



FACILITIES

PLANNING &

CONSTRUCTION

**2010 ANNUAL
REPORT**



Facilities Planning and Construction Annual Report 2009-2010

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Facilities Planning and Construction

Foreword

The Facilities Planning and Construction (FP&C) organization is responsible for the execution of the University's Capital Project Program. As such we provide management of all design and engineering services, management of all construction services, and contract administration for all construction contracts and design/engineering services contracts to the University community. Facilities Planning and Construction accomplishes this mission in close coordination and cooperation with the Office of the Architect for the University. Our goal is to be the benchmark institution for higher education capital project execution.

Major responsibilities include:

- Manage projects from inception to occupancy on-time and within budget while assuring appropriate design and construction standards and criteria established by the University, the state, or other appropriate agencies are followed.
- Provide assistance and guidance to the University community in the development of projects for planning and construction.
- Manage the professional and construction services procurement processes to assure conformance to the requirements of the University's restructuring and construction procurement procedures. Conduct all fee negotiations.
- Identify and implement opportunities for reduction of costs through value engineering and other cost reduction initiatives.
- Maintain current project information on-line to include budget and project progress status.
- Maintain in house architectural design services in support of the University's various renovation programs.
- Encourage the full participation of all stakeholders in the project management process.
- Encourage diversity in all procurement actions.

The work is accomplished through three production units. Appendix A illustrates the organization of Facilities Planning and Construction.

1. Academic
2. Health System
3. Engineering & Design

They are supported by a Contract Administration Division and an Administration Division.



C. A. "Sack" Johannesmeyer, P.E., VCCO
Director, Facilities Planning and Construction

Facilities Planning and Construction

Overview

This 2009-2010 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 \$223,710,728.
- Awarded 94 construction contracts totaling \$169,838,188.
- Processed 345 professional service contracts and service orders totaling \$18,680,971.
- Put in place construction with a value of \$208,400,000.
- Design and construction continues on major new facilities. These are highlighted in the Division sections of this report and total \$1,241,036,548. Additionally see each Division section for a summary of major projects.
- Planned and conducted “Design Inforum 2010” open house for construction firms to meet FP&C staff and learn about proposed projects.

Academic Division:

Studies and Reports:

- Intramural Recreation Facility

Planning:

- Baseball / Softball Stadium Expansion
 - FM / SEAS Shop Building
 - Historic Preservation Master Plan
 - Miller Center Addition
 - Thrust Theatre
 - Wise Library
-
- 6 capital projects in design for a total of \$219,217,000.
 - 15 capital projects in construction for a total of \$478,196,000.
 - 12 capital projects completed for a total of \$78,560,000.

Capital Projects in Design	Capital Projects in Construction	Capital Projects Completed
Alderman Road Residences Phase III	Alderman Phase III Utilities	Aquatic and Fitness Center Chiller Plant Upgrade
Alderman Road Residences Phase IV	Alderman Road Residences Phase II	Baseball Stadium Expansion
New Cabell Hall Renovation	Bavaro Hall	Central Grounds Chiller Plant Upgrade
Newcomb Hall Dining Expansion	CAS: Physical and Life Sciences Research Building	Medium Temperature Hot Water System Upgrade Phase I – Central Grounds
Ruffner Hall Renewal	Garrett Hall Renovation	Pavilion II Renovation
Thrust Theatre	Information Technology and Communication Data Center	Pavilion X Exterior Restoration
	Marching Band Rehearsal Hall	College at Wise: Gilliam Arts Center
	Medium Temperature Hot Water System Upgrade Phase 2	College at Wise: Hunter J. Smith Dining Commons
	New Cabell Hall South Entrance	College at Wise: Residence Hall
	Newcomb Hall Renovation	College at Wise: Science Renovation
	Rice Hall – Information Technology and Engineering Building	Southwest Virginia Higher Education Center Addition
	South Lawn	Mountain Lake: New Cabin Construction and Renovations
	University Bookstore Addition	
	College at Wise: Multi-Purpose Facility	
	College at Wise: Smiddy Hall Renovation / IT Wing	

Academic Division Major Commissions

Alderman Road Phase III Utilities

Maupin House currently serves as the mechanical hub for the conversion of steam to heating hot water and domestic hot water, which is then distributed to seven other residence halls in the Alderman Road Housing area. As a part of the Alderman Road Phase III project, Maupin House will be demolished to make way for new dormitories. The Phase III Utilities project serves to construct a new utility hub at Woody House so that Maupin House can be demolished in summer 2011 without disrupting utility services to the other remaining dorms. Additional utility upgrades are included in this project to provide capacity for future construction and to minimize future disruption to students living in this area.

This project includes the installation of 1,025 linear feet (lf) of a new utility tunnel in Alderman Road that will carry new 10" medium temperature hot water (MTHW) piping. The project also includes installation of 510 lf of box conduit near Woody and Cauthen Houses, 330 lf of 6" MTHW piping in the box conduits, 650 lf of low temperature hot water (LTHW) piping in box conduit and direct buried, 650 lf of 4" domestic hot water service and 2" hot water return lines in box conduit and direct buried, 425 lf of 8" and 4" chilled water lines, 720 lf of 4-way and 8-way electrical duct bank, 675 lf of direct buried telecommunication conduit, and 410 lf of 12" and 4" domestic water lines.

Additionally, the project includes installing a new underground mechanical vault connected to Woody House, new mechanical equipment to convert MTHW to LTHW and domestic hot water, connecting Woody House to the University's central heating and cooling systems, connecting Cauthen House to the University's central cooling system, and converting Gooch-Dillard from Dominion Virginia Power to University Power.

The engineering firm responsible for the project design is Dewberry and Davis, Inc. of Glen Allen, Virginia, and the construction contractor is Daniel & Company, Inc. of Richmond, Virginia. The project is scheduled for completion in September 2010, and the project cost is \$8,500,000.



Alderman Road Residences – Phase II

The second phase of a four-phase master plan to replace, improve and expand first year housing facilities in the Alderman Road area, this project will build on the precedent of Kellogg House to provide two new residence halls and a commons building to support increasing enrollments and expectations of the first year residential experience. These new facilities will be constructed on the former sites of the aging Balz, Dobie and Watson Houses, which are being demolished to make way for the new construction.

Situated on a steeply sloping site, the buildings will create courtyards and new open space in the former footprint of Balz House while preserving the wooded area at the center of the precinct. An accessible route will connect the buildings to Kellogg House with a new ramp and is designed to connect to future accessible connections to the Observatory Hill Dining Facility. Intended primarily for pedestrian use, this route will be opened to vehicles for move-in days. Limited parking and drives will be provided between McCormick Road and the Commons for accessible spaces and fire and service vehicle access to the buildings. Native and adapted plantings will be used to stabilize slopes and further enhance the precinct.

The residence halls will house 440 first year students and 10 to 20 resident advisors in student rooms in the five upper floors of these six-story buildings. A one-bedroom apartment with private exterior entrance will be located on the first floor of each building to house the area coordinators. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community within the building. First floor spaces including the lobby with casual seating, multi-purpose rooms, and a central laundry will further enhance the student experience and encourage interaction with other students. The Commons Building will provide a location for assemblies of residents of nearby halls for events programmed by Student Affairs. It will include a catering kitchen and AV facilities to support seated dinners for 240, presentations by guest speakers and movie nights.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland prepared bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clarke Nexsen Architects of Charlotte, North Carolina has been selected as the design/build team.

The project budget for Phase II is \$44,100,000, of which \$40,200,000 million is associated with the two residence halls. The University has accelerated the project schedule to capitalize on advantageous construction market conditions and expects to occupy all buildings in June 2011, allowing construction of Phase III to begin one year early.



