STRUCTION SUPERSTRUCTURE

Clark Joint Venture Selected for Phase 2 of Stockton Health Care Facility

STOCKTON, Calif. - The California Department of Corrections and Rehabilitation and California Prison Health Care Services have selected the joint venture of Clark Construction Group - California, LP, and McCarthy Building Companies, Inc. in association with HDR Architecture, as the design-build entity for the second phase of the California Health Care Facility (CHCF) Stockton. Located just south of the City of Stockton in San Joaquin County, CHCF Stockton is an intermediate-level medical and mental health care facility for patientinmates within the California state prison system. The contract is valued at approximately \$512 million.

Clark/McCarthy will be responsible for the design, coordination, and construction of 35 buildings totaling 1.2 million square feet on a 144-acre site. The scope of work includes building housing for 1,722 patient-inmates, a diagnostics and treatment center, an administration building, a central kitchen, and support facilities. The team will also perform utility and telecommunications improvements.

The first phase of construction, which includes on-site and off-site utilities, road work, grading, secure perimeter fencing, and a central utility plant, was previously awarded to a separate design-build team.

The construction of CHCF Stockton is expected to create more than \$1 bil-



lion in economic activity and 5,500 jobs

in the Stockton/San Joaquin community. CHCF Stockton is being designed to

achieve LEED® Silver certification. Design work is underway and construction is anticipated to begin later this year.

The project is scheduled to be substantially complete in July 2013.

Shirley Contracting Awarded Three Roadway Jobs in Northern Virginia

LORTON, Va. – **Shirley Contracting** was recently awarded three roadway improvement projects in Northern Virginia.

Route 50 Widening

The Virginia Department of Transportation (VDOT) awarded Shirley and design partner Dewberry, LLC, of Fairfax, Va., a \$69 million contract for the Route 50 Widening Design-Build Project. Spanning 3.6 miles from Route 28 (Sully Road) in Fairfax County to Poland Road in Loudoun County, the project will upgrade Route 50 to a six-lane divided highway with signalized intersections. Shirley's scope of work includes design, construction, right-of-way acquisition, utility relocation, maintenance of traffic, environmental permitting, and quality assurance/quality control services. Expanding Route 50 will alleviate congestion

on one of the area's busiest commuting corridors.

Design of the project began in April and construction is anticipated to start later this year. The project will be completed by December 2014.

Route 29/Linton Hall Interchange Improvements

VDOT also awarded Shirley a \$74.4 million contract for the Route 29/Linton Hall Interchange Improvements Project in Gainesville, Va. Shirley will widen Route 29 to six lanes from I-66 to Virginia Oaks Drive and develop a grade-separated interchange for Route 29/Linton Hall Road. The project will improve traffic flow by eliminating two at-grade Norfolk Southern Railroad crossings, multiple driveway entrances, and the at-grade intersection

continued on p. 3



Route 29/Linton Hall Interchange Improvements, Gainesville, Va. (Rendering courtesy of VDOT)

Construction Begins on CityCenterDC Project

WASHINGTON, D.C. – **Clark Construction Group, LLC**, with joint venture partner Smoot Construction, has broken ground on the first phase of the landmark CityCenterDC project. The 10-acre mixed-use project will create a pedestrian-friendly neighborhood in the heart of downtown Washington, D.C., blending retail, entertainment, residential, and office spaces. Developed by Hines and Archstone, the \$700 million project has a \$425 million construction cost and is considered the largest downtown development currently underway in the United States.

CityCenterDC, located on the site of the old Washington, D.C., Convention Center, is bounded by New York Avenue and H Street, NW to the north and south, and 9th and 11th Streets, NW to the east and west. The project includes two office buildings with a total of 520,000 square feet, two apartment buildings with a total of 458 rental units (20 percent of which will be affordable housing units), and two condominium buildings with a total of 216 residential units. The new complex also will feature 185,000 square feet of retail and a one million square-foot below-grade garage with loading and service areas, central plants, and 1,555 parking spaces.



continued on p. 6

CityCenterDC, Washington, D.C. (Rendering courtesy of Foster + Partners)

Clark Transforming Capitol Hill Office Building

WASHINGTON, D.C. – **Clark Construction Group, LLC,** is transforming a 230,000 square-foot office building at 500 North Capitol Street, NW. Under a contract from co-owners and codevelopers Clark Enterprises, Inc., and Boston Properties, Clark is refurbishing the existing building to prepare for the relocation of new prime tenant, McDermott Will & Emery LLP. The law firm will occupy 171,000 square feet of Class-A office space in the new building.

