preserving

HISTORY

UNIVERSITY OF VIRGINIA
FACILITIES MANAGEMENT
2015-2016 ANNUAL REPORT
On the cover

The two-year project to upgrade UVA’s iconic Rotunda showcased the many talents of Facilities Management and its ground-breaking work to both preserve history and ensure continuous improvement.

This project — which came to a close at the end of fiscal year 2015-16, with the building fully reopening in September 2016 — equipped the building with 21st-century amenities while retaining its evocation of 19th-century character. FM employees across multiple departments were involved with the renovation project in various ways, a few examples include: Facilities Planning & Construction staff (top left, from left) Project Manager James Zehmer, Supervisory Historic Preservation Architect Jody Lahendro, Project Manager Sarita Herman, Architectural Conservator Mark Kutney and Supervisory Senior Construction Administration Manager Steve Ratliff, who oversaw all aspects of the project from design to completion; Project Services Historic Masons Tim Proffitt and Robbie Kolb who were part of a team that dismantled brick in-fill that covered a previously undiscovered Jefferson-period chemical furnace (top right) that will now be on display in the visitor center with interpretive signage; Instrumentation & Controls Technician Rona Rose (bottom left) and the Automation Services team who installed the Building Automation System controls; and Senior Locksmith Supervisor Gene Bellomy and the Lockshop team who ensured these historical keys to the Rotunda (bottom right) were kept secure during the renovation.

The Facilities Management annual report includes more photographs and summaries of projects such as this one that signify our work to preserve this historic University with the utmost care.

Photo credits

The photos in this report were provided by individuals from the following departments:

- Facilities Management
  - Facilities Planning & Construction
  - Health System Physical Plant
  - Human Resources & Training
  - Operations: Office for Sustainability, Energy & Utilities, Landscape, Environmental Resources
  - Programs & Informatics
  - Project Services
  - Technology & Innovation
- University Communications
- UVA Health System
- University Human Resources
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**Statement of Purpose**

Creating and caring for the physical environment in which those who seek enlightenment, knowledge, health and productive lives can flourish.

**Vision**

Excellence, innovation, and leadership in our support of the education, research, health care and public service mission of the University.

**Core Values**

- Collaboration: Striving to work together and with others to accomplish the purpose and vision of the University by sharing knowledge, learning and building consensus.
- Respect: Sharing a common respect for ourselves, each other and our University community.
- Integrity: Striving for honesty and equity in all our endeavors.
- Excellence: Striving to be second to none in all that we do.
- Pride: Taking pride in the beauty of our grounds, the grandeur of our buildings and the quality of our work.
- Community: Making the University and our community a better place to study, work, heal and live.
MESSAGE FROM DON SUN DGREN

Facilities Management employees continue to dedicate themselves to the highest standard of stewardship while demonstrating initiative, professionalism and innovation. We are proud that several of our efforts have earned special recognition over the past fiscal year:

• We received APPA’s 2016 Sustainability Award during the APPA Annual Conference in Nashville in July 2016. APPA recognized that our sustainability programs at UVA have developed exponentially over the past four years, and that we have provided leadership across Grounds both in sustainable operational practices and in leading and driving sustainability-related dialogue and action across the University.

• We were honored for our commitment to diversity during a Founder’s Day event in April 2016 hosted by the Office for Diversity and Equity and the President’s Commission on Slavery and the University. Vice President and Chief Officer for Diversity and Equity Dr. Marcus Martin recognized our efforts to support diversity and inclusion, highlighting specific programs such as the Apprenticeship program, our Diversity Committee and our support of the commemoration of UVA’s African American Cemetery in 2014.

• We hosted our first-ever Girls Day event in June 2016 in an effort to increase interest in construction, engineering and the building trades among young women. During the event, close to 35 area girls between the ages of 11-18 toured various worksites hosted by some of FM’s female leaders.

• North Grounds Zone Maintenance Manager Gary Wood was selected as one of the 2016 recipients of the prestigious Leonard W. Sandridge Outstanding Contribution Award. Gary was recognized for his sustained impact over the course of a 40-year career at UVA, with special focus on his successful management of our first academic maintenance zone.

• We achieved continued reductions in the number of lost and restricted work days as well as increased outreach including hosting several Safety Summit events aimed to more effectively communicate our safety initiative to contractor partners, all in support of our goal to become the safest workplace of any college or university in the country.

As demonstrated with the above achievements, we continue to move toward excellence in four key areas: sustainability, diversity, respectful workplace and safety. Additional initiatives supporting these values included: our Sustainability Council’s support of integrated waste management and composting throughout FM workspaces; our Diversity Committee’s increased visibility through Employee Engagement representatives; continuing Respectful Workplace training for all new employees; and restructuring safety committees to increase direct employee participation from 60 employees to more than 175.

We continue our long tradition of giving back to our community through many important events. Our employees generously supported the Day of Caring, the Commonwealth of Virginia Campaign, the Blue Ridge Food Bank, the Toy Lift, Virginia Blood Services and new efforts this year to support the Ronald McDonald House, the City Schoolyard Garden and West Virginia flood relief.

We offer our sincere gratitude for your trust and belief in us. We look forward to supporting your facilities needs and exceeding your expectations. Thank you.

Donald E. Sundgren
Associate Vice President and Chief Facilities Officer
**FM Girls Day**

In June 2016, close to 35 area girls between the ages of 11-18 toured various FM worksites during our first-ever Girls Day event aimed at increasing interest in construction, engineering and the building trades among young women.

**UVA Sustainability Plan**

One of the most significant collaborative accomplishments of the year was the completion of UVA’s first strategic plan for sustainability — the 2016-2020 Sustainability Plan. The Office for Sustainability facilitated the development of the plan via subcommittees, working groups and task forces. The plan outlines ambitious, quantifiable long-term goals and targeted actions in engagement, stewardship of resources, curriculum and research.

**New Branding**

Specialty Trades Supervisor Senior Warren Wood and his team printed and installed FM’s new fleet logo onto the department’s more than 250 vehicles. The new logo was designed by University Communications as part of its collaboration with FM to promote and reflect UVA’s new brand.

**Gary Wood Honored**

North Grounds Zone Maintenance Manager Gary Wood was selected as one of the 2016 recipients of the prestigious Leonard W. Sandridge Outstanding Contribution Award. Gary was recognized for his sustained impact over the course of a 40-year career, with special focus on his successful management of FM’s first academic maintenance zone.

**Founder’s Day Event**

In April 2016, Shannon LaNier, a Thomas Jefferson descendant, was the featured speaker during a Founder’s Day event honoring FM for its commitment to diversity. Vice President and Chief Officer for Diversity and Equity Dr. Marcus Martin thanked FM for its efforts to support diversity and inclusion, highlighting specific programs such as the Apprenticeship program and the FM Diversity Committee.

**FM Town Hall**

For the fourth year, FM continued its tradition of hosting an annual employee Town Hall meeting. During the August 2016 gathering, Associate Vice President and Chief Facilities Officer Don Sundgren spoke to the hundreds of FM employees in attendance about departmental accomplishments and new upcoming initiatives.
MAJOR INITIATIVES

Facilities Planning and Construction is responsible for the execution of the University’s Capital Project Program. FP&C provides management of all design and engineering services, management of all construction services and procurement for all construction contracts and design/engineering professional services contracts for the University community.

In 2015-2016, FP&C’s accomplishments included:
- Completed and occupied several new major facilities totaling $205,500,361.
- Awarded 82 construction contracts totaling $161,620,385.
- Processed 427 professional services contracts and service orders totaling $42,136,601.
- Put in place construction with a value of $150,200,000.
- Design and construction continues on major new facilities totaling $852,141,715.

Academic Division

The Academic Division had a total workload of 21 capital projects. Using the HECOM threshold of $2 million for a Capital Outlay project, these active projects included:
- 7 capital projects in design for a total of $229,885,000.
- 8 capital projects in construction for a total of $161,660,000.
- 9 capital projects completed for a total of $165,968,000.

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*Indicates projects design by FP&C’s Design Group
Academic Major Commissions

Gilmer/Chemistry

Renovation is underway for Gilmer Hall and the Chemistry Building. Gilmer Hall was built in 1963 with a major addition in 1987, for a combined area of 221,980 square feet, providing research and teaching facilities for the Biology and Psychology Departments. The 208,392-square-foot Chemistry Building, completed in 1968, provides research and teaching laboratories and general-use classrooms. The Chemistry Addition was completed in 1995 and is not within the scope of this project, but will provide swing space.

Today, these buildings house the majority of teaching in the sciences, and are workhorse facilities for the College of Arts and Sciences. Most of the classrooms and labs, little altered from their original designs, are inefficient and out of step with current teaching and interdisciplinary research practices. These issues will be exacerbated by the projected growth in student enrollment in the sciences and will hinder the College’s efforts to attract students and faculty.

