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Ed Buchanan, PE

Government Relations Chair:
Austin Clark, PE

Communications Chair:
Denise Nelson, PE, ENV PV

Richmond Branch - ASCE
www.ASCERichmond.org

ELECTION RESULTS! **CONGRATULATIONS TO THE 2012-2013 BOARD MEMBERS**

NEW President-Elect
Austin Clark, PE

NEW Vice President
Brooke Young, EIT

RETURNING

Amy Bird, EIT, LEED AP, President
Mike Howell, PE, Past-President
Tony Gaynord, PE, Secretary/Treasurer

*A Special **THANK YOU** to Our Departing Officers/Chairs*

Amanda Harmon, PE, Past President (2012) and President (2011)
Denise Nelson, PE, LEED AP, ENV PV, Communications Chair (2012)

There are Still Other Volunteer Opportunities: Join a Committee!

Younger Member Committee
Membership Committee
Education Committee
Communications Committee
Government Relations Committee

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JUNE EVENT

VCU School of Medicine: Civil Engineering Tour

Date: Tuesday, June 19, 2012

Time: 4:30PM-6:00PM

Location: Intersection of N. 12th Street and E. Marshall St, downtown Richmond, VA

Registration: Please register to guarantee your spot on this tour at our website, www.ascerichmond.org, by June 14th.

Cost: \$20/person. Payment may be made via our website, www.ascerichmond.org. The registration fee includes the tour, a light dinner, and 1 PDH.

Parking: Surface lots are available along Broad St, including a \$2 lot near the intersection of Broad St and 95. The project is approximately 0.25 miles uphill from this lot.

Safety: As this is an active construction site, please bring appropriate clothing and shoes for a site visit. If you have a hard hat, safety vest, and safety glasses, please bring them along as some will be provided, but there will not enough for everyone in attendance.

Additional Information: A light dinner and presentation by the Virginia Commonwealth University Engineers Without Borders will follow the tour.

Contact: Please contact Amy Bird at abird@dewberry.com with questions, or for help with registration



Project Information

Architect: Ballinger / Pei Cobb Freed & Partners

Project Square Feet: 200,000

Total Cost: \$99,000,000

Completion Date: December 2012

Gilbane Building Company was awarded a CM@Risk contract for the New School of Medicine on the campus of Virginia Commonwealth University. This project will add approximately 200,000 GSF of administrative office, classroom, state-of-the-art simulation teaching lab and research laboratory space to meet the needs of the School of Medicine. The new facility will be located on the site of the A.D. Williams Building, which sits at the corner of 12th and Marshall Streets. Demolition of the A.D. Williams Building and connecting pedestrian bridges is included in this scope of work. Specifically required is abatement of asbestos, lead paint and other hazardous building materials. Historic features from the building will be saved and either integrated into the new building or salvaged and turned over to the Owner. It is anticipated that new pedestrian bridges will be constructed and included in this scope of work. This project will utilize Design/Assist and Building Information Modeling (BIM).

Our tour will specifically feature the civil engineering aspects of the project, which include the following:

- The steam system servicing the entire VCU HS campus and the governor's mansion ran through the basement of the building we demolished, so there was extensive utility relocation prior to the start of the work.
- The structure is surrounded by existing utility tunnels built at least 60 years ago.
- The building is striving toward LEED Silver and some points of interest include a rainwater reclamation system in the sub-basement, The entire west face is a climate controlled wall with louvers which control the amount of light and hot air into the space.
- The building has incorporated Chilled beams throughout the project as an efficient way to cool the building. Also steam is the primary heating source of the building.

Gilbane Inc.

The tour will be presented by Gilbane Building Company. Gilbane Inc., based in Providence, Rhode Island, is one of the largest privately held family-owned real estate development and construction firms in the industry. Proudly family-owned and operated since 1873, their rich history combines with their extensive knowledge of today's ever-changing demands, allowing them to deliver the best facility solutions for their clients.



They are steadfast advocates for clients, employees, and the communities in which they work. Through community involvement, sustainable business practices, and unwavering integrity, they are always striving to be better and to do better. They're honored as a three-time member of the FORTUNE100 Best Companies to Work For" list for 2009, 2010, and 2011.

Gilbane Inc. comprises two operating companies: [Gilbane Building Company](#) and [Gilbane Development Company](#). These two often work jointly as one company to provide integrated expertise in finance, property development, planning and commercial construction.

