Volume 30, Number 3 *Summer 2012*

CLARK CONSTRUCTION

Superstructure

Clark Awarded Inova Fairfax Women's Hospital & Inova Children's Hospital Contract

Inova Fairfax Women's Hospital & Inova Children's Hospital, Fairfax, Va. (Rendering courtesy of Wilmot Sanz, Inc.)

FAIRFAX, Va. – Inova Health System selected Clark Construction Group to build the largest phase of its capital improvement program, the 665,000 square-foot Inova Fairfax Women's Hospital & Inova Children's Hospital. The $215 million contract is part of Inova Health System's multi-year effort to upgrade its Fairfax campus to a world-class environment for patient care, education, and research.

The 12-story tower will contain 192 patient rooms on four floors, a 108-bed neonatal intensive care unit, 33 labor and delivery rooms, six C-section suites, and eight operating rooms. In addition to medical spaces, the project team will construct support areas, a ground-floor clinic, and a kitchen. The Inova Children's Hospital will occupy three floors of the building. The children's hospital will contain 116 private pediatric rooms and have its own dedicated entrance. The entire facility will connect to the campus' existing South Patient Tower on the three lower levels. The hospital's cast-in-place concrete structure will be wrapped in an architectural precast skin with glazed curtain wall and ribbon windows. Custom entry canopies will greet hospital visitors while green roofs and a healing garden enhance sustainability and provide natural respite.

The project also includes construction of a new central utility plant and a central energy plant with two 1,800-ton chillers, cooling towers, and 13 custom air handling units to provide 3,300 tons of added cooling load. The hospital will be equipped with three, two-megawatt emergency generators with paralleling gear to provide continuous electricity in the event of an emergency.

Wilmot Sanz, Inc., Gaithersburg, Md., is the project architect. Additional project partners include RMF Engineering, Baltimore, MEP engineer and Cagley & Associates, Rockville, Md., structural engineer.

Construction will begin in September 2012 and completion is expected in September 2015.

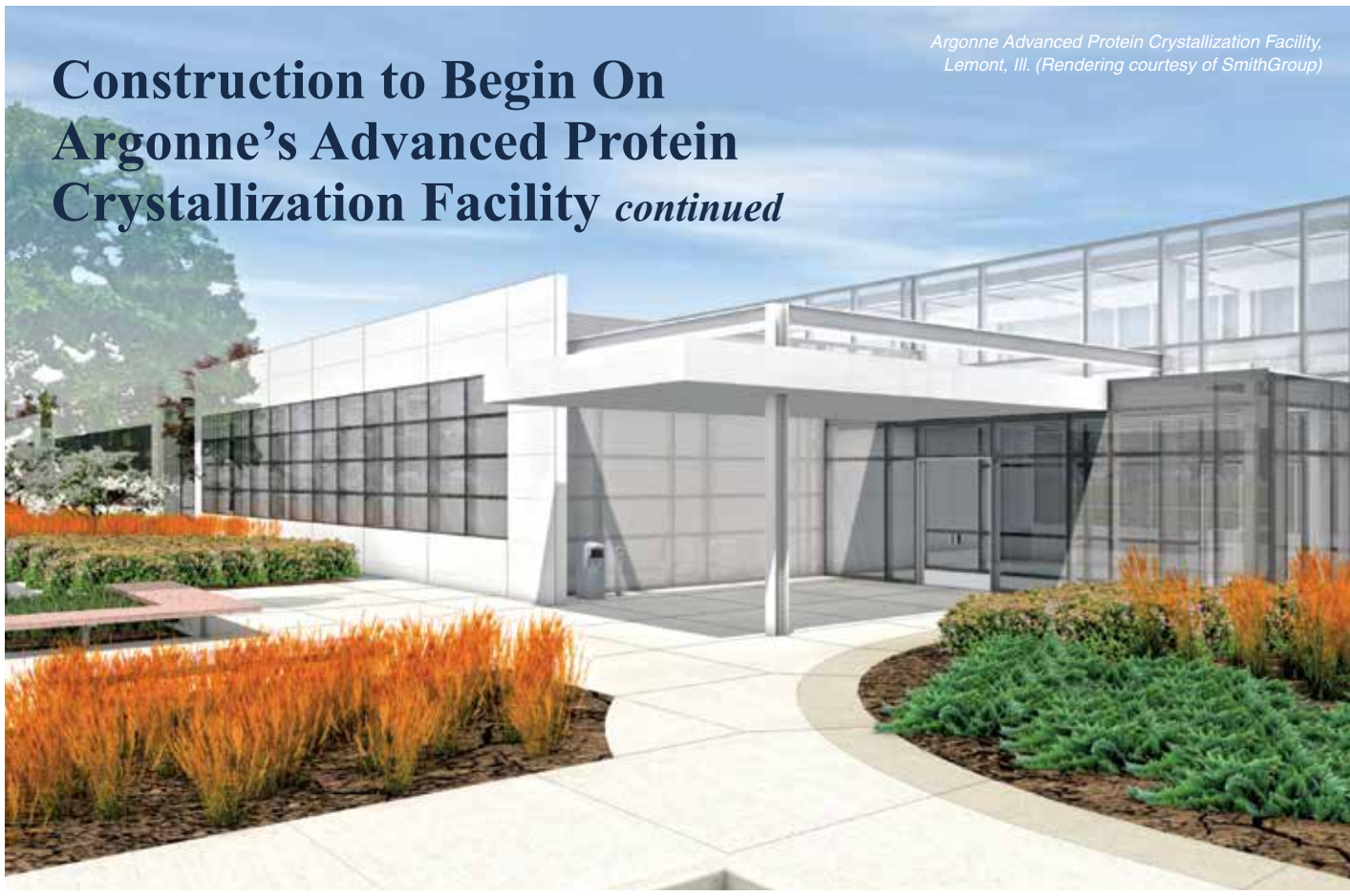
Construction Begins On Argonne's Advanced Protein Crystallization Facility

LEMONT, Ill. – Argonne National Laboratory's Office of Project Management, in conjunction with Jacobs Engineering, awarded Clark Construction Group a $22.8 million contract to construct the Advanced Protein Crystallization Facility (APCF). Built as part of a partnership between Argonne and the State of Illinois Department of Commerce and Economic Opportunity, the APCF will contain the most advanced protein science technology in the nation. This is the second contract Argonne has awarded Clark in recent years, the first being the 160,000 square-foot Energy Sciences

continued on p. 2

A LOOK INSIDE

Construction to Begin On Argonne's Advanced Protein Crystallization Facility *continued*



Argonne Advanced Protein Crystallization Facility, Lemont, Ill. (Rendering courtesy of SmithGroup)

Building now under construction.

In August, Clark began construction of the 60,000 square-foot facility with flexible laboratory and office spaces, as well as environmental rooms, support areas, and a conference center. The Argonne APCF will feature a state-of-the-art, highly-automated laboratory that includes a scientific collaboration space for the production and characterization of proteins and protein crystals.