Clark will demolish the existing building interior and façades while making structural revisions to allow for a new ninth floor and roof deck to be added. The scope of work also includes installing curtain wall facing North Capitol Street and E Street, NW. The building's other two sides will feature precast concrete with large punched open windows. Additional building improvements include micropile foundations as well as new, state-of-the-art mechanical and electrical systems, and elevators.

McDermott Will & Emery has had significant input into the design of key building features, including the main lobby and the roof-top terrace. Upon completion of the project, the building will be renamed "The McDermott Building."

The project is designed to achieve LEED[®] Silver certification.

Demolition began in April and substantial completion is scheduled for November 2012.



500 North Capitol, Washington, D.C. (Rendering courtesy of Gensler)

Gensler, Washington, D.C., is the project architect. Additional project partners include Thornton Tomasetti, Washington, D.C., structural engineer; Girard Engineering, PC, Falls Church, Va., MEP engineer; VIKA Capitol, LLC, Washington, D.C., civil engineer; and LSG Landscape Architecture, Charlotte, N.C., landscape architect.

New Sustainable Student Community Opens on UCSD Campus

SAN DIEGO – The University of California San Diego's (UCSD) new Village II student housing community takes advantage of its location and the local climate to maximize sustainability. The \$82 million residential community, soon to be the on-campus home of 807 transfer students, was completed by **Clark Design/Build of California** 11 weeks ahead of schedule.

The 267,000 square-foot project includes a 13-story concrete residential tower and four low-rise residential "ecoflats," with a total of 148 apartments, a dining facility called The Bistro, a student market, and faculty office spaces. The eco-flats are woven together by a series of cantilevered walkways, exterior stairs, and elevators. All buildings are connected by a common pedestrian walkway called The Strand that cuts diagonally between the structures.

The community relies on both natural and technological methods for sustainability. Strategically placed "wind scoops" pull Pacific Ocean breezes into residential units, cooling them without relying on a mechanical system. Each of the 148 units is equipped with occupancy sensors that will automatically shut off lights and appliances when rooms are unoccupied. A 300-kilowatt thermal solar system, one of the largest installations at a North American university, heats water for the residences' bathrooms and the dining facility. A large solar trellis tops the residential tower, collecting solar energy and providing shade to units on the upper floors.

The Village II project anticipates earning LEED[®] Gold certification.

Carrier Johnson + CULTURE of San Diego is the project architect. Additional project partners include MA Engineers, San Diego, mechanical engineer; Michael Wall Engineering, Inc., San Diego, electrical engineer; Nabih Youssef Associates, Los Angeles, structural engineer; A.O. Reed & Co., San Diego, mechanical and plumbing contractor; and Dynalectric, San Diego, electrical contractor.



"Clark's collaborative team approach was a large part of the success. Everyone was considered important and a part of the process and their point of view considered and respected...As a result, I have a project in my hands that was turned over three months ahead of schedule, problem-free with no pending issues...the early reviews have been nothing short of spectacular from the students, parents, campus administration, and the community."

Mark Cunningham Executive Director, Housing, Dining, Hospitality Services University of California San Diego



Pictured Above: UCSD Village II Student Housing (photos courtesy of Carrier Johnson + CULTURE) Pictured Left: The Market enables students to shop for groceries without leaving campus. Pictured Below: The Bistro offers UCSD students a sleek new on-campus dining option.



Shirley Contracting Awarded Three Roadway Jobs in Northern Virginia continued

of Route 29/Linton Hall Road.

Construction of the project began in June. The project will be complete by June 2015.

University Boulevard Extension PPTA

The Board of Supervisors of Prince William County awarded Shirley a \$29 million contract for the University Boulevard Extension PPTA Project. Procured under Virginia's Public-Private Transportation Act, this project includes both the expansion of University Boulevard and improvements to Hornbaker Road.

The approximately one-mile extension of University Boulevard between Sudley Manor Drive and Hornbaker Road will connect it with the Prince William Parkway and Innovation Technology Park. Shirley's scope of work includes the design, construction, right-of-way acquisition, utility relocation, and environmental permitting for the four-lane divided roadway. This portion of the project also includes the design and construction of two bridges, one of which will span gas transmission lines that cannot be disturbed.

In addition, Shirley will design and construct an eastbound section of road from Hornbaker Road to the Prince William Parkway-Route 234 Bypass to transform it into a six-lane divided roadway.

The project includes the completion of the design, construction, right-of-way acquisition, and utility relocation for the Hornbaker Road Phase II Improvements. This 1.29-mile upgrade will increase Hornbaker Road's two existing lanes to four.

As part of the overall project, Shirley also will construct a 30-inch waterline betterment along the length of University Boulevard and design and construct a 12-inch waterline betterment along Hornbaker Road for the Prince William County Service Authority.

