Foundations & Perspectives

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A Statue for the Ages Freedom Turns 150

Rising High AOC Elevator Shops

HEMERAL DEMNSY

Beyond the Dome *A Look at Facilities off Capitol Hill*





The AOC is the caretaker of the buildings on Capitol Hill, but it also manages several off-site facilities. Statues that once stood on the Hill are now stored and cared for by AOC staff at the Ft. Meade off-site facility. See page 18.



Photo by: Chuck Badal

The Statue of Freedom turns 150 years old this year, pictured under restoration in 2012.

Photo by: Chuck Badal

In This Issue

- Letter from the Architect
- 2 Rising High

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- 6 Teaming Up for Accessibility
- 8 The Many Hats of the AOC
- 12 A Statue for the Ages
- 18 Beyond the Dome
- 22 AOC's Last Chance Workout
- 26 Moving Offices Improving Lives

Front Cover: Photo from AOC Archives; Statue of Freedom is placed atop the Capitol Dome and scaffold removed to reveal her circa December 1863.

Letter from the Architect



Now that spring is in full bloom, I find myself walking Capitol Hill and truly enjoying the surrounding splendor of Mother Nature. I'm inspired every time I walk the Capitol Grounds and see the leafing trees and beautiful flowers. And when I enter one of the many buildings we care for, I am always awed by their magnificence.

What I sincerely appreciate is the hard work that goes into making the buildings and grounds shine — the work that you perform each day for Congress, the Supreme Court, staff and visitors. Despite the fact that your work is often done out of sight of the public, by employing one of our core values — teamwork — we pull together to make everything possible.

Teamwork begins at the shop level, such as the members of the House Office Buildings and Library Buildings and Grounds elevator divisions that you will meet on page 2. Like one of the 280 elevators the AOC is responsible for on Capitol Hill, elevator division employees must work together like a well-oiled machine to keep everything running smoothly.

At times, teamwork is vital among jurisdictions, such as when multiple jurisdictions were needed to renovate an office suite for Representative Tammy Duckworth. As a veteran of the Iraq war who sustained life-altering injuries, Representative Duckworth needed an office that was ADA accessible and our team pulled together to make it happen (see page 6).

Partnering with fellow legislative branch agencies is also part of our responsibility. On page 18, you will learn about how the AOC maintains and manages the facilities and grounds far from Capitol Hill, which requires constant care and monitoring — a task our employees take very seriously.

Part of our mission extends to providing leadership and collaborating with outside organizations (see page 8). Some of these roles are in statute, such as serving on the United States Capitol Police Board and membership in the D.C. Zoning Commission, and others are memberships in professional organizations that help us improve our agency and achieve our mission.

And finally, we even partner with the non-profit So Others Might Eat (SOME) to find staff to help support the moves that take place after an election cycle (see page 26). In the *Doing Good* section of this issue, you'll meet five inspiring men who are turning their lives around by modeling the values of teamwork, dedication and hard work.

When I walk around the Capitol's buildings and grounds, what really inspires me is the people I meet — people like you who are here day after day, week after week, year after year providing vital services to Congress and the Supreme Court.

I truly appreciate how hard you work everyday. I can't say this enough: thank you.

Stephen T. Ayers, FAIA, LEED AP Architect of the Capitol





"We deal with a lot of history."

No, those aren't the words of the AOC's Curator office. It's Ron Bailey, shop supervisor of the Library Buildings and Grounds Elevator Division, who runs some of the oldest elevator systems on Capitol Hill, the oldest of which date back to the 1930s. "We work in museum-like buildings, so we always have to have respect for where we are," Bailey says.





Respect is easy to have when you work in a place like the Library of Congress. As Elevator Mechanic Frank Griffith emerges onto the roof of the Thomas Jefferson Building to inspect the hoist motor for one of the library's main elevators, it's clear his office is like nowhere else.

"This is a one of a kind view," Griffith says as he looks over to the East Front of the Capitol and then makes his way to the elevator room atop the Jefferson Building.

The AOC is responsible for 280 elevators throughout Capitol Hill covering the Library of Congress, Supreme Court, congressional office buildings, U.S. Botanic Garden and Capitol Power Plant — and the elevator shops on Capitol Hill operate around the clock to ensure exceptional service to Congress. When Congress is in session, the House Office Buildings elevator mechanics check all elevators each night and perform preventative maintenance. Continuing into morning, they check an hour before Congress goes into session that all elevators are fully operational, and put away any equipment that had been used for maintenance. Then they disappear back behind the scenes in the way AOC employees do so well. There, they monitor the lift systems and act proactively to prevent failures.

In fact the name "elevator shop" is a bit of a misnomer. These shops are also responsible for the maintenance and operation of the 46 escalators on Capitol Hill, and some of the jurisdiction's elevator shops are also responsible for the subway systems running beneath the Capitol. At left: House Office Buildings Mechanic Dave Printz at work in the House Subway Shop. Pictured bottom left: The men of the Library Buildings and Grounds Elevator Shop Day Shift.

Working for an AOC elevator shop is truly a unique experience, and maintaining the House subway system might be one of the most exceptional. "I don't know anywhere else that you'll find elevator guys running a subway system," says Paul Miller, elevator mechanic supervisor for the House Office Buildings.

David Printz in the House Office Buildings helps maintain this unique system from the early 1960s. He has to be skilled in machinery, electronics and mechanical work to fashion new parts when things break down. Printz is a jack-of-all-trades, and that isn't uncommon for an AOC elevator mechanic; in fact, it's essential since they must be flexible to work on a variety of systems from modern to antique.

When Paul Miller arrived at the AOC in 1988, most of the House Office Buildings' elevators still used relay logic and hand operations. Since that time he has seen a full modernization program take place, beginning with the buildings' escalators in 1993.

"The buildings are a lot different to maintain now. To meet greater building occupancy, we needed to be able to meet a greater demand with the same number of elevators," says Miller. "To do this we computerized the elevators, which made them more efficient. But this requires my



Demetrius Collins performs maintenance on elevators in the Rayburn Machine Room.

team to have a different skill set than what was needed for the old equipment."

Library Buildings and Grounds Elevator Mechanic John Hicks exemplifies the wide range of skill sets AOC elevator mechanics must possess. Inspecting elevators in the John Adams Building, Hicks examines 90 years worth of elevator technology, from antique hoist motors from the 1930s and old "clickity clack" slate board controllers, to modern computer systems and massive circuit boards. The AOC's elevator mechanics are truly no longer "mechanics." They now must be skilled with computers and possess mechanical and electrical knowledge.