Alderman Road Residences – Phase III

The third phase of a four-phase master plan to replace, improve and expand first year housing facilities in the Alderman Road area, this project will provide two new residence halls to support increasing enrollments and expectations of the first year residential experience. These new facilities will be constructed on the former sites of the aging Webb and Maupin Houses, which will be demolished to make way for the new construction.

Situated at the foot of a steeply sloping site, the buildings will create a gateway to Kellogg House and the Phase II Residence Halls and complete the courtyards begun in that phase while preserving the wooded area at the center of the precinct. An accessible ramp will connect the buildings to the Observatory Hill Dining Facility and to the new accessible route to Kellogg House created in Phase II.

The residence halls will be five stories in height to negotiate the difference in scale between the Phase II buildings and the Observatory Hill Dining Facility. They will house 356 first year students and 10 to 20 resident advisors in student rooms in their four upper floors. A one-bedroom apartment with private exterior entrance will be located on the first floor of each building to house the area coordinators. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community within the building. First floor spaces including the lobby with casual seating, multi-purpose rooms, and a central laundry will further enhance the student experience and encourage interaction with other students.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland are being retained to prepare bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clarke Nexsen Architects of Charlotte, North Carolina the design/build team for Phase II, are expected to be retained for this phase as well.

The project budget for Phase III is \$52,500,000, of which \$6,000,000 is dedicated to a utilities infrastructure project to support the remaining and future residence halls with medium temperature hot water after the demolition of the antiquated hot water plant in Maupin House.

The University has accelerated the project schedule to capitalize on advantageous construction market conditions and presently expects to occupy both buildings in June 2013, one year ahead of the initial plan.



Phase3 – Proposed design with Observatory Hill Dining Hall to right. Ayers/Saint/Gross Architects + Planners



*Alderman Road Housing Master Site Plan
Ayers/Saint/Gross Architects + Planners*



3-dimensional Site View Ayers/Saint/Gross Architects + Planners

Alderman Road Residences – Phase IV

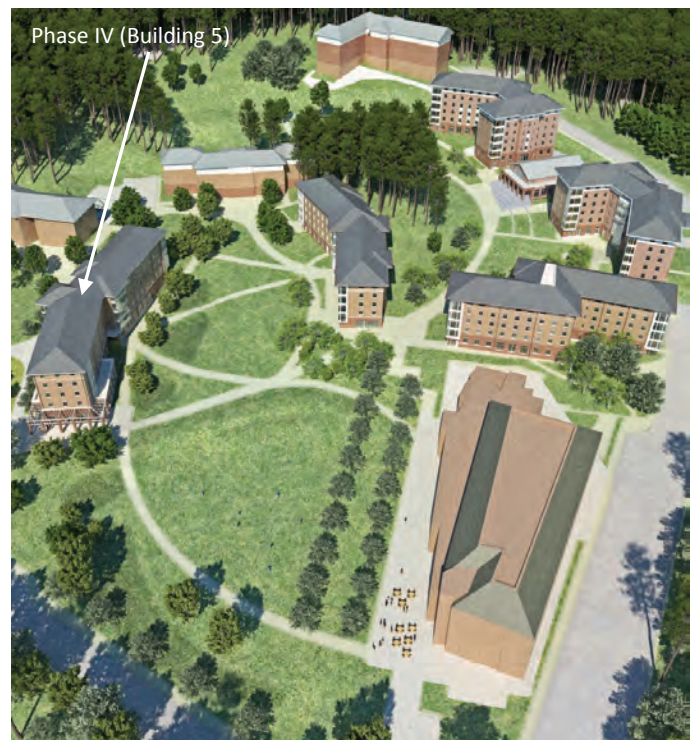
The fourth phase of a four-phase master plan to replace, improve and expand first year housing facilities in the Alderman Road area, this project will build on the precedent of Kellogg House to provide one new residence hall to support increasing enrollments and expectations of the first year residential experience. The new facility (building 5) will be constructed on the former sites of Lile House and Tuttle House, which are being demolished to make way for the new construction.

Situated at the foot of a steeply sloping site at the former building footprints of Lile House and Tuttle House, building 5 will create a courtyard with Cauthen House and building 4 and will continue the use of native and adaptive plantings, further stabilizing slopes and enhancing the overall site. Accessible routes will connect building 5 to adjacent buildings and Alderman Road. Intended primarily for pedestrian use, designated routes will be opened to vehicles for move-in days. Treehouse Drive will be realigned horizontally and vertically to improve access and connection to Alderman Road.

The residence hall will house 192 first year students and eight resident advisors in student rooms in the five upper floors of this six-story building. A one-bedroom apartment with private exterior entrance will be located on the first floor to house one area coordinator. The residential community structure will be reinforced with common lounges, quiet study areas, and bathrooms dedicated to each individual 24-student community 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 with other students. The first floor will also include classroom spaces and a post office for this precinct.

Ayers / Saint / Gross Architects + Planners of Baltimore, Maryland are completing bridging documents for the project. W.M. Jordan Company of Norfolk, Virginia and Clarke Nexsen Architects of Charlotte, North Carolina, the design/build team for Phase II, may be retained for this phase as well, pending proposal receipt and approval.

The project budget is \$30,000,000. The University is exploring an accelerated project schedule to capitalize on advantageous construction market conditions and may occupy building 5 in June 2013, concurrent with buildings 3 and 4.



*Aerial Site View
Ayers/Saint/Gross Architects + Planners*

Aquatic and Fitness Center Chiller Plant Upgrade

The Aquatic and Fitness Center (AFC) Chilled Water Plant is one of three existing chiller plants that provide capacity to the McCormick Road Chilled Water Loop serving numerous buildings in this precinct. In order to support the construction of multiple new facilities in the precinct, and because the Olsson Hall chiller plant is being decommissioned to make way for the School of Engineering and Applied Science (SEAS) Information Technology and Engineering (ITE) building, the AFC plant is being upgraded from 2,400 tons of cooling capacity to 6,900 tons. The project will install three 1,500 ton chillers and five supporting cooling towers. As a result of this project, the combined cooling capacity for the entire McCormick Road Chilled Water Loop will increase from 7,600 tons to 10,500 tons. The new chillers will be installed inside the existing AFC basement, while the new cooling towers will be installed in the existing AFC cooling tower yard and will be screened in a similar manner to the existing cooling tower cells.

The project was designed by Affiliated Engineers, Inc. of Chapel Hill, North Carolina and the construction was managed by Martin Horn, Inc. of Charlottesville, Virginia. The project budget was \$21,000,000 and was completed on schedule in April 2010.



Baseball Stadium Expansion

In October 2007 the Cavalier Daily wrote "Success on the field was rewarded by motion in the boardroom yesterday when the Board of Visitors approved plans for the expansion of Davenport Field." During the design for the expanded team clubhouse in 2009 meetings were delayed by UVA's first ever appearance at the College World Series and Coach O'Connor was named National Coach of the Year by the College Baseball Writers Association. Virginia finished the 2010 season 51-14, setting a program record for victories in a season. Success on the field has created more demand for team facilities under the bleachers.

The first phase of the proposed expansion enclosed and conditioned the batting cages; enlarged and updated the locker rooms and team meeting space; provided a new weight room, training room, and storage space, and created a Hall of Fame. Visitor and official's locker space has been added for NCAA regional tournaments. A covered walkway has been added to enhance interior circulation. The project renovated 8,326 gsf, and added another 7,455 gsf. The renovated and expanded facilities provide more practice and training resources that are protected from the weather. The clubhouse offers better video review space, more meeting areas for coaches and players, and a more livable environment for the team. The players' rave reviews suggest the enhancements will help recruitment. Later phases of the project will design and expand the grandstand along right field.

