

The Emerging ASCE Sustainable Infrastructure Project Rating System

6th Annual NCS Sustainability Awards, Tuesday, March 22, 2011

2011 Sustainability Awards Keynote Address

Mr. Craig Farkos, P.E., ASCE Committee on Sustainability, Engineers Without Borders, and Michael Baker, Jr., Inc., will deliver the keynote address for the NCS 2011 Sustainability Awards. ASCE, together with the American Council of Engineering Companies and the American Public Works Association, is currently developing a Sustainable Infrastructure Project Rating System to assist civil engineers and other professionals in the planning, design, and implementation of sustainable infrastructure solutions. Mr. Farkos, in his current role as Chair of the ASCE Committee on Sustainability, is working closely with other members of the ASCE team to develop ASCE's integrated approach to sustainable infrastructure development which includes sustainability training and related professional certification for civil engineers. Mr. Farkos will use his presentation to review some of the key aspects of a sustainable approach to infrastructure development and provide an update on particular aspects of the current work of ASCE's Committee on Sustainability.



for People, Prosperity, and the Planet, **Metropolitan Washington Council of Governments** for *Greening Metropolitan Washington Region Built Environment, and Anacostia Waterfront Corporation* for *Environmental Standards for Development*.

The March NCS meeting will be held on **Tuesday, March 22, 2011**, at the Hyatt Regency Crystal City, 2799 Jefferson Davis Highway, Arlington, VA. This location is close to the Crystal City Metro Station, serviced by the Blue/Yellow Line. There is also a shuttle operating between the Crystal City Metro Station and the Hyatt every 15 minutes. Registration and networking will be from 5:30 p.m. to 6:15 p.m., with a buffet dinner starting at 6:15 p.m. The program will start around 7:00 p.m. and close by 8:30 p.m. Please RSVP by March 18, 2011. The cost will be \$10 for full-time students, \$30 for those preregistering, and \$40 for walk-ins. One Professional Development Hour will be awarded to attendees. Click [HERE](#) to register. For questions, please e-mail [Mark Leeman](mailto:Mark.Leeman). ■

2011 Sustainability Award

The ASCE-NCS Sustainability Award recognizes sustainable development of infrastructure, the built-environment, and the conservation of natural resources in the DC metropolitan area. The 2010 winner was the **Wolf Trap Foundation for the Performing Arts**. Past recipients include: the **U.S. Environmental Protection Agency**

ASCE-NCS Sustainability Award Criteria

1. The project/initiative *advances or promotes sustainable development* as defined by the ASCE's Code of Ethics: *"Sustainable development is the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resource base essential for future development."*
2. The project/initiative *adopts a long-term view* cognizant of environmental, social, and economic implications, and places heavy emphasis on the impact of choices made now on succeeding generations.
3. The project/initiative is located within the jurisdictions of Montgomery County, Prince George's County, Loudoun County, Fairfax County, the City of Alexandria, Arlington County, or the District of Columbia (i.e., within the geographical limits of the NCS).

Nomination Process

Send a description of the program (limit 100 words) to John Casana, P.E., Chair, NCS Sustainability Committee at: casana_john@bah.com. The description should include (1) the public or private entity responsible for the program (including point-of-contact), and (2) how the nomination meets each of the three award criteria above. The nominating individual should include his/her name, affiliation, telephone number, and e-mail address with the nomination. **Nominations for the ASCE-NCS Sustainability Award will be received through March 11, 2011.**

President's Corner

Have you ever written to your congressman? Have you made an appointment to meet with them on issues critical to our profession? The National Capital Section (NCS) is located in our nation's political core. Yet, many of us fail to be a part of the debate.



The NCS's February meeting was held in the Rayburn House Office Building on Capitol Hill. Our speakers included Austin Durrer, Chief of Staff for Rep. Jim Moran, James Wakinslaw, Chief of Staff for Rep. Gerry Connolly, and Kristina Swallow, former ASCE Congressional Fellow and current Legislative Assistant for Sen. Tom Udall. This opportunity to be on The Hill was helpful for our group. Not only were we able to meet those who form our Nation's policies on a daily basis, we were able to show that we are interested enough to come to them. Our members got a chance to be exposed to the legislative process.