"As the field is transitioning to electromechanical it has become a much more technical profession. Our employees now all need electronic knowledge so we can troubleshoot electronic circuits," says Miller. "The education level required for the field is rising, and thankfully the AOC is great at providing inhouse and external training to aid that transition. We really pride ourselves here at the AOC in the training opportunities we have available, both formal and on-thejob."

"We do weekly training here for our whole team," explains Miller. "When we find a problem we want to learn from it and share that knowledge. It helps us avoid issues in the future and operate more safely."

Being properly trained is necessary to ensure safe operations — but having excellent communication is also essential.

"Safety is important," says Griffith. "This job can be dangerous and you could easily lose a finger if you aren't being safe." "Being properly trained is necessary to ensure safe operations but having excellent communication is also essential."

"The key is to communicate — make sure people know what I'm working on and when I'm working on it," says Hicks.

Thankfully, the AOC's shops work together to lend a hand, which keeps us all safer.

"We're very lucky we have machine shops, sheet metal shops and HVAC [heating, ventilation and air conditioning] experts all in-house to help us out," says Bailey. "The Library Buildings and Grounds machine shop saves us with welding support, our HVAC team prolongs the life of our equipment by keeping rooms at optimum temperatures, and our sheet metal shop makes custom parts, such as safety screens, for our old hoist motors. A lot of our equipment we can't go out and buy parts for, so it's key to have this in-house support available to keep it all running smoothly and safely."

The AOC's elevator shops' commitment to teamwork, communication and training allows them to support Congress and the Supreme Court — without interruption — 24 hours a day, seven days a week.

— By Lori Taylor

Library Buildings and Grounds Elevator Mechanic John Hicks inspects the circuits for elevators at the John Adams Building.

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TEAMING UP ACCESSIBILITY Representative Tammy Duckworth's Office

"This work had to be done right. Period," said Mark Italiano, project manager for the House Superintendent, as he described how in less than four weeks, a dedicated team of tradecrafts experts was able to transform Room 104 in the Cannon House Office Building into a completely wheelchair-accessible office suite.

The office suite was being prepared for Member-Elect Tammy Duckworth of Illinois, a veteran of the Iraq War, who in 2004 lost both legs and part of the use of her right arm when the helicopter she was piloting was hit by a rocket-propelled grenade. Kevin Hildebrand, head of the Architecture Branch, met with Duckworth when she was in Washington, D.C. last fall for new member orientation. "She was such a gracious person," he said, noting that she requested that the entire office suite be made ADA accessible, not just her personal office, since she anticipates many visits from wounded veterans. "We had to be diligent in ensuring that everything met ADA requirements."

The time after an election is an incredibly busy period for the House Superintendent, who coordinates the office moves of new members as well as incumbent members who choose to move offices. "This was a good example of a project where everyone pitched in — the Construction Division, House shops and even the Capitol Superintendent's carpentry shop — because we knew it had to get done," Italiano said.

Changes to Duckworth's office included new designs for the member office and restroom, reception area and staff office space. "One of the challenges was having to produce drawings as construction was happening," said Hildebrand. "After meeting to determine what could be produced in our shops, we came up with a plan that included tapping the resources of the Construction Division," Italiano said. The Construction Division, under the umbrella of the Project and Planning Management Division, is a roundthe-clock operation that is available to assist all AOC jurisdictions. For this project, the Construction Division provided skilled hazardous materials removal workers, electricians, carpenters, plasterers, painters and a plumber. "When another jurisdiction needs help, we are here to serve," explained Ron Riley, operations manager for the Construction Division. "That's what we do."

The condensed timeframe required precise planning and coordination efforts. "We were working pretty much elbow to elbow with the other trades," said Steve Clark, pipefitter

"The work of the Architect of the Capitol has made an enormous difference."

- Representative Duckworth

leader for the House Superintendent. Clark and a crew of plumbers worked on the restroom plumbing, which had to be shifted three feet from its original location. In order to be ADA compliant, the restroom itself grew from 16 square feet to 100 square feet, and used space that was part of the member's office. "The ADA requirements are quite specific, so we had to hit precise measurements."

ADA requirements included installing automatic operators on all of the office doors. To save space, the door from the restroom to the member's office became a pocket door that would slide into a hidden pocket, thereby decreasing the number of swing doors in the space.





With congressional office moves in full swing, the House Superintendent's carpentry shop was already stretched thin so the Capitol Superintendent's carpentry shop pitched in to make the new pocket door. After getting the necessary approvals, Hildebrand delivered the door specifications to the employees of the Capitol Superintendent carpentry shop, who were more than willing to assist.

"We're set up to make these types of doors pretty quickly," explained Pete Meneghini, woodcrafter supervisor for the Capitol Superintendent. Crafted out of mahogany, the door was made seven inches wider to allow access to the door's special ADA-compliant hardware.

"We built it in five days, which is standard for us," said Capitol Superintendent Woodcrafter Jeff Hagan, who crafted the door.

"It was a team effort," Meneghini added. "We had the equipment and material to make it happen."

Hildebrand was very pleased with the carpentry shop's efficiency. "I had barely given them the sketch and it seemed like they were already finished fabricating it."

With the help of the Capitol Superintendent carpentry shop and Construction Division, the House Superintendent was able to finish the office before Top left: Jeremy Acton and Thomas Beasley worked on renovating Representative Duckworth's office. Bottom left: Mark Italiano speaks with a staffer from Representative Duckworth's office. Right: Jeff Hagan sands a door in the Capitol Superintendent's carpentry shop.

the start of the 113th Congress on January 3, 2013. "The work was done on time, efficiently and cost-effectively," Italiano said.

"I deeply appreciate the commitment that the employees of the Architect of the Capitol have made in making my office handicap accessible," said Representative Duckworth. "It was very important to me that members of my staff and my constituents with disabilities felt that my office was accessible and the work of the Architect of the Capitol has made an enormous difference. All Americans with disabilities should have the opportunity to work in an office that is as accessible as Cannon 104."

Paul Blaylock, the Construction Division field supervisor who was on-site every day during the project, added: "We felt a lot of pride doing this for the congresswoman, especially with all she's done for our country. The guys thought it was pretty neat."

- By Kristen Frederick

Questions about Capitol Hill Accessibility?