Architectural services are being provided by Perkins + Will of Washington, D.C. Construction management services are being provided by the Whiting-Turner Contracting Company of Richmond. The phased construction is expected to begin in January 2017 and continue through 2021.

Crackerbox Roof Replacement

The Crackerbox is a two-story brick building located behind the East Range. Named for its size, the Crackerbox is currently used for graduate student housing. It is believed to have been constructed as a kitchen for Hotel F around 1825, and probably also housed enslaved laborers. Most similar structures from the early years of the University have been demolished; the Crackerbox is one of three remaining structures of its kind in the Academical Village.

Documentary and physical evidence indicate that the building originally had a wood shingle roof. When the need to replace the existing metal roof was apparent, the Historic Preservation Team decided to return the roof to its original appearance. Alaskan Yellow Cypress shingles were selected as the most weather-resistant wood shingles available. To ensure water-tightness, the shingles were installed over solid sheathing covered with an ice and water shield. Cedar breather underlayment and felt spacers allow airflow around the shingles to increase their longevity.

The FP&C Engineering and Design group is the architect of record. The roof installation was completed by W.A. Lynch Roofing Co. in January 2016.
1515 University Avenue Student Center

The University is currently renovating 1515 University Avenue as a student center. Guided by the design of Nalls Architecture, and with construction performed by FM’s Project Services department, the project will create a student-centered space with the vibrancy of a commercial environment, offering a safe and inclusive late-night atmosphere without alcohol.

The basement will house a sports lounge, with billiards, ping-pong, and other games as well as TV monitors for watching UVA sports events. The first floor, featuring a large open space with a 14-foot-high tin panel ceiling, will provide multiple seating areas in a flexible format along with a small performance stage and a café offering bistro-quality desserts. The second floor will provide meeting and rehearsal spaces of various sizes to meet the needs of student groups.

This renovation project is expected to be ready in time for the 2017 spring semester.

Newcomb Road Chiller Plant

A new 6,000 square foot chiller plant will replace the multiple chillers and supporting equipment that currently serve the buildings along Newcomb Road. The new plant will allow this equipment to be removed from individual buildings, and create greater capacity so that several buildings not currently on this loop can be added.

The existing plant and equipment are near maximum capacity, and at the end of their life expectancy. Also, since the equipment is spread across several buildings, the current system is inefficient in terms of both energy use and maintenance. The project examined several alternative cooling options; with high efficiency chillers and a centralized plant, the new plant will provide significant efficiency improvements over the existing plant.

The project was designed by Affiliated Engineers, Inc. of Chapel Hill, N.C., Sauer Inc. of Newport News is the construction manager. Construction began in the fall of 2014. The project was substantially complete by early summer of 2016 and is planned for final completion in November 2016.
Rotunda Renovations

After 28 months, the Rotunda reopened to the public in September 2016. The first phase of work, from May 2012 to August 2013, involved replacing the dome roofing and repairing the main drum’s exterior. The recently completed phase included extensive work to the interior, exterior and landscaping. All mechanical and electrical systems were replaced and new audio/visual and communications systems were added.

The enlarged building elevator will allow unrestricted public access from the central stair. To reconnect students with the Rotunda, permanent classrooms and new study spaces have been added. Exterior work included replacement of the marble capitals, and repair, cleaning or replacement of marble, brick, copper and plaster elements all around the building. The east and west courtyards and the north terrace were redesigned and replaced.

The Rotunda is the centerpiece and symbol of the University of Virginia, and is internationally recognized as a National Historic Landmark. The Rotunda, Academical Village, and Monticello together are designated as a World Heritage Site. John G. Waite Associates of Albany N.Y. was architect for the project, and Whiting-Turner of Richmond was the construction manager. Construction began in May 2014 and was completed in August 2016.

College at Wise Library

The University of Virginia’s College at Wise has constructed a new state-of-the-art library for the College’s students and faculty. The centrally located library is destined to be the identifying, iconic building on the campus. Six stories high and 69,000 square feet in area, the brick and glass structure is the new heart of the College, and provides a fully accessible 24-hour link between the upper and lower campuses.

The building houses the College’s collections and provides ample space for collaborative study, instruction, and multimedia resources to accommodate the College’s present and future needs. Lobbies on multiple floors will be open late, and will feature café tables, group study rooms and informal lounge seating so that students can collaborate on projects, study, socialize, and gather informally throughout the day and evening. The café will further enhance the library’s role as the center of campus life.

The architect was CannonDesign of Arlington and the Construction Manager was Quesenberry’s of Big Stone Gap. The project was completed in July 2016.
Skipwith Hall

Skipwith Hall, two stories high and 14,353 square feet, is located west of the Leake Building. The building offers a variety of spaces for Facilities Management staff including open office areas, enclosed offices, conference rooms and two kitchenettes. The design provides maximum flexibility and a variety of sustainable features including use of natural light, highly efficient green roofs, mechanical systems and glazing, photovoltaic panels, LED lighting and permeable paving systems at adjacent driveways and patios. The open office areas provide a variety of workspace and collaborative meeting areas for staff and visitors.

The building was fully occupied in March 2016. Several obsolete buildings in the FM yard were demolished for the new construction, and completion of the new building has allowed for the removal of modular units, providing additional parking spaces and increased pervious area for improved stormwater management. The architect is Bowis Gridley Architects of Washington, D.C. and the contractor is Crenshaw Construction of Charlottesville. The building is expected to receive LEED Gold Certification.

Health System Division

The Health System Division responded to 34 new requests for services, contributing to a total workload of $708,356,957 in active projects, including projects that have reached construction completion in the last year. Using the HECOM threshold of $2 million for a Capital Outlay project, these active projects included:

- 45 projects in startup/request phase, budget/scope not yet developed.
- 76 small non-capital projects with an average size of $136,006 for a total of $10,336,456.
- 27 large non-capital projects with an average size of $952,233 for a total of $25,710,291.
- 9 small capital projects with an average size of $3,181,912 for a total of $12,600,000.
- 12 large capital projects with an average size of $22,264,413 for a total of $102,693,080.
- 1 very large capital project of $376,500,000.
- 5 capital projects in design for a total of $397,311,073.
- 4 capital projects in construction for a total of $63,285,642.
- 4 capital projects completed for a total of $39,532,361.

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Health System Major Commissions

University Hospital MRI Relocation

The Magnetic Resonance Imaging Relocation was a critical enabling project, allowing for relocation of the Hospital’s MRIs off of the University Hospital Expansion’s site footprint. The project was built in two phases with the first phase installing a one-story modular building connected to the existing hospital. Also in this phase was significant interior work to open space in the first floor of the Hospital to accommodate a new MRI suite. The modular building houses a new reading room for the Interventional Radiology staff, a reception and waiting area, and a link to the temporary mobile MRI. Exterior work includes site work for the modular, new walkways and a new dock for the mobile MRI trailer. Work interior to the Hospital included multiple relocations within Interventional Radiology, including a new angiography room, two peripherally inserted central catheter Rooms, redesigned high efficiency storage and office relocations.

The second phase was the construction of the new MRI suite, and included the installation of three new MRIs in the spaces in the hospital created by the first phase enabling the work. The new suite provides for improved magnetic safety measures and updated MRI technology. Once these new MRI locations were constructed, the old MRI pavilion was torn down to make way for the expansion of the Hospital.

The architect was Perkins + Will of Washington, D.C. The construction manager for phase one was Crenshaw Construction, Inc. of Culpeper, and for phase two was Skanska USA of Raleigh, N.C. Occupancy for Phase 1 was achieved in the January 2016; occupancy for Phase 2 was achieved in May 2016.

500 Ray C. Hunt Drive

The 500 Ray C. Hunt Drive renovation is a 62,000 square-foot office building located in Fontaine Research Park that was purchased from the University Physician’s Group. It is being converted into an ambulatory health care facility for cardiology diagnostics, cardiology clinics, cardiology rehabilitation, and the pelvic surgery and urology clinics.

The renovation replaces all of the building’s more than 25-year-old infrastructure components including the mechanical, electrical, plumbing and fire alarm systems. The third floor of the building is being renovated for the urology and pelvic surgery clinics which are moving from the West Complex and Northridge. The second floor is being renovated for a cardiology clinic which is being created by moving and consolidating clinics from Northridge, Primary Care Center and University Hospital Second Floor West. The first floor will house the cardiology diagnostic functions which are moving from UH2W. The lower level will house the cardiology fitness and wellness clinic, which is moving from Northridge. The architect is Hammel, Green and Abrahamson of Alexandria and the construction manager is Gilbane Building Company of Richmond. Construction is scheduled to be complete in fall 2017.
University Hospital Emergency Power Phase 3

The University Hospital Emergency Power (EP) Phase III project is designed to increase the emergency power capacity for the existing Hospital and the University Hospital Expansion (UHE), as well as increase the emergency power redundant capacity for the existing Hospital. New primary and secondary feeders will be installed from the generator room located in the Lee Street Garage to the Hospital and UHE. Two additional 1500kW generators will be added to the existing five 1500kW units to provide 10,500kW of emergency power to the expanded Hospital. The new generators will be located in the generator farm between the Lee Street Garage and the 11th Street Garage. Power distribution inside the Hospital will be revised to improve redundancy, increase safety, and establish the necessary infrastructure for future emergency power demand.