Advocating on behalf of the interests of the civil engineering profession is an important role filled by our organization. ASCE has national

committees developing statements on issues that are used to educate lawmakers on the Society's official stance on topics of interest. ASCE is extremely well respected for providing balanced, nonpartisan points of view. Many members of Congress look to ASCE's experts to provide

background and education on issues before them for vote. With so many special interest groups in DC, it's good to know that ASCE is looked at as an unbiased source. ASCE's top priorities for policy and advocacy issues are:

- raise the grades on America's infrastructure,
- raise the competency level for professional civil engineering practice in the future, and
- achieve a more sustainable natural and built environment.

ASCE's Key Contact Program is designed to notify members when issues are being brought up nationally and regionally that will impact their area of interest. Sample letters are e-mailed to your inbox and e-mail addresses of elected leaders are

listed on the website. With only a few keystrokes, you can customize the letter and immediately send it to your lawmaker. If you haven't signed up for the Key Contact Program, I urge you to do so today.

Each year, ASCE hosts a spring "Fly-In" for members to come to Washington, DC from across the country to meet with their members of Congress on behalf of the profession. The event will be held on March 30 and 31 this year. These ASCE members take days off of work in order to support ASCE's efforts on Capitol Hill. This year, the NCS has good representation at this event, with at least five attendees. This is one of the advantages of being local.

However, this is just the beginning of the process. One meeting is not enough to start a relationship with a Member of Congress or to persuasively provide input on the policy and legislative process. An ongoing relationship is needed. I hope you can get involved.

Sincerely,

Mark E. Leeman, P.E.

ASCE President Kathy Caldwell to Speak at NCS Annual Banquet on April 19

Please save the date of this year's NCS Annual Awards Banquet: Tuesday April 19th. This annual event is the highlight of the year, and we are honored to have ASCE President Kathy Caldwell, P.E., M.ASCE, as our keynote speaker this year. The event also gives us the opportunity to recognize and celebrate local excellence in projects, engineers,

and students who have contributed to our society and our community. Recognized parties will include our meritorious service award winners, student scholarship award winners, and those individuals who have achieved Life Member status. More details will be provided in the April Newsletter. ■



Newsletter

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Call 1-800-548-ASCE, email member@asce.org, go to <http://www.asce.org>, or write: ASCE – Membership, 1801 Alexander Bell Drive, Reston, VA 20191. Remember to include your membership number.

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Committee Chairs
Please refer to the NCS website at <http://www.asce-ncs.org> for a current list of NCS committees and chairs.

Register for ASCE's Vulnerability and Risk Analysis Conference!

Don't miss out your chance to attend ASCE's International Conference on Vulnerability and Risk Analysis and Management/Fifth International Symposium on Uncertainty Modeling and Analysis, scheduled for April 11-13, 2011, at the University of Maryland University College Inn & Conference Center.

In addition to dynamic technical sessions on a wide variety of risk

management issues, conference attendees can sign up for a technical tour of the Dulles Corridor Metrorail extension, one of the most challenging and complex projects currently under construction in the Washington, DC metropolitan area.

Don't delay—[register today!](#) ■



The Conference is being organized by ASCE's Council on Disaster Risk Management.



Workshop for First-Time Entrepreneurs

A Workshop for First-Time Entrepreneurs will be held at the ASCE Headquarters in Reston, VA on Saturday, March 19th, from 9:00 a.m. to 2:30 p.m. The workshop is being hosted by the DC Metro Alumni Club of NJIT (New Jersey Institute of Technology), but all are invited. The cost for NJIT Alumni is \$20; for non-alumni, \$30. The price includes a continental breakfast and lunch.

A group of distinguished speakers will cover material that every entrepreneur needs to master. Topics to be covered are:

- business plans and market assessment;
- legal/intellectual property considerations;

- venture capital for technology startups;
- how and where to find Federal funding; and
- NJIT resources to assist the budding entrepreneur.