Call the Office of Congressional Accessibility Services at 202.224.4048.



The Many Hats of the AOC from A to Z



Photo by: Dewitt Roseborough

Preserving L'Enfant's vision for the City of Washington (left) is a critical responsibility of AOC's Michael Turnbull (pictured above, far right).

The AOC plays a leadership role in decisions from the policing of Capitol Hill; to national standards of historic preservation; to supporting development

of industry standards in fire safety, capital project management and security infrastructure.

AOC's involvement falls into three broad categories: boards and groups within Capitol Hill that are statutorily required (mandated by law), off-Capitol Hill boards required by statute, and professional organizations that play a significant role in shaping the standards and methods used in executing AOC's mission.

"Participating and serving with these groups is important for us. It broadens our circles, introducing new ideas and connecting us to new communities of practice. We can then bring back those ideas to the AOC to make us better," said Architect of the Capitol Stephen T. Ayers. "Many AOC employees may not realize the high esteem people outside the AOC hold us; people outside the AOC really listen to what we have to say. We are recognized national leaders in navigating difficult projects and in historic preservation."

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From the Advisory Council on Historic Preservation to the Zoning Commission — the Architect of the Capitol, both individually and organizationally, has many roles that extend well beyond what most might expect.

Statutory Roles on Capitol Hill

The Architect of the Capitol serves as Acting Director of the U.S. Botanic Garden and the National Garden under the Joint Committee on the Library. The Architect also serves as a member of the Capitol Police Board and the Congressional Accessibility Services Board, as well as an ex officio member of the United States Capitol Preservation Commission.

Among these boards — those on Capitol Hill and statutorily required — the United States Capitol Police (USCP) Board consumes the most attention of the Architect of the Capitol. The Capitol Police Board was established as the oversight authority for USCP administration, operations and regulations. The AOC has served as part of the Capitol Police Board since 1873 along with the Senate and House Sergeants at Arms (SAA).

"The Architect of the Capitol plays an important role on the Capitol Police Board because he provides consistency of tenure and brings a long view to the security planning of the Capitol campus," said AOC Office of Security Programs Director Ken Eads. The Architect has a long-term view because he serves a 10-year term, while the SAA are nominated every two years with each new Congress.

Today, the role of the AOC on the Capitol Police Board is focused not just on aesthetics and preservation — making sure that security enhancements fit into the historic fabric — but also working collaboratively with the other voting board members on all aspects of the oversight of the USCP, from their long-term vision to near-term challenges, such as the budget sequester.

Statutory Roles Beyond Capitol Hill

The Architect of the Capitol is also a member of the District of Columbia Zoning Commission (ZC), National Building Museum, Advisory Council on Historic Preservation, National Capital Memorial Commission, Art Advisory Committee to the Washington Metropolitan Area Transit Authority, and the National Institute for Conservation of Cultural Property.

The ZC is an independent, quasi-judicial body created by the Zoning Act of 1920 and upon which the AOC has served since its inception. The ZC is charged with preparing, adopting and amending the Zoning Regulations and Zoning Map consistent with the Comprehensive Plan for the National Capital area.

Three members of the ZC are residents of the District of Columbia appointed by the Mayor and confirmed by the D.C. City Council. The fourth ZC member is the Director of the National Park Service (or his/her representative). The fifth representative of the ZC is the Architect of the Capitol (or his representative).

"Each commission member contributes a different view point to the commission. While we [AOC] bring a federal perspective to the commission, we all want what is best for the city — we want D.C. to be beautiful,

"While we [AOC] bring a federal perspective to the commission, we all want what is best for the city — we want D.C. to be beautiful, successful and a vibrant place to live."

successful and a vibrant place to live," said Assistant Architect of the Capitol Michael Turnbull, AOC's representative to the ZC. "The outreach to the community and being part of the overall city is critically important to the AOC and we have a great sense of pride in D.C. as a city and as the seat of our government."

The Architect of the Capitol brings a historical and long-term view for future city planning that includes preserving the vision of the city founders including Pierre L'Enfant, George Washington and Thomas Jefferson.

Adds Turnbull, "It is all a balancing act. I look out for D.C. by looking back on the history of the city and looking at future growth from an impact perspective. The city has some great architects working on some exciting projects with inspired designs. We try to find a happy medium to balance history, growth, security, and a sustainable, livable community."

Turnbull rotates with other members of the Zoning Commission in sitting on the District of Columbia Board of Zoning Adjustment, another five member zoning body that "The Architect of the Capitol plays an important role on the Capitol Police Board because he provides consistency of tenure and brings a long view to the security planning of the Capitol campus."



Photo by: Dewitt Roseborough

Ked Eads (far left) serves as AOC liaison to the Capitol Police Board.

hears cases related to variances, special exceptions and appeals of administrative decisions.

Another high-visibility board upon which the AOC serves a critical role is the Advisory Council on Historic Preservation (ACHP). According to the ACHP, its mission is to "promote the preservation, enhancement, and sustainable use of our nation's diverse historic resources, and advises the President and the Congress on national historic preservation policy."

The ACHP was formed following the passage of the National Historic Preservation Act in 1966. The ACHP is the only entity with the legal responsibility to encourage federal agencies to factor historic preservation into federal project requirements. The president of the United States appoints four members of the general public and four historic preservation experts, including the chairman and vice chairman. The secretaries of the Interior and Agriculture and the Architect of the Capitol are permanent members of ACHP. In addition, the president designates seven federal agency heads to terms on ACHP and exofficio representatives of national preservation organizations.

According to ACHP, "each year, the federal government is involved with many projects that affect historic properties. For example, the Federal Highway Administration works with states on road improvements, the Department of Housing and Urban Development grants funds to cities to rebuild communities, and the General Services Administration builds and leases federal office space."

Adds Ayers, "The AOC has long been viewed as an expert in historic preservation work, and when the ACHP was formed, this expertise was recognized by the White House. In addition, the Architect adds long-term continuity to the ACHP, while many other agencies are brought on and off the council depending upon their need to focus attention on their preservation programs."

"We get into some very controversial issues at the council that have a number of constituencies and challenges, balancing growth and historic preservation. This includes work such as Pawtucket Dam and Cape Wind [both in Massachusetts]," said Ayers. "These decisions have far reaching effects on development and preservation on culturally important lands."





