The
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U.S. Army Corps of Engineers, Savannah District
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# Savannah District Supports War Fighters
## in Age of Transformation

The castle

News magazine of the
U.S. Army Corps of Engineers,
Savannah District

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Cover and above: The Savannah district managed and executed the renovation of the Maneuver Center of Excellence (MCOE) Headquarters at Fort Benning, Ga. The U.S. Army Armor School, formerly headquartered at Fort Knox, Ky., moved to a co-located headquarters with the Infantry School at Fort Benning, Ga., creating the Maneuver Center of Excellence. The renovation was the largest in the Army at $168 million. The statues of "Iron Mike" and "Ole Bill," erected in the front of the headquarters building, represent the spirit of the Combined Arms Team and the MCOE and commemorate Calvary and Armor Troopers of the past, present, and the future. Read more about the project on page 7. *Cover illustration based on photo by Kristine Latimer, AECOM.*

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Viewpoint

# From Where I Sit

**"We provided our customers—war fighters and their families—with world-class facilities..."**

— Col. Jeff Hall

Unmatched teamwork, exceptional technical competence, innovative business approaches, and a never-give-up spirit. From where I sit, these are the qualities of the men and women of the U.S. Army Corps of Engineers, Savannah District. Never before have these qualities been better demonstrated than in the past five years with the team's response to the Base Realignment and Closure (BRAC) Program and other military transformation initiatives.

The numbers tell the story the best:

Our military construction programs grew from $490 million in fiscal year (FY) 2005 to a peak of more than $2.1 billion in 2009. To view it another way, by FY 10 we had more than $4 billion under construction or contract; in FY 11 more than $3.5 billion. Faced with this incredible growth, the team refocused and reworked itself to meet the challenges. The phenomenal culture of the district shined through again and again. From the construction of headquarters buildings to training facilities, barracks to child development centers, hospitals to aircraft hangars, and warehouses and beyond, we provided our customers—war fighters and their families—with world-class facilities in support of their contributions to our nation's security.

Through innovative initiatives, our contracting team met each year's workload on schedule, executing 15,466 contract actions totaling $8.1 billion between FY 2006-2011. The district also supported small businesses throughout the region with $1.9 billion in contracting opportunities from FY 06-11.

The Savannah district made incredible contributions to the BRAC initiative. From FY 2006-2011, the entire U.S. Army Corps of Engineers military construction (MILCON) executed the facilities portion of BRAC '05, which includes 274 MILCON projects valued at $11 billion. Savannah district executed 60 of the 274 BRAC projects valued at $1.8 billion.

It takes an entire team to execute this unbelievable number of military projects. Our Department of Public Works and Base Civil Engineer partners at the 11 installations we support were integral to our success. I am particularly proud of the results from our customer satisfaction survey. Each year military installations are surveyed to determine their satisfaction with engineering agencies that support military construction. In five of the past six years, the Savannah district has received the Army's highest satisfaction rating—a testament to its dedication to Soldiers, retirees, and their families. Our contractors—big and small—are also essential elements of these achievements.

Savannah District Commander Col. Jeff Hall (right) receives a status update on the $24.8 million Warrior in Transition Barracks project at Fort Stewart, Ga., from Thuan Swindler, project engineer. *Photo by George Jumara.*

We can never count or recognize all the efforts—behind the scenes or on the work sites—that brought us to this phenomenal endpoint. But this issue of the *The Castle* stands as tribute and partial historical record of the team's accomplishments.

To our Savannah district construction engineers, program managers, quality assurance specialists, safety officers, contracting specialists, resource managers, real estate specialists, regulatory personnel, and many others who made it all work seamlessly, thank you for your hard work and support. From where I sit, you are the MIGHTY Savannah district.

*By Col. Jeff Hall, Commander, USACE Savannah District*

# District Supports War Fighters in Age of Transformation

Change is the "watch word" across the military as it undergoes modernization and reorganization. Two initiatives have driven one of the largest military construction periods in the nation's history.

## Base Realignment and Closure

The Department of Defense, through various studies, has shown that the U.S. military has more infrastructure than it needs and consolidating operations would not only save taxpayer's money, but create a more streamlined, agile force. The Base Realignment and Closure (BRAC) plan, entered into law in November 2005, designated certain installations for closure while others were identified for expansion. The "expanded" installations created the need for additional living, working, training and health care facilities for soldiers, airmen, and their families who would move under the realignment. The movement of troops and closure of installations had to be completed by September 15, 2011. With the passage of BRAC, the race for facility expansion and improvements was on.

## Military Transformation

At the same time, global events—including the aftermath of 9/11—changed the nation's security needs. The Army underwent a massive reorganization focused on modular units, such as brigade combat teams, to fight different kinds of battles in new conditions and environments. Today, the Army Campaign Plan calls for a "balanced Army for the 21st century that is a versatile mix of tailorable and networked organizations… to provide a sustained flow of trained and ready forces for full-spectrum operations and to hedge against unexpected contingencies…" The transformation has brought military units together to live and train in real-world scenarios and created an urgent need for new or improved infrastructure.

## Enter the Corps

USACE, the design and construction agent for the U.S. Army, was given the mission to build facilities for the relocated soldiers and airmen. The Savannah district, which supports 11 installations in North Carolina and Georgia, began an unprecedented construction effort that has updated, transformed, and revived military infrastructure in the region.

"The military initiatives converged in the last six years and were the basis for a MILCON program that grew from $490 million in fiscal year 2005 to a peak of more than $2.1 billion in 2009," said Peter Oddi, Deputy District Engineer for Programs and Project Management, Savannah district. "Along with the increased workload, we had to incorporate new Army standards for design and construction and work under significant scheduling constraints."

To meet the challenges, the Corps revamped its business processes finding new ways to develop and solicit contracts and provide overall management of the unprecedented construction workload.

"I'm very proud of how the Savannah district team rose to the occasion and excelled in this era of change," Oddi said, "and most importantly we met our customers' evolving needs."

This issue of *The Castle* looks at the how the Savannah district helped meet the requirements of change—building strong for soldiers and the nation.

The Savannah district oversees a multi-billion dollar military construction program at 11 Army and Air Force installations in Georgia and North Carolina. *Illustration by George Jumara*

# An Evolution in Business Processes

The move toward transformation and realignment of America's Army in 2005 required the U.S. Army Corps of Engineers to deliver more facilities at a faster rate than ever before. The result was not just a minor tweak in the military construction (MILCON) process, but a complete paradigm shift in the Corps' overall business approach—and perhaps the biggest change in the agency since World War II.