Following lunch, a panel of entrepreneurs will briefly tell their respective stories and will answer questions from the audience.

There will be ample time for networking after the presentations. Pre-registration is required. For more information and to register, go to www.njit.edu/alumni. ■

Volunteers Needed for Cub Scout Day at the National Building Museum, April 10

Volunteers are needed for Cub Scout Day at the National Building Museum (NBM) in Washington, DC on Sunday, April 10, 2011. We need volunteers for the morning shift (10 a.m. to 1 p.m.) and the afternoon shift (1:30 p.m. to 4:30 p.m.).

We will be conducting the water filtration experiment again (as we did with the Girl Scouts on January 22). After a short lecture on municipal water treatment, the scouts will build their own slow sand filters and test theoretical engineering skills by filtering simulated raw Potomac River water.

All materials are provided by the ASCE-NCS. A pizza lunch is provided by the NBM to all volunteers. Free on-street



parking is available in DC on Sundays. The NBM is also accessible by Metro (Red Line, Judiciary Square Station).

For further information or to volunteer, contact Dean Westman at dwestman@wrallp.com. Besides being lots of fun, this event is a tremendous opportunity to inspire the next generation of civil engineers! ■

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Girl Scout Day at the National Building Museum

January 22, 2011

The NCS spent a Saturday in January introducing girls to the field of Civil Engineering. Over 450 girls were on hand to learn and receive two badges during Girl Scout Day at the NBM.

Attendees visited to numerous hands-on exhibits designed to help them explore the concepts of engineering and design. At the ASCE exhibit,



the girls were introduced to the civil engineering profession and were treated a fun experiment—a water filter experiment to be exact. After a short lesson on water supply and municipal water filtration (expertly taught by Pamela Bingham), each scout built a water filter out of sand, gravel, and cotton in a cone. Using these simple materials (along with muddy water and clear cups to catch the filtrate), the girls could see how easily particles could be filtered out from the simulated raw Potomac River water. All materials were recycled after the event.

Led by Dean Westman, P.E., a group of 16 volunteers were on hand to help the girls set up



Pam Bingham instructs scouts on water filtration.

and conduct their exhibits. Included were Vanessa Speight, Joe Goss, Amelia Stein, Sara DeGroot, Pamela and Jonathan Bingham, Michelle Roberts, Brian and Rachel Kennealy, Mark and Patty Leeman, L.J. Sauter, Fady Afif, Tom Mulcahy, Lisa Winter, and Andrea Putscher.

According to Mary Hendrickse, School and Youth Group Coordinator at the NBM, 2011 marked the 5th annual Girl Scout Day. The museum designed the event as a way to introduce girls to the traditionally male fields of architecture, engineering, and city planning. The museum especially reaches out to ASCE for the thoughtful effort put into the exhibits and the willingness of volunteers to interact with the girls. ■

Obituary—Ralph E. Spencer

ASCE Fellow Ralph E. Spencer died January 24 of kidney failure at his home in Washington, DC. Ralph was 82.

Ralph Edwin Spencer was a Washington native and a 1945 graduate of the old Armstrong Technical High School. After serving in the Army, he received a Bachelor's Degree in Civil Engineering from Howard University in 1953 and a Master's Degree in Engineering from George Washington University in 1962. He worked for the DC government for more than 20 years, retiring in the late

1970s as the District of Columbia's Administrator of Buildings and Zoning Regulation. After retiring, he headed a private engineering practice for about 10 years during which he designed a number of bridges in Washington and in California. In 1979, Mr. Spencer was recognized as a Fellow of the American Society of Civil Engineers.

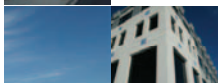
Survivors include his wife of 52 years, Virginia Christine Scott Spencer of Washington, two children, and a brother. The NCS is saddened to learn of Ralph's passing.

