September 24 through October 11, 2014, in Washington, DC. The exhibitions may be viewed at:

- the District Architecture Center, 421 7th Street NW;
- the Smithsonian Anacostia Community Museum, 1901 Fort Place SE; and
- THEARC’s Corcoran Gallery, 1901 Mississippi Avenue SE.

This will be a wonderful opportunity to engage government officials, business leaders, the design community, and the broader public to solicit feedback. For more information about this exciting project visit www.bridgepark.org or contact Scott Kratz at skratz@thearcdc.org.

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NCS Committee News and Updates

Younger Members Forum Monthly Happy Hours. The NCS Younger Members Forum (YMF) holds monthly Happy Hours in either Arlington, VA, or Washington, DC. Happy Hours are typically the first Wednesday of each month unless a holiday falls during that week. Come and join us for fun and great networking opportunities with other younger ASCE members in the area!

The YMF held two Happy Hour events over the summer. The May Happy Hour was held at The Greene Turtle in Arlington on May 7, with approximately 20 members attending the event, and the June Happy Hour was held at Carpool on June 4. The next YMF monthly Happy Hour will take place at Whitlows on Wilson (3854 Wilson Boulevard, Arlington, VA; www.whitlows.com) at 6 p.m. on Wednesday, September 3. Stay tuned for e-mails with specific locations of future monthly Happy Hour events!

Recap of Young Professionals Night at Nationals Park. On August 5, the YMF teamed with the Associated General Contractors (AGC) of Metro DC and other local younger member groups for the Young Professionals Night at Nationals Park. NCS Younger Members gathered before the game at the park’s Reagan Conference Center for networking with members of the AGC, American Institute of Architects, ASHRAE, and Design-Build Institute of America local chapters. The Nat’s squared off with the New York Mets in front of a sellout crowd on this fine summer evening. Although the Nat’s fell short of the win, lucky fans and younger members took home the coveted Jayson Werth Garden Gnome as a keepsake from the game! The event was well-attended, including some 25 YMF members. We are looking forward to partnering with these groups again for another joint event later this year!

Get Involved! Are you interested in getting involved with Younger Members activities? Do you have ideas for social or professional development events or volunteering activities? Would you like to be a YMF board member?

The ASCE-NCS Younger Members Group is always looking for new members! We have great networking opportunities; events to stimulate your thinking, expand your professional experiences, and advance your career; and we have fun while doing it! Let us know if you are not already on our mailing list! To become more active with the YMF or obtain information on its events, contact the YMF President at ncsymfpresident@gmail.com.

Stay Connected! Check out photos and stay up-to-date with YMF events by visiting the new YMF Facebook page at www.facebook.com/ASCENationalCapitalYMF. You can also follow us on Twitter (@asce_ncsYMF) at https://twitter.com/asce_ncsYMF.
NCS Member Receives Cermak Medal

Kishor Mehta to Receive Award During Ceremony at Global Engineering Conference 2014 in Panama City, Panama

Kishor C. Mehta, Ph.D., P.E., Dist.M.ASCE, will be awarded ASCE’s 2014 Jack E. Cermak Medal “for outstanding contributions to wind engineering, particularly for systematic studies of structural damage caused by windstorms and leadership in the development of structural design standards for wind loads.” The selection committee from the Structural Engineering Institute and the Engineering Mechanics Institute particularly noted Dr. Mehta’s contributions to development of an above-ground shelter for tornadoes, the widely recognized EF-scale for tornado intensity rating, and his organizing and leadership of the Wind Engineering Field Research Laboratory.

Dr. Mehta is presently on loan from Texas Tech University to the National Science Foundation here in Arlington as its Program Director for Hazard Mitigation and Structural Engineering.

Kishor received his B.S. and M.S. degrees from the University of Michigan and his Ph.D. degree from the University of Texas – Austin in Civil/Structural Engineering. He started his teaching and research career at Texas Tech University in 1964. Since then, he has pursued research, education, and service to the profession in the field of wind loads on buildings and structures. His interest in this field began with the May 11, 1970, tornado in Lubbock, TX, which resulted in 26 fatalities and damage/destruction of almost half of the city. His major contribution to the ASCE has been as Chairman of the Wind Load Committee which produced ANSI A58.1-1982, ASCE 7-88, and ASCE 7-95. His contributions to professional practice have included writing the Guide for Wind Loads for ASCE 7-88, 7-95, 7-98, 7-02, 7-05, and 7-10, and offering short courses through ASCE during the period 1992–2006.

Over the years, Kishor has received numerous awards and recognition including election to the National Academy of Engineering; ASCE’s Walter P. Moore, Jr. Award; an award from the National Hurricane Conference; the Lifetime Service Award from the Texas Section of ASCE; Texas Tech President’s award for teaching, research, and service; and the Engineering Student Council’s award for Outstanding Engineering Professor.

Kishor and his wife of 47 years, Mary Ann (deceased), raised four children and are blessed with ten grandchildren.

The NCS is proud to offer its congratulations to Dr. Mehta!

