ACEC MARYLAND News

SPECIAL AWARDS ISSUE!

Volume XLVI, Number 5 March-April, 2015

In This Issue...

ICC Corridor Partners Garners Top Award in ACEC/MD Engineering Excellence Awards Competition

The American Council of Engineering Companies/Maryland (ACEC/MD) is pleased to announce that ICC Corridor Partners (a Joint Venture of Rummel, Klepper & Kahl; Parsons Brinckerhoff; and URS Corporation) received the **Grand Award** in the 2015 ACEC/MD Engineering Excellence Awards (EEA) competition for the ***Intercounty Connector (ICC) General Engineering Consultant*** project. The thirteen finalists in this prestigious competition were recognized for diverse accomplishments that exemplify today's engineering challenges.

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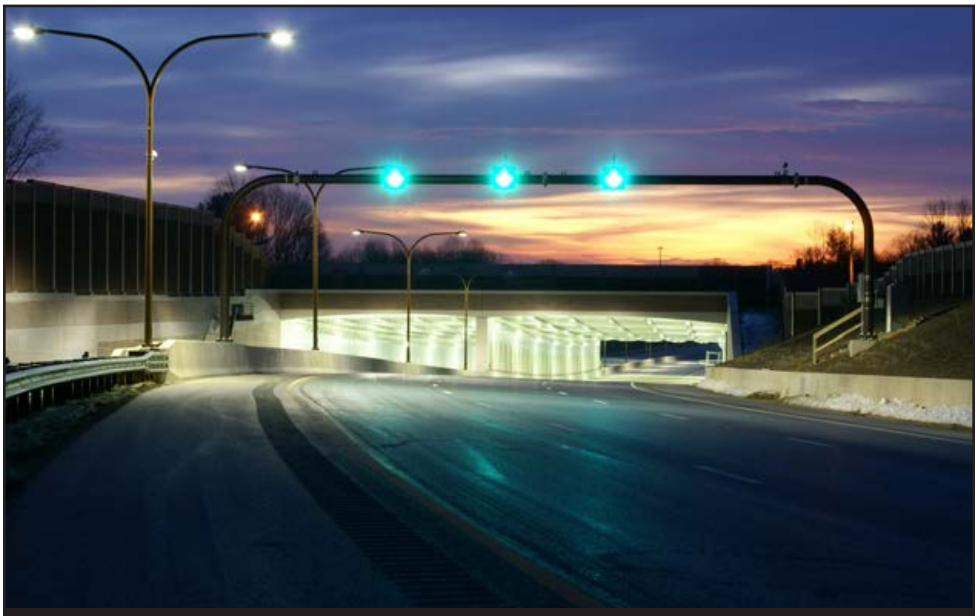

2015 GRAND AWARD ICC CORRIDOR PARTNERS - A Joint Venture of Rummel, Klepper & Kahl, Parsons Brinckerhoff, and URS Corporation
Intercounty Connector (ICC) General Engineering Consultant

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President's Message

by Dana Knight, P.E.

Spring has Sprung- Finally!!

Congratulations again to all of the ACEC award winners!! This issue highlights the people and projects that make our industry great!

The Legislative Session is over and we had a 25% success rate on the four bills that we brought forward. House Bill 738, which dealt with transferring the responsibility to resolve questions regarding contract dispute resolution from the Ethics Commission to the Maryland State Board of Contract Appeals, passed after some late intervention by ACEC/MD. This bill will create more transparency in procurement process procedures, will insure timely disposition of matters as they arise, and speed up the appeals process. Thanks to former ACEC/MD President Jack Moeller for bringing this idea up and to the legislative committee for seeing it through.

We were very close on the Certificate of Merit (House Bill 40/Senate Bill 386) and Duty to Defend (House bill 455/Senate Bill 387) bills. They passed the house almost unanimously and got bogged down in the Senate Judicial Proceedings Committee. We used our legislative alert process to instruct ACEC/MD members to write to members of the committee and encourage a vote. Unfortunately, the vote failed. Our Liquidated Damages bill got withdrawn early in the process. The legislative committee is already planning how we will successfully move these issues forward next year by setting up action items that include meetings with key legislators and the Governor's Office of Minority Affairs (GOMA).

I am happy that transportation funding is still tied to inflation. The Governor wanted the indexing of the gas tax repealed. Instead the cap on inflation was reduced from 8% to 3%. I feel this is a pretty good compromise.