Design efforts began earlier this year and construction is expected to begin this fall, with completion anticipated by November 2013.

New Brig Facility Opens at Marine Corps Air Station Miramar

SAN DIEGO – The new Joint Regional Correctional Facility, Southwest (JRCFSW) onboard Marine Corps Air Station (MCAS) Miramar consolidates several older U.S. Marine Corps and U.S. Air Force confinement facilities. The Naval Consolidated Brig Miramar, which was completed in February, is an expansion of an existing Brig, and was part of the Base Realignment and Closure (BRAC) Act of 2005. The new structure houses the Defense Department's only Level III (long term) correctional facility for women.

Clark Construction Group – California, LP, completed design and construction of the 99,000 square-foot Naval Consolidated Brig Miramar just 18 months after the contract was awarded in September 2009. The \$30 million expansion project makes the JRCFSW the largest contiguous corrections facility within the Defense Department's corrections system.

The JRCFSW expansion is a multistory structure comprised of concrete masonry units with precast concrete cells. The brig includes a Level I facility for 120 male service members. The structure is divided into two units of 60 cells that ring a two-story dayroom with clerestory windows to allow natural light. The units are joined by a common block of support and programming space containing a staff pantry, conference room, and individual group rooms. The women's unit is a Level I, II, and III facility for 80 female service members. The new unit provides for several prisoner population groups, including pre-trial, general population, incentive level, and long-term. To accommodate these groups, cells in the women's unit are clustered around a central rectangular dayroom divided into smaller sub-dayrooms to provide community

"This project truly highlights what a team can accomplish when everyone works together toward a common goal. The teamwork between Clark, Naval Consolidated Brig Miramar, and Naval Facilities Engineering Command - Southwest was fantastic, with the proof being a project completed ahead of schedule and under budget, while maintaining a laser focus on safety and quality. Truly amazing!"

> LT Michael Guzzi Facilities Engineering Acquisition Division Director, NAVFAC Southwest Naval Base Point Loma

UMD Residence Hall Ready for Students

COLLEGE PARK, Md. – Clark Design/Build, LLC, has reached substantial completion on the Oakland Hall Dormitory and Satellite Central Utility Building at the University of Maryland. The \$75 million residence hall is part of the Denton Community on the campus's north side and will open to student residents this fall.

Named for the city of Oakland, Md., the eightstory, 232,000 square-foot cast-in-place concrete structure is the first newly constructed residence hall on the university's College



Verial view of the Oakland Hall, College Park, Md. Photo by Preski Photo)

Park campus since New Leonardtown opened in 1982. The building provides 650 additional beds for undergraduates and consists primarily of two-bedroom "semi-suites" to be shared by four students. Oakland Hall's amenities include air conditioning, a laundry room, two study rooms, and a lounge on each floor, as well as a multipurpose room with an outdoor patio, prefunction and seminar spaces, an open lobby with a 24-hour service desk, interior bicycle storage, and landscaped outdoor leisure spaces

As part of the design-build project, Clark also constructed a satellite central utility building in Oakland Hall's basement. This facility provides chilled water for the building, as well as six existing high-rise dorms, two dining halls, and a future residential facilities office complex.

Oakland Hall is designed to achieve LEED[®] Gold certification.

WDG Architecture of Washington, D.C., is the project architect. Additional project partners include Cagley & Associates, Rockville, Md., structural engineer; Site Resources, Inc., Phoenix, Md., civil engineer; WFT Engineering, Inc., Rockville, Md., MEP engineer; and SD Keppler and Associates, Rockville, Md., LEED consultant and commissioning agent.



Miramar Brig, San Diego (Photo courtesy of KMD Architects)

environments. There also is a special housing unit internal to the larger unit for disciplinary and administrative segregation prisoners.

In addition to the 200 precast cells, Clark led the design and construction of a new entrance lobby and visitor center, prisoner processing area, dining hall/multipurpose room, classrooms, administrative space, storage and logistical support areas, and a stand-alone 15,000 square-foot industries and vocational training building. Site work included adding a new parking lot, a perimeter security access road, dual security fencing, ballpark lighting, utility systems, and installation of a second emergency generator.

The project was designed to achieve LEED[®] Silver certification and to meet the military's Anti-Terrorism/Force Protection standards.

KMD Architects of San Francisco is the project architect and led the design team.

Additional project partners include Flores Lund Consultants, San Diego, structural and civil engineer; ELEN Consulting, Inc., San Diego, electrical consultant; and McParlane & Associates, San Diego, mechanical consultant.

