FEATURE:
IT’S ABOUT TIME

BEFORE & AFTER:
ULYSSES S. GRANT MEMORIAL

BEHIND THE SCENES:
CAPITOL BUILDING INSULATION DIVISION
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COVER: Restoration of the Grant Memorial is almost complete. Photo by Susanne Bledsoe
I long for the days when we can experience all of the magnificent national treasures on Capitol Hill as they were originally imagined.

The entry sequence and progression through spaces are carefully thought out by architects as buildings are designed. These experiences are very powerful and purposefully created with both direct and subtle clues to evoke a wide range of feelings and emotions.

The entrance to the U.S. Supreme Court, for example, is designed with power, authority, grandeur and importance in mind. After ascending broad, sweeping marble steps, its portico's monstrous columns bulge in the middle and taper to the top, giving a sense of strength, weight and rising up to the ultimate authority.

To enter the Library of Congress’ Thomas Jefferson Building, two flights of stairs were envisioned. At the top, the grand entryway’s lower ceiling gives the sense of anticipation before arriving at the opulent Great Hall.

Sadly, acts of violence and threats to security have changed the way we experience some of our public spaces and building approaches at the Capitol complex. Instead of ascending the grand stairs, we now walk underneath or around them. The new routes are unfortunate, but vital for everyone’s safety.

While we have to make difficult decisions to ensure that our buildings, and the people inside them, are both served and protected, opportunities abound to return our buildings to the way they once were through our historic preservation efforts.

The Capitol’s Zodiac Corridor is a great example of restoring a building to its original vision. For ten years, this area was converted into a makeshift office space by a wall separating it from the rest of the Brumidi Corridors. Partnering with Congress, we were able to remove the wall and convert this space to its original glory.

A similar return to original design will happen as part of the Cannon Building’s renewal project. Imagine experiencing those restored hallways and seeing the corridor ends filled with natural light pouring in from windows currently obstructed by makeshift offices.

I often think about what those who walked the original paths of the Capitol complex so many years ago must have felt and seen. I challenge you to do the same. Our imaginations are boundless.

Stephen T. Ayers, FAIA, LEED AP
Architect of the Capitol
The work of the Capitol Building’s Insulation Division is as “behind the scenes” as you can get. In addition to installing insulation, the shop also supports other divisions in its jurisdiction by performing dust control and hazardous materials abatement work in the Capitol Building and Capitol Visitor Center.

The insulators often work behind closed doors and within containments they build to ensure the safety of those who visit and work on the Capitol campus.

The shop’s role has expanded in recent years, far beyond the installation of insulation as Deputy Capitol Building Superintendent Kristy Long explained, “We consider each employee in the Insulation Shop to be a jack of all trades. The shop’s name is a bit misleading. They do so much more than insulation and are often the first ones on-site when we start a new project.”

The shop is frequently called on to survey new project sites. Employees conduct tests for hazardous materials, perform abatement work when necessary and give the all
In order to properly abate hazardous materials, insulators suit up in protective gear and follow safety protocols to the letter. They spend several days or even weeks building containments of all shapes and sizes to house and protect the historic art, furniture and flooring from the impacts of their work. Think of the most challenging odd-shaped item you’ve ever wrapped and multiple that task by a hundred. This is the modern-day nature of their work.

Every day is different. Every new project is an opportunity to learn something about the historic spaces of the Capitol. “I love the historical aspect of our job. Working in different rooms allows us to learn more about their history. Each one has a unique story,” said Insulator Sean Sprouse.

While working in one of the world’s most iconic and historically significant buildings is educational, there are also distinct challenges. “We work closely with the curators in developing plans for protective covering. We’re often working on and around items that are hundreds of years old. We have to know the correct materials and procedures to protect them. We make sure we get it right,” explained Insulator Work Leader Mark Holland.

Their favorite recent projects include working in the Old Senate Chamber and removing paint as part of the Capitol Dome and Rotunda restoration projects.