ACEC/MD met with Governor Hogan recently. This gave us a chance to introduce

ACEC/MD and let him know a little more about what we are about and who we represent. He said that he and new MDOT Secretary Pete Rahn are looking to quicken the pace of project delivery, and they are looking for ideas to accomplish this goal. He said that, during the legislative session, he and his team are reviewing each of the agencies within MDOT. After that he intends on having teams look at various issues. We let him know that engineers are problem solvers, and we would be happy to have member firm representatives on some of the teams.

Our Environmental Committee is planning the Environmental Business Opportunities Forum focusing on the Chesapeake Bay Clean, being held May 19, 2015. In June we are looking forward to the ACEC/MD Conference at the Kingsmill Resort in Williamsburg, Virginia. The Conference will present a great time to network, learn a few things and play some golf!

Have a great Spring!!

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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:

Stambaugh Ness

GOLD:

Century
EBA Engineering
Johnson, Mirmiran & Thompson
Navarro & Wright
Rummel, Klepper & Kahl
Stantec
Straughan Environmental
Wallace Montgomery

SILVER:

A. Morton Thomas & Associates
AECOM
Development Facilitators, Inc.
EBL Engineers
KCI Technologies
Kibart
Klein Agency
McCormick Taylor
Parsons Brinckerhoff
RJM Engineering
Whitney, Bailey, Cox & Magnani

BRONZE:

Blake Consulting Services
Constellation Design Group
Daft McCune Walker
MIMAR Architects & Engineers
Phoenix Engineering

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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. Our distinguished panel of judges for this year's awards included:

Angela Perry, (Program Chair) Hardesty & Hanover
Tom Butler, Howard County Department of Public Works
Lauren Buckler, Maryland Department of General Services
Dave Coyne, Maryland State Highway Administration
Art Shapiro, City of Baltimore Office of Engineering & Construction
Rachel Ellis, formerly of Gannett Fleming
Amar Sohkey, EBA Engineering

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ACEC/MD 2015 Engineering Excellence Awards

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GRAND AWARD

ICC CORRIDOR PARTNERS - A Joint Venture of Rummel, Klepper & Kahl, Parsons Brinckerhoff, and URS Corporation)

Intercounty Connector (ICC) General Engineering Consultant

Among the largest projects undertaken in the Baltimore-Washington region, the ICC presented the ICC Corridor Partners General Engineering Consultant (GEC) with unprecedented challenges. From its 2005 start-up to final completion, the GEC managed this project utilizing innovative solutions in partnership with owners and design-builders (D-B). The $2.36B ICC arose out of a need for a direct route for moving goods and people in existing and proposed areas between the I-270/I-370 and I-95/US 1 corridors in Montgomery and Prince George's Counties. The collaborative effort between owners (MD Transportation Authority; MD State Highway Administration) and a variety of stakeholders resulted in a state-of-the-art, 18.8-mile open road tolled, six-lane highway multi-modal facility. Balancing local owners, including residents and businesses and other stakeholders', the GEC brought value to the community's natural, human and cultural environments through a well-documented and tactical environmental stewardship program; managed a vigorous DBE/MBE outreach program; oversaw complex phased construction matching project characteristics/risk level with the appropriate delivery, including MDOT's largest D-B contracts to date; enacted "co-location" of the GEC team; developed an innovative quality oversight program; developed and administered a formal partnering program; established an executive committee with a "project comes first" attitude; conducted intense design/constructability reviews; developed D-B innovations from RFP through close-out; created and oversaw a vigorous community outreach program; and utilized Primavera for the master schedule and for each phase. Successfully meeting these challenges allowed the ICC team to build a world-class transportation facility, featuring complex construction phasing and an adaptable multi-modal network for the area's countless businesses and nearly two million residents.

OUTSTANDING PROJECT AWARDS

A. Morton Thomas and Associates Inc. (AMT)

Greening DC Streets

The District of Columbia, like most ultra-urban areas, experiences increased stormwater runoff that results from development. This runoff overwhelms the sewer systems and degrades aquatic resources when not adequately managed. Over time, added infrastructure and impermeable surfaces increase the amount of stormwater runoff that contribute to unacceptable pollutant levels in local waterways and the Chesapeake Bay. In 2013, the District revised its Stormwater Management Regulations as mandated by the Environmental Protection Agency for the Municipal Separate Storm Sewer System. The EPA issued a Phase I National Pollutant Discharge Elimination System (NPDES) Permit to the District, which requires the retention of the 90th percentile rainfall event for all construction projects over 5,000 square feet. This applies to projects within the public right-of-way (ROW) to the Maximum Extent Practicable (MEP). Approximately 26 percent of the District's land area is within the ROW. This provides a significant opportunity to improve the urban environment and reduce stormwater and other pollutants in local waterways and the Chesapeake Bay by using green infrastructure (GI) along its streetscapes. The District Department of Transportation (DDOT) turned to AMT to develop and standardize green infrastructure design solutions within the DDOT right of way. The team analyzed existing city and state programs and incorporated the latest research to develop the best practices available in green infrastructure planning, design and implementation. This information was distilled into detailed standards, specifications, and details and design guidance that designers nationwide will use for decades to design GI in the District. The guidelines ensure a systematic approach to the design of projects within the ROW. This saves designers and review agencies significant time, while promoting ecological and community benefits such as improved air quality, reduced heat island effect, expanded habitat for wildlife, increased property values and enhanced aesthetics.

