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JMT GARNERS TOP AWARD IN ACEC/MD ENGINEERING EXCELLENCE AWARDS COMPETITION

The American Council of Engineering Companies/Maryland (ACEC/MD) is pleased to announce that Johnson, Mirmiran & Thompson received the **Grand Award** in the 2014 ACEC/MD Engineering Excellence

Awards (EEA) competition for the *11th Street Bridges, Phase 1* project. The twelve finalists in this prestigious competition were recognized for diverse accomplishments that exemplify today’s engineering challenges.

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2014 GRAND AWARD Johnson, Mirmiran & Thompson | *11th Street Bridges, Phase 1 (Washington, DC)*

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AMERICAN COUNCIL
OF ENGINEERING
COMPANIES/MARYLAND
312 N Charles Street, Suite 200
Baltimore, Maryland 21201
(410) 539-1592
FAX (410) 685-5470
www.acecmd.org

PRESIDENT'S MESSAGE

by Jack Moeller, P.E.

Congratulations to all the participants in ACEC/MD's Annual Awards Program! Charlie Adams again moderated the affair, as only Charlie can, with a mixture of humor and dignity. Please read about each of the winners in this news letter. On a personal note, I was especially pleased to be able to select Mr. William K. Hellmann, PE for the 2014 ACEC/MD President's Award. I can think of no one more deserving to receive the award. What would Maryland be like without all of Bill's contributions? Would there be a Fort McHenry Tunnel, a Seagirt Marine Terminal, an I-395 or the stadiums at Camden Yards to mention just a few of his accomplishments? I don't know, but I doubt it.

A special "thank you" to Rachel Ellis, Awards Chair for all her work organizing the Annual Awards Program. I'm sure she had a lot to do with the Awards night being the best attended of any I can remember.

As I mentioned in my December column, one third of the current 188 member General Assembly will be new after this year's election. We will also have a new Governor, Lieutenant Governor, and Attorney General. This election offers a unique opportunity to build support for issues important to our industry. So how can we take advantage of this unique election year? In a simple phrase, get involved. I bring this issue up again because we struck out this last legislative session. While it is unusual to gain passage of legislation the first year that it is introduced, our top three agenda items: Liquidated Damages, Certificate of Merit and Duty to Defend all died with the end of the session. The only small success we had was that there were no major reversals on infrastructure funding or attacks on Quality Based Selection (QBS). Our voice isn't being heard by our elected officials because it isn't loud enough. We need all of our member firms to get involved and more importantly, motivate their employees to get engaged. Our legislators need to know that we have a lot of votes that can help them or hurt them. One way for them to recognize our collective strength is when we meet our goal of having at least 1000 employees respond to "Legislative Alerts".

We are also seeing a disturbing new trend that appears to be taking root. Local governments are turning to protectionism in an effort to boost local employment and



business ownership. First we had a regulation passed by the Baltimore City Council requiring that 51% of all new hires generated by City contracts be residents of the City. While the intention of the law is to find employment for the unemployed, I don't know too many unemployed engineers living in Baltimore City. More often than not, unemployed engineers are new graduates living with their parents. These new graduates move to the City for the urban lifestyle after landing an engineering job. Unfortunately, these new hires don't count in meeting the 51% mandate.

Then, Prince George's County passed a regulation that creates bidding preferences and participation requirements for Prince George's County headquartered firms? That's right, I said headquartered, not just located in the county. The cost of not complying on a "low bid" job is a 10% premium added to the bid over a County-based business and a 15% premium over a County-based small business. Another way of looking at this is if Microsoft, Disney, or any other large firm decides to open an office in the county with 1000 employees, it would be at a disadvantage to a two employee mom and pop company located in the county. Furthermore, say that Microsoft decides to move its headquarters to Prince George's County; it would still be ineligible to be a County-based business because more than 50% of its sales would be derived from sales outside the county. Where is this additional money going to come from to pay for the 10-15% bid preference? Call me silly but I don't think it

will be from taxes paid by national or international firms locating new offices in the county. As Delaware demonstrated a long time ago, if you want to attract businesses, you do it with fewer regulations and more incentives.

I look forward to seeing everyone at our 26th Annual Conference on June 25th to 28th at the Hotel Monteleone, New Orleans. Happy Spring!



THANKS FOR BEING A SPONSOR

ACEC/MD would like to extend its sincere appreciation for the support of our Awards Banquet Sponsors. This event would not be a success without the participation of the following firms:

PLATINUM:

Ames & Gough

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ACEC/MD 2014 ENGINEERING EXCELLENCE AWARDS

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GRAND AWARD

JOHNSON, MIRMIRAN & THOMPSON

11th Street Bridges, Phase 1

Conditions along the 11th Street, SE corridor in Washington, DC had long confounded local and regional traffic. Unfinished roadway connections prevented direct access between the Southeast Freeway (I-695) and northern portion of the Anacostia Freeway (DC 295/I-295). The 11th Street bridges, built in the 1960s, handled extensive commuter traffic as a result of their close proximity to the Washington Navy Yard and US Capitol building. Freeway connections were needed, and structurally-deficient bridges along the 11th Street corridor were due to be replaced.

