

# Facilities Planning and Construction Annual Report 2013-2014

(July 1, 2013 – June 30, 2014)

575 Alderman Road P.O. Box 400726 Charlottesville, Virginia 22904-4726 TEL (434) 982-4621 FAX (434) 982-4628

Annette Cyphers, P.E. Director

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# **Facilities Planning and Construction**

#### **Foreword**

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. Our goals is to set the standard for excellence in higher education and healthcare project delivery.

#### We are here to:

- Provide leadership to support the University community in the development and implementation of projects for planning and construction.
- Assure appropriate design and construction standards and criteria established by the University, the state, or other appropriate agencies are followed.
- Identify and implement opportunities to balance quality and cost of construction, focusing on life cycle costs through value engineering and other cost reduction initiatives.
- Continue to develop innovative best practices for professional and construction services procurement and administration to assure continued conformance to the University's restructuring requirements and maximize competition and diversity.
- Maintain in-house design services in support of the University's various renovation programs.
- Encourage the full participation of all stakeholders in the project management process.

The work is accomplished by three production divisions, including: the Academic Division, the Health System Division, and Engineering & Design. They are all supported by a Contract Administration Division and an Administration Division and work in close coordination and cooperation with the Office of the University Building Official, the Office of the Architect for the University, and Facilities Management.

Annette Cyphers, P.E.

Director, Facilities Planning and Construction

# **Facilities Planning and Construction**

# Overview

This 2013-2014 Annual Report for the Facilities Planning and Construction Department highlights many accomplishments including:

- Completed and occupied several new major facilities. These are highlighted in the Division sections of this report and total \$340,148,762.
- 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. These are highlighted in the Division sections of this report and total \$438,550,826. Additionally see each Division section for a summary of major projects.

# **Academic Division:**

# **Studies and Reports:**

- Darden School of Business Masterplan
- University Library Systems

# Planning:

- Alderman Pedestrian Bridge
- Athletic Facility
- Center for Contemplative Sciences
- Gooch-Dillard Residence Halls Renovation Phase II
- McCormick Road Residence Halls Renovation
- 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	FM Landscape Shop
	6	
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	

# **Academic Division Major Commissions**

## **Alderman Road Residences Building 6**

Kate Meyer / Richard Sergi

Building 6 continues the multi-phase project begun in 2006 to remove and replace the 1960s era residence halls in the Alderman Road precinct. In the first phase, Kellogg House was completed in August 2008. The second-phase buildings, Balz-Dobi and Watson-Webb Houses and Erns Commons, were completed in August 2011. Phases III and IV, Lile-Maupin, Tuttle-Dunnington, and Shannon Houses were completed in summer 2013. Construction of Building 6 began in May of 2013 and is scheduled for completion in time for fall semester 2015.

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 gsf 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. Outdoor recreation areas both structured and unstructured will be provided.

The project is designed by EYP Architects of Washington DC. The Construction Manager is Donley's LLC Mid-Atlantic Regional Office of Richmond, VA. The working project budget is \$38,000,000.



#### **Carruthers Data Center**

**Chris Pouncey** 

The Carruthers Data Center project will provide the University with a back-up data center for the recently constructed University Data Center on Ivy Road. The project budget is approximately \$1,900,000.

The site is located in Carruthers Hall at 1101 N. Emmet St. and totals approximately 3,000 gsf. The space had previously served as the mainframe computer room and then as a data center which will now be substantially upgraded under this project. The data center will occupy rooms 200 and 210; 200 will support the data processing equipment and 210 will be renovated to become the new UPS and Tape rooms. The project will add three computer room AC units and associated roof-top dry coolers to greatly increase the available cooling in the space. A new 400 kVA UPS will be included in order to provide adequate battery back-up to support the data center's increased capacity. Finishes will be updated throughout both rooms.

The project architect for the Carruthers Data Center is Bruns-pak, a computer room specialist located in Edison, New Jersey. Martin Horn Inc. will be the contractor on the project. Mobilization is scheduled for August, 2014 with substantial completion expected by the end of October, 2014.



2013-2014

# **Cemetery Expansion**

Jody Lahendro

The University Cemetery dates to 1828, and is regarded as an almost sacred space at the University. Visitors can find an ad hoc history of our institution among the many recognizable names on the gravestones, as well as a peaceful refuge on Grounds. The current expansion is Phase III of a three-phase project, and the first addition to in-ground burial plots since the 1940s. Phases I and II, in 1990 and 2003 respectively, were columbarium wall installations along the north side of the cemetery. In 2004 the University Cemetery Committee commissioned a master plan for future expansion, which was prepared by John G. Waite Associates, Architects. The current project will conform to the master plan.

The proposed expansion will accommodate 572 columbarium niches and 324 in-ground burial plots, with a row of ten plots reserved for presidents of the University. The site is southeast of the existing cemetery, near the oldest section. Cemetery Road will be shortened to accommodate the proposed addition. On the east, south and west sides, the stone walls will also serve as columbarium walls. Construction materials will match the existing cemetery: Shenandoah field stone will be used for the walls, and the granite of the columbarium name panels will be of a contrasting finish.

The project is being designed by Cardno TEC, Inc. of Charlottesville, VA. Completion is anticipated for fall of 2015. The project budget has yet to be determined.



#### **FM Landscape Shop**

Dave Paley / Charles Durrer

The Facilities Management Department has replaced the former landscape shed, which was too small and in subpar condition. Equipment and materials were stored in various locations in the FM yard, causing inefficiency. Also, Facilities Management had recently completed a space needs assessment, which indicated a dramatic need for more square footage overall and, in particular, better work shop space. A 2008 master plan for the FM yard shows the then-existing landscape shed and surrounding area being cleared for a different use.

The new building is located at the west end of the FM yard, adjacent to the newly built Lacy Hall. The proximity of the two projects achieved significant efficiency, since the required utilities had already been brought to the area. A salt shed and storage warehouse were removed from the project site, and a recycling shed will soon be relocated. The project was performed in a design build format by Lantz Construction Co. of Broadway VA, and included fabrication and installation of a steel structure of approximately 10,000 gsf. The lower level includes a welding shop, high-bay engine repair shop, storage for tools and spare parts, restrooms and locker areas. A second level provides office and meeting space at the north end and storage at the south end, connected by a mezzanine. The exterior is constructed of insulated metal wall panels; the window frames, garage doors, and roof are all metal. The foundation system consists of concrete slab on grade with spread footings.

Another nearby area has been regraded and will be used for storage. A metal roof structure with open sides, fabricated by the same manufacturer as the Landscape Shop, was installed. A pedestrian bridge connects this area, which is at a higher elevation, with the second floor of the adjacent Landscape Shop, providing accessibility to the office area without need for an elevator.

The project budget was \$1,960,000.



2013-2014

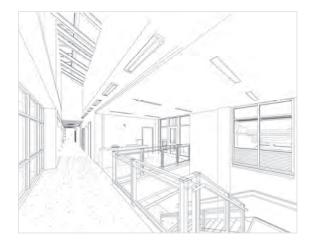
# **FM Shop Support & Office Building**

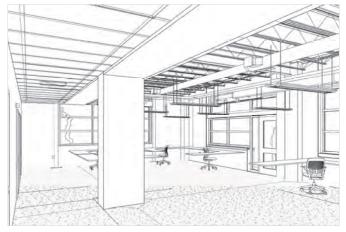
Amy Eichenberger / Charles Durrer

A new two-story, 14,300 gsf building, located west of the existing Leake Building, will provide updated office and support space for several Facilities Management functions. A number of work groups are currently in inadequate facilities, off-Grounds in leased space, or in modular structures that will be removed. This building is one of several phases that will improve the quality of FM's offices, allowing the department to consolidate work groups and provide open, flexible work areas, with more natural illumination. Accessible pedestrian paths between the new building and existing Leake Building will promote collaboration for Facilities Management staff and visitors.

The architect for the project is Bowie-Gridley Architects, and construction management is being provided by FM Project Services. Construction started on July 14, 2014 and is expected to be completed by August 1, 2015. The project budget is \$6,000,000.







## **Gilmer Hall & Chemistry Building Renovations**

Craig S. Hilten / Charlotte P. Dickerson

Planning is underway for the renovation and renewal of Gilmer Hall and the Chemistry Building.

Gilmer Hall was built in 1963, with a major addition completed in 1987. The original building and the addition together contain 221,980 gross square feet (gsf). Together the two buildings provide classrooms and research laboratories for the Biology and Psychology Departments, and general-use classrooms and lecture halls. The Chemistry Building, completed in 1968, is 208,392 gsf, and provides classroom and research facilities. The Chemistry Addition was completed in 1995 and is not within the scope of this project; however it may play a role in providing swing space. Today, half a century after they were completed, these buildings continue to house the majority of teaching in the sciences, and are workhorse research facilities for the College of Arts and Sciences.