A. Morton Thomas and Associates Inc. (AMT) ***Greening DC Streets***

AECOM

Protocol for Determining Grass Channel Credits

Many older roadways in Maryland have wide medians and gentle sloping grassy areas on the outside lanes. These grass-lined ditches adjacent to roadways—called grass

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ACEC/MD 2015 Engineering Excellence Awards

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AECOM ***Protocol for Determining Grass Channel Credits (Statewide-Md.)***

channels or swales—serve a primary purpose of draining water away from roadways as quickly as possible, while also providing substantial environmental benefits by filtering pollutants out of roadway runoff. After a 2009 Presidential order renewed efforts to protect the Chesapeake Bay, the Maryland State Highway Administration (SHA) tasked AECOM with developing a protocol for determining which of these existing grass channels are providing water quality treatment benefits. Conducting field surveys on thousands of ditches alongside Maryland roadways would be time and cost prohibitive, so AECOM used geographic information systems (GIS) to locate grass channels and determine drainage and impervious areas. Further, traditional hydraulic and hydrology design methods and standard calculations would also be time-consuming, so AECOM devised a protocol that applied an innovative twist. Using Technical Release (TR)-55, Manning's Kinematic Equation and the Maryland Department of the Environment (MDE's) stormwater management (SWM) guidelines, the team developed equations that calculate the maximum allowable drainage area for a given percent of impervious pavement. This calculation quickly verified instances where the grass channel's drainage area is less than the maximum, thus meeting MDE's requirements. Of the 147 miles of roadway studied so far, 153 acres of impervious pavement were found to already be treated by existing grass channels, resulting in savings of $3.8M—funds that can be invested elsewhere. Based on the successful results of AECOM's pilot project study, the SHA is expanding grass channel assessments in additional Maryland counties.

EBA Engineering Inc.
Elmer A. Henderson: A Johns Hopkins Partnership School (Baltimore, MD)

EBA ENGINEERING INC.

Elmer A. Henderson: A Johns Hopkins Partnership School

EBA Engineering Inc. served as the geotechnical engineering consultant on the $42 million Elmer A. Henderson: A Johns Hopkins Partnership School (Henderson-Hopkins School) project in Baltimore, Maryland. This project included the demolition of approximately 200 row houses and the construction of new buildings on both sides of an easement formerly occupied by Collington Street. The Henderson-Hopkins School is a 90,000-square-foot facility on a seven-acre campus that is shared with the $10 million, 28,000-square-foot Harry and Jeanette Weinberg Early Childhood Center. It is the first public school complex constructed in East Baltimore in nearly 30 years, a key resource for creating and maintaining a successful community. EBA's geotechnical investigation of this massive complex included 23 soil borings, soil sampling, and laboratory testing. The investigation revealed the presence of existing fill to depths of 10 feet containing unsuitable miscellaneous materials. As a result, EBA recommended aggregate piers be installed to improve soil conditions for support of the building foundations and to control settlement. EBA's geotechnical engineers also encountered an unusual challenge during the construction phase: a 100-year-old concrete arch sewer existed beneath Collington Street. The sewer line was in questionable

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McCormick Taylor Inc. ***PB-85 Stream Mitigation Project (College Park, Md.)***

structural condition, and EBA was successful in providing an innovative engineering solution to ensure access to the sewer line during and after construction, and the safety of the public. EBA's geotechnical engineering department, with the assistance of EBA's structural and water systems engineering departments, and sub-contractors resolved all challenges that arose and completed the project in a timely manner while remaining within the allotted budget.

MCCORMICK TAYLOR INC.