Undertaking the largest construction job in the history of the District Department of Transportation (DDOT), the Design-Build Team of Skanska/Facchina/JMT provided three new bridges over the Anacostia River as Phase 1 of the 11th Street project. Innovative design techniques, which reduced environmental and community impacts, were utilized to maximize the funds for this \$260 million Design-Build-to-Budget Stipulated Sum procurement. All in all, JMT's design helped DDOT achieve a substantially completed project at an equivalent

cost savings of \$85 million below the engineer's original estimate for the project elements included in Phase 1.

The primary structures included three new major continuous steel multi-girder bridge crossings of the Anacostia River and two complex interchanges with the Southeast Freeway and Anacostia Freeway (I-295). The new 11th Street Bridge connects the freeways, separates access for local traffic, enables better accessibility to DC neighborhoods, enhances safety and quality of life for residents, and improves regional connections with new traffic movements. All work was completed while maintaining full environmental compliance throughout construction over a major waterway. Furthermore, the project promoted job growth and economic stimulus to the area as part of the Greater Anacostia Waterfront Initiative.

OUTSTANDING PROJECT AWARDS

EBL ENGINEERS, LLC

Net Zero Energy Residential Test Facility

The Net Zero Energy Residential Test Facility (NZERTF) was designed to demonstrate the viability of the Net Zero Energy concept for a residential structure that is similar in size and operation to the surrounding

homes in the Gaithersburg area. The NZERTF will generate as much energy on an annual basis as it consumes when operated in a manner that mimics a residence occupied by a family of four. It is currently being used as a lab for testing various building energy technologies by the Building Fire and Research Laboratory (BFRL) of NIST. The HVAC and electrical designs have incorporated the initial requirements as well as the future requirements for the energy technologies testing laboratory. These criteria were established by NIST and BSC. Additional requirements for air-tightness, indoor air quality and LEED for Homes were met.

The NZERTF is a wood-framed structure with approximately 2,500 SF of interior space with a basement and an attic. The entire space, including the basement and attic, have been conditioned. The detached garage serves as the facility control room where the interior loads of the "simulated family of four" can be programmed and monitored. Lights turning on and off, showers starting and stopping, and cooking can all be controlled through this space.

As Engineer of Record for this project, EBL provided the design, construction drawings, and specifications for HVAC (conventional and geothermal) electrical, photovoltaic generation, plumbing, solar thermal domestic water heating, interior alarm and fire detection, and fire sprinkler systems as well as the control and automation systems to facilitate the simulations suitable for a public bid process.

GANNETT FLEMING, INC.

Annapolis Market House Geothermal HVAC Project

Once again, a thriving business and gathering place in Annapolis, a series of events, beginning with the floods caused by Hurricane Isabel in September 2003, kept the Annapolis Market House nearly empty for close to a decade. Upon reopening in 2006, it quickly became evident that the building's



EBL Engineers Net Zero Energy Residential Test Facility (NZERTF) (Gaithersburg, MD)

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Gannett Fleming Annapolis Market House Geothermal HVAC System (Annapolis, MD)

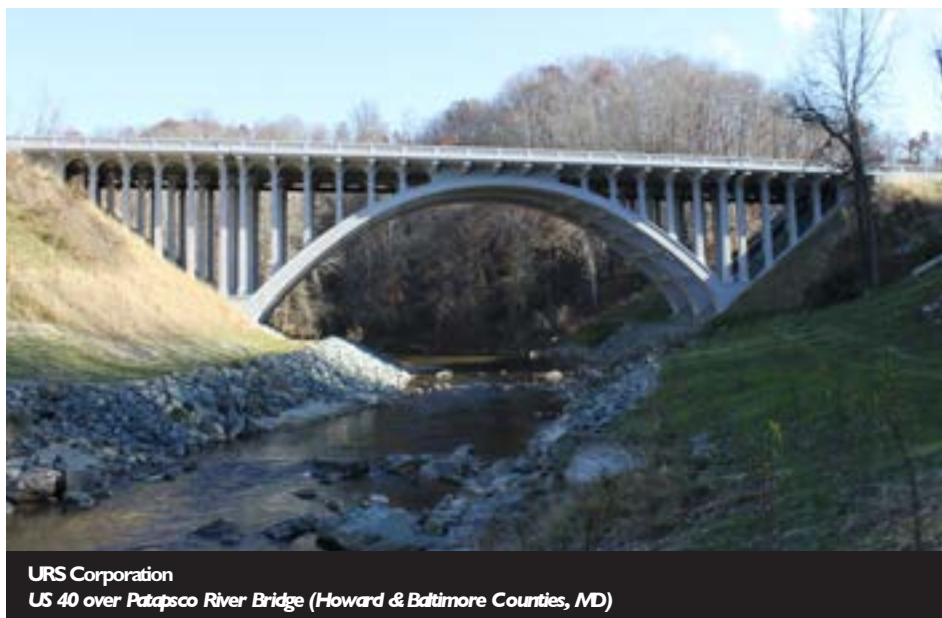
heating, ventilating, and air conditioning (HVAC) system could not keep pace with the heat emanating from tenants' hot gridles, deep fryers, and industrial refrigerators and freezers. As a temporary solution, the city installed two large air conditioning units in the parking lot.