“We were removing caulk on the Dome, working right under the Statue of Freedom. The view from the top is amazing. You can see the whole city, something very few people have the opportunity to see,” said Insulator Larry Thompson.

Although most are unaware of their daily contributions, the insulators’ work impacts us all. Their commitment to getting the job done well and safely ensures the Capitol Building’s story will continue to unfold for future generations.

All nine of the shop’s insulators have immense pride for their roles in maintaining the historic building. And as their leader, Insulation Division Supervisor Ronnie Britt, is equally honored to serve with them, “I am proud to lead such a capable team. The work we do is important to the preservation of the Capitol, and I have tremendous trust in them to always get the job done.”

Clockwise from top left: Marc Kinney, Erin Jordan and Larry Thompson support a variety of projects as part of the Capitol Building’s Insulation Division.
The Corinthian capitals with elaborate carvings of curled leaves, ornate flowers and stone scrolls, as well as the pediment statues, have stood exposed to the elements since they were installed 150 years ago. They have no protection against the snow, sleet and ice that coat the Capitol every winter.

Despite the toll this takes, the Architect of the Capitol’s (AOC) Historic Preservation Officer Mary Oehrlein observed that, “It’s quite possible that there’s been no comprehensive restoration of the exterior of the building since the early 20th century. So, it’s about time.”

Soft snow seems no match for stone, but when water collects in the intricate stone decorations and then freezes, it expands, pushing the stone slowly, yet inevitably, apart.

To many, it’s difficult to see the need for restoration from the ground. Oehrlein recalled approaching the Capitol for the first time, “It’s a beautiful building, and if you don’t look closely, you don’t see the damage.” However, the stone has been deteriorating for decades, especially the finer details, hand-carved by artisans.

Due to a shortage of experienced stone carvers in the United States, the original craftsmen were brought from Italy, along with their families, and provided housing in.
Below: Scenes from the original construction of the Capitol extension.
Washington, D.C. The grounds around the expanding Capitol became filled with blocks of marble, awaiting the carvers’ hammers and chisels, which converted them from blank slabs to elegant scrolling leaves and fluted columns.

Temporary wooden sheds were built to shelter the carvers from the weather, but they weren’t big enough to contain all of the work. For the massive columns, long tents were strung up over the smooth cylinders. It was here that these Italian artists created the fluting and other details that completed the columns before they were hoisted into place, where their capitals were mounted on top.

Time has taken its toll on their work, however. “At the top of the columns, you’ll see that the scrolls that should be there are no longer there, which means all of that stone has fallen at some point,” said Chris Lear, U.S. Capitol Exterior Stone and Metal Preservation Project Manager. He described how the remaining stone is weakened, “When you touch it, it just turns to sand.” The process is known as “sugaring” since the rock is reduced to a pile of white grains.
In the 1990s, the head of the Capitol Masonry Shop would call Oehrlein and report, “I've got a bucket of stone. Do you want it?” When she asked how big the pieces were, he would always reply, “It’s just sand. We swept it up.”

“Because of the condition, all of the detailed carving gets cleaned using a laser, which takes off the carbon deposits,” said Lear. That is followed with a detergent formulated for the specific type of stone in that location. There are five different types of marble on the Capitol, each with a unique chemical structure that requires a specific detergent formulation to clean it without causing damage.

Once the stone is cleaned, it is strengthened through a process known as consolidation to protect against further damage. Consolidation involves applying hardening agents, which are absorbed by the stone. Each application has to be done within strict temperature and humidity parameters. As Lear observed, “The challenge is that it’s all outside work. The elements are our biggest obstacle.”

Stone conservators built enclosures, but just sheltering the stone isn’t enough. “In the winter we’re in containments with heat. In the summer, we’re air-conditioning the containments,” said Lear. Once the
stone is within the prescribed parameters, conservators must brush on multiple coats of two treatments, letting the stone fully absorb each one before proceeding.