The process has been termed "MILCON Transformation"—and, simply put, its goals are to deliver quality facilities in less time at a lower cost, while still meeting the Army's stringent operational standards and sustainability goals. One of the most notable outcomes of the transformation is reducing what was formerly a 5-year military construction process to between 2 to 3 years.

"MILCON Transformation required a total refocusing of our business process—planning, design, construction and contracting—for a federal agency as large as the Corps of Engineers to achieve faster, more economical construction that is comparable to the private sector," said Mike Sydow, Savannah district assistant chief of programs and project management. "On top of that, we still had to ensure the Army's mandates for force protection and antiterrorism, physical security and sustainable design. It was a staggering undertaking."

The keys to MILCON Transformation are standardizing Corps processes and military facilities—while adopting best practices from the private sector—and developing innovative contracting methods to meet tight acquisition deadlines.

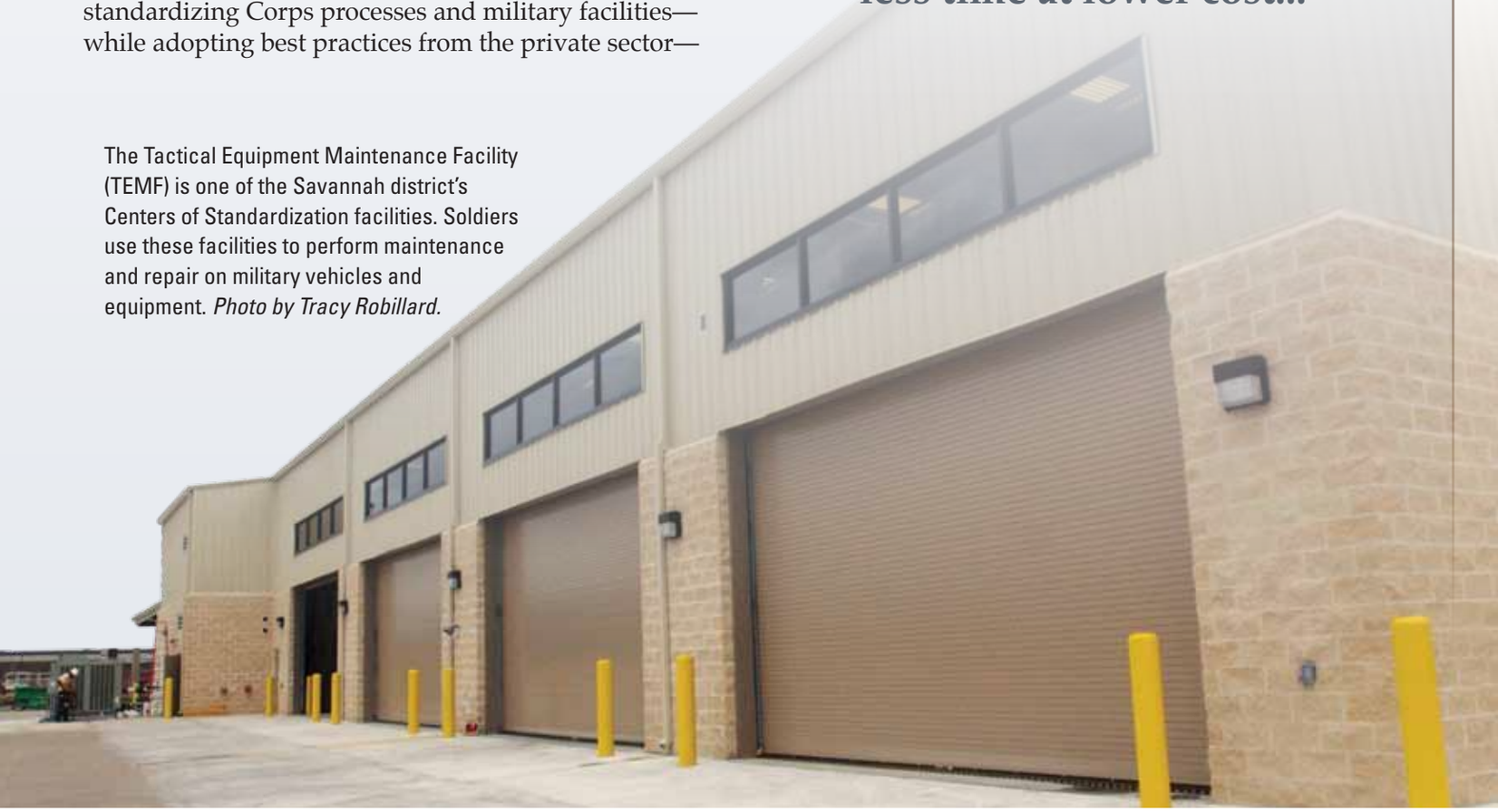
## Centers of Standardization

The philosophy for establishing standard designs throughout the Army is based on the idea that soldiers should have facilities with the same capabilities, features, and "look and feel" regardless of where they are stationed. But consistency isn't the only benefit. Standard design is proven to reduce project cost and shrink delivery time.

Thus, the Corps adopted an agency-wide Centers of Standardization (CoS) program in 2006. While the Corps had CoS programs in place before 2006, the increase in demand for new construction drove Corps leaders to revamp and repurpose the program nationwide.

"With the CoS approach, the Army no longer pays for the design of a battalion headquarters over and over again," said Thomas Brockbank, CoS chief, Savannah district engineering division. "We work with private and public sectors to develop designs that can be constructed repetitively, while allowing for adaptations based on geographic location."

**"...quality facilities delivered in less time at lower cost..."**



The Tactical Equipment Maintenance Facility (TEMF) is one of the Savannah district's Centers of Standardization facilities. Soldiers use these facilities to perform maintenance and repair on military vehicles and equipment. *Photo by Tracy Robillard.*

The Savannah district is the Center of Standardization for brigade headquarters, such as this 1st Brigade Combat Team Headquarters at Fort Stewart, Ga. The standard design incorporates all functional and operational Army requirements for command and control functions at the brigade level. *Photo by Tracy Robillard.*

Across the Corps, specific districts are responsible for developing and maintaining design standards for Army facilities constructed throughout the continental U.S. Each CoS district serves as the technical and acquisition experts for a particular facility type. The Savannah district operates one of the largest CoS programs in Corps. In fact, during the peak of the MILCON workload in fiscal year (FY) 2009, Savannah developed and executed 70 CoS task orders at $1.4 billion—nearly double, and in most cases triple, the CoS workload of any other district.

"The Savannah team has become a leader for CoS lessons learned and has been a monumental driver in the development of new internal business processes," said Scott Wick, CoS program manager, USACE Headquarters.