In December 2010, the city contracted with

Gannett Fleming to correct the HVAC system's shortcomings. After completing a study in one week, the firm recommended a 60-ton geothermal HVAC system. The mayor and city council were torn between Gannett Fleming's geothermal recommendation and a non-geothermal system that would cost less yet present other design and energy sup-

ply challenges. Public interest was high, and the decision was debated in the local media. Gannett Fleming, through crucial testimony at city council meetings provided assurances that the City of Annapolis was up for the challenge of installing a geothermal system in an historic district near a body of water. While geothermal systems are not necessarily unique, it is very unusual to find such an installation in a highly congested downtown environment.

The Annapolis Market House HVAC system required 22 closed-loop geothermal wells drilled to a depth of 360 feet each as part of a ground source heat pump system. To be most effective these wells had to be installed in adjacent roadway/ parking areas in the downtown City Dock area, and had to be designed to accommodate the heavy vehicle and pedestrian traffic. This solution was the best option available, as the historic nature of the exterior would not allow rooftop units or at-grade systems to be used. The project was installed in three phases to reduce the disruption to area traffic. Along with outfitting the HVAC system with 21st century technology, Gannett Fleming updated the facility's interior. A new vendor layout, shiny counters, and a 24-seat bar with window seating transformed the look of the long, low space. The Grand Opening of the newly outfitted facility took place in August 2013.



**URS Corporation
US 40 over Patapsco River Bridge (Howard & Baltimore Counties, MD)**

URS CORPORATION

US 40 Over Patapsco River Bridge

The US 40 Bridge over Patapsco River, built in 1936, is one of 17 priority level historic bridges owned by the Maryland State Highway Administration. The bridge is a reinforced concrete open spandrel arch with a main arch span of 195 feet over the river and concrete approach spans of 64 feet to the east and 76 feet to the west. This four lane bridge consists of three reinforced concrete arch ribs supporting spandrel columns and a reinforced concrete deck system. This aging bridge had significant levels of deterioration, resulting in a major rehabilitation

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AB Consultants, Inc.
Farrar Road Bridge at Davison Army Airfield (Ft. Belvoir, VA)

project to prolong its life and to increase the live load rating from H-20 to HS-25. The project included replacement of the deck, open balustrade, spandrel beams, floor beams, overhang brackets, spandrel columns, spandrel walls and the struts between the arch ribs. The deck and spandrel walls at the center of the arch span were thickened to increase the stiffness in the positive bending moment region, which in turn reduced the negative bending moments at the ends of the arch ribs, avoiding their replacement.

The open balustrade was severely deteriorated and had been kept in service with temporary guardrails attached to its solid sections. Due to the current barrier test level requirements for this bridge, the open balustrade could not be replaced in-kind. Instead, the exterior face of a new TL-5 barrier was formed to emulate the shape and architecture of the open balustrade and preserve the bridge's historic architectural "feel." Four lanes of traffic on this heavily traveled roadway had to be maintained during all phases of construction. This was accomplished by the construction of a pair of two-lane temporary bridges parallel to the bridge. The parallel alignments of the temporary bridge/roadway and the steep terrain at the site required a combination of perma-

nent and temporary retaining walls to support the roadway. To accommodate pedestrians and bicyclists, the bridge was widened to contain five foot shoulders. Since the bridge reconstruction was replaced in kind, except for the parapet, it received a No Adverse Effect ruling from the Maryland Historic Trust.

HONOR AWARDS

AB CONSULTANTS, INC. **Farrar Road Bridge at Davison Army Airfield**

Originally built in 1988, Panther Bridge was named for the mascot of the 11th Heavy Combat Engineers Battalion which constructed the bridge. Now known as Farrar Road Bridge, the bridge spans the Accotink Creek and provides the primary access point to the security gates for Davison Army Airfield on Fort Belvoir, VA.