The stone that was too damaged to save has been removed, and those ornaments are being recreated. The simple pieces are being replicated by an automated carving machine off-site, where they will be hand-finished.

The more complex items are being recreated by a stone carver on-site, who is carving from the same stone blocks the original craftsmen worked, although he has the advantage of modern power tools.

As the Capitol has expanded, the AOC has removed and stored stone for use in future restoration work. For this project, that stone is being returned to the Capitol, where it is carefully color-matched to the existing stone. Similarly, the carver is working to match the style of each of his predecessors.

“It’s difficult to get the complex shape of the leaf,” says Oehrlein. “The machine can’t do that. In addition, each column capital is slightly different. They weren’t carved by machine; they were carved by men who had a model, but they were doing their own interpretation.”

The masterful craftsmanship and meticulous care involved in preserving the stone does take time. Those minutes will be multiplied and magnified in the moments of wonder as this beautiful building continues to inspire visitors in the centuries to come.
Why did a Greek word for a round building become the name of the Architect of the Capitol’s employee magazine?

Sitting atop the Capitol Building’s cast-iron Dome is the Tholos, a structure comprised of 12 columns encircling a lantern that is lit to signal when the House of Representatives, the Senate or both chambers are in session. The Tholos supports the base of the Statue of Freedom and provides amazing views of Washington, D.C. The entire Capitol campus is visible from the Tholos. Similarly, AOC employees are seen in and around every building and across the grounds — day and night — in support of Congress, the Supreme Court and the Library of Congress. It seemed fitting that an architectural feature of such prominence and importance serves as the name of the AOC’s employee magazine.
Squaring Off With History

WRITTEN BY FRANKLIN BRADLEY • PHOTOS BY CHUCK BADAL

Many of the tools we use around the Capitol campus are unique, historic and essential to our mission — in other words, they are cool tools! We asked employees to tell us about their coolest tools, and this feature represents our latest find.

In 1873, Congress commissioned Frederick Law Olmsted to design the enlarged grounds of the U.S. Capitol. After careful study, he presented a plan for a sophisticated landscape to surround and highlight the extraordinary building. His symmetrical design incorporated landscaping — careful placement of trees and simple shrubs — and hardscaping — such as edging, lamps and a series of curved walkways that afforded attractive views of the Capitol.

To line many of the walkways and define Capitol Square, Olmsted designed low stone walls to keep people from walking across the lawns and treating the grounds like a park. These low walls extend over 5,500 linear feet and feature roughhewn stones cut into rectilinear shapes with distinctive square-beaded mortar joints between them. These squared joints echo the shapes of the stones and call attention to the straight lines in the rock wall.

To preserve these walls, Architect of the Capitol (AOC) stone masons must periodically repair and replace the mortar, recreating the same square bead. “It’s a lot of work to make sure all of the joints line up,” says Russell Jones, a stone mason at the AOC for the past 26 years. Jones created a custom-made tool called a convex jointer that the AOC masons use to make sure all of the mortar appears uniform.

The convex jointer not only helps connect the stones and preserve Olmsted’s historic hardscape, but also ties today’s masons with their historic predecessors who handcrafted these walls, for that reason we think this is a cool tool.
BEFORE & AFTER
Since 2015, the Ulysses S. Grant Memorial by Sculptor Henry Merwin Shrady has been hidden behind scaffolding. That is about to change. The conservation effort is rapidly coming to a close, and soon an astonishingly vibrant, emotional and detailed sculpture will be revealed. The Architect of the Capitol (AOC) looks forward to unveiling the restored monument in the fall of 2016.