Most of the classrooms and labs in these buildings are little altered since their original 1960's designs. The biology research laboratories in Gilmer Hall are designed with individual laboratory suites that inhibit interaction between research groups, and limit the ability to accommodate changing and interdisciplinary research programs. The Psychology Department is constrained by inflexible and out-of-date planning arrangements, particularly in the research suites and testing rooms, resulting in inefficient use of space. The Chemistry teaching labs are designed for large student sections, inconsistent with current best teaching practices. These functionality issues will be exacerbated by the growth in student enrollment that is projected through the next decade in the sciences.

Architectural services are being provided by Perkins + Will's Washington, DC office with support from their Atlanta office. A planning study was completed in July/August 2014. The project budget and construction schedule have not been finalized.



2013-2014

# **Minor Halsey Tunnel Repairs**

William F. Moore / David Fiero

The University's building utilities, such as steam and hot water, are delivered through underground tunnels. These provide access for utilities maintenance while preserving the sense of beauty and openness on Grounds. Tunnel B passes west of the amphitheater, from north of Minor Hall to south of Halsey Hall. The tunnel surface is a walkway through this area that is heated in winter providing snow and ice melting. It is designed for vehicle access including fire trucks. The tunnel is over 50 years old and has deteriorated. It requires repairs as well as upgrades for current fire truck loads. The Medium Temperature Hot Water (MTHW) that supply's heating for South Lawn is included in this tunnel. It has been upgraded to allow future expansions of the South Lawn complex. The tunnel work was completed in August 2013 prior to fall classes, and the MTHW line was operational for the fall 2013 heating season.

Design services were provided by Dewberry Engineers, Inc., Richmond, VA., and the general contractor was Faulconer Construction Company, Charlottesville VA. The project budget was \$4,950,000.



#### Gooch Dillard Renewal Phase I

Kate Meyer / Charles Durrer

The renovation this summer of one building in the Gooch Dillard complex is the first phase of a three-phase renovation. Originally designed by Edward Larrabee Barnes, recipient of the Jefferson Medal in Architecture, Gooch Dillard opened in 1982. The complex consists of nine buildings and houses over 660 first year students. Used for upper classmen in earlier years, Gooch Dillard has recently been converted to first year housing. The project reconfigures sleeping rooms from singles to doubles, in accordance with student preferences based on many surveys conducted by UVA's Office of Housing and Resident Life. Bathroom fixtures and HVAC systems have all been replaced, and finishes have been upgraded. New fresh air units have been set on the roof, and the resulting positive pressure will cause living spaces to feel less humid and more comfortable. Sprinklers and new fire alarm systems have been added throughout the building.

Phase 1 is to be completed between spring and fall semesters in the summer of 2014. The next construction phase will begin in summer 2015, with completion scheduled for summer 2017.

Phase I is designed by Bowie Gridley Architects of Washington D.C. The general contractor is Artisan, Inc. of Charlottesville, VA. The budget for Phase I is \$3,700,000.









#### **New Cabell Hall Renovation**

Craig S. Hilten / Randy Porter / Charlotte P. Dickerson

Six stories high and 150,000 gross square feet (gsf) when it was built in 1952, New Cabell Hall is a workhorse for 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. In addition, central air conditioning and fire suppression systems were absent prior to the renovation but have now been added. Elevator and tele-data distribution systems have been replaced. The windows, which like the entire building were of historic significance, have been restored. Hazardous building materials have been removed and all interior finishes were upgraded.

Classrooms have been equipped with state of the art technology to enhance students' 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, Massachusetts, and the construction is being managed by Barton Malow of Charlottesville, Virginia. The project budget is \$64,500,000. The modernization of New Cabell Hall will be completed in fall 2014 to allow the mission of teaching to resume and restore the full complement of classroom space and departmental offices.



#### **Newcomb Road Chiller Plant**

Michael Vanderweide, P.E. / Charles Durrer

This project will construct a new Chiller Plant to replace the existing chillers and auxiliary equipment that currently reside in and serve the various buildings along Newcomb Road. The existing chillers and cooling towers are looped together, essentially forming a distribution system. The new plant will remove this equipment from the existing buildings and provide a new system within a new plant of approximately 6,000 gsf. The initial capacity of 3,000 tons can be easily increased to 3,600 tons, with piping capacity for 6,000 tons in case of a future decision to expand the plant.

The current equipment is at the end of its lifecycle and the plant is near its maximum capacity. Additionally, since the equipment is spread between several buildings, it is inefficient in terms of both energy use and ease of maintenance. The current plant capacity is 2,200 tons so the new plant will provide capacity to add several buildings that are not currently on this loop. Also, the design will enable, with some additional distribution piping, an inter-connection to the Central Grounds Chilled Water Loop.

The project examined several alternative cooling options including combined heat and power, geothermal, and heat recovery chillers. Detailed investigation demonstrated that none of these technologies were compatible with the restrictions of this site and existing distribution systems. However, with high efficiency chillers and a centralized plant, the new plant will provide significant efficiency improvements over the existing plant.

This project is being designed and constructed using a delivery method that allows the University to engage, during the design phase, not only the construction manager but also several key trade subcontractors. This has allowed the project to incorporate aspects of Integrated Project Delivery and to integrate cutting edge REVIT and BIM technologies into the project.

The project is being designed by Affiliated Engineers, Inc. of Chapel Hill, NC. Sauer Inc. of Newport News, VA has been selected as the construction manager. Full construction will begin by the fall of 2014, with substantial completion scheduled for winter of 2015. The total project budget is \$11,600,000.



2013-2014

#### **North Grounds Mechanical Plant**

Michael Vanderweide, P.E. / Chris Pouncey

This project is replacing most of the equipment in the North Ground Mechanical Plant and also expanding the plant, which currently serves the JAG School and the associated Law School Buildings. The new plant will be a 2,500 gsf expansion of the existing plant, for a total capacity of 16,000 MBH of heating and 2,600 tons of cooling. Space and piping will be sized for additional equipment to bring the plant up to 28,200 MBH of heating and 4,100 tons of cooling in the future.

The current plant equipment is at the end of its lifecycle and the plant is near its maximum capacity. There are near term plans to build a JAG addition and possibly to serve the Darden School from this plant. Thus the initial sizing is for the current buildings and the planned addition to the JAG school, with the ability to add equipment in the future in the event the Darden School plan is approved.

The project examined several alternative heating and cooling options including combined heat and power, biomass, solar thermal, geothermal, and heat recovery chillers. After detailed investigation, the most cost-effective system was determined to be heat recovery chillers, which will use removed heat from the buildings to add heat back into the hot water system. In combination with high efficiency boilers and chillers, this will greatly improve the efficiency of the plant.

This project is being designed and constructed using a delivery method that allows the University to engage, during the design phase, not only the construction manager but also several key trade subcontractors. This has allowed the project to incorporate aspects of Integrated Project Delivery and to integrate cutting edge REVIT and BIM technologies into the execution of the project.

The designer is Hammel, Green and Abrahamson, Inc. of Minneapolis, MN, and Martin Horn of Charlottesville, VA is the CM at Risk contractor. Full construction began in September 2013, with substantial completion scheduled for January 2015. Final completion is expected by March 2015. The total project budget is \$13,100,000.



# **North Grounds Recreation Center Expansion**

Amy Eichenberger / Charles Durrer

The North Grounds Recreation Center Expansion, completed in January 2014, is the first of three projects to improve recreational facilities on Grounds. Similar projects are planned for Slaughter Recreation Center and Memorial Gymnasium.

The North Grounds project included a 33,000 gsf addition with a 10-lane, 25-meter pool, whirlpool, sauna, "wet" classroom near the pool, multi-purpose fitness room and two new squash courts. The three existing racquetball courts were renovated. Minor improvements to the lobby and the addition of several gathering spaces enhance the connection between the existing building and the new addition.

The exterior materials for the new addition complement the existing building and other neighboring buildings in the North Grounds Precinct.

Cannon Design of Arlington, VA is the architect and Donley's LLC of Richmond, VA is the construction manager. Construction began in April 2012 and was completed in January 2014. The project budget was \$18,900,000.









#### **Rotunda Renovations**

Jody Lahendro / Steve Ratliff

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

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 of the Rotunda, 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 audiovisual systems will all be replaced. Mechanical space will be increased to improve performance, serviceability, and energy efficiency. Interior alterations will include replacement of the interior lining of the ceiling in the Dome Room and the addition of a stair to the Dome Room's lower gallery. Also included are audio/visual and other operational improvements to several rooms for their use as classrooms and quiet study. Other alterations will allow enhanced services for supporting large events.

Designed by Thomas Jefferson as the principal element of his Academical Village, the Rotunda is the centerpiece and symbol of the University of Virginia. Originally completed in 1826, it was gutted by fire in 1895 and rebuilt under the architects McKim, Mead, and White. A major project in 1976 recreated Jefferson's interior spaces and installed the present roofing and oculus. The Rotunda is internationally recognized as a National Historic Landmark on the state and federal registers of historic places. The Rotunda, Academical Village, and Monticello together are designated as a World Heritage Site.

John G. Waite Associates of in Albany, NY is architect for the project. Whiting-Turner, in Richmond, VA, is the construction management firm. Construction began in May 2014, with completion scheduled for July 2016. The project budget is \$43,400,000.





## **Rotunda Roof Replacement and Exterior Repairs**

Jody Lahendro / Steve Ratliff

The first phase of Rotunda renovation work, completed in August 2013, included replacement of the leaking roof and oculus skylight, and repairs to the main drum's exterior brick walls, windows and ornamental sheet metal.

The existing painted, terne-coated steel roofing and the aluminum-framed glass skylight were severely deteriorated and leaking for many years, damaging the historic brick walls. The roof was replaced with copper roofing installed on a base that facilitates air circulation. The oculus was covered with a skylight that more closely resembles the Jeffersonian original. Two 1976 concrete steps at the base of the dome were removed to repair the supporting tile structure and iron tension ring, both of which date to 1897, and then reinstalled. Damaged and eroded mortar joints in the exterior brick walls of the drum have been repointed, and all brick walls were cleaned. Window sashes, dating to 1897 and 1976, were removed to strip paint and replace damaged glass and hardware. Window architraves and first floor pediment hoods, exterior ornamental features that are fabricated from molded copper sheets, were stripped of all paint, repaired, and repainted. Painting the copper roof white has been deferred until the next phase of Rotunda renovations.

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John G. Waite Associates, Architects, a specialty preservation firm in Albany, NY, performed the research, documentation, design and construction administration for this first phase of Rotunda work. A joint venture, Christman/Gilbane, provided construction management. Construction began in May 2012 and was completed in August 2013. The project budget was \$7,200,000.



#### **Ruffner Hall Renewal**

Lynn Rush / Richard Sergi

Ruffner Hall is an 85,000 gross square foot, four-story building providing classrooms, offices and research space for the Curry School of Education. Ruffner has been home to the Curry School since its construction in 1973. Forty years later, the school has outgrown the original building and has been forced to use leased space on and off Grounds.

The project scope includes the replacement of all mechanical and electrical systems, plumbing fixtures, roof and exterior soffits, doors and frames, and most interior finishes. Other work includes asbestos abatement, modernization of the existing elevator, re-glazing of all windows, repair of exterior masonry and a new fire protection and sprinkler system. New interior partition walls have been added.

Various modifications are needed to comply with the Americans with Disabilities Act (ADA) including upgraded toilet facilities, lever hardware on all interior doors, new water fountains, accessible seating in the ground floor auditorium classrooms and new handrails and guardrails on the interior stairwells. The accessible route from the south parking lot has been upgraded to include a new sidewalk with accessible curb ramps.

A new entrance has been provided that opens to the courtyard at Bavaro Hall. The project improves the space use in Ruffner Hall for current and future academic programs, and improves the traffic flow between Ruffner Hall and Bavaro Hall. The interior corridor, infilled with offices in the past but now reopened, is wide enough to accommodate small gathering areas for students and faculty.

The Curry Library and Innovation Commons (CLIC), located on the third floor, will be used for individual and group study, small classes, gatherings and presentations, and a library function serving the faculty.

Construction started in January 2013 and was completed June 2014. The project was designed by Facilities Management's Engineering & Design Department, with engineering services from McKinney & Co. of Ashland, VA. The contractor was Donley's of Cleveland, OH. The project budget was \$19,500,000.





## **Rugby Office Building Renovation**

James Zehmer / Steve Ratliff

The former Rugby Road Faculty Apartment building was designed by Fiske Kimball, constructed in 1922, and served as faculty housing until the turn of the 21<sup>st</sup> century, when it was closed. Interestingly, 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. The University plans to use the renovated 25,000 gsf building as office space for several departments.

Glavé & Holmes Architecture from Richmond, Virginia, prepared the design and provides construction administration services for the project. UVA's Project Services Department is serving as the general contractor, which is expected to be complete in early winter 2015. The total project budget is \$10,000,000.



#### **Shannon House**

Kate Meyer / Richard Sergi

The fourth phase of the master plan to modernize and expand first year housing facilities in the Alderman Road area, this project will build on the precedent of Kellogg House to provide a new residence hall to support increasing enrollments and rising student expectations for the first year residential experience. The new facility, Shannon House, has been constructed on the former sites of Lile House and Tuttle House, which were demolished to make way for the new construction.

Situated at the foot of a steeply sloping site, Shannon House creates a courtyard with Cauthen House and the newly completed Tuttle-Dunnington House, and will continue the use of native and adaptive plantings, further stabilizing slopes and enhancing the overall site. Accessible routes will connect Shannon House to adjacent buildings and Alderman Road. Intended primarily for pedestrian use, designated routes will be opened to vehicles for move-in days. Treehouse Drive has been realigned horizontally and vertically to improve access and connection to Alderman Road.

The residence hall will house 192 first year students and 8 resident advisors in the four upper floors of this five story building. A one-bedroom apartment with private exterior entrance will be located on the first floor for an area coordinator. The sense of community will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each 24-student section within the building. First floor spaces include a lobby with casual seating, a multi-purpose room, and a central laundry, further enhancing the student experience by encouraging interaction among students. The first floor will also include classrooms and a post office serving the precinct.

Ayers / Saint / Gross Architects + Planners of Baltimore, MD prepared bridging documents for the project. W.M. Jordan Company of Norfolk, VA and Clark Nexsen Architects of Charlotte, NC, the design/build team for Phase II and III, was retained for this phase as well. The working project budget was \$28,000,000. The University accelerated the project schedule for this phase of the master plan in order to take advantage of construction-market conditions, enabling Shannon House to open in time for fall semester 2013, two years earlier than originally planned.





#### Wilson Hall Renewal

Amy Eichenberger / Charles Durrer

The Wilson Hall Renewal project, now under construction, will renovate approximately 29,000 gsf of the existing four-story building. A new, accessible entrance and ramp will be added on the south side; interior spaces on the first and second levels have been redesigned for greater openness and natural illumination; and new lighting and finishes are being added throughout the building. A new sprinkler system and security door hardware will be installed. Lastly, the HVAC and related automatic controls are being upgraded, improving the efficiency of the building's mechanical systems.

The project architect is Train & Partners Architects, and the contractor is FM Project Services. Construction began in July 2014 and is scheduled to be complete in August 2015. The project budget is \$4,650,000.





# **College at Wise: Dam Restoration**

Dave Paley / John Carter

The College's land includes two water impoundments behind the David Prior Convocation Center. The water is held back by dams, which are essentially earthen berms, built by a coal company in the 1970s. Today the dams are deficient under current dam safety standards, and require redesign. The dams' spillways will be rebuilt as concrete structures with a long weir to allow control of the amount of water released downstream. The design, by Thompson & Litton with Schnabel Engineering, will be complete by fall of 2014. Bidding will follow in the winter, and a construction contract award is expected by April 2015. The project, with a budget of \$2,500,000, is scheduled for completion in fall 2015.



# College at Wise: Health and Wellness Center

Steve Nelson / John Carter

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 gsf 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, VA is the project architect, and BurWil Construction Co. of Bristol, TN is the construction manager. The project budget is \$6,200,000.





# College at Wise: New Library Steve Dempsey / John Carter

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, and will provide a fully accessible 24-hour link between the upper and lower campuses.

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, VA, the library is a five-story, 69,000 gsf brick and glass structure. Construction is now underway, with completion expected in summer of 2016. Quesenberry's of Big Stone Gap, VA is the Construction Manager. The project budget is \$37,170,000.



# **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 \$2,000,000 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	Old Jordan Hall Fresh Tissue & Gross	Battle Building at Children's Hospital
– 560 Ray C. Hunt Drive	Anatomy	
MRI Relocation – Enabling Project	University Hospital HVAC	CRU & Neurosurgery Renovations
for ED Tower Project	Replacement Phase II	Davis / Barringer / McIntire
University Hospital 7 <sup>th</sup> & 8 <sup>th</sup> Floors	University Hospital NICU Renovation	East Chiller Plant and Lee Street
Renovation	/ Level 7	Realignment
University Hospital Expansion		Lee Street Entry and Connective
		Elements
University Hospital Emergency		Old Jordan Hall Microbiology
Power Phase III		Central Corridor Lab Renovations /
		7 <sup>th</sup> Floor
University Hospital HVAC		Outpatient Surgery Modular Unit
Replacement Phase III		Improvements
University Hospital – Vegetative		Underground Utilities Relocation on
Roof		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 Major Commissions**

# Clinical Research Unit (CRU) & Neurosurgery Renovation Davis/Barringer/McIntire Kristine C Vey, LEED AP ID+C

The sixth and final phase of the project was completed March 2014. It provides overnight and day rooms for Clinical Research, offices for Neurosurgery faculty and staff, and a conference room with improved audio/visual capabilities.

This project was designed by LSY of Silver Spring, MD. The mechanical, electrical, and plumbing systems were designed by Affiliated Engineers of Rockville, MD and the structural engineering design provided by Dunbar Milby Williams Pittman and Vaughn of Charlottesville, VA. The project was constructed by Barton Malow of Charlottesville, VA. The project budget is \$4,423,111.

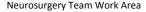
The project included the entire third floor of the McIntire Building (Neurosurgery offices) and the Barringer Expansion (CRU) as well as part of the third floor of the original Barringer building (Conference Room) and Davis building (NSGY offices). There is also a nutritionist work room, storage and staff space on the second floor of Barringer. It includes approximately 9,000 gsf.

A new mechanical system was provided for the McIntire building. The existing heating ventilation and air conditional system was modified to serve the new CRU space and Neurosurgery offices. The new conference room has its own air handling system.

The finishes conform to Medical Center standards for in clinical areas and were approved by the School of Medicine as well as, the Medical Center.

The project area and significant portions above the ceiling on the second floor were fully abated for asbestos.







Overnight study room for Clinical Research Unit

# East Chiller Plant / Lee Street Realignment

Thomas G. Snow, P.E. / Kimberly L. Speer

A study of the Health System Chiller Plant System completed in January 2010 reviewed chilled water demand and system capacity for the next 20 years. The study provided recommendations for existing chiller replacements as well as capacity increases. The East Chiller Plant project is a result of that study and also includes 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, 2000 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 CM at Risk contractor. The project budget is \$30,900,000.



#### **Education Resource Center**

Joseph A. Rainwater, R.A. / Christian Pouncey

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, CA. Donley's/McCarthy is the Construction Manager.

Construction is scheduled to begin in the fall of 2014 and be complete in fall of 2016. The project budget is \$29,400,000.



# The Ivy Translational Research Building (560 Ray C. Hunt Drive)

Brian R. Pinkston, P.E., Ph.D. / M. Bree Knick, LEED AP

The Ivy Translational Research Building is located at 560 Ray C. Hunt Drive in the Fontaine Research Park. The building was recently purchased by the University to provide a central location for many of the "translational research" activities in the School of Medicine. Translational research focuses on getting the results of fundamental medical research into a form in which its results can actually be used to treat people with illnesses. It is thus focused on the application of research in the clinical setting. The building will be used as a cross-collaborative research facility; that is, various disciplines will be co-located with the goal of increasing collaboration. The first floor will house the Clinical Research Unit for the research groups, while the second and third floors will accommodate offices, meeting, and training spaces. This project will renovate areas on the first, second, and third floors. The project budget for renovations is set at \$5,000,000. A preliminary study on the appropriateness of the use of the building for these functions is complete, and design is now underway. Construction will begin in the second quarter of 2015. The project architect is Nalls Architecture, Inc. of Philadelphia, Pennsylvania. Construction will be by in-house forces from Project Services in Facilities Management.



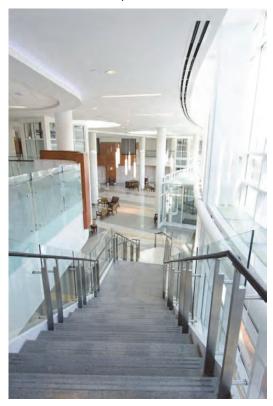
#### Lee Street Entry and Connective Elements

James Loman, AIA / M. Bree Knick, LEED AP

This project included an expanded front entry to 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 11<sup>th</sup> Street Garage on the north side of the railroad tracks.

The Emily Couric Clinical Cancer Center and the Hospital Bed Expansion were designed to complement each other and have changed the public face of the Health System at its front door - Lee Street. The Lee Street Connective Elements project tied them together, 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 expansion of the Hospital Lobby, the new curved glass front of the Hospital, and the new bridge over Lee Street continued the new public front door of the Hospital. The Hospital Lobby now has new information desks, a new gift shop, and a renovated space for patient discharge. The project also provided new sidewalks, street trees and landscaping in the new island at the hospital to create visual continuity from the plaza out to Jefferson Park Avenue.

This project had the same architect that designed the Emily Couric Clinical Cancer Center, Zimmer-Gunsul-Frasca Partnership of Washington, DC, to ensure design continuity. All three projects share a new vocabulary of patterned glass curtainwall 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 \$30,305,500, and construction was completed in December 2014.



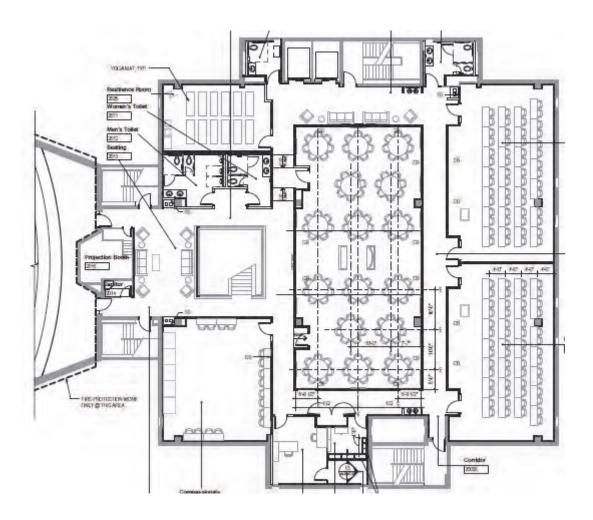




#### **McLeod Hall Phase III**

Brian R. Pinkston, P.E., Ph.D. / Kemper Tomlin

McLeod Hall was the central facility for the School of Nursing until the opening of the Claude Moore Nursing Education Building (CMNEB) in 2008. McLeod is over forty years old and had not had a building-wide renovation or infrastructure upgrade until now. Beyond the bare facility needs, the School also wished for McLeod to approach the aesthetic quality of CMNEB. McLeod consists of five core floors of offices and classrooms, two underground parking levels, and an auditorium. (The area of each core floor is 10,000 gsf.) Phase I of work renovated the first, fourth, and fifth floors. The first floor was completed in August 2010; the fourth floor in February 2011; and the fifth floor in August 2011. Phase II of work renovated the third floor and was completed in December 2012. The third and final phase of the renovations consists in renovating the second floor and in sprinklering the auditorium. Work has begun and will be complete late Fall 2014. The total project budget for Phase III is \$2,085,000. The project architect for all three phases is Bowie Gridley Architects of Washington, DC. Construction is by in-house forces from the Project Services group of Facilities Management.



# Old Jordan Hall: Gross Anatomy and Fresh Tissue Labs Renovations

Kristine C. Vey, LEED AP ID+C

This project includes renovating the Gross Anatomy Laboratory, and the associated support spaces and creating a new facility for the Fresh Tissue Laboratory, currently housed in another building.

It will provide upgraded teaching facilities for undergraduate students from across grounds, graduate medical students and residents, and practicing physicians. It includes an enhanced audio visual system, provides improved locker and restroom facilities for both male and female students, an expanded clean teaching space and upgraded sample preparation areas for both laboratories.

This project was designed by the University's Facilities Planning and Construction Design Group, with the engineering provided by RMF Engineering of Charlottesville, VA. Additional technical support during design was provided by Nalls Architecture of Narberth, PA. The project is being constructed by Facilities Management Project Services group. The project budget is \$5,000,000.

The project is located on the first floor of Old Jordan Hall. It abated and sprinklered all of the remaining spaces on the floor. The project covers 8,666 gross square feet and is being renovated in phases to accommodate instructional activities. The existing mechanical system was upgraded earlier. Because formaldehyde is used as a preservative for the samples, the air changes per hour and a negative air flow relationship to the adjacent space must be maintained. The finishes will conform to building's standards as established earlier and approved by the School of Medicine. The project includes new epoxy floors, procedure lights, and upgraded metal casework.

As of the end of July 2014, the first two phases including the Gross Anatomy preparatory procedure room, the clean teaching room, the main Gross Anatomy Laboratory, the lockers and restrooms and laboratory manager's office were complete. The third phase includes the Fresh Tissue Laboratory and preparatory room will be complete November 2014.



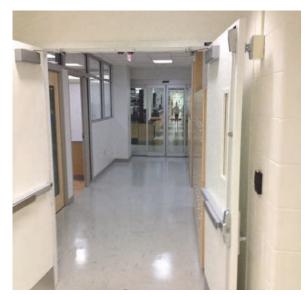
**Gross Anatomy Lab** 

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

Brian R. Pinkston, P.E., Ph.D. / Kemper Tomlin

This project renovated 9,600 gsf 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 also is 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, Pennsylvania. Construction was done by in-house forces from the Project Services group in Facilities Management. The total project budget was \$3,120,000. The project was completed in June 2014.







# **Outpatient Surgery Modular Unit Improvements**

Thorald A. Evans, P.E. / Christian Pouncey

Outpatient Surgery Center (OPSC) meets the demand for operating rooms and allows capacity to grow in advance of the Battle Building Outpatient ORs. Two modular operating rooms were added. The project also includes utility interconnections, emergency power, and medical gas storage, a link (including support spaces) from the ORs to the OPSC, a new entry canopy and a screening wall surrounding the modules. The total project cost, excluding the modules and medical equipment, is \$3,000,000. Baskervill, Valley and Pinnacle formed the A/E Team. Crenshaw Construction was the Contractor. The Modular Surgery Units are in service.



# University Hospital 7th and 8th Floors Renovation

Brian R. Pinkston, P.E., Ph.D.

This project will renovate significant portions (roughly one half) of the 7<sup>th</sup> and 8<sup>th</sup> floors of the University Hospital. These contain the Children's Hospital & Women's Health, respectively. The renovation includes approximately 15,000 sf of interior renovation and 43,000 sf of finish upgrades on these floors, including:

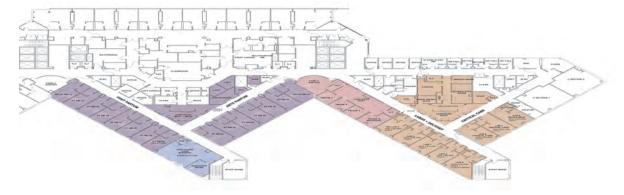
- Renovation the Pediatric Intensive Care Unit (PICU).
- A renovated four BED Bone Marrow Transplant Unit.
- A mix of private and semi-private Acute Pediatric patient rooms.
- Renovation to Women's Health triage and unit entrance.
- A modernized Obstetrical Services Unit including full renovation of Post / Ante Partum and Labor & Delivery rooms.
- A new Continuing Care Nursery and Procedure area and renovation of the displaced Nursery.
- The project also includes reconfiguration of patient, staff, and family amenity support space on both floors.
- Finish upgrades.

The project architect is HKS Architects of Richmond, Virginia. The Construction Management firm has not yet been selected. The total project budget is \$15,800,000. Anticipated start of construction is Summer 2015; anticipated completion date is Fall 2017.

# Level 7:







# **University Hospital Emergency Power Phase III**

Michael J. Vanderweide, P.E. / Christopher J. Hoy

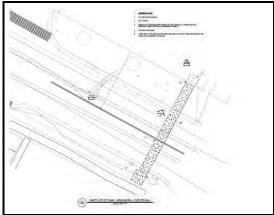
This phase of this project will install an additional 5,000amp feeder from the generator room to the hospital and add 2-1500kw generators, located in the space between the Lee St. Garage and the 11<sup>th</sup> St. Garage, to provide an addition 3,700 amps of emergency power to the hospital. Additionally it will install some equipment inside the hospital to improve the current emergency distribution and establish the necessary infrastructure for future emergency power demand.

In the current setup, if the hospital's 5,000amp feeder was damaged, the hospital emergency power capacity is reduced to 3,750amps. The new feeder will make the redundant feed a minimum of 8,700amps. The additional generators will provide the additional emergency power needed for the Air Handler Phase II project and for any expansion of the Emergency Department.

The project is being designed under contract with Leach Wallace Associates. An early site work package has been completed to get the duct bank installed under Lee Street prior to all other work with the rest of the design planned to go out to bid in September 2014. The full project is planned for completion by June 2015. The total project budget is \$4,500,000.

Below: Lee Street Duct Bank (bottom)





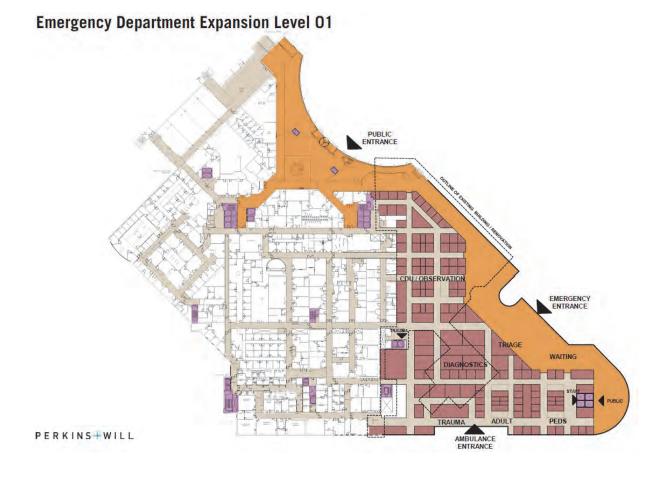
# **University Hospital Expansion**

Stephen C. Rohr / Christopher J. Hoy

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 (Only 16 Private) and 17 Hallway Beds. 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 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 by Perkins & Will. Skanska USA Building, Inc. has been selected as the Construction Manager. Project cost is estimated between \$119,000,000 to \$145,000,000.



#### **University Hospital Fire Alarm Replacement**

Thomas G. Snow, P.E. / Kimberly L. Speer

The hospital fire alarm replacement will provide a completely supervised and addressable fire detection system throughout the facility. This upgrade will include the infrastructure to support expansion of the system as required for future hospital renovations and additions.

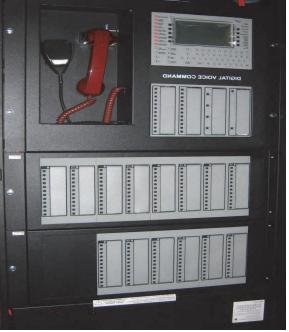
The project scope includes construction of a new fire control room for system monitoring that will also serve as a base of operations for the Charlottesville Fire Department and University fire protection personnel during emergency situations. Throughout the hospital, the new infrastructure will connect to new initiating and existing alarm devices. This new addressable system will identify the specific locations of devices in alarm, replacing the existing system that only displays the zone from which the alarm originated. The entire system will be monitored by Systems Control through new radio transceiver equipment. A digital voice alarm capability will also be provided throughout the entire hospital.

Additional life safety emergency power distribution within the hospital will also be constructed under this project. Emergency power circuits dedicated to life safety functions are currently at their limit. This project will add enough circuits to not only supply the new fire alarm system, but also create spare circuits for future projects that require dedicated life safety power (e.g., medical gas alarm panels).

The project was designed under contract with Smith Group. Protective Engineering Group, Inc. was the Fire Alarm design consultant. The construction contract was awarded to Communications Specialists, Inc. (CSI) in January 2011. The new system was commissioned by zones with the entire system in hospital operational in January 2013. The total project budget was \$6,450,000.

Below: Network Control Annunciator (left) and Voice Command Panel (right)





#### **University Hospital HVAC Replacement Phase II**

Dana K. Hodges, P.E. / William H. Shirey

In addition to replacing air handler units (AHUs) nearing the end of their projected lifespans and upgrading support systems, the Phase 2 HVAC Replacement Project has two additional programmatic goals. The first of these is to enhance the integration of the work by getting the Team in place early in the process. To meet this goal, the Construction Management joint venture, Donley's/McCarthy; the engineer, Leach Wallace; and the commissioning agent, Burns and McDonnell were contracted at the start of design. The second goal is to develop a Building Information Management (BIM) execution plan for this work that will serve as a prototype for future University Hospital projects. This was done by working with FM personnel and consultants to develop the plan.

The Phase II Project is being conducted in two segments. The first segment is complete and 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 AHU's during the second segment. This will save the expense and difficulty of installing a temporary AHU on the roof, and the ductwork will remain in place to provide limited backup capacity in the event of future needs.

The second segment is now underway, and comprises the design and installation of six new AHUs and connections to their associated support systems. The 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 large parts, and are then being constructed, tested, and commissioned on-site under the supervision of specialized on-site technicians.

Phase 2 is projected to be completed in the third quarter of 2015. The cost is budgeted at \$12,800,000.





# **University Hospital HVAC Replacement Phase III**

Dana K. Hodges, P.E. / William H. Shirey

In Phase III, five Air Handlers and Return Air Fans will be replaced along with various upgrades and modifications to the interfacing systems. In addition, other systems work started under Phase II but appropriate for other phases, including additional glycol system balancing and upgrades and evaluations of other supporting systems (e.g. Chilled Water) will be encompassed in Phase III. The work will take place, as required, in the various mechanical rooms of the Hospital where the air handling units will be installed and where upgrades or modifications to supporting systems must be installed.

In keeping with the Phase II goals to enhance the integration of the work by early team setting, the Construction Management joint venture (Donley's/McCarthy), the engineer (Leach Wallace), the testing & balancing consultant (Mechanical Balancing) and the commissioning agent (Burns and McDonnell) worked together from the onset of design to define scopes, investigate existing conditions and maintain an ongoing value management program while continuing to build/update an infrastructure Building Information Model (BIM).

The Phase III project is being released in two packages: 1) equipment purchase and 2) installation. This method of release provides for schedule efficiency and also allows for more competitive bidding from the installing mechanical contractor as the specifics regarding the equipment to be installed are known and all trade contractors are able to review shop drawings at the time of bidding. CD's for the equipment purchase package and preliminary documents for the installation package are currently under the University Office of Building Official review. Installation is scheduled to start on or before first quarter of Fiscal Year 2016, pending funding approval.

Phase III is projected to be completed by the end of Fiscal Year 2016. The cost is budgeted at \$7,040,000.





# University Hospital Mobile MRI and Enabling Moves (Phase I) and MRI Relocation (Phase II) for the Hospital Expansion Project

James A. Loman / Sean P. Hole / Chrisopher J. Hoy

The Mobile 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 University Hospital, as required for future development at the hospital. The project consists of a new mobile MRI trailer and one-story modular industrialized building with corridor directly connecting to existing hospital, along with significant interior work to open space in the first floor of the Hospital to accommodate three MRI's 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 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 3 MRI's to the spaces in the Hospital created by the first phase enabling work.

The architect is Perkins + Will of Washington, D.C. and the construction manager for Phase One is Crenshaw Construction, Inc. of Culpeper, VA. The Construction Manager for Phase Two is Skanska USA of Parsippany, NJ.

Construction is scheduled to begin in the fall of 2014 with completion in fall of 2015. The total project cost is \$15,077,000.



# University Hospital NICU Renovation / Level 7

Fred P. Dunn / Christian Pouncey

The Neonatal Intensive Care Unit (NICU) Expansion is an eight bed expansion of the existing Neonatal Unit located on 7 East of University Hospital. The expansion consists of neonatal bed areas and support facilities for neonates requiring the most critical intensive care. The project takes existing support spaces within the unit and renovates the areas to provide an eight bed, enclosed expansion of the NICU. The surrounding support facilities will be renovated or reconfigured to become more efficient and effective. Support spaces include clean and soiled utilities, equipment room, overnight sleeping rooms for families, staff offices, and ancillary patient support areas such as lactation, education, and counseling.

Nalls Architecture Inc. of Philadelphia, PA provided design services and Crenshaw Construction Inc. of Culpeper, VA is the General Contractor.

Construction began in November 2012 and was completed in July 2014. The project was constructed in four phases to minimize disruption to the operation of the unit. The total project cost is \$2,700,000.



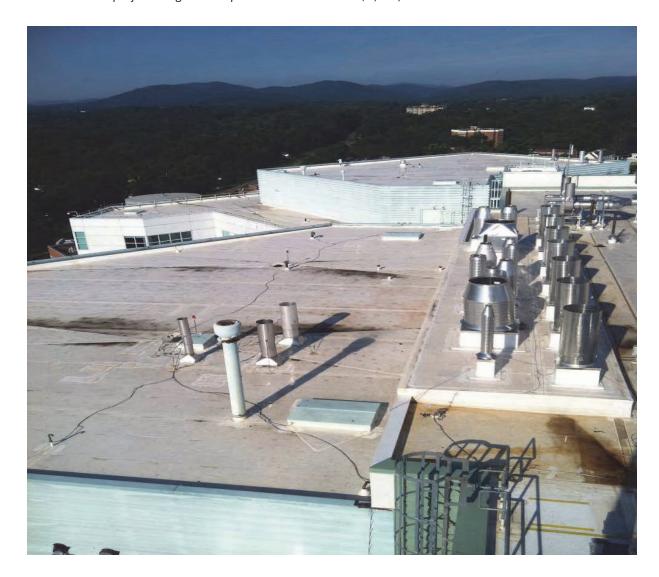
Architectural Rendering of Phase 3 (Pod H)

# **University Hospital Roof Replacement Project**

Stephen C. Rohr / Nathaniel U. Brown

The University Hospital, a 608-bed facility with a Level 1 Trauma Center, was completed in 1989. Due to the age of the existing roof, and the costs of maintaining it, a thermoplastic polyolefin (TPO) roof been installed. The work began in late 2011 and is complete.

The TPO roof was designed by Heyward Boyd Architects, PC. Lynch Roofing was the contractor for the work. The total project budget for all phases of the work was \$6,400,000.



# **University Hospital Vascular Hybrid OR-29**

P. Kevin Silson, AIA / Christian Pouncey

Vascular Hybrid Operating Room No. 29 (OR 29), operational in July, 2014, is a state-of-the-art operating room that includes a robotic x-ray system. This OR enables vascular surgeons to perform multiple operations at once; what normally would take two operations performed over two days can now be combined into one procedure.

The project was designed by HKS Architects, constructed by SRC, Inc. and included renovating existing office space and a satellite OR pharmacy into a new pharmacy, a 180 square foot OR control room, and an 800 square foot operating room. Design started in May, 2013, enabling move construction started in October, 2013, OR29 construction started in February, 2014 and occupancy was July 2014. The project cost was \$1,800,000 excluding equipment.



### **University Hospital Vegetated Roof Retrofit**

William F. Moore / Nathaniel U. Brown

The University Hospital roofs have aged and are being replaced. This project replaces the original portion of the expanded lobby roof with a "green roof". The 26,000 SF 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 used 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 ERC and is depicted below.

The project designer is Roofmeadow of Philadelphia, Pa. Waterproofing and the vegetation portions of construction are by Tecta America from Jessup, MD. The project budget is \$2,400,000 and was completed in October 2014.



# University Hospital West Complex - X-Ray Renovation

P. Kevin Silson, AIA

The X-Ray Wing was the old 10,000 square foot oncology x-ray equipment site, originally constructed in 1957 and renovated as equipment was upgraded over the years. When Oncology moved to the Emily Couric Cancer Center, the vacated wing was gutted, including approximately 70 tons of original lead bricks used for radiation protection. The space was renovated for office use, with all new mechanical, electrical, and plumbing systems and new building finishes. Because of the prime location, three functions that require public and UVA employee access were moved in: Human Resources, Employee Assistance and Medical Center Procurement.

The project was designed by Train Architects, constructed by University's Project Services Group and cost \$2,450,000. The project was fast-tracked because the new occupants were moving from the Blake Center, the building being demolished to make way for the new entrance to the Battle Building. Design started in October, 2012, the Building Permit was issued in February 2013, and the offices were occupied in July, 2013.





# **Engineering and Design:**

Engineering and Design is composed of two work centers, the Design Group (CC 07) and the Project Management Group (CC 78). 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 \$10,000,000 in project and technical support activities.

# **Project Management Group**

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

<del>-</del>	 
Continued: In Design	
Monroe Hall Low-Slope Roof	
Replacement	
Monroe Hall South Mechanical	
Room Replacement	
Old Cabell Hall Built-In Gutter and	
Low-Slope Roof Replacement	
Open Grounds Expansion Project	
Pavilion VII Low-Slope Roof	
Replacement	
Peabody Hall Low-Slope Roof	
Replacement	
Peyton House Low-Slope Roof	
Replacement	
Shelburne Hall Roof Replacement	
Slaughter Hall South Roof	
Replacement	
Thornton Hall C-Wing Supp.	
Sprinkler Water Line Study	
Thornton Hall Fire Alarms Phase II	
Thornton Hall Low-Slope Roof	
Replacement	
Zehmer Hall Roof Replacement	

**Design Group** 

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

Continued: In Design	In Construction	Completed
		Replace Elevators #1 and #2 Memorial
		Gymnasium
		Ruffner Hall Renovations
		Ticket Booth & Associated
		Renovations, Old Cabell Hall

# **Engineering and Design Major Commissions**

# **Accessibility Renovations (feature Scott Stadium Handrails)**

David Villiott

Various ADA projects were completed during the last Fiscal year. Thornton Hall Vertical platform lift was installed in the "D" wing of Thornton Hall to provide access to the basement level Lab classrooms in this wing of the building. Several new door operator systems were installed to provide access to spaces in Monroe Hall and Gilmer Hall and the Chemistry building. The Ruffner Hall renovation Project included several ADA improvement aspects, renovated accessible bathrooms; ADA compliant hand rails and accessible parking were included.

New Handrails were installed at Scott Stadium Lower tier aisles. The Handrails provide needed accessibility and safety for occupants at the Stadium. Work was complete May 1, 2014. The Architect was Facilities Management, Design Group. Work was performed by Industrial fabricators of Fishersville and Richmond Primoid of Richmond. Project cost was \$140,000.



Scott Stadium Handrails



Scott Stadium Handrails

#### **Bathroom Renovations**

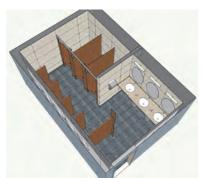
Eugenio Schettini, Shannon Barras, Steve Clark

During the past year, 14 outdated restroom facilities were renovated in Withers-Brown and Slaughter Hall at the Law School, and in Venable, Mallet and Long Dorms at Brown College. Old fixtures were removed and replaced. New waterproofing was installed throughout, as well as new finishes. New tile walls and floors, toilet partitions, vanity tops with integral sinks and new accessories were provided. Three of the Law School restrooms were given ADA-compliant fixtures. Both projects were successfully completed during the narrow summer construction window.

The Design Group provided design architectural services for both projects. Vansant & Gusler provided engineering support for the Law School, and Virginia A&E provided engineering support for Brown College. The projects were offered for bid to our On-Demand contractors, and Crenshaw Construction was awarded both contracts. The total project cost at the Law School was \$1,000,900; at Brown College the cost was \$798,558.



Law School: Original condition of restrooms



Law School Restroom, 3D rendering of renovated restrooms



Brown College: Original condition



Law School: Completed vanity area



Brown College: Renovated shower area

#### **Elevator Modernizations**

**David Villiott** 

Multiple elevators were renovated during the past fiscal year to update elevator equipment and cab finishes. Chemistry building, freight elevators; Physics Building addition; Old Cabell Hall; Monroe Hill; Memorial gymnasium elevators #1 and #2; Alderman Library hoistway doors; Mechanical engineering freight elevator; Faulkner House elevator; Slaughter Hall elevator #6 Cab modernization and Elevator #5 full renovation and Culbreth Theater stage Lift.

Construction was procured through a CM at Risk contract with Martin & Horn Construction. Design and Engineering provided by Vansant & Gusler and Valley Engineers. Costs ranged from \$206,000.00 to \$830,000.00.







# **Gross Anatomy & Fresh Tissue Lab Renovations, Jordan Hall**Joe Phillips

On the first floor of Old Jordan Hall, the Gross Anatomy Lab is being renovated and a new fresh tissue lab is being built, for a total of 8,660 sf. The work includes space remodeling, replacement of interior finishes, replacement of casework, new laboratory equipment, and mechanical, electrical and plumbing work required by the renovations. The single existing toilet room will be completely remodeled to provide accessible restrooms in both the men's and women's lockers. The project will also provide sprinklers to all remaining unsprinkled 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 current OSHA requirements. The project will be LEED-certified.

The Design Group is the A/E for the project, with RMF Engineering as consulting engineers for mechanical, electrical, and plumbing work. The Project Manager is Kristine Vey, and construction is by Project Services, so the project is a collaborative effort of Facilities Management in-house forces. Project design and construction are phased to meet a very aggressive schedule; the Gross Anatomy Lab was ready for student use in early August, 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.









# John Paul Jones Arena – Air and Water Infiltration Repairs

Taryn Harrison

The John Paul Jones Arena was originally constructed between 2003 and 2006. Since the beginning, various infiltration problems have occurred. A comprehensive study in 2012 by WDP & Associates evaluated conditions at the Arena that contribute to air and water leakage, and other building envelope issues. Repairs addressing the deficiencies are scheduled in phases. The first phase, from July 2013 to September 2013, addressed the penthouse louvers. New flashing and air barriers were installed and the existing metal panel system was retrofitted to accommodate the repairs. Phase II addresses high-priority repairs at the clerestory panels, the northeast and southeast vestibule roof, the west lobby, west radius precast, and the northeast curtain wall stack.

The engineer of record is Whitlock Dalrymple Poston & Associates. Barton Malow Company completed Phase I repairs. The total project budget is \$2,400,000.



# Law School Window Replacement - Phase I, II, III

Taryn Harrison / Keith Payne

The University of Virginia's School of Law began a phased window replacement effort in 2013 to replace many of its windows in Slaughter Hall and Withers-Brown Hall that were in poor condition and energy-inefficient. Sixty-four windows were replaced in Phase I, 52 windows, two storefronts and 100' of clerestory windows were replaced in Phase II, and 35 windows were replaced in Phase III. Thermal efficiency was improved from a range of R0.9 to R1.5 in the existing windows to R3.75 in the new windows.

The Law School is located in the North Grounds Precinct. The building was constructed in 1974; other major renovations were completed in 1980 and 1997.

The architect of record was Train & Partners Architects. The General Contractor was Dodson Glass. The project budget was approximately \$1,000,000 and the work was completed in August 2014.



New storefronts installed facing Purcell Courtyard

### Men's Soccer Renovations, U-Hall

Taryn Harrison / Keith Payne

The varsity soccer locker room project renovated the old men's basketball locker room in the basement of University Hall. The renovation provided a large team lounge including built-in study desks, a catering counter, a small kitchenette, a presentation/media wall, large scale graphics, a locker room with twenty-eight custom lockers and minor upgrades in the existing shower and restroom area. The architect of record was Train & Partners Architects. The engineer of record was 2rw Engineers. The General Contractor was Artisan Construction. Project Services fabricated the lockers. The project budget was \$427,000. Construction was completed in August 2014.



Prior to construction



After renovation, view of Team Locker Room

### **Open Grounds Expansion Project**

Taryn Harrison

The Corner Building, designed by Eugene Bradbury and constructed in 1913, is located at 1400 University Avenue. The building was moved to its current location in 1926 and houses the Center of Global Health, OpenGrounds, and the Women's Center. When a previous tenant, the Teen Health Clinic, vacated their suite in July 2014, OpenGrounds was able to expand into the space. In the expansion, approximately 1,400 sf are being renovated. This will enable OpenGrounds to enlarge its mission of generating new ideas and solutions, building connections and partnerships among diverse members of the community, and inspiring action across the University. The newly renovated space will accommodate a large meeting room with expanded audiovisual capabilities, additional study and gathering areas, and an office.

The design team includes SMBW Architects PLLC, Train & Partners Architects and 2rw Engineers. Construction was started in July 2014 and completion is anticipated by December 2014. Project Services is performing the construction. The project budget is \$480,000.



The Corner Building, circa 1926



Start of demolition in the old Teen Health Clinic (OpenGrounds Expansion)

#### **Roof Replacements**

Zachary P. Brackett, RRO

The roof program is managed through Engineering and Design Division. Most projects are on Grounds in Charlottesville, but the program also includes the College at Wise, the Anheuser Busch Coastal Research Center in Oyster, Smith Mountain Lake, and Blandy Farm in Boyce. The program is charged with the replacement of an assortment of roof types, including low-slope membrane systems, steep-slope shingle (slate and asphalt) and metal (standing-seam and flat-lock) roofs, and vegetative systems or "green roofs". Projects are designed by qualified architects and engineers and are generally bid to a pre-qualified list of "On-Demand" roofing contractors for values up to \$2,000,000, with minor work valued at approximately \$50,000 or less, awarded to the same pre-qualified list on a rotating basis.

#### This past year the program:

- Completed roofing projects at Alderman Library, Drama Education, Brown College residences at Monroe Hill, and the Lorna Sundberg International Center.
- Concluded several designs and prepared to solicit bids on Old Cabell Hall, Aerospace Research Building, built-in gutters at Halsey Hall, the Chemical Engineering Building, and Zehmer Hall.
- Initiated design for projects in the next fiscal year at Clemons Library, Monroe Hall, Slaughter Hall, and Pavilion VII.
- Provided support and maintenance for minor projects at Piedmont Faculty Housing, the McCue Center, and the High Energy Physics Laboratories.

Taken together, this work will replace approximately 280,000 square feet of roofing for a construction value of \$8,500,000.



### **Drama Education Building**

This project replaced 25,000 SF of all low-slope EPDM roofs and the steep-slope, standing-seam copper roof of the fly tower at a construction value of \$610,000.



# **Clemons Library**

The existing 17,750 SF ballasted EPDM roof will be replaced with a vegetative system, increasing stormwater control and energy savings for the building at an estimated construction value of \$480,000.