Due to the rise in Accotink Creek's water surface elevation, the subject two-lane highway bridge, which leads Farrar Road to the main access of Davison Army Airfield, was often inaccessible during storm events.

AB Consultants, Inc., the engineering firm to the contractor, was retained to manage the design under a design-build contract, providing a new bridge at a higher elevation, a bridge which accommodates pedestrian traffic, and one which improves security of communications lines which were attached to the side of the existing bridge, and vulnerable to damage.

AECOM

Baltimore Climate Action Plan

In 2009, Maryland enacted the Greenhouse Gas (GHG) Emissions Reduction Act requiring the state to implement a plan that achieves GHG emissions reductions by 2020. At the same time, the City of Baltimore adopted its own Sustainability Plan to develop and implement a Climate Action Plan (CAP) establishing GHG reduction targets. The AECOM team worked with the Baltimore Office of Sustainability to create the CAP, establish targets and develop strategies that help Baltimore meet its 15%



AECOM Baltimore Climate Action Plan (Baltimore, MD)

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EA Engineering, Science & Technology
Bacterial Source Tracking for Sanitary Sewer Overflow (SSO) Consent Decree (Prince George's & Montgomery Counties)

GHG reduction goal from a 2010 baseline, while also saving energy and water, reducing waste, modernizing buildings and improving the public realm.

A pioneer in developing and applying methodologies used in climate action planning, AECOM used its proprietary CAP Toolkit to help Baltimore understand potential GHG reductions from a range of different GHG policy and program options across energy, land use, transportation, waste management and water delivery sectors. This quantitative output empowered city leaders to make decisions about the political, technical and economic feasibility of strategies that achieve reduction targets.

AECOM worked closely with city leaders to review GHG inventory and reductions anticipated from current mitigation activities, project the level of GHG emission reductions required by 2020 and develop a portfolio of strategies that actually exceeded this target. AECOM also commissioned an animation that demonstrates tangible steps residents can take to meet the CAP's goals. Endorsed by Baltimore's mayor and approved by City Council in 2012, the CAP is now being used to guide effective decision-making and the strategic allocation of the city's resources as Baltimore takes its next steps to reduce GHG emissions.

EA ENGINEERING, SCIENCE AND TECHNOLOGY, INC.

Bacterial Source Tracking for SSO Consent Decree

To determine the impact of SSOs on surface water quality, EA is currently in their eighth year supporting the Washington Suburban Sanitary Commission's (WSSC) Consent Decree to implement a bacterial source tracking (BST) program for sampling sewer basins within Montgomery and Prince George's Counties. EA has developed and con-

tinues to execute a program to characterize long-term water quality trends in pathogen indicators from human versus non-human sources associated with improvements made to the WSSC's sewer collection system. To determine the most accurate and cost effective laboratory methods, EA conducted an extensive literature search and contacted leading microbiologists. Molecular, biochemical, and chemical were evaluated for the BST program. Based on the findings, EA developed a Water Quality Monitoring (WQM) Plan that includes routine BST testing in 26 sewersheds. The plan was fully approved by the U.S. Environmental Protection Agency (EPA), the Maryland Department of the Environment (MDE), and various citizen action groups including the Anacostia Watershed Society, Audubon Naturalist Society, Friends of Sligo Creek, and the Natural Resources Defense Council.

To date, EA has collected 23 rounds of BST monitoring at 46 regional stream locations. The BST analysis characterizes the host-origin of bacteria found in surface water samples from the 26 sewersheds into six host categories: human, avian, deer, canine, horse, and wildlife. EA performed a statistical analysis to identify surface water locations that had the highest probability of being adversely impacted by SSOs. EA then conducted a source investigation study to determine specific sources of SSOs in those watersheds found to have significant human fecal bacteria in surface water. EA



Joint Venture - Garnett Ferring Whitman, Reardon & Associates
Purple Line Light Rail Transit Project FES (Montgomery & Prince Georges Counties)

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ACEC/MD 2014 ENGINEERING EXCELLENCE AWARDS

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KCI Technologies Inter-County Broadband Network (Central Maryland)

conducted analyses of spatial and long-term temporal trends in the BST data.

EA has participated in public meetings with the Citizen Group plaintiffs in the Consent Decree and presented a summary and findings of the BST monitoring data, and answered questions about the BST program.