New Pedestrian Bridge Debuts at U.S./Mexico Border

SAN YSIDRO, Calif. – A new pedestrian bridge spanning Interstate 5 at the U.S./ Mexico border opened to the public in April. An integrated team of personnel from **Clark Construction Group, LLC**, and **Atkinson Contractors, LP**, completed the \$12 million San Ysidro Land Port of Entry (SYLPOE) East/West Pedestrian Bridge project for the U.S. General Services Administration three months ahead of schedule and with zero recordable safety incidents.

The 806-foot bridge spans 30 lanes of Interstate 5, as well as Customs and Border Protection (CBP) facilities at the world's busiest land port. More than 25,000 pedestrians and 50,000 vehicles pass through the port each day. The new bridge connects an existing transit plaza on San Ysidro Boulevard to the west side of Interstate 5 for pedestrians entering into Mexico.

The cast-in-place bridge includes nine piers with architectural exposed concrete, 2,400 feet of stainless steel mesh panel handrails, two cast-in-place elevated approach ramps, two structural steel approach bridges, and an architectural concrete stair and soffit.

Despite laydown areas and site logistics divided by the 30-lane highway, vehicle traffic and ongoing CBP operations were rarely interrupted during construction.

AECOM of Orange, Calif. is the project architect of record.



San Ysidro LPOE pedestrian bridge, San Ysidro, Calif. (Photo by David Hebble)

Tallest Building in Montgomery County, Md., Opens Doors

NORTH BETHESDA, Md. – **Clark Construction Group, LLC**, has completed construction of The JBG Companies' North Bethesda Market. The multiplecomponent project brings luxury accommodations to the area, as well as new retail options. Included in Clark's scope of work was the construction of a 24-story residential tower, the tallest building in Montgomery County, Md.

Located on Rockville Pike, just south of the White Flint Metro station, North Bethesda Market is a \$166 million, 1.2 million square-foot mixed-use complex. Clark constructed three separate buildings supported by a five-level below-grade parking garage, and a landscaped plaza common area. In addition, the team built a new road, Paseo Drive, to service the project.

Market East, North Bethesda Market's 24-story residential tower, features 189 apartments while Market West, a midrise building, includes 210 apartments spread over four floors, a thirdfloor courtyard, outdoor dining area, fitness center, pool, and e-lounge. On Market West's ground level is a 63,000 square-foot Whole Foods. Clark also built a two-story, 36,000 square-foot structural steel retail building adjacent to the residential facilities.

Clark Concrete Contractors poured more than 63,000 cubic yards of concrete on the project and incorporated exposed concrete in the Whole Foods space. For these efforts, the project earned a 2010 Excellence in Construction Award from Associated Builders and Contractors of Metropolitan Washington.

HKS, of Washington, D.C., is the project architect. Additional project partners include Smislova, Kehnemui & Associates, P.A., Rockville, Md., structural engineer; Cosentini Associates, New York, MEP engineer; Johnson Bernat Associates, Inc., Rockville, Md., civil engineer; Nelson Byrd Woltz, Charlottesville, Va., landscape architect; and Carlyn and Company, Great Falls, Va., interior designer.



North Bethesda Market, North Bethesda, Md.

Atkinson Power Plugs Into Energy Market

BROOMFIELD, Colo. – **Guy F. Atkinson Construction** has created a new entity – **Atkinson Power** - to self-perform the construction and maintenance of power lines in the western United States.

Atkinson Power will focus its efforts on utility clients while looking for opportunities to team with other Clark companies on projects of all sizes. Four veterans of the electrical construction industry will spearhead Atkinson Power's early initiatives.





Robert McDaniel will lead Atkinson Power as Senior Vice President. Mr. McDaniel joined Atkinson after spending 31 years with Sturgeon Electric, a full-service electrical company specializing in power line construction and the installation of complex systems in commercial and industrial properties.

Mr. McDaniel has been a member of Denver Chamber of Commerce, the National Electrical Contractors Association, and the Rocky Mountain Electrical League. He completed his vocational training from Front Range

Community College and programs from MYR/Northwestern University and the University of Michigan Executive Leadership program.



Operations Manager **Scott Olsen** brings 20 years worth of high voltage electrical expertise to Atkinson Power. He provides operational leadership for the company's efforts in the Southwestern United States. Mr. Olsen is responsible for all business operations, including labor force and equipment management and business development.



Chief Estimator and General Operations Manager **Mike Klein** has nearly four decades of industry experience. Mr. Klein has served in various leadership roles throughout his career, starting from front line management up to operations vice president. Mr. Klein manages Atkinson Power's estimating and budgeting efforts. Additionally, he oversees special project operations.