The Savannah district is the Center of Standardization (CoS) for the following facilities:

- Command & Control Facilities – including Division HQ, Corps HQ, Theater Army/Army Service Component Command HQ, Army Command HQ, and Direct Reporting Unit HQ
- Brigade Headquarters
- Battalion Headquarters
- Company Operations Facilities
- Tactical Equipment Maintenance Facilities
- Brigade Operations Complex
- Air Force Weather Detachment/Squadron facilities for activities assigned to Army Installations

"Savannah's engineering division uses in-house resources and state of the art tools, including Building Information Modeling (BIM) to develop CoS designs," Brockbank said. "We also work closely with other Corps districts and Architect Engineering (AE) firms in the private sector. By leveraging industry standards and best practices, and by creating a repository of designs adapted for application at different regions and installations around the country, we can minimize future re-design, improve the end product, and increase the efficiency of the overall MILCON process."

This approach, referred to as "adapt-build," results in more consistent solicitations via Request for Proposals (RFPs) from potential contractors, because it minimizes uncertainty about requirements for similar facilities from installation to installation.

Additionally, the process reduces lead time by as much as 30 percent, allowing the Corps to put more focus on construction and delivery and less time on design. In fact, in some cases, the Corps can turn a building over for occupancy within as few as 18 months of issuing a Notice to Proceed to the contractor.

## Contracting Innovations

Savannah district's contracting division embraced new and efficient ways to execute an exponential increase in MILCON contracts (growing from $600 million to more than $2.4 billion in three years) with a minimal increase in staff during that time. The team developed initiatives that move away from acquiring facilities one at a time. Instead, they awarded more contracts under the umbrella of a Multiple Award Task Order Contract, or MATOC.

Awarded as regional contracts, MATOCs are competed on by a pool of qualified prime contractors who have experience building the same facility over and over. The MATOC-driven contracting program with CoS has resulted in significant reductions in delivery time and cost.

Each CoS district prepares a statement of work package and is responsible for contracting the facility, primarily through regional MATOCs. Then, once the contract is awarded, the construction responsibility is transferred to the geographic Corps district. The benefit is that the CoS district can capture lessons learned and adjust their processes based on feedback from the customer, the contractor, and the servicing Corps district.

Meanwhile, the district continued to meet its small business goals, setting aside a portion of construction dollars every year to contract with qualified small or disadvantaged businesses. From FY 2005 to FY 2011, the Savannah district awarded an excess of $2.3 billion to small businesses.

"The MILCON Transformation process allows us to gather feedback from industry and develop long-term relationships with contractors," Sydow said. "It's a win-win for everyone—we provide jobs for the private sector and small businesses within the military communities, and in return, we get consistent engineering, construction and acquisition. We do it all in less time and at lower cost to the taxpayer. And most importantly, our soldiers get to have brand new, high-caliber facilities that will help them do their jobs and improve their quality of life."

*By Tracy Robillard, Corporate Communications Office*

# It's All in the Eye of the Beholder

## Maneuver Center of Excellence Headquarters

Some people know it as the largest renovation project in the Army; others say it stands as a symbol of the Army's integration of its Armor and Infantry elements at Fort Benning, Ga. Still others see it as a fitting tribute to the two Medal of Honor recipients—Spc. Ross McGinnis and Cpl. Jerry Wickam—it's named after. Another group would call it the epitome of modern, environmentally-friendly design with classic architecture elements that meld it to the existing buildings at Fort Benning.

To the men and women who built it, the Maneuver Center of Excellence (MCoE) Headquarters symbolizes all these exceptional attributes. But it also showcases the capabilities needed to take a 50-year-old building and transform it into a highly functional, aesthetically pleasing, training and administrative hub for today's modern Army.

The challenges for the team—the Savannah district construction and project managers, along with Fort Benning representatives and the general contracting firm McCarty Corporation—were huge.

"The team essentially had to gut the 50-year-old facility and build it new," said Joseph Savage, senior project manager, Savannah district. "The building was stripped down to its skeleton at the beginning and then reassembled with modern, energy-efficient components."

The new building also had to meet security requirements. It has the latest force protection and progressive collapse design, according to Savage.

### MCoE HQ by the Numbers

The Base Realignment and Closure Plan called for the consolidation of a number of Army schools and installations to create "centers of excellence." As a result of this decision, the U.S. Army Armor School moved from Fort Knox, Ky., to a co-located headquarters with the Infantry School at Fort Benning, Ga. The combination of the two schools formed the Maneuver Center of Excellence.

- **Phase I – 340,000 square feet (sq. ft.) / $125M**
- **Phase II West – 90,000 sq. ft./$17M; Phase II East – 90,000 sq. ft./$16M**
- **Marshall Auditorium – 1,320 seats; small auditorium – 400 seats**
- **Four classrooms with 200 seats; six classrooms with 18 seats**
- **One computer classroom**
- **180,000 sq. ft. administrative area**
- **8,000 sq. ft. for the Army & Air Force Exchange Service**
- **4,000 sq. ft. Sensitive Compartmented Information Facility**
- **85 percent of construction waste and demolition debris was recycled**
- **40,000+ sq. ft. of solar panels**

Officials celebrate during the ribbon cutting and dedication ceremony for the Maneuver Center of Excellence Headquarters at Fort Benning, Ga. USACE South Atlantic Division Commander Maj. Gen. Todd Semonite (front right) attended the ceremony on behalf of the Corps of Engineers. *Photo by Cheryl Rodewig.*

"The first phase restored the six-story tower, portions of the east and west classrooms wings, and the auditorium," said Alan Bugg, Savannah district's area engineer for the project. "The remainder of the east and west wings will be refurbished in Phase 2, scheduled for completion in the spring of 2012."

When the renovation is finished at a cost of $168 million, the headquarters will encompass 520,000 square feet, about 1,500 more than before. The total occupancy, including students, may exceed 800 people on a daily basis. (See box: MCoE by the Numbers.)

"A historic landmark since the 50's, the building is now ready for its next fifty years of service to the Army and its soldiers," said Bugg. "It is a fitting home for the MCoE Headquarters and will stand as a showpiece at Fort Benning for the next 50 years."