Photo Courtesy of: CII

Photo Courtesy of: AAF

Photo by: Dewitt Roseborough

Leadership beyond Capitol Hill

Beyond the boards and roles required by statute, the Architect is a member of the American Institute of Architects (AIA); Construction Users Roundtable (CURT); Construction Industry Institute (CII); Construction Management Association of America (CMAA); International Facility Management Association (IFMA); International Association of Museum Facility Administrators (IAMFA); National Institute of Building Sciences (NIBS); National Historic Trust for Historic Preservation; and the George Washington Chapter of Lambda Alpha International.

While the AOC plays an active role in many of these organizations, one organization the AOC has specific leadership function is the Construction Industry Institute (CII). CII is a group of more than 100 owners (private and public sector), engineering and construction contractors, and suppliers who work together to find ways to improve the cost effectiveness of capital projects.

"The Architect of the Capitol brings a historical and long-term view for future city planning that includes preserving the vision of the city founders including Pierre L'Enfant, George Washington and Thomas Jefferson."

Anna Franz, Director of AOC Planning and Project Management (PPM), currently serves as Vice Chair of CII and next year will become the first woman to chair the organization in its 30-year history.

"One of the main reasons we participate in CII is that it is a true knowledge and research driven organization," said Franz. "Their research guidance into best practices for capital projects provides real benefit to us, allowing us to listen to what others are doing and ask questions so we can apply those lessons to current capital projects we are working on for AOC customers."

The CII funded research program with more than 30 leading U.S. universities involved is unique in the engineering and construction

Brendon Robinson serves on an CII panel (left), Stephen Ayers addresses the American Architectural Foundation (center), Michael Turnbull discussing issues at a DC Zoning Board meeting (right).

industry. The research results lead to best practices for the entire industry to share and implement to improve project success.

Examples of the research that CII conducts include improving the cost effectiveness of the capital facility project life cycle, from pre-project planning through completion and commissioning. In addition, AOC employees help CII conduct this research including PPM employees Robert Mitrocsak and Brendan Robinson. One example of this research is Robinson's recent participation in developing an industry-leading report on risk assessment in capital projects.

"Working with these outside groups is all about improving the AOC so we can serve Congress and taxpayers more effectively and efficiently, while at the same time achieving our mission and enhancing our reputation for excellence," said Franz.

— By Matt Guilfoyle

A Statue for the Ages

This year is the 150th anniversary of the placement of the Statue of Freedom atop the Capitol Dome. On December 2, 1863, a salute of 35 guns heralded the nearly complete Capitol Dome when the final section of Freedom was hoisted into place.

Among national landmarks, there is no more recognizable profile than the Capitol Dome, with the stately Statue of Freedom crowning the highest point.

Close-up of plaster model used to cast artist Thomas Crawford's Statue of Freedom, located in Emancipation Hall in the Capitol Visitor Center.

Photo by: Matt Guilfoyle

Architect of the Capitol workers maintain the Statue of Freedom, 1913. (From AOC archives) Below: Petition from Clark Mills, petition number 741. Records of the Department of Treasury, National Archives and Records Administration.



A Slave Makes History

When Capitol Visitor Center Visitor Assistant Terrence Restivo, who has been with the AOC for four years, talks about the Capitol Dome to visitors, he usually ends up talking about the Statue of Freedom. That's because the 19.5-foot plaster model of the Statue of Freedom, which anchors the west side of Emancipation Hall, is a showstopper.

"When I talk about the Statue of Freedom and the plaster model, I talk about Philip Reid. He was a slave owned by sculptor Clark Mills, and he was instrumental in the casting of

the bronze statue from the plaster model," says Restivo. "The great irony of the story of the Statue of Freedom is that a slave worked on it, and he clearly was not free. Philip Reid gained his freedom after the statue was cast."

Currently on display in the CVC's Exhibition Hall is the original petition from Clark Mills asking for compensation from the government for freed slaves, including Philip Reid (see photo of petition at left). Slave owners in the District of Columbia were allowed to petition for compensation after the

PETITION.

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slaves residing in D.C. were emancipated on April 16, 1862. Mills was paid \$350.40 for Reid.

"People are amazed to learn that along with free laborers, enslaved workers helped build the Capitol."

"Through hard work and dedication, Philip Reid ultimately became a successful entrepreneur," continues Restivo. "It's a story that many of our visitors understand, and it clearly resonates with them. People are amazed to learn that along with free laborers, enslaved workers helped build the Capitol."

Restivo usually shares with visitors several large mounted photographs of the Statue of Freedom from different phases of its history. He does so as part of the CVC's Hooks and Artifacts program in which staff "hook people in" using objects or photos to tell them about Capitol history. Workers install scaffolding to conduct preservation work in 2007.





Above: Construction Division stone masons work to position the plaster model for the Statue of Freedom in Emancipation Hall after its transport from the Russell basement rotunda in 2008.

"People think Freedom is a statue of Pocahontas or the Greek goddess, Athena. I tell them that Freedom is an allegorical figure, an ideal. And I ask them, 'what does freedom mean to you?' I've heard all kinds of answers -- freedom means money, freedom means voting rights, freedom means having a job and living a successful life," says Restivo.

"It's in this context that I talk about Philip Reid. The skilled worker who was initially hired to put the five sections together didn't want to participate in casting the statue because he felt he wasn't going to get paid enough. So Reid, an enslaved man, ensured that the statue was cast properly, and his efforts allowed the statue to be placed atop the Dome," says Restivo.





According to AOC Curator Barbara Wolanin, a story told by Clark Mills' son Fisk, first published by S. D. Wyeth in *The Federal City* in 1865, described how the Italian craftsman who had bolted and plastered the sections together demanded more pay before he would take it apart. Philip Reid figured out that by using a pulley and tackle to pull up on the lifting ring at the top of the model, the seams between the sections would be revealed.

"After talking about the Statue of Freedom model, I often will take people into Exhibition Hall to show them the photograph of President Lincoln giving his second inaugural address on the East Front. I tell them that Philip Reid enabled Lincoln to give his inaugural address in front of a completed Dome which for the first time had a statue on top of it," concludes Restivo.