The Argonne APCF project is designed to achieve LEED® Gold certification. Sustainable elements include a curtain wall system with high-performance electrochromatic glass which modulates the amount of tint in the windows to maximize natural light infiltration and to minimize solar heat gain.

The facility is expected to be complete in October 2013.

SmithGroup is the designer and architect of record. Chicago-based project partners include Thornton Tomasetti, structural engineer; Affiliated Engineers Inc., MEP engineer; and TERRA Engineering, civil engineer.

UCSF Settles Into Sandler Neurosciences Center

SAN FRANCISCO – A unique public-private partnership with the University of California San Francisco (UCSF) paved the way for the fast-track delivery of the 237,000 square-foot Sandler Neurosciences Center. Through the lease-lease-back transaction structure, UCSF, which owns the land, will ground lease the site to Edgemoor Infrastructure & Real Estate and its development partner, McCarthy Cook & Co., a San Francisco real estate firm, and enter into a space lease for the building. At the end of the 38-year lease period, UCSF will assume ownership of the building. The public-private partnership allowed the $173.5 million project to move forward without drawing on state funds. The Edgemoor/ McCarthy Cook team will provide property management services for the Sandler Neurosciences Center throughout the lease term.

Since April, UCSF's Department of Neurology, the Institute for Neurodegenerative Diseases, and the W.M. Keck Foundation Center for Integrated Neurosciences have been moving scientists into the facility. Located on UCSF's Mission Bay Campus, the Sandler Neurosciences Center is one of the largest integrated university neuroscience research and clinical centers in the country. The building houses both clinical and basic research programs seeking to prevent, treat, and cure pervasive neurologic diseases and disorders such as Alzheimer's, stroke, and epilepsy. This approach achieves the much sought after "bench-to-bedside" goal of medical research and treatment centers nationwide.

Clark Construction Group – California, LP, led the 33 month design-build process. Enveloped in curtain wall, metal

continued on p. 3

HOT Metro ExpressLanes to Alleviate Congestion in Downtown Los Angeles

LOS ANGELES – This fall, the first portion of LA Metro's Metro ExpressLanes project will open to the public, alleviating congestion along I-110 near downtown Los Angeles. The High Occupancy Toll (HOT) lanes will provide much-needed congestion relief to local commuters. As part of a federal pilot program, Atkinson Contractors will design, build, operate and maintain (DBOM) the Metro ExpressLanes project. The contract also includes provisions for additional years of operations and maintenance service.

Atkinson's scope of work includes converting 11 miles of existing High Occupancy Vehicle lanes along I-110 and an additional 14 miles of I-10 to HOT lanes. Commuters can access the new lanes once they install a transponder in their automobile. Carpools, vanpools, and motorcycles can use the new lanes toll-free; solo drivers can choose to pay a toll to use the ExpressLanes. These new lanes will follow variable pricing that will change with the flow of traffic. The dynamic-pricing model evaluates real-time traffic volume and adjusts the toll based on average travel speed. During rush hours, when traffic is at peak volume, the toll will rise. If the lanes reach critical mass, solo drivers will be denied entry in order to maintain the project goal of a minimum 45 MPH.

The HOT lane conversion includes installing vehicle detection and toll collection equipment. The contract also includes a mobile van, walk-in center, and the build-out of a new 7,000 square-foot customer service center, all of which are used to support transponder sales in the Los Angeles area. In addition, Atkinson widened one bridge, built a new pedestrian overcrossing, and constructed approximately two miles of new concrete barrier and pavement.

The Metro ExpressLanes are the first toll lanes in Los Angeles. Atkinson's contract includes at least one year of operations and maintenance for the project, with an owner option of up to five additional years. After the project is open, Atkinson and its team will handle the project's back-office operations and administration, including billing, customer support, marketing, and fine collection. This structure allows the owner to focus on other efforts while Atkinson's experienced team establishes best practices for the ongoing operations and maintenance of the project.

The first portion of the Metro ExpressLanes project will open in this fall.The second portion - along I-10 - will open in early 2013.

AECOM is the engineer of record. Xerox is the toll system integrator.

The Metro ExpressLanes aim to maintain a minimum 45 MPH flow of traffic at all times.

UCSF Settles Into Sandler Neurosciences Center *continued*

panels, and precast concrete, the five-story building will accommodate 100 principal investigators, including Nobel Prize winner Stanley B. Prusiner, M.D., director of UCSF's Institute for Neurodegenerative Diseases, and more than 500 additional researchers and staff. The first floor is designed for clinicians and clinical researchers of the UCSF Memory and Aging Center, while the top floors are dedicated to laboratory research. The facility includes a conference space and a telemedicine room for video conferencing with other medical professionals.

"From the earliest stages of the new building project, Clark embraced the fact that the needs of the users of this world-class facility were equally as important to the success of the project."

- Stanley B. Prusiner, M.D. University of California, San Francisco Nobel Prize Winner, Physiology, 1997

Designed to achieve LEED® Silver certification, the Sandler Neurosciences Center incorporates local and recycled materials and has high-energy performance systems. A central glass atrium with a skylight naturally ventilates the building with assistance from radiant heating.

Skidmore, Owings & Merrill, LLP, of San Francisco is the project architect. Additional project partners include WSP Flack + Kurtz, San Francisco, MEP engineer; and Research Facilities Design, San Diego, laboratory planner.

1

South elevation of Sandler Neurosciences Building looking across Koret Quad. (photos by Tony Hertz)

2

Floating stairs are illuminated by large skylights in the atrium

3

Lab space for the Institute of Neurodegenerative Diseases

4

Atrium lobby with granite flooring and Iroko wood paneling

Design-Build Projects Earn National Honors

DBIA Recognizes Four Clark Projects for Quality, Complexity

Four Clark projects, including one led by subsidiary company Shirley Contracting, earned national honors from the Design-Build Institute of America (DBIA). The National Design-Build Project Awards honor construction efforts that exhibit the best practices of the design-build delivery method including early integration of key team members and close coordination between design and construction team members from design development through final construction. The awards will be presented on November 8 during the 2012 Design-Build Conference & Expo in New Orleans.

California ISO Iron Point Facility

Design-Build National Award, Office Building

Client: California ISO

Location: Folsom, CA

About the project: This 278,000 square-foot structure, which includes office spaces, a Tier III data center, and a public wing, was completed in just 21 months, 12 weeks early.

Intercounty Connector *

Design-Build National Award, Transportation

Client: Maryland SHA

Location: Montgomery & Prince George's Counties, MD

About the project: Led by Shirley Contracting, the IC3 joint venture team developed alternative technical concepts that saved more than $75 million in construction costs.