PB-85 Stream Mitigation Project

To mitigate for impacts anticipated from the construction of the InterCounty Connector (ICC), the Maryland State Highway Administration (SHA) identified restoration opportunities along portions of Paint Branch and Little Paint Branch within Prince George's County, Maryland. PB-85, as it is referred to, was included as part of the compensatory mitigation and environmental stewardship package for the ICC. The project incorporated stream, floodplain and wetland restoration efforts along Paint Branch extending from MD 193 (University Boulevard) upstream approximately 4,180 feet. In addition, the project included portions of Little Paint Branch from the confluence with Paint Branch upstream approximately 3,116 feet. The PB-85 project involved coordination and partnering with the USDA Beltsville Agricultural Research Center (BARC), the University of Maryland, The Maryland National Capital Parks and Planning Commission, and Prince George's County. The PB-85 site provided opportunities to improve floodplain reconnection, reduce channel boundary erosion, improve instream habitat for resident and anadromous fish and other aquatic species, provide flood attenuation and enhance and reforest over ten acres of riparian area along portions of Paint Branch and Little Paint Branch tributaries. The improvements have the potential to improve ecological and geomorphic conditions not only at the site but for miles of channel downstream by reducing suspended sediment loads and reducing peak discharges that can erode downstream channel boundaries. To achieve these goals, the proposed design strategy focused on two basic concepts: (1) Strategically providing instream improvements through isolated structure placement and channel enhancements to reduce erosion and improve aquatic habitat, and (2) Breaching existing agricultural berms along Paint Branch and Little Paint Branch on the BARC property, allowing flood waters currently contained and directed quickly downstream to disperse flood waters and deposit suspended sediment throughout the adjacent floodplain.

STRAUGHAN ENVIRONMENTAL

Methodology for Pavement Application Using Foam Stabilized Base

Global Resource Recyclers (GRR) engaged Straughan Environmental and the University of Maryland School of Engineering to develop a methodology account for the reduction in greenhouse gas (GHG) emissions associated with foam stabilized base (FSB) pavement as an alternative to traditional hot mix asphalt (HMA). This methodology has been submitted to the Verified Carbon Standard (VCS) to be

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Straughan Environmental
Methodology for Pavement Application Using Foam Stabilized Base (Columbia, Md.)

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applied for carbon trading. GHG emission reductions associated with FSB come from the re-use of recycled aggregate pavements (old asphalt), reductions in hot bitumen oil, the 98 percent reduction in heating of aggregate feed stock and the elimination of quarried materials, resulting in a reduction in transportation and the use of mobile plants. The sustainability practices inherent in FSB cumulatively add up to GHG savings of upwards of 80 percent compared to HMA. FSM means faster application and project time meaning a reduction in project costs. The team developed a unique cradle-to-gate approach (from quarry to hot-mix plant), to outline appropriate parameters to minimize variability. Unique calculators and benchmarks were developed in order to provide an unbiased and unaffiliated approach towards calculating GHG savings. It provides a strength coefficient and allows projects to calculate GHG savings, helping document GHG reduction goals. This project will be the leader in GHG data collection, project submission and verification. An app is being developed to calculate GHG savings. Project reporting will be streamlined, allowing for increased speed of data collection and transparency in submission and verification. The methodology calculates GHG reductions and supports application of FSB, which will reduce the reliance on virgin aggregates and save construction time, project budgets and traffic congestion.

HONOR AWARDS

KCI TECHNOLOGIES INC.

Central Acceptance Facility

In Baltimore County, Maryland, the first publicly-owned single-stream recycling facility in the state is quickly proving that being green can lead straight to gold by turning trash into cash. KCI worked closely with the county and facility operator, Maryland Environmental Service (MES), to design the Central Acceptance Facility, which involved planning, engineering design, and construction phase services using a multi-phased approach for a new transfer facility, retrofitted Material Recycling Facility and supporting infrastructure at the existing Baltimore County Resource Recovery Facility. The existing site housed two transfer stations, one in a 55,000-square-foot building that would be renovated to accommodate a highly sophisticated sorting and baling system. Adding to the complexity, the new transfer facility and supporting infrastructure had to be constructed while MES and the county maintained existing operations. Although the transfer station and recycling plant were originally two separate projects, it quickly became apparent that overlap would be required to meet the 2013 deadline. As Phase I work continued at the transfer station, structural improvements in the single-stream building were executed so that the equipment vendor could begin installation prior to the start of the Phase II infrastructure and building system upgrades. The new two-bay, top loading transfer facility is significantly more efficient than its predecessor. The county had previously used excavators and remote scaling, but the new layout allows trash to be dropped through a load-out chute in the tipping floor, where it falls directly into a truck that is on a live scale. The single-stream system maintains a throughput of 36 tons per hour or 250 tons of recyclables each day and can generate revenues between $20 and $30 per ton on the sale of recycled materials. Although the county originally estimated that the facility could return between $750,000 and $2 million annually after expenses, after six months revenues had already topped $2.3 million

KCI Technologies Inc. ***Central Acceptance Facility (Baltimore County, MD)***

SABRA, WANG & ASSOCIATES INC.