Restoring the Statue of Freedom

On May 9, 1993, after almost 130 years in place, the bronze Statue of Freedom was lifted from its pedestal atop the Dome by helicopter and lowered to the ground for restoration. Supervisor Ken Riley touches up the pedestal of the Statue of Freedom."We did a major conservation and
engineering study at the time to
determine the best way to restore theto ensure that the bronze
from corrosion. The main
includes inspection, clear

Above: Construction Division stone masons, including Russell Jones, reattach

sections of the plaster model for the Statue of Freedom. Right: Painter General

Statue of Freedom on the ground," says Wolanin. "It was determined that the bronze statue needed to be separated from the cast-iron pedestal for the restoration to be accomplished during the warm months. The East Front couldn't support a crane big enough for the job, and we knew a helicopter had been used at the Texas State Capitol for a similar purpose."

Conservators worked on the statue from a scaffold within an enclosure on the Capitol's East Front Plaza for about four months while Construction Division craftsmen removed old paint, repaired a crack and repainted the pedestal. The Statue of Freedom was returned to its pedestal by helicopter on October 23, 1993, in conjunction with the congressional celebration of the bicentennial of the U.S. Capitol.

The Statue of Freedom is now regularly maintained by conservators

to ensure that the bronze is protected from corrosion. The maintenance includes inspection, cleaning, stopping any leaks, replenishing of the protective coating, touch-up of the pedestal paint, and sharpening of the lightning points. The bronze is protected with a thick coat of special lacquer proven to retain its integrity for more than four years.

The Plaster Model

The model of the Statue of Freedom is a piece of history itself. Since its fabrication, the 15,000-pound plaster model has been segmented, moved and stored numerous times. It even left the Capitol in 1890 and was transferred to the Smithsonian where it was displayed in the Arts and Industries Building from 1900 to 1967. Sawn apart and in storage until 1992, the model made a final return to the Capitol that year thanks to funds donated to the U.S. Capitol Preservation Commission.

Painter General Supervisor Ken Riley, who has been with the AOC for 26 years, was one of the hands-on guys







Photos by: Chuck Badal

Using archival photographs, CVC Visitor Assistant Terrence Restivo shares the story of the Statue of Freedom with visitors. during restoration of the model, which initially took place on the Russell loading dock. A Construction Division paint crew exfoliated nearly every square inch of the statue's leaded paint surface. "The biggest challenge was not damaging the brittle — and historic — plaster substrate," says Riley, who spent many hours on the loading dock carefully scraping off the flaking paint.

The paint crew put on a primer undercoat to preserve the original plaster and to provide a barrier coat of protection. Small voids and imperfections were filled with a setting type compound and sanded smooth and level.

Riley also worked on filling and sanding the model's shield, which he

thought looked like it had actually been in a battle. "Because I'd worked on the restoration of the pedestal on top of the Capitol, I'd seen the bronze statue's shield up close with its beautiful concise straight lines. I knew that the plaster model must have at one time looked like that so I ended up spending a lot of time working to correct the alignment of the 13 stripes on the shield."

From the loading dock, the model in two large pieces was crated and transported — with just inches to spare in some of the narrower hallways — to the basement rotunda of the Russell Senate Office Building.

The Statue of Freedom model remained on view in the Russell basement rotunda until 2008 when the opening of the CVC provided



Photo by: Chuck Badal

The Statue of Freedom anchors the entrance to Exhibition Hall in the CVC.

a space where visitors could truly appreciate it. It is now the centerpiece of Emancipation Hall, and visitors can see details of the model that would be impossible for them to see from the ground looking up at the bronze statue atop the Capitol.

But to get the plaster model from the Russell basement to the CVC's Emancipation Hall, it had to be carefully separated into sections to fit through the doorways. With input from Barbara Wolanin and a Smithsonian conservator, Bill Miller, Russell Jones and other stone masons from the AOC's Construction Division



Dome Restoration Project

The Dome of the U.S. Capitol, one of America's great symbols of freedom, needs additional restoration as part of an on-going multi-phased program.

The Architect of the Capitol performed regular maintenance to slow the deterioration of the Dome, but significant work is needed to preserve it. In 2010, the AOC sealed and painted the Dome as an interim measure to provide a protective coating to help preserve and protect the exterior cast iron surfaces until the Dome Restoration Project could be completed to provide a more permanent solution.

Work to the skirt portion of the Dome, which included removal of old paint, repairs to the cast iron and stone, and repainting, was completed in 2012. In the fall of 2013, the AOC plans to begin next phase of work, which includes the restoration of the exterior and interior face of the Dome shell. Future work includes the restoration of the Rotunda ironwork and stone surfaces.

For updates about this important project visit: www.aoc.gov

carefully cut the plaster model and rigged and crated the sections for safe transport to the CVC.

"It was definitely a special project," says Jones. "Everyone had a lot of pride in what they were doing."

In Emancipation Hall, the model was once again re-assembled, plastered and repainted.

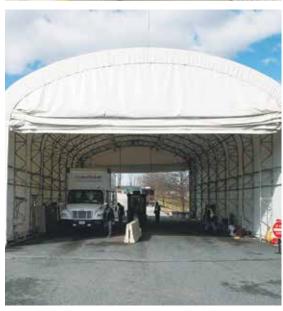
"Working on the model was an honor," says Riley. "For a painter or plaster guy to work on one of the country's historic treasures, it doesn't get any better. It was the pinnacle of my career."

The inspiring story of the Statue of Freedom is something that visitors of all ages will take with them when they leave the Capitol, thanks in part to the hard work and dedication of many AOC employees over the years.

- By Sharon Gang







Photos above by: Chuck Badal

The AOC cares for a number of off-site facilities including the U.S. Botanic Garden Production Facility, Library of Congress Book Storage Facility at Fort Meade and D.C. Village. The AOC's mission to serve, preserve and inspire is well known on Capitol Hill, but few realize that mission reaches far beyond the confines of the Hill. The AOC is responsible for managing several facilities, hundreds of acres, and thousands of historical items located throughout Virginia, Maryland and Washington, D.C.

BEYOND The Dome

D.C. Village

The D.C. Village is one such facility, sitting on 25 acres about eight miles from Capitol Hill. There are several buildings on-site including the U.S. Botanic Garden (USBG) Production Facility, Interim Off-Site Delivery Screening Facility and Canine Training Facility.

As seasons and exhibits at the USBG Conservatory change, most plants reside at the USBG Production Facility. The USBG currently has approximately 60,000 individual plants to water, track and nurture. The facility is managed by staff traveling to and from USBG locations on the Hill. And as anyone that has cared for a garden knows, there is always plenty of work to be done. (See Spring 2011 Foundations & Perspectives for more information about the Production Facility.)