Joint Regional Correctional Facility Southwest, MCAS Miramar

Design-Build Merit Award, Correctional Facilities

Client: NAVFAC

Location: Marine Corps Air Station Miramar, CA

About the project: After building a trusting relationship, the project team and client changed standard operating procedure to reduce design approval time, leading to early delivery.

Walter Reed National Military Medical Center

Design-Build Merit Award, Healthcare

Client: NAVFAC

Location: Bethesda, MD

About the project: Design-build concepts were critical to delivering the hospital's new construction and renovated components ahead of schedule without impacting ongoing medical activities.

* Intercounty Connector project was submitted by Maryland SHA and includes portions in addition to IC3's Contract C.

Clark's Civil Companies Provide Nationwide Service

Clark Construction Group formed its reputation as a general contractor by constructing offices, hospitals, arenas, and other structures across the country. Though our experience in civil construction may not be as well known, it should come as no surprise. The company's first projects in the early 1900s included building sewers and grading roads in Washington, D.C. Today, Clark has three companies dedicated to civil construction. Working independently or together, these entities have provided sophisticated solutions for the design and construction of complex roadways, bridges, tunnels, mass transit, aviation, water treatment, wastewater, and mining projects. The Clark companies' combined expertise can successfully deliver the most complex civil construction projects across the country.

Founded in 1926, **Guy F. Atkinson Construction** has built more than $40 billion of civil and infrastructure around the globe. Through offices across the Western United States, Atkinson has developed lasting partnerships with Departments of Transportation in California and Washington. The company's diverse portfolio also includes dam, mine, tunnel, and power line projects.

After completing the Springfield "mixing bowl" - a network of roads and ramps in Northern Virginia - Robert Post formed a new heavy-highway construction company named for a component of this signature infrastructure project. Since 1974, **Shirley Contracting Company** has designed, built, and improved countless miles of roads and bridges throughout the Mid-Atlantic Region.

Clark Civil is a specialized contractor with capabilities that range from self-performance to comprehensive design-build. Its experience shows in the variety of projects the group has delivered. In recent years, Clark Civil's teams have built subterranean tunnels and transit stations below an active airport, carefully sequenced night and weekend rehabilitation work to a subway system, and improved efficiency and capacity at water treatment plants.

The overlapping strengths of Clark's civil entities have fortified several recent projects. All three groups were part of the ICC Constructors (IC3) joint venture that completed Maryland's Intercounty Connector (ICC) Contract C last year. Shirley and Clark are part of another joint venture recently awarded the $89 million ICC Contract D/E. The two companies also led the design-build of the massive DoD/BRAC 133 campus in Northern Virginia.

In California, Clark and Atkinson teamed to complete the San Ysidro Land Port of Entry East/West Pedestrian Bridge project for the U.S. General Services Administration three months ahead of schedule. And just outside of Washington, D.C., Atkinson is currently a subcontractor to Clark Civil on the Rosslyn Station Access Improvements Project. Atkinson's scope included excavating a 116-foot-deep shaft, a mezzanine tunnel and passenger walkway to the Washington Metropolitan Area Transit Authority's Rosslyn Station.

Two 1,200-foot-long bridges will allow avalanches to pass below I-90 and fall into Lake Keechelus. This solution was proposed by Atkinson Contracting and will save the client millions over the project's life cycle. (Rendering courtesy of Jacobs)

Civil Groups Offer Creative Solutions to Complex Challenges

Clark's civil construction teams are always looking for cost- and time-saving alternatives to proposed designs. Working closely with clients and designers, our teams have developed distinctive ways to deliver projects without sacrificing quality or safety. Here are some recent examples on civil projects across the country.

I-90 Phase C

In Washington State about an hour east of Seattle, I-90 crosses the Cascade Mountains through the Snoqualmie Pass. This four-lane stretch of highway is 3,100 feet above sea level, but still thousands of feet below the mountains to the east. A 500-foot-long concrete snowshed, built half a century ago, only protects I-90's west bound lanes from three of the pass's five avalanche chutes. When avalanches occur, the Washington State Department of Transportation (WSDOT) closes I-90 so crews can clear snow from the roadway, often causing hours of traffic delays.

As WSDOT looked to make significant infrastructure improvements in the Snoqualmie Pass, they solicited bids to demolish the existing snowshed, widen I-90, and construct a new 1,200-foot-long structure to shield all lanes of traffic. Awarded the $177 million project as the lowest bidder, Atkinson proposed an alternative design that will save WSDOT millions of dollars over the project's lifecycle.

Rather than cover the highway and have snow fall over the road into Lake Keechelus, Atkinson proposed constructing two 1,200-foot-long bridges to rise above the dangerous area. Though the cost to build the snowshed was similar to bridge construction, modern codes required ventilation, lighting, and fire protection within the snowshed. The bridges eliminate the need for these systems and their annual $650,000 maintenance costs. WSDOT accepted the bridges as a Cost Reduction Benefit Proposal. The bridge designs are being finalized and construction is expected to begin later this year. The project is scheduled for completion in 2017.

ICC Contract C

ICC Constructors (IC3), the Shirley Contracting-led joint venture team with Clark, Atkinson, Facchina Construction Company, and Trumbell Corporation, built a 3.9-mile portion of the long-awaited Intercounty Connector (ICC) roadway in suburban Maryland. Originally intended to be part of an "outer Beltway" circling Washington, D.C., plans for the ICC stalled for decades before moving forward in 2008.

The Maryland State Highway Administration provided conceptual drawings as part of the bid package, but it was up to the design-build team to take those ideas and find the best approach. Co-locating with designer Dewberry and Davis, IC3 submitted several Alternative Technical Concepts (ATCs) that saved the state more than $75 million in construction costs.

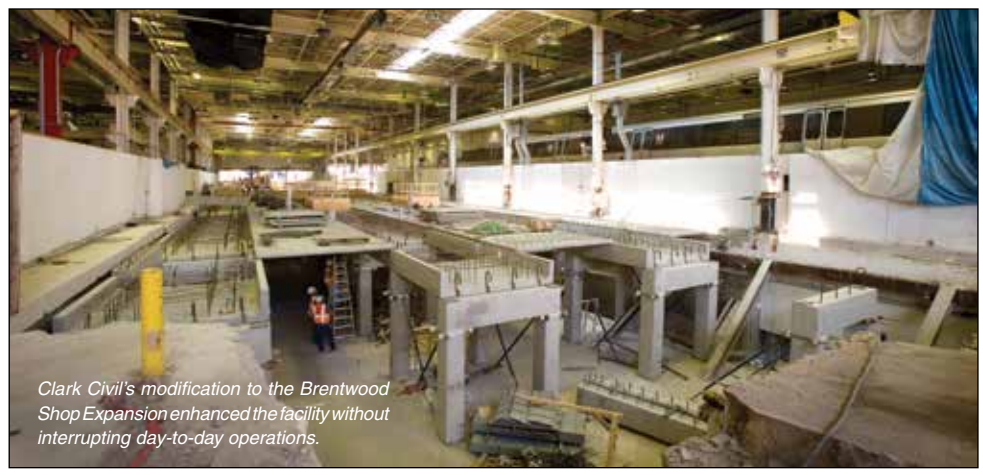
The most notable ATC was a redesign of the I-95 interchange. IC3 proposed realigning the mainline of the ICC where it intersects I-95 and reconfiguring all the ramps in the interchange. Though this proposal shifted significant risk to the joint venture and required a change to the state's Interstate Access Permit Application, it saved more than $50 million by eliminating 322,000 square feet of bridge deck, minimizing impact to adjacent wash ponds, and avoiding multiple overhead transmission line relocations.