Power Loft, Clark Mission Critical Team for Data Center Success

MANASSAS, Va. – The Clark Mission Critical team working at the Power Loft @ Innovation data center has begun a fourth phase of construction, continuing a five-year relationship that has weathered an economic recession and various design upgrades. Since 2006, Clark has been providing budgeting, scheduling, design reviews, and constructability analysis for a proprietary two-story facility that segregates all IT equipment one story above the building's mechanical and electrical distribution equipment.

This Tier III+ data center features 100,000 square feet of secure raised floor space supported by densities that scale from 150 to 300 watts per square foot, with minimal reduction or disruption to the original raised floor envelope. house the facility's rotary UPS units, all under-slab conduits and concrete slab-on-grade for the west module, and fit out the west module shell and associated support areas (including office, reception, kitchen, and conference spaces).

Throughout the second phase, Clark worked closely with Power Loft and the design team to meet technical requirements and expedite future tenant space delivery by reprioritizing MEP equipment and deployment sequences. For example, mechanical generators and switchgear were temporarily staged in locations slated for future rotary UPS and critical switchgear. In addition, smaller air cooled chillers were deployed in advance of the larger chilled water plant to

"We selected Clark to build Power Loft @ Innovation because they were already familiar with the challenges of the mission critical industry and because of their ability to introduce solutions that reduced construction cost with zero sacrifice to the project's reliability. There are very few general contractors in the United States qualified to construct Tier III/IV data centers, and fewer still who have successfully tackled \$300+ million projects like Power Loft @ Innovation. Clark has been a great partner and a crucial part of the project's success."

Situated within a DOD-rated security p surround, the facility's unique MEP configuration operates using 35 percent less a energy than a typical data center design, \$ which translates into approximately

\$8.75 million in utility cost reductions annually. During the first phase of construction, Clark oversaw site grading, the installation of utilities, and the construction of a 225,000 square-foot shell building that was divided into east and west modules, as well as the installa-

ductbanks. In the second phase, Clark installed a pre-engineered metal building to

tion of power and telecommunications

Jim Coakley President & CEO, Power Loft Services

provide efficient service at initial lower power densities. Overall, these efforts allowed Power Loft to reallocate over \$12 million in construction costs.

Finally, during this phase, Clark Mission Critical fit out 15,000 square feet of raised floor and commissioned two 2.5-megawatt rotary UPS units, two twomegawatt generators, two 500-ton air cooled chillers, switchgear, power distribution units, and air handling units serving the facility in just 90 days. That work was followed by another 15,000 square feet of raised floor space supported by an additional rotary UPS and air cooled chiller for increased power and cooling capacity, all of which was installed and



Power Loft control room, Manassas, Va. (Photo courtesy of Owings & Merrill)

commissioned without disrupting the data center's existing tenant.

The third phase of construction included the installation of a six-megawatt N+1 UPS block of power and cooling which includes an additional 20,000 square feet of raised floor, N+2 chiller plant in a separate structure supported by thermal and make-up water storage, and a secure fuel farm. This phase required detailed planning and coordination as existing equipment was relocated from temporary to permanent locations without interruption to the operational data center. During phase three, two mechanical generators and switchgear were relocated to the new chiller building and two additional rotary UPS units and critical switchgear were installed in their place. The data center now features six megawatts of N+1 rotary UPS capacity, 6.5 megawatts of mechanical generator capacity, 4,200 tons of cooling, 155,000 gallons of thermal storage, and 110,000 gallons of fuel storage. Final completion and commissioning of phase three is underway and is scheduled for this summer.

continued on p. 7

Construction Begins on CityCenterDC Project continued

CityCenterDC also will include a 29,000 square-foot park and a 20,000 square-foot central plaza with intricate site work, fountains, and landscaping.

As part of the project, Clark/Smoot will reopen I and 10th streets through the site over the top of the new parking garage.

The entire development has been accepted into the U.S. Green Building Council's pilot program for LEED® Neighborhood Development and is expected to receive Gold certification. The office buildings have achieved LEED pre-certification at the Gold level. The residential buildings are targeting LEED Silver and Certified ratings.

In addition to bringing a new vibrancy to downtown Washington, D.C., CityCenterDC will provide additional benefits to the city. More than 35 percent of all contracts for architecture, construction, and ongoing operations will be awarded to Certified Business Enterprises located in the District of Columbia. Clark/Smoot anticipates more than \$170 million in contracts going to more than 90 Washington, D.C., businesses. In addition, the project will create 1,700 construction jobs.

The first phase of CityCenterDC is expected to be complete in 2014.

Foster + Partners of London is the design architect for the master plan phase and design architect for the office buildings and condominium buildings. The project architect is Shalom Baranes Associates, Washington, D.C. Shalom Baranes also is the lead designer of the residential rental buildings; Gustafson Guthrie Nichol, Seattle, and Lee and Associates, Washington, D.C., are the lead landscape designers.