Interested in a sneak peek? The AOC Photography Branch has documented each step of the restoration process. Check out the before and after photographs above. Future updates on the project can be found at www.aoc.gov/grant.
As leaders for the Cannon Renewal Project, Construction Project Executive Robert “Skip” Vaughn and Program Executive Susan Wong are dedicated to managing the operation of the 10-year, five-phased project. Together they lead a diverse team of professionals through the planning, design and construction necessary to complete such a monumental undertaking. By fostering a culture of collaboration and partnership with the construction contractor Clark Christman Joint Venture, construction manager MBP-AECOM Joint Venture and design team Shalom Baranes Associates, they continue to set the project on a path for success.

Tholos sat down with AOC leaders Vaughn and Wong to discuss the Cannon Renewal Project and what leadership means to them.

**Why is the Cannon Renewal Project so important?**

**Vaughn:** The Cannon Building has an important place in history and very unique architecture that gives a sense of awe when you walk into spaces like the Cannon Rotunda and Caucus Room. We want to ensure the building functions for the next 100 years for the use and pleasure of generations to come. The work we are doing will ensure that happens.

**Wong:** This is the rare opportunity to complete a project of this magnitude the right way. We are utilizing the latest technology to enhance a historic building with more modern features, while at the same time preserving the building’s historic fabric.

**How did you get your start in the engineering profession?**

**Vaughn:** I attended the Coast Guard Academy for four years, earning my degree in civil engineering. I then spent 10 years with the Coast Guard working as a Construction Manager and Facility Manager.

**Wong:** I went to the University of Maryland and earned a degree in civil engineering. My first job out of college was as a Junior Engineer Trainee on the Pentagon Renovation Project with the Army Corps of Engineers.

**In your opinion, what are three attributes that make a great leader?**

**Vaughn:**

1. Manage expectations: When communicating with any level of people you deal with, always manage their expectations so you minimize surprises. This builds trust and confidence.

2. Be proactive vs. reactive: This mitigates problems and shows leadership.
3. Be fair and reasonable: In everything that you do and every decision that you make, apply this principle so that even if it is a difficult situation, you gain credibility in the long run.

Wong:
1. Transparency: Be open, honest and inclusive with your team. Let them tell you hard truths that may be hard to hear, but can cause problems down the road. This will give you time to solve the issue.

2. Mentorship: By delegating tasks and giving your team members opportunities to shine, you create a stronger team.

What have you learned about leadership during your career?

Vaughn: On every project I’ve ever worked on, I’ve always been constantly learning. My goal going into any project is to improve my base of knowledge in every aspect possible. And by modeling this for my team, I hope to inspire them to do the same. Leadership is not always telling someone what to do — you have to model the behaviors you’d like to see others replicate.

Wong: I have developed my own leadership style from watching my own bosses over the years and learning from them. They supported my career and taught me trust, respect and loyalty in the workplace. I’m a strong leader because of their guidance — and now I want to do that for others.

For more information about the Cannon Renewal Project, visit www.aoc.gov/cannon.
In today’s Marvel® franchise-machine world we see movie after movie featuring characters with superpowers saving the country or universe from the villain of the day. Many people wish they had these powers themselves, but what many people fail to remember is that most of these heroes are not born with their powers, they gain them through some experiment or by accident, and it’s what they choose to do with them that makes them heroes.
Brian Roberson, a Supervisory Construction Representative in Planning and Project Management’s Construction Division, wasn’t born with superpowers, but growing up he always loved planes. When he was 27, he learned to fly and eventually became an instrument-rated pilot. When compared to a visual-rated pilot, it means he can fly through the clouds — just like a superhero. It’s not Roberson’s ability to fly, but what he does with this talent that makes him a superhero in the eyes of those he helps and others who know what he does.

Roberson volunteers for an organization called Angel Flight Soars, one of several organizations that work together to transport burn patients, cancer patients and others with appointments at special treatment centers across the country. When a pilot plans a trip, they can look online and check the list of missions needing a pilot. “Someone in New York could need to get to Houston and that might be two or three legs, with different pilots requiring coordination with other Angel Flight organizations,” Roberson states. These three-hour flights can save people from having to take a 12-hour car ride, both to and from their destination.