Brentwood Shop Expansion

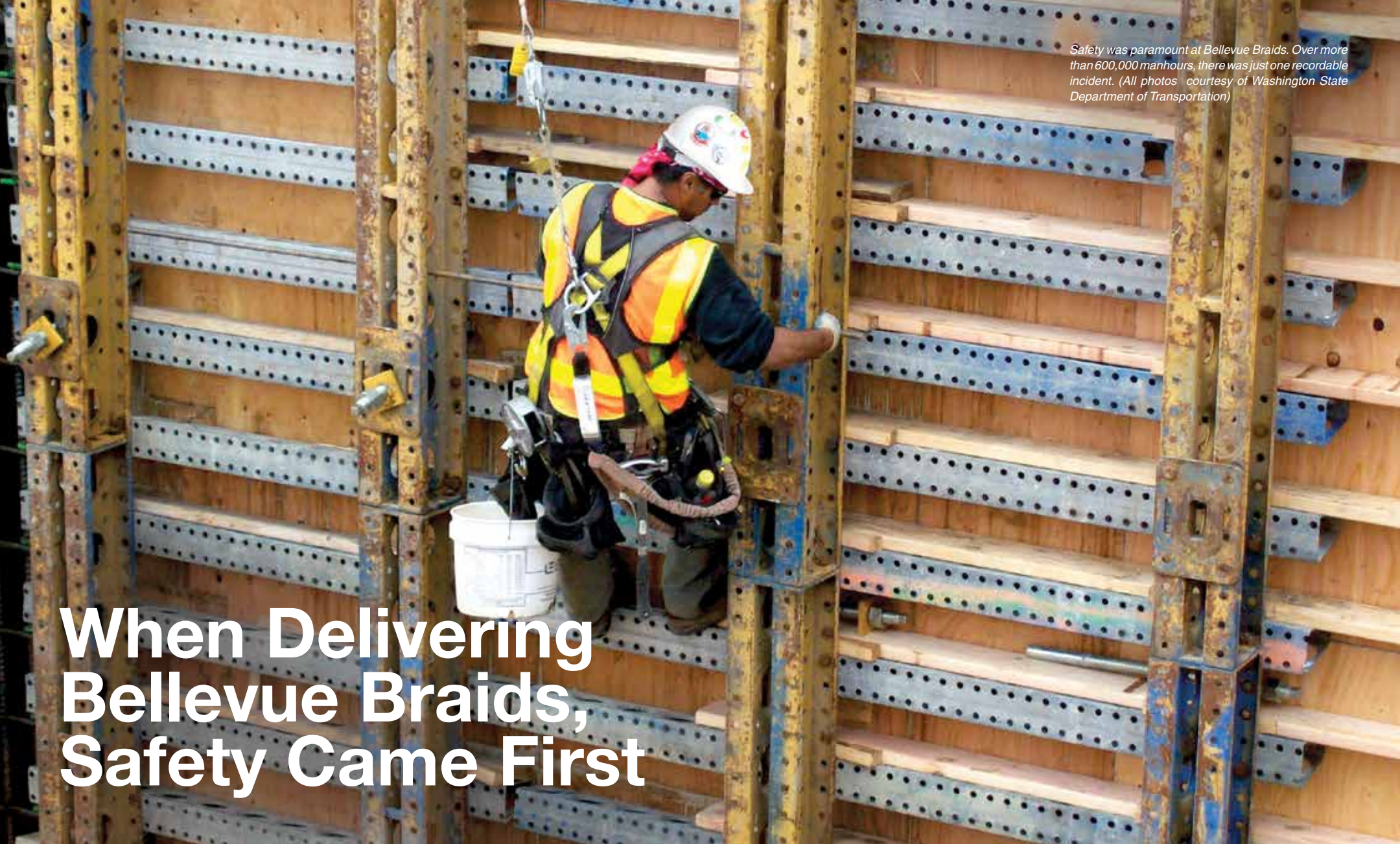
The Washington Metropolitan Area Transit Authority's (WMATA) Brentwood Shop services Metro trains around the clock, seven days a week. When WMATA sought to update their 30-year-old facility, they knew its modernization could not come at the expense of the shop's day-to-day operations. Original plans called for a rehabilitation, with portions of the floor removed, steel columns erected in a storage space below, and the structure modified on top.

After reviewing the RFP, Clark Civil proposed a less disruptive, and more effective, modification. The project team performed "open heart surgery" on the shop facility, cutting a 27,000 square-foot hole through the middle of the active shop floor. Clark Civil then poured two-foot-thick mat slab on top of the original slab-on-grade to accommodate the load of three new service and inspection train tracks above.

The modification provided the Brentwood Shop with a new slab supported by precast columns. The approach allowed Clark Civil to complete the project on budget and on schedule, but most importantly, WMATA could continue maintenance operations without disruption.



Clark Civil's modification to the Brentwood Shop Expansion enhanced the facility without interrupting day-to-day operations.



Safety was paramount at Bellevue Braids. Over more than 600,000 manhours, there was just one recordable incident. (All photos courtesy of Washington State Department of Transportation)

When Delivering Bellevue Braids, Safety Came First

BELLEVUE, Wash. – Drivers in Bellevue received some much-needed relief when Atkinson completed the $107 million I-405/NE 8th Street to SR 520 Braided Ramps Interchange Improvement project earlier this year. Atkinson delivered one of the project's final components, a ramp bypassing 124th Avenue, seven months ahead of schedule while completing the entire project - more than 600,000 manhours - with just one recordable and zero lost time incident.

Called "Bellevue Braids" for the weaving bypass ramps that link I-405 and SR 520, the project alleviates congestion for 60,000 drivers who use the interchange every day. Drivers had grown accustomed to jockeying for position on northbound I-405 approaching SR 520 which caused stop-and-go traffic for up to eight hours a day. Atkinson replaced this problematic merge with separate, weaving ramps to quickly and safely get drivers to their destinations.

Seventeen months ago, Atkinson demolished the existing NE 12th Street bridge and replaced it with a wider, longer span to allow construction of the new crisscrossing ramps. As part of the overall scope, Atkinson also constructed seven new bridges and 30 new retaining walls.