The Hospital’s existing primary emergency power feed is supplied through a 5,000 amp feeder, with a 3,750amp redundant backup feeder. EP Phase 3, in concert with UHE, will reroute the existing Hospital primary feeder, install a new primary feed for UHE, and install secondary feeders for both that will increase the redundant feed capacity and redundant generator capacity for the entire system. The engineer is Leach Wallace Associates of Elkridge, Md. The general contractor for the early site utilities package was Martin Horn of Charlottesville. The remaining work is scheduled to go out to bid in the third quarter of 2016. The project is scheduled for completion in early 2018.

University Hospital HVAC Replacement

The HVAC Replacement projects represent a phased approach to replacement of air handling units (AHUs) and ancillary HVAC systems nearing the end of their projected lifespans in the main Hospital. During Phase 1 the Hospital evaluated AHUs, exhaust fans and hydronic systems for criticality, condition and age and developed a program for replacements/upgrades over the next few years.

In addition to developing a proactive replacement program for aging HVAC Systems, this project has organizational goals including developing a process for early integration of all team members (including the CM firm, maintenance/operations staff, commissioning agents, etc.) in the beginning stages of the design process and continuing this collaboration beyond beneficial occupancy. To meet this goal, the construction manager, Donley’s/McCarthy; the engineer, Leach Wallace; the commissioning agent, Burns and McDonnell; and the testing and balancing firm, Mechanical Balancing, were contracted at the start of design and worked together with key maintenance representatives and the project team to develop the program and logistics that allowed for efficient execution of the work in an active hospital environment. This integrative approach has served to establish multiple University protocols for improved construction and operational processes.

AHU’s are being provided by Air Enterprises, a company that specializes in site-build construction. The units are being shipped and delivered into the hospital in parts on pallets, and are then constructed, tested, and commissioned on-site under the supervision of specialized on-site technicians. Phase IV design is complete and the team is preparing to procure a CM partner for construction by the fourth quarter of 2016.
University Hospital Expansion

The University Hospital Expansion project consists of an 11-story addition to the site east of the existing Hospital. The building expansion includes a four-story base with a six-story tower and roof penthouse for a total of 11 stories. The new building will consist of an expanded Emergency Department (ED) on the first floor, an expanded Interventional Program on the second floor, a six-story patient bed tower with three floors fitted out, expansion of ancillary support spaces on the lower level, an additional roof helipad, and renovations of the existing Hospital on Levels 0 through 2.

The work will also encompass new drop off and entries into the ED for ambulances and ambulatory patients. The expanded ED will consist of 77 examination rooms and three resuscitation rooms. The Interventional Program floor will add four new operating rooms. The Patient Bed Tower will consist of three floors of 28 Intensive Care Unit rooms per floor on Levels 3-5 and three shelled floors on Levels 6-8.

The architect is Perkins + Will of Washington, D.C. The construction manager is Skanska USA Building of Durham, N.C. The project is scheduled for completion in the third quarter of 2020.

Outpatient Procedure Center

The Outpatient Procedure Center will be created in the building formerly known as the Outpatient Surgery Center, which has relocated its surgical and procedure services to the first floor of the Battle Building at UVA Children’s Hospital. This allows space for several outpatient procedure suites to be relocated from the inpatient University Hospital. The total building area is 32,000 square feet. The existing first floor totals 25,000 square feet consisting of procedure rooms, patient preparation and recovery bays and ancillary support areas. The second floor includes 7,000 sq. ft. of administrative space.

This project completely renovates the first floor to provide a five-room Endoscopy suite with decontamination and sterilization, a one-room Motility suite, a 20-bed preparation and recovery unit, new waiting and registration areas and staff ancillary space. All of the building’s infrastructure systems will be replaced or upgraded. The second floor administrative offices will remain occupied and functional throughout the renovation with no architectural modifications.

The architect is Hord Coplan Macht of Alexandria. The construction manager is Whiting-Turner of Richmond. Construction is scheduled to be complete in the third quarter of 2017.
**Education Resource Center**

The Education Resource Center project provides approximately 45,200 gross square feet for Graduate Medical and patient education, a relocated Outpatient Pharmacy, and a new centrally-located Outpatient Imaging Center. These functions are directly responsive to the Health System’s stated mission to provide excellence and innovation in the care of patients, the training of health professionals and the creation and sharing of health knowledge. It provides new conferencing space for resident and patient education and much-needed, dedicated resident workspace.

The project site is adjacent to the Emily Couric Clinical Cancer Center and the new elevator and stair tower for the Lee Street Garage, providing convenient access to the Pharmacy for patients and staff leaving the Medical Center via the 11th Street or Lee Street garages, and it is adjacent to the main Hospital bus stops.

In addition, this project provides space for a new Outpatient Imaging Center that significantly improves patient access and fulfills the need for diagnostic imaging services convenient to the Cancer Center and the Battle Building at UVA Children’s Hospital. This OIC, located in the lower level, will connect directly with the ECCCC radiation oncology area. The architect is CO Architects of Los Angeles. The construction manager is Donley’s/McCarthy of Collinsville, IL. The project is scheduled for completion in early 2017.

**University Hospital 7th and 8th Floors Renovation**

The University Hospital 7th and 8th Floors Renovations project involves renovations to the Children’s Hospital on the 7th floor (approximately 37,500 square feet) and Women’s Health on the 8th floor (approximately 23,100 sf). Areas being renovated on the 7th floor include the pediatric intensive care unit (PICU) patient rooms, including new family-centric amenities within the PICU unit, renovated/refurbished pediatric acute unit patient rooms including the addition of new ADA-compliant rooms, finish upgrades in support spaces, revamped Children’s education spaces, a new four bed pediatric bone marrow transplant unit with support spaces, new team nurse stations, and new flooring and paint on all public corridors.

Areas being renovated on the 8th floor include converting Women’s patient rooms to be solely private, a replacement continuing care nursery, an expanded and modernized triage area, refurbished and upgraded labor and deliver rooms including an ADA room, new team nurse stations, and finish upgrades in support spaces. Also included are general mechanical, electrical and plumbing infrastructure improvements throughout both floors. The architect is HKS Architects of Richmond. The construction manager is DPR Construction of Richmond. Construction is scheduled to be complete in the fourth quarter of 2018.
Project Services

Project Services offers a variety of services ranging from general trade support for small projects to full planning, design and construction support for renovations projects under $2 million and full construction services for projects over $2 million.

Project Services is comprised of three work groups that have an integral role in the successful completion of projects throughout Grounds including the Health System:
• Planning and Business Management
• Construction Management
• Trades Management

In FY 2015-16, Project Services completed projects in over 100 buildings around Grounds contributing to a workload of $39.6 million.

West Lawn Roof & Railings

The West Lawn Roof and Railings renovation included work between Pavilions V-VII. Jefferson’s original flat roof design was changed to a pitched roof in the 1930s to resolve water leaks. The new roof raised the visible elevation and required increasing the height of the chimneys. In summer 2016, Project Services carpentry, cabinetry, historic masonry and historic plaster crews worked to reveal the remains of Jefferson’s original roof, and installed a new, flat roof that restores the elevations and architectural details of his original design.

The new, flat roof required the chimneys to be reduced to their original heights. The historic masons disassembled, rebuilt and repointed the chimneys above student rooms 21-33. The cabinet shop built Chinese railings that match the long-lost originals. The carpenters installed the railings, as well as framed and finished the new roof system.

The colonnade ceiling below the roof was framed by the carpenters and finished with historically-accurate plasterwork by the plaster crew. Along with the new ceiling, the electricians installed a new LED lighting system in front of the student rooms.

The project — which continues the roof restoration between Pavilion VII-IX that was executed in 2010 — was completed by Project Services trades under the leadership of Senior Construction Project Manager Clint Lees.
**Hotel A**

The renovation of Hotel A, located on the West Range, brought the 1820s building up to modern-day standards. The building was originally used as an eating house for students but is now home to the Center for Global Inquiry and Innovation.

Project Services trades started demolition within the historic structure in late November 2015, working primarily in the cellar while Rivanna Archaeological Society processed the space and preserved historic items found beneath the basement’s floor.

