Honoring Our Past
Preparing for Our Future

University of Virginia
Facilities Management
2013-2014 Annual Report

Cover photos by Jennifer Watson/FM Webmaster (top and bottom left) and Dan Addison/UVa Communications

On the cover: Since the discovery of an African American burial site in late 2012, Facilities Management staff has worked with a variety of other University groups to appropriately maintain and commemorate this historic site on Grounds. An archaeological survey of the land, which had been slated for cemetery expansion, uncovered 67 unmarked and previously unrecorded grave shafts that archaeologists say likely contain the remains of enslaved and possibly post-Emancipation African-Americans.

Photo by Sanjay Suchak/UVa Communications (left)

During an October 2014 commemoration event honoring UVa's African American Cemetery (left), a full crowd listens to Deborah McDowell, director of the Carter G. Woodson Institute for African-American and African Studies and an English professor, read a poem underneath a tent erected for the occasion. A stone bench and informational signage (right) were installed in the cemetery by Facilities Management staff. The signage includes a map with locations of the unmarked gravesites and the names of free and enslaved African Americans who died while living and working at UVa through 1865.

In May 2014, Project Services masons installed stone piers with timber fencing around the perimeter of what is now known as UVa's African American Cemetery. Later in the fall, FM staff coordinated the preparation of an October 2014 commemoration ceremony of the graveyard, which was part of a two-day national symposium titled "Universities Confronting the Legacy of Slavery" organized by UVa's Commission on Slavery and the University, which is led by Vice President and Chief Officer for Diversity and Equity Dr. Marcus Martin.

The Facilities Management annual report includes more photographs and summaries of projects supported by our employees who are dedicating their talents and careers to honoring the University of Virginia's past and preparing for its future.

Contents

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.

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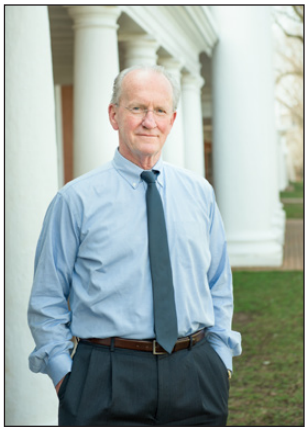
Message from Don Sundgren



The initiative, professionalism and sense of ownership demonstrated by Facilities Management employees during fiscal year 2013-2014 set a new standard for a team who always strives to be the best steward of the University of Virginia.

We are proud that several of our colleagues and teams have earned special recognition over the past fiscal year:

- Facilities Planning & Construction's UVa Medical Center Hospital Bed Expansion and Helipad Project was named Best of the Best 2013: Best Healthcare Project by Engineering News Record in December 2013.
- Associate Director of Chiller Plants Justin H. Callihan was a 2014 recipient of the Leonard W. Sandridge Outstanding Contribution Award for his work to improve the reliability and energy efficiency of the University's chiller plants.
- Plastering Apprentice Graduate Daisy Dejesus became the first woman to complete the plastering track of the program in June 2014.
- Carpentry Apprentice Chris Toney was featured in a historic preservation e-newsletter sponsored by the Jeffersonian Grounds Initiative in Fall 2013 because of his work with the renovation of Pavilion IX during his first year as apprentice.
- Due to the work of the Building Services team, the University achieved the prestigious Green Seal GS-42 certification, becoming the first university in Virginia and the third in the country to attain this level of certification in October 2013.

We continue to focus on improving our resources in four key areas: diversity, safety, sustainability and respectful workplace. Initiatives over the past fiscal year in support of these values include the creation of the Diversity Team in December 2013 (and a soon to be established Sustainability Council), Respectful Workplace training for all staff and the creation of a new Safety Director position reporting into the CFO Office.

We are proud of our employees' accomplishments in the areas of educational and professional development. As the University's stewards, Facilities Management values the initiative our employees demonstrate as they pursue professional development and life-long learning.

Facilities Management continues our long tradition of giving back to our community through many important events. In September 2013, more than 100 employees volunteered their skills at the annual Day of Caring to improve the facilities for Camp Holiday Trails, the Senior Center and the Lane Babe Ruth League Field. Soon afterwards, they donated $23,700 to the Commonwealth of Virginia Campaign. Our employees also generously supported collections for the Blue Ridge Food Bank, the Toy Lift and the School Supplies Drive for underprivileged children in our area. Throughout the year, they also supported Virginia Blood Services.

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
Chief Facilities Officer

Photo by Jennifer Watson/FM Webmaster

The UVa Medical Center Hospital Bed Expansion and Helipad Project — which was managed by Facilities Planning & Construction's Health System Division — was named Best of the Best 2013: Best Healthcare Project by Engineering News Record in December 2013.

Photo by Dan Addison/UVa Communications

In the weeks before the April 2014 unveiling of four panels of the historic Berlin Wall, FM crews constructed the secure display casement and appropriate infrastructure on the quad near Alderman Library on McCormick Road.

UVa Vice President and Chief Officer for Diversity and Equity Dr. Marcus Martin (left) speaks at the April 2014 meeting of Facilities Management's Diversity Team.

In an effort to increase safety around Grounds, the Power & Light group installed 124 new exterior lighting poles and 167 LED fixtures at various University crosswalk locations, including in front of the Claude Moore Medical Education Building, seen here.

Photo by Sanjay Suchak/UVa Communications

Each year a tree is planted on Founder's Day to honor Thomas Jefferson and to celebrate an individual who has made a significant contribution to UVa. In 2014, retiring FM Director of Operations & Maintenance Jay Klingel was honored.

Photo by Jennifer Watson/FM Webmaster

Chief Facilities Officer Don Sundgren addresses the crowd during Facilities Management's second annual Town Hall meeting in August 2014.

Major Initiatives

Facilities Planning and Construction (FP&C) is responsible for the execution of the University's Capital Project Program. We provide 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 2013-2014, FP&C's accomplishments included:

- Completed and occupied several new major facilities totaling $340,148,762. Some are highlighted in the Division sections that follow.
- Awarded 75 construction contracts totaling $62,595,937.
- Processed 363 professional service contracts and service orders totaling $15,322,747.
- Put in place construction with a value of $165,800,000.
- Design and construction continues on major new facilities totaling $438,550,826.

Academic Division

The Academic Division had a total workload of 21 capital projects. Using the HECOM threshold of $1 million for a Capital Outlay project, these active projects included:

- 6 capital projects in design for a total of $24,750,000.
- 9 capital projects in construction for a total of $217,970,000.
- 6 capital projects completed for a total of $80,510,000.

Capital Projects in Design	Capital Projects in Construction	Capital Projects Completed
Cemetery Expansion	Alderman Road Residences Building 6	FM Landscape Shop
FM Shop Support Office Building	Carruthers Data Center Renovations	Minor Halsey Tunnel Repairs
Gilmer Hall and Chemistry Renewal	Gooch Dillard Renewal Phase I	North Grounds Recreation Center
Newcomb Road Chiller Plant	New Cabell Hall Renovation	Rotunda Roof Replacement and Exterior Repairs
Wilson Hall Renovations	North Grounds Mechanical Plant	Ruffner Hall Renovation
College at Wise: Dam Restoration	Rotunda Renovations	Shannon House
	Rugby Road Office Building	
	College at Wise: Health & Wellness Center	
	College at Wise: Library	

See Facilities Planning & Construction's complete 2013-2014 Annual Report located on the FP&C website, for more information on projects and accomplishments.

Academic Division Major Commissions

Rotunda Renovation

Photo by Dan Addison/UVa Communications

Constructing the Rotunda's remaining renovations began immediately after 2014 Final Exercises and will take two years to finish. The renovations include extensive work to the building's interior, exterior and landscaping.

The exterior work includes structural renovation and other repairs on the two porticos, roof replacement, replacement of the Corinthian column marble capitals, repairs to the column shafts and bases, and repairs to the two sheet metal cornices on the building's main drum and other ornamental sheet metal. In the four wings, the brickwork, marble balustrades, windows, and ceilings and columns of the connecting colonnades will receive intensive cleaning. The terraces above the wings will be waterproofed and repaved, with their drainage systems repaired. Landscapes and hardscapes in the east and west courtyards, and the north terrace, will be redesigned and replaced.

Inside the building, mechanical, electrical, lighting, plumbing, fire protection, elevator, data, security and audio-visual systems will be replaced. Mechanical space will be increased to improve performance, serviceability and energy efficiency. Interior alterations include replacement of the interior lining of the Dome Room's ceiling and the addition of a stair to the Dome Room's lower gallery. Several rooms will receive improvements for their use as classrooms and quiet study.