Maintaining a safe project and protecting both the community and the workforce was a primary concern on Bellevue Braids; this was evident both off- and on-site. Atkinson had a partnering arrangement with WSDOT and safety was a large part of this agreement. The project team shared all information with the client, and WSDOT personnel participated in the site's safety efforts.

On the job site, safety was reinforced from the outset; all subcontractors and suppliers had to accept the project's Safety Commitment. This unique document, developed by Atkinson Vice President Al Gonzales, outlined site-specific safety measures, including regular audits and meetings, hazard analyses, and personal protective equipment regulations. Atkinson also conducted a safe start orientation for all subcontractors to review jobsite policies prior to beginning work.

In many ways, Bellevue Braids' safety efforts mirrored those of most safety-conscious civil job sites. The project employed a number of best practices, including morning meetings to review safety, five-minute toolbox talks with tradesmen, and job hazard analyses. Atkinson also incorporated several site-specific changes to their standard operations, such as scheduling "take five" safety stand downs on Friday afternoons to keep the project team focused on safety through the end of the week. But to ensure the safest possible working conditions, Atkinson turned to those who were most involved in the day-to-day operations: the project's workforce.

Atkinson modified many of its standard safety practices with a focus on engaging the field labor force. The project's safety committee, traditionally comprised of Atkinson project managers and superintendents, was instead staffed by tradesmen. The committee was responsible for walking the site, identifying any issues or deficiencies, and sharing their findings with the project team every week. The regular Project Managers' Safety Audit became the Workers' Audit, with field personnel reporting and taking action to correct any potential hazards. The personnel identified minor issues affecting equipment, cleanliness, and security and addressed them before any incidents occurred.

By engaging the entire Bellevue Braids team, from the client to the front-line workers, Atkinson delivered a roadway that far exceeded safety expectations and established best practices for future endeavors.

The 124th Avenue ramp bypass was completed seven months ahead of schedule

Bellevue Braids, Bellevue, Wash.

Atkinson team members, WSDOT officials, and commuters celebrate the opening of Bellevue Braids to traffic.

Alternative Project Delivery Methods Drive Construction

By Neal Fleming and Mike Post

Decades of wear, insufficient maintenance, and population growth have taken a toll on our nation's infrastructure. Despite these conditions, investment in road, highway, and other transit projects is lagging due to financial and time constraints and the current state of the economy. With the country's need for infrastructure improvements continuing to grow, local and state governments are turning to alternative methods to complete much-needed enhancements and to move forward on long-awaited projects.

Traditional design-bid-build construction is still prevalent throughout the country, however, a variety of alternative delivery methods are available to ease the public sector's burden. From design-build to comprehensive public-private partnerships that continue years after construction is completed, governments and institutions are taking advantage of these new delivery methods and leveraging private sector expertise to reduce costs, expedite schedules, access new sources of capital, transfer risk, and optimize project performance and maintenance.

A design-build arrangement is at the heart of most alternative delivery methods. For a client, this method, with a single point of contact, provides price and schedule certainty because project delivery risk is transferred to the design-builder, encouraging the team to implement time- and cost-saving solutions. Design and construction team members collaborate throughout the life of a project, cultivating a partnership that ensures decisions are made in the best interest of the project.

The Clark companies have recently delivered several highway and roadway projects that realized significant benefits from design-build delivery. For example, the Alternative Technical Concepts (ATCs) developed by the IC3 joint venture reduced the Maryland State Highway Administration's design-build budget for Contract C by more than $75 million.

In addition to design-build, municipalities are looking to innovative public-private partnerships to expedite the delivery of needed infrastructure. In 2007, Spotsylvania County, Va., awarded an $89 million Public-Private Transportation Act (PPTA) contract to Shirley to deliver a variety of secondary road enhancements. Last year, Prince William County, Va., awarded Shirley a $27 million PPTA contract to deliver the University Boulevard Improvements project. Both projects required Shirley to be responsible for design, permitting, right-of-way acquisition, utility relocation, construction, and quality assurance/quality control.

With the inclusion of project financing, public-private partnerships also can accelerate planned infrastructure projects by years. The team's efforts in Northern Virginia are a clear example of this. Landowners along the Route 28 corridor established a special tax district to fund the replacement of signalized intersections with 10 interchanges, road widening, and secondary road improvements. The landowners recognized the economic benefits of enhanced roadway capacity and funded 75 percent of the improvements, while Virginia provided the remaining 25 percent. Despite the tax district providing three-quarters of the funding, construction occurred slowly due to a process that funded each improvement project separately. Under this method, work could only begin when there were enough tax funds available to start a new interchange. Edgemoor Infrastructure & Real Estate, Shirley, and Clark approached the Commonwealth of Virginia with a project proposal and a financing plan that included selling bonds against the future tax revenue. This approach allowed Virginia to move the entire project forward decades ahead of schedule and at a materially lower cost.

> A PPP delivery alternative allowed Virginia to move the entire project forward decades ahead of schedule and at a materially lower cost.

In some public-private partnerships, clients incorporate operation and maintenance responsibilities into the contract. In these design-build-operate-maintain (DBOM) arrangements, the design-builder remains attached to the project after construction is complete to handle day-to-day financial and administrative operations and ongoing maintenance. When the operations and maintenance contract period expires, the project is turned over to the client in near-new condition. For example, Atkinson is completing LA Metro's Metro ExpressLanes project under a DBOM arrangement. Atkinson will handle toll operations and maintenance responsibilities for a year after the roadway opens, with a client option for up to five additional years. LA Metro has no toll lane roadway experience and this contract frees them from operating the project until best practices have been established. Atkinson's team will run every aspect of toll lane administration, including billing, customer service, the phone system, project web site, and mailing fines and violation letters.

Governor George Deukmejian Courthouse, Long Beach, Calif.

The most comprehensive public-private partnership delivery approach is design-build-finance-operate-maintain (DBFOM). Still in its infancy in the United States, the model has proven successful in Europe, Canada, and other parts of the world. Edgemoor and Clark, as part of Long Beach Judicial Partners (LBJP), are providing DBFOM services to the California Administrative Office of the Courts (AOC) in delivering the Governor George Deukmejian Courthouse in Long Beach, Calif. The courthouse is the first social infrastructure project in the United States procured under the principles of a performance-based contract, which best integrates the project's design and construction with the long-term life cycle costs of the facility. Under the arrangement, the AOC will pay LBJP a performance-based service fee for the life of the contract, while taking advantage of LBJP's access to financing, technological solutions, and managerial efficiency.

Maintaining and improving infrastructure is near the top of any government's priority list. Though traditional procurement and construction strategies may not always be financially viable, alternative delivery methods have proven successful. These unique development arrangements emphasize collaboration between the public and private sectors and result in a finished product that is completed ahead of schedule and under budget, and maintained in a world-class manner.