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Engineered Problem Solving

ASCE's National Historic Civil Engineering Landmarks— The Bollman Truss Bridge in Savage, MD

(Geographic Coordinates: Latitude: 39° 8' 4.9" N, Longitude: 76° 49' 29.1" W)

The very first National Historic Civil Engineering Landmark (NHCEL) in the ASCE's History and Heritage (H&H) Program was designated in 1966, and is the iron railroad bridge in the town of Savage, MD between Washington, DC and Baltimore, MD.

Wendel Bollman (1814-1884) was a self-taught engineer from Baltimore. All of his knowledge and success was derived through intensive self-study and practical experience. Bollman's career

Bollman resigned from the B&O in 1858 and formed his own company. The company, located in Baltimore, was the first in the United States to design, fabricate, and erect iron bridges and structures. The Bollman Truss was an innovative structural system and was the first all-metal system of bridging to be used extensively on any American railroad. The design concept was an elaborate array of wrought iron tension members and cast iron compression members. The tension bars radiated from the top of the end posts to the bottom of each intermediate panel. The advantage was that each floor beam of the truss was independently suspended from a pair of diagonal tension members which carried the load to the cast iron end posts.

Bollman's design was a significant improvement over other trusses where one diagonal failure would cause the entire span to collapse. The Bollman Truss allowed for continued and rapid expansion of the American railroad; however the truss did have its limitations. Due to unequal stresses throughout the truss span, lengths were limited to 100 feet. Eventually, as metal truss design advanced, the Bollman Truss was replaced by the Whipple and Pratt trusses which used less metal and were therefore more economical.

The largest Bollman Truss Bridge was located over the Potomac River at Harpers Ferry, linking the B&O line between Maryland and West Virginia. It was constructed in 1865 and survived until 1936, when a record flood swept the bridge away. A 1,360-pound

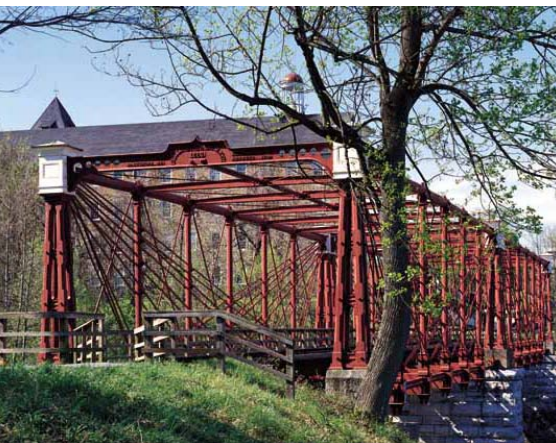


section of the bridge has been salvaged from the river and is on display in an exhibit at the National Park Service visitor center in Harpers Ferry.

Today, only one Bollman Truss Bridge remains. It is a two-span, 160-foot-total-length structure located on an abandoned spur line in Savage, MD. It was originally built in 1869 and used on the B&O mainline. After being replaced, it was moved to its present location in 1888 to serve the local Savage textile mill. The mill itself has been restored and is a shopping attraction in its own right, just a few hundred yards from the landmark bridge.

An article on "[Structural Behavior of the Bollman Truss Bridge at Savage, Maryland](#)" by the Civil Engineering Department at Johns Hopkins University is available in "[Baltimore Civil Engineering History](#)," the Proceedings of the Fifth National History and Heritage Congress at the 2004 ASCE Annual Conference and Exposition, held in Baltimore, MD, October 20-23, 2004.

If you visit the bridge, you'll notice that there are *two* ASCE NHCEL plaques at the site. The story behind this plus other history-related facts and tales are available to those interested participating in the NCS H&H Committee. Join us and you'll be amazed at the Civil Engineering Heritage surrounding you in the Washington, DC metropolitan area. ■



began as a carpenter, and he eventually worked as a rodman on early surveys for the Baltimore and Ohio Railroad (B&O) in 1828. After a short period working as an independent carpenter, he returned to the B&O in 1838 and began work under Benjamin Latrobe. Bollman's skill quickly brought him the title of Foreman of Bridges. By 1848, he was appointed Master of Roads with responsibility for rights-of-way and structures. In 1850, he built the first iron truss bridge and in 1852, obtained a patent for his truss design.