Irv Ragsdale Promoted to Vice President



BETHESDA, Md. – Clark Construction Group, LLC, is pleased to announce that **Irv Ragsdale** has been promoted to Vice President. Mr. Ragsdale

joined the George Hyman Construction Company's Estimating Department in 1979 before moving to Clark Concrete to do formwork design. In 1980, he was part of Clark Foundations' efforts on the Marriott Hotel National Place project and he has been integral to the group ever since. Over the past three decades, Mr. Ragsdale has designed and led dozens of foundations projects in the Washington, D.C., area, many of which were complicated by proximity to Metro tunnels, adjacent buildings, or existing sewer lines.

Following his work on the Columbia Square and Willard Hotel projects, Mr. Ragsdale was part of the Clark Foundations team that performed the support of excavation work at the Verizon Center. As project executive, Mr. Ragsdale helped lead some of Clark Foundations' most notable projects, including the Walter E. Washington Convention Center. Mr. Ragsdale also was integral to Clark Foundations' efforts at the U.S. Department of Transportation Headquarters, where the team had to work around a 100-year-old sewer that bisected the site as well as a Metro tunnel just 17 feet below the project's lowest point.

Most recently, Mr. Ragsdale was part of the U.S. Coast Guard Headquarters project team, overseeing Clark Foundations' largest project. He is actively involved with proposals and the acquisition of new work.

Mr. Ragsdale has a bachelor's degree in civil engineering from Virginia Polytechic Institute and State University. He is a licensed Professional Engineer registered in Maryland, Virginia, and Washington, D.C., and is a member of the American Society of Civil Engineers. Mr. Ragsdale sits on the board of directors for the Pile Driving Contractors Association and the Mid-Atlantic Carpenters Training Center.

A Long History of Providing Mission Critical Solutions

The creativity and teamwork demonstrated on the Power Loft @ Innovation project is the most recent in a long history of Clark's mission critical successes. Clark Mission Critical, the company's group dedicated to serving this specialized market, leverages Clark's many years of experience partnering with government, institutional, and private sector clients to deliver projects with uninterrupted operational requirements.

Clark Mission Critical's nationwide portfolio spans a diverse range of project types including data centers, command centers, operations facilities, trading floors, special use facilities, utility and energy plants, and technology and security infrastructure installations. While the clients, missions, and projects vary greatly, all Clark Mission Critical projects share common requirements including zero downtime, no mission impact, high reliability and redundancy, high security and survivability, seamless integration and commissioning, expedited delivery, and enduring quality.

Some of Clark Mission Critical's additional successes include:

Integrated Delivery for Early Completion

Created more than 10 years ago, the California Independent System Operator (ISO) Corporation operates the state's wholesale transmission grid. The organization never had a headquarters of its own until Clark finished the 278,000 square-foot design-build project in 2010. The facility's mission critical wing includes a Tier III Enterprise data center, control room, and central utility plant.

To expedite delivery of the mission critical wing, Clark focused on an integrated structural steel delivery with the structural engineer and steel fabricator. Working collaboratively as an integrated entity greatly expedited the early phases of construction and, ultimately, allowed California ISO to move into the mission critical wing three months ahead of schedule.

24x7x365 Operability

Originally built more than two decades ago, The Johns Hopkins University data center did not meet Tier III requirements and lacked power and cooling capacity to meet the university's needs. Clark renovated the 6,300 square-foot data center and updated the electrical and mechanical equipment without impacting the data center's operations. The data center was originally built with an A side and a redundant B side. Clark built a new B side complete with new utility feeders, switchgear, UPS modules, power distribution units, and remote power panels. When the new B side was commissioned, the existing A and B sides were combined into the new A side, doubling the data center's power capacity. Concurrent with the power upgrade, the facility's three existing chillers were replaced with larger units. Through detailed sequencing and commission-



California Independent System Operation Corporation, Folsom, Calif. (Photo by Rien van Rijthoven)

ing, all work was completed while university systems remained online.

Nationwide Deployment

As one of the nation's first internet service providers, PSINet undertook a worldwide data center construction program. Clark served as PSINet's partner for their domestic expansion program originally consisting of 26 data centers in major markets across the United States. Providing turnkey develop/design/build services, Clark worked with PSINet to select properties for acquisition and conversion to data centers. Built around a standard design and adapted to each site, data centers were built to Tier IV+ standards including System Plus System UPS and mechanical designs to support densities of 200 watts per square foot. Clark

pre-purchased over \$150 million of mechanical and electrical equipment to expedite project delivery schedules. Data centers in Atlanta, Boston, Dallas, and Miami were completed and multiple other projects were in various stages of development when PSINet cancelled its construction program. The data centers built under this program remain in operation today and are some of the most reliable in the industry.