October NCS Meeting Preview

Arlington Recognized as Walk-Friendly Community

Arlington was recognized last year as one of three Gold-Level walk-friendly communities in the nation. Mr. Richard Viola, Arlington County’s Transportation Planning Section Supervisor, will be talking with us about initiatives the county focused on to make Arlington an urban model of communities that are friendly to people traveling by foot or on bikes. (http://www.walkarlington.com/pages/about/arlington-recognized-as-walk-friendly-community/)

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Conquering the FE & PE Exams

By Ahmet Zeytinci, P.E., F-NSPE

Editors Note: With this edition of the NCS eNewsletter, we begin a new monthly feature which will focus on insights and tips for mastering the Fundamentals of Engineering (FE) and Professional Engineering (PE) Examinations. The NCS is pleased to have Dr. Z share his expertise on this important topic.

It is indeed a pleasure to be writing this monthly column for students and practicing engineers in the metro area interested in pursuing the FE and PE Exams.

The FE Exam is the first step in the arduous process leading to obtaining a P.E. license in a variety of disciplines. Both exams are administered by the National Council of Examiners for Engineering and Surveying (NCEES), a national nonprofit organization.

The FE Exam is designed for recent graduates and students who are close to finishing their undergraduate degrees in environmental, industrial, mechanical, electrical, civil, or chemical engineering. Starting January 2014, the FE Exam became a Computer-Based Test (CBT) administered all year-round. For detailed information regarding the FE and PE Exams, readers should refer to the official website of the NCEES at http://ncees.org.

The new Civil FE-CBT consists of 110 multiple-choice questions. Examinees will have 6 hours to complete the examination which includes a tutorial, a break, and a brief survey at its conclusion. The FE Exam uses both the International System of Units and the US Customary System. The Civil FE Exam covers many of the topics covered during an undergraduate curriculum in civil engineering, including mathematics; probability and statistics; computational tools; ethics and professional practice; engineering economics; statics and dynamics; mechanics of materials; fluid mechanics; hydraulics and hydrologic systems; structural analysis and design; geotechnical engineering; transportation engineering; environmental engineering; and construction and surveying. Those interested in the exam topics within their individual specialty fields, other than civil, can ascertain this information at the NCEES website address listed above.

Finally, the readers of this column will always find a hyperlink at the end. This link will take readers to a PDF document containing sample problems, solutions, short cuts, and time-tested strategies. The variables, nomenclature, and terminology will generally be similar to that used in the NCEES FE Reference Handbook (9th edition).

For this month’s sample problems and solutions, click HERE.

About the Author
Dr. Ahmet Zeytinci (aka, Dr. Z) is a Professor of Structural Engineering in the School of Engineering and Applied Sciences, Department of Civil Engineering, at UDC. He has been offering pro bono help to students and practicing engineers throughout the metro area for more than two decades. During this time, his classes have resulted in a 90+ percent success rate and are based on materials, techniques, and strategies he has developed himself. Unlike many other PE/FE preparation courses, Dr. Z’s pro bono Saturday classes are enjoyable and absolutely FREE.

For questions, comments, and the schedule/location for his preparation classes, Dr. Z may be contacted at DrZ@alfam.com or azeytinci@udc.edu.
Upcoming Events

September 3
The NCS Younger Members Forum sponsors its monthly Happy Hour from 6–8 p.m. at Whitlows on Wilson in Arlington, VA. Join other younger members from the area for free appetizers and drink specials. Look for an upcoming e-mail announcement with more details. (See newsletter brief.)

September 18–19
ASCE Continuing Education Seminar “Project Management” to be held at the Radisson Hotel Reagan National Airport in Arlington, VA. Earn 1.5 CEUs. For more information, click HERE.

September 23
First NCS monthly dinner meeting of the 2014–15 year to be held at the Hilton Arlington. Our guest will be ASCE’s current national president, Bob Stevens, who will present his thoughts on America’s surface transportation funding crisis. (See newsletter lead article.)

October 7–11
ASCE and Engineers Without Borders-USA will sponsor the Global Engineering Conference 2014 in Panama City, Panama. Come to celebrate the 100th anniversary of the Panama Canal, network with peers, learn about community projects and giga projects, and see ongoing construction of the expanded Panama Canal. The advance registration discount deadline is Thursday, September 25. For more information or to register, click HERE.

October 21
NCS monthly dinner meeting at the Hilton Arlington. Our guest will be Richard Viola, Arlington County’s Transportation Planning Section Supervisor, who will discuss county initiatives to make Arlington attractive to people traveling by foot or on bikes. (See newsletter brief.)

November 6–8
ASCE will sponsor the International Conference on Sustainable Infrastructure 2014 in Long Beach, CA. The event will focus on sustainability in the built environment, presenting relevant engineering research, demonstrations, and applications that contribute to competitiveness and well-being. For additional information, click HERE.

August 23–26, 2015
ASCE will sponsor Pipelines Conference 2015 at the Baltimore Marriott Waterfront Hotel in Baltimore, MD. The conference will focus on recent advances in underground pipeline engineering and construction. Abstracts are due by November 13, 2014, and registration will open in March 2015. For more information, click HERE. (See newsletter flyer.)

Employment Clearinghouse

The ASCE-NCS provides the Employment Clearinghouse as a free service to its membership. The Clearinghouse allows members to post short notices for available positions or candidates seeking employment. All employers listed herein are equal opportunity employers. If you have questions, are seeking employment, or would like to post a position, please contact the newsletter editor at newsletter@asce-ncs.org or phone (703) 243-5298.

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