AOC Facility Manager Scott Drummond manages two additional sites at D.C. Village: the Interim Off-Site Delivery Screening Facility and Canine Training Facility. It's important that operations at both locations run smoothly, given the roles they play in supporting the U.S. Capitol Police (USCP) to keep Capitol Hill safe.

The Interim Off-Site Delivery Screening Facility thoroughly screens approximately 130 trucks a day carrying cargo destined for the Hill. The trucks must go through the USCP inspection process before they're allowed to make the short journey to the Hill. The AOC built the kiosks and screening tent used by the police to conduct the inspections and perform regular maintenance to preserve them.

"We meet with the USCP on a regular basis to discuss current work requests and future projects that will improve the facilities," said Drummond.

AOC maintains the Canine Training Facility where future U.S. Capitol Police dogs train for their new jobs on Capitol Hill.



Photo by: Chuck Badal

The Canine Training Facility is where the labs, shepherds and retrievers of today train to become the USCP dogs of tomorrow. AOC's responsibilities include taking care of the building, kennels and fences. Scott also oversees the electrical and fire detection and suppression systems for both the training and screening facilities.

The dogs must complete a rigorous 12-week training program and pass their certification test before graduating and being assigned to work on the Hill. There are currently 50 dogs in the program, and despite their certification, the training never ends. The dogs and their handlers receive constant training at the facility to retain their skills.

With the AOC since 2007, Drummond still has the opportunity to do new things and it's that variety he enjoys the most. "The thing I like best about my job is that it is never the same day twice. There is always something new and challenging in the support services that we



Photo by: Matt Guilfoyle

AOC employee Tim Minner explains the mechanics involved in managing 415,000 square feet of space at the Library of Congress Packard Campus.

provide to Capitol Police and the congressional community. My first day on the job with AOC was exciting, just thinking about the opportunity to work in Washington, D.C. in support of Congress, and more than five years later, I am still excited about coming to work."

Alternate Computing Facility

AOC Facility Manager Brad Fyock has a full schedule — one that rarely includes a dull moment. He is responsible for managing the Alternate Computing Facility (ACF) and approximately 100 acres in the National Capital Region. The site houses data centers for several Capitol Hill offices.



Photo by: Chuck Badal

Fyock oversees the infrastructure of the facility — maintaining the electrical, cooling and fire detection and suppression systems as well as the grounds and building operations. He and his team, which consists of one

additional AOC employee and contract support, work 24 hours a day, seven days a week.

"There are no snow days, holidays or weekends. We never shut down," said Fyock.

He describes his close partnerships with other departments as a positive aspect of his job. Supporting the ACF requires on-going collaboration with the Senate Sergeant at Arms, House Information Resources Unit, U.S. Capitol Police and Library of Congress. He also works with the AOC Information Technology Division and Safety, Fire, and Environmental Programs to ensure the ACF's systems and operations are properly maintained. the Senate Office Buildings Air Conditioning shop. Davis worked his way up, earning promotions as a mechanic, then as a supervisor in the Senate Office Buildings; today he serves as a facility manager for Library Buildings and Grounds.

At Fort Meade, sitting on the 100-acre lot, are 35 structures including the Library of Congress Book Storage Facility, 17 World War IIera warehouses, and a large working warehouse used by the AOC Construction Division. Several AOC jurisdictions use the 72-year-old warehouses to store items.

The items stored in the warehouses are as varied as the AOC jurisdictions to which they belong. The Torch of Knowledge, the flame that once sat atop the Thomas Jefferson Building, now shares a home with a sculpture that was removed from the Capitol's East

Photos by: Chuck Badal

Fort Meade and Culpeper

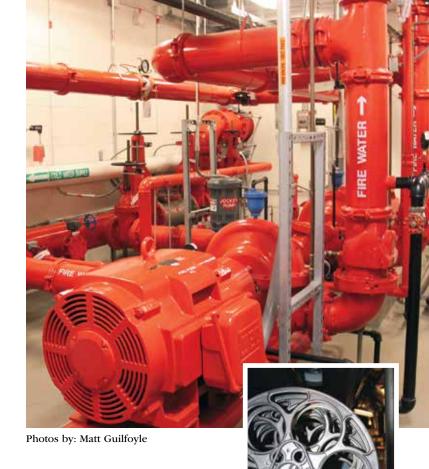
The ability to care for the historic buildings on Capitol Hill and the many off-site facilities requires a range of skills. This is something AOC's Rob Davis is very familiar with as he oversees two off-site facilities, one in Fort Meade, Maryland and the other in Culpeper, Virginia. Between the two facilities in his care, Davis oversees 145 acres and 715,000 square feet of space.

In his current role, Davis spends most days 80 miles away from Capitol Hill in Culpeper. But at the beginning of his AOC career in 1981, Davis spent his days in Front when it was extended in 1958. The U.S. Botanic Garden's Frosty the Snowman

lives here during the summer, as does other seasonal equipment used to care for the buildings and grounds on Capitol Hill. Among the larger items sit boxes, neatly stacked, numbered and organized in rows, much like the items in the Library of Congress Book Storage Facility, which sits nearby the warehouses.

Davis is often compared to a landlord; he says with a smile, "everyone is always looking for more storage."

As the Library of Congress collection grows, so does its need for more storage space since it receives approximately 250,000 new items every year. The Book Storage Facility currently consists of



four book 'modules,' with planning for a fifth module underway and potential expansion to a total of 13

modules. Books, maps, globes, photographs, microfilm and music are stored in one of 10 different sized boxes and placed on one of six different sized shelves. There are three separate climates carefully maintained by the AOC — with temperatures set to 50, 35 and 25 degrees Fahrenheit — to accommodate the various items.

Davis and his team, which includes AOC Project Engineer Tim Minner as well as contract support, work to support the growing needs of the Library of Congress at both the Fort Meade Campus and the Packard Campus in Culpeper.

The Library of Congress Packard Campus for Audio Visual Conservation is the nation's premiere storage and preservation facility for audio, visual and recorded sound. The Packard Campus is divided into three sections — collections, conservation and nitrate vaults and includes more than 90 miles of shelving for collections storage; 35 climate controlled vaults for film, videotape, and sound recordings; and 124 individual vaults for nitrate film. It is home to 140,000 reels of film, including a reel dating back to 1891, originally owned by Thomas Edison.