John G. Waite Associates of Albany, N.Y. is the architect for the project. Whiting-Turner of Richmond, is the construction management firm. Construction began in May 2014, with completion scheduled for July 2016. The project budget is $43.4 million.

Alderman Road Residences Building 6

Building 6 continues the multi-phase project first started in 2006 to remove and replace the 1960s-era residence halls in the Alderman Road precinct. In a time of growing student population, the new residence hall will create a strong sense of place with secure, close-knit communities. Every floor will feature study areas and lounges, with modern amenities throughout. The entry level floors will provide animated gathering places for meeting, recreation and collaborative learning. In addition, Building 6 will provide approximately 10,000 gross square feet of office space for the Office of Housing and Residence Life.

The site is located on Alderman Road across from Scott Stadium extending south from the earlier phases. The site provides convenient access to the Aquatic and Fitness Center and West Grounds. Site development will extend the accessible pedestrian route throughout the complex with future expansion to Gooch Dillard Houses and Hereford College. This route provides a strong organizing element for the entire precinct. Structured and unstructured outdoor recreation areas will be provided.

The project is designed by EYP Architects of Washington, D.C. The construction manager is Donley's LLC Mid-Atlantic Regional Office of Richmond. The working project budget is $38 million. Construction of Building 6 began in May 2013 and is scheduled for completion in the fall of 2015.

Rugby Office Building Renovation

The former Rugby Road Faculty Apartment building — which was constructed in 1922 — is being renovated to be used as office space for several departments. The 25,000 gross square foot building was designed by Fiske Kimball and served as faculty housing until the turn of the 21st century when it was closed. Kimball designed his building on the foundation of an earlier, unfinished building that was intended to support athletic activities at nearby Lambeth Field. With this unique history, the discovery of an unfinished swimming pool beneath the basement floor, which had to be filled in due to structural considerations, was perhaps less surprising than it might have been.

The building will be structurally stabilized. The project will replace the electrical and plumbing systems and provide forced-air central heat and air conditioning. Fire alarm and suppression systems, and new internet and data capability, will be installed. Architecturally, new bathrooms will be installed on each floor, a new elevator will serve all four floors, and the central staircase, originally only serving the first and second floors, will now be expanded to the lower level and third floor. The original wood floors will be repaired and refinished, plaster walls will be restored to the original textured appearance, and original doors will be installed in order to maintain the historic character of the Rugby Building, which was a contributing member of the Rugby Road Historic District. A new terraced patio and bio-retention rain garden are key features of the landscape design that will overlook the Lambeth Field Colonnade.

Glavé & Holmes Architecture prepared the design and provide construction administration services for the project. Project Services is serving as the general contractor. Construction is expected to be complete in early winter 2015. The total project budget is $10 million.

New Cabell Hall Renovation

Built in 1952, New Cabell Hall is the workhorse of the College of Arts and Sciences, with office space for 390 faculty and staff and 46 classrooms. Construction is nearly complete on a multiphase replacement of obsolete heating, plumbing and electrical systems. Central air conditioning and fire suppression systems were added and elevator and tele-data distribution systems were replaced. The windows have been restored while hazardous building materials were removed and all interior finishes were upgraded.

Classrooms in this historically significant building have been equipped with state-of-the-art technology to enhance student learning. The formerly inaccessible courtyard facing Old Cabell Hall has been landscaped to transform this under-utilized space into a vibrant destination, with direct connection to both adjacent buildings. A new multi-story curtain wall has been installed to introduce daylight deep into the corridors of New Cabell Hall and provide an accessible connection between the historic Lawn and the South Lawn complex. The entire building is now fully accessible to the University community including those with disabilities or other special needs.

The architect of record is Goody Clancy of Boston, and the construction is being managed by Barton Malow of Charlottesville. The project budget is $64.5 million. The modernization of New Cabell Hall was completed in the fall of 2014.

College at Wise Health & Wellness

The University of Virginia's College at Wise has built a new Health and Wellness Center as an addition to the existing C. Bascomb Slemp Student Center. The Health and Wellness Center provides new fitness facilities for students, faculty, staff and the general public from Wise County and surrounding areas. The addition will include an exercise area, multipurpose room, locker rooms, offices, café, entry lobby and conference rooms with video conferencing capability to support the Health Appalachian Institute. The site for this addition is a steep hill that involved significant engineering challenges during construction. The building is a two story, 11,600 gross square foot structure, connected to the existing fitness areas located in the Slemp Student Center.

The project received a Certificate of Occupancy in August 2014. Train and Partners of Charlottesville is the project architect, and BurWil Construction Co. of Bristol, Tenn. is the construction manager. The project budget is $6.2 million.

College at Wise Library

The University of Virginia's College at Wise is constructing a new library to support the academic mission of the College and provide a state-of-the-art facility for the College's students and faculty. With its prominent location and striking design, the library is certain to become an iconic feature of the campus. The library will be centrally located in the academic heart of the College.

Designed to accommodate the College's present and future needs, the new library will house the College's collections and will provide study, instructional and multimedia space. In addition, the facility will improve campus accessibility by serving as a vital, 24-hour vertical link between the upper academic campus and the lower residential campus. Lobbies on several floors of the facility will be open late, and will feature café tables, group study rooms and informal lounge seating. The open design will encourage students to collaborate on projects, study and gather informally throughout the day and evening. A café will further enhance the facility's role as a center of campus life.

Designed by Cannon Designs of Arlington, the library is a five-story, 69,000 gross square foot brick and glass structure. Construction is now underway, with completion expected in the summer of 2016. Quesenberry's of Big Stone Gap is the construction manager. The project budget is $37.2 million.

Health System

The Health System Division responded to 15 new requests for services, contributing to a total workload of 73 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:

- 28 projects in startup / request phase, budget / scope not yet developed.
- 32 small non-capital projects with an average size of $145,348 for a total of $4,651,136.
- 13 large non-capital projects with an average size of $996,868 for a total of $12,959,278.
- 14 small capital projects with an average size of $2,718,481 for a total of $38,058,738.
- 14 large capital projects with an average size of $29,815,061 for a total of $417,410,850.
- 10 capital projects in design for a total of $129,045,826.
- 7 capital projects in construction for a total of $66,785,000.
- 11 capital projects completed for a total of $259,638,762.

Capital Projects In Design	Capital Projects In Construction	Capital Projects Completed
Education Resource Center	McLeod Hall Phase III	1003 West Main Street Renovation
Ivy Translational Research Building – 560 Ray C. Hunt Drive	Old Jordan Hall Fresh Tissue & Gross Anatomy	Battle Building at Children's Hospital
MRI Relocation – Enabling Project for ED Tower Project	University Hospital HVAC Replacement Phase II	CRU & Neurosurgery Renovations Davis / Barringer / McIntire
University Hospital 7th and 8th Floors Renovation	University Hospital NICU Renovation / Level 7	East Chiller Plant and Lee Street Realignment
University Hospital Expansion		Lee Street Entry and Connective Elements
University Hospital Emergency Power Phase III		Old Jordan Hall Microbiology Central Corridor Lab Renovations / 7th Floor
University Hospital HVAC Replacement Phase III		Outpatient Surgery Modular Unit Improvements
University Hospital – Vegetated Roof		Underground Utilities Relocation on JPA at Battle Building
		University Hospital Fire Alarm Replacement
		University Hospital Main Roof Replacement Project Phase II
		University Hospital Vascular Hybrid Operating Room
		West Complex – Blake Relocation
		X-Ray Renovation – Blake Relocation
		Demolition of 1224 JPA – Battle Building

Health System Division Major Commissions

Education Resource Center

The Health System 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 (ECCCC) 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. This center, located in the lower level, will connect directly with the ECCCC main radiology area.

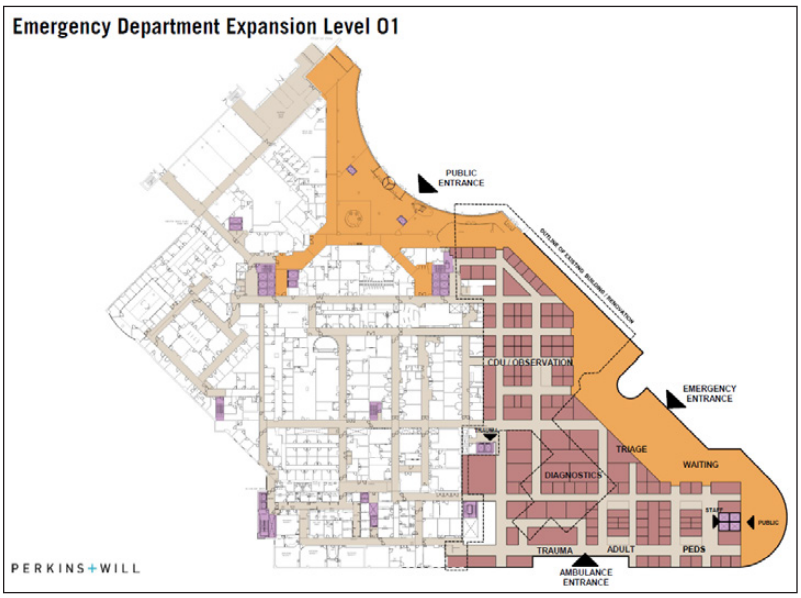
The designers for the project are CO Architects from Los Angeles. Donley's/McCarthy is the construction manager. Construction is scheduled to begin in the fall of 2014 and completed in the fall of 2016. The project budget is $29.4 million.