National Security

As part of the Base Realignment and Closure Act, multiple offices of the National Geospatial-Intelligence Agency (NGA) consolidated at Fort Belvoir, Va., creating one of the largest and most technically advanced government complexes in the United States. To support the NGA's two million square-foot

main office building and 8,500 employees, Clark built a technology center and central utility plant that would meet NGA's immediate needs and accommodate future growth. The technology center includes a 45,000 square-foot data center with an additional 45,000 square-foot data center shell for future fit-out. The Tier III data center is supported by six double-ended substations and 24 megawatts of rotary and static UPS power. The 110,000 square-foot central utility plant provides power, heating and cooling for the entire campus including 16,000 tons of cooling, four 500-horsepower boilers, nine 2.5-megawatt generators and 190,000 gallons of fuel oil storage.

Power Loft, Clark Mission Critical Team for Data Center Success continued

Last fall, when Power Loft was acquired by Corporate Office Properties Trust, they were reviewing designs to complete the east module. At that time, Power Loft decided to deploy a static UPS topology to demonstrate the facility's ability to accommodate alternative technologies, particularly when new larger-capacity static UPS systems are now able to perform reliably at efficiencies above rotary UPS systems. Since October, Clark has been working with Power Loft and the design team, providing budgeting, constructability reviews, and creating flexible phasing sequences to integrate this new design into the existing building envelope and utility systems.

Power Loft @ Innovation's east module will feature two 4+1 UPS systems providing a total of 18 megawatts of static UPS capacity with full generator backup. Redundant mechanical substations with dedicated emergency generator backup will serve the mechanical loads and a maintenance bypass system will preserve full system redundancy during routine maintenance events.

In April, Clark began construction of a fourth phase, which includes all site and underslab ductbanks, slab-ongrade, and shell fit-out of the east module. Additionally, 20,000 square feet of new raised floor will be supported by three megawatts of N+1 UPS capacity. Mechanical systems include an additional chiller lineup in the chiller plant, two mechanical substations each with a two megawatt emergency generator and five internally-redundant fan wall air handling units. Phase four is scheduled for completion this fall.

The Power Loft @ Innovation project has tested Clark Mission Critical's creativity and flexibility with strong results. Through a close relationship with the owner, and a focus on meeting the owner's and tenants' needs, Clark managed to add value at every stage in the project's evolution while preserving the mutual respect of the entire development team. As a result, Power Loft and Clark are now planning for the next phase of many additional phases.

Clark Announces Executive Promotions

Robert D. Moser, Jr. Named President



BETHESDA, Md. – Clark Construction Group, LLC, is pleased to announce that **Robert D. Moser, Jr.**, has been named President of the company. **Peter C. Forster** will continue as the company's Chief Executive Officer and will become co-chairman along with **Dan T. Montgomery**.

As a 14-year Clark veteran, Robert Moser has held a series of preconstruction and P&L leadership roles in both the Mid-Atlantic Region and nationally. Mr. Moser was most recently Division President, National Group. In this role, he provided executive direction on a national scale, including the acquisition of work and operations, for both building and civil construction. Mr. Moser was instrumental to the successful execution of notable projects such as the one million square-foot San Antonio Military Medical Center in Texas, the 60-story 300 N. La Salle office building in Chicago, and the San Ysidro Land Port of Entry project in San Diego.

In 2003, Mr. Moser led Clark's efforts to complete over eighty construction projects for Firemen's Fund Insurance and AIG. The following year, he assumed responsibility for Clark Concrete. Under his leadership, the business unit successfully completed a number of complex projects, including the Dulles International Airport East Automated People Mover, Nationals Park, and the U.S. Department of Transportation Headquarters. Mr. Moser holds a bachelor's degree in civil engineering from Virginia Polytechnic Institute and State University. Additionally, he completed The Executive Program at the University of Virginia Darden School of Business in 2007. Mr. Moser is a member of the Board of Directors for the ACE Mentor Program of America and is actively involved with the Alexandria Seaport Foundation.

William R. Calhoun, John P. O'Keefe, and Brian A. Abt Assume New Executive Responsibilities

In conjunction with Mr. Moser's promotion, **William R. Calhoun, Jr.**, has been named Vice Chairman of Clark Construction Group, **John P. O'Keefe** has become President of Clark's National Group, and **Brian A. Abt** assumes the role of CEO and President, Mid-Atlantic Region.