*By Joyce McDonald, Corporate Communications Office*

# New Home for the Armor School

## Corps completes massive construction program at Fort Benning

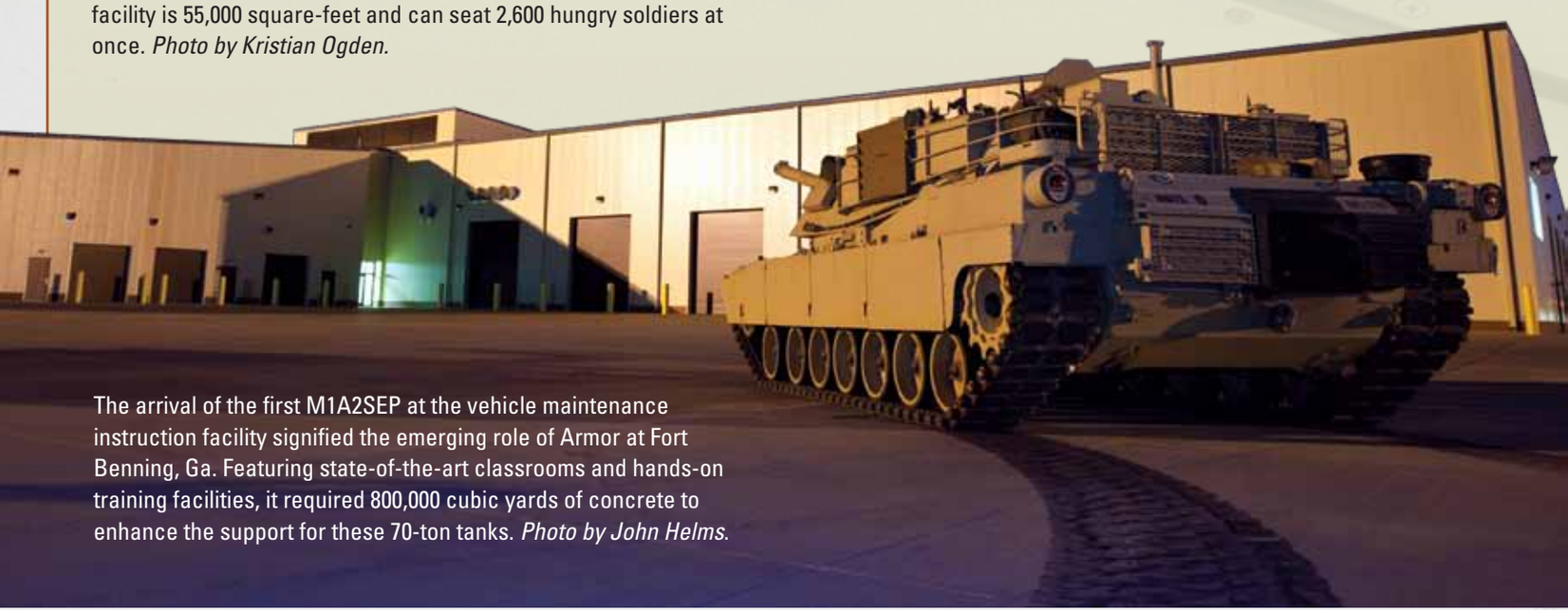
Soldiers of the U.S. Army Armor School arrived at their new home—Fort Benning, Ga.,—to state-of-the-art barracks, dining facilities, headquarters, instructional and maintenance facilities customized especially for them. The Savannah district completed a $1.5 billion construction program, mostly in the Harmony Church training area, in preparation for the soldiers' arrival.

"More than five million square feet of new building space, eight bridges, 200 miles of roads and trails, and 19 ranges were constructed to meet the specialized needs of armor soldiers and their critical requirements," said George Condoyiannis, the area engineer of this construction program. "We provided the facility infrastructure that directly supports mission training and power projection capabilities."

The Armor School relocated to Fort Benning from Fort Knox, Ky., joining the U.S. Army Infantry School to form the Maneuver Center of Excellence. The move brought more than 7,500 soldiers and 500,000 pieces of equipment to the new facilities at Harmony Church. The move was part of the Base Realignment and Closure initiative and supported the overarching concept that since infantry and armor fight together, they should live and train

Part of the Harmony Church trainee barracks complex, this dining facility is 55,000 square-feet and can seat 2,600 hungry soldiers at once. *Photo by Kristian Ogden.*

Corps Project Engineers, Tom O'Buckley (Right) and Brian Hilton (Left) assisted the Fort Benning team with the huge task to repair/build roadways equipped to withstand the constant beating from armored vehicles travelling to and from training areas. The task was split into four separate projects, which included building three bridges, two box culverts and hauling more than 637 tons of graded aggregate base for 55 miles of gravel road. *Photo by John Helms.*



The arrival of the first M1A2SEP at the vehicle maintenance instruction facility signified the emerging role of Armor at Fort Benning, Ga. Featuring state-of-the-art classrooms and hands-on training facilities, it required 800,000 cubic yards of concrete to enhance the support for these 70-ton tanks. *Photo by John Helms.*

Named in honor of fallen soldier Pfc. Jesse D. Mizener, the eight buildings on the 42-acre Wheel and Track Sustainment Complex include vehicle maintenance, an engine test bay, paint stripping and paint application buildings. *Photo by Kristian Ogden.*

In less than one year, Dixie Road, the two-lane, main artery through Fort Benning, Ga., expanded to a four-lane thoroughfare. Crews paved 7.12 miles of roadway, raised an existing bridge 12 inches and built a new one which can withstand the heavy loads of armored vehicles. *Photo by John Helms.*

together. To meet the needs for this massive project, the Corps' presence at Fort Benning also underwent significant changes.

"The Fort Benning Area Office ramped up their presence on the installation, increasing the number of personnel from 22 to 108, throughout the last four years in order to execute the largest military construction program in the Southeast," said Condoyiannis.

Working closely with more than 49 different general contractors, the district team coordinated construction efforts for multiple projects, ensuring that each contractor had a clear understanding of the installation's ongoing mission.

"Because of the close coordination between the Corps, the installation, and the contractors, Armor and Infantry soldiers were able to continue operations uninterrupted by the ongoing construction activity," said Condoyiannis. "The success of this unprecedented program, the size and scope of which had never before been attempted by the South Atlantic Division, required a concerted effort by a team of talented industry professionals committed to delivering facilities that the soldiers of the Maneuver Center of Excellence deserved and expected."

*Story by Rashida Banks and captions by Sandra Hudson, Corporate Communications Office*

# Teamwork Brings Together FORSCOM and USARC Commands

## New Headquarters Increases Operational Readiness

**"With so many people depending on us to have the headquarters ready, we focused on efficiency and 'doing it right' the first time."**

— Daniel Davis, Savannah district FORSCOM-USARC Resident Engineer.

**"Completing this project on time seemed impossible at first, but the team from the Corps, the contractors, and Fort Bragg took on the challenge and won."**

— Catherine Bingham, (former) Savannah district, FORSCOM-USARC Project Manager

**"If you have a great team and everyone works together toward a common goal; you then can achieve anything,"**

— Diego Martinez, Savannah district Chief of Army Programs, Program Management Division.

The project's requirements seemed enormous. It involved relocating work areas for more than 2,800 people, including two general officers; accommodating expanding and changing customer needs in the 631,000 square-foot facility; managing 50 contractors and 470 laborers; incorporating complex technology, some of which was housed in four separate buildings; while integrating communications with dozens of customers, all under an extremely tight deadline.

It was finished in 992 days (one day early).

The project is the new co-located headquarters for the U.S. Army Forces Command (FORSCOM) and U.S. Army Reserve Command (USARC) at Fort Bragg, N.C. The 2005 Base Realignment and Closure Commission report called for the facility "to more effectively and efficiently support the Army's forces, increase operational readiness and allow for innovation in business operations." As part of BRAC, the two headquarters were moved from Fort McPherson, Ga., to Fort Bragg.

"All of the way from the Corps of Engineers staff to the customers at FORSCOM and USARC this was one of the best project delivery teams we have ever had with a project this size and magnitude," said Martinez.

### Getting Started

Just determining how to start the contracting was the first challenge for this large-scale project. Within 18 months, the team—including members of Fort Bragg, FORSCOM, USARC, and higher Corps entities—developed the requests for proposal requirements, resolved scope, criteria, and cost issues, evaluated proposals, and successfully awarded the $302 million project to Hensel Phelps Construction Company.

To start, there were buildings that had to be demolished to make room for the complex, and separate entry ways had to be constructed to accommodate and distinguish two commands.

Even the outside of the facility required close coordination with the Fort Bragg cultural resources and architectural historian to ensure the structure would have a brick facade that matched the surrounding historical buildings.

The project met the strict needs of the Installation Management Command, which provided the funding and guidance from start to finish.

### Meeting customer needs

The FORSCOM air distribution system was installed under raised floors to improve ventilation efficiency, reduce energy use and increase comfort by allowing occupants to control air flow. The raised floor also would allow flexibility for reconfiguring the walls.

The exterior walls were to be constructed of tilt-up, brick-faced, pre-cast concrete panels to allow rapid dry-in completion so that interior construction would begin more quickly to maintain the extremely time-compressed construction schedule. Although initially more expensive, these panels would save time and labor in construction and allow faster dry-in for interior construction.

During the project, the team managed 81 contract modifications, exceeding $14.3 million while accruing only 2.3 percent controllable cost growth and zero time growth.

"You can't predict everything that may develop—such as advances in new technology," said Davis. "We had to make changes when things came up and had to handle them quickly."

The 631,000 square-foot headquarters for the U.S. Army Forces Command and U.S. Army Reserve Command at Fort Bragg, N.C., is comprised of four buildings that will provide space for more than 2,800 people. *Photo by Lawrence Stevens.*

The PDT created the Information Technology (IT) Site Assessment Working Group, comprised of five IT stakeholders at the beginning of the project. They recognized that melding the IT requirements into the building construction was critical to the project's overall success and customer satisfaction. This model has subsequently been used for other three and four star headquarters projects.

The team devised and implemented methods to improve the construction and occupancy schedule from 48 to 36 months. Techniques included the phased turnover of IT buildings, joint occupancy of the headquarters facility with the IT engineers, and procuring and installing the furniture as part of the design-build contract.

## Communications

The consolidation of the largest major command in the Army and its sub-command represent the new force structure and modernization of the Army, which propelled the construction project in the spotlight, Martinez said.

The project manager prepared regular information papers for the project, which were distributed to 52 stakeholders. This information was used by the stakeholders to prompt decisions from their leadership, which ensured timely execution for the project. The format was sent by Assistant Chief of Staff of Information Management to other districts as an example of what they would like to see on other three-star and four-star headquarters projects.

"The extremely high level of open, honest communication and cooperation by all parties at all levels, consistently working only toward solutions was the driving force in the success of the project," said Davis.

## Finishing Strong

With all of the work and challenges that surfaced along the way, the Savannah district's dedication did not go unnoticed. They received all fives (a perfect score) on customer satisfaction surveys from both FORSCOM and USARC.

"The team surpassed all expectations set forth by executing the project one day ahead of schedule, and saved more than $10 million from the original authorization," Martinez said. "We finished $16 million below the budget, and met the BRAC deadline."

"We knew we had a deadline to meet so we had no time for mistakes," said Davis. "The workers logged more than 1.3 million craft hours without a 'lost time' injury since the project's groundbreaking in December 2008…we finished on time and under budget with absolutely no compromises in quality or safety."

Joseph Tyler, (former) USACE Director of Military Programs, sent an e-mail to the district commander and the rest of the team, at the conclusion of the project. It said, "folks, my hearty congrats for a job very well done. This took a tremendous amount of hard work and patience while you endured many frustrating moments. Your patience and fortitude has paid off."

*By Kristin Mack, Corporate Communications Office*

# Fort Stewart Soldiers Return from Deployment to Brand New Mini-City

When soldiers of the Vanguard Brigade returned from a yearlong deployment to Iraq, the last thing they wanted to do was a dreaded "duffel bag drag" — troop slang for frequent moving from one living quarters to another.

But several months before their scheduled homecoming, the Vanguards, also known as the 4th Infantry Brigade Combat Team (IBCT), received word they would have the complete opposite of a duffel bag drag. Instead, they would come home to a top-notch $306 million "mini–city" at Fort Stewart, Ga., courtesy of the Savannah district.

The project converted 457-acres of forest into a multi-facility development in just two years. It includes everything the brigade needs to fulfill daily operations: 20 barracks (accommodating 72 soldiers each), six company operations facilities, six tactical equipment maintenance facilities, a combined brigade/battalion headquarters building, physical fitness center, and a dining facility.

"We knew we had a whole new facility waiting on us, and as a soldier, that means a lot," said Sgt. Shawn Damm, ammunition specialist with the 4th IBCT, 89 Bravo. "You're coming to a brand new environment and you know it's going to be state-of-the-art and have all the amenities that anyone could hope for. It means a lot coming back from that type of environment."

When the 2005 Base Realignment and Closure Commission report was first announced by the Assistant Chief of Staff for Installation Management, the transformation of the Army's infrastructure was one of the key focuses. This initiative outlined the guidelines for modernization, modular conversion and rebalancing of the active and reserve components worldwide. The resulting infrastructure would be designed to enable the operational force to better meet the challenges of a dangerous and complex 21st century security environment.

According to 4th IBCT unit history, the Vanguard Brigade was the first new brigade formed under this initiative setting the pace for the Army.

Soldiers of the 4th Infantry Brigade Combat Team attend a ribbon cutting ceremony for the $306 million IBCT complex at Fort Stewart, Ga. *Photo by Tracy Robillard.*

An aerial view of the completed IBCT complex at Fort Stewart, Ga. Built by the Savannah district, the project converted 457-acres of forest into a mini-city in just two years, and includes everything the brigade needs to fulfill daily operations: 20 barracks (accommodating 72 soldiers each), six company operations facilities, six tactical equipment maintenance facilities, a combined brigade/battalion headquarters building, physical fitness center, and a dining facility. *Photo provided by Aerophoto.*

"One of the greatest benefits of having all of the brigade facilities so close together yet functionally organized according to the force structure of the brigade, is that every soldier at every level has direct access to their leaders, subordinates, and equipment without the need to travel very far," said Will Abrams of the Department of Public Works.

"The area was purposely located within walking distance of the small arms range complex as well as other multi-purpose training areas," said Abrams. "This is particularly important for a light unit which can be called upon to move by foot across the battlefield."

The complex is Fort Stewart's largest construction project and one of the largest military construction projects within the Savannah district. The Corps began construction in June 2009 and completed the job in four phases, coordinating with six different contractors on site while constantly striving to meet the completion deadline.

"This project was a huge undertaking as we had multiple contractors on site, which required communication and close coordination," said Troy Funk, resident engineer, Savannah district. "There were a lot of moving parts and the partnerships on site were instrumental in bringing the project to completion."

The barracks are designed as two-person suites with a shared common area, kitchen and bathroom, and two private bedrooms.

Damm said he enjoys having a private bedroom with adequate space for personal belongings—including his own walk-in closet. He also lauds being able to do laundry in his suite—something he couldn't do in previous Army housing and college campus dormitories he lived in.

"When I saw the entire complex, I was blown away," Damm said. "It far exceeds anything that I've ever had. As a soldier, you come back and you want to have your own space. You want to have an opportunity to get away from things for a while and recharge, then go back at it again. Having this type of environment really sets us up for success."

The complex also includes a troop medical clinic, which remains under construction with scheduled completion by the summer of 2012.

Like all Army construction, this project incorporated environmentally-friendly features, such as natural landscaping, low-odor paints and carpets, energy efficient lighting, and mechanical systems. These "green" buildings will satisfy the Silver rating criteria established by the Leadership in Energy and Environmental Design rating system, in accordance with the U.S. Green Building Council standards.

*By Kristin Mack and Tracy Robillard, Corporate Communications Office*

# Meeting the Needs of a Complex, Modern Military

**Along with the military transformation initiative came the need for new and improved facilities to support the complexities of modern warfare, including the integration of new concepts, organizations, and technology. Highlighted are a few facilities constructed by the Savannah district which help support this initiative.**

## Consolidated Support Center – Seymour Johnson Air Force Base, N.C.

The Savannah district recently completed construction of this new $12.1 million facility for the 4th Mission Support Group at Seymour Johnson Air Force Base, N.C. The 43,500-square-foot facility houses the installation's contracting squadron, comptroller squadron, legal office with a court room, and the 4th Force Support Squadron. In addition, the building displays a vintage P-51 Mustang suspended from the ceiling in the building's atrium. *Photo by Tim Barth.*

## Gordon Regional Security Operations Center – Fort Gordon, Ga.

The $340 million technologically advanced Gordon Regional Security Operations Center at Fort Gordon, Ga., was critical to providing the space needed for National Security Agency's (NSA) expanding operations throughout the world. At 500,000 square feet, this secure, controlled facility was built by the Savannah district to accommodate sophisticated data processing, communications and intelligence systems for the NSA. The project included extensive site development on nearly 160 acres, including the construction of a new electrical substation and parking for more than 2,400 personnel. The project was recognized as a finalist for the 2010 Intelligence Community Non-MSA (Metropolitan Statistical Area) Team of the Year Award for superior performance. *Photo provided courtesy of NSA.*

## U.S. Marine Corps Reserve Center – Robins Air Force Base, Ga.

Various U.S. Marine Corps Reserve Units relocated from the Naval Air Station in Atlanta, Ga., to Robins Air Force Base, Ga., into this new $20 million Marine Corps Reserve Center, constructed by the Savannah district. The 40,375 square-foot helicopter hanger houses ground support, maintenance, and storage for eight helicopters, as well as other administrative and support offices. In addition to constructing a new helicopter hanger, the district also renovated and upgraded two existing hangers and two other buildings. *Photos by Billy Birdwell.*

## Digital Multi-purpose Range Complex – Fort Benning, Ga.

The 1,600-acre Digital Multi-purpose Range Complex, built by the Savannah district at Fort Benning, Ga., was designed to support combined arms live-fire exercises and advanced gunnery qualifications. The $33 million range supports company sized elements performing crew and collective gunnery tasks such as individual crew, section and platoon qualifications. The complex has 35 stationary Infantry target clusters, 11 evasive moving Armor targets, 55 stationary Armor targets, three defense trenches with fortified bunker emplacements, 18 defilade positions and a helipad for use as an emergency evacuation site. The range complex provides advanced technology, diverse environments, and specialized designs—giving soldiers the best combat advantage. Completed in July 2008, The digital complex is one of 19 ranges built by the Savannah district in the last two years. *Photos by Bruce Dickinson.*

*By Rashida Banks, Corporate Communications Office*

# Transforming Medical Care

Moves associated with the 2005 Base Realignment and Closure (BRAC) Commission report have resulted in the relocation of thousands of military service members and families. In the years following the BRAC announcement, the Department of Defense has remained committed to taking care of its people. As a result, the Savannah district has constructed more than $560 million in new, renovated and expanded healthcare facilities, such as hospitals and clinics, to accommodate the influx of people arriving at installations due to BRAC and Army Transformation.

The Corps works closely with the U.S. Army Health Facilities Planning Agency to plan, design, and construct medical facilities that accommodate new and evolving technologies, provide a healing environment, and empower patients and families. To accomplish this, input is also drawn from the patients and staff who will use the facilities.

"The customer plays a crucial role in the development of medical facilities," said Tim Morris, Savannah district Senior Project Manager for medical projects. "Clinic and hospital staffs are intimately involved in the design and equipping of these facilities because patient-centered care is hugely affected by the floor plan layout and equipment integration into the facility. That input must come from the staffs that know how to deliver care and how to use the equipment."

These facilities are designed to meet high-energy and environmental standards and include features such as soothing colors, textures, furnishings, natural views, and controls that allow patients to adjust the temperature, lighting, and electronics.

### Martin Army Community Hospital — Fort Benning, Ga.

The $333 million contract for the Martin Army Community Hospital includes the design and construction of a 745,000-square-foot hospital, almost twice the size of the current facility. With 70 in-patient beds, the new hospital, built by Turner Construction Company, will serve 78,500 soldiers, military retirees, and families of the Fort Benning, Ga. community with a range of specialties. The design is split into two wings — a clinic and hospital section, equipped with two parking decks for patients and staff members, the project is scheduled for completion by the Savannah district and ready for patients in the fall of 2014. *Artist rendering provided courtesy of Turner Construction Company.*

### Blood Donor Center — Fort Bragg, N.C.

A soldier donates blood at the new $5 million Blood Donor Center at Fort Bragg, N.C., completed by the Savannah district in August 2010. Technologically advanced blood donor centers, such as this one, focus on the collection, processing, testing, storing, and shipping of blood specifically for the military community. *Photo by Joe Harlan.*

*By Rashida Banks, Corporate Communications Office*

# Providing Quality Schools and Childcare Facilities

Along with other family support facilities, the Savannah district constructs schools and child development centers at military installations in Georgia and North Carolina. These facilities provide peace of mind and help to improve the quality of life for deserving military families who support soldiers. The Savannah district has constructed $461 million in new schools and childcare facilities in the past five years — a few of which are highlighted below.

## Child Development Centers

Child development centers, such as the one shown (Left) at Fort Stewart, Ga., provide safe, quality and convenient childcare for children ages six weeks to 12 years. The centers are scaled to child-size use, visually appealing, and conducive to learning. *Photo by Billy Birdwell*
(Below) Youth Development Center near completion at Hunter Army Airfield, Ga. *Photo by Brian Mock.*

## Shughart Elementary and Middle Schools — Fort Bragg, N.C.

Children and staff line up to enter the new $44.2 million Shughart Elementary and Middle Schools, constructed by the Savannah district at Fort Bragg, N.C. The co-located schools were built to serve the military housing community of Linden Oaks, which is home to more than 5,000 military service members and their families.

At 101,045 square-feet, the elementary school serves 714 students, pre-kindergarten through fifth grade. The middle school, approximately 98,903 square-feet, serves 550 students in the sixth through eighth grade. Features include advanced communications systems, art and music classrooms, computer labs, teacher workrooms, and a gymnasium. The schools share administrative offices, a parking lot, library, and cafeteria with a large state-of-the-art kitchen.

*By Rashida Banks, Corporate Communications Office*

# Building "Energy Strong"

Sustainable design is an integral part of the U.S. Army Corps of Engineers' military construction program. Since fiscal year (FY) 2008, every new construction project in the Savannah district is designed to meet standards of the Leadership in Energy in Environmental Design (LEED) rating system—the same sustainability model used by the private sector.

Established and managed by the U.S. Green Building Council, the LEED rating system is a point-based "checklist" of environmentally-friendly features that can be incorporated into a building's design. For new construction and major renovations, LEED facilities earn an achievement level based on increasing point values: Certified, Silver, Gold and Platinum.

While all Savannah district projects are designed to meet LEED Silver criteria as a minimum, only 5 percent are currently evaluated for certification from the Green Building Certification Institute (GBCI). Subject matter experts within the district evaluate the remaining projects internally. Beginning in FY 2013, all Corps military construction projects that meet GBCI criteria will undergo formal certification by GBCI.

Examples of LEED features in Corps construction projects:

- Rainwater collection systems for irrigation and cooling
- Solar panels for power and water heating
- Recycling of construction waste and demolition debris
- Use of building materials with recycled content (wall tiles, steel, roofing materials, carpet)
- Use of local suppliers to eliminate excess transportation emissions
- Skylights to maximize natural lighting
- Raised floors for air distribution system—better occupant comfort control
- Geothermal heat pumps for more energy-efficient heating and cooling
- Low-flow plumbing fixtures
- Automatic light sensors, faucets and other fixtures

The Savannah district completed a $15.6 million dormitory at Moody Air Force Base, Ga. that received LEED Gold achievement from the Green Building Certification Institute in FY 2011. The dormitory includes a geothermal ground water heating and air conditioning system, which operates at a significantly lower cost and uses less energy than traditional gas, oil or electric systems, because it transfers energy to and from the earth's ground.

## Energy Efficiency

The Corps is working to enhance building energy efficiency in the military construction program. Two main drivers are the Energy Policy Act of 2005—the first federal energy requirement for new construction—and the Energy Independence and Security Act (EISA) of 2007. EISA established energy reduction targets for the federal sector based on average building energy consumption rates for comparable facilities in the private sector. This was determined by data from the Commercial Building Energy Consumption Survey (CBECS).

To meet required EISA criteria, the Corps must construct buildings that reduce fossil fuel-generated energy consumption by 65 percent (compared to CBECS data) beginning in FY 2015. These requirements address heating and cooling, refrigeration, lighting, power, thermal barriers in roofing, walls and floors, and other design features related to energy consumption.

In its Center of Standardization (CoS) role, Savannah has taken the lead in developing working designs that maximize energy efficiency as a first step in achieving compliance with EISA. (Read more about CoS on pages 5-6) In-house design teams completed successful EISA demonstration projects at Fort Campbell, Ky., for tactical equipment maintenance facilities, company operations facilities, battalion headquarters, and a brigade headquarters. These designs allow the Corps to improve mechanical and electrical system efficiencies, eliminate thermal bridging (gaps in insulation), and increase the buildings' thermal barrier using state-of-the-art technology and building practices. In other words, the designs tighten the building envelopes and improve efficiency as much as possible before adding costly alternate energy sources, such as solar and geothermal power.

The Corps will still use alternate energy sources to achieve full compliance with EISA, however the overall cost can be reduced by leveraging the Corps' improved energy-efficient designs. Additionally, these designs will be posted on the CoS website to serve as models for other districts that develop designs for similar projects

*By Tracy Robillard, Corporate Communications Office*

# Homeowners Assistance Program

## Family spared financial ruin from move to new installation

They packed up their belongings, including newborn daughter Sophie, embarked on what seemed an endless journey—Hawaii to Virginia—and started life at yet another new port now called "home." Lt. Cmdr. David Carroll and his wife Melissa performed the feat thousands of military families do every year.

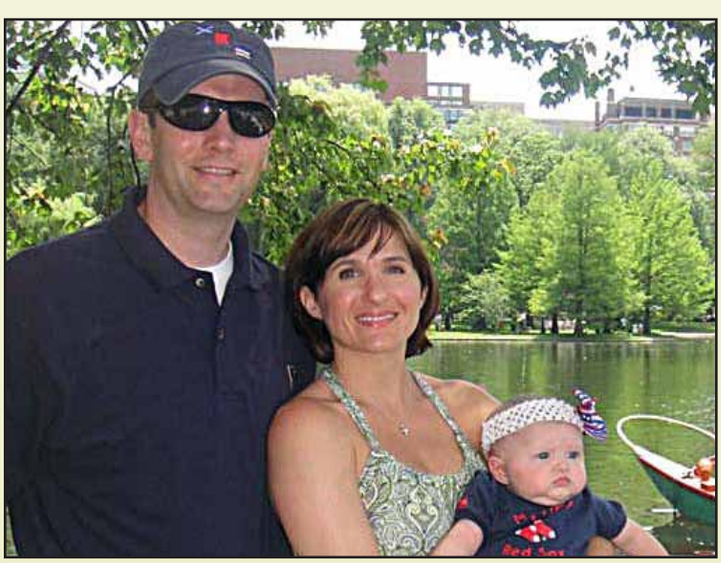
However, this fourth permanent change of station in Carroll's 11-year Navy career brought added stress. Like countless families across the country, the declining real estate market threatened to make him part of the headlines.

"When our tenant in Hawaii moved out with no notice, the sudden loss of our rental income stood to bankrupt my family," Carroll said. The home had lost value and they were paying added expenses on top of our rent in Virginia, he said.

Enter the Homeowner's Assistance Program (HAP).

It's authorized by law, and administered by the U.S. Army Corps of Engineers to assist eligible service members and Department of Defense employees who face financial loss when selling their primary residence under a variety of specified conditions, said Ralph Werthmann, chief of the Real Estate division for the Savannah district.

"Additionally, the American Recovery and Reinvestment Act (ARRA) of 2009 temporarily expanded the HAP to assist homeowners required to permanently relocate during the home mortgage crisis," said Werthmann.



Lt. Cmdr. David Carroll relaxes with wife Melissa, and daughter Sophie in Boston, one week after selling their Hawaii house. *Photo courtesy of Lt. Cmdr. David Carroll.*

> ""There's no way we could have received and processed 9,500 applications...without having well-trained, knowledgeable staff.""
>
> — Diane Hudson, chief of Savannah district HAP office

Expecting an onslaught of applications after the ARRA announcement, Werthmann and Diane Hudson, chief of the Savannah district HAP office quickly devised a plan to not only increase the workforce, but scout for employees with specific skills.

The hiring team looked for people in the community with a background in real estate or banking, said Hudson. "Since paying benefits is part of the program, the real estate specialist needs to know banking requirements and mortgages," she said. "We just had to teach them the government way of doing business."

With 65 additional temporary employees and 12 rehired annuitants added to the HAP team, Werthmann and Hudson's strategy paid off.

"We have some outstanding employees," said Hudson. "There's no way we could have received and processed 9,500 applications since the HAP expansion without having well-trained, knowledgeable staff."

Carroll was one of 2,340 approved applicants in fiscal year 2011 for Savannah's HAP office, which paid a total of $352 million in benefits.

"I heard of the HAP extension through a friend," he said. "I printed the application process and procedures from the website and submitted my application immediately."

Once his realtor found a buyer and got the home under contract, Carroll said, the HAP team's Jerrel Dekok and Debbie Graham made them feel like their top priority every day.

"They clearly communicated the constant progress of our package, which in turn provided peace of mind that we would close on time and get out from under the financial trappings of our home," he said.

The Carroll's closed on their home one day ahead of schedule, an even greater challenge when you consider the application was processed while Carroll was at sea, aboard the USS ***Wasp***.

*By Sandra Hudson, Corporate Communications Office*

# Corps Team Wins Sustainable Design Award

Three Savannah district employees — Ryan Murphy, Sara Murphy, and Parker Sherard — were part of a 25-member Corpswide team that was recognized during the 2011 Regional Holcim Awards Competition for Sustainable Construction. Using state-of-the-art technologies and design theories, the team put together the "Energy, Water and Efficient Installation" virtual design package for Fort Leonard Wood, Mo., and were named by the Holcim Foundation as one of ten teams to receive the Holcim Acknowledgement Prize.

Ryan Murphy and Sara Murphy are both architects with the district, while Sherard is an electrical engineer intern at the district's Fort Bragg Area Office.

The Swiss-based Holcim Foundation for Sustainable Construction conducts the competition in parallel in five regions across the world. More than 6,000 submissions for projects located in 146 countries entered the Holcim Awards, and the North America region awards were presented to 10 diverse and innovative projects from Canada and the USA at a ceremony in Washington, D.C.

## Hollis Recognized by Secretary of the Army

Leila Hollis, chief, Office of Small Business, Savannah district, received the 2011 Secretary of the Army Small Business Specialist of the Year Award. The award recognized Hollis for her outstanding leadership and dedication to the Army's Small Business Program. As chief, Hollis successfully executes a $1.3 billion program that significantly impacts the growth and achievement of small firms seeking to do business with the Corps. She has been instrumental in publicizing the Corps' small programs in a variety of venues, such as speaking engagements, conferences, and monthly counseling sessions with small and large businesses. Hollis, who has become one of the region's small business experts was also recognized for ensuring that small businesses in the local communities surrounding military installations understand and are aware of the needs of the Corps.

## Gatling Receives Women of Color Award

Vicki Gatling, senior project manager, Installation Support Team, Savannah district was honored as part of the 2011 Women of Color in Science, Technology, Engineering, and Mathematics (STEM) Awards.

Gatling, who received the award in the category of Professional Achievement — Government, has more than 23 years federal service in a variety of positions in the engineering arena. She is responsible for executing a program that averages $200 million a year. Gatling was also instrumental in the execution of more than $100 million in American Recovery and Reinvestment Act-funded projects.

The Women of Color STEM Conference and awards program, sponsored by the Career Communications Group, recognizes women from around the country who demonstrate outstanding performance in a technical field and show great potential for shaping the future course of engineering, science, math and technology.

## Savannah District recognized by Air Force

The Savannah district was named winner of two 2011 U.S. Air Force Design Awards. The district was recognized with a Merit Award for Sustainable Design for the Moody Dormitory project at Moody Air Force Base, Ga. The district was also recognized with a Merit Award for Planning Studies and Design Guides for the Airmen's Campus Area Development Plan at Pope Field, N.C. These awards programs recognize design excellence in Air Force planning, landscaping, architecture, engineering, interior design, and military family housing design.

## IN MEMORY OF

**Jessie L. Allen, a construction control inspector for the Savannah district, died Aug. 20, 2011, at a road construction site on Fort Benning, Ga. Allen was accidentally struck by a dump truck while inspecting a road project for the Maneuver Center of Excellence. He had been with the Corps four years. At the time of his death, Col. Jeff Hall, Savannah district commander, extended condolences to Allen's family and friends on behalf of the district. "The loss of one of our own members is especially tragic and reminds us of the inherent dangers of our business and the importance of safety for all our workers," he said.**