University Hospital Mobile MRI and Enabling Moves and MRI Relocation for the Hospital Expansion Project

The Mobile Magnetic Resonance Imaging (MRI) and Enabling Moves project is the first phase of the MRI Relocation project, which will enable the decommissioning of the existing MRI Pavilion at the University Hospital, as required for future development. The project consists of a new mobile MRI trailer and one-story modular industrialized building with a corridor directly connecting to the existing hospital, along with significant interior work to open space in the first floor of the hospital to accommodate three MRIs in their new locations. The modular building will house a new reading room for the IR staff and will be outfitted with computer monitor workstations for the radiologists. The building will act as a reception and waiting area and link to a temporary mobile MRI. Exterior work includes site work for the modular, new walkways and a new dock for the Mobile MRI trailer. Interior work includes multiple relocations within Interventional Radiology, including two PICC Rooms, a new Angiography Room, re-designed high-efficiency storage and office relocations. The second phase is the relocation/installation of three MRIs to the spaces in the hospital created by the first phase enabling the work.

The architect is Perkins + Will of Washington, D.C. and the construction manager for phase one is Crenshaw Construction, Inc. of Culpeper. The construction manager for phase two is Skanska USA of Parsippany, N.J. Construction is scheduled to begin in the fall of 2014 with completion in the fall of 2015. The total project cost is $15.1 million.

University Hospital Expansion



Due to growing needs, a new Emergency Department is being planned for the Health System. The current capacity of the Emergency Department is 43 private and semi-private exam and trauma beds and 17 hallway beds. The projected capacity need is 56 private exam (treatment)/ trauma beds, 8 psychiatric beds, 2 forensic beds and a clinical decision making unit, which will equate to 65 to 80 treatment beds.

The Health System is considering an increased number of interventional capacity, procedural, hybrid or operating rooms based on current utilization and current operating models and an increased inpatient capacity based on an increase to patient floors.

The programming and design will be completed by Perkins + Will of Washington, D.C. Skanska USA Building, Inc. has been selected as the construction manager. Project cost is estimated between $119 to $145 million.

University Hospital Vegetated Roof Retrofit

The roofs of the University Hospital, which was completed in 1989, have aged and are being replaced. This project replaces the original portion of the expanded lobby roof with a vegetated "green roof." The 26,000 square foot green roof has many benefits over a traditional roof including providing visual interest for patients and staff, reducing the heat island effect, reducing storm water runoff and improved thermal properties.

The design is influenced by the local geography, incorporating mountains, variegated sections for cultivated fields, green areas for forests and a stream. The system design uses state-of-the-art features including the waterproofing membrane and leak detection. The irrigation system will use non-potable water from the hospital HVAC system reducing sanitary water discharge. The vegetation will also use the rain, thereby reducing our storm water discharge as well. The vegetated roof will be a key element of the Lee Street landscaping upgrade which includes the Education Resource Center.

The project designer is Roofmeadow of Philadelphia. Waterproofing and the vegetation portions of construction are by Tecta America from Jessup, Md. The project budget is $2.4 million and was completed in October 2014.

University Hospital HVAC Replacement Phase II

The second phase of the Hospital HVAC Replacement Project includes the replacement of air handler units (AHUs) nearing the end of their projected life spans, upgrading support systems and two additional programmatic goals.

The first segment of the project consisted of upgrades to the glycol system and the installation of ductwork on the hospital roof to enable excess capacity from the new Hospital Bed Expansion AHUs to provide temporary air during the removal and installation of new AHUs. The second segment comprises the design and installation of six new AHUs and connections to their associated support systems. The AHUs 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 large parts, and are then being constructed, tested and commissioned on-site under the supervision of specialized on-site technicians.

The project's programmatic goals included enhancing the integration of the work by getting the team in place early in the process by contracting the construction management joint venture, Donley's/McCarthy; the engineer, Leach Wallace; and the commissioning agent, Burns and McDonnell, all at the start of design. The project also included the development of a Building Information Management execution plan for this work that will serve as a prototype for future University Hospital projects.

Phase II is projected to be completed in the third quarter of 2015. The cost is budgeted at $12.8 million.

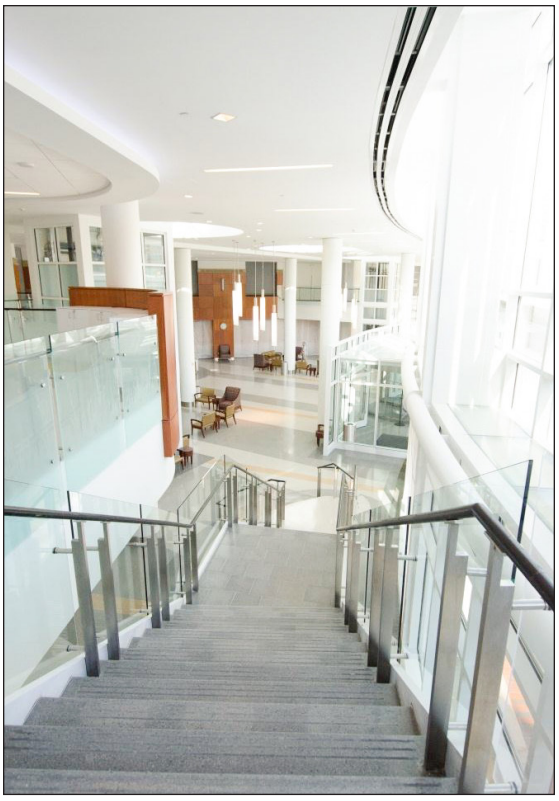
East Chiller Plant / Lee Street Realignment

The East Chiller Plant project was a result of a study of the Health System Chiller Plant System completed in January 2010. The study reviewed chilled water demand and system capacity for the next 20 years and provided recommendations for existing chiller replacements as well as capacity increases.

The project also included the realignment of Lee Street to Roosevelt Brown Boulevard in order to better accommodate the new chiller plant, and streamline traffic flow to Health System facilities and parking structures. There was a need to replace five 1,200 ton chillers (6,000 total tons) in the North Chiller Plant that are at the end of their useful life. The new East Chiller Plant provided a building shell for a 10,000 ton plant with 6,000 tons of initial installed capacity in the form of three 2,000 ton chillers.

The Lee Street realignment package started construction in August 2011, the chiller plant site development started in February 2012 and the final building package was awarded in May 2012. Completion of the plant was achieved in September 2013. Affiliated Engineers, Inc. was the design firm with HOK as the architectural consultant. Gilbane is the construction manager. The project budget is $30.9 million.

Lee Street Entry and Connective Elements



This project included an expanded front entry to the University Hospital, a new plaza/traffic oval centered on the hospital entrance, a new bridge over Lee Street between the hospital and the Lee Street Parking Garage, and a new vertical circulation tower that joined the Lee Street Garage with the bridge to the 11th Street Garage on the north side of the railroad tracks. The Lee Street Connective Elements project ties together the Emily Couric Clinical Cancer Center and the Hospital Bed Expansion, allowing a unified sense of place and a new point of arrival. The new plaza/traffic oval provided for better vehicular flow and controls the increased usage that results from the completion of these projects.

The second and most prominent phase of construction – the expansion of the Hospital Lobby, the new curved glass front of the Hospital and the bridge over Lee Street – opened in early July 2013. Additional work in the Hospital Lobby included new information desks, a gift shop and a renovated space for patient discharge. The final phase of the project included new sidewalks and landscaping, creating visual continuity from the plaza to Jefferson Park Avenue.

To ensure design continuity, this project used the same architect that designed the Emily Couric Clinical Cancer Center, Zimmer-Gunsul-Frasca Partnership of Washington, D.C. All three projects share patterned glass curtain wall modulated by the rhythm of vertical mullions and columns. Construction management services were provided by Gilbane Building Company of Laurel, Md. The total project cost is $30.3 million, and construction was completed in December 2013.

Old Jordan Hall Microbiology Central Corridor Lab Renovation / 7th Floor

This project renovated 9,600 gross square feet of space in Old Jordan Hall to provide a new laboratory for the Department of Microbiology, Immunology, and Cancer Biology.