Whenever Roberson heads back home to Birmingham, Alabama, he checks the mission list to see how he can help and, to date, has completed nearly 30 missions, traveling from New York to Texas, and all places in between. Roberson has also completed multiple legs of one mission so that the patient didn’t have to land and then wait, maybe hours, for another pilot to help them finish their journey. “It’s really nothing to go the extra 30 minutes or hour to drop someone off.”

Roberson’s ability to fly and help organizations like Angel Flight Soars is an example to all who wish for superpowers of their own. Each one of us has the ability to learn a new skill that we are passionate about and then use that gift in ways that can help others. No matter how small that contribution may seem to us, it can make all the difference to someone in need — especially if you’re also able to make a five-year-old feel like he can fly through the clouds — just like his favorite superhero.

“Each one of us has the ability to learn a new skill that we are passionate about and then use that gift in ways that can help others.”
Visitors, members and congressional staff are familiar with many Architect of the Capitol (AOC) employees who serve them directly every day, such as custodians, subway drivers and visitor guides. In addition, they see many other front-line employees at work painting walls and maintaining escalators, plumbing, wiring and all the other systems in the historic buildings we care for. What they can’t see is that these front-line employees are supported by teams of dedicated and talented professionals. Many of these specialists work nearby in the Ford House Office Building. We asked some of these groups to briefly introduce their departments, so you know better who is behind the scenes, supporting the front-line of AOC.

**Human Capital Management Division**

**TERESA BAILEY, CHIEF HUMAN CAPITAL OFFICER**

How does your division support AOC’s mission?
As a strategic business partner, the Human Capital Management Division (HCMD) provides proactive, innovative and customer-focused human capital programs and services.

As an internal service provider, what services does your division provide to AOC’s front-line employees?
HCMD endeavors to make work/life better for AOC employees through a variety of services, including:
- Assistance with benefits, leave and payroll
- Employee awards
- Training and professional development

What is the most important measure of success for your division?
A satisfied customer. To hear that we’ve made a positive difference in the lives of our employees is extremely rewarding.

What should everyone know about your division that nobody knows?
Our work and mission touches everyone, and it is our goal to meet the needs of those whom we serve. We strive to get to yes, whenever possible.

If your division was a movie, what movie would it be? Why?
“The Right Stuff.” I think this title speaks to the exceptional skills, competencies and genuine compassion for AOC employees that HCMD staff bring to the table every day in supporting our mission.
How does your branch support AOC’s mission?
We are the historical memory for the AOC.

As an internal service provider, what services does your branch provide to AOC’s front-line employees?
We help save you from being overwhelmed with records and are your source to find historical information to help you do your jobs.

What is the most important measure of success for your branch?
When we’re successfully able to answer a reference request and provide drawings and information that are essential for current projects.

What should everyone know about your branch that nobody knows?
The Latrobe drawings that were found in the ceiling tiles? Yes, we have them. Among the oldest records in the AOC Archives are three original Latrobe drawings that survived the burning of the Capitol by the British during the War of 1812. They were discovered in a ceiling crawl space in the Senate Library during a 1964 rewiring and relighting project.

If your branch was a movie, what movie would it be? Why?
“National Treasure.” Like the main characters in the film, AOC’s archivists must preserve original documents, research far and wide, and apply their findings to bring meaning to the records in their care. (Unlike those characters, they don’t steal from the National Archives.)

Planning and Project Management
PETER MUELLER, DIRECTOR

How does your office support AOC’s mission?
By providing extraordinary services in the areas of asset management, capital project delivery and campus-wide operations.

As an internal service provider, what services does your office provide to AOC’s front-line employees?
We provide a safe working environment and ensure the areas employees work in are properly designed and constructed.