VCU Engineers Without Borders

Following the tour, the Virginia Commonwealth University Engineers Without Borders club will present their current project in Bolivia to us. The students are currently working on providing a sustainable water delivery system in a developing community, and have recently successfully completed their first Assessment trip to determine some of the community's basic needs. They will be returning to Bolivia in the fall. Their presentation will feature their findings from Bolivia, as well as the next steps and future needs of their project.

More information on their project can be found in the following article, from the Richmond Times-Dispatch: <http://www2.timesdispatch.com/news/2011/jul/18/tdmet01-local-engineers-chapters-have-mission-in-b-ar-1178827/>

PRESIDENT'S MESSAGE: FAREWELL RICHMOND

Mike Howell, PE

This month's message is especially important to me for two reasons. First, it's my last as the Richmond Branch President. Second, it will also be my last as a resident of the Richmond area.

This month's newsletter will announce the incoming branch officers who will officially begin their tenure on August 1st and my time as President will come to a close. Additionally, by the time that this newsletter is distributed I will either be on my way or may have already started a new job at Allegheny Design Services in Morgantown, WV. Both circumstances have left me with many moments of reflection recently about my time here in Richmond and my time spent in the branch.

Five years ago, we arrived in Richmond quite unsure of what this chapter in our lives would bring. Five years later, I have the privilege of saying that these years have reflected some of the best of my life and have brought me many cherished memories...our Richmond apartment was the first place my wife and I returned to after our wedding; our first house in southern Chesterfield was where we brought my son home to for the first time last year; we have met great friends and found a church and community that let us feel at home; we learned that the term 'Yankee' is still used freely to describe anyone from the north; and we learned that 'barbeque' is in fact its own food and not just a type sauce.

Something else happened five years ago...I joined ASCE as a professional member for the first time. This was a decision that has made all the difference for me professionally while I have been here. I intended to only be a participant but quickly found myself getting more and more involved. It finally culminated when I had the opportunity to run as President of the branch last year. It's been an incredible opportunity to have been part of this group. This year's board is filled with some of the most energetic and promising young professionals that I have ever met. I believe that the branch will continue to grow and will become a model organization and professional society because of them. I offer my most sincere appreciation to the board for their hard work, dedication, and commitment to helping make this year my most enjoyable in the organization yet. Goodbyes are tough and taking a step into the unknown can be even tougher. My strongest wish is that those who I have gotten closest to during my time here in Richmond will always remain close friends. Thank you to everyone who I met during my time here. Thank you to all my friends in ASCE who have given me so many great memories. And thank you for the tremendous opportunity to be part of such a wonderful organization and community.



The Board and Committee Chairs would like to thank Mike for his Dedication to the Branch and the Legacy he Leaves in the Popsicle Bridge Contest, Branch By-Laws, and All the Future Leaders he has Inspired and Supported.

FOLLOWING UP....

Membership Appreciation and Recognition Event

May 9, 2012

Hardywood Park Brewery

ASCE Richmond Branch President, Mike Howell, opened the meeting with a recap of the meetings and events the Branch has held over the previous year. Items mentioned include a 25% increase at monthly meetings and increased participation at the popsicle bridge contest with over 200 entrants this year. After the recap, Mike introduced the Life members. To become a Life Member an ASCE member must have 30 years of membership in ASCE with the past 10 being consecutive. The six members being inducted this year include: from 2010 Barry Wright, from 2011 Dr. Richard Simon, John Robertson and from 2012 Jay Ashley Williams, Daryl Grogan and Roger Cronin.



Also recognized was the two time recipient of the ASCE scholarship, Kirk Milligan.

After the presentation of the Life Member pins and certificates, Tom Smith, General Counsel for ASCE National spoke about ASCE history, its role, volunteer involvement, and the West Point Bridge contest. Leading into ASCE's three key initiatives being pursued; infrastructure, sustainability and raise the bar. The publication of ASCE's national infrastructure report card has raised visibility of ASCE, civil engineering and the needs of our nation's infrastructure. Recently, Kathy Caldwell met with President Obama presenting him with ASCE's report, Failure to Act, and the requirement of 2.2 trillion dollars to bring our nation's infrastructure up to standards. The deficiencies in our infrastructure will cost America three trillion dollars. Roads, water, waste water, and the electric grid are all included in our deficient infrastructure.