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EXPERTS UNDERGROUND

Boundary Stone Fence Restoration Project— Spring Event Planned

Overall, 34 Fences to be Examined for Restoration; Other Activities Planned over Next Several Years

Readers of this newsletter are well aware of the flagship project which the NCS has undertaken to refurbish/restore the fences which surround the original boundary stones from Andrew Ellicott's 1791-92 survey of the original 10-mile square Federal City boundaries. Currently, only 36 of the 40 original stones remain. The fences were added much later during a preservation campaign by the Daughters of the American Revolution (DAR) in 1915. The DAR project was completed by affixing a small bronze marker to each fence with the name of the DAR Chapter which paid for the fence and accepted responsibility for care of the stone. Unfortunately, time has not been kind to either the fences or some of the stones.

Today, 28 of the original DAR fences remain, 6 replacement fences have been installed, and 6 of the stones/sites have no fences at all (either due to removal by landowners, damage from vehicles, or in the case of the South Cornerstone—never placed, given the stone is in a caged vault). Several of the original fences are in disrepair and one fence, at the Northeast Stone #3 (NE #3), is damaged beyond repair. Most, if not all of the fences, need to be restored. And Stephen C. Powers, P.E. ("Mr. Boundary Stones") is the NCS person leading the effort to do just that!

On May 15, 2010, NCS volunteers under Stephen's direction held the kick-off event by restoring the fence for the East Cornerstone, near the intersection of Eastern and Southern Avenues in NE Washington and Seat Pleasant, MD. This fence was erected on April 15, 1916, by the District of Columbia DAR and was the 4th fence to be installed following fences at NW #4, NW #7 (now gone), and the North Cornerstone. The fence will be 95 years old in the spring of 2011, making it the 3rd oldest of all the fences in place. In addition to the fence restoration, the volunteers collected several garbage bags of trash and gathered up discarded furniture and debris that was scattered about the site.

A number of lessons were learned at the kick-off, which made the Fall 2010 event a overwhelming success. On October 30, 2010, Stephen led **three teams** in the restoration of fences surrounding the SE #1, SE #3, and SE #5 boundary stones. (See the January



East Cornerstone before restoration.

edition of the NCS newsletter for before, after, and group photos, as well as a list of the volunteers on each team.)

It's now time to plan our next restoration event, scheduled for **Saturday, May 14, 2011** (weather permitting, of course—Saturday, May 21st is the backup date). Once again, Stephen plans to tackle three fences in the Alexandria/Arlington area (southwest and northwest stones). Given the wonderful spring weather that we're anticipating, it only seems appropriate to couple this effort with a family picnic at one of the boundary stone locations where picnic facilities are nearby. If you are interested in volunteering for the **Spring 2011 fence restoration event** (or for a future effort) or want further



East Cornerstone afterwards.

information, contact Stephen Powers at (703) 417-0091 or stephen@design-powers.com. Planning for the after-the-event picnic is being headed by Fady Afif (Afiff@bv.com), and a couple of volunteers are needed to help ensure the picnic goes well, too.

Information on this long-term project is posted on the Boundary Stone Restoration Page on the ASCE-NCE website (click [HERE](#) to view). The NCS hopes to complete restoration of all the fences and have ASCE designate the stones a National Historic Civil Engineering Landmark by 2016 (the 100-year anniversary of the NCS). The boundary stones would then join over 200 projects worldwide that have achieved this prominent designation. ■

Employment Clearinghouse

Position Available

Structural Engineer: Collins Engineers, Inc. (www.collinsengr.com) is looking for a Structural Engineer to expand our office in Fairfax, VA., with an opportunity to be involved in a variety of large and small projects. Qualified candidates must have, at a minimum, a P.E. and 8 years experience in the design, inspection, and or evaluation of marinas, ports, and/or bridges. Candidate must be capable of working independently, willing to perform field work, and be organized with excellent written and oral communication skills. Please send a resume to: Anne Harney, HR Director, Collins Engineers,

Inc., 123 North Wacker Drive, Suite 300, Chicago, IL 60606, or e-mail to aharney@collinsengr.com.