JOINT VENTURE – GANNETT FLEMING/WHITMAN, REQUARDT & ASSOCIATES, LLP

The Purple Line Light Rail Transit Project FEIS

For more than 20 years, regional studies and local land use plans have identified a deficiency in east-west transit services in Montgomery and Prince George’s Counties. A growing population and increased employment in the region have resulted in increasingly congested roadways. Changing land use patterns have increased the amount of suburb-to-suburb travel to and from the corridor’s major activity centers. The existing transit system is primarily oriented to accommodate travel to and from Washington, DC. The only transit service available for east-west travel is bus service, which often can be slow and unreliable because it operates on a congested roadway system. East-west travel on Metrorail within the corridor is possible but requires a circuitous trip into and then out of

Washington, DC. The constraints of growing traffic congestion, lack of opportunity to increase roadway capacity, physical geography, and existing rail infrastructure limit the possible solutions for addressing these needs.

To describe and summarize the transportation and environmental effects of implementing a new east-west light rail transit (LRT) service, the Purple Line, between Bethesda in Montgomery County and New Carrollton in Prince George’s County, Maryland, Gannett Fleming, in Joint Venture with Whitman, Requardt & Associates, along with a myriad of other environmental and

engineering consultants, were involved in the development of the Purple Line Final Environmental Impact Statement and Draft Section 4(f) Evaluation (FEIS). The purpose of the project is to provide faster, more direct, and more reliable east-west transit service connecting major activity centers in the corridor; to provide better connections to Metrorail services located in the corridor; and to improve connectivity to the communities in the corridor located between the Metrorail lines. The FTA is the lead federal agency for this project, and the MTA is serving as the project sponsor. Briefly, the Purple Line is a proposed 16.2 mile transit service located north and northwest of Washington, DC. The “Purple Line corridor” includes five major activity centers: Bethesda, Silver Spring, Takoma Park/Langley Park, College Park, and New Carrollton.

KCI TECHNOLOGIES, INC.

Inter-County Broadband Network

In Central Maryland, with its population representing about 80 percent of the state, a nine-jurisdiction consortium worked together to develop and implement a \$72 million, 800-mile network to connect more than 700 institutional and community facilities. KCI provided design engineering and construction services for the Inter-County Broadband Network (ICBN). The



McCormick Taylor Anacostia Flood Risk Management Rehabilitation Project (Prince George’s County)

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ACEC/MD 2014 ENGINEERING EXCELLENCE AWARDS

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high-speed fiber optic network serves the region's more than five million residents by directly connecting schools, community colleges, government offices, public safety buildings, libraries and other facilities.

The majority of ICBN was new conduit and fiber construction, while Baltimore City integrated their network utilizing existing underground pathways. Work efforts were closely integrated between KCI's design and construction teams, allowing for path identification and design, duct rodding and roping, permit document preparation and acquisition, fiber installation, final splicing and testing, and as-built documentation to be carried out concurrently to connect over 40 anchor site institutions within the city.

In other jurisdictions, KCI spearheaded analyses of alternative alignments and installation strategies as well as aerial and underground installation costs. KCI's total cost analysis helped save more than \$500,000 by recommending alternative underground alignments instead of following planned aerial routes lined

with severely congested poles and their associated "make ready" charges.

With construction complete, the ICBN is already providing higher quality, lower cost broadband connectivity, potentially saving taxpayers millions of dollars. Its creation places Maryland among the nation's leaders in statewide telecommunications and sets the stage for advancement in inter-governmental communication, cooperation and efficiency.

McCORMICK TAYLOR

Anacostia Flood Risk Management Rehabilitation Project

The U.S. Army Corps of Engineers (USACE) designed and constructed the Anacostia Flood Risk Management System (FRMS) in the 1950's. This system includes four levee and flood control pumping stations that protects more than 1,350 properties from the 100-year storm event. Hurricane Katrina demonstrated the potential flood risks associated with flood protection systems, and

FEMA now requires reaccreditation of all levees to meet minimum design, operation and maintenance standards as described in Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations. Otherwise, the FRMS could be de-accredited.

In 2008, Prince George's County (FRMS sponsor responsible for maintenance and operations) selected McCormick Taylor to oversee the Anacostia Flood Risk Management Rehabilitation (FRMR) to provide

flood risk reduction from high water events to seven communities in the county. The task included managing and designing the rehabilitation efforts to correct all deficiencies identified by the USACE and those discovered through design. Accomplishing these complex design goals, at a cost of \$10.4M, required environmental scientists as well as civil, hydrology and hydraulics, electrical, mechanical, structural and geotechnical engineers to address the diverse project design and construction contracts that span from 2008-2013. The project included: the major rehabilitation of 4.8 miles of earthen levee; rehabilitation to four major pumping stations; design of maintenance access vaults along 2,500 ft. of 8x4 twin pressure conduits; design of the repairs to levee penetrations, gates and flapper valves; design of slope repairs using MSE stabilization methods; develop operation and maintenance manuals for each pumping station/levee system; develop a comprehensive maintenance and testing program. By implementing the operations, maintenance and testing program, the county has a sustainable and reliable flood protection system. The social impact of the project instills confidence to the surrounding property owners that the system will provide the protection during major storm events. The reaccreditation also benefits property owners financially because flood insurance is not required.