Baltimore City Traffic Signal Retiming

In August 2013, the City of Baltimore completed a 7-½ year, $2.3 million project to coordinate and optimize the traffic signal timings at 1,040 of the heaviest travelled 1,300 signalized intersections throughout the city. The last city-wide signal retiming project was completed in the 1970s and since that time travel patterns and traffic volumes have greatly changed. The final results surpassed all expectations with a 30 percent reduction in travel delays, 10 percent fuel savings, and a reduction of nearly 300,000 kilograms of harmful emissions, making the city safer and friendlier for the one million motorists, transit passengers, cyclists, and pedestrians that use Baltimore's roadways every day. Benefits analyses showed that the project paid for itself within the first month, and resulted in an annual benefit of $10 Million in fuel savings alone. The benefit-to-cost ratio was 33:1. Traffic signal optimization improves traffic flow along a corridor by timing the traffic signals so that groups of vehicles (called platoons) can travel through the series of signals with minimal to no stopping. Traffic signal optimization improves safety since vehicles stop less often, reduces vehicle

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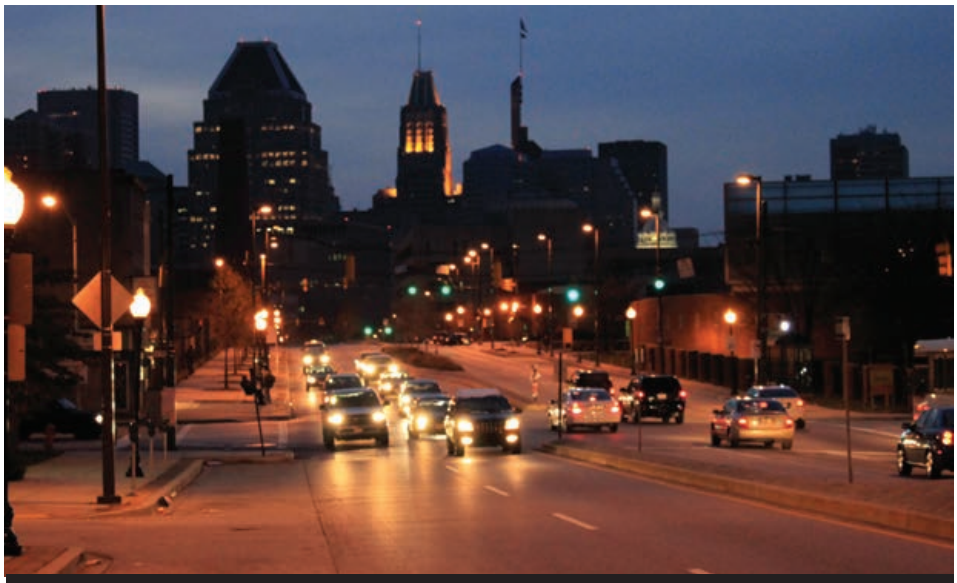

Sabra, Wang & Associates Inc. ***Baltimore City Traffic Signal Retiming (Baltimore, Md.)***

emissions, which lowers our carbon footprint, and reduces our travel costs by reducing the amount of time stopped at red lights. The primary means of developing new signal timing plans was accomplished using a complex computer model that was calibrated to local driver conditions, Baltimore's roadway network, and local traffic flows. The project successfully lowered the traffic signal cycle length, and increased the yellow, red, walk, and don't walk times, while also reducing pedestrian wait times and vehicle delays, both of which improve pedestrian safety. The project not only resulted in a more efficient transportation system, but made efficient use of funds due to the unique methods and strategies applied.

ALVI ASSOCIATES INC.