Staff members replaced the mechanical, plumbing and electrical systems, installed a central air system and a new restroom to serve both the building occupants in addition to guests attending events at the nearby University Chapel. Other improvements included a new elevated walkway in the rear of the building that provides ADA access, new IT/data infrastructure and the creation of offices in long-unused cellar space.

The project was led by Project Manager Jesse Kidd, Construction Superintendent Brian Tinnell, Project Planner/Analyst Amy Moses and FP&C Project Manager James Zehmer. Architecture/engineering was completed by Train Architects and 2rw.

**Thornton Hall**

Project Services continued its renovation of Thornton Hall, home to the School of Engineering and Applied Science, with multiple projects completed over a tight time frame during the summer of 2016 while classes were out of session for three months.

The building’s main entrance was expanded to include an ADA entrance with wide brick walkways and two accessible ramps along with large planters. Matching brick walkways were also added in the Darden Courtyard.

A full renovation of the Dean’s Suite and SEAS offices was completed along with the expansion of Classroom A120 to include the adjacent corridor. The C-Wing second and third floor upgrade transformed previously dark and unused office areas to a student lounge with conference areas and a Project Room with more natural light and exposed ceilings.

The projects were completed by Project Services trades and contractors under the direction of Project Planner/Analyst Joe Gitz and Construction Project Manager Bruce Jackson, with architecture and engineering services completed for different aspects of the project by Project Services and FP&C, as well as Train Architects and 2rw.
**Histology Lab**

The Histology Lab project was a collaborative design and construction effort between Project Services and Facilities Planning and Construction. Approximately 4,000 gross square feet of lab space was renovated to allow for a teaching lab space for the School of Medicine.

The project consisted of both offices and teaching lab space constructed on the second floor of Pinn Hall. It was the first project to be designed after completion of the Pinn Hall Sprinkler Project, which completed all sprinkler work associated with the building, allowing for less fire separation. This allowed for a design with lots of glass in the corridor allowing light to reach the center of the floor plates.

The project was led by Project Services Construction Manager Adam Gragg, Construction Superintendent Jack Bryant and FP&C Project Manager Will Moore. The design of the space was completed by Nalls Architecture.

**Primary Care Center**

The Primary Care Center fourth floor project consisted of renovations to approximately 17,800 square feet to prepare it for office and clinical space for the Neurology Clinic that relocated from the Fontaine Research Park. Unique features of this space include stand-up computer work stations to provide staff with areas to input data while maintaining patient confidentiality and private sound-dampened consult rooms.

The finishes selected were modern, bright and up-lifting with a focus on providing a soothing and healing environment for patients. New millwork, systems furniture and treatment equipment were added to create an area that is also technologically advanced to provide our patients with top of the line service.

The Architect of record was Nalls Architecture who worked closely with the staff to design the space to meet current and future needs of the clinic. FP&C Senior Project Manager Kristine Vey provided coordination and direction during both the design and construction phases. Project Services trades and contractors worked under the direction of Construction Project Manager Adam Gragg and Construction Superintendent Kyle Jennings who managed the project from demolition through final inspection.
Project Services Employees at Work

Project Services is comprised of over 100 highly-trained trades people responsible for performing renovations and improvements to Grounds. Services that the group performs include environmental remediation, carpentry, masonry, plaster repair, sheet metal, plumbing, electrical, cabinetry, sign design/fabrication and moving/general services.

Carpenter Mark Lamonds and Carpenter Apprentice Anne Tufts install metal studs on the second floor of the 1515 University Ave. Student Center.

Historic Masons, from left, Robbie Kolb, Timothy Proffitt and Zack Mays work on the front columns of Pavilion III.

Carpenters installing rafters on the West Lawn Roof and Railings project included, left, Carpenter Apprentices Ray Hunter and Devante Dowell, Carpenters Darrell Morris and Chris Bingman, Carpenter Senior David Gregory and Carpenter Lead Blaine Derryberry; Plumber Apprentice Orlando Watkins, right, removing old pipe in the cellar of Hotel A.

Electrician Lead Patrick Barksdale and Electrical Apprentice Dionte Sims, left, connect pipe to power an air handler during the FM Shops Renovation; Electrician Lead Robert Bower, center, wires a new electrical panel in Thornton Hall; and Electrician Apprentice Chelsea Short, right, wires a dimmer switch in the Dean’s Suite of Thornton Hall.
Facilities Management continues its support of the University’s sustainability goals through numerous initiatives in Facilities Planning & Construction and Operations, under the leadership provided by the Office for Sustainability (OFS). Operations provides sustainable, economic and reliable energy, utilities and services to facilities in support of the educational, research, health care and public service mission of the University. This mission is accomplished with appreciation for renewable and recoverable resources, dedication to environmental stewardship and pride in the historical and cultural legacy of the facilities and Grounds.

One of the most significant collaborative accomplishments of the year was the completion of UVA’s first strategic plan for sustainability — the 2016-2020 Sustainability Plan, which was awarded $3 million for implementation. OFS facilitated the development of the plan via subcommittees, working groups and task forces. The plan outlines ambitious, quantifiable long-term goals and targeted actions in engagement, stewardship of resources, curriculum and research.

One of the Sustainability Plan goals is to use Grounds as a learning tool for sustainability. Towards this goal, OFS and FM staff supported the Global Sustainability course by mentoring students regarding 60 on-Grounds sustainability projects during the 2015-2016 academic year.

The University aims to achieve Leadership in Energy and Environmental Design (LEED) certification on all capital projects and LEED silver or higher when achievable. During 2015-16, the following six projects received LEED certification:

- Gold: New Cabell Hall; Gibbons Residence Hall.
- Silver: Old Jordan Hall Gross Anatomy & Fresh Tissue Labs; UVA Wise Winston Ely Health & Wellness Center.
- Certified: Ruffner Hall; North Grounds Mechanical Plant.

Ongoing projects involving 21 buildings are in design or construction and targeted for LEED certification.
In calendar year 2015, energy-related activities yielded more than $4.6 million in avoided costs and more than 18,000 tons of avoided greenhouse gas emissions as calculated in terms of metric tons of carbon dioxide equivalents. Since fiscal year 2007-08, conservation activities at the University have presented over $27 million in avoided utility costs.

Part of those efforts is due to the Delta Force retro-commissioning initiative, which has received an $8.7 million investment since FY2007-08 and has resulted in an 11% reduction in total energy use, equivalent to over $22 million in avoided costs.

Another initiative that has resulted in significant energy savings is UVA-wide lighting improvements. Facilities Management, with the help of student workers, continues to identify and upgrade inefficient lighting fixtures throughout the University. This year, four facilities, including the John Paul Jones Arena, were selected for full building relamping. In addition, 207 exterior pole lights, bollards and other exterior lights were converted to LED. These projects saved the University an estimated $145,000 in electricity costs.

The University continues to expand its use of solar photovoltaics, with the installation of solar panels atop the newly-constructed Skipwith Hall, which houses multiple FM staff teams. Design was also completed on the solar installation planned for the roofs of Clemons, Ruffner and the UVA Bookstore. Once completed, these projects will result in over 600,000 watts of solar electric generation on Grounds.

Total water usage in 2015 was down more than 30% from its peak in 1999 despite growth in population and area served. Water consumption last year was up slightly from the prior year due primarily to a warmer year, which correlates to an increase in water consumption at the chiller plants to produce chilled water for air conditioning.

UVA achieved a recycling rate of 25% of the municipal solid waste stream and a diversion rate of 44% when non-MSW materials — such as tires, lamps, ash, electronics, batteries and oil, which get recycled or reused — are included in the total.

Greenhouse gas emissions have been reduced 4.96% since 2009, despite 1.7 million square feet in growth and a 6.3% increase in population. One of UVA’s goals is to reduce emissions 25% below 2009 levels by 2025.
Sustainability Program Manager for Buildings & Operations Jesse Warren, center, accepted the APPA Sustainability Award at the organization’s annual conference in July 2016.

The University continued food composting programs for all UVA Dining facilities, Darden and the Medical Center, while piloting a new trash and recycling approach in Clark Hall, which is designed to increase diversion and simplify collection. All of these efforts yielded a combined total of close to 600 tons of compost in 2015.

Facilities Management received APPA’s 2016 Sustainability Award during the APPA Annual Conference in Nashville in July 2016. “The Sustainability Award criteria measures the current level and effort of a facilities management department to integrate sustainable policies and ‘green’ practices throughout all facets of the organization, ultimately embedding them within the educational institution,” according to Paul Wuebold, APPA’s Vice President, Professional Affairs, and the chair of the Awards and Recognition Committee.

APPA recognized that Facilities Management’s sustainability programs at UVA have developed exponentially over the past four years, and that FM has provided leadership across Grounds both in sustainable operational practices and in leading and driving sustainability-related dialogue and action across the University, particularly through extensive involvement with the University Committee on Sustainability and its associated sub-committees and working groups.

As part of Recyclemania, UVA won first place in the national Game Day Challenge competition at a sold-out home basketball game in February 2016. The presence of ESPN’s College GameDay show increased overall waste generated, but thanks to FM staff and 100 volunteers who pitched in to assist with composting and recycling, UVA was able to achieve its best Game Day Challenge diversion rate ever: 81% of waste from the game was diverted from landfills – a huge increase from last year’s 61% diversion rate.

FM’s Green Workplace Teams have worked to encourage staff to adopt practices such as smarter trash management. Housekeeping Supervisor Geri Findley swaps out the trash can at the desk of UBO’s Ron Herfurth for a tiny desktop size, which can be emptied into a centralized container. UBO’s Kathy Grove places a banana peel into new composting bins, which are now located in FM kitchenettes.

recycling numbers during 2015. Although the total waste diverted has decreased, that is primarily due to a large reduction in coal ash generated.

The 12-member FM Sustainability Council was active implementing several new initiatives, including developing a sustainability training presentation, which is now being delivered to all new employees by FM Human Resources & Training during New Employee Orientation. The council provided composting bins in kitchenettes and supported the implementation of integrated waste management in FM work spaces, which includes new, co-located trash and recycling bins. Staff also supported the certification of 10 Green Workplaces across FM.
OFS organized more than 80 sustainability-focused events in the past fiscal year with over 2,000 attendees — including World Water Day, UVA Saves Hour, Earth Week, UVA Sustainability Day and Game Day Challenge. UVA was recognized at the Green Sports Alliance’s national conference in June 2016 for winning first place in the national Game Day Challenge basketball competition in the per capita recycling category based on collections during a February 2016 game.

A “Building Sustainability” pilot continued at Clark Hall which combines multiple strategies for making a building more sustainable, including both outreach and retro-commissioning. Clark Hall will be the first building on Grounds to be considered for LEED Existing Buildings, Operations and Maintenance certification through this pilot project.

Delta Force and Automation Services’ Building Optimization Team continued to collaborate, including on the Clark Hall project, which aims to achieve a 25% energy reduction by 2017 as compared to 2013-2015 average levels. Accomplishments in Clark Hall included upgrading 3,300 tube lights to reduce wattage by 22%, upgrading controls on air handler units and lab exhaust fans, installing electronic valves on air handlers and reconfiguring heating water convertors.

Automation Services completed the largest self-performed control system installation to-date in the past fiscal year with the completion of the Rotunda renovation project. In-house controls engineers and technicians helped design and install over 520 physical control points throughout the Rotunda building, including temperature sensors, humidity sensors, pressure sensors, and environmental monitoring sensors; all of which help to operate the Rotunda comfortably and efficiently. Working on this historic project was a significant milestone demonstrating the capabilities of the in-house controls team.

The Information Systems and Metering teams continued to provide data to FM, the University and consulting staff in order to develop meaningful trends and metrics. This past year, more than 300 meters were newly installed, upgraded or connected.

As part of a Building Sustainability pilot in Clark Hall, a contractor tests fume hoods to optimize the building’s energy profile. Upgrades to existing equipment in Clark Hall have resulted in over $370,500 in savings to date.

Automation Services self-performed more than $1 million in controls work in the past fiscal year. The largest project, at the Rotunda, included the installation of 527 physical control points.

A new brine pipe trench (left) installed earlier this year at the Heat Plant will prevent future deterioration of the condensate system. Heat Plant Boiler Operator Danielle Borgus (right) tests the water that will be used by the boilers to ensure it is the proper pH.
In its first year of operation, the upgrade of the North Grounds Mechanical Plant from a conventional boiler/chiller plant to one that uses low temperature hot water and heat recovery units has yielded more than 40% reduction in electricity and fossil fuel for every unit of energy produced. In addition, water usage is down by more than 9%.

Energy & Utilities teams continued multiple initiatives to support the efficiency and reliability of the University’s utility systems. FM Utilities staff assisted with the McCormick Road Utilities Tunnel project, which involved the extension of the underground tunnel from Hancock Drive to Alderman Road during January 2016. Employees worked with G&L Underground to install an underground chilled water line along Bonnycastle Drive, while keeping the road open with little disruption to vehicular traffic. Planning continued on the 35kV Electrical Ductbank project, which will construct 2.75 miles of underground ductbank connecting three existing substations. The underground ductbank will ensure the University is served by a stable and reliable power supply despite severe weather events that could otherwise knock down overhead power lines.

During the annual steam outage in May 2016, it was discovered that the Heat Plant’s hot well tank — which collects condensate from boilers to be reused — was leaking and beyond repair. A team of FM staff members — led by Heat Plant Engineer Pete Kowalzik and Associate Director of Utilities Mark Roach — quickly designed and installed a bypass system in order to replace the existing hot well. The team then designed a new hot well of more resistant materials and rerouted the brine to the sanitary sewer in its own pipe.

Safety continued to be a top priority for E&U work groups, with staff members serving on multiple safety focus teams examining specific issues, including lock out/tag out, confined space and excavation. The Power & Light team launched an Arc Flash Hazard Analysis and Labeling Program which involves comprehensive arc flash hazard analysis and labeling for all buildings on Grounds. This program will ensure needed information about electrical panels is displayed on the exterior of the panel and available for staff to include on the recently revamped energized electrical work permit.
The appearance of the University of Virginia — both the exterior landscape and interior spaces — plays a strategic role in building the institution’s image. In fact, the campus visit is the single most important recruiting strategy in higher education today. Therefore, it is not only the responsibility of Facilities Management to maintain a safe and functional campus landscape, but to impart a national image of excellence.

The Landscape team continues to advance its green landscape maintenance program by developing, with the help of a consultant, a formal written landscape management plan which defines the grounds tasks for an area, the frequency those tasks are to be performed and a description of the expected results. This plan is being leveraged to enhance efficiency and effectiveness of work while sustaining the University’s reputation as one of the most beautiful campuses and best in class. Using student interns, FM is collecting data and mapping all landscape features across Grounds, which will enable FM to quantify the complexity of the landscape, enhance staff deployment and facilitate strategic reinvestment in the landscape structure.

Custodial Services continued to improve its service by focusing on continued improvements to quality, customer solutions, sustainability, partnerships and training. The department was a key participant in a committee to select a University-wide cleaning product vendor and awarded a multi-year contract. This allowed for deeper volume-based discounts and tighter inventory control so products are available when needed.

UVA continued to serve as leaders in the industry through involvement with state and regional conferences, supporting the University of North Carolina’s efforts to obtain Green Seal certification and partnering with James Madison University on inspection tool calibration. In early 2016, FM was notified that Green Seal planned to conduct their compliance monitoring evaluation for recertification of Green Seal Standard for Commercial and Institutional Cleaning Services (GS-42).
The FM Sustainability Council’s Healthy Buildings Week event included a panel of leaders from Landscape, Maintenance and Custodial Services and Marion Stecklow from the Building Wellness Institute who presented a talk about “Maintaining and Servicing Healthy Buildings.”

Clark Hall — which was selected as the site for the audit for GS-42 recertification in early 2016 — piloted a new integrated waste management system, with centralized containers for recyclables and compostable to-go container collection.

Clark Hall was selected as the site for the audit and passed with compliments from the Green Seal team. In re-certifying UVA, Green Seal wrote that UVA continues to comply with the environmental and performance requirements of the program. The benefits of training staff and using greener products include improved indoor air quality due to the reduction in airborne dust, volatile organic compounds, and bacteria as well as reduced incidences of illness.

The importance of partnerships among FM departments was highlighted during FM Healthy Buildings Week in June 2016. One of the featured topics, “Maintaining and Servicing Healthy Buildings,” featured a panel of leaders from Landscape, Maintenance and Custodial Services who spoke about integrated communication and collaboration among departments to ensure a healthier, more sustainable Grounds.

The Maintenance team saw significant changes in organizational leadership in 2016. Along with welcoming a new manager, eight other veteran employees took on new leadership roles. Maintenance teams total 162 trades professionals, including the North Grounds Zone custodial department with 38 employees providing services on all three shifts. Together, these dedicated teams performed over $16 million worth of building maintenance tasks in 2016.

A key goal for Maintenance over the past fiscal year was to incorporate Lean Management principles into its operations. The concept of continuous improvement applies to both keeping building systems in good running order, as well as how building needs and work processes are assessed. Maintenance employees at all levels have been engaged in formal Lean training and cross-departmental focus teams, using advanced analytical tools such as Tableau to visualize complex data.

The past year brought considerable change in FM’s Housing Facilities organization. Following the addition of Associate Director Rollie Zumbrunn in August 2015, the group assessed its structure and performance, resulting in multiple changes aimed at increasing service and efficiency.

Operations staff members — including Newcomb Zone Manager Jamie Joyner, left, and Associate Director of Housing Facilities Rollie Zumbrunn — served on teams focused on applying Lean Management principles to FM’s fleet and materials management to improve processes.
Changes included integrating the Housing Custodial operation into the Housing Facilities group, adjusting maintenance areas and making maintenance supervisors direct reports to the head of Housing Facilities. The goal of these organizational adjustments was to create a flatter organization that allows for higher levels of communication and teamwork.

In addition to these internal changes, efforts have also been underway to increase FM’s service to Housing & Residence Life by better defining the partnership between the two departments. Through discussions with HRL it became apparent that a number of processes needed to be improved and a clearer service agreement would be beneficial, allowing each group to increase its understanding of roles and work together more effectively. Discussions are ongoing, but consistent progress has been made, and communication and organizational understanding has increased substantially.

Through the Environmental Resources team’s detailed cataloging (with the help of Geospatial Engineering Services staff) and analysis of UVA’s installed stormwater best management practices, the team demonstrated to the EPA and DEQ that UVA is well ahead of the established five-year goal in meeting the total maximum daily load reductions (TMDL) for three pollutants (sediment, nitrogen, and phosphorus) impacting Chesapeake Bay water quality. Chesapeake Bay TMDL Reduction goals were exceeded for the first five-year cycle of a permit ending in two years, reductions for the 15-year commitment were met for phosphorous and sediment, and 85% of the goal was met for nitrogen.

Boiler maximum achievable control technology (MACT) regulatory goals were met for all UVA boilers, which involved extensive investigations and cooperation between many FM groups looking at boiler use, design, efficiency, fuel use and overall facility efficiency for a dozen boiler systems. Recommendations for energy efficiency upgrades were proposed.
This year, multiple FM departments started utilizing a new online emergency communications system called Veoci, which allows real-time messaging and photo sharing among supervisors and administrators during emergencies.

Environmental Resources staff worked closely with the Stormwater Task Force of the UVA Environmental Stewardship Subcommittee on several projects, including a Beta Bridge railroad cleanup where nearly two tons of trash was removed.

GES staff hosted the first VA811 Day, including Utility Locator/Damage Prevention Technician Brad Pace and Geospatial Engineering Technician Matt Bartley, left, who spoke about the process of locating and marking utilities in order to ensure they are not damaged during excavation and construction; and Geospatial Analyst Drew MacQueen showing FP&C Project Manager Lynn Rush how to use ground penetrating radar equipment to identify underground utilities.

This past fiscal year, the Geospatial Engineering Services team broke ground on several excavation damage prevention initiatives, including the establishment of a new three-part training program to create damage prevention awareness and improve excavation site safety. The program is aimed at making all employees and contractors involved in excavation activity knowledgeable of the C.A.R.E message to call the 811 hotline for locating underground utility lines before excavating.

The GES team also hosted the first annual VA811 Day, an event hosted on August 11 each year aimed at raising awareness for utility damage prevention. The event included demonstrations of equipment, guest presentations and team outreach to Facilities Management employees involved in the excavation process. These initiatives highlighted the tools and methods Damage Prevention Technicians and other Geospatial professionals use to reduce the potential for damages to utilities or injury to people.

This past year, multiple FM teams started using a new online emergency communications system called Veoci (which stands for Virtual Emergency Operations Center on the Internet). This software — which was jointly purchased by UVA, the City of Charlottesville and Albemarle County — allows real-time messaging and photo sharing among supervisors and administrators during emergencies. The GES team was instrumental in setting up FM’s use of the system, creating maps of UVA’s sidewalks and roadways, their snow removal priority and the equipment needed to clear them.

The Systems Control Center focused on process improvement of which the Veoci web application was an integral piece. This application allows for a centralized environment for the Systems Control Center to run its daily operations. The SCC team devoted many hours to streamlining processes, building forms, workflows, and disaster recovery plans within Veoci all of which resulted in improved information sharing across all departments of Facilities Management.
Health System Physical Plant provides engineering and maintenance support to the Health System buildings and the University Hospital. HSPP support is organizationally comprised of several groups mentioned below.

The HSPP Engineering Office provides technical assistance including inspections, drawing reviews, ICRA/ILSM training, and engineering support for major renovation efforts. The office’s work is integral to obtaining and maintaining the University’s accreditation from regulatory agencies, including:
- AAALAC: Recertification of all (10) vivarium facilities on a three-year cycle, including a very successful site survey/re-certification completed in July 2016 with no reported facilities deficiencies.
- CDC: Recertification of BSL-3/ABSL-3 facilities, requiring an annual shutdown/recommissioning of all systems and extensive documentation as part of an 18-month review cycle.
- CMS/The Joint Commission: Re-accreditation of patient care facilities on a three-year cycle; HSPP efforts are critical for maintaining institutional compliance for Life Safety and EOC performance measures.

The HSPP Fire and Life Safety Compliance Group provides inspections for ongoing renovations and maintenance activities throughout the Medical Center and Health System buildings to ensure that all facilities meet required Life Safety and State Fire codes. Continuous compliance inspections for all patient care and support areas are conducted throughout the year. HSPP was involved in assisting the Medical Center in a Critical Infrastructure and Key Asset inspection by the Virginia State Fire Marshal’s Office in March 2016.

HSPP Zone Maintenance continues to support Health System operations through well-established maintenance programs, including preventive, corrective and deferred maintenance.
- Zone 1 upgraded the Pneumatic Tube System in Emily Couric Cancer Center and Battle Building. The Zone maintenance group also has provided significant support to continuing AHU upgrades and planning for the new Hospital tower expansion as well as helping get a new MRI suite and CT scanner operational.

HSPP Renovations Carpenter Supervisor Todd Stroupe, right, and Carpenter Scheffel Carpenter work in the shop wearing all of the appropriate PPE. Due to increased safety precautions and awareness, HSPP saw a significant reduction in accidents over the past fiscal year.
HSPP staff completed a refurbishment of the Medical Intensive Care units.

These partitions are one of the Infection Control Techniques used within the University Hospital when construction and renovation occurs adjacent to patient care areas.

HSPP Zone 1 staff provided significant support to continuing Air Handler Unit upgrades in the University Hospital.

• Zone 2 completed the replacement of monolithic flooring installation throughout Pinn Hall Vivarium as well as multiple steam and condensate pumping upgrades in MR-5/MR-6.
• Zone 3 provided ongoing repairs and replacement of pipes for Multistory, Old Medical School Building and McKim Building. They also assisted in several projects including OBGYN Phase 1 Renovation on the 3rd floor of CDW, Suhling Heat Exchanger Replacement Project, and the Open Grounds Expansion Project.
• Zone 4 was involved in the installation of a new Medical Vacuum System for the Transitional Care Hospital as well as numerous projects including: replacing 2 RTU’s serving Pediatrics at the Orange Medical Center; renovation of the treatment area at Orange Dialysis; replaced the loading dock/dumpster road blacktop with concrete at Zion Dialysis; opening of the new Dialysis Centers in Appomattox and Staunton; newly maintaining 560 Ray C. Hunt which transitioned from University Foundation ownership to UVA ownership. Future ownership and maintenance responsibilities will change once renovations are completed at both 500 Ray C. Hunt as well as Northridge.

HSPP Zone Support Groups consist of six trade shops — plumbing, electrical, carpentry, painting, masonry/plastering and welding — that complete turnkey projects for Health System facilities.

The scope of work included installation of a specialty lab in MR-4 working closely with Epidemiology and CDC. A large and complex hospital patient room refurbishment project was started, which required extensive coordination with Medical Center Administration. Over a hundred rooms were completed before the project was put on hold due to hospital funding issues.

Staff completed a project to install flooring in 10 Medical ICU rooms while the hospital’s most vulnerable patients occupied adjacent rooms. This required implementation of difficult and exacting Infection Control procedures. The support team also continuously handled emergency projects and assisted project managers involved in larger capital projects.
Technology & Innovation

Facilities Management’s Technology & Innovation team provides and supports the necessary information technology (IT) for a highly integrated, state-of-the-art office automation system and critical business applications in the Facilities Management organization.

Technology & Innovation services include: a full-service computer helpdesk, web & application development, maintenance and support of FM business systems & databases, servers & IT infrastructure and IT security.

Significant accomplishments for 2015-2016 included:
- Worked with operational units to deploy mobile access to FM’s work management system. The mobile solution allows technicians to receive work assignments, enter time and complete work orders in the field and provides technicians with access to information about assets and work history.
- Began work with Automation Services, ITS, Audit and UVA’s Information Security, Policy and Records Office on a comprehensive cybersecurity assessment of FM building automation systems.
- Worked closely with FM departments on branding and identity through web communications, logos and other design standards.
- Worked with FM departments to streamline and automate business processes with SharePoint workflows, including continuing to improve an online Reward and Recognition process, Career Path application, an electronic onboarding system, and Apprentice Monthly Assessment.
- Following replacement of FP&C’s legacy Project Information Management System (PIMS) with E-Builder, T&I worked to import historical data from PIMS and complete the execution of all available modules while continuing to identify process and system improvements.
- The help desk installed 239 computers and tablets and responded to more than 3,200 calls for assistance in the 2015-16 fiscal year.
The Facilities Condition Index measures the condition of UVA’s portfolio of E&G buildings. The FCI continued to improve due to the efforts of PI, the capital project teams, and smaller renewal efforts. The FCI reached an impressive 4.9% this year after hitting the 5% milestone set by the BOV for 2014-15.

The Programs & Informatics team emphasized two areas this fiscal year, speeding and utilizing collected data and improving upon established business practices. The launch of the AiM Fire app allows FM staff to receive work and gather data about the work using an iOS device far more effectively than paper. An employee in the field can document work with notes or pictures, request services for an asset and enter their time worked, all from one program on a handheld device. Each building asset is assigned a unique identifier so its work history can be accessed and studied over time. A significant milestone was achieved with the move of Maximo into archive status. AiM is now FM’s sole computerized maintenance management system and we no longer have to invest in keeping two systems operational.

An important goal for Facilities Management is to increase its understanding of how we accomplish our work. Thinking “Lean” is one way to increase that understanding and improve work processes. FM began Lean initiatives that allowed employees directly involved in the work to analyze the process flow of transportation services and materials management and prepare improvement plans.

PI participated in a University initiative to collect feedback from students, faculty, and staff via the Report-a-Barrier website. This online reporting tool improves accessibility at UVA by making it easy to report obstacles such as an inoperable elevator, blocked ramp, or inaccessible website. Once reported, FM and others respond to address the need.

Other accomplishments include revising the FM Glossary, an online list of FM services, to be more organized and straightforward, and collaborating with FM Operations to start up the AiM Key Module to collect data about keys and centralize it in one place for easy access.

PI welcomed new staff members this fiscal year including: James Plakal, Kevin Mawn, Monica Davis, Duska Burruss, Mike Duffy, Johnny Tyler, Willie Clark and Everleigh Stokes.
Human Resources, Training & Development Programs

This fiscal year, HR&T pursued excellence through partnership by seeking collective opportunities with customers and other stakeholders. HR&T significantly expanded its Training & Development function, enabled largely by reallocating effort of existing team members and hiring a dedicated Training Specialist. In December 2015 and January 2016, senior management engaged in a Training Needs Assessment that revealed a number of opportunities for new training programs and offerings.

Some new efforts from this fiscal year included creating an online Manager Toolkit with 10-minute training exercises for supervisors to use with their team members and an online library of videos and articles reviewing key concepts, as well as a monthly email distributed to all staff highlighting upcoming training opportunities. HR&T is also actively pursuing additional initiatives that will roll out in FY 2016-17 including New Employee Orientation to supplement the University’s Grounds for Success program.

Following a request by an FM employee at the August 2015 Town Hall Meeting to have the opportunity to evaluate supervisors, HR&T was charged with creating the 2016 Management Performance Survey. The survey focused on manager performance in relation to the University’s seven key competencies. Participants had the opportunity to evaluate any one of the more than 200 supervisors, managers, and directors in Facilities Management.

Survey responses were accepted in late January 2016 and a total of 420 employees participated, or approximately 35% of the total FM population. Overall survey results indicated largely favorable satisfaction from employees regarding the performance of the management team member they chose to rate. The results from the survey were the focus of the fifth annual Manager Enrichment program and were shared with all FM staff by email along with the April 2016 issue of the On Grounds newsletter. Based on feedback from the survey, two FM Action Teams were formed from a cross-functional group of managerial volunteers to further develop ideas to improve on the two competencies of Balanced Decision Making and Accountable for Results.

The 2015 Leadership Forum introduced Lean Management principles to FM supervisors, which sparked a number of FM work teams to apply these principles to ongoing projects.

English as a Second Language (ESL) and General Educational Development (GED) classes continued to be offered on Grounds through a partnership with the Charlottesville City Schools Adult Education Program. This year, seven FM employees participated in GED classes and six employees attended ESL classes. Additionally, HR&T facilitated participation in the National External Diploma Program, a relatively new program that allows individuals to earn a high school diploma instead of a GED certificate. Two FM employees are currently receiving weekly tutoring sponsored by the HR&T office to support their pursuit of this program.

Manager Enrichment 2016 participants, above left, included Housekeeping Area Managers Reggie McGhee, Joe Newton and Tiffanny Morris and Accounting Manager Jason Davis. Leadership Forum 2015 attendees, above right, included Mason Plasterer Supervisor Senior Mark McGhee, North Grounds Zone Manager Gary Wood and Associate Vice President and Chief Facilities Officer Don Sundgren quickly assembling Legos during the event’s “Gazogle” exercise, a hands-on activity designed to imitate an assembly line production process.
HR&T continues to support three important UHR training courses by recruiting employees for Leadership Essentials and Essential WorkSkills, and registering all new employees for Respectful Workplace training. During the fiscal year, 13 FM employees completed Leadership Essentials and 15 completed Essential WorkSkills. FM’s on-site Trades Recertification training continued as a service to employees who are licensed in the construction trades. This past fiscal year, 184 employees participated in trades recertification classes.

As of June 2016, Facilities Management had 32 apprentices across the various trades. During the 2016 application period, more than 500 applications were received for the four postings being recruited in the trades of electrical, HVAC, plumbing and carpentry. Out of those applicants, 13 new apprentices were hired.

In addition to those apprentices who were inducted into the program, FM also had the honor of graduating four apprentices, and announced a new endowment. Donors Kathleen Ford and her husband Richard Bonnie came forward this year with the idea of an award for apprentices to honor Kathleen’s father who had worked in the trades. The Ed Ford Outstanding Graduate Award was created and given to the first recipient at this year’s apprentice graduation ceremony. HR&T created the criteria and mechanism for nominations to support this award.

Compensation, Classification & Career Paths

The University engaged in several compensation initiatives this fiscal year, including implementing a merit pool (3%) to enable schools and units to recognize the performance of University Staff and A&P Faculty. Merit increases were effective August 2016 while Classified Staff increases were placed on hold by the state legislature. The minimum hiring rate for the University was also increased to $25,750 effective August 2016 and an analysis of affected employees was conducted to address compression between employees brought up to the new rate and those just above the new rate. HR&T reviewed classified employee’s salaries and provided analysis to directors to determine if there were internal equity or retention concerns. Additional discussion occurred in May with resultant approved IBAs becoming effective in June 2016.

Across the three Career Paths of Housekeeping, Landscape and Recycling, FM has nearly 200 employee participants. Supervisors in each of these areas completed two separate assessments for their staff, one in the fall and one in the spring, coinciding with the performance management cycle. In the fall there were 29 total advancements; 19 in Housekeeping, seven in Landscape and three in Recycling. In the spring assessment, there were nine advancements in Housekeeping, seven in Landscape and two in Recycling.

During the fiscal year, Reward & Recognition Awards totaled $163,524 for 388 employees, a 41.6% increase over the prior year which is credited to the increased awareness with the program redesign and ease of the online system.

This year, 118 FM employees were recognized at the University’s service award ceremonies for serving for 10 or more years. Of those employees, 34 were honored as having achieved 25 or more years of service. In response to feedback that the service awards ceremonies had grown too large, this year, Vice Presidents took over responsibility for hosting their own, more personalized recognition events to celebrate employees with 10, 15 and 20 years of service.
Since FM represented nearly 80% of the honorees under the Sr. Vice President for Operations, HR&T took an active role in planning the event that hosted close to 130 honorees, guests and members of management in June 2016 at Alumni Hall.

Communications & Outreach

In early 2016, HR&T launched a redesigned Facilities Management newsletter, now called On Grounds. The redesign was the result of recommendations by a committee comprised of five employees from multiple FM departments. The committee met multiple times in 2015 to examine FM’s existing publications, discussing possible new names and changes to the design, content and publication schedule. The recommendations were finalized in the fall of 2015 and presented to the CFO Office and directors.

In addition to the name change of the newsletter, the frequency of the publications was increased from a quarterly schedule to bimonthly with On Grounds and Fast Facts alternating publication months. On Grounds also features a new design and layout, a scheduled rotation of departments to be featured and a new Cornerstones section, which includes content regarding FM’s four core initiatives of respect, safety, sustainability and diversity. In addition, an e-newsletter version of both publications was launched in an effort to increase readership.