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. If you have questions or would like to post a position, please contact the Employment Conditions Committee, National Capital Section ASCE, 8502 Buckhannon Drive, Rockville, MD 20854-3503; phone: (301) 983-9777; fax: (301) 983-1953; or e-mail sassi22@verizon.net. All employers listed herein are equal opportunity employers.

A Windows Server for my Home or Small Business! You're Kidding, Right?

Backup, Share, and Remotely Access Vital Data with a Windows Home Server or a Windows Small Business Server

Chances are you have more than one computer at home, as does your small business or your employer at work. It is almost a given that your computers are connected together through a router or a switch. With documents, pictures, music, email, and other files spread across computers, it requires some thought and planning to keep track of where everything is. Not to mention the important role this data plays in our daily lives, both for fun and for profit.

It used to be that to manage computer data on networks you needed expensive servers and technicians that only large companies could afford. No more. Whether you wish to backup, secure, share and remotely access vital data at home or at work, you now have access to server technologies that are incredibly affordably and immensely useful. And you don't need a computer science degree to implement or to manage them.

Windows Home and Small Business Servers

Microsoft Windows Home Server (WHS) is designed for computer networks running Windows Home Starter/Basic/Premium; though any edition of Windows will connect and work with WHS. Microsoft Windows Small Business Server (SBS) is geared for computer networks running Windows Professional/Ultimate because these editions support Active Directory services.

The key difference between the two server editions is that SBS supports a centralized username authentication service called Active Directory, while WHS doesn't. On an SBS network, your account is created once on the server and that same account gives you access to all network resources (computers, files, printers) you have permissions to. On a WHS network, your account must be created separately on each computer you need access to and each of your accounts can have a separate password.

WHS and SBS have been around for years. New versions of both (Windows Home Server 2011 and Windows Small

Business Server 2011 Essentials) are scheduled for release in the first half of 2011.

Backup Automatically

WHS and SBS include the Connector software that automates the configuration and connection of computers to the server. When a computer is connected to the server, the computer gets configured to be backed up every day automatically. This allows you to easily restore accidentally deleted files or the entire content of hard drives in a few simple steps.

Share Easily

The server Dashboard application in WHS 2011 and SBS 2011 Essentials simplifies the task of administering, managing, and maintaining the server. The Dashboard can be accessed and run remotely from any computer on the network by users who have permission. The Dashboard interface is organized into tabs that group functions by tasks you typically perform on the server. While the interface is simple, it includes options that allow you to configure server functions to the desired level of detail. You can easily control permissions to shared folders. The Server Folders tab allows you to provide users with read-only permission to data in certain folders while providing read and write permission to data on other folders. As your data storage needs grow, servers come with storage bays that allow you to expand storage space easily by adding more or larger hard drives.

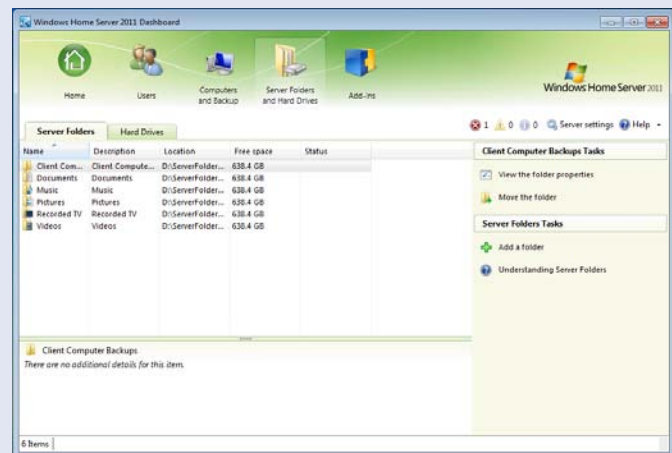
Access Remotely

A feature that used to be called Remote Web Workplace is now called Remote Web Access in WHS 2011 and SBS

2011 Essentials. Microsoft provides a website with which to associate your server through an encrypted connection so you can remotely access shared folders on your server, or even remotely connect to computers on your network.