> Since 2007, Bill Calhoun has been Executive Vice President with responsibility for the acquisition of work nationally. As Vice Chairman, Mr. Calhoun will continue his efforts in busi-

ness development and will drive the company's strategic focus on new and emerging markets.

Throughout his tenure with Clark, Mr. Calhoun has been responsible for a number of award-winning projects across the country. As a Division President in the Mid-Atlantic Region, he led the procurement of public work as well as the company's science and healthcare initiatives.

Mr. Calhoun holds a bachelor's degree in civil engineering from the Georgia Institute of Technology and completed the Advanced Management Program at Harvard Business School. He is a member of the Corporate Advisory Board of So Others Might Eat, the External Advisory Board of Georgia Institute of Technology's School of Civil Engineering, the Board of Visitors for the School of Engineering at the University of Maryland, and a National Peer in GSA's Construction Excellence Program.



As President of Clark's National Group, John O'Keefe will provide strategic direction on a national basis, including the acquisition of work and operations, to the company's

building and civil divisions. Mr. O'Keefe was most recently President of Clark's Public Division in the Mid-Atlantic Region.

Mr. O'Keefe joined Clark in 1987, and since that time has held leadership positions on projects in Philadelphia, Texas, and the Washington, D.C., area, as well as P&L responsibilities for Clark Global Technologies, Clark Concrete, and the company's residential and institutional business units.

Mr. O'Keefe holds a bachelor's degree in architectural engineering from The Pennsylvania State University and completed The Executive Program at the University of Virginia Darden School of Business. He is a board member, as well as a member of the Executive Committee, for Junior Achievement of the National Capital Area.



Most recently General Manager and Division President of Clark's Mid-Atlantic Region, Brian Abt will continue to provide executive leadership for the acquisition of work and construction opera-

tions in the Mid-Atlantic Region with annual revenues exceeding \$1.5 billion.

Since joining the company in 1985, Mr. Abt has been responsible for successfully delivering dozens of premier projects in the Washington, D.C., area, including the National Museum of the American Indian, U.S. Institute of Peace Headquarters, BRAC 133 at Mark Center, and the National Geospatial-Intelligence Agency Headquarters. As a Vice President, he focused on the procurement of new business and client service as part of the Preconstruction Services Department.

Mr. Abt earned a bachelor's degree in civil engineering from Rensselaer Polytechnic Institute. Additionally, he completed the Advanced Management Program at Harvard Business School. He is a former board member of the Jubilee Support Alliance in Washington, D.C.



Clark Construction Group, LLC 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8100 www.clarkconstruction.com

Regional Offices 216 South Jefferson Street, Suite 502 Chicago, IL 60661 (312) 474-5500

2502 N. Rocky Point Drive, Suite 200 Tampa, FL 33607 (813) 636-4422

Clark Construction Group - California, LP 575 Anton Blvd., Suite 100 Costa Mesa, CA 92626

7677 Oakport Street, Suite 1040 Oakland, CA 94621 (510) 430-1700

525 B Street, Suite 250 San Diego, CA 92101 (619) 578-2650

(714) 429-9779

Guy F. Atkinson Construction, LLC 385 Interlocken Crescent, Suite 250 Broomfield, CO 80021 (303) 410-2542 www.atkn.com

600 Naches Avenue, S.W., Suite 120 Renton, WA 98055 (425) 255-7551

27422 Portola Parkway, Suite 250 Foothill Ranch, CA 92610 (949) 855-9755

Shirley Contracting 8435 Backlick Road Lorton, VA 22079 (703) 550-8100 www.shirleycontracting.com

Clark Concrete Contractors 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8100

Clark Foundations/Clark Civil 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8110

Clark Real Estate Advisors 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8100

Clark Construction International 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8100

Clark Interiors 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-8100

Edgemoor Real Estate Services 7500 Old Georgetown Road Bethesda, MD 20814 (301) 272-2910

Monumental Work

Clark Construction Group, LLC, earned an Aon Build America Award, one of the nation's most prestigious construction industry awards, for its role in the Arena Stage Expansion and Renovation project. The award, in the building renovation category, was presented in March by Associated General Contractors of America during the group's annual convention.

Since the project began in 2008, the Arena Stage Expansion and Renovation has earned more than 15 awards from industry groups including the Washington Building Congress, McGraw Hill Construction, NAIOP - the Commercial Real Estate Development Association, and Associated Builders and Contractors.

This is Clark's 15th Aon Build America Award. The company most recently was recognized for Nationals Park in 2008.



Superstructure is published quarterly by Clark Construction Group, LLC, one of the nation's largest providers of construction services.

For more information, contact: Eric Fulton or Kimberly Wood in Corporate Communications.

Email: eric.fulton@clarkconstruction.com or kimberly.wood@clarkconstruction.com