The project was designed by VMDO Architects construction and was managed by Martin Horn, both of Charlottesville, Virginia. The project budget is \$4,000,000 construction was completed in June of 2010.



Bavaro Hall

Bavaro Hall was designed to provide the Curry School of Education with approximately 65,000 gsf of office and clinical spaces. It is a four-story building with the west side connected to Ruffner Hall by way of two arcades and a courtyard central to both buildings. The building is bounded by McCormick Road to the south, the Dell area to the north, and Emmet Street to the east.

Bavaro Hall is targeting LEED certification through its sustainable building and landscape design and construction. The building is a steel frame system with masonry exterior walls. The exterior façade consists of brick, stone and glass to resemble and respect the general characteristics of the surrounding buildings. The greenscape provides a pleasant pedestrian experience around the building. Plant materials were selected as sustainable design elements and are intended to visually enhance the structure naturally.

The Curry School of Education facilities have previously been scattered throughout a number of buildings and the School lacks office space and adequate clinical space. The new building will consolidate the Curry School and create space conducive to clinical activities, create centralized offices for faculty and graduate students, and allow currently subdivided space in Ruffner Hall to be converted back to much needed classroom space.

The project was designed by Robert A.M. Stern of New York, New York and the construction has been managed by Donley's LLC of Richmond, Virginia. Construction began in May 2008 and will be completed in July 2010, allowing faculty move-in prior to the start of the fall 2010 semester. The project budget is \$37,400,000.



Central Grounds Chiller Plant Upgrade

This project was an upgrade to the Central Grounds Chiller System Plant. Upgrades to the system included one new 1,200-ton electrical centrifugal chiller placed in the basement mechanical area of Bryan Hall, two 600 ton cooling tower cells placed in the current Central Grounds tower area, and a new condenser water pump system. The project utilized the exiting hydronics system and cooling tower enclosure.

The project construction was managed by Riddleberger Construction of Mt. Crawford, Virginia. The project budget was \$4,975,000 and the construction was completed fall of 2009.



College of Arts and Sciences (CAS) Physical and Life Sciences Research Building

The College of Arts and Sciences Physical and Life Sciences Research Building will provide additional space required to support research in physical and life sciences, primarily in chemistry and biology. The CAS Research Building is also intended to provide modern research laboratory facilities that will attract and retain faculty and students and to relieve the increasing shortage of reliable laboratory space on grounds. The project consists of a five-story, 105,000 gsf building, plus an accompanying mechanical penthouse. This new research facility will feature modern looking architecture and finishes. The building will be connected to the existing Chemistry and Chemistry Addition buildings with pedestrian traffic among the three buildings on all floors, except on the basement level of the Chemistry building. The building will contain laboratories, laboratory support areas, administrative office space, and conference rooms [on all five floors]. The mechanical and electrical systems for the main building are contained primarily in the basement and the mechanical penthouse floor located above the five research levels.

The project is being designed by Bohlin Cywinski Jackson Architects of Pittsburgh, Pennsylvania and the construction is being managed by W.M. Jordan of Richmond, Virginia. The project budget is \$88,900,000 and construction is scheduled for completion summer 2011.



Garrett Hall Renovation

Garrett Hall will be renovated to become the permanent home of the newly established Frank Batten School of Leadership and Public Policy. Originally completed in 1908 and designed by McKim Mead and White, the historic three-story, 16,760 gsf Garrett Hall was the first large dining hall at the University. It remained in use as a dining hall until the completion of Newcomb Hall in 1958, at which time Garrett Hall was converted to office use. The 8,640 gsf underground annex on the east side was added in 1970. New renovations will create office and assembly spaces to support the activities and programs of the students, faculty, and staff of the Batten School.

The scope of work will address longstanding structural issues in the main building, replace HVAC, electrical and plumbing systems, and implement code and ADA compliance requirements. It will also include exterior repairs, restoration of the original main dining room and two-story entry, reconfiguration of other interior spaces to accommodate the new program and elevator, and the refurbishment of the interior of the annex. The project will comply with the University's sustainability program and will follow University and state guidelines for historic preservation.

Architectural Resources Group, Inc., located in San Francisco, California, has teamed with Frazier Associates in Staunton, Virginia to design the project. The Christman Company of Alexandria, Virginia has been selected as the construction management firm. Construction began in April 2010; completion is scheduled for July 1, 2011. The project budget is \$14,000,000.



Information Technology and Communication Data Center

The 12,500 gsf data center will be constructed between the recently completed Printing and Copying Services addition at 2474 Old Ivy Road and Ivy Road (Route 250). The building will be a two-story, concrete block structure with masonry and metal panel exterior walls and a large equipment yard screened with metal panel walls and is designed to accommodate both the current and foreseeable computing needs of the University.

The data center will house a 5,500 gsf computer server room, as well as mechanical and electrical equipment support spaces, a shipping/receiving area, a telecommunications room, a work room and one restroom. Office space will not be required as full-time staff will not occupy this facility. Site-related programmatic elements include an equipment yard and a service drive. The equipment yard will contain a cooling tower, two air-cooled chillers, a generator, and a transformer, and switchgear. The service drive will provide access for equipment delivery and maintenance. Parking will be located to the east of the building, near the Fontana Food Services building.

This project is located in an area designated for growth of support services for the University, approximately 1.5 miles west of the Academical Village.

The data center design responds to the context of neighboring buildings, in particular the nearby Printing and Copying Services building and recent addition. The simple brick exterior mass will be distinguished with metal panel, glazed block, and translucent panel accent walls. The roof will be flat with parapet walls with no rooftop mechanical equipment. The large equipment yard will be screened with a metal panel wall system. The existing sloped site allows for entrances at both the lower and upper levels. Access to the building will be from Old Ivy Road, via a recently constructed loop drive. Plantings around the building will be low-maintenance but ornamental.

TEC of Charlottesville, Virginia and Hypertect, Inc. of Roseville, Minnesota are providing architectural and engineering design services. The project started construction in April 2010 and is scheduled to be complete in May of 2011. The project budget is \$14,800,000.



Marching Band Rehearsal Hall

The Marching Band Rehearsal Hall is a two-story building on a site bounded by Culbreth Road and the Buckingham Branch Railroad. It is adjacent to the recently completed Ruffin Hall, and the Culbreth Road Parking Garage is located to the immediate west. The new facility will contain a 4,000 square foot rehearsal room and an additional 1,800 square feet multi-purpose practice and teaching areas. Instrument storage and administrative space make up the balance of this 16,400 square foot project.

The building will utilize load bearing masonry as its principal structural system. The exterior façade will consist of brick and curtainwall in order to resemble the nature of Ruffin Hall and the Culbreth Theatre. Copper clad roof elements are reminiscent of the pitched skylight elements utilized on Ruffin Hall. Landscaping is a small part of the overall scope; however, a small and finely detailed plaza will adorn the building's entry. In addition, the Rehearsal Hall is intended to anchor the eastern boundary of the Arts Grounds landscape master plan project, currently in conceptual design.

The Cavalier Marching Band currently occupies temporary spaces in University Hall and does not have dedicated indoor practice facilities in the event of inclement weather. The new building will provide the marching band with a permanent home within walking distance of the Carr's Hill practice field and Band Storage Facility. The new facility will provide a unique combination of spaces that can accommodate the entire band, smaller instrument section rehearsals, or host band ensemble practice. All rehearsal areas will receive an appropriate level of sound attenuation design. As the marching band's new home, the building will also serve as a unique gathering space for family, friends, and alumni during the very active football and basketball seasons.

The project was designed by William Rawn Architects of Boston, Massachusetts and the construction is being managed by DPR Construction of Falls Church, Virginia. The project budget is \$12,700,000 and the construction on this project began in November 2009.