It is the first lab renovation in Jordan Hall to take full advantage of opportunities for improved air flow control and energy savings made possible by the Old Jordan Hall HVAC Infrastructure Replacement Project. It is also the first renovation in the building to incorporate within the lab boundaries the central corridor on the floor. This, plus the use of an "open lab" design (one in which there are long rows of lab benches and few interior walls), allows for greater efficiency in use of building space.

The project will thus serve as a template for future renovations in the building. The project architect was Nalls Architecture of Philadelphia. Construction was done by in-house forces from the Project Services group. The total project budget was $3.1 million. The project was completed in June 2014.

Engineering and Design

Engineering and Design is composed of two work centers, the Design Group and the Project Management Group. Engineering and Design was active in the design and/or execution of over 140 individual projects and other activities in support of University facilities throughout fiscal year 2013-2014 and executed approximately $10 million in project and technical support activities.

Project Management Group

In Design	In Construction	Completed
Albert Small Building Roof Repair / Replacement	Aerospace Research Roof Replacement	Alderman Library Built-In Gutters & Low–Slope Roof Replacement
Alden House Roof Replacement	AHU #5 Replacement, Withers Brown Hall	Alderman Road Dorms Concrete Inspections 2013
Alderman Road Dorms Concrete Inspections 2014	Brown College Restroom Renovations, Phase I	Bavaro Hall Roof Hatch Installation
Carruthers Hall Fire Alarms	Brown College Slate and Flashing Repairs – Phase II	Brown College Slate and Flashing Repairs – Phase 1
Clemons Library Fourth Floor Vegetative Roof	Brown College Waterproofing	Child Development Center Emerg. Power Generator Installation
Clinical Department Wing Subterranean Roof Replacement	Chemical Engineering Roof Replacement	Drama Building Roof Replacement
Darden Concept Design in Support of the Strategic Space Plant	Darden Terrace Waterproofing and Repairs	JPJ Arena Building Envelope Repairs Phase II
Dawson's Row Roof Replacements	High Energy Physics Roof Replacement	Law School Window Replacement Phase II
Fitzhugh House Cast Stone Repairs	JPJ Arena Building Envelope Repairs	Lorna Sundberg House Roof Replacement
Gilmer Biology Psychology Library	Law School Window Replacement Phase III	McCormick Observatory SW Low-Slope Roof Replacement
Halsey Energy Physics Roof Replacement	Materials Wing Roof Replacement	O'Hill Emergency Power Generator Replacement
ITS Data Center, AT&T Equipment Installation	McIntire Wing Roof Replacement	Sponsor's Hall Gatehouse Walkway Waterproofing
Kerchof Hall Built-In Gutter and Low-Slope Roof Replacement	Memorial Gymnasium Window Repairs	Stacey Hall Roof Replacement
Kerchof Hall Terrace Waterproofing	Men's Soccer Locker Renovation, University Hall	TJAGLCS Site Security Upgrades
Kluge-Rue Cottage Renovation	Michie Building Roof Replacement	
Law School Building Envelope Repairs	Parking & Transportation Office Roof	
Law School Classroom Door Hardware Upgrades	Slaughter Materials North Addition Roof Replacement	
Mechanical Engineering Roof Replacement	Thornton Hall Fire Alarms Phase I	
Memorial Gym Window Replacement	Withers Brown Hall North Section Roof Replacement	

Design Group

In Design	In Construction	Completed
2400 Old Ivy Road Elevator Modernization	Carruthers Hall Elevator Modernization	3rd Floor Lab Renovations MR-4
Brown College Restroom Renovations, Phase II	Elson Student Health Ground Floor Renovations	Athletics Storage Facility Indoor Practice
Chemical Engineering Elevator Modernization	FM Shop Renovations for Project Services	BIMS Education Center McKim Hall
Drama Shop Paint Frame Replacement	Freight Elevator Modernization Mechanical Engineering	Elevator #5 Modernization Slaughter Hall
Leake Building Entrance Canopies	Gross Anatomy & Fresh Tissue Labs, Jordan Hall	Elevator #6 Cab Refurbishment Slaughter Hall
Minor Hall Sprinkler Assessment	Law School Restroom Renovations	Elevator Replacement Monroe Hall
Monroe Hall Elevator Modernization	Michie North Elevator Modernization	Gala Lift Replacement, Culbreth Theater
Relocate Conservator's Lab to Alderman Library (on hold)	Michie South Elevator Modernization	Install Handrails, Scott Stadium East & West
Replace Elevator Doors, Alderman Library	Thornton Stacks Renovations SEAS	Landers Lab Renovations Chemistry
		Replace Elevators #1 and #2 Memorial Gymnasium
		Ruffner Hall Renovations
		Ticket Booth & Associated Renovations, Old Cabell Hall

Engineering & Design Division Major Commissions

Ruffner Hall

Ruffner Hall is an 85,000 gross square foot, four-story academic building providing general classrooms, offices and meeting space for faculty, staff, and graduate students of the Curry School of Education. The building, constructed in 1973, required major renovation, including replacement of HVAC and electrical systems, plumbing fixtures, removal of asbestos and lead paint, roof replacement, replacement of exterior doors and windows with energy-efficient components, structural and building envelope repairs and data system upgrades. In addition, the building was remodeled to address changes in the school's programmatic needs and to provide ADA compliance.

Notable aspects of the design work included a new exterior entrance on the east side of the building opposite Bavaro Hall, completely renovated auditorium classrooms, LEED-compliant materials throughout and improved acoustic isolation of classrooms and corridors.

The FP&C Design Group was the architectural consultant to the A/E of Record, McKinney & Company. The Design Group provided all basic architectural services from schematic design to project closeout. The project budget was $19.6 million and the project was completed in June 2014.

Gross Anatomy & Fresh Tissue Lab Renovations, Jordan Hall

On the first floor of Old Jordan Hall, the Gross Anatomy Lab is being renovated and a new Fresh Tissue Lab is being built. The work includes space remodeling, replacement of interior finishes and casework, new laboratory equipment and mechanical, electrical and plumbing work required by the renovations. The existing toilet room will be completely remodeled and sprinklers will be provided to all spaces on the first floor. The work includes audiovisual capability between procedure stations and classrooms. The HVAC design includes room pressurization and increased air changes to limit formaldehyde exposure in accordance with OSHA requirements. The project will be LEED-certified.

The FP&C Design Group is the A/E for the project, with RMF Engineering as consulting engineers for mechanical, electrical and plumbing work. The project is a collaborative effort of Facilities Management in-house forces with FP&C Health System Division providing project management and construction by Project Services. Project design and construction are phased to meet an aggressive schedule; the Gross Anatomy Lab was ready for student use in early August 2014, less than a year after initial meetings of the project team. The final phase of the project is on track for completion by the end of 2014. The project budget is $5 million.

Project Services

The Project Services Department completed $29 million in construction and renovation projects in the 2013-2014 fiscal year. Projects included construction of a stone pier and timber frame fence around the African American Cemetery, a complete lab renovation on the 7th floor of Jordan Hall, fabrication and installation of lockers at University Hall for the men's soccer team and the on-going renovation of the Rugby Road Office Building.

African American Cemetery

Photo by Jennifer Watson/FM Webmaster (left)

An African American cemetery was uncovered in 2012 during a survey of land that was slated for cemetery expansion. Working in cooperation with other University groups to appropriately commemorate this important site on Grounds, Project Services masons (above from left, Jason Hall, Aaron Morris, Matthew Proffitt and Travis Eubanks) installed stone piers with timber fencing around the perimeter of the cemetery during the spring of 2014. The stone piers consisted of nine tons of stone and were connected with rough-sawn white oak rails.

Jordan Hall 7th Floor

For a lab renovation on the 7th floor of Jordan Hall, an open lab configuration was designed to promote collaboration between research groups working on the same type of research, such as cancer. This collaborative arrangement also offers an added appeal when applying for research grants. Nalls Architecture led a design team including 2rw Consultants for MEP. The construction budget for this project was just under $2.5 million. Project Services in-house trades working on this project included carpenters, plumbers, electricians, mason/plaster, sheet metal, Sign Shop and the Cabinet Shop. Trade workers applying the finishing touches to the open lab space that was created included, top right, Plumber Apprentice Caitlin Murtaugh and Plumber Tom Castellanos, and, bottom right, Plasterers Les Givens and Charlie Pierce.

Soccer Lockers

The Cabinet Shop recently fabricated new lockers as part of the renovation of the Men's Soccer locker room at University Hall. The new lockers give players ample storage for equipment and personal items and are the feature element of the locker room. They are custom-built and constructed of maple. Working within a condensed schedule, the project required the Cabinet Shop to work extended hours to meet the deadline for the players.

Rugby Road Renovation

The Rugby Road Office Building project is a 25,000 square foot renovation of the Rugby Road Faculty Apartment Building with a construction budget of $7.9 million. The project will create office space for University faculty, FM Central Grounds Maintenance and conference spaces that include modern technology enhancements. Building improvements include total MEP renovation, HVAC forced air and sprinkler and fire alarm integration. New additions to the building include a four-stop elevator installation, central stair installation and many site improvements including upgraded site lighting, exterior pathways and a rear terrace. While a portion of the work is being accomplished by contractors, Project Services trades, such as carpenters, electricians, plumbers and masons, are preforming a substantial portion of the work. Additional support by other FM groups included HVAC controls, fire alarm services and landscaping services. The project is managed by FP&C and the design team was led by Glave & Holmes Architecture. Project completion is expected by the spring of 2015. The project team (top right) gathered in a large indoor swimming pool uncovered during demolition. Project Services staff working on the renovation included (below from left) Carpenter Apprentice Raymond Hunter; Masons Jason McGann, Lance Rothgeb and Wilbert Critzer; and Trades Utility Senior Worker Bonnie Barnett.

Sustainability

Facilities Management continues its support of the University's sustainability goals through initiatives in Facilities Planning & Construction and Operations.

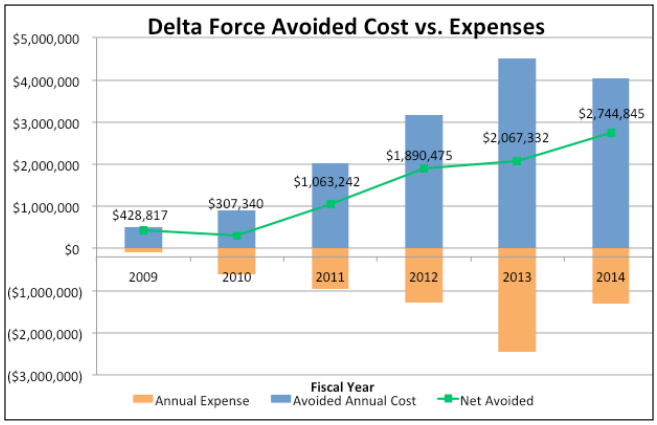
In the 2013-14 fiscal year, more than 10 additional facilities earned Leadership in Energy and Environmental Design (LEED) certification. Administered by the U.S. Green Building Council (USGBC), the LEED Green Building Rating System documents specific environmental, economic, and health and safety standards for new construction and major renovations.

Our project managers, senior project managers, senior construction administration managers and other staff continue to earn LEED Accredited Professional endorsements.

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.

This year, UVa reduced its carbon emissions by 6% from its 2009 baseline despite an increase in space that added more than 32,000 metric tons of carbon dioxide equivalents (MTCDE) since that year. The primary drivers for the carbon reduction in the face of significant growth included behavioral changes of building occupants, the Delta Force retro-commissioning efforts, maximizing the use of natural gas at the Heat Plant, implementation of initiatives from UVa's Transportation Demand Management plan, plant optimization work, LEED certification of new and renovated facilities and related initiatives.

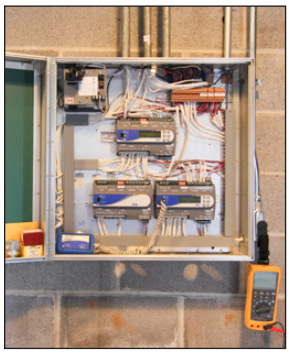
McLeod Hall's third floor was one of the buildings to earn LEED certification during the 2013-2014 fiscal year. The floor — which was renovated as part of a multiphase project that upgraded the entire building — achieved a LEED Silver rating.



The Delta Force program continues to show considerable financial savings and emissions reductions with $7 million invested and over $15 million in avoided cost to date. The program takes a comprehensive look at a building's systems and strategically identifies opportunities to increase efficiency. We have grown beyond tuning mechanical systems; now physical improvements are being made to the building's envelope, lighting and automation systems.

Photo by Sanjay Suchak/UVa Communications

New energy-saving fluorescent lamps were recently installed in the Harrison Small Special Collections Library auditorium. The lamp replacement improved the efficiency and quality of the lighting while reducing maintenance costs.



Campbell Hall was the first project of the newly-created Building Optimization Team to improve efficiency. Partnering with Delta Force, the team replaced and commissioned air handler controls in Campbell Hall and the Fiske Kimball Fine Arts Library.

Office for Sustainability student volunteers show off 1,500 plastic water bottles — the number consumed by the U.S. every second — in an effort to build awareness during the World Water Day Expo in March 2014. Sustainability's Outreach and Engagement program works to foster a culture of sustainability through collaboration, partnership-building, literacy and action programs for students, faculty and staff.

Operations teams and programs made additional progress as they focused on reducing costs, enhancing system reliability, and gaining on sustainability goals. Accomplishments included:

- Achieved a recycling rate of 35.1% of the municipal solid waste stream and a diversion rate of 53.5% when non-MSW materials — such as tires, lamps, ash, electronics, batteries and oil, which get recycled or reused — are included in the total recycling numbers.
- Earned $140,389 from the sale of recyclables.
- Avoided a calculated $9 million in expenses this year alone through halting the rate of electricity growth from that of the 1980s. This also yielded environmental benefits by avoiding the consumption of over 157 million kWh of electricity, which would have produced over 89,000 tons of carbon emissions.
- Avoided at least $1 million in expenses by implementing new controls technologies and optimizing operations in the central chiller plants.
- Avoided over $3 million in costs through aggregating our power supply through substations rather than having direct drops from Dominion Virginia Power.
- Received over $706,616 in sewer credit refunds from the City of Charlottesville for metering water used in irrigation or lost through evaporation in cooling towers.
- Avoided a cost of almost $2.7 million in FY14 through Delta Force retro-commissioning work that began in FY08.
- Received a $196,942 payment for participating in the interruptible load response program.
- Achieved a substantial amount of progress in replacing, upgrading, expanding or enhancing utilities systems and programs that reduce energy and water use, reduce greenhouse gas emissions and enhance reliability of energy and utility infrastructure.
- Implemented the first phase of an enterprise level energy and utility plant dashboard.

In November 2013, Energy programs became the Office for Sustainability with the newly-formed mission to support university-wide collaborative governance, leadership and

implementation of sustainability across Grounds. The team forged extensive partnerships across the University through communication and outreach on sustainability goals. Accomplishments included:

- Presenting at the Virginia Energy & Sustainability Conference, the VA DEQ Environmental Excellence Conference, 2014 Energy Efficiency Forum and an APPA Drive-in Workshop.
- In early FY14, UVa signed on as a partner in the Department of Energy's Better Buildings Challenge, which focuses on a goal of reducing energy use intensity 20% below 2010 levels by 2020.
- Collaborating with others within FM to develop a UVa-specific life cycle cost calculator, with UVa utility rates, escalation rates and discount rates in order to vet projects beyond simple payback, based on their 20-year life cycle cost impact.

In the fall of 2013, Recycling launched an extension of its Reusable Office Supply (ROSE) program with a mobile supply closet that visits the UVA Hospital once a month. In the past year, the ROSE Program has kept 100 tons of office supplies out of the landfill. For the first time, E-cycling was offered at the Residence Halls during spring move-out, collecting over 8,500 pounds of electronics, which were recycled through a program run by the UVa Procurement & Supplier Diversity Services office. Project Services broke ground this year on the new recycling facility off Old Ivy Road, which will improve efficiency and assure better stewardship of stormwater.

The Environmental Resources team was formed in fiscal year 2014, combining one Facilities Management employee with three Environmental Compliance staff who transferred from Environmental Health and Safety. Stormwater management required the greatest effort of the ER team over the past year with the implementation of new stormwater regulations and MS4 permit requirements including those for project review and permitting, and long term planning for meeting Total Maximum Daily Load (TMDL) limits.

The Heating Plants worked to improve efficiency through reducing deaerator vent orifices as a result of operating at higher deaerator temperatures. High pressure steam

The mobile Reusable Office Supply (ROSE) program supply closet began at the UVA Hospital in the fall of 2013 and is continuing to gain popularity. Now that the word is spreading, guests are showing up with shopping lists in hand.

The Environmental Resources team worked closely with the Stormwater Task Force and the Materials Working Group of the UVa Environmental Impact Subcommittee on many projects, including installing plants along a section of restored stream adjacent to Carr's Hill field.