During the spring Apprenticeship recruitment window in April 2016, both current and former apprentices, HR&T staff and FM leadership appeared on television and radio programs promoting the program and the Apprentice Job Fair which took place in April 2016.

Plumber Aaron Davis, a 2014 graduate of the program, appeared on the Newsplex’s CBS19 Noon Newscast and Good Morning Charlottesville and on NBC29’s noon news segment, as well as on the WCHV 107.5 Joe Thomas radio program, where he was accompanied by HR&T Employee Relations and Training Manager Sarah McComb. HR&T participated in a job fair at PVCC and hosted its own Apprentice Job Fair which allowed close to 50 prospective applicants from the community to meet with current and graduated Apprentices and Apprentice supervisors.

Facilities Management was honored for its commitment to diversity during a Founder’s Day event in April 2016 hosted by the UVA Office for Diversity and Equity and the President’s Commission on Slavery and the University. During the event, Vice President and Chief Officer for Diversity and Equity Dr. Marcus Martin thanked FM for its efforts to support diversity and inclusion, highlighting specific programs such as the Apprenticeship program and the FM Diversity Committee’s annual calendar, outreach in FM publications and Employee Engagement Program. Dr. Martin also noted FM’s support of the commemoration of UVA’s African American Cemetery in 2014 as well plans to host the June 2016 FM Girls Day event.

During the April 2016 Apprentice Job Fair, FM supervisors and current and graduated Apprentices, including from left, Robert Bishop, Dickie Williams, Randy Campbell and Kristina Williams, met with prospective applicants.

The HR&T team helped plan a June 2016 Service Awards event for those celebrating 10, 15 and 20 years of service. Three team members were honored during the event including from left, Director Rebecca Leinen, Cayce Fournier, Elsa Sherrill and Sarah McComb.
Occupational Health & Safety

The Occupational Health and Safety department continues to focus on outreach and engagement with the goal of promoting health and safety not only within FM but across Grounds. The employment of an effective health and safety management system based on Lean principles, emphasizes not only regulatory compliance, but development of robust training and education, resulting in increased employee engagement. By cultivating a health and safety management system instead of the low bar of program compliance, FM has seen a decrease in workplace injuries and a continued increase in employee ownership of health and safety.

Training and Education

Education continues to be the most important service OHS provides to the FM community. While the addition of new course offerings has slowed, effort has been shifted to creating dynamic, interactive and more effective training content. With this new format, employees are more engaged in the learning process and therefore more likely to exhibit ownership of safety in the workplace. In addition to meeting regulatory requirements and supporting FM’s goals of being the safest workplace, the department recognizes that every hour invested in training nets huge gains in employee productivity and morale.

Employee Involvement

Seeking growth in employee involvement and rooted in employee feedback, safety committees were reconfigured to be more collaborative and more relevant to employees’ work place hazards. With this new configuration the number of safety committees grew from three to eight and now represent a more comprehensive cross section of FM employees and hazards they face. In order to facilitate information exchange between these committees, an advisory committee made up of each safety committee’s chairperson meets quarterly. This meeting is for sharing best practices as well as celebrating safety achievements, such as the monthly Safety Champion.
To further this principle of more focused involvement, focus teams were designed to gather employees across the organization that share similar skills or job functions and are exposed to similar hazards. Focus teams provide input for program development and implementation, and lend their expertise to more focused and interactive training. These groups also exercise their skills and knowledge during incident investigations utilizing Lean tools such as cause mapping and root cause analysis.

Through both safety committee restructuring, and the formation of focus teams, FM has increased employee participation from 60 employees to more than 175 and has found an approach that promotes collaboration throughout the organization.

**Outreach**

In order to support more effective communication with internal and external customers, OHS has increased its web presence. This makes resources more accessible, and creates a forum for feedback. As resources are developed and implemented, they are posted online to be accessible by not only FM employees, but increasingly, for use by the University community as a whole, including contractors. Safety committee members are also listed, as well as Safety Champions, and a list of Frequently Asked Questions.

Acting on feedback from contractor partners, and building on the principle that there is no competition when it comes to safety, OHS has hosted several Safety Summit events. These Safety Summits have allowed the department to more effectively communicate its safety initiative to contractor partners. They also provide a venue for companies to share best practices, lessons learned and work together on job site safety. In addition to these Safety Summits, OHS continues to collaborate with contractors to review safety plans, provide resources and share information. This partnership has gone a long way toward improving safety on Grounds for everyone, including faculty, staff and students as well as in the greater Charlottesville community.
COMMUNITY INVOLVEMENT

Facilities Management employees continue to generously support nonprofit service organizations through several traditional events and individual community work.

During the annual Day of Caring on September 21, 2016, more than 100 FM employees used their skills and energy to improve facilities at Camp Holiday Trails, the Senior Center and the Lane Babe Ruth League Field.

When the Commonwealth of Virginia Campaign held its annual fund-raising event for more than 1,000 non-profit organizations in our region, a total of 175 FM employees donated $24,900.
At the Senior Center, volunteers, including Custodial Services Workers Sona Chitadze and Amba Remy clean the interior windows.

Camp Holiday Trails volunteers enjoyed lunch under the pavilion, above, and FM staff, left, Electrician Apprentice Donte Sims and Electrician George VanDyke installed new track lighting in one of the cabins.

Volunteers included, from left, Custodial Services Worker Kiteto Mukala scrubbing a shower in a cabin; Housekeeping Supervisor John Carey dusting lights in the Dining Hall; and Roofer Glenn White, installing a tie-off hook on the Dining Hall roof to ensure roof maintenance can be performed in safer manner.

Landscape staff volunteers included, from left, Phil Saunders, J.R. Richardson, Jerry Brown, Marc Bolen and Clinton Martin, who performed various landscaping duties on the campgrounds, including pruning trees, cleaning out drainage ditches and cutting back overgrown plants.
Our employees are enthusiastic and reliable supporters of the quarterly blood drives sponsored by Facilities Management to benefit Virginia Blood Services. Pictured above from left: Instrumentation & Controls Supervisor Lou Persinger, a longtime and regular donor, displays the free T-shirt provided to donors; Construction Administration Manager Charlotte Dickerson, who was donating blood for the first time ever in honor of Valentine’s Day; Senior Facilities Services Coordinator Deneen Morris whose total donations are nearing three gallons; and HVAC Supervisor Felix Crawford, who donates regularly because his O negative blood type is rare and can be transfused to almost any patient in need.

FM Employee Council Chair Molly Shifflett, left, displays the pop tab donations submitted on behalf of FM to the Ronald McDonald House of Charlottesville. The pop tabs (which come from soda cans) are sent to a local metal recycler who provides compensation for the aluminum. The funds received are used to support the organization which provides complimentary housing for out of town families who have a child receiving care at UVA hospital.

The Cabinet Shop donated materials and volunteer time to create six signs for the City Schoolyard Garden. Carpenter Apprentice Vu Nguyen (left) shows off the donated material that was used to create a sign (right) for the group’s annual Root Celebration.

FM staff, including from left, West Grounds Zone Manager Kenny Bower, former Utilities Supervisor David McFall and Central Zone/Art Zone Senior Manager Ryan Taylor, donated 100 cases of water as well as clothes, cleaning supplies and food to support West Virginia flood victims in the summer of 2016. Ryan initiated the donation drive to support the area of West Virginia where his family lives. David secured significant donations from outside vendors including Fergusons and Specialty Fasteners.

FM employees generously supported multiple fundraisers during the 2015 holiday season, including the annual Toy Lift and the Hoos for the Hungry Food Drive. Service Desk employees (left photo, from left) Shirley Bennington, Val Knapp, Amanda Pruitt, Deneen Morris, Jennifer Brecht and Brenda Buttnier, show off the collection of donations for Charlottesville’s annual Toy Lift that provides holiday gifts for less fortunate children in the area. In conjunction with the Cardiovascular Research Center, donations totaled 118 toys, two bicycles and $400, which were transported by FM staff (center photo from left) Brandon Ladd, Martin Rush and Kyle Wolfe. FM employees also supported the Hoos for the Hungry Food Drive with 242 pounds of non-perishable food. Just before the pickup by Blue Ridge Area Food Bank staff, FM Employee Council Chair Molly Shifflett (right photo) did a final check of the donation barrels filled with canned and boxed goods.
The Finance Department provides accounting, budgeting, financial reporting, accounts payable, and payroll support for Facilities Management’s total business volume of $362 million and 1,138 filled full-time employees in fiscal year 2015-2016.


### University of Virginia Facilities Management
Financial Summary 2016

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