How can we convert our conversation to action? ASCE has filed a friend of the court brief with regards to the lawsuit being filed in the I-35 bridge collapse which happened in 2007. The bridge was built in 1967 with design responsibility expiring after 15 years. Recent action by the Minnesota legislature changed the law. Under revisions to the law the engineer of record, Sverdrup/Jacob is now responsible for under the lawsuit filed.

On the sustainability front there is a renewed focus. ASCE National is taking sustainability to heart applying for LEED certification for its corporate building. Working together ACEC, ASCE and APWA are developing a sustainability rating tool, ISI. This will provide certification for engineers.

The raise the bar initiative focuses on civil engineering education. Primarily regarding the credits required to graduate with a bachelor's degree in civil engineering. Current minimums are 128 hours. Previous minimums were at 150 hours. How does the reduction in graduation requirements affect the standards of engineers graduating college today?

The event concluded with a tour of the brewery.

NUTRIENT OFFSETS

PERMIT SOLUTION FOR VSMP WATER QUALITY COMPLIANCE

Submitted By: Chesapeake Bay Nutrient Land Trust, LLC

What are Offsets?

As most engineers are aware, compliance with Virginia's stormwater regulations involves not only providing adequate volume controls to prevent downstream channel erosion and other *quantity*-related impacts, but also requires addressing water *quality* through meeting a phosphorus-based nutrient limitation in the effluent leaving the site. Engineers are also familiar with the various on-site BMPs available that provide some level of phosphorus removal up to a 65% efficiency as per the regulations. The intent of this article is to provide an introduction to an innovative method to achieve compliance with the water quality component of the VSMP program as administered by DCR: Nutrient Offsets (Offsets).

Nutrient Offsets are similar in concept to other types of environmental credits (i.e., wetland and stream), and are developed through the implementation of predominantly land-based nutrient-reducing activities such as land conversion and the use of agricultural BMPs. Based on the type and level of nutrient reduction activity, a resulting number of phosphorus Offsets are generated, which in turn can be used by the development community to mitigate for the increase in impervious surfaces created during development.

How are Offsets Beneficial to the Engineering and Development Community?

The enabling legislation (VA Code § 10.1-603.8:1) provides that Offsets may be used in meeting phosphorus-based water quality requirements under the VSMP stormwater programs administered by DCR and localities when:

- The project area contains less than 5 acres of land disturbance; or
- The post-construction phosphorus requirement is less than 10 pounds per year; or
- You are replacing on-site water quality BMPs (e.g., in-ground manufactured devices) that are not functioning as designed, eliminating long-term maintenance liabilities and costs.

Offset use simplifies the design and construction process by eliminating the installation and maintenance of costly and complex in-ground treatment systems, and may shorten the timeframe needed to complete permitting and construction. Offsets have been used in new development situations and for permit compliance on projects that failed to meet water quality requirements during construction. Offsets offer a level of flexibility in site design, and are especially useful for redevelopment projects and other projects that face site constraints including grading issues, limited soil permeability or other design constraints.

The most important advantage Offsets provide is cost savings. As you are aware, traditional methods of nutrient reduction have focused on the on-site installation of BMPs. Based on one manufacturer's most recent price list, the largest device that treats 0.7 lbs. of phosphorus annually costs approximately \$22,000 *uninstalled*. In addition to the installment costs, you must factor in potential modifications to the site (grading, piping, separate curb cuts, etc.), annual maintenance fees (\$300-\$500 per unit), replacement of filter media in 5-10 years and replacement of entire system in 20-25 years. Once full-cost accounting is employed, you can easily see how the price to treat 1 pound of phosphorus on-site could run \$35,000+ and creates a long-term maintenance and space liability. Offsets priced at current levels of approximately \$20,000 per pound of phosphorus offer at least a 40% savings over manufactured treatment devices (MTDs).

It is also important to note that one pound of phosphorus leaving a site is mitigated by one pound of phosphorus Offsets, resulting in a 100% efficiency for the Bay, rather than allowing a "leakage" of at least 35% of the pollutant to enter state waters as MTDs currently do (the best device efficiency for phosphorus removal is listed at 65% according to Virginia stormwater regulation 4VAC50-60-96 as administered by DCR). The question then arises: do these MTDs function as advertised under real-world conditions given the multitude of site condition variables including soil types, permeability ratings, groundwater hydrology, water table elevation, specific installation characteristics, and adherence (or lack thereof) to required maintenance schedules, among other factors?

How do you use Offsets for a Project?