The IC3 joint venture team successfully completed the ICC, Contract C in November 2011 and recently has begun work on Contract D/E - the final portion of the 18.8-mile roadway project.

Mike Post is President of Shirley Contracting.

Neal Fleming is President of Edgemoor Infrastructure & Real Estate.

Jon Harman (center) at work with Shirley and Clark colleagues on the final portions of the Route 28 corridor.

For the Route 28 Team, Partnership is the Key Component of Civil Construction

The Route 28 Corridor Improvements project has been a success for all involved parties. Both the public and private sectors took advantage of an alternative financial arrangement that allowed the project to move forward years ahead of schedule. But to Jon Harman, Vice President with Shirley Contracting, the final "P" in the project's P3 arrangement was the most critical.

After 10 years on the project, Jon believes that "partnership" is the most valuable aspect of a public-private arrangement. "We have a very close partnership with VDOT, Loudoun and Fairfax Counties, the tax district and even MWAA [because portions of the project are located on Dulles International Airport property]." This relationship, Jon explains, aligned everyone around the best interests of the project. "There was an easy back-and-forth. We supported VDOT, attended public meetings, and assisted in presentations to the community." Not only did this collaborative relationship help deliver the Route 28 Corridor Improvements project ahead of schedule, but there have been no claims or significant issues in a decade of construction.

As Shirley's initial design-build manager, Jon was integral to establishing and maintaining the team's productive working relationship. From the project's inception, he was responsible for coordinating all of Shirley's disciplines, including permitting, design, and construction, into a single package and working directly with the other stakeholders. Though still involved with the project, Jon also is focusing on acquiring Shirley's design-build work.

"This relationship aligned everyone around the best interests of the project."

While it was the prospect of a new challenge that attracted Jon to civil construction, it is the creative collaboration that keeps him interested. "Sometimes, when we're faced with an obstacle, we take a step back and say, 'what if we built this backwards?'" That non-traditional thinking keeps Jon on his toes and has helped Shirley's teams overcome challenges of time, materials, and logistics on projects throughout the Mid-Atlantic Region.

Clark Civil Builds Lasting Relationship with MWAA at Dulles International Airport

Since 2004, Clark has maintained a constant presence at Washington Dulles International Airport. Our project teams were a key part of Metropolitan Washington Airport Authority's Dulles Development, a capital construction program for future growth—in passenger traffic and airport operations. Here is a look at our work at Dulles over the past decade:

2004

West APM Tunnels
Start Date: 2004
Completion: 2007

Scope: To make way for the AeroTrains that would eventually replace Dulles' mobile lounges, Clark Foundations excavated a 1,880 linear-foot tunnel to connect the main concourse with the midfield concourses.

East APM Tunnel/Station
Start Date: 2004
Completion: 2008

Scope: In a joint venture with Atkinson, Clark Foundations excavated and supported 5,900 linear feet of tunnels, built a new Automated People Mover (APM) station, and performed assorted infrastructure improvements.

2006

12-Gate Basement Excavation
Start Date: 2005
Completion: 2005

Scope: After demolishing a 10,000 square-foot building, the Clark Foundations team excavated and supported a new single-level basement structure.

Tier 2 Concourse C APM Station
Start Date: 2007
Completion: 2009

Scope: Beneath an operating runway, Clark Civil built a vertical circulation building and a 450-foot-long tunnel, performing more than 30,000 cubic yards of soil and rock excavation with no recordable or lost time incidents.

Local Businesses Realize Benefits of P3 Route 28 Project

Ten years after a unique public-private partnership accelerated a long-awaited transportation improvements project, businesses and landowners along Northern Virginia's Route 28 corridor are now reaping economic benefits. Since Shirley Contracting began converting Route 28's signalized intersections to interchanges in 2002, the roadway's capacity has increased to 100,000 vehicles a day and the region has added more than 50,000 new jobs. The Route 28 Corridor Improvements project completes the vision of local government and landowners by providing easy access to Dulles International Airport and the infrastructure necessary for the local technology corridor to flourish.

Unique within the growing domestic public-private partnership arena, the Route 28 Corridor Improvements project shows the benefits of local investment supporting local infrastructure. The project was conceived by property owners along Route 28 as a mechanism to stimulate economic growth in their community without burdening motorists with the cost.

A 1987 Virginia General Assembly legislation gave localities the ability to create special tax districts to finance transportation improvements. Route 28 property owners formed their own district to pay for 75 percent of the road's expansion to a high-capacity, limited-access highway, with the Commonwealth paying the remaining 25 percent. The project aimed to alleviate congestion along the two-lane road, improving access to Dulles International Airport and attracting new businesses to the area. A year later, construction efforts began to widen Route 28 to six lanes and new interchanges went up at three major intersections. Though the improvements helped, the road's remaining signalized intersections impeded further growth, as gridlock aggravated commuters and stunted economic development. With the tax district funds exhausted on the first phase of construction, future improvements stalled until additional money became available.

Virginia's 1995 Public-Private Transportation Act enabled state and local governments to request proposals or receive unsolicited proposals for designing, constructing, funding, and operating transportation improvements. Clark, Shirley, and principals of Edgemoor Infrastructure & Real Estate saw an opportunity to fund Route 28's improvements by issuing bonds to cover the tax district's 75 percent share of the development and construction costs, using future tax district revenue to pay back the loan. With immediate funding available, Shirley Contracting began converting six of 10 signalized intersections to interchanges in 2002, completing the project at least 10 years earlier than traditional financing would have allowed.

Following the success of the project's first phase, VDOT awarded the Clark/Shirley/Edgemoor team the second phase of the PPTA contract in 2006, putting financing in place for the last four interchanges. Currently, the team is working on early designs to widen the road to eight lanes, the final stage of the improvements.

2008

International Arrivals Building
Start Date: 2008
Completion: 2011

Scope: Clark Civil expanded Dulles' International Arrivals Building to nearly 400,000 square feet to allow 2,400 passengers per hour through 50 Customs Inspection Stations. Clark also installed high-end finishes and public art throughout the space to welcome the airport's 6.5 million annual international visitors.

2010

Dulles East Baggage Basement Advanced Utility and Tug Traffic Relocation
Start Date: 2010
Completion: 2012

Scope: A preliminary phase to Dulles' East Baggage Basement Renovation project, Clark Civil relocated several United Airlines baggage handling systems. In addition, the team added a new cast-in-place concrete tug tunnel.

2012

Concourse C/D Rehabilitation Passenger Boarding Bridge Improvements
Start Date: 2012
Completion: 2012

Scope: To extend the life of two airport concourses, Clark Civil has demolished an existing passenger boarding bridge (PBB) foundation and installed caissons for a new PBB pedestal support.