The Library of Congress has several processes in place to preserve, clean and store its film collection at the Packard Campus, most of which require specialized water, chemicals and complex machines. The AOC manages the building's infrastructure, which is quite elaborate given the variety of jobs that are performed within its walls. Davis and Minner spend their days overseeing the ventilation, electrical, heating, cooling and fire detection and suppression systems, as well as the egress routes and water and air permits.

The building's operations require round-theclock care. As Minner explains, "Buildings like this, I think of them as living, breathing things that need constant care. You can't just walk away from them."

Davis and Minner receive support from AOC offices on the Hill and often work with the AOC Safety, Fire and Environmental Programs, Planning and Project Management Division, and Capitol Grounds. With four generators, a chilled water plant and a fuel storage building among the many mechanical systems on-site, there is always a vast amount of work to do. Capitol Grounds provides insight when it comes to maintaining the facility's garden and green roofs, as well as 9,000 trees and 200,000 individual plants.

Davis enjoys his work and says this job is his favorite. "I never wanted to do something that was repetitive, doing the same thing day after day. Here, you just never know what's going to need your attention next."

Whether the AOC's work is on or off the Hill, the commitment to superior service remains the same. All AOC employees, with talents and skills unique to the facilities they maintain, play a vital role. Adds Davis, "A lot of people don't understand what goes into making our buildings run. We are the stewards, entrusted with caring for the facilities, and it is through our work that others are able to do their jobs."

- By Erin Nelson

AOC's Last Chance Workout

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A REAL PROPERTY AND A REAL

At left, Dan Murphy uses a thermal camera to verify steam traps are working correctly. At bottom right Billy Bennett helps track, adjust and eliminate excess steam usage.

2 percent energy savings



Photos by: Chuck Badal



"Our goal was a 21 percent savings; we ended up saving 21.8 percent." On the television show, "The Biggest Loser," we are often inspired by the contestants as they battle in their last chance workouts to stay above the "yellow line" and remain on the show to continue their weight loss

> journey. Last summer, the Architect of the Capitol faced its own yellow line — a 21 percent energy savings we could not fall below. Confronting our own last chance workout, the AOC needed a fast energy weight loss to avoid falling short of our energy reduction goal for the first time since our program began in fiscal year 2007.

The Sustainability and Energy Division's mission is to support improving energy efficiency. As stewards of the U.S. Capitol, and as a legislative branch agency, the AOC is required to apply aggressive standards to reduce energy use annually under the Energy Policy Act of 2005 (EPAct2005) and the Energy Independence and Security Act of 2007 (EISA2007). This Act is intended

to improve the energy performance of the government and in the case of the AOC, increase the efficiency of our buildings.

"We needed to make some fairly substantial reductions," said Terry Watson with the Sustainability and Energy Division. "Fiscal Year 2012 was the toughest year yet for us to meet our energy goal. Although the weather wasn't any different, we saw an uptick in steam usage early in the summer. We needed to get aggressive and make this a priority. We were in a



order to reach the energy goal while meeting the needs
of our clients. Teams tapped into an energy tracking
mechanism already in place — a web-based meter
reading system that helped identify unseen issues.
Assistant superintendents harnessed ideas and lessons
learned from other groups across Capitol Hill. The
energy managers and their teams focused on eliminating
unnecessary uses of steam and modifying domestic
hot water temperatures while the Capitol Power Plant
maximized the use of its most efficient boiler.

(left) work to ensure AOC meets its energy reduction goals.

The jurisdictions immediately shouldered the effort in

The result?

As September ended, we anxiously looked at the fuel use summary report generated by the Capitol Power Plant. The fuel use report, not unlike the scale on "The Biggest Loser," summarized the results of the work

Just like the "The Biggest Loser" contestants try to shed the final few pounds, the AOC needed to shed a couple percentage points off our energy usage.



time crunch, we needed to save now and see results immediately."

Just like the "The Biggest Loser" contestants try to

shed the final few pounds, the AOC needed to shed a couple percentage points off our energy usage. Instead of the "The Biggest Loser's" trainers drilling the workouts, Architect of the Capitol Stephen T. Ayers and Chief Operating Officer Christine Merdon focused the team on finding energy savings and staying above the yellow line.

The Sustainability and Energy Division initiated a multijurisdictional effort to reduce operational steam usage. With the support of Stephen Ayers, Christine Merdon and the Energy Management Working Group (a focused group that helps design and oversee operating strategies) the Sustainability and Energy Division created a Summer Steam Reduction Challenge — its first targeted, seasonal, time-focused steam-reduction initiative. All eight AOC jurisdictions participated in the challenge — which ran from the last week of July 2012, through the end of September — with at least one building from each jurisdiction represented. put into our energy savings efforts. Our goal was a 21 percent savings; we ended up saving 21.8 percent. Through hard work and a little constructive competition we were able to stay above the yellow line.

The focus on steam reduction equates to \$305,000 in savings. This is equal to the annual energy use in 290 homes.

"It is amazing to contemplate how we can take a small town or subdivision off the grid for an entire year by making simple operational adjustments to our building systems. Just imagine how much more we could achieve," said Sustainability Program Manager Doug Helmann.

The majority of buildings on campus met or exceeded energy savings expectations, with the Capitol Building claiming the title of "Biggest Energy Loser" in overall total savings and the Ford House Office Building claiming the title for greatest percentage saved.

"The data we received showed us that our jurisdiction was using too much steam energy," said Billy Bennett, U.S. Capitol Building and Capitol Visitor Center maintenance mechanic general supervisor, who is responsible for the day-to-day operations of the maintenance shops in the Capitol jurisdiction. "We reviewed the information from our meters and came up with different ways to reduce steam usage." In response, he presented the idea of turning off hot water heaters to the kitchen areas.

"We have separate heaters for the kitchens," Bennett explained, noting that the Capitol kitchens are open Monday through Friday. "At the Capitol, we shut down the kitchen heater Friday night and we shut down the one in the CVC Saturday night after the kitchen is closed. Although we use the electronic meter system, there is still manual work involved. Our workers need to go around daily with building logs and look for equipment that is not running properly. When I walk around I keep my eyes open."

Going forward, Bennett and his team plan to continue pursuing the same energy-saving strategies they developed last year. "Through this effort we figured Through hard work and a little constructive competition we were able to stay above the yellow line.

out what the majority of inefficiencies were during the summer season," he said. "We're going to continue with the kitchen shutdown as soon as the weather breaks. With our meters working now, we look for ways to make an impact on a weekly basis. I can turn something off Friday night, turn it back on Monday and see results in the steam chart."