As part of the Charlottesville Business Innovation Council's annual Tech Tour, groups of area high school students visited Facilities Management's Main Heat Plant to learn how the staff uses technology. The Heat Plant regularly hosts tour groups from both the University and the local community.

header vent warming flow is being eliminated by rerouting the vent line. These two projects save about $160,000 per year. Scrubber control changes designed and implemented in-house reduced lime usage and cost by 27%.

Over the past four years, the average operating efficiency of the Chiller Plants has improved by approximately 20%. That translates to an avoided cost of nearly $1 million annually in the amount of electricity required to generate the needed cooling. Efforts to reduce water consumption include condensate recovery, reverse osmosis purification of blowdown water and spring water collection.

One of the major initiatives of the Power & Light team is to improve the power quality on Grounds while reducing the number of power events that impact buildings. This fiscal year, Dominion Virginia Power committed to installing two new 34.5 kV circuits from their new Hydraulic Road substation by March 2015, one each to the Alderman and Cavalier substations. Portions of these new circuits will be underground which makes them less prone to damage from trees, lightning and other weather-related incidents thus improving reliability. In parallel with the Energy & Utilities Master Plan, UVa is looking into maximizing reliability by shifting the new circuits to serve our critical facilities.

Automation Services, formerly part of Instrumentation & Controls, was established this year to focus on three business lines: building automation systems (BAS) installation, controls maintenance and the building optimization team which ensures that mechanical systems perform as efficiently and effectively as feasible.

Completing a Building Automation System Master Plan this fiscal year provided documentation of the current state of the University's systems, as well as guidance for phasing out outdated controls, planning for increased network security for the Building Automation System and planning for future growth. This fiscal year, Automation Services installed approximately 15,000 BAS controllers throughout University buildings and 30 buildings on Grounds received new or upgraded control systems.

In support of the Board of Visitors goal to develop and implement a comprehensive space planning and real estate management approach, the Geospatial Engineering Services team served on the Interim Space Governance Committee this fiscal year. The GES team has worked to provide recommendations on a governance structure and approach for collaborative robust space management across Grounds in an effort to support efficient, effective use and stewardship of physical assets.

Embracing sustainability, Automation Services (including Instrumentation & Controls Technician John Cloutier, above) became the first FM team to use bicycles for transportation to and from projects.

Photo by Sanjay Suchak/UVa Communications

Associate Director of Chiller Plants Justin Callihan is a 2014 recipient of the Leonard W. Sandridge Outstanding Contribution Award. Justin was recognized for his work to improve the reliability and energy efficiency of the University's chiller plants, ensuring UVa is fully functional while stewarding our energy resources.

Operations

Facilities Maintenance work teams are organized in two ways: Specialty Trades Shops, which provide services across all zones, and Maintenance Zones, which are multidisciplinary crews that are physically located around Grounds to serve specific groups of customers and facilities.

This past year, the maintenance workforce provided $16.5 million worth of professional services in the areas of electrical, plumbing, HVAC, roofing, fire protection, elevator service, general maintenance and operational support. Despite continued growth in the number and size of UVa's facilities, these costs are level with last fiscal year and $2 million below the fiscal year prior to that.

In 2014, the 215 employees in these shops and zones carried out 30,433 preventive maintenance work orders and responded to an additional 16,314 service requests. Maintenance teams are a critical part of FM's success in lowering the percentage of building condition deficiencies, helping achieve its industry-leading goal of a Facility Condition Index of only 5%.

Maintenance teams often help different departments settle into new or newly renovated facilities, working hand in hand with the contractors and project team to install and commission systems in the buildings.

Building Services provides environmentally-friendly custodial services for the University's facilities, including academic, medical research, residence halls and faculty housing, and other public buildings across Grounds. In October 2013, the University achieved the prestigious Green Seal GS-42 certification, becoming the first university in Virginia and the third in the country to attain this level of certification. This required hours of training and documentation and a real commitment to ensuring that facilities at UVa use only products with low emissions that protect human health and the environment.

Building Services is emerging as a leader in the green cleaning movement, according to Green Seal, who conducted video interviews of what they called sustainability leaders at

Maintenance teams often help departments settle into newly renovated facilities. Trades Utility Senior Worker Tony Thomas and Master Mechanic David Gentry finish utility work at Ruffner Hall, which recently underwent an 18-month renovation.

Each year, Facilities Maintenance takes the lead in organizing and, with the help of other FM work groups, setting up the nearly 40,000 chairs and multiple stages and tents needed to support UVa's Final Exercises.

Building Services' Top Performer class participants enjoy a game of Jeopardy! with the category of green cleaning.

At Earth Week's First Annual SustainaBanquet in April 2014, Associate Director for Building Services Vibha Buckingham was recognized as a nominee for the UVa Sustainability Community 2013-2014 Outstanding Staff Member award.

The Landscape team has an in-house crew dedicated to the installation of completely new landscapes and rejuvenation of existing plantings. Landscape & Grounds Workers Lisa Breeden and Grey Elam plant vegetation in large pots on the terrace of the newly opened Battle Building.

The Landscape team is the first responder during inclement weather and is responsible for maintaining vehicular and pedestrian access routes across Grounds. Landscape & Grounds Workers Frank Hill and Nate Skelton check out a snow removal truck during a snow storm in January 2014.

UVa — including FM upper level management and part of the Building Services front-line and supervisory team — which will be used to promote how UVa uses transparency, leadership and employee engagement to drive success as part of their GS-42 certification. Other goals Building Services achieved included:

- Developed and implemented a quality control program that significantly improved quality and customer satisfaction.
- Launched a new customer-centric website.

The Landscape team accomplished $1.7 million in new landscaping construction projects this year while continuously improving care and providing first response to weather events. UVa compared very favorably to peers in a benchmarking study conducted this year on its cost of landscaping care. In addition, Best College Reviews ranked UVa as the number one most beautiful campus, noting its architecture and Grounds. Other goals Landscape achieved included:

- Landscaped new buildings including Alderman Road Dormitories 3, 4 and 5; the Battle Building and the installation of 389 new trees across Grounds.
- Constructed a new recreational field south of O-Hill Dining Hall which includes an irrigation system with its water supplied by an underground storm water detention structure.
- Completed a 4,000 gallon cistern system to provide the water necessary to care for the newly installed Cabell Hall Courtyard landscape.
- Started a project with Geospatial Engineering Services to locate all of the Grounds features of the University to improve the tracking of the fertilization program in compliance with the state mandated Nutrient Management Program (NMP) and the Integrated Pest Management (IPM) program.

The Health System Physical Plant engineering office provides technical assistance throughout the Health System including inspections, drawing reviews, infection control risk assessments training, and engineering support for major renovation efforts. The engineering office's work is integral to obtaining and maintaining the University's accreditation from the AAALAC, the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission.

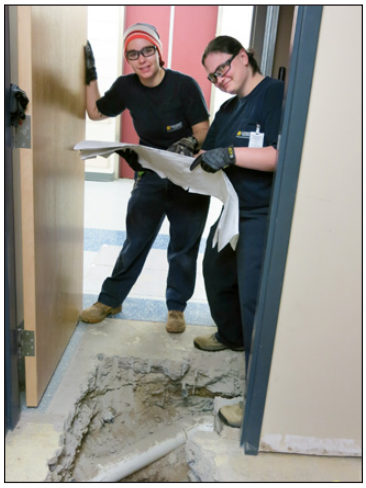
The HSPP Fire and Safety Team provides continuous on-site inspections, including inspections for ongoing major renovations throughout the Medical Center, to assure that all Health System facilities meet required Life Safety and Fire Safety codes. Those, in addition to continuous compliance inspections and biannual Statement of Conditions inspections for all patient care areas, are completed each year and are instrumental in maintaining CMS/The Joint Commission accreditation.

HSPP Zone Maintenance teams continue to support Health System operations through a well-established program for preventive maintenance, corrective maintenance, major maintenance and deferred maintenance. Accomplishments included:

- Zone 1 continued their maintenance of the hospital as they worked closely with the project team during the construction of the Battle Building. The new facility opened its doors to the public in July 2014 as clinics migrated to the new location.
- Zone 2 assisted Delta Force projects in Elson Hall, MR-4 and Jordan Hall during the year. Their tasks included replacing fume hoods and tracking emergency power grids. The team's dedication in precision was instrumental in securing the BSL3 recertification.
- Zone 3 provided routine maintenance in the West Complex and McKim Hall area. Renovations included HVAC replacement and replacement of domestic hot water lines in Suhling.
- Zone 4 continued maintenance of outlying Health System facilities. Including renovations of Imaging at Fontaine and Internal Medical for Orange Medical Center. The zone assisted in installation of a new chiller at Northridge. Earlier this year, University of Virginia Medical Park – Spring Creek was acquired.

The HSPP Zone Support Group's six trades shops — plumbing, electrical, carpentry, painting, masonry/plastering and welding — completed turnkey projects for Health System facilities. Projects included renovations of the hospital's 3rd, 4th and 5th floors, the Surgical Admission Suite and upgrades in Health Science Library and MR-4 Research Labs.

For more of Operations' accomplishments, view the FY 2014 Operations Annual Report.



Plumber Steamfitter Mariah Kurpel, who graduated from the Apprenticeship Program in 2014, and Plumber Apprentice Kristina Williams look over drawings in preparation for a pipe repair during their rotation with Health System Physical Plant's renovations team.

HSPP Carpenters Scheffel Carpenter and James Lupton install one of many kid-friendly furnishings in the newly opened Battle Building.

After a water pipe broke in the ceiling of University Hospital 6 West in August 2013, HSPP crews responded immediately, cleaning up and making repairs following the significant flooding in 5 and 6 West. Carpenter Lead Phil Kleinheinz (left) removed damaged sheetrock and insulation and Renovations Trades Utility Worker Maurice Gough (right) helped clear debris so repairs could be made efficiently and safely.

Programs

Information Systems

Facilities Management Information Systems (FMIS) 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 (FM) organization.

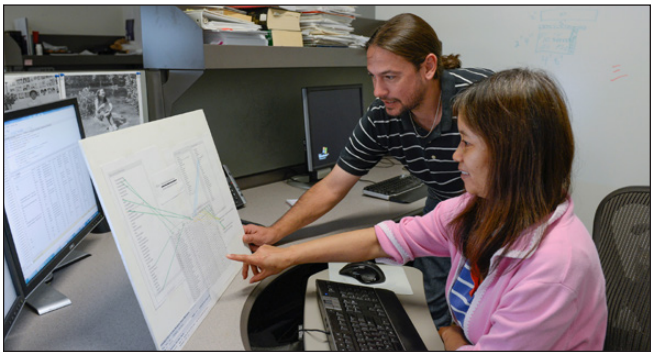
FMIS services include: a full-service computer helpdesk, web & application development, maintenance and support of FM business systems & databases, servers & IT infrastructure and IT security.

Significant accomplishments for 2013-2014 included:

- Completed a comprehensive departmental IT Risk Management assessment.
- Completely redesigned the FM webpage to improve information organization, visual aesthetics and user experience.
- Continued transitioning FM systems to the UVa Data Center in order to provide off-site redundancy for critical systems.
- Continued work with Energy & Utilities and ITS to create a new UVa VLAN to isolate network traffic for building automation system and infrastructure devices. This new network improves security for these infrastructure devices.
- Worked with FM departments to streamline and automate business processes with SharePoint workflows. Projects of note included custodial services inspection forms for Building Services and Conference Services, a Fire Systems inspection form for Operations' Fire Protection group and a Transformer inspection form for E&U.
- Worked with FP&C on replacement of the department's legacy Project Information Management System (PIMS) with E-Builder, a cloud-based SaaS solution.
- The help desk installed 217 computers and tablets and responded to more than 3,100 calls for assistance in the 2013-2014 fiscal year.

Photos by Jennifer Watson/FM Webmaster

FMIS network staff Jacob Neal, Gary Richardson and Miguel Faria maintain FM's extensive portfolio of servers and IT infrastructure. Off-site server co-location is a critical component of the FMIS disaster preparedness plan.



FMIS software development staff members, including developers Jason Moore and Huilan Li, are responsible for developing and maintaining critical line-of-business applications.

FM Computer Helpdesk staff — including Michael Gilbert (right) seen here assisting Senior Construction Administration Manager Chris Hoy — provide comprehensive technical support for FM.

Work Management

Work Management searches out the needs of existing University facilities and manages programs to address these needs in a way that minimizes impact. When the University community does identify a necessary improvement, Work Management connects people with the best resources to address it.

The University's classrooms are in the best condition of the past 50 years due to the collaborative efforts of the Classroom Improvement Program, which is supported by FM, the Office of the Provost, Information Technology Services and many other departments. Capital renovations at Ruffner Hall, New Cabell Hall and McLeod Hall not only improved the buildings as a whole but also brought the classrooms to a new standard with technology, equipment and furniture.

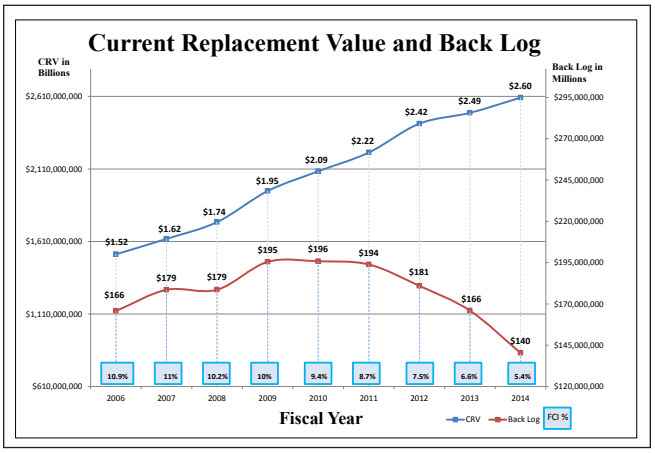
Classroom projects included the introduction of Active Learning Model (ALM) classrooms, which support a variety of teaching styles beyond lecture-oriented classroom settings. Wilson Hall's Room 306 and Thornton Hall's Room 120 are two examples of ALM classrooms that were combined from previously separate spaces and include seating that encourages collaboration.

As UVa's portfolio of new and improved buildings is growing, the maintenance backlog is decreasing, leading to the current Facility Condition Index (FCI) of only 5.4%. In 2005, the Board of Visitors established a goal of achieving an FCI of 5.0% by fiscal year 2015. The University has made great progress toward this goal through the combined efforts of the Capital Program, the Deferred Maintenance Program, major maintenance projects and the exceptional care provided by maintenance teams on a daily basis.

Another ongoing initiative is the transition of the Materials Receiving Group to a Materials Logistics Group, with a focus on getting the right material to the right place at the right time. The group has worked over the past fiscal year to account for FM materials, reducing items that are out of date and no longer used. Staff members have also improved delivery methods to decrease the dependence on heavy vehicles and parking.

The Academic and HSPP Service Desk teams were consolidated during the past fiscal year. FM Customer Service Representatives include, front row from left, Deneen Morris, Shirley Bennington, Courtenay Starks; back row from left, Laura Garrison, Joyce Chewning, Teresa Dillard, Ernestine Burruss, Amanda Pruitt, Val Knapp and Customer Service Manager Brenda Buttner. Darlene Webb was unavailable for the photo.

Through the Classroom Improvement Program, Wilson Hall Room 306 was combined from two separate spaces to create an Active Learning Model classroom, which encourages interaction.



The chart shows that while the current replacement value of UVa buildings (represented by the blue line) is increasing, the maintenance back log (represented by the red line) is decreasing, leading to UVa's current Facility Condition Index (FCI) of only 5.4%.

Safety

Safety is at the forefront of everything we do at Facilities Management. We understand that a safe work environment is essential to the health and well-being of our employees, but our commitment extends beyond our staff. The University is dedicated to providing a safe and healthy environment for everyone on Grounds — from our students to our many visitors.

At the end of the fiscal year, a new Safety Director position was created reporting into the CFO Office. The Safety Director — assumed by Laura Duckworth in late August 2014 — leads the Facilities Management Occupational Health and Safety Program. The program collaborates with the FM community to promote compliance with applicable regulations, guidelines, and best practices in order to sustain a healthful and safe working and learning environment. This is accomplished by working with stakeholders to establish policies and procedures, providing training and education, implementing preventive actions and ensuring continuous improvement of FM's health and safety programs for employees.

Resources, Training and Development Programs

In December 2013, Facilities Management's Office of Human Resources & Training (HR&T) hosted the third annual Manager Enrichment session which provided 59 senior level managers and directors with opportunities for networking and leadership development. The Vice President of Management and Budget, Colette Sheehy, gave a presentation on Strategic Direction and Leadership's Role covering UVa's mission, strategic planning efforts, the new internal financial model and organizational excellence.

Through a partnership with University Human Resources, HR&T coordinated training on the University's Respectful Workplace Program, an initiative from President Sullivan that promotes "a caring community that aspires to treat every individual with kindness, dignity and respect" (retrieved from Respect@UVa). During FY 2013-14, approximately 200 staff were trained on the Respectful Workplace Program, outlining expectations for staff behavior and the responsibility that each community member has to uphold these values. Our goal is to have the remaining 900+ staff trained by the close of FY 2014-15.

Perhaps the largest single push in the area of supervisory training came in the form of HR&T staff facilitating the training of approximately 150 supervisors/managers across FM on the progressive discipline process. Utilizing the Standards of Conduct policy as the basis for the training, supervisors/managers learned about addressing employee conduct through the various steps of progressive discipline.

ESL and GED classes offered on Grounds through HR&T's partnership with the Charlottesville City Schools Adult Education Program remain vital and well-attended, with 16 employees participating in GED classes and nine employees attending ESL classes this year. We honored two award winners from the ESL/GED Voices of Adult Learners essay contest, and our first ever winner of the Thomas Jefferson Adult Education and Career Award at this year's Apprentice & Education Recognition Ceremony. At that same ceremony, eight employees were recognized for educational achievements including two employees who earned their GED, four who earned their Bachelor's Degree and another two who earned their Master's Degree.

We continue to support two important UHR training courses by recruiting employees for Leadership Essentials and Essential Work Skills. During the fiscal year, FM sent 22 employees who completed Leadership Essentials and 47 employees who completed Essential Work Skills.

HR&T staff facilitated training of approximately 150 supervisors and managers across FM on the progressive discipline process utilizing the Standards of Conduct policy.

We continued our on-site Trades Recertification training as a service to FM employees who are licensed in the construction trades, providing the required training for state license renewal. This past fiscal year, 151 employees participated in trades' recertification classes, up from 135 the year before.

As of June 9, 2014, Facilities Management had 32 apprentices across various trades. During the 2014 application period, we received more than 520 applications for the four postings being recruited. Out of those applicants, 11 apprentices were hired due to their high caliber — three into electrical, three into plumbing, two into carpentry and three into HVAC positions. The new apprentices included two female and five minority hires.

At the close of the fiscal year, we had the honor of graduating 14 apprentices — three graduates in electrical, three in plumbing, four in HVAC, two in plastering and two in carpentry. Graduates included two females and three minority hires, including our first female to complete the plastering track.

Compensation, Classification and Career Paths

The Job Families Project, first introduced late last fiscal year, continued to be a huge University-wide project to create a structure for our University staff job titles with the main goal of updating market ranges across the University. The final product has been released on the UHR website for employees and HR professionals alike to use.

At the June 2014 Apprentice & Education Recognition Ceremony, the 2014 Apprentice Graduates welcomed the new group of Apprentice Inductees into the program by shaking their hands and offering words of encouragement.

Last fiscal year, the University implemented a 3% merit pool to enable schools and units to recognize the performance of University Staff. With approximately 650 eligible University Staff, this project spread over 4 months to implement, trickling into FY 2014-15.

Across the three Career Paths of Housekeeping, Landscape and Recycling, FM has nearly 200 employee participants. In total, 24 staff were recognized for having completed a stage and received a compensation adjustment — including 9 advancements in Housekeeping, 14 in Landscape and 1 in Recycling, our most recently implemented Career Path.

During the fiscal year, Reward & Recognition Awards totaled $87,784 for 227 employees. This year, 112 Facilities Management employees were recognized at the University's service award ceremony as serving the University for 10 or more years. Of those employees, 39 were honored as having achieved 25 or more years of service. This includes a special award to Larry Brooks, who received a 45 year award. The average length of service for all current salaried FM employees across all organizations is 12.96 years.

Communications

This spring, HR&T launched a new project designed to reach and encourage more women and minorities to apply for trades positions as well as apprenticeships. Ten tradeswomen shared their stories in the new Women in the Trades brochure and poster. The goal was to illustrate the advantages, opportunities and support available to women and minorities who want to pursue a career in the trades.

HR&T's quarterly publications, *Perspective* and *Fast Facts*, were awarded second and third places respectively in their categories in the 2013 Virginia Professional Communicators communications contest.

For more information on Human Resources & Training's 2013-2014 accomplishments, view the 2013-2014 HR&T Annual Report on-line.

Community Involvement

Photo by Jennifer Watson/ FM Webmaster

During the Annual Day of Caring, FM employees who volunteered at Camp Holiday Trails gathered during lunch to pose for a group photo. Since the early 1990s, FM has been involved with the Day of Caring, a yearly event that includes thousands of volunteers completing hundreds of projects in the Charlottesville area. For the past decade, a large group of employees has spent the day at Camp Holiday Trails every year.

Sustainability Outreach and Engagement Manager Nina Morris and Instrumentation & Controls Technician Rona Rose weed a garden bed at the camp.

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

During the annual Day of Caring, 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, Facilities Management employees donated over $23,700.

A team of volunteers cleaned interior and exterior windows at the Senior Center, including Inventory Planner Scheduler Tosh Thompson and Sanitary Technician Hassan Mahamud (left); Landscape & Grounds Worker Nate Skelton (right) spent the day aerating and seeding the soil at Lane Babe Ruth Field.

Arborist Jerry Brown (left) was part of a team that pruned trees on the camp's property; Building Services staff cleaned the interior of the camp's cabins, including Custodial Services Worker Mary Barbour and Housekeeping Worker 2 Renee Rush (right).

A Landscape team, including Phil Saunders, Stephen Allen, Chris Byers, Travis Stevens and Bobby Breckenridge (left), clear brush off of the camp's front fence; teams cleaned the coils of the cabins' AC units, including HVAC Mechanic Frankie Henshaw (right), in addition to performing annual HVAC and electrical inspections.

High Voltage Electrician Lead Bucky Crickenberger (left) replaces bulbs in parking lot lamps at the Senior Center; Supervisory Historic Preservation Architect Jody Lahendro (below) clears a roadside ditch; and Landscape & Grounds Worker Austin Graham (right) pushes a wheelbarrow full of mulch.



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: Elevator Maintenance Supervisor James Dowell, who donated at the October 2013 blood drive even though he had worked from midnight until after 3 a.m. covering an emergency service call; HVAC Supervisor Felix Crawford, who donates blood regularly because when he needed a transfusion several years ago, donations from other people helped him; Housing Division Trades Utility Senior Worker Chris Harvey who learned how valuable blood donations were when his son was born prematurely over a decade ago — his son is now strong and healthy; Landscapers Shirley Racer and J.R. Richardson who were among the 36 people who donated at the February 2014 blood drive, one of the largest turnouts for a blood drive held at Facilities Management.

As an extension of an earlier Building Goodness in April (BGiA) project, professionals were needed to install a new energy efficient wall heating unit in the home of Charlottesville resident Linda Felton (center). The house furnace had failed, and Ms. Felton was relying solely on electric space heaters. Associate Director for Facilities Maintenance Mike Merriam, who serves on the BGiA Steering Committee, requested the help of HVAC Supervisor Senior Tommy Farrer (left) who was joined in the effort by Tim Payne (right) and (not pictured) Roger Henry, David Bishop and Larry Dorrier. The heating unit was installed in October 2013, just as nighttime temperatures were dipping into the low 50s.

As the 2013 holiday season approached, Facilities Management employees again generously donated new toys, bikes and money to the annual Toy Lift. In December 2013, FM Service Desk employees Mike Drake, Darlene Houchens, Valerie Knapp, Ernestine Burruss, Teresa Dillard, Brenda Buttner and Deneen Morris, posed with the donations, which totaled 100 toys, three bikes and $339 in cash.

FM employees generously supported Hoos for the Hungry Food Drive with several hundred pounds of non-perishable food again in Fall 2013. Just before the pickup by Blue Ridge Area Food Bank staff, FM Employee Council Chair Nina Morris and Co-Chair Richard Covington and Council members Molly Shifflett and Brett Bryant did a final check of the collection and extended a sincere thanks to everyone for their donations.

For the fourth consecutive year, FM employees donated an overflowing barrel of school supplies to the annual Salvation Army school supply drive. The collection benefits low-income kindergarten through 8th grade students in area public schools. Our Employee Council sponsors the collection in coordination with UVa Community Relations.

Financials

The Finance Department provides accounting, budgeting, financial reporting, accounts payable, and payroll support for Facilities Management's total business volume of $285.4 million and 1,107 filled full-time employees in fiscal year 2013-2014.

The department is comprised of Fiscal Operations, Facilities Planning & Construction Financial Services and Energy & Utilities Finance.

University of Virginia Facilities Management Financial Summary 2014

Salaries and Benefits:	$ 70,605,560
Utilities:	$ 55,334,094
Planning and Construction:	
Construction	$ 85,140,102
Architectural & Engineering	$ 18,774,589
Total	$ 103,914,691
Maintenance and Operations:	
Materials and Contracts	$ 45,670,107
Travel and Training	$ 503,463
Information Systems	$ 2,570,829
Other	$ 6,783,621
Total	$ 55,528,020
Total Expenses	$ 285,382,365

Organization
Facilities Management
University of Virginia