East and West Baggage Basements – EDS In-Line Baggage Screening
Start Date: 2012
Completion: 2015 (expected)

Scope: Clark Civil is integrating state-of the-art baggage handling and inspection systems in Dulles' existing main terminal. The team's work includes reconfiguring and replacing existing baggage conveyor systems and upgrading conveyor controls. Clark Civil also will build a three-level below-grade addition to the east basement.

community connection

Assistant Superintendents Help Sandtown Habitat Move Closer To Goal

A June 29 dedication ceremony for a renovated home in West Baltimore was a milestone for everyone involved. One resident of the city's Sandtown-Winchester neighborhood became a first-time homeowner after partnering with Sandtown Habitat for Humanity and completing 330 hours of "sweat equity" to help build her home. For two Clark employees, it marked the culmination of their final assignment after three years in the company's Field Development Group (FDG). And for Sandtown Habitat, the ceremony put the organization closer to its goal of rebuilding an entire community.

Volunteers, Habitat officials, and a first-time homeowner enjoyed the June ribbon-cutting.

Clark's FDG is a three-year program that trains new generations of field supervisors and superintendents. Along with the rest of the 2012 FDG class, assistant superintendents Chris Cicarelli and Dave Welsh were charged with organizing and leading a community service project. In February, they teamed up with Sandtown Habitat for Humanity, a non-profit housing organization dedicated to rebuilding homes in the local community. Once a thriving working-class neighborhood, Sandtown-Winchester fell into disrepair in the 1960s and, not long after, was defined by abandoned houses, joblessness, and drugs.

Chris and Dave spent five months of weekends working with subcontractors and organizing Clark and local volunteers to rebuild a four-bedroom, two-bathroom Sandtown home. Because of their efforts, the house, which was completely gutted when the volunteers entered it, reached completion more than a month ahead of schedule. At the dedication ceremony, Chris and Dave received a plaque for their time and efforts.

"The thing that made our experience with Clark Construction so special," said Michael Barb, Co-Executive Director of Sandtown Habitat for Humany, "was that employees like Dave and Chris are encouraged to pursue opportunities to partner with organizations like ours. And, both of them became a part of our family from the start. Because Clark Construction was willing to "let their light shine" in the community, someone else has become a first-time homeowner. And, she knows her home was built from not only lumber, but also labor and love that was expressed through Dave and Chris and all of the volunteers and subcontractors that they organized. At the end of the day, our community has been strengthened because Clark Construction chose to be a blessing to someone else."

Dave Welsh (right) and Chris Ciccarelli (center) with Sandtown Habitat President Co-Executive Director Michael Barb.

Founded in 1989 by Allan Tibbels and other residents of the community, Sandtown Habitat for Humanity has an ambitious goal: to rehabilitate all of the vacant houses in a 15-block area before expanding into the larger 72-square block neighborhood. The Clark-sponsored home was the 304th rebuilt by the organization. Sandtown Habitat uses mostly volunteer labor and donated materials to keep construction costs low; homes are sold at cost to low-income families. In exchange for the reduced-cost, zero-interest housing, the homeowners invest at least 330 hours of "sweat equity" into their own home and others in the program. In addition to rebuilding homes, Sandtown Habitat has partnered with other organizations in a holistic effort to bring a renewed sense of peace and stability to the community.

"The thing that made our experience with Clark Construction so special was that employees like Dave and Chris are encouraged to pursue opportunities to partner with organizations like ours."

One of Mr. Barb's favorite sayings is that "everybody wants a revolution, but nobody wants to do the dishes."

"Neighborhoods that are blighted," he explains, "typically do not get that way overnight. Authentic transformation of communities like ours is done house by house, block by block and takes a long-term commitment from people who are willing to stand in the gap and work to make heard the voice to an indigenous people, people who are saying, 'What about us?' That is what Sandtown Habitat for Humanity really is all about - loving our neighbors, partnering together to rebuild homes and hope in our community, and building bridges to partners who are invited to walk alongside us on our journey."

High School Partnership Prepares Next Generation of Engineers

This spring, Clark partnered with Washington, D.C.'s Phelps Architecture, Construction, and Engineering (ACE) High School to help students prepare for careers in the construction industry. Originally founded in 1912, Phelps was re-launched in 2008 and became the first public high school in the country to offer both college preparatory and vocation education exclusively for the design professions and construction trades. After four years of coursework, Phelps graduates are prepared for the transition to college or a career in architecture, engineering, or construction.

Working with school administrators, Clark developed a specialized construction industry program for Phelps' students that included a version of the Occupational Safety and Health Administration's 10-hour course and an introduction to field engineering.

As the academic year wrapped up, Clark employees discovered another way to help out Phelps' students: preparing them for the Pathway to Engineering, Project Lead the Way Engineering Certification exam. The exam tests teamwork and communication proficiency, as well as organizational, critical thinking, and problem-solving skills. Clark mentors met with the students throughout May to help them prepare for the exam.

The first class of students from the re-launched Phelps ACE High School graduated this spring. The senior class boasted a 100 percent graduation rate and collectively earned more than $3 million in scholarships.

Employees Run, Ride, and Walk to Fight Cancer, MS

This summer, scores of Clark employees got on their feet to run, walk, and cycle to support organizations funding research and cures for life-threatening diseases.

Race for the Cure

Across the country, three teams of Clark employees and their families took part in races to benefit Susan G. Komen for the Cure, raising more than $30,000. The "Schnizlein Slayers," 67-member team named in honor of breast cancer survivor Jenn Schnizlein, wife of Project Executive Mike Schnizlein, collectively raised more than $14,000 at the Sacramento Valley Race for the Cure. The Schnizlein Slayers were the race's third-highest fundraising team.

Inspired by Jenn's story, 14 members of the Clark family in Detroit braved the rain to walk and run in the Detroit Race for the Cure. Together they raised nearly $2,000.

In the nation's capital, Clark's 45-member team raised nearly $15,000 for the Komen Global Race for the Cure.

PurpleStride

PurpleStride is a series of nationwide events that benefit the Pancreatic Cancer Awareness Network. Washington, D.C.'s PurpleStride event was a 5K race along Pennsylvania Avenue, NW. Participating as a company for the first time, Clark's team of 73 raised more than $2,460. In all, the event surpassed its fundraising goal and has raised in excess of $478,000 to advance research, support patients, and bring hope to those fighting pancreatic cancer.

Clark employees race, ride, and walk to fight disease. Photo 1: PurpleStride participants in Washington, D.C.; Photo 2: Joe Conover, Tanya Conover, and Jim Omans complete their Bike the U.S. for MS tour; Photo 3: Sacramento Valley Race for the Cure walkers; Photo 4: Komen Global Race for the Cure in Washington, D.C.; and Photo 5: Clark's Detroit Race for the Cure team.