MUELLER ASSOCIATES, INC.

John and Frances Angelos Law Center, University of Baltimore

In addition to providing state-of-the-art teaching and learning facilities while fostering collaboration, the University of Baltimore was committed to creating a law school environment that reflects sustainable design principles, and provides a comfortable and stimulating environment for students and faculty.

Aided by Building Information Modeling, the architecture and engineering of the 12-story, 192,000 square foot John and Frances Angelos Law Center was closely integrated to achieve

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Mueller Associates
John and Frances Angelos Law Center, University of Baltimore (Baltimore, MD)

MEMBER NEWS

- **A. MORTON THOMAS & ASSOCIATES** has announced that *Carlos Ostria, P.E.* has joined the firm as an associate in the firm's Rockville office. He will expand their private land development business, public works pursuits and dry utilities work throughout its Eastern U.S. service area.
- **DAFT McCUNE WALKER** announces that *Chuck Beall* is the new ACEC/MD representative for the firm.
- **DEWBERRY** has promoted *Alex Villegas* to vice president in its Lanham, Maryland office. He is responsible for zoning document preparation and preliminary design for a variety of mixed-use and residential developments.
- **EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.** announced that it has won a Business Achievement Award from the *Environmental Business Journal* for the growth of its *Contaminated Sediment Management* practice.
- **JOHNSON, MIRMIRAN & THOMPSON** is pleased to announce the following:
 - *Ken McDonald, Jr.* has been promoted to vice president in their Sparks, MD office. He has more than 41 years of transportation experience, including highway structure and traffic design.
 - *Heather Chism* has been promoted to vice president within their Sparks corporate office. She has more than 13 years of experience in human resources management.
 - The firm has acquired **GBF**, regarded in the transportation industry as one of the leading CEI firms in South Florida.
- **KITTELSON & ASSOCIATES** is pleased to announce the opening of its newest office in Tallahassee, FL.
- **KCI TECHNOLOGIES** has appointed *Gino J. Gemignani Jr.* to its board of directors. He previously served as a senior vice president with the Whiting-Turner Contracting Company.
- **NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.** has announced that *Paul J. Navarro, P.E.*, president and CEO, was recently elected as a director of the 2014-15 Land Development Coalition Executive Committee of ACEC.
- **SAMMS ENGINEERING, LLC** announces that its new business address is: 2615 Toby Lane Ellicott City, MD 21042. All other contact information remains the same.
- **STAMBAUGH NESS, PC** is excited to announce that *Tim Klimchock, CPA, CCIFF* has been elected shareholder and partner.
- **STRUCTURA ASSOCIATES'** Principal *Mark Erdman* has been selected as a 2014 Rising Star by Structural Engineering Magazine. The program annually recognizes 15 civil and structural engineers age 40 or younger.
- **URS CORPORATION** is pleased to announce that *Janie L. Tiedeman, P.E.* has been named a vice president. An employee since 1992, she leads the firm's Environmental and Transportation Planning Department in the Hunt Valley office.



WALLACE MONTGOMERY'S MEGAN PEAL SELECTED AS THE 2014 YOUNG PROFESSIONAL AWARD RECIPIENT

A registered Professional Engineer in Maryland, Megan Peal is a Designer Engineer at member firm Wallace Montgomery. She has more than seven years of progressively responsible experience in the inspection, evaluation, and design of bridges. At her previous employer, member firm URS Corporation, Megan worked on a project involving the analysis of gusset plates for the Chesapeake Bay Bridges, which was prompted by the collapse of the I-35 Bridge in Minneapolis. Megan joined Wallace Montgomery in 2011, and is currently a Project Engineer working on several bridge replacement projects in Maryland. Her willingness to tackle any project has allowed her to build strong working relationships with her colleagues and clients.

Volunteering her time has been a great experience for Megan, as evidenced by her



leadership in the following activities: ASCE Maryland Section Co-Chair (2010-2012); Maryland Infrastructure Report Card Committee (2010); ASCE National Committee on Younger Members International and Coordination Member (2012-present); ASCE Corresponding Member to the Leader Training Committee

(2012-present); Review Committee for ASCE Leadership and Management in Engineering Magazine Special Young Member Issue (2012); Corresponding Member to ASCE Raise the Bar Committee (2013-present); Corresponding Member to ASCE Committee on Licensure (2013-present); and Bridges to Prosperity (present).

Inspired to be an engineer by her father, who is also an engineer, Megan graduated cum laude from Tufts University in 2006 with a degree in Civil Engineering and received her MCE from Johns Hopkins University in 2011.