Human Factors in Dam Failures

In 2010, Irfan Alvi, PE, President & Chief Engineer of Alvi Associates Inc., was invited to become one of only two consultants who are members of the national Dam Failure and Incidents Committee of the Association of State Dam Safety Officials (ASDSO). Through participation on the committee, Alvi Associates took a leadership role in developing a practical framework for addressing human factors in dam failures, embarking on an ongoing exploration of thousands of pages of literature from decades of safety research in fields such as aviation, health care, nuclear power, and industrial production. The human factors section of the committee's "Dam Failure Investigation Guideline" was developed, which has since been used by several organizations to investigate dam failures. A peer-reviewed paper entitled, "Human Factors in Dam Failures," was presented at the national 2013 ASDSO Dam Safety Conference. Key ideas highlighted include: (a) human factors play a fundamental role in dam failures; (b) human factors interact with physical factors, often in complex ways over the course of years, to produce a series of steps in which multiple factors eventually 'line up' to produce failure; (c) human effort is needed to prevent a natural tendency towards a 'drift into failure'; (d) human efforts to prevent failure can fall short due to our inherent fallibility and limitations, the complexity of the systems we design and manage, and the tradeoffs we confront in making decisions; (e) some organizations, sometimes referred to as 'high-reliability organizations' (HROs), have excellent safety track records despite being faced with major challenges; (f) the best practices of HROs, along with their vigilant attitudes towards preventing failure can be effectively applied in dam engineering to prevent failures; and (g) case studies of dam failures, clearly show that failures can be fundamentally explained from a human factors perspective as the result of multiple deficiencies with respect to implementing desired best practices.

HENRY ADAMS LLC

Johns Hopkins Bayview Medical Center Generator Plant

Henry Adams' MEP engineers designed the new emergency generator and standby plant for the 550+ patient bed Johns Hopkins Bayview Hospital complex. This project corrected persistent problems attributed to the stand-alone generators in various areas that were difficult to maintain, of varying reliability, and with no redundant backup. The new design removes three existing generators with limited capacity that restricted the growth of the hospital. The resulting project includes

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Alvi Associates Inc. ***Human Factors in Dam Failures (Baltimore, Md.)***

ACEC/MD 2015 Engineering Excellence Awards

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Henry Adams LLC ***Johns Hopkins Bayview Medical Center (Baltimore, MD)***

three (and ultimately four) 1825kW Prime Rated 13.2kV diesel generators, designed for EPA Tier 4i emissions standards in a central generator plant building. The system is also capable of paralleling with the incoming campus utility service to assume load up to its capacity. Due to site restraints, the system was designed to generate at 13.2kV and distribute to the various hospital buildings across campus. Henry Adams developed this solution with Johns Hopkins University (JHU) to replace its previous concept that required massive duct banks and feeders that would have created numerous site and cost issues. Paralleling switchgear distributes the 13.2kV using a partial campus emergency loop that serves two rooftop double-ended 480/277V substations. The substations back feed 17 existing automatic transfer switches serving life safety, critical, and equipment systems. The generators were connected to fuel tanks modified in the central boiler building to accommodate the ultra low sulfur fuel required by the EPA Tier 4i emission standards. Emission requirements required a separate diesel emissions fluid storage and distribution system to serve the engine mounted SCR emissions modules that scrub the exhaust.

Rummel, Klepper & Kahl LLP ***Patapsco Force Main Rehabilitation (Baltimore, Md.)***

RUMMEL, KLEPPER & KAHL LLP

Patapsco Force Main Rehabilitation

The Baltimore County Department of Public Works' (DPW) 8,000 linear-foot 54-inch Prestressed Concrete Cylinder Pipe (PCCP) Patapsco Sewage Force Main (PFM) experienced a catastrophic failure. Subsequent electromagnetic inspections of the force main identified numerous pipe segments that had Class IV wire breaks, including 16 locations that were classified as "imminent failure." The County retained RK&K to design repairs of the force main on an expedited schedule, and carbon fiber reinforced polymer (CFRP) lining was ultimately selected as the solution. CFRP involves the application of fiber reinforced polymer fabric saturated with an epoxy resin to the internal surface of the host pipe. CFRP provides a full structural repair. Although CFRP has been widely used to rehabilitate water mains, its use in sewage force mains is much less common. Due to the epoxy resin, however, the liner also protects against hydrogen sulfide corrosion. Therefore, the successful application to the Patapsco Sewage Force Main demonstrates that CFRP can be a feasible alternative for other PCCP sewage force mains in need of rehabilitation. RK&K devised a 6,500 linear-foot, 50 MGD temporary bypass piping plan in order to complete the work. The design was started in February 2013, the repairs were completed and the rehabilitated force main was placed back into operation in July 2014. While RK&K's opinion of probable cost for the repairs was $7.1 million, the county estimates the total cost is going to come in under budget at approximately $6 million. The proactive approach of rehabilitating the PFM is estimated to save the county at least $10 million relative to maintaining a reactionary approach of completing emergency repairs over time, that does not account for cleanup costs, potential negative impacts to the environment, or sewage overflow fines associated with breaks of sewage force mains.

CENTURY ENGINEERING INC.