Conclusion

If you thought that servers are only for larger companies, you will want to think again. As the number of computers in use at homes and small businesses has increased, the need



The Dashboard simplifies the task of administering and managing shared folders on the server.

to secure, backup, and work with shared data has also grown. Servers are now offered in several editions, one of which is sure to fit your budget while simplifying the management of networked computers.

*(Editor's note: "The Computer Corner" is a new monthly column by Ranjit S. Sahai, P.E., F.ASCE. Ranjit has been writing on computer topics since 1987 and has authored five books. He is the Chair of the NCS' Automation Committee. He welcomes comments via email. Visit the **Contact Us/Committee Chairs** page at www.asce-ncs.org, or the **Contact Us** page at www.rcare-solutions.com to send Ranjit feedback or suggestions.)*

January Meeting Recap

The Dulles Metrorail Project

Given the speaker and the topic, January's meeting was one of the highest attended NCS meetings in recent history. Over 135 members and students convened on the Hyatt to hear Charles "Sam" Carnaggio, P.E., Metropolitan Washington Airports Authority Project Director, deliver a presentation describing the planning, design, and construction of the Dulles Corridor Metrorail Project, a 23-mile extension of the existing Metrorail system from East Falls Church to Washington Dulles International Airport and west toward Ashburn.

Mr. Carnaggio gave an overview and presented real-time and concept-view slides of the two phases of the design-build project and the 11 new stations that will be built. The Phase 1 extension will serve Tysons Corner, Virginia's largest employment center, beginning at the existing East Falls Church Station, and will travel westward to the new station at Wiehle Avenue in Reston. The Phase 2 extension will serve the Reston-Herndon area, the state's second largest employment concentration, and will continue the rail service from the Wiehle Avenue Station through Dulles Airport to a future station along State Route 772 in Ashburn, VA.

Phase 1 consists of 11.7 miles of rail and is currently well underway with the design 95 percent complete and the construction 27 percent complete.

Phase 1 includes an inbound and an outbound tunnel and will include 5 of the 11 new stations. Four of the stations will be in Tysons Corner: Tysons East; Tysons Central 123; Tysons Central 7; and Tysons West. All 5 of the stations in Phase 1, including the Wiehle Avenue Station, are currently under construction and are scheduled to open in 2013. Mr. Carnaggio briefed the group on the challenges of building the project in concert with existing Interstate Routes 66 and 495, State Routes 123 and 7, and the Dulles Access Road (State Route 267). Of particular interest was the erection of the precast concrete segments to form the spans between piers, the truss segments, and the flow of pedestrian and vehicular traffic interacting with the new stations through Tyson's Corner. Discussion took place on the successful completion of the NATM tunnel excavation, ongoing shotcrete lining of the interior of the tunnels, as well as the challenges of relocating the existing utilities through the Tyson's corridor.

Phase 2 consists of 11.6 miles of rail, with the preliminary engineering planned completion date of March 2011 and a notice to proceed on the design-build work forecasted for late 2011. Phase 2 will include 6 of the 11 new stations and will serve Reston Town Center, Herndon, Dulles Airport, State Route 606, and Ashburn. Three of the stations will be constructed in the median of the

Dulles Access Road: Reston Parkway; Herndon-Monroe; and Route 28. A fourth station will be located at Dulles Airport, and the final two stations will be located at the intersections of the Dulles Access Road with State Routes 606 and 772. This phase of the project will include a rail yard and maintenance facility, as well as five parking garages—one at each of the stations with the exception of Dulles Airport Station. The preliminary completion date for Phase 2 is late 2016. Current alternatives studies are underway to explore an aerial or below grade and tunnel through the airport so as to meet with the budget and historic demands on the project.

In closing, Mr. Carnaggio responded to members questions concerning the planning, scheduling, construction production, and budget challenges. The purpose of Dulles Metrorail is to provide high-quality, high-capacity transit service in the Dulles Corridor. New Metrorail service in the corridor will result in travel time savings between the corridor and downtown DC, expand the reach of the existing regional rail system, offer a viable alternative to automobile travel, and support future transit-oriented development along the corridor. The NCS greatly applauds Sam for this highly-informative briefing, and looks forward to a follow-up presentation in the future when construction in Phase 2 is well underway. ■



NCS President Mark Leeman addresses the audience. Sam Carnaggio is shown seated, facing the audience, immediately in front of the lectern.