Medium Temperature Hot Water (MTHW) Distribution System Upgrade Phase I – Central Grounds

The Central Grounds Distribution System Upgrade project required the replacement of a significant portion of the existing medium temperature hot water (MTHW) piping used for campus-wide heating. Approximately 3,400 linear feet (lf) of existing 10" and 12" MTHW distribution piping was replaced with 18" piping. The 18" replacement piping corrected issues with damaging high flow velocities recorded in the existing 10" and 12" piping. The replacement piping was sized to accommodate anticipated future demand in and around Central Grounds. The work was critical to the ability of the distribution system to handle increased loads anticipated from ongoing projects, specifically Bavaro Hall and the two new science buildings being constructed along Whitehead Road.

The MTHW pipe replacement occurred in the walkable tunnels between Garrett Hall and Thornton Hall. Access to the piping was gained through multiple excavations located along the path of the distribution tunnels. Critical structural repairs to the tunnels were performed as part of this work. Approximately 110 lf of tunnel replacement was required in front of Thornton Hall. Approximately 30 lf of tunnel replacement was performed in the vicinity of Minor Hall. Traffic impacts were considered in the project design, and careful execution was required for the successful completion of the work. A second phase of this project is currently underway to upgrade additional MTHW, steam, and condensate piping near Thornton Hall.

The engineering firm responsible for the project design was Jacobs Carter Burgess of Cary, North Carolina. The construction contractor was Waco, Inc. of Sandston, Virginia. The project was completed in December 2009, and the project cost for the first phase of this work was \$5,100,000.



Medium Temperature Hot Water (MTHW) Phase II

Medium temperature hot water, steam, condensate, and domestic water piping near Thornton Hall must be upgraded to provide capacity for future construction on West Grounds, specifically along Whitehead Road and Alderman Road. The piping that requires replacement currently crosses from Central Grounds to West Grounds under the McCormick Road Bridge, which needs significant work as well. The bridge cannot support additional pipe upgrades so this project will install piping in an existing tunnel that crosses Emmet Street south of the McCormick Road Bridge, which will allow these utility upgrades to serve West Grounds without further impacting the bridge.

This project involves replacing approximately 1,100 linear feet (lf) of 10" MTHW service and return piping with 18" piping in an existing utility tunnel under Engineer's Way. Additionally, it will install about 300 lf of new utility tunnel from the east side of Emmet Street, up the grassy bank to Cabell Drive, and along Cabell Drive to McCormick Road. This new tunnel will carry new 18" MTHW service and return piping, 12" steam piping, and 6" condensate piping. This new tunnel connects to an existing tunnel that runs under Emmet Street and along Thornton Hall. Also, a new 12" domestic water line will be directionally drilled under Emmet Street. All of this work will allow the University to install these new utility pipes under Emmet Street without closing the street.

The engineering firm responsible for the project design is Dewberry and Davis, Inc. of Glen Allen, Virginia, and the construction contractor is Waco, Inc. of Sandston, Virginia. The project is scheduled for completion in September 2010 and the project cost for this second phase of work is \$4,500,000.



New Cabell Hall Renovation

Built in 1952, New Cabell Hall is the workhorse of the College of Arts and Sciences with 50 classrooms and 390 faculty offices. The six-story, 150,000 gsf brick building will be completely modernized with new heating, plumbing and electrical systems, as well as the introduction of air conditioning and fire suppression systems. Handicapped accessibility to the building will be improved, elevator cabs will be replaced, hazardous materials will be abated, and telephone and data distribution systems will be replaced. Additionally, interior finishes are to be replaced and upgraded, including walls, floors, and ceilings. A new lighting system will also be installed. Classrooms in this historic building will receive state of the art teaching aids equal to that being installed in the new South Lawn buildings.

On the exterior, the enclosed courtyard between New and Old Cabell Hall will be landscaped and directly connected to the surrounding buildings to enhance and encourage usage. On the primary south elevation, a significant, accessible connection with the new South Lawn plaza will be constructed. Following complete modernization of New Cabell Hall, the mission of teaching and departmental quarters will continue and the general layout and mix of classroom space in the building will not significantly change. Construction documents were completed in September 2009.

The project architect is Goody Clancy of Boston, Massachusetts and the construction is being managed by Barton Malow of Charlottesville, Virginia. The project budget is \$80,000,000 and the construction is scheduled for completion winter 2013.



New Cabell Hall South Entrance

The New Cabell Hall South Entrance work is nearly complete. This project is a bold new architectural statement that completely changes the dated south entrance to the 1950s New Cabell Hall structure and compliments the new Terrace Crossing over Jefferson Park Avenue from the new South Lawn project. The project will also add function to the existing building by changing the main entrance from the first floor to the second floor level, creating a new lighted grand stair to that level. The first floor entrance will also remain as an entrance into the building.

This project is an interim step pending the availability of state funding for the renovation of the entire New Cabell Hall building. The project will also increase the size of the basement mechanical room and add a new configuration to the existing entrance on level one.

The project budget is \$5,500,000 and will be completed by the end of July 2010 in conjunction with the completion of the terrace crossing over Jefferson Park Avenue from the South Lawn project. The project architect is Moore Ruble Yudell of Santa Monica, California, and the construction manager is Barton Malow of Charlottesville, Virginia.



Newcomb Hall Dining Expansion

The Newcomb Hall Dining Expansion project will accommodate an increased demand for dining space at Newcomb Hall, as well as enhance the dining experience with a more open, light, and revitalized space for dining and food service functions.

The project will include a new 16,000 gsf, two-story addition to the west side of Newcomb Hall and 32,000 gsf of renovations to existing dining spaces on the first and second floors. Approximately 500 new seats will be added to the second floor residential dining and retail space and the first floor “Pavilion XI” dining space. Improvements to the mechanical infrastructure and food service equipment will increase functional versatility as well as operational and energy efficiency, providing greater opportunity for creating contemporary menus and improving food preparation methods.

Additional improvements will include a lobby and information center, a nearby relocated post office and convenience store, and new restrooms. Sitework at the Newcomb plaza will include new utilities, existing utility relocation and associated plaza restoration at areas located immediately adjacent to the new addition.

In addition to improving the aesthetic appearance and functionality of Newcomb Hall and the dining spaces located therein, the expansion project and other building renovations currently underway will address some of the larger pedestrian circulation issues to improve way-finding and to create a unified identity that reflects the values and history of the University.

Construction will begin in March 2011 and completion is scheduled for November 2012. The architect is Cole & Denny, Inc., of Alexandria, Virginia and the construction manager is R.E. Lee & Son, Inc. of Charlottesville, Virginia. The project budget is \$18,000,000.



Newcomb Hall Renovation Phases 1, 2, & 3

Newcomb Hall serves as a significant “central hub” of activity for the University, accommodating students, faculty and staff throughout the calendar year. The building serves as a “gateway” to visitors due to its function and location within the University Central Grounds precinct. The building has received several renovations since the original completion in 1958, with a current total of over two hundred thousand square feet on six levels. Meeting spaces including a large ballroom, lounge and art gallery, dining facilities, a theater and various offices and support spaces are located throughout the building.

The Newcomb Hall Renovations project will respond to an increased demand for diverse programs and activities, while improving the facility’s function and its supporting infrastructure. Aesthetic improvements throughout the building will create a fresh, inviting, and more unified atmosphere while preserving traditional elements of the architecture and surrounding landscape. Mechanical and electrical upgrades will provide increased energy and operational efficiency, as well as improved comfort and life safety for its occupants. Maintenance and repair to existing building items and infrastructure will also be included to ensure continued use of the existing structure. Restoration of the exterior terraces will enhance the visitor experience by creating inviting and memorable spaces surrounding the east side of Newcomb Hall.