What is the most important measure of success for your office?
Eliminating safety incidents. The work is important, but ensuring our employees are going home in the same condition they came to work is paramount.

What should everyone know about your office that nobody knows?
Sorry, but we cannot share that….it is a Planning and Project Management secret!

If your office was a movie, what movie would it be? Why?
“The Bourne Identity” because we are resourceful and find creative ways to solve problems.
How does your division support AOC’s mission?
Computers, servers, email, Internet access, supporting applications as well as cell phones, flip phones — the Information Technology Division (ITD) provides nearly all the technology for the entire agency. All of which is critical to achieving AOC’s mission. 

As an internal service provider, what services does your division provide to AOC’s front-line employees?
Whether you or your supervisor uses email, cell phones, computers, printers, networks or an app, every AOC front-line employee depends upon ITD each day to get work assignments, document the work and get paid. We take this responsibility to our front-line employees very seriously and it gives our work meaning knowing that we’re supporting you.

What is the most important measure of success for your division?
We track system uptime, time to fix trouble tickets and all the “hard statistics,” but getting feedback directly from you, our customers, means the most to us.

What should everyone know about your division that nobody knows?
The ITD Help Desk is the place to go for any IT question. Printer toner? Yes. Account locked? Yes. New accounts? Yes. Broken phone? Yes. And anything else regarding technology. Just dial 202.225.4321, Monday through Friday, 7 a.m. to 5 p.m. Or send an email to helpdesk@aoc.gov.

If your division was a movie, what movie would it be? Why?
“Mission Impossible.”

We keep thousands of computers and mobile phones working, as well as hundreds of printers. We connect them all with hundreds of miles of fiber and wire we maintain over millions of square feet of buildings. Every month, we also deliver millions of emails (but block millions more that are spam), and answer thousands of phone calls to the Help Desk, closing 2,000 tickets per month.
But on the best days it’s more like ”Toy Story” — because technology is fun.
What is the most important measure of success for your office?
The AOC has received a clean audit opinion for 11 consecutive years. This feat underscores our commitment to sound financial management, transparency and ethics.

What should everyone know about your office that nobody knows?
It’s critical that our office fully understands the mission and major programs here at the AOC so that we can connect the financial data to the operations side of our mission and explain what those numbers mean.

If your office was a movie, what movie would it be? Why?
“The West Wing.” In addition to our office’s commitment to public service, what rings true to me is that you need a good team to be successful. You hope to find the right people and put them in the right place, then you let your staff do what they do best.

How does your division support AOC’s mission?
We provide procurement support throughout the agency, as well as advice and guidance on property and fleet matters.

As an internal service provider, what services does your division provide to AOC’s front-line employees?
Renovated (and improved) facilities to work in, and procurement of equipment and materials to efficiently do their jobs.

What is the most important measure of success for your division?
Procurement Administrative Lead Time, the time it takes to purchase a product or service, fiscal year small business goals and fiscal year obligation percentage.

What should everyone know about your division that nobody knows?
Until June 2011, it was just the “Procurement Division.” It was re-named “Acquisition” because most federal “procurement” offices were called “Acquisition” offices. The “Material Management” function was added and includes advice, guidance and oversight of most property and fleet at the AOC.

If your division was a movie, what movie would it be? Why?
“The Stewards” because we’re charged with obtaining the best value for the products and services we contract for, plus ensuring proper controls are in place to account for and manage property and fleet.
The Architect of the Capitol strives to meet its mission 24 hours a day, 365 days a year to serve Congress and the Supreme Court, preserve America’s Capitol, and inspire memorable experiences for all who visit the buildings and grounds.

*Tholos* is distributed by the Architect of the Capitol primarily for AOC employees. Questions regarding content and publication should be directed to AOC Communications and Congressional Relations at communications@aoc.gov, 202.228.1793, or U.S. Capitol, Room SB-16, Washington, DC 20515.

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*Where is this?*

*Photo by James Rosenthal*