Bike the U.S. for MS

You will forgive senior estimator Jim Omans if he didn't immediately pick up the phone this summer. Jim was part of a contingent that rode the TransAm Route of the "Bike the U.S. for MS" to raise money and awareness for multiple sclerosis (MS) research and treatment. He made the 3,785-mile journey across the country with Tanya Conover, wife of Clark Vice President Joe Conover. Joe joined the two bicyclists for portions of the trip on the east and west coasts.

The tour began on June 1 in Yorktown, Va., and ended two months later in San Francisco. Proceeds from the bike tour will fund various home modification projects across the country, as well as research and treatment at the James Q. Miller MS Clinic at the University of Virginia, the Swedish MS Center in Seattle, and the Fairview MS Achievement Center in St. Paul, Minn.

Car and Truck Show Raises Funds for Foster Care Center

Clark's Southern Region employees began a new tradition of giving back with the inaugural Everyday Blessings Benefit Car and Truck Show. The event raised money for Everyday Blessings, a foster care facility in the Tampa, Fla., area dedicated to keeping siblings together. The organization provides children with emotional and social support, transportation, and counseling through live-in caregivers.

Beyond coordinating donations from more than 50 subcontractors and vendors, Clark employees organized a silent auction, handled advertising and promotions, and arranged transportation and setup for the event. All 115 cars and trucks were professionally judged and winners received trophies.

Nine children and caregivers from Everyday blessings attended the event and selected the raffle and auction winners. In total, the show raised more than $17,500 for the organization.

Clark volunteers prepare for the Car and Truck Show.

Shirley Employees Rehabilitate Ronald McDonald House

This summer, employees from Shirley Contracting donated multiple weekends to rehabilitate and repairing the Ronald McDonald House in Fairfax, Va. Since 1998, the Northern Virginia Ronald McDonald House has served as a "home-away-from-home" for families of seriously ill children who travel to the area to be treated for cancer and other life-threatening illnesses. This home, on the Inova Fairfax Hospital campus, has eight bedrooms, and features TV rooms, a family room, a kitchen, a dining room, a laundry room, a playroom, a teen game room, and a conference room.

The most significant scope of work included removing rotted wood around the home's 105 windows. In addition, Shirley teamed with Thompson Creek Windows to install more than 500 linear feet of new gutters with leaf guards around the home.

Shirley volunteers also replaced a gate to the night manager's quarters, replaced entrance columns, and painted all the new exterior trim.

Bill Bartling Promoted to Vice President

Clark Construction Group, LLC, is pleased to announce that Bill Bartling has been promoted to Vice President.

Mr. Bartling joined Clark in 1994 as a project engineer on the Tri-Modular Services Building in Quantico, Va. He later moved to the Sallie Mae Virginia Consolidation project in Reston, Va., and following his promotion to project manager in 1997, led the company's efforts on the Northern Virginia Graduate Center in Falls Church, Va., as well as the ASCD Headquarters in Alexandria, Va.

As senior project manager, Mr. Bartling was responsible for construction activities on such projects as Trinity Centre I & III in Centreville, Va., Ballston Tower in Arlington, Va., and the Walter E. Washington Convention Center in Washington, D.C. Later, as project executive, Mr. Bartling led Clark teams constructing the U.S. Department of Transportation Headquarters and multiple urban residential projects. Mr. Bartling also was part of the pursuit team for the U.S. Coast Guard Headquarters project and subsequently led the design and construction of the project's central utility plant and parking garages. In addition to his responsibilities in the field, Mr. Bartling has been instrumental in helping the company secure new work, including Camden NOMA 60 L Street, a 14-floor, 321-unit residential building with three levels of below-grade parking; and Wardman West Residential, an eight-story, 212-unit luxury apartment building with two-and-a-half levels of below-grade parking.

Mr. Bartling holds a bachelor's degree in building construction from Auburn University and a master's in business administration from George Mason University. He is a LEED Accredited Professional and currently serves on the Washington Building Congress Development Committee.

Al Gonzales Promoted to Vice President

Atkinson Construction is pleased to announce that Al Gonzales has been promoted to Vice President.

Mr. Gonzales joined Atkinson Construction in 1975 and has led heavy civil construction teams in the United States and South America. After three years as a field engineer on the Lower Granite Dam and Powerhouse project in Washington State, Mr. Gonzales spent five years as an engineer and assistant superintendent constructing WPPSS Nuclear Units 1 & 4 in Hanford, WA. In 1982, he planned and scheduled all mechanical installation work for the intake and spillway structures on the Guri Hydroelectric project in Venezuela.

After working on two mass transit projects in Washington and California, Mr. Gonzales returned to Venezuela as general superintendent on the Macagua II Hydroelectric project. In this role, he managed more than 50 North American craft superintendents and a 5,000 person workforce building a 2,580 MW hydroelectric facility and a 15,000-square-meter, seven-story remote visitor center. For his efforts, Mr. Gonzales was named one of Engineering News-Record's "1994 Newsmakers."

In 1995, Mr. Gonzales returned to the United States and has spent the past 17 years managing more than $500 million worth of highway and bridge projects in Washington State. As a project manager and construction superintendent, Mr. Gonzales has most recently delivered the design-build I-5 Everett HOV Expansion, I-405/112th Avenue SE to SE 8th St., and Bellevue Braids projects for the Washington State Department of Transportation.

Mr. Gonzales has a bachelor's degree in civil engineering from the University of New Mexico and is a registered professional engineer in Washington and California.

Two D.C.-area Projects Honored for Sustainability

The U.S. Green Building Council – National Capital Region selected NGA Campus East and 1000 Connecticut Avenue as two of its "Projects of the Year" in the organization's annual Awards of Excellence Program. The projects received the honors during the USGBC-NCR's A Midsummer Night's Green event in July.

NGA Campus East earned the Project of the Year distinction in the New Construction category. The campus's design was praised for balancing sustainability with the client's unique security requirements. The USGBC-NCR also highlighted the project's energy-efficient innovations such as the 4,100 chilled beams in the main office building and the 48,000 square-foot ethylene tetraflouroethylene roof in the building's atrium.

1000 Connecticut Avenue was named Core & Shell Project of the Year. In the Platinum-certified building's lobby, FSC-certified wood and recycled materials are integrated with high-end finishes, including European white oak, Japanese stainless steel, and Italian Bianco Carrara marble. The building relies on three water-cooled frictionless chillers that use levitating bearings instead of oil. The chillers require less maintenance, generate less noise, and can be used in series or parallel, depending on the time of day or season.

CLARK CONSTRUCTION

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
(714) 429-9779

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

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

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

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

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

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

Edgemoor Infrastructure & Real Estate
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-2910
www.edgemoordevelopment.com

S2N Technology Group
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100
www.s2ngroup.com

CFSG Energy & Structured Finance
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100

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

For more information, contact: Kimberly Wood or Eric Fulton in Corporate Communications. Email: kimberly.wood@clarkconstruction.com or eric.fulton@clarkconstruction.com.