Phase 1 of the Newcomb Hall Renovations project is now under construction, with completion of Phase 3 scheduled for November 2012. The architect is Cole & Denny, Inc., of Alexandria, Virginia and the construction manager is R.E. Lee & Son, Inc. of Charlottesville, Virginia. The project budget is \$15,200,000.



Pavilion II Renovation

Pavilion II was constructed in 1822 as part of Thomas Jefferson's Academical Village. The primary focus of this renovation was a systems upgrade including replacement of all the electrical and plumbing, as well as removing radiators and window unit air conditioners to make way for a new HVAC system. A new fire suppression system was added to serve the building, which had not been renovated since 1953. Other work associated with this project included exterior brick pointing, window restoration, bathroom and kitchen makeovers, and storm sewer improvements.

One interesting restoration effort was the cleaning of the original Carrara marble Ionic column capitals. Over the years, atmospheric pollutants had formed a gypsum alteration crust on the outer surface of the capitals. Milner+Carr Conservation of Philadelphia, Pennsylvania cleaned the capitals using incredibly effective laser cleaning techniques.

The Dean of the College of Arts and Sciences now resides in Pavilion II. The mechanical, electrical, plumbing, and fire suppression systems were designed by the engineering firm of Hurd & Obenchain, from Richmond, Virginia. The work was performed by the UVa Renovations Department. The overall project budget was \$3,800,000 and was funded through private donations to the Historic Preservation Endowment Fund.



Pavilion X Exterior Restoration

The exterior of the Pavilion X block, which includes the adjacent student dormitory rooms, East Lawn 50 and 52, was returned to its original Jeffersonian appearance. This process included removing the 1976 Chinese railings over the student rooms and replacing them with a more accurately replicated railing system. This system was dependent on another part of the restoration process; the removal of the modern slate roofs and the return to a flat roof deck system that effectively preserves the original Jeffersonian serrated roof. Another feature of the restoration involved repairs to eight Tuscan columns in front of student rooms 50 and 52, as well as the four monumental columns in front of the Pavilion itself. At some point, all of these columns were encased in a portland cement-based stucco, which trapped moisture within the structure of the column. The columns were stripped of this stucco and recoated with a lime-based render, matching the original column coating and eliminating the moisture retention issue. This lime-based render is also the impetus for the final paint color for the rest of the woodwork, light beige. This original paint color was determined through paint analysis performed by the Office of the Architect of The University, and helps tie the woodwork and columns together in a comprehensive color scheme.

The sidewalk in front under the colonnade was lowered to its historic level, and is now edged by chat-sawn sandstone that matches border stones found in front of Hotel A and Hotel E on the West Range. The plaster ceilings in front of the student rooms were resurrected, and historic door hardware was installed. Several exciting discoveries occurred during the project, including finding a saw handle belonging to Arthur Spicer Brokenbrough, first proctor of the University. An original grained balcony door panel was found nailed over a hole in the attic floor, and a piece of the original parapet was identified being used as a piece of early roof repair framing. The highlight of the Pavilion X Exterior Restoration was the replication of the original roof parapet. This nine foot tall parapet was designed by Thomas Jefferson and installed by his workmen, and lasted approximately 70 years atop the Pavilion. Historic drawings and photographs were used to reproduce the design of this key architectural element.

This project budget is \$2,000,000 and is funded by private donations to the University's Historic Preservation Fund. The architecture firm of Mesick, Cohen, Wilson, Baker from Albany, New York prepared the Exterior Restoration Plan and subsequent construction documents. The construction was executed by the UVA Renovations Department. The parapet was constructed and installed by Bensonwood Company of Walpole, New Hampshire.



Rice Hall – Information Technology and Engineering Building

The Information Technology and Engineering Building (Rice Hall) will provide much needed space for teaching, computational research, and student projects for the School of Engineering and Applied Science. Rice Hall is one of several new buildings that are part of the University's science initiative focused on sustaining the ongoing work of existing faculty and attracting new researchers. The building will occupy a prominent location at the corner of Whitehead Road and Stadium Road just behind Olsson Hall. Designed by the Pittsburgh, Pennsylvania office of Bohlin Cywinski Jackson Architects, the project will consist of a five story, 100,000 gsf building with a basement and penthouse mechanical space.

This new research facility will feature modern architectural features and will help to define the south entrance to the science and engineering precinct. The main entrance to the building will be on Engineer's Way and will be connected to Olsson Hall at the basement level. The focus of the building will be information technology and will provide new space for classroom laboratories, research laboratories, departmental and faculty offices, and a 150 seat auditorium. Rice Hall will feature a flexible and robust infrastructure that will permit the collection of building systems data for use in the School's curriculum. This "Living Laboratory" will showcase the University's commitment to responsible energy management and building systems research.

Construction commenced in November 2008. Construction management services are being provided by W.M. Jordan of Richmond, Virginia. Rice Hall is being designed and constructed concurrently with the College of Arts and Sciences Physical and Life Science Research Building and is to be delivered on a fast-track schedule. Occupancy of the new facility is anticipated to be in the summer 2011. The total project budget is \$76,300,000.



Ruffner Hall Renovation

Planning is underway for the renovation of Ruffner Hall. Ruffner was built in 1973 and has since been home to the Curry School of Education. Over thirty years later, the school has outgrown the 85,000 square foot building, and expanded into on and off-grounds leased space. The construction of Bavaro Hall, in front of Ruffner, will provide relief to the School's expansion as well as swing space for some occupants during the renovation. The renovation work includes, but is not limited to, the replacement or repair of major building systems including HVAC, electrical, and plumbing, management of hazardous material removal, roof repairs, structural infrastructure repairs, an elevator upgrade, and general building improvements to achieve ADA compliance. Work will be carefully coordinated while Ruffner is expected to be partially occupied during the renovation.

Schematic Design was completed June 2010. Preliminary and Construction documents awaiting funding approval. Completion is anticipated for late summer/early fall of 2013. The project budget is \$23,717,000.



South Lawn

The South Lawn Project, the most ambitious undertaking on the University of Virginia's Central Grounds in a century, is designed to accommodate the contemporary program requirements of the College and Graduate School of Arts & Sciences while paying respect to the Jeffersonian architecture in the nearby Academical Village. 12,000 students will visit every day. It features a 95-foot-wide terrace across Jefferson Park Avenue that connects the South Lawn Project with the Central Grounds. At the south end of the terrace is a circular plaza that sits atop a Commons Building, with an exterior stair leading to the garden areas below. An extensive landscape design creates a park like feel while educating students about storm water management. The Foster Site is also celebrated in the landscape, giving recognition to the home of Kitty Foster, a free black who provided laundry services for the University in the mid 1800's.