If you have additional questions regarding offset use or policy, we encourage you to contact Chesapeake Bay Nutrient Land Trust, LLC (CBNLT) at 804-222-5114 or info@cbnlt.com. CBNLT will assist you in understanding the policy underpinning Offset use and the practical use of Offsets for your projects. We work with project engineers, developers, DCR and localities to ensure that a project meets the parameters for Offset use under the law. CBNLT provides Offsets that have been certified by DCR and DEQ and will assist with documentation regarding water quality requirements necessary to secure site plan review and coverage under the VSMP permit program.

About Chesapeake Bay Nutrient Land Trust, LLC:

Chesapeake Bay Nutrient Land Trust, LLC (CBNLT) is a provider of nutrient offsets and permit liability solutions in Virginia, specifically through the ownership and management of nutrient banking facilities. CBNLT is a pioneer in the nutrient trading business, having been a key stakeholder in nutrient trading legislative and regulatory policy development as well as the designer and owner/operator of the first two nutrient Offset facilities in Virginia. These facilities generate implemented and functioning nutrient reductions that provide over 850 pounds of phosphorus and 2,000 pounds of nitrogen annually. As the first Offset provider in the state we have set the gold standard for lowering project costs, consolidating permitting timelines and simplifying long-term maintenance efforts.

YOUNGER MEMBER GROUP NEWS

Baseball Fun

The Younger Member Group will take in a Flying Squirrels game on July 21. We will once again rent out a Party Deck at The Diamond and we have 20 seats available. Sign up on the website to reserve your spot - we are asking for a \$5 contribution from you to help cover the cost. We look forward to seeing you at the game!

P.E. Planner

Upcoming exam date is October 26, 2012

ASCE ACHIEVEMENT AWARDS

The Honors and Awards Program of the American Society of Civil Engineers has as its objective the advancement of the engineering profession through the recognition of exceptionally meritorious achievement. Fill information is at www.asce.org/awards.

Nominations Due August 15th

- Arthur Casagrande Professional Development Award
- Construction Management Award
- Martin S. Kapp Foundation Engineering Award
- Karl Terzaghi Award (Nominations Accepted At Any Time, But Awarded In Odd Years)

HAPPY
WORLD ENVIRONMENT DAY
June 5

FOUND MONEY: EPACT / 179D TAX BENEFITS FOR DESIGNERS, ARCHITECTS, CONTRACTORS, AND BUILDING OWNERS

Your CPA commonly does not know about this.

Over 95% of this Federal program's potential beneficiaries are missing out!

The opportunity is up to \$180,000 for every 100K square feet of building space impacted to help the owners, tenants, and/or the designers of Public buildings to significantly reduce project costs and recover part of their past project investments from the IRS!

A recent single project completed this month, allowed the Architect to recover approximately \$400,000 in new tax benefits.

Please visit the included link to read my full article on the topic at:

<http://engineeredtaxservices.com/?p=4257>

COMMUNICATIONS COMMITTEE NEWS

Summer Newsletter

Look for the summer issue of the Branch newsletter in mid July.

Check out the Additions to the Branch Website

www.ASCERichmond.org





CBNLT - Tomorrow's Natural Resources Today

OFFSET CREDIT TRANSFERS NOW
DCR CERTIFIED - ENTIRE JAMES RIVER WATERSHED

VIRGINIA law allows offset use to meet water quality requirements and stormwater management.

GOT A BMP ?

- DCR supported: Statewide and Locality acceptance
- EXISTING BMP replacement allowed through offset use
- STOP BMP liabilities, CEASE maintenance
- Enhance your clients opportunities with this cost effective solution to lowering development costs.
- CBNLT transfer services provided with every transfer at no additional cost.
- CBNLT is the industry leader in environmental Trading practices such as "Nutrient Offsets"

www.cbnt.com

804.222.5114

SAVE MONEY !

RESERVED PRICING as listed
will be Valid for 60 days.

\$ 19,000 lb

Offsets are a viable option for meeting Water Quality Requirements when:

- Less Than 5 acres will be disturbed.....OR...
- Less than 10 lbs of phosphorus removal is requiredOR.....
- Project has reached 75% Water Quality treatment onsite.....OR.....
- Faltering **BMP's** are not functioning as anticipatedOR.....
- A project is under Compliance Review

CBNLT: Virginia
authorized Offset
Broker

CONTACT:

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CBNLT

GOVERNMENT RELATIONS COMMITTEE NEWS

Federal Transportation Funding Expires June 30

A House-Senate Conference Committee working on a final agreement is running out of time. Conferees are expected to need to reach agreement by mid-June to allow enough time for the House and Senate to approve the agreement and the President to sign a bill into law by the end of June.