ACEC/MD is proud to recognize the accomplishments of its member firms' young professionals, and very much appreciates their contributions to the profession and society.



RKK'S BILL HELLMAN RECIPIENT OF THE 2014 PRESIDENT'S AWARD

At the president's discretion, the American Council of Engineering Companies/Maryland honors an individual whose actions have greatly contributed to the advancement of the consulting engineering profession and the citizens of Maryland. This year's winner, William K. Hellmann, P.E. was selected as the recipient of the 2014 President's Award.

A 48-year veteran of the transportation industry, and a professional engineer, Bill Hellmann is a former Secretary of the Maryland Department of Transportation (April 1984-April 1987) and Partner Emeritus of member firm Rummel, Klepper & Kahl, LLP, a Baltimore-based engineering firm. Upon graduating from the University of Maryland in 1965 with a Bachelor's in Civil Engineering, Bill began working in SHA's Bureau of Highway Design on projects such as the I-95/I-695 Interchange on the south side of Baltimore.

In 1967, Bill was one of the first engineers assigned to the Interstate Division for Baltimore City (IDBC), the City-State Agency responsible for implementing the Interstate system in the City. At IDBC, Bill rose from highway engineer to the Chief of Design to Chief of the IDBC, playing a role in the completion of I-95, including the Fort McHenry Tunnel, I-395 and the MLK Jr. Boulevard.

In 1983, Bill joined RK&K as an associate and worked on a number of Delaware DOT and Montgomery County highway projects.

In 1984, Bill was appointed Secretary of Maryland DOT, serving under Governors Hughes and Schaefer. As Secretary, one of Bill's accomplishments was securing passage of legislation that returned MDOT's consultant selection procedures from a two-envelope system (technical and price), that resulted from the Agnew scandals, to the competitive negotiations selection process in effect today. While at



MDOT, Bill also played a role in the completion of the National Freeway, I-270, the Seagirt Marine Terminal and the modernization of BWI.

In 1987, Bill returned to RK&K as a partner, leading a number of the firm's large complex projects for Delaware DOT, including I-95, US 301 and the Wilmington Riverfront, and three design sections of the Washington Metro for WMATA.

Bill has continued his involvement in major Maryland Transportation policy and funding issues by:

- Serving as a member of the Maryland Transportation Authority (MDTA).
- Chairing Transportation Revenue, Investment and Opportunity Committees for Governors Schaefer, Glendenning and Ehrlich.
- Serving as a member of the Maryland Stadium Authority for 14 years with involvement in the implementation of the two stadiums in Baltimore.

Past Awards:

- 1997 R. Charles Avara | former Delegate in MD General Assembly
- 1998 Gene Lynch | Maryland Department of General Services Secretary
- 1999 David Winstead | former Maryland Department of Transportation Secretary
- 2000 none
- 2001 Emil Kordish, PE | past ACEC/MD President; retired - Rummel Klepper & Kahl, LLP)
- 2002 Liz Homer | former SHA Deputy Administrator
- 2003 Delegate Casper Taylor (former Speaker of the House in MD General Assembly)
- 2004 Francis Kuchta, PE (former Baltimore City DPW Director)
- 2005 Carl Scheffel, PE | Fox Industries Inc.
- 2006 Neil Pedersen | SHA Administrator
- 2007 William Gluck | Maryland Department of General Services
- 2008 Don Sherin | SHA Office of Consultant Services
- 2009 John Porcari, PE | Maryland Department of Transportation Secretary
- 2010 Jaswant Dhupar, PE | former Baltimore City DPW Engineering and Water and Wastewater Division Chief
- 2011 Paul Wiedefeld, PE | Maryland Aviation Administration (MAA) Executive Director
- 2012 Brian R. Kelm | Maryland Defense Force
- 2013 Donald C. Fry | President and Chief Executive officer of the Greater Baltimore Committee (GBC)



SEEKING EMPLOYMENT

The following individual is seeking employment and has a complete resume on file in the ACEC/MD office. Please phone 410-539-1592 if you are interested in obtaining a copy.

Individual with six years of experience as an Associate Principal and Senior Project Manager involved in a variety of municipal projects, such as street and drainage improvements and water/wastewater treatment plants, seeks similar position.