US 50 Kent Island Roadway Lighting Energy Reduction

Century Engineering Inc. provided professional engineering services to achieve a 30 percent reduction in energy use while maintaining current Maryland State Highway Administration

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Member News

- **ATCS, P.L.C.** has relocated their office to:
  2 Hamill Road, Suite 320
  Baltimore, MD 21210
  Phone: 443.205.3213
- **CENTURY ENGINEERING, INC.** was recently awarded Firm of the Year for 2014 from the Baltimore County Soils Conservation District for 2014. In addition, Consultant of the Year went to ***Robert Hurwitz, P.E., LEED AP BD+C***. for work on various projects including Northwest Hospital, Hollins End, Greenspring Quarry and T. Rowe Price.
- **EBA ENGINEERING, INC.** is pleased to announce that ***Charlie Card*** has joined the firm as a Project Manager for Asset Management Services. He brings to the firm nearly 30 years of Asset Management and Regulatory Compliance.
- **DEWBERRY** has promoted ***Michael Rectanus, P.E.*** to associate. He has more than 14 years of technical and project management experience on design-build, open-end highway, and traffic engineering projects.
- **GANNETT FLEMING** welcomes ***Maria "Ree" Miskimon*** as its Mid-Atlantic Region business development manager. With 17 years of experience in the engineering industry, she will work in partnership with the firm's executive leadership to achieve the company's business development and financial goals.
- In a recent merger, **GEORGE, MILES & BUHR, LLC (GMB)** welcomes Stephen M. Adkins Land Surveying, LLC of Laurel, Delaware.
- **LEACH WALLACE ASSOCIATES, INC.** is pleased to announce that the firm is celebrating its 25th Anniversary. The firm has grown from six employees to over 100 employees with three different offices.
- **NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.** recently announced the following:
  - The firm's new materials testing laboratory recently received "AASHTO Accreditation" for Quality Management System, Concrete and Materials testing.
  - ***Landon C. Barlow***, Geotechnical Engineering Specialist and ***Jeremy A. Cook***, Drilling Inspector have joined the firm.
- **PRIME AE GROUP i**s pleased to announce the following new hires:
  - ***Kurt A. Miller, P.E***. has joined the firm as Vice President, Highway Division. He has over 28 years of experience in highway planning, design and construction management.
  - With over 30 years of experience in water resources engineering, environmental planning and permitting, ***Doug Novocin, P.E.*** has joined the firm as Senior Project Manager.
  - ***Jamie Campbell*** has joined the firm as Director of Marketing and Communications. He has over 15 years of experience, including ten years in the A/E industry.

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Schnabel Engineering's William Billiet Selected as the 2015 Young Professional Award Recipient

Annually, in conjunction with our parent organization the American Council of Engineering Companies (ACEC), ACEC/MD presents a Young Professional of the Year Award. This award recognizes the accomplishments of our member firms' young engineers by highlighting their interesting and unique work, and the resulting important impact on society. This year 2015 Young Professional of the Year Award was presented to William A. Billiet of Schnabel Engineering.

A registered Professional Engineer in Maryland and Virginia, Bill Billiet is a Project Engineer at member firm Schnabel Engineering. As indicated by his success on a number of diverse projects, Bill has always been excited about making a positive impact on the community.

As a staff engineer in 2008, Bill managed the subsurface investigation program for the $560M Intercounty Connector Contract B Project. This fast tracked design-build project was finished on time and on budget.

In 2012, Bill travelled to Sub-Saharan Africa to supervise a large subsurface exploration for a future infrastructure facility in a remote jungle, using local residents and only locally available equipment. This multi-million dollar project represented the first time ASTM standards were used in a large-scale civil engineering project in this part of Africa.

On the Dulles Metrorail Project, Bill assumed more responsibly as the Project Geotechnical Engineer for the rail bridges and aerial guide way. Bill designed, managed and analyzed a $2M full scale load testing program, that reduced the size and length of the drilled shafts resulting in significant cost savings and shortened project schedule.

A graduate of the University of Maryland with Bachelors' and Master's Degrees in Civil Engineering, Bill still finds time to give back to the community. He has made STEM presentations to local high school students, participated as a Capstone Program judge, and provided tutoring weekly to at-risk students.

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.

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SHA'S Doug Simmons Recipient of the 2015 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, Douglas H. Simmons, P.E. was selected as the recipient of the 2015 President's Award.

A registered professional engineer in the State of Maryland, Doug Simmons was named SHA Deputy Administrator in 2003. As Deputy Administrator, he directs more than 600 employees in SHA's Offices of Planning and Preliminary Engineering, Structures, Highway Development, Environmental Design, and Real Estate. Doug previously served as Director of the Office of Planning and Preliminary Engineering (OPPE). A career SHA employee, Doug also served in many other roles within OPPE from Project Engineer through his tenure as Chief of the Regional and Intermodal Planning Division.