March 2

YMF March Happy Hour from 6-9 p.m. at Irelands Four Courts, 2051 Wilson Boulevard, Arlington, VA. No RSVP needed; click [HERE](#) for additional information. E-mail [Sonja Hinish](mailto:Sonja.Hinish) if you have questions. Irelands Four Courts is accessible via the Courthouse Metro Station on the Orange Line.

March 5

ASCE 2010-2011 Region 2 Assembly in Reston, VA at ASCE Headquarters. All Sections, Branches, Younger Member Forums, Student Chapters, Faculty Advisors and Practitioner Advisors are encouraged to attend. For further information, contact Greg Scott at gscott@bh-ba.com.

March 9-11

4th Annual Transportation & Infrastructure Convention in Washington, DC. Come learn about a variety of ways you can participate in shaping the future of the Nation's transportation and infrastructure systems. For more information, visit www.TransportationSummit.com or contact Karen Brown (kbrown@dean.net) or Rick Lindsey (rlindsey@dean.net) of Dean International, Inc.

March 22

NCS monthly meeting, featuring the 6th Annual NCS Sustainability Awards and a keynote address by Mr. Craig Farkos, P.E., ASCE Committee on Sustainability, discussing the development of a Sustainable Infrastructure Project Rating System. (See newsletter article.)

March 24-25

ASCE Continuing Education seminar "Leadership Development for the Engineer." Earn 16 Professional Development Hours (1.6 Continuing Education Units [CEU]), including 1 hour of ethics training. Details on this very popular seminar may be found in the brochure available by clicking [HERE](#).

March 29-31

ASCE Legislative Fly-In in Washington, DC. This program gives civil engineers the opportunity to educate and influence lawmakers on public policy issues affecting the profession of civil engineering. Click [HERE](#) for more information.

March 31

ASCE 2011 Outstanding Projects and Leaders Gala at the Gaylord National Harbor in suburban Washington, DC. This event will celebrate individual lifetime achievements and winning projects, including presentation of the OPAL Awards; Pankow Award and Michel Award; tributes to the five Outstanding Civil Engineering Achievement award finalist projects; and announcement of the OCEA winner. To register online, click [HERE](#). Learn more about the awards at asce.org/opal.

April 6

YMF Happy Hour in Washington DC. Details are under development. Contact [Sonja Hinish](mailto:Sonja.Hinish), watch for an e-mail from YMF, or check the NCS website at <http://asce-ncs.org>.

April 11-13

ASCE International Conference on Vulnerability and Risk Analysis and Management/Fifth International Symposium on Uncertainty Modeling and Analysis (MA) will be held at the Marriott Inn & Conference Center, University of Maryland University College in Hyattsville, MD. To register online, click [HERE](#). (See newsletter brief.)

April 19

NCS monthly meeting: the Annual Awards Banquet, which will feature Kathy Caldwell, P.E., ASCE National President as the speaker. Awards presented will include Community Service, Meritorious Service, and student scholarship winners. Also, announcement of the Outstanding Civil Engineering Project and recognition of the NCS' new Life Members. (See newsletter brief.)

May 11-13

HEC-RAS Computer Workshop for Unsteady Flow Applications. Held in conjunction with the [ASCE EWRI Institute](#) at the Radisson Plaza Lord Baltimore in Baltimore, MD. ASCE members, \$1,485; nonmember, \$1,695. Attendees will receive 2.4 CEUs. Click [HERE](#) for more information.

May 12-13

Financial Management for the Professional Engineer. Held at the Hilton Garden Inn Baltimore Inner Harbor in Baltimore, MD. ASCE members, \$1,225; nonmember, \$1,445. Attendees will receive 1.4 CEUs. Click [HERE](#) for more information.