(continued from page 8)



Whitman, Requardt & Associates, LLP
Division C - CSO 019 Overflow and Diversion Structures

an innovative and highly efficient design. To provide radiant heating and cooling, more than 50 miles of PEX tubing is incorporated within the building's concrete structure. Additionally, a significant amount of the building's electrical raceway is routed through the 11-inch thick concrete slabs in order to achieve an open, uncluttered architectural appearance. Chilled water and heating water is generated by high-efficiency magnetic bearing chillers and condensing boilers. Dedicated outdoor air systems containing total energy recovery wheels and passive desiccant wheels provide ventilation air and control space humidity levels. Automated operable windows provide natural ventilation when outdoor conditions are appropriate, and reduce reliance on mechanical cooling and ventilation. The atrium smoke evacuation fans supplement air circulation through the building in natural ventilation mode. Exterior shades optimize building heat gain through automated

solar tracking controls. Ultra low-flow plumbing fixtures and the use of harvested rain water for flushing toilet fixtures reduces water consumption by more than 50% as compared to typical plumbing systems. The Angelos Law Center is anticipated to achieve LEED Platinum status and attain a 43% energy cost savings over an ASHRAE 90.1-2004 baseline building.

WHITMAN, REQUARDT & ASSOCIATES, LLP

Division C - CSO 019 Overflow and Diversion Structures

As part of a Consent Decree between the United States, the District of Columbia and the District of Columbia Water and Sewer Authority (DC Water), Whitman, Requardt & Associates, LLP (WR&A) designed a Combined Sewer Overflow (CSO) structure to allow dis-

charges from the combined sewer system to the Anacostia River.

The challenge was to design an overflow structure with a hydraulic capacity of 2,400 million gallons per day and locate it on a very constrained site all while allowing continuous access to RFK Stadium and the existing Anacostia River Walk Trail during construction. As the site is located on National Park Service (NPS) property, extensive coordination with the NPS was required during the design and approval phases.

WR&A prepared designs for the project which provided an entirely below-grade structure with the exception of the stone wall at the overflow and access points throughout the system. The Overflow Structure consists of fourteen channels each 21'-0" wide by 8'-6" high with overall dimensions approximately 315 feet wide (river frontage) by 120 feet in depth. DC Water desired a 100-year design life and WR&A specified a high density concrete mix as well as specifying corrosion resistant materials such as epoxy coated reinforcing steel. Stainless steel was used for reinforcing and framing at-grade concrete panels.

After initiation of the project, DC Water requested that the design be accelerated to be completed one month early, or ten months after notice to proceed. The Division C CSO-019 Overflow and Diversion Structures were completed on August 17, 2013, which ensured that this portion of the project kept the overall Clean Rivers Project on schedule to meet the Consent Decree completion dates.



AWARD JUDGES PROVIDE VALUABLE SERVICE TO ACEC/MD

We would like to express appreciation to the following judges that played an integral part in the success of our Awards Program. The distinguished panel of judges for this year's awards included:

Will Johnson/Bimal Devkota, Baltimore City Department of Transportation

Glenn Vaughan, State Highway Administration

Ron Maj, United States Army Corps of Engineers-Baltimore District

Bruce Wright, Anne Arundel County Department of Public Works

Beverly Pannee/Michelle Madzellan, RJM Engineering, Inc.

Angela Perry, Hardesty & Hanover

Rachel Ellis, Gannett Fleming



AMERICAN COUNCIL OF ENGINEERING COMPANIES/MARYLAND
312 N CHARLES STREET, SUITE 200
BALTIMORE, MARYLAND 21201-4310

POSTMASTER: ADDRESS CORRECTION REQUESTED

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March-April, 2014

ACEC/MD 26TH ANNUAL CONFERENCE
JUNE 25-28, 2014
HOTEL MONTELEONE
214 ROYAL STREET, NEW ORLEANS, LA 70130
1-800-217-2033
VISIT THEIR WEBSITE: WWW.HOTELMONTELEONE.COM

ACEC/MD's 26th Annual Conference, being held June 25-28, 2014 at the Hotel Monteleone, located in New Orleans, Louisiana, is right around the corner, and you need to get your hotel room reservation today by calling 1-800-217-2033. The cut-off date is May 19th, but when ACEC/MD's room block is gone you will not be able to take advantage of special room rates. For details on the conference, go to ACEC/MD's website (www.acecmd.org).

In addition to the incredibly charming setting of the French Quarter, and the Hotel Monteleone, this year's conference features:

- An historic perspective of New Orleans and its many unique Engineering feats
- A presentation by the U.S. Army Corps of Engineers on the Greater New Orleans' Hurricane and Storm Damage Risk Reduction System (HSDRRS).
- A technical tour of the HSDRRS.

When it is time to wind down, conference attendees will be able to enjoy the following:

- Networking activities at our French Quarter destination hotel.
- The opportunity for golfers to test their meddle on the beautiful but challenging TPC Louisiana
- Tours of both the historic Oak Alley and Laura Plantations for non-golfers
- A spectacular sunset jazz dinner cruise aboard the Steamboat Natchez

All these activities are packed into three fun-filled, informative days. Be sure to contact the Hotel Monteleone today at **1-800-217-2033**. Our discount rate starting at \$149 per night expires May 19th or until the room block is exhausted.