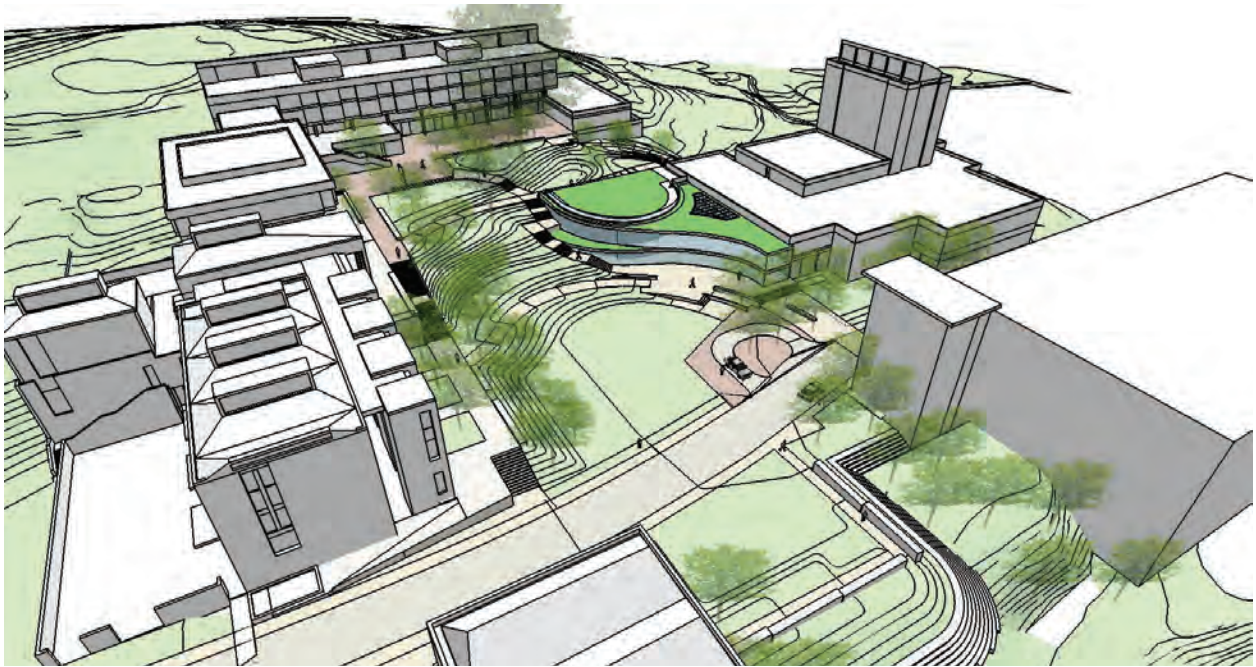
The South Lawn project is composed of two 4 and 5 story buildings and a Commons Building, totaling 114,000 gsf. The budget for this project is \$102,500,000 and is scheduled for "Phased Completion". The two main buildings were completed and occupied by students and faculty in January 2010, and the Commons Building and Terrace Crossing will be completed by August 1, 2010. The project was designed by Moore Ruble Yudell of Santa Monica, California and the construction is being managed by Barton Malow of Charlottesville, Virginia.



Thrust Theatre

Design has begun on the Thrust Theatre project. This project is the first of a two phase expansion to the existing Drama Building on Culbreth Road. The new two story Theater will be partially below grade in the steep hillside due East of the existing Drama Building and adjacent to Arts Grounds Parking Garage and Ruffin Hall. The project will be connected to the existing Culbreth Theatre lobby and ticketing area. The addition will contain a 7,000 sf multi-purpose performance and film theatre. The program includes approximately 4,000 sf of much needed renovation to the existing lobby and adjacent ticketing areas currently serving the Culbreth Theatre. Performance and stage support, storage and restrooms make up the balance of this 20,540 sf project. The building will utilize load bearing concrete and masonry as its principal structural system. The exposed Northern façade of the Thrust Theatre will consist primarily of structural curtainwall to maximize daylight and aesthetics associated with its unique site constraints.

William Rawn Architects of Boston, Massachusetts has been tasked to develop the conceptual design and is being designed to achieve LEED Certification status. The project budget is anticipated to be between \$15,000,000 and \$18,000,000.



University Bookstore Addition

The existing University of Virginia Bookstore is a financially self-supporting, non-profit organization that is owned and operated by the University. It is dedicated to supporting academic programs and student life at the University by providing students, faculty, and the University community with excellent customer service, convenient location and hours of operation, and a wide range of competitively priced merchandise. Built in 1994, the University of Virginia Bookstore is located on the 4th level of the Central Grounds Parking Garage, across from Newcomb Hall on the University of Virginia Grounds. The existing two-level space has over 45,000 square feet with 34,500 square feet on the first level and 10,500 square feet on the mezzanine.

Increasing demand has caused over-crowding of the existing facilities and prevents the Bookstore from maximizing its retail potential with an appropriate mix of goods and services. The expansion will significantly improve the function and usefulness of the facility. The capital project will extend the main level of the existing Bookstore westward by building approximately 16,500 gsf atop the existing 3rd level of the Central Grounds Parking Garage. The expansion will contain open retail space and support spaces, and it will include necessary tie-ins of systems and finishes at the western wall. The existing two-level Bookstore and the Parking Garage will both remain in use throughout construction.

Bowie Gridley Architects of Washington, DC is completing the design, and W.M. Jordan of Richmond, Virginia is the construction manager for the project. Construction will begin in summer 2010, and the project budget is \$10,500,000.



**College at Wise:
Gilliam Arts Center**

The Gilliam Arts Center consists of two components: 1) the renovation of the existing 10,000 gsf Drama Building and 2) the addition of almost 29,000 gsf of new space. The project was completed for occupancy in the fall of 2009. The new Arts Center houses the College's Drama, Music, and Student Art departments. A new "black box" theater was constructed for multi-use drama and music performance, with accessory spaces providing storage, dressing rooms, a lobby, and public restrooms. A scene shop, a costume shop, and computer and drafting labs will support the theater activities. The building will house rehearsal space for drama, band, and chorus activities. Classrooms, faculty office space, and art studios also are located in the new facility. A gallery to house art exhibits is also part of the program.

The Arts Center employs an exterior palette of brick veneer over concrete masonry units with aluminum windows and a base of decorative concrete masonry. A colonnade alongside the lawn is a distinct feature of the building.

The project was designed by Bushman Dreyfus Architects of Charlottesville, Virginia and the construction was managed by Quesenberry's, Inc. of Big Stone Gap, Virginia. The project budget was \$14,400,000.



College at Wise:
Hunter J. Smith Dining Commons

Hunter J. Smith Dining Commons was completed in January 2010, adjacent to the new Gilliam Arts Center in accordance with the campus master plan. The Dining Hall provides board plan dining services for approximately 1,100 students on the campus and replaces the food service function formerly provided at Cantrell Hall. The Dining Hall is a two-story structure encompassing approximately 20,000 square feet, providing seating for 284 persons in the main dining area. The building also serves many of the conference and convocational needs of the campus.

Additionally, the facility provides a coffee house on the first floor for light retail fare and after-hours gathering. A small stage provides opportunities for entertainment. The facility also provides opportunities for outdoor seating on two terraces, one facing the quad to the east and another facing the lake to the west.

The project was designed by Hanbury, Evans, Wright + Vlattas of Norfolk, Virginia and the construction was managed by Rentenbach Constructors, Inc. of Knoxville, Tennessee. The project budget was \$9,600,000.



College at Wise: Multi-Purpose Center

The University of Virginia's College at Wise will build a new Multi-Purpose Center in the campus' emerging athletics zone, directly adjacent to the existing football field and field-house. The new Multi-Purpose Center will function as the College's primary intercollegiate basketball and volleyball athletic facilities and will serve the greater Wise community as a venue for hosting community events, such as concerts, civic functions, trade shows, athletic tournaments, and graduations.

Sized to accommodate the increasing growth of the College's athletic programs and future student enrollment, the Multi-Purpose facility will be designed as a flexible venue, accommodating a variety of programs, functions, and attendance levels. The College's current facility, Greear Gymnasium, has limited capabilities to function in this capacity. The new Multi-Purpose Center is required to serve the growing demands of the College's athletic programs and the community's desire for a facility that can benefit the entertainment needs of the region and serve as a driver of future economic vitality and development.