#### **Old Cabell Hall**

This multi-faceted roof project will replace 15,300 SF of low-slope EPDM, steep-slope slate shingles, and flat-lock metal roofs along with all built-in gutters for an estimated construction value of \$835,000.

**Ruffner Hall** (Design Group Architectural Work) Lynn Rush / Richard Sergi

Ruffner Hall is an 85,000 gsf, 4-story academic building providing general classrooms, offices, and meeting and research 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.

The Design Group was the architectural consultant to the A/E of Record, McKinney & Company. The Design Group provided all basic architectural services for the project from schematic design to project closeout. Notable aspects of the design work include 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.













# Thornton Hall Stacks Renovation, U-Hall

Design Group

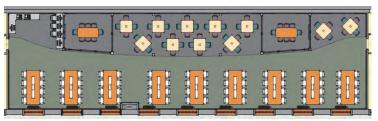
To encourage more collaborative interactions between students and to provide a central gathering space to encourage inter-disciplinary studies, the Engineering School decided to upgrade The Stacks (the former Engineering School Library, a monumental space on the second floor in the historic section of Thornton Hall A Wing) into a more contemporary and flexible study space. The renovated room provides students with various types of study spaces consisting of large work tables, small meeting tables, group rooms, audio visual equipment and improved LED lighting.

The solution consisted of designing a free-form structured enclosure containing the meeting rooms, and flexible study spaces separated from the larger space by a curving soffit which encloses more intimate spaces for smaller groups. The structure is bookended by two small glass enclosed meeting rooms, which are outfitted with large display monitors and whiteboards. New carpeting was installed, walls were repainted, and the electrical and wireless system upgraded. The existing original wainscoting and trim was repaired and restored throughout the room.

The project was successfully completed on time within a tight construction window spanning most of summer. The Design Group provided design architectural services for both projects, while WR & A provided engineering support. The project was constructed in-house by Project Services. Total project cost: \$453,450.



Existing Stacks before renovation



New Stacks plan







3D rendering

# **Contract Administration**

The Office of Contract Administration managed the procurement processes for and made awards on a total of 438 contracts in the 2013-2014 fiscal year (FY14) compared to 489 the previous year. The number of procurement contracts processed decreased 10% as compared to the previous year. Some of this decrease is attributed to the increased volume of smaller renovation and construction projects being directed to UVA's Project Services group.

Professional services contracts (architectural, engineering, and consulting), and service orders on consulting term contracts, numbered 363 for a total of \$15,322,747 compared to 406 contracts the previous year totaling \$16,873,811. There were 59 change orders processed with a net additive value of \$4,382,501.

The construction side of the office handled 75 procurements for a total of \$62,595,937 in a favorable bid market, compared to 83 procurements the previous year totaling \$83,444,216. There were 189 associated construction change orders processed with a net value of \$7,475,780 compared to 289 change orders the previous year totaling \$19,065,309. The only change order included in this total over one million dollars was primarily a planned change order for the Alderman Road Residence Hall #6 – Site Utility and Grading Package valued at \$1,271,077.

During the year the office issued a total of 12 requests for proposals (RFPs) compared to 19 RFPs the previous year. The number of professional services RFPs executed this year was 5, and construction RFPs totaled 7.

We continue to team with Procurement & Supplier Diversity Services to strategize and plan for increased diversity in Prime and Subcontractor spending through recruitment of small, women-owned, and minority-owned (SWaM) firms. In addition the following SWaM initiatives continued in FY14:

- 1) An emphasis on SWaM participation in Facilities Management's procurements continues with an overall aspirational goal increased to 45% for SWaM spending for the University's 207 and 209 agencies. Special efforts are made for women-owned and minority-owned firms to improve their representation in the overall total spending.
- 2) Our Office Manager continues to take the lead in promoting SWaM participation in our procurements and had numerous meetings to recruit and prequalify new SWaM firms for the On-Demand Roofing contract.
- 3) Members of the Office of Contract Administration attended SWaM Fest IX in Short Pump in October 2013 and the Director participated as a panelist discussing procurement for construction/renovation projects. Members also participated in various SWaM outreach meetings.

Facilities Management's Web Based Project Information Management System (PIMS) is in the process of being replaced by new e-Builder Enterprise web-based construction management software. This project has been a significant effort involving staff throughout Facilities Management. One of our Construction Contract Administrators worked with Dave Blair and other staff to help organize the procurement effort and process review resulting in e-Builder's selection. Meetings with e-Builder are continuing to customize the software for Facilities Management's specific needs and process.

The Office Director was part of a small group developing the FP&C web site specifically for the public. This web site went live in late 2013. The Office continues to lead efforts to update both the new public and existing Contract Administration web site and elements of the "Links and Forms" web page as a service to and as professional tools for the FP&C Staff, and University Consultants and Contractors. The continuous improvement

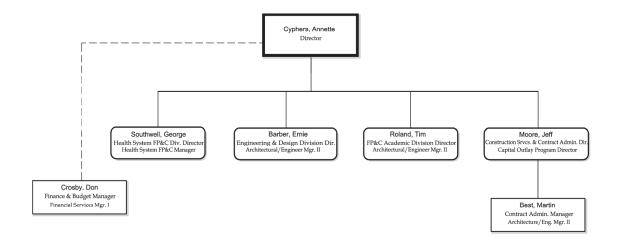
effort contributes to FP&C consistency. Updates, modifications, and additions have been made and we are continuing to incorporate process and document improvements as we work in conjunction with the Associate General Counsel and Special Assistant Attorney General for the University. Existing web pages and templates including the UVA HECO/CO/DGS Forms page continue to be updated.

As part of ongoing improvements to the capital project execution process, we have implemented Building Information Modeling (BIM) as a design collaboration tool with major Subcontractors early in the design process as part of a Design-Assist methodology. The new University Hospital Expansion Project will be executed with BIM, Design-Assist, and Colocation of all stakeholders contributing to the design.

The Office consistently promotes and encourages professional involvement, certification, and training. Members of the Office attend the Virginia COAA semi-annual workshops. In addition the Office Director served as the COAA Virginia Chapter Treasurer again this past year and UVA supports the Virginia COAA workshops representing facility owners from around Virginia. Contract Administration staff also participated in FP&C training sessions that were held for staff and participated in numerous other training opportunities.

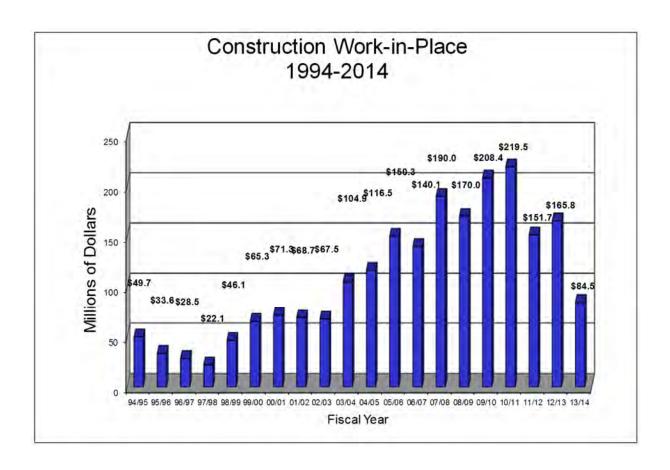
# Appendix A

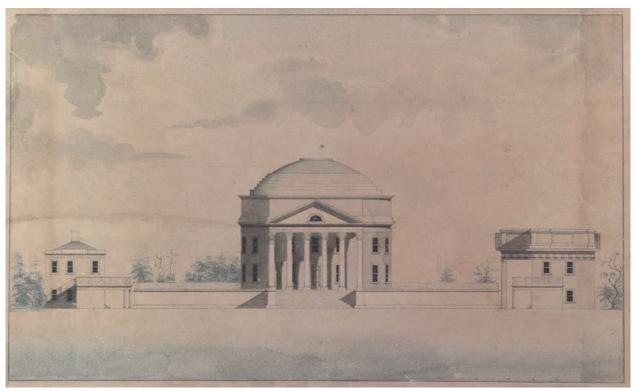
# Facilities Planning and Construction July 1, 2013- June 30, 2014



# Appendix B

Facilities construction completed during the year represented a contract construction work in place volume of \$84.5 million.





Neilson's view of the Rotunda with Pavilions IX and X,

We are about to establish a College near Charlottesville on the lands formerly Col. Monroe's, a mile above the town, we do not propose to erect a single grand building, but to form a square of perhaps 200 yards, and to arrange around that pavilions of about 24. by 36. f. [feet] one for every professorship & his school, they are to be of various forms, models of chaste architecture, as examples for the school of architecture to be formed on, we shall build one only in the latter end of this year, and go on with the others year after year,..."

Thomas Jefferson

Letter to John Dinsmore

April 13, 1817