Call and write your Congressional Representatives today. Urge them to support quick action to finalize a transportation authorization bill. Support completion of a well-funded, multi-year authorization that:

- at a minimum provides current levels of investment plus inflation
- strengthens local decision-making authority and flexibility to address local transportation needs and
- expedites the project delivery process.

On May 8, the House-Senate conference committee began negotiations toward passing a long-term surface transportation authorization bill, but the conferees have not reached an agreement yet. In March the Senate approved a two-year, \$109 billion reauthorization bill, MAP-21 (S1813). The Senate bill reauthorizes highway and transit programs at current funding levels plus inflation, consolidates programs, eliminates earmarks and expedites project delivery. Because the House did not approve its own transportation reauthorization bill, MAP-21 is the basis for negotiating a final bill. However, the House approved a “shell” bill (HR 4348) which initiated the process for establishing the conference committee.

To view the Senate bill, visit

<http://www.gpo.gov/fdsys/pkg/BILLS-112s1813es/pdf/BILLS-112s1813es.pdf>.

To view the House bill, visit

<http://www.gpo.gov/fdsys/pkg/BILLS-112hr4348rds/pdf/BILLS-112hr4348rds.pdf>.

ASCE urges members to continue to contact their legislators and urge them to pass a surface transportation bill before the current extension expires on June 30th.

House Debates Corps Construction Budget Cuts For 2013

The House is debating an appropriations bill this week that reduces funding for the U.S. Army Corps of Engineers Civil Works programs in Fiscal Year 2013 by more than five percent from the FY 2012 level.

The FY 2013 budget for the Civil Works program of the Corps of Engineers totals \$4.8 billion, a reduction of about five percent from FY 2012. The Corps' construction program would receive \$1.48 billion, \$216.7 million below FY 2012.

“ASCE recommends a minimum appropriation of \$5.2 billion for the Corps of Engineers in FY 2013 to account for inflation and to halt the decline in budget authority to ensure safe infrastructure and a sound economy,” the testimony said.

Virginia Government News

Former Virginia Governor Tim Kaine acted within his authority when he decided in 2006 to transfer the Dulles Toll Road and management of the Dulles rail project to the Metropolitan Washington Airports Authority (MWAA), Attorney General Kenneth T. Cuccinelli II said Tuesday. Mr. Cuccinelli, responding to an inquiry from state Delegate Robert G. Marshall, wrote in an official advisory opinion that, while there is no “express authority” allowing the governor to transfer administration of the toll road, various statutes give the executive branch broad flexibility to provide for public transportation. The opinion, dated May 25 and released Tuesday, marks a politically sensitive development involving a white-hot issue to three of the candidates running for the U.S. Senate seat to be vacated by retiring Democratic Senator Jim Webb, not to mention Mr. Cuccinelli – who plans to run for governor in 2013.

Read More: [Washington times 5/29](#)

FREE WEBINAR

Failure to Act Economic Studies: What Happens to the Economy if We Don't Invest in Water and Energy Infrastructure Today

Date: Wednesday, June 6, 2011

Time: 2:00 PM ET

Cost - Free for ASCE Members

ASCE has launched a new series of reports that take a closer look at the economic impacts of our failing infrastructure in America. This free ASCE eLearning webinar will look at the economic studies that look forward to 2020 and 2040 to determine potential impacts on GDP, personal income, and jobs if current infrastructure investment trends continue. This discussion focuses on the findings of the latest two economic studies showing the consequences of not investing in water and energy infrastructure today. As Sections and Branches look to explain to state and local officials the need to invest and maintain their infrastructure, these reports can serve as a resource for members to make the critical connection between infrastructure improvements and the American economy. Register for this webinar today!



McKINNEY
& COMPANY

BRANCH BUSINESS**Schedule of Upcoming Events**

Date	Speaker	Topic	Location
June 6, 2:00pm	ASCE National	What Happens to the Economy if We Don't Invest in Water and Energy Infrastructure Today	Webinar
June 19, 4:30pm	Gilbane and VCU Engineers without Borders	Tour of VCU New School of Medicine Building and Sustainable Water System in Bolivia	VCU New School of Medicine Building
July 21	--	Squirrels Baseball Game	The Diamond

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There is more great information at:

www.ASCERichmond.org www.ascevirginia.org www.asce.org