Tory Colen, supervisor with the House Office Buildings air conditioning shop, reminded staff about failed steam traps that were found and replaced. "I know you said it's off, but did you check?" became a common question from him.

Similar to the TV show contestants who must learn to adopt healthier lifestyles and maintain their weight loss, jurisdictions like the Library Buildings and Grounds took lessons learned from the competition and have continued applying those strategies throughout the year.

In Fiscal Year 2013, the Sustainability and Energy Division is focusing on the AOC's ambitious energy reduction goal — 25 percent.

"We have a vast amount of work that is going to get us closer to our goal," said Daniel Murphy, assistant superintendent for the House Office Buildings. "We're not going to accomplish this with big capital improvements, but by making operational adjustments at





Moving Offices Improving Lives

Photos by: Susanne Bledsoe

"You've got to shine," says Tony Blue, a woodcrafter's helper working for AOC through a partnership with So Others Might Eat (SOME). "That's what our SOME instructor told us be on your best, do your best and always try to learn something different."

So Others Might Eat is a D.C.based organization that provides comprehensive, holistic support to D.C. citizens who are homeless and poor. While many people know it for providing meals — and it does serve 1,000 meals a day — SOME also has a Center for Employment Training whose mission is to "empower people out of homelessness and poverty and into living wage careers through marketable skills training, human development, basic education and job development."

Senate Superintendent Takis Tzamaras says, "Beside finding the program inspirational, we believe that it is a good opportunity to hire trained, competent staff to support the election year moves, while allowing us to help some of our neighbors here in the nation's capital. If we can offer them an opportunity Melvin Wells (top) and Sean Bridges have applied what they learned at SOME to excel at AOC.

to succeed and they help with our Senate moves, what could be better?"

One of the two courses of study in the Center for Employment Training is the Building Maintenance Service Technician program. These students learn carpentry, electrical engineering, plumbing, HVAC and safety standards, but their education goes beyond that.

Melvin Wells, a SOME graduate working in the Senate Day Labor Division says, "Every interview that we've done in class, I've done:



Skype interview, phone interview, one-on-one, conference — but that's not all." As he continues, his SOME colleagues say with him: "They don't just teach you how to get a job; they teach you how to keep a job."

Center for Employment Training Director Emily Price said in a recent interview that this is the essential lesson for SOME students. "We focus not just on getting a job, but building a career, and we know that doesn't just happen in six months."

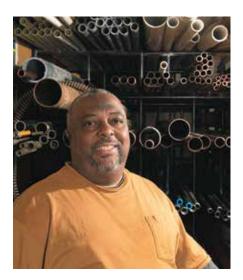
Gary Fauntleroy, a plumber's helper from SOME, says that just knowing

he has the possibility to build a career makes all the difference. "The sky's the limit. Now that I'm on the inside looking out, I see that I've got choices, and I feel confident in myself."

During their time here at AOC, the SOME graduates have continued learning, including learning a new way to work.

"The AOC works hard and smart," says Ralph Zollicoffer, a painter's helper. Despite the hard work, he says, "It's fun. Everybody's working together, instead of you by yourself *Tony Blue credits "consistent persistence" with his continued progress through SOME and at AOC.*

"The sky's the limit. Now that I'm on the inside looking out, I see that I've got choices, and I feel confident in myself." "After they graduate, we track them for a year in the alumni program to make sure that they're moving forward on the steps that they need for their career ladder and professional growth."



Gary Fauntleroy says "the sky's the limit" after his training at SOME and work at AOC.

doing your job — somebody's always with you to explain it."

"In the construction trade, everybody's worried about their bottom line, their deadline, they're not worrying about what you have to do," Wells adds. "But here, we work together."

The youngest in his class at SOME, Sean Bridges, an electrician's helper, appreciates all of the support as he starts his career here. "They teach me; they show me how to do things, and they trust me to get them done by myself after they've showed me, so they can go somewhere else and work while I'm working." Through SOME and AOC, all five of these men have also been able to expand on the technical skills it takes to continue their career growth.

Wells observed that classes were "kind of rough in the beginning, because the things I thought I knew about building maintenance, I really didn't know as much as I thought I did."

Zollicoffer nods his head, agreeing, "I thought I knew a little bit about building maintenance — carpentry, plumbing, a little bit of everything, all of it. And when I got there, I came to find out I didn't know anything. At SOME, they showed me the right way how to do what was shown to me, which was just the shortcuts."

Bridges had been a firefighter before getting his start in electrical at SOME. "I'd love to stay at the AOC, but if that's not possible, SOME has given me what I need to get a job somewhere else and a good start toward starting something of my own, if I want to. And I can still keep up the firefighting with any of those."

Even for those who had certified skills, there were opportunities for growth. Fauntleroy says, "I had my plumber's license and really wanted to get into heating, ventilation and air conditioning [HVAC]. I got my HVAC 608 license through SOME, and I



Ralph Zollicoffer says that the support and teamwork of his AOC colleagues makes work here fun.

was able to work with an HVAC guy during my 'externship.'"

Center Director Price said that Fauntleroy's situation is becoming the norm in the recent economic downturn. "The individuals who are applying for the program are so much more skilled than they used to be, but they're just not enough to be competitive in the marketplace, and they're going back for more skills and more training."



The support from SOME goes beyond even the extensive technical training. "After they graduate, we track them for a year in the alumni program to make sure that they're moving forward on the steps that they need for their career ladder and professional growth," Price says.

The need to continue developing skills has certainly resonated with the SOME employees at AOC.

Tony Blue's supervisor, James Atkins, recalls Blue asking him if forklift training was available. "I told him that, unfortunately, we can't provide training for temporary employees." "Put out your best effort, but don't be so knowledgeable in your own mind that you can't learn something."

Blue continues the story: "I told him, 'No mountain high enough.' So I took the next step — I went for it myself and took my money and paid for it."

Atkins said that when Blue showed him his OSHA-approved forklift certification he was impressed. "That's the thing about him — he's got initiative. He's dedicated. He's there every day, working hard." For Blue, it all goes back to what his SOME instructor taught him: "Put out your best effort, but don't be so knowledgeable in your own mind that you can't learn something."

That's certainly a lesson all of the SOME employees have taken to heart as they join AOC in serving Congress.

— By Franklin Bradley



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AOC information technology specialist and amateur photographer Michael McDonald captured this beautiful moonrise over the Statue of Freedom.