Doug is a member of AASHTO's Standing Committee on Highways and serves on the AASHTO Center for Environmental Excellence Advisory Board. He has also served on the Standing Committee on Planning, and received AASHTO's 2013 Alfred E. Johnson Achievement Award.

A 2014 graduate of Leadership Maryland, Doug possesses a Bachelor's degree in Civil Engineering from the University of Maryland; and a Master's degree in Business Administration from the University of Baltimore.

PAST RECIPIENTS:

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

2012 Brian R. Kelm | Maryland Defense Force

2013 Donald C. Fry | President and Chief Executive officer of the Greater Baltimore Committee (GBC)

2014 William K. Hellmann (Rummel, Klepper & Kahl)(former MDOT secretary)

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Seeking Employment

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

1. Individual with a B.S in Civil Engineering with an emphasis in Building and Construction Management, and experience working in the Middle East.

2. Individual with almost 30 years of experience looking for employment as a field project engineer, field project manager or inspector on construction sites.

ACEC/MD 2015 Engineering Excellence Awards

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Century Engineering Inc. ***US 50 Kent Island Roadway Lighting Energy Reduction (Stevensville, Md.)***

(SHA) roadway lighting design criteria along the US 50 Kent Island corridor from MD 8 to the US 50 / US 301 split. The uniqueness of applying innovative energy efficient designs and advancing roadway lighting technology created many engineering and design challenges. SHA identified the Kent Island corridor as a pilot project to evaluate the benefits of energy reduction technologies including; control and distribution systems and Light-Emitting Diode (LED) roadway lighting. This project focused on sustainability, energy reduction and advancing new roadway lighting technologies generating economic benefits, positive public perception and new roadway lighting specifications and design standards. Total reconstruction of the existing lighting system included the installation of LED roadway lighting, and redesigning electrical control and distribution systems to modern standards. The $2.5 million construction project will reduce energy costs, while meeting or exceeding AASHTO's recommended light levels for highway safety. Numerous engineering challenges requiring unique applications of innovative techniques to achieve the energy efficiencies desired by SHA were encountered. This project became the baseline for the development of SHA's LED roadway lighting program currently underway to retrofit exiting lighting systems across the state. In addition to the direct benefits of energy reduction, the US 50 Kent Island Roadway Lighting Reduction Program provided social benefits by improving dark sky visibility through the reduction in vertical light trespass and public perception of SHA's commitment to reducing energy costs.

KIBART INC.

Wake Forest Innovation Quarter South Building

Kibart Inc. provided mechanical, electrical and plumbing design engineering services for 525@Vine. This converted historic tobacco processing facility was retrofitted into laboratory, office, and classroom spaces. The building is located in Winston-Salem, North Carolina, within the Wake Forest Innovation Quarter. The 230,000 square foot, five floor bio-tech research facility achieved a LEED Platinum Certification and exceeds ASHRAE 90.1-2007 by 39.4 percent. The economic impact of this project included a $33,896,000 infusion of construction dollars and employment of more than 1,000 individuals for construction. The workforce included 67 percent local employees and 12 percent minority/female owned businesses. The economic impact extends as far as adding 450 full-time employment positions, which will benefit the local economy. The firm designed the mechanical, electrical and plumbing systems with several design requirements: energy efficiency, current and future owner needs, and cost savings. A four-pipe VAV system provides for both comfort cooling/heating and ventilation. This equipment modulates the air flow to meet the demands of the individual spaces for energy savings. The roof top units are provided with energy recovery wheels for additional savings. A central chilled water plan includes high efficiency chillers and a water side economizer for free cooling. The central heating water plant uses high efficiency condensing type boilers. The variable/primary pump systems coupled with the VAV units provide for a fully modulating system year round for maximized energy savings. LED lighting and lighting controls were also utilized for a big impact on energy savings. The building, originally built in 1926, had an inefficient original envelope and the renovation included new efficient windows and insulation which meets current energy code and complies with the National Park Service standards for historic buildings.

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Kibart Inc. ***Wake Forest Innovation Quarter South Building***

AMERICAN COUNCIL OF ENGINEERING COMPANIES/MARYLAND
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This year's program will once again provide the right mix of educational opportunities, networking with colleagues and friends in the profession, and time to relax and enjoy the quiet ambience of our destination resort. Our sessions will include a presentation from the Hampton Roads Sanitary District, who will discuss business opportunities with this important agency and a presentation on VDOT's Hampton Roads Transportation Accountability Commission (HRTAC) addressing mega projects in Hampton Roads.

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