The Multi-Purpose Center will consist of approximately 79,000 gsf of multi-purpose space. The building will include a multi-tiered arena that will accommodate a seating capacity of 3,000 fixed/semi-fixed seats. Additional seating capacity of 500+ seats will be available as removable floor seating. The facility will house the athletic offices and support facilities for the men's and women's intercollegiate basketball programs and the women's intercollegiate volleyball program. Additionally, the Multi-Purpose Center will provide space for a training room, food prep and catering, ticketing, concessions, retail operations, and meeting space. Total project budget for the Wise Multi-Purpose Center is \$29,600,000.

Construction on the Multi-Purpose Center began in June 2009, and is expected to be complete in the summer of 2011. The project architect is VMDO of Charlottesville, Virginia. Quesenberry's, of Big Stone Gap, Virginia has been retained as the Construction Manager.



**College at Wise:
Residence Hall**

The new Residence Hall is situated on the northeast side of the campus along Clinch Valley Drive in accordance with the campus master plan. The building was sited to create an inviting plaza on the south side adjacent to the main entry area and a private garden terrace on the north side. The three-story residence hall consists of two wings encompassing a total of approximately 31,000 square feet, providing on-campus housing for 120 students in two-person rooms with hall bathrooms. Additionally, the first floor of the facility provides community meeting space, laundry facilities, an apartment for residential staff, and classroom space for academic scheduling.

The project was designed by Hanbury, Evans, Wright + Vlattas of Norfolk and Wytheville, Virginia and the construction was managed by Rentenbach Constructors, Inc. of Knoxville, Tennessee. The project budget was \$9,000,000 and the construction was completed in summer 2009.



College at Wise: Science Renovation

The Science Building renovation project completes a two part effort to provide a modern facility for the expanding science program at the College that fosters a strong community within the Natural Science Department and shares this vibrant science program with the larger community of the College. While preserving the existing masonry shell of the building, the existing laboratories were completely demolished and replaced with new, more open and flexible laboratory spaces to accommodate the geology and physics programs, the growing botany collection and the new software engineering program. The existing lecture hall, which is the most widely used room of its type on campus, was renovated to provide new finishes, modern IT systems, lighting and new mechanical distribution of air to complement the recent installation of fixed seating. A separate greenhouse and a semi-remote observatory are also part of this project. The basement of the 2000 addition is being renovated to provide vivarium space. This project is seeking a gold LEED rating, and the sustainable features of the building, including solar panels on the roof, will be used as teaching tools by the Department of Natural Sciences.

The project was designed by VMDO Architects of Charlottesville, Virginia and the construction was managed by Quesenberry's of Big Stone Gap, Virginia. The project budget was \$13,435,000 and the construction was completed in the fall of 2009.



**College at Wise:
Smiddy Hall & New IT Wing**

The Smiddy Hall Renovations and Information Technology (IT) Wing Project includes renovations to the existing Smiddy Hall structure and the addition of a new IT Wing of approximately 6,000 gsf. The total project square footage is approximately 30,500 gsf. The renovation work will include replacement of all windows, interior finishes, HVAC, fire protection (sprinkler and alarm), electrical and plumbing systems. The existing lobby and west portion of the building will be demolished, with a replacement addition for administrative offices and a double height main entry that can also be used as an informal meeting space.

The new I.T. wing, completed in December 2009, is a two story addition located on the east side of Smiddy Hall. The I.T. Wing houses the new campus data center, faculty & staff offices and support space. Primary power will be supported by a back-up generator power source, to ensure continuous operations of all mission critical IT systems.

Smiddy Hall is located in a prominent location at the new entry to the College. The renovations to the Smiddy Hall exterior will make the building better conform to the College's design guidelines and harmonize with other nearby, recent building designs. All proposed additions are to be modest in scale, so as not to dominate the site and the landscape into which they will be placed. Smiddy Hall is adjacent to the Front Entry project and south of the Bascom Slemple Student Center. The project is pursuing LEED certification.

The project is designed by Train & Partners Architects in Charlottesville, Virginia. The project is expected to be complete in May 2011. Construction Management will be performed by Rentenbach Constructors of Knoxville, Tennessee. The project budget is \$13,696,000.



Southwest Virginia Higher Education Center Addition

The Southwest Virginia Higher Education Center (SVHEC) was established in 1991 to strengthen the economy of southwest Virginia through education and training of the current and future workforce. Through a unique partnership with ten colleges and universities, the SVHEC provides undergraduate and graduate degree programs and professional development courses primarily for adult learners. The SVHEC promotes regional economic development through its conference facility, business support services, and technology applications.

The Southwest Virginia Higher Education Center serves a diverse population that includes students who commute from around the region and non-traditional students seeking lifelong learning opportunities or preparation for career changes. The SVHEC programs go beyond academic achievements in the classroom, bringing social, cultural and economic vitality to the community and the region.

The Addition Project

The SVHEC Addition consists of almost 5,600 gsf. The Addition, directly attached to the northeast side of the existing SVHEC building, will add much needed classroom and meeting space. The addition provides one large classroom / assembly (exhibition space) that can be divided into two smaller spaces and a circulation /lobby space that is sized to double as over flow exhibition space. The project enhances the Center's conference services capabilities by providing an additional entrance with vehicular drop-off and a new lobby atrium directly adjacent to the Center's existing Grand Hall. The project scope also includes the redesign of the facility's storm-water retention pond and site landscaping.

The SVHEC Addition project was designed by Train & Partners Architects in Charlottesville, Virginia. Construction on the Addition began in October 2008 and was completed in July 2009. The SVHEC Addition project has achieved a LEED Gold certification. Construction Management on the project was performed by J.A. Fielding of Knoxville, Tennessee. The project budget was \$3,685,000.



**Mountain Lake:
New Cabin Construction and Renovations**

Mountain Lake Biological Station (MLBS) was founded in 1929 by the University of Virginia as an inland field station operated by the Department of Biology for research and teaching. MLBS is a residential facility that offers the full range of scientific, instructional, and communications support expected at a modern field station. It averages nearly 7,000 user days per year. The station consists of a forested reserve of 640 acres on a remote wooded ridge in Giles County, Virginia. There are 29 existing cabins, of a rustic design, carefully positioned within the trees around an open, center “lawn.” MLBS is included in the *Greater Newport Historic District*, and the majority of cabins have been certified as historic.

The over-arching purpose of the current project is to expand the functionality of the research station by providing sound, sanitary housing for researchers that is useable most of the year. This was accomplished through a multipronged project: 1) At 14 existing residential cabins, repair building and MEP deterioration, improve bathroom and kitchen facilities, and install insulation for expanded seasonal use; 2) construct a new, 1,422 sf director’s cabin compatible with the features and layout of the existing historic district; 3) construct a new, 1,536 sf storage facility compatible with the existing historic district.

Repairs to the cabins began in fall 2008 and were completed in May 2009. Construction of the new buildings started in winter 2009 and was just recently completed. Total project cost is \$1,000,000.



Health System:

The Health System Division responded to 14 new requests for services, contributing to a total workload of 86 active projects, including projects that have reached Construction Completion in the last year. Using the HECOM threshold of \$1,000,000 for a Capital Outlay project, these active projects included:

- 21 projects in startup / request phase, budget / scope not yet developed.
- 25 small non-capital projects with an average size of \$150,225 for a total of \$3,755,627.
- 7 large non-capital projects with an average size of \$741,989 for a total of \$5,193,926.
- 14 small capital projects with an average size of \$2,954,141 for a total of \$41,357,980.
- 19 large capital projects with an average size of \$36,179,805 for a total of \$687,416,296.
- 8 capital projects in design for a total of \$273,704,656.
- 14 capital projects in construction for a total of \$269,918,892.
- 8 capital projects completed for a total of \$145,150,728.

Capital Projects In Design	Capital Projects In Construction	Capital Projects Completed
Battle Building at Children's Hospital	Emily Couric Clinical Cancer Center	415 R. C. Hunt Spine, Head & Radiology Renovation / 3 rd Floor
Old Jordan Hall 4 th Floor Rooms 4067-4084 Refurbishment	Lee Street Entry and Connective Elements	Claude Moore Medical Education Building
Old Medical School Ophthalmology Renovation	McLeod Hall Renovation Phase I	Main Heat Environmental Compliance Upgrade
School of Medicine Cyclotron Project	Old Jordan Hall HVAC Infrastructure Replacement	Old Jordan Hall Department of Medicine Refurbishment / 4 th Floor
South Chiller Plan Expansion Chiller #3	University Hospital Radiology Master Plan, Phase 3A Ultrasound Suite / Level 1	Old Medical School Laboratory Renovations / 3 rd Floor
University Hospital Radiology Master Plan – Remaining Phases / Level 1	University Hospital Heart Center Renovation / Level 2	Primary Care Center Annex Modular Office Building
University Hospital Fire Alarm Replacement	University Hospital Intra – Operative MRI ORS (27 & 28) Level 2	Primary Care Center Masonry Repair and Roof Replacement
Yeager Electron Microscopes Renovation	University Hospital Ancillary Projects / Level 0	University Hospital 9 Bed Acuity Adaptable Unit / Level 8 West
	University Hospital Bed Expansion	
	University Hospital Emergency Power Upgrade Phase II	
	University Hospital HVAC Upgrades	
	University Hospital On-Call Suite Consolidation	
	University Hospital Radiology Master Plan, Phase ID: Patient Prep & Hold Unit & Waiting Room	
	University Hospital Surgical Pathology Renovation / Relocations/ Simulation Center / Level 2	

Health System Major Commissions

415 Ray C. Hunt Drive – Third Floor Fit-Out

The third floor fit out of 415 Ray C. Hunt Drive created a new spine center, a new hand center and a supporting X-ray suite, which provide multidisciplinary services in a single location. The project consisted of the fit-out of approximately 18,000 gsf on the third floor of an existing three story clinical office building. The first two floors currently provide various outpatient clinical services. The project is registered with the USGBC and is on track to achieve a LEED CI (Commercial Interiors) Silver certification.

The new spine center brings practitioners from neurosurgery and orthopedics together into one location. There will also be pain management services provided within the spine center. Planning for the suite is ongoing. The hand center brings together practitioners from orthopedics, plastic surgery, and occupational therapy. The remainder of the floor provides a radiology suite with four X-ray rooms and a multi-purpose room that serves as a staff lounge and conference room.

The project utilized the existing utilities infrastructure and made improvements as required by the selected equipment. The existing elevators were modified to better serve the future pain management suite. A generator will be added to provide emergency power to the pain suite and elevators. The finishes match existing finishes throughout the Health System in regard to quality. All finish selections were approved by the Health System finishes committee and contributes to LEED credits.

Design services are being provided by Daggett + Grigg Architects PC of Charlottesville, Virginia. Construction management services are provided by DPR of Newport Beach, California. The Hand Center first saw patients in January 2010, and the spine center opened in May 2010.

The next submittal package for the pain management suite is expected in August. Occupancy of the area is anticipated to be spring 2011. The total project budget is \$8,000,000.



Carter-Harrison Research Building

The completed Carter-Harrison Research Building (MR-6) provides additional research space necessary for the University to maintain a leadership role in biomedical research. Designed by the Alexandria, Virginia office of HDR Architecture, Inc., the project consists of a five story, 170,000 gsf main building with an attached one story, 28,000 gsf underground annex.

The main building has a total of sixty three BioSafety Level Two (BSL2) laboratories on five floors, along with equipment rooms, administrative office space, and conference rooms to support research in cancer, immunology, and infectious diseases. The mechanical and electrical systems for this portion of the building are contained primarily on the mezzanine and penthouse floors located above the five research levels. This new research facility matches the existing architecture and finishes of the adjacent Medical Research Building No. 5 and is connected to the MR-5 structure to permit pedestrian traffic between the two buildings on all floors except the basement level.

The adjacent 28,000 gsf annex space is entirely underground and is attached to the basement of the main building. This section of the facility houses a vivarium, animal BSL3 suite, and human BSL3 suite. A dedicated mechanical room containing fully redundant air handling and electrical systems is also contained within this underground space.

Construction began in April 2006, with construction management services provided by the Barton Malow Company of Charlottesville, Virginia. Researchers began moving into the main building laboratories during June 2009, while the vivarium was occupied in December 2009. The total project budget was \$84,100,000.



Claude Moore Medical Education Building

The Medical Education Building consolidates medical education programs currently scattered across Grounds in outdated facilities and creates a central entrance to the School of Medicine - the only school at UVa that did not have a dedicated teaching facility. The five story structure is located at the corner of Lane Road and Lancaster Way and is connected to Medical Research Building Five, facilitating access to School of Medicine facilities in Jordan Hall and the Health Sciences Library.

Designed by CO Architects of Los Angeles, California the new facility is a 58,000 gsf steel framed structure with glass and brick exterior. The basement level contains a clinical skills center, which uses standardized patients to teach students examination and diagnostic skills. The ground level is a high-tech Medical Simulation Training Center which provides for teaching complex procedures and honing vital skills in a safe, virtual environment used by students, residents, and emergency medical technicians. A 162-person learning studio is located on the first floor near the main entrance to the facility on Lancaster Way. This round space is a predominate feature of the facility and offers a technology-enabled active learning (TEAL) environment which facilitates image-based or data-based problem solving in small groups. The second floor has a student lounge and administrative offices. The third level houses a 171- person auditorium, as well as additional administrative space.

Construction began in January 2008 under contract with Barton Malow Company of Charlottesville, Virginia. The building obtained occupancy May 28, 2010. The project budget is \$40,700,000.



Department of Radiology Master Plan Renovations

In 2005 the radiology department identified the need to modernize and update their entire location on the first floor of University Hospital in order to incorporate new technologies and protocols to enhance patient care and revenue generating areas. A study was produced in late 2006 recommending and detailing 11 sequential renovation projects over a five year period. Three of these phased projects have been completed and two additional phases have been under construction since mid-2009 and completed by December 2010. The remaining six phased projects encompass approximately 37,500 gsf and are to begin phased construction in October 2010. The renovations will address the following requirements:

- a. Better define the circulation of staff and patients through radiology and adjacent departments' on level 1 of the hospital in order to improve functioning and way-finding.
- b. Improve patient preparation, holding, and recovery functions to improve efficiency and privacy, and correct patient holding that currently occurs in open circulation corridors.
- c. Make the front door to the department more user hospitable and friendly to patients and family, and improve the functionality for the staff.
- d. Provide more efficient reading workspace for staff and improve the quality of consultation spaces.

The designer for all phases of the project is Perkins Eastman Architects of Charlotte, North Carolina. DPR Construction of Falls Church, Virginia will provide construction management services through design, procurement, and construction of the remaining 8 phases. Construction began late in 2007 and will be completed in spring 2012. The total project cost is \$21,212,000.



Emily Couric Clinical Cancer Center

The new clinical cancer center building will be a full service ambulatory care facility for the diagnosis and treatment of cancer in all of its forms. The special nature of the center and its programs includes the detection and prevention of cancer in the population. Professionals in training will play an important role in the care of patients and in applying the results of the latest research.

The Clinical Cancer Center building will consolidate oncology treatment and diagnostic services currently located on various floors and buildings in the West Complex and University Hospital. The consolidation of services includes radiology oncology treatment, diagnostic imaging, clinics, infusion center, clinical labs, and pharmacy. In addition to treatment services, it will include family/patient amenities, clinical trials, and a public space front door with a central access hub. The new building will bring these services closer to the University Hospital with a link connection to the hospital. