

# OUTLOOK

WINTER '11

## Retro-Commissioning: The Key to Sustainability in Existing Facilities

By: Charles E. Bolyard, Jr., PSP, CFCC  
Chairman of the Board and CEO of  
MBP and James Mascaro PE, CCP, Vice  
President/Director of Commissioning  
Services at MBP

The direction of the design and construction industry has shifted dramatically in recent years to “sustainability” for newly designed and constructed buildings, plants, and facilities. This comes on the back of “Green” initiatives for energy efficiency and environmental consciousness and the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) certification to provide operational efficiency through design and management over the full useful life of such facilities. But what about the millions of existing buildings, industrial plants, and facilities that are still within their useful life or can have extended life and contribute significantly to “sustainability” and reduce energy demands?

The key to unlocking the door to this massive potential to drive sustainability to higher levels of achievement lies within the realm of Retro-Commissioning, “RCx”. RCx is a process of evaluating, testing, adjusting, and correcting building systems to meet the owner’s requirements, to improve comfort and environmental quality, and to optimize energy and resource conservation in existing buildings. Fully testing performance after changes to verify recovery of lost efficiency and to create efficiencies where none existed previously, followed by periodic monitoring completes the RCx process.

The benefit is to significantly reduce energy dependency and build in sustainability where it did not exist before. RCx carries with it not only the potential to improve efficiency over the original design life of facilities, but to also extend the useful life of facilities while saving premature capital investment in replacement equipment. RCx is achievable in any existing facility be it hospitals, medical research and laboratories, schools, office buildings, broadcasting, museums and archives, industrial plants or manufacturing facilities, and water resources facilities to name just a few. RCx can apply to a single facility, multiple buildings or a campus of buildings each having different usages.



**University of Virginia, Medical Research IV, Charlottesville, Virginia:** MBP provided retro-commissioning services to evaluate the operation of the existing mechanical systems.

The Building Commissioning Association (BCA), based in the U.S., provides standards for use by industry in specifications, training, and certification. The BCA certification program is independently administered by the Building Commissioning Certification Board (BCCB) and those successfully completing eligibility requirements and the examination receive the Certified Commissioning Professional (CCP) credential.

Additional standards and technical information concerning equipment

performance and operations, relevant to both commissioning and retro-commissioning, can be found in the publications of ASHRAE, ASTM, NFPA, ANSI, SMACNA, NEBB, AEE, NECA, and MCAA, and equipment manufactures’ literature.

### ASSESS THE SCOPE OF THE PROJECT

The initial step in the RCx process is to clearly define the scope of the RCx project which will become the basis for a contract between the Retro-Commissioning Authority (RCxA) and the owner. During this phase, it’s critical to develop a complete understanding of the owner’s expectations and expected outcome of the RCx effort. Depending on the age of the facility and how many revisions have been made to the systems, the owner may not have the initial project requirements when the facility was designed and constructed. It’s critical that the RCxA tour the facility with the owner to document the owner’s desires for the facilities’ operating improvements.

### PRE SITE-INVESTIGATION PHASE

Prior to testing of the systems, the RCxA must prepare by collecting all existing documentation such as the original owner’s project requirements (OPR); basis of design (BOD), architectural/heating, ventilating, and air conditioning (HVAC)/plumbing/electrical drawings and specifications/submittals; operations and maintenance (O&M) manuals; testing, adjusting, and balancing (TAB) and commissioning reports. This information shall be used to develop the RCx plan.

*Continued on page 2...*

# Retro-Commissioning: The Key to Sustainability in Existing Facilities

*Continued from cover...*



**Conrad B. Duberstein U.S. Bankruptcy Courthouse, Brooklyn, New York:** MBP is providing commissioning services, as well as design and construction management services for this existing building to achieve the USBGC LEED Silver certification.

## SITE INVESTIGATION/BUILDING-FACILITY ASSESSMENT

The next step in the RCx process is to assess the condition of the facility. This entails verifying the age of the facility and its current functional use and general condition. This overall condition assessment is customarily performed according to American Society for Testing and Materials (ASTM) standards for property condition assessments and includes identification of current and past problems, previous capital improvements, systems operations and maintenance history and replacements, exterior and interior condition, type/age of major repairs or retrofits, utilities services, access and parking, and landscape lighting/irrigation systems, Americans with Disabilities Act (ADA) compliance, and an initial evaluation of opportunities to upgrade to more ecologically responsible fixtures and features.

The building/facility assessment may result in recommendations for and replacing plumbing fixtures with more efficient or even waterless designs, building envelope upgrades such as recaulking failed joints, roof replacement, repointing masonry joints, windows repair/replacement, adding reflective or Ultraviolet

(UV) blocking film to windows, and resealing doors. These measures can make a strong contribution to the overall improved efficiency and sustainability of the building at the conclusion of the RCx process.

Additional considerations may include replacement of the existing roof with a white reflective roof material, or the addition of photovoltaics on the roof to provide electricity that can offset utility needs/costs.

## BUILDING SYSTEMS INVESTIGATION

The RCx of the mechanical and electrical operational systems within the building provides the greatest opportunity to regain efficiencies that translate directly into cost savings, improved useful life and sustainability. What we find most frequently is that existing facilities, even those reasonably maintained, have been operating at significantly reduced efficiency for years, or never at all due to lack of commissioning when the facility was first started up. RCx will usually involve the following building systems: building envelope thermal and pressure characteristics; landscape lighting and irrigation systems; HVAC and equipment; HVAC control and plumbing; electrical lighting; and power.

In this phase the RCx team looks for “quick fixes”, i.e. non-capital repairs, system adjustments, and corrections which will immediately improve the operation of the facility. Detailed observations of existing conditions are documented and photographed where practical. The systems operation is referenced to available documentation and specifications; operations, maintenance, and repair records, if any; and to industry custom and practice.

These quick fixes can include the following: calibration of temperature control sensors,

cleaning coils and strainers, repairing obvious duct leaks, opening/closing dampers, programming changes to operating parameters, testing and balancing verification, minor electrical repairs, and building envelope repairs. The reason for this activity is to improve the operation of the systems and to eliminate apparent issues so that they do not disguise any underlying major issues.

## FUNCTIONAL PERFORMANCE TESTING

Once the recommended corrective measures from the previous phase have been completed across all of the facility systems, it is time to verify the gains in operational performance via functional performance testing (FPT).

In the FPT phase, the building systems are tested through their full operational range according to the design documents and the requirements of the manufacturers. The objective is to observe systems operations and confirm that it meets the specified sequence and performance output. Testing of the systems begins at the component level and is completed when the entire integrated system has been tested. The systems are operated in every mode to validate sequence and performance output.

Successful RCx is a collaborative process that involves detailed dialogue between the RCxA, the owner, the owner’s facility operator/manager, building occupants, and can also include various contractors/manufacturers’ representatives.

The ultimate objective of RCx is to return existing systems that have been operating at poor levels of performance to operation at optimal levels of performance that improve climate quality and provide costs savings

*Continued on page 3...*



through efficient usage of energy.

The full measure of improvements through the RCx process requires comparison of operating costs through a full cycle of operational conditions – which may take a year to compile and compare to past performance costs.

On one of our recent RCx projects, a Performing Arts Center, the owner told us that the chillers had never been able to adequately cool the facility during ‘event performances’ when

occupancy levels exceeded approximately 2/3 capacity. Critical to improved sustainability is enhanced comfort levels for occupants, a serious aspect of the OPR. Our RCx team identified improper staging of the two chillers and this situation was corrected.

On another retro-commissioning project, our RCx team identified a number of issues and made recommendations for correction to the HVAC systems. The university operations and maintenance staff implemented the ‘water-

side’ recommendations and realized \$388,000 in energy savings during the subsequent ten months. They are currently working on our ‘air-side’ recommendations.

Periodic re-commissioning should be anticipated so any degradation of systems can be evaluated and optimal operation restored. Adequately trained and in sufficient numbers, owners’ staff and records management are critical to maintaining the sustainability and operational maintenance of the facility. **MBP**

## Promotions



### George B. Fink, Jr., PE, Vice President Branch Manager

Prior to joining MBP, George Fink founded FAI Construction Management Consultants in 1995, an agency construction management (CM) firm based in New York City. On January 1, 2009, FAI became a wholly owned subsidiary of MBP, and George became the Branch Manager of MBP’s newest branch in New York.

Fink is highly regarded in the construction industry as both an owner’s representative and as an expert witness in disputes arising from construction performance. George has also been an active member of the MBP management team, bringing new ideas and energy to several initiatives.

Fink spent 18 years working for the U.S. Army Corps of Engineers and for a national CM services firm before founding FAI. He has a B.S. degree in Civil Engineering from the United States Military Academy, a M.S. in Business Administration from Boston University, and a M.S. in Construction Management from the University of California at Berkeley.

### Mairav R. Mintz, PE, Vice President Branch Manager

Mairav Mintz has been with MBP for the last 17 years and has worked on a wide variety of transportation, building, and infrastructure projects. She has been a key member of MBP’s management team for the last eight years and was instrumental in establishing MBP’s own risk management program to include contract review and risk mitigation training for team members. In 2005, she assumed the role of Branch Operations Manager of the firm’s Columbia, Maryland office and was most recently promoted to Vice President.

Mintz obtained her B.S. in Civil Engineering from the University of Maryland, a M.S. in Geotechnical Engineering from the University of California at Berkeley and a J.D. from George Washington University Law School.



### John L. MacKay, Jr., PE, CCM, CFCC, Senior Vice President Regional Manager

John MacKay has more than 20 years experience on heavy civil and building construction projects in CM, critical path method (CPM) scheduling, cost estimating, and constructibility review. He also has extensive experience in the resolution of construction related disputes, providing analysis of delays, cost impacts, and construction methods. In addition to providing testimony in mediation forums, John has provided expert testimony to courts on building and transportation projects, along with litigation support of construction attorneys on cases.

As Regional Manager of MBP’s Carolinas Region, John is actively involved in analytical and field assignments providing client care, quality assurance and project management. He has been designated as a Certified Construction Manager (CCM) by the Construction Management Certification Institute (CMCI) and as a Certified Forensic Claims Consultant (CFCC) by the Association for the Advancement of Cost Engineering (AACE) International. He graduated magna cum laude from Virginia Polytechnic Institute and State University with a B.S. magna cum laude in Civil Engineering.

## TRANSPORTATION

### Ohio

#### Ohio Department of Transportation (ODOT) - I-90 Innerbelt Bridge Replacement

MBP has been selected by ODOT to provide (CPM) scheduling services for the I-90 Innerbelt Bridge replacement project in Cleveland, Ohio.

This project entails full-time support from MBP to assist ODOT in administering a \$650 million design-build project on the major artery serving downtown Cleveland. The design-build contract will be awarded in the next three months and will be the largest contract ever awarded by ODOT. The contract term will extend over the next four years.

MBP will be providing comprehensive project planning through detailed CPM schedules. Through its CPM scheduling services, MBP will be able to assist ODOT in managing delays, minimizing costs, and expediting the project completion. Previously, MBP has provided scheduling training services to ODOT during the past five years.

### Virginia

#### Virginia Department of Transportation, (VDOT) - Huguenot Bridge Reconstruction

VDOT selected MBP to provide CM and inspection services for the Huguenot Bridge Reconstruction project.

The bridge re-construction project involves replacing the existing structure with a new structure in approximately the same location as the current bridge. Re-construction is needed to replace the aging bridge that has experienced escalating maintenance and repair costs in recent years, and to create a wider bridge for the safe passage of emergency vehicles.

MBP will be providing VDOT with CM and inspection services as well as detailed and accurate documentation, including daily activities, progress reports, and updated schedules to support this project over the next three years.

The new bridge structure will have one 12-foot lane and one 10-foot shoulder in each direction. The 10-foot shoulder will function as both an emergency lane,

and a lane to allow bicyclists to safely use the bridge. In addition, there will be a five-foot wide sidewalk on each side for pedestrians.

#### VDOT Lynchburg District Wide

VDOT selected MBP as the prime consultant for the Lynchburg District Wide Construction Engineering and Inspection contract. This contract is an on-call contract for \$2 million per year, renewable for a total of three years.

In addition to on-site CM and inspection, MBP will be providing engineering support services including CPM Scheduling and Disputes Resolution support. VDOT's Lynchburg District is comprised of ten counties and is made up of more than 15,000 lane miles of roadway on primary and secondary routes.

#### VDOT Salem District Wide III

MBP has been selected by VDOT as the prime consultant for the Salem District Wide III Construction Engineering and Inspection Services Contract. This is a three-year, on-call contract with a \$2 million capacity each year in VDOT's Salem District which is composed of the areas surrounding Roanoke, Blacksburg, and Martinsville, Virginia.

This is MBP's sixth Salem District Wide contract with VDOT. MBP first started providing services to the District in 1996 and will continue to provide the same level of service through 2013.

## FEDERAL



#### U.S. Customs and Border Protection

The U.S. Department of Homeland Security, Customs and Border Protection (CBP) has selected MBP to provide CM services for the design and construction of seven Land Ports of Entry (LPOE) facilities in Hamlin, Bridgewater, and Easton, Maine; Cannon Corners, New York; Del Bonita, Montana; Boundary, Washington; and Los Ebanos, Texas.

Each LPOE site is on up to ten acres of land and will include a 5,000-10,000 square feet, two-story building. Throughout its three-

year contract, MBP will oversee the design and construction of the LPOE facilities by performing schedule reviews; producing monthly progress reports; managing changes to cost, schedule; and scope; and ultimately, by ensuring that the project is delivered on-time and within budget.

A portion of this project will be funded by the American Recovery and Reinvestment Act (ARRA).

#### National Park Service Program



MBP was awarded a CM contract in support of a \$750 million National Park Service (NPS) program to enhance national parks across the country.

MBP has begun providing CM services at the Denver Service Center in Colorado. Services provided include constructibility review; working with staff on estimates, schedule impacts, and negotiation of modifications; participating in inspections; training and mentoring project teams; and ultimately ensuring that projects within the NPS Program are completed on-time and within budget.

MBP's contract with the National Park Service has a \$2 million capacity for up to five years. MBP will potentially be working on projects in a variety of National Park Service areas throughout the contiguous U.S., and also American territories including Guam, Saipan, American Samoa, Puerto Rico, and the Virgin Islands.

#### Department of State OBO World Wide Services Contract

MBP has been selected as part of the KlingStubbins team by the U.S. Department of State, Overseas Buildings Operations (OBO) for an Indefinite Delivery/Indefinite Quantity contract for planning, construction, and facility management services at various worldwide foreign service posts. MBP will be providing construction management and program management services.

*Continued on page 5...*

**GSA Mid-Atlantic Region - Hoffman****Courthouse**

The MBP/AECOM Joint Venture team has been awarded a contract by the U.S. General Services Administration (GSA) Mid-Atlantic region to provide construction management services for the Walter E. Hoffman Courthouse Energy Bundle/Boiler Replacement, Variable Frequency Drive (VFD) Installation, and Air Handler Unit Replacement Project. This is the first task order for a \$25 million Indefinite Delivery/Indefinite Quantity (IDIQ) contract, and is funded by ARRA.

**GSA Mid-Atlantic Region - Repair and Alteration Projects, Edward N. Cahn Federal Building**

The GSA Mid-Atlantic Region 3 has selected MBP/AECOM joint venture to provide CM services for various repair and alteration projects in the Allegheny service area. This is one of several task orders under a previously awarded \$25 million Indefinite Delivery/Indefinite Quantity (IDIQ) contract. These projects are partially funded by ARRA. MBP will be managing construction to ensure that these ARRA funded projects are on schedule, in conformance with the contract requirements, and of the highest quality of work. At least one of the projects will include CM services for the Facade Restoration Project at the Edward N. Cahn Federal Building in Allentown, PA.

**GSA Mid-Atlantic Region, National Oceanic and Atmospheric Administration**

GSA Mid-Atlantic Region 3 selected the MBP/AECOM joint venture to provide CM services for the construction of an Environmental Security Computing Center (ESCC) for the National Oceanic and Atmospheric Administration (NOAA).

The facility is to include approximately 46,000 square feet of usable space, including an estimated 17,000 square feet for a High Density Data Center. It will be located in the Fairmont, West Virginia within a space leased for NOAA by the GSA. The facility will be supporting the NOAA's next generation high performance computing system, a supercomputing system that produces advanced models of weather, climate, and ecological forecasting.

NOAA has enacted an agency goal of achieving LEED Silver in all spaces, when possible. This project is being funded through ARRA, which includes specific requirements for sustainable design elements.



**By Blake V. Peck,  
PE, CCM  
MBP**

One of the most popular topics in the construction industry today is integrated project delivery or IPD.

It is also one of the least understood. Not surprisingly, a quick search on the internet will provide more than seven million results for articles, websites, conferences, and vendors eager to edify you on what IPD is and how to best achieve it with limited consensus among them. For an industry that is often slow to embrace change, this disparity is not a good thing.

IPD can trace its roots back 30 to 40 years to the advent of "alternative" project delivery methods such as CM-at-risk and design-build. These methods provided an opportunity for both fast tracking a project and gathering critical constructor input during the planning and design phases that was unavailable under the traditional design-bid-build process. By the late 1990's, the concept of "integrating" the design and construction functions on a project was being pushed to the forefront.

In the new millennium, the term "integrated project delivery" became part of the construction industry vernacular, and proponents for its use began arguing over what exactly constituted IPD. Confusing terms such as "IPD-light" and "IPD-ish" versus "true IPD" soon crept into the lexicon. A number of publications and white papers have been produced on IPD with the most recent being a 2010 joint effort of several construction owner and industry associations including the Construction Owners Association of America (COAA), The Association of Higher Education Facilities Officers (APPA), Associated General Contractors of America (AGC), and the American Institute of Architects (AIA). While this joint effort document has been trumpeted as an attempt to bring clarity to the IPD arena, in many ways it further muddies the water. Like numerous documents before, this 2010 publication describes IPD in terms of the collaborative processes, procedures, and systems used to manage design and construction, such as Lean Construction

and Building Information Modeling (BIM). However, it goes further by distinguishing IPD as a delivery method from IPD as a philosophy through the use of multi-party contracts.

This is, of course, contrary to the traditional convention of defining delivery methods (e.g. single prime, multiple prime, CM-at-risk, design-build) based on the party responsible for the construction performance and thus, in fact, the actual delivery of the project. It is reminiscent of the debate from the 1980's when proponents for agency construction management promoted it as a distinct delivery method. That notion has long since been rejected by the industry, although the use of agency CM has grown exponentially since it is a distinct set of management services that can be applied to all project delivery systems.

Similarly, it appears that many advocates of IPD are unwittingly creating more confusion within our industry by generating a buzzword and attempting to define a separate delivery method through the use of specific processes and contracting formats. This is ultimately limiting since one approach rarely fits all circumstances, especially in construction. To this end, we believe that IPD is most appropriately viewed as a set of best or recommended practices which are applied to a project to achieve the optimum integration of its design, construction and operational functions, while allocating risks fairly among the project team. **MBP**



MBP has supported both the U.S. Army Corps of Engineers and Naval Facilities Engineering Command on integrated project deliveries.

## Federal continued...

### GSA National Capital Region

The Parsons/MBP team was just awarded a CM and program management contract by GSA to manage more than 20 design-build projects for federal buildings in the GSA National Capital Region.

These projects will be funded under ARRA. The Parsons/MBP team support services for the next 30 months include various green building upgrades, including retro-commissioning.

### GSA, Southeast Sunbelt Region

GSA selected MBP to provide full-time project management and cost estimating services at the Summit Building in Atlanta, Georgia where GSA Region IV is located.

### United States Army Corps of Engineers (USACE)

MBP was selected by USACE to manage construction of the new \$22.4 million, 120,000-square-foot Warrior in Transition (WT) Complex project at Fort Benning, Georgia.

The \$22.4 million WT barracks contract was awarded by the USACE Fort Worth District, but was recently transferred to the USACE Savannah District, which will oversee and manage the construction process through completion.

Like all army construction, the WT barracks will satisfy Silver rating criteria established by the LEED rating system, in accordance with the USGBC standards. Eco-friendly features include the use of energy efficient building materials, lighting, and ventilation systems.

an eco-friendly rooftop terrace are just some of the unique features of the newest building planned. The \$22 million facility will be the fourth academic building on the rapidly-expanding campus, which opened three years ago on 117 acres. Building E is expected to be open for classes in January 2012. Features will include 27 classrooms and labs with customized areas for training nursing assistants, five acoustically-isolated music rooms, and a 293-seat lecture hall.

The rooftop terrace will be designed to absorb carbon dioxide and generate oxygen, reducing what's known as the "heat island effect." The terrace is one of the building components that will help Building E achieve LEED Silver – or possibly Gold – certification. Other LEED features include daylight harvesting, shade louvers on the south side, low-flow restroom fixtures, and no-irrigation landscaping, which will result in a 57% reduction in energy use and a 47% reduction in water use.

### Fairfax County Public Schools, Virginia

Fairfax County Public Schools (FCPS) selected MBP to provide HVAC commissioning services for the county's Capital Bond Improvement projects.

As the commissioning authority on the project, MBP will be ensuring that all of the HVAC building systems are functioning properly and with the upmost efficiency. MBP will engage not only in the review of construction documents, but also will be providing services such as construction monitoring, validation of test and balance reports, testing and troubleshooting of HVAC systems, and the preparation of reports and summaries throughout the commissioning process.

### Prince William County Schools, Virginia

MBP has been selected by Prince William County to provide construction project management and inspection services for five federally funded transportation projects. The first two projects are already under construction. The Prince William Parkway widening is funded in whole or part by ARRA. The second project, Route 1 Improvements, has just broken ground. The initial term of the contract shall be for three years with the option to extend the contract period for four additional one-year periods. MBP has teamed with Keville Enterprises, Inc. and GeoConcepts, Inc., two disadvantaged business enterprise (DBE) for this project.

## HEALTHCARE

### National Institutes of Health, Bethesda, Maryland

MBP has been selected by the National Institutes of Health (NIH) to provide construction quality management services for the renovation of the Clinical Center Complex.

The NIH Clinical Center Complex, or Building 10, is the largest research hospital in the world. The proposed project is an incremental renovation of 215,000 square feet of the F Wing of Building 10 (Floors 2 - 14) on the NIH campus in Bethesda, Maryland.

The renovation consists of converting former patient care units to laboratories, laboratory support and offices for clinical research programs, and to install new utilities infrastructure and equipment. The estimated construction cost is more than \$110 million.

MBP services will include implementing a project management information system for the project, partnering, BIM modeling review, move coordination, equipment activation, cost control using earned value management (EVM), building envelope commissioning, and oversight of the LEED certification effort.

## PRIVATE

### Boeing Facilities – Rotorcraft Division, Ridley Park, Pennsylvania

MBP was selected to provide commissioning services for the Boeing Facilities – Rotorcraft Division in Philadelphia, PA. This project involves the renovation of the H-47 Focused Factory consisting of Buildings 3-61 and 3-62 and the construction of a new central utility plant in Building 4-14. LEED Certification is being pursued for the Center South campus as a whole.

## PRIVATE

### National Aquarium Institute, Baltimore National Aquarium, Baltimore, Maryland

MBP has been selected to provide cost estimating services for the Baltimore National Aquarium's Middle Branch Access Park.

## MUNICIPAL

### Union County, Charlotte, North Carolina

MBP was selected to provide retro-commissioning services to Union County in Charlotte, NC. MBP is scheduled to provide services for four of the county's facilities.

## HIGHER EDUCATION



### Wake Technical Community College, Raleigh, North Carolina

MBP will function as the full-time, on-site owner's representative and will be supporting the CPM baseline and monthly review. A state-of-the-art lecture hall and

## CORPORATE

### **Roy Mitchell, CPA, Chief Financial Officer**

Roy comes to MBP from a technical and management consulting company, which provides services to both the government and commercial sectors. Roy is a Certified Public Accountant with 18 years of experience in government contract accounting. He received his Bachelor's degree in Accounting from Marymount University.

## GEORGIA

### **Matt Gill, EIT, Lead Engineer**

Matt joins MBP after working on a variety of commercial construction projects and providing inspection, cost, and document review services. Additionally, he has extensive experience in working on Base Realignment and Closure (BRAC) programs and served as an Assistant Town Engineer for several towns in Maine and New Hampshire. Matt also served in the Maine Army National Guard, 133rd Engineer Battalion, and is currently serving in the Air Force reserves. While in the Guard, he deployed to Operation Iraqi Freedom II from 2004 to 2005 and to Operation Katrina Relief in 2005. While in the Reserves, he deployed for Operation Iraqi Freedom from 2008 to 2009. Matt graduated from the University of Maine, College of Engineering in 2003 with a Bachelor's degree in Civil Engineering.

## PHILADELPHIA

### **Gene Sawyer, Lead Consultant**

Gene joins MBP bringing with him 23 years in the construction field, most recently in the southern Vermont area. During his time in construction, he has held roles as a superintendent, inspector, and materials Testing Agent, and also owned his own carpentry company for 15 years. Gene's background includes projects for multi-family residences, K-12 schools, office buildings, and retail renovations. Gene has a Bachelor's degree in Construction Management Technology from the University of Maine.

### **Greg Perry, Lead Consultant**

Greg joins MBP with 24 years of experience in the construction field, most recently as an Instructional Specialist with the New River Community and Technical College in Beckley, West Virginia - where he was developing the training programs in building science and green job technologies. His background

includes managing projects for the commercial banking industry, medical clinics, and high-end residential compounds. Greg has a Bachelor of Business Administration from the Lewis College of Business Management at Marshall University, Huntington, WV. Greg also holds two certifications from the Building Performance Institute: the first as a Certified Building Analyst Professional and the second as a Certified Building Envelope Professional.

### **Paul Timony, Senior Consultant**

Paul has been in the construction business for more than 25 years handling a wide range of renovation and new construction projects with values up to \$2.8 billion. He has completed numerous projects for Verizon, as well as schools in New Jersey and Philadelphia, U.S. Post Office facilities, and a project at Boston's Logan Airport. Paul obtained his Bachelor's degree in Business Administration and History from Iona College, New Rochelle, NY.

### **Keith Maxwell, Senior Consultant**

Keith has worked in the construction industry for more than 30 years. He spent the first 20 years of his career as a carpenter gaining particular experience in historic renovation and restoration work. His most recent 12 years were spent as a superintendent for a large general contractor where he worked on a variety of projects from small branch facilities for banks to high-rise buildings.

### **Kenneth Fish, Lead Consultant**

Ken has worked in the construction industry most of his career, has been very active in the local carpenters union and has served on the executive board there for eight years. Ken developed the curriculum that is currently being used in the New Jersey vocational school system for the carpentry apprenticeship program. In addition to having this curriculum certified, he has also been an instructor for 15 years.

## VIRGINIA

### **Robert Carpenter, Senior Consultant**

Robert is a graduate of the University of Tennessee Architecture School and brings a wealth of CM and administration experience including commercial, higher education, and K-12 projects. In the past he has worked as an owner's representative for architectural and development firms.

### **Randy Craig, Commissioning Specialist**

Randy has more than 31 years of progressive

project management experience in the general construction and electrical and mechanical industries. Mr. Craig has expertise in coordinating/organizing/planning, computerized project scheduling, quality control, and performance contracting. His project experience includes extensive k-12; higher education; local, state, and government facilities; and medical facilities. He is a Virginia licensed Master Electrician Tradesman and Electrical Contractor.

### **Donald Studs, CEM, Commissioning Specialist**

Donald comes to MBP from MC Dean where he was working in the field commissioning electrical installation for commercial and industrial customers. Most recently he worked on the Walter Reed National Military Medical Center. Donald joins MBP's growing commissioning team and is a veteran of the U.S. Coast Guard. He has more than 20 years of electrical field experience including ten years of electrical testing and commissioning of electrical systems for schools, data centers, hospitals, commercial buildings, and airport projects.

### **Joe Murphy, CCA, CDT, Senior Consultant**

Joe has been working in the construction industry for more than 25 years and is a certified construction contract administrator through the Construction Specifications Institute. Joe has an extensive project experience background in K-12, federal, healthcare, and commercial development.

### **Kenneth W. Snell Jr., EIT, Commissioning Technician**

Kenny holds a Bachelor's degree in Mechanical Engineering from Old Dominion University. He has obtained his EIT designation and is in pursuit of his PE. Before joining MBP he worked as an Assistant Project Engineer in the HVAC mechanical field.

## NORTH CAROLINA

### **Rob Brisley, EIT, CMIT, Consultant**

Rob is a recent graduate of North Carolina State University with a Bachelor's in Construction Engineering and Management. His experience includes working on commercial projects throughout Virginia and North Carolina.

*Continued on page 8...*

## MARYLAND

### **Bob Fraga, AIA, FCMAA , Regional Operations Manager, Director of Facilities Portfolio Services**

Bob joins the MBP team after a career in the private and public sector, primarily with the federal government that included the U.S. Postal Service, GSA, and Smithsonian Institute. For many years, Bob has maintained an active leadership with the Construction Management Association of America (CMAA), where he served as national President from 2005-2006. Bob is also a member of AIA and the National Trust for Historic Preservation. Bob attended the University of Florida where he received a Bachelor of Design and a Master of Arts in Architecture. He is a registered architect in Maryland, Illinois, and Florida.

### **Nick Puiia, Senior Consultant**

Nick brings 27 years of experience in facilities construction management with more than 20 of those years in healthcare. He holds a

Bachelor's degree in Mechanical Engineering Technology from the University of Maine and a Master's in Business Administration from Thomas College. His responsibilities include coordinating utility outages, design review, planning, post-construction oversight, change order management, reporting, inspection, safety/security oversight, scheduling, and budgeting.

### **Brittany Muth, Engineer**

Brittany received her Bachelor's degree in Architectural Engineering from Pennsylvania State University in May 2010. She was an active member and student leader of SPACE (Student Partnership for Achieving Construction Excellence) and MCAA (Penn State Student Chapter of Mechanical Contractors Association of America) during her time at Penn State. Over the past three years, Brittany has participated in three CM internships, working on a medical facility

and high-profile federal projects, such as the Pentagon and Fort Belvoir Community Hospital.

### **Jordy Murray, Esq., Senior Project Manager**

Jordy has more 20 years of engineering, construction and consulting experience on a wide variety of projects. Prior to joining MBP, Jordy was a Vice President with Hill International's claims services group. Jordy earned his Bachelor's in Civil Engineering from the Colorado School of Mines, his Master's in Business Administration from the University of Denver, and his Juris Doctorate from Washington and Lee University School of Law. He is an active member of the Virginia State Bar and ABA Construction Forum. **MBP**

## Branch Moves & Openings



Opening of the Tampa, FL branch and the expansion of the Chesapeake, VA and New York, NY branches increases our ability to support MBP's continued growth and its commitment to providing value-added construction management services.

### **MBP Tampa**

8875 Hidden River Parkway, Suite 300  
Tampa, FL 33637

#### **Phone:**

813-903-2333 (office)

### **MBP Chesapeake**

Independence Place  
676 Independence Parkway, Suite 220  
Chesapeake, VA 23320

#### **Same phone and fax:**

757-382-0109 (office) | 757-382-0147 (fax)

### **MBP New York**

30 Broad Street  
40th Floor  
New York, NY 10004

#### **Same phone and fax:**

212-964-4338 (office) | 212-964-4290 (fax)

**Engineering News-Record (ENR), Top 100** For over 20 years, ENR has surveyed the construction industry to determine the 100 largest U.S. firms that provide fee-based CM, program management and project-related construction consulting services. The Top 100 Construction Management-for-Fee list, published annually in June, ranks the 100 largest U.S. firms, both publicly and privately held, based on agency CM fees for project related construction management projects. This year MBP ranked #36 in the CM-for-fee list, up three spots from #39 in 2009. MBP also ranked #22 in the Top 50 Program Management Firm list.

**MBP Ranks No. 2 as 2010 Best Multidiscipline A/E Services Firms to Work For**

Stagnito Media, in collaboration with management consulting and research firm ZweigWhite, named MBP as one of the 2010 Best Firms to Work For. MBP placed second in the multidiscipline A/E services category. Stagnito Media and ZweigWhite identified the best civil engineering, structural engineering, multidiscipline A/E services, environmental service, and architecture firms to work for in its annual ranking of top industry firms. Outstanding employers were selected based on their commitment to providing a positive work environment and challenging and interesting work opportunities for their employees, as well as for achieving high levels of employee satisfaction. A total of 79 firms, including 12 honorable mentions, were recognized for their efforts in creating outstanding workplace environments last year at Stagnito Media's 2010 Best Firms To Work For Summit in Las Vegas. *To view a full list of the rankings, please visit [www.bestfirmstoworkfor.com/rankings.html](http://www.bestfirmstoworkfor.com/rankings.html).*



**2010 CMAA National Project Achievement Awards** CMAA awarded MBP with a 2010 National Project Achievement Award in the category of Buildings, New Construction with a constructed value less than \$100 million. The award recognized the MBP/AECOM joint venture team for outstanding CM efforts for Washington-Lee High School in Arlington, VA. This is MBP's third consecutive Project Achievement Award recognition.

**Top 25 Best Medium Sized Companies to Work for in America** MBP has once again been recognized by the Great Place to Work® Institute on its seventh annual Best Companies to Work For list, presented by Entrepreneur.com®. The Great Place to Work® Institute's selection process included a survey of MBP's employees based on the Trust Index®. The Great Place to Work® Institute evaluated the company based on five areas: credibility, respect, fairness, pride, and camaraderie. The Institute's unique methodology measures the level of trust that exists between employees and management, the pride employees express about the company, and the camaraderie employees share.

**List of America's Fastest-Growing Private Companies - The Inc. 5000** MBP was named to the prestigious Inc. 5000 list, an exclusive ranking of the nation's fastest-growing private companies. MBP placed in top 50th percentile of the list, with an extraordinary three-year growth rate of 123%. Complete results of the Inc. 5000, including company profiles and an interactive database that can be sorted by industry, region, and other criteria, can be found on [www.inc.com/5000](http://www.inc.com/5000).

**AACE International Names Niyi Ladipo 2010 Outstanding Woman in Project Controls** The Association for the Advancement of Cost Engineering (AACE) International selected MBP team member Niyi Ladipo, CCE, EVP as the 2010 recipient of AACE's Outstanding Woman in Project Controls. Niyi has been a member of AACE since 2005 and became a Certified Cost Engineer (CCE) in 2007 and an Earned Value Professional (EVP) in 2010. She has been active with the National Capital Section serving as Secretary and proctoring certification exams.

**MBP Earns Industrial Appreciation Award from the Association for the Advancement of Cost Engineering International** MBP has been recognized by AACE as the 2010 Industrial Appreciation Award recipient. The Industrial Appreciation Award is presented to firms that have rendered exceptional support to the cost engineering profession and toward AACE's goals and objectives. Only one Industrial Appreciation Award is given each year. MBP's Chairman and Chief Executive Officer, Charles E. Bolyard, Jr., PSP, CFCC accepted the award on behalf of the firm at the association's annual Awards Luncheon.

**Zweig Letter 2010 Hot Firm List** MBP was designated #90 on the 2010 Hot Firm List. This is the third consecutive year MBP has made the Hot Firm List. Zweig Letter recognizes the fastest-growing architecture, engineering and environmental consulting firms on the basis of percentage growth and dollar growth. To view the full listing of firms, visit <http://www.zweigwhite.com/g-53-the-zweig-letter-2010-hot-firm-list.aspx>.

**MBP Presented with 2010 Alliance for Workplace Excellence Award**

MBP has been chosen by the Alliance for Workplace Excellence as a recipient of the 2010 Workplace Excellence Award. The Workplace Excellence Awards highlight businesses that promote professional fulfillment at work, at home, and in the community. All award applicants undergo a rigorous assessment process led by an independent review panel of professors, PhD professionals, and doctoral candidates in business, industrial and organizational psychology, and human resources. The Alliance has recognized the Washington, D.C. area's best places to work for the past 11 years. The 67 winning companies represent more than one million employees on organizations of all sizes and in all sectors-private, public, and nonprofit.



**Public Works Magazine, 2010 Top AEC Firm** MBP was again selected as a Top AEC Firm by Public Works Magazine. This is the third consecutive year MBP has been named to the list of top architecture, engineering, news firms around the country. *For the complete list, visit <http://pwmag.com/industry-news.asp?sectionID=760&articleID=1369277>.*

**Society for Marketing Professional Services (SMPS), Marketing Communications Awards** The SMPS National Marketing Communications Awards (MCA) program is the longest-standing, most prestigious awards competition that recognizes excellence in marketing communications by professional services firms in the design and building industry. MBP received an award in the category of Internal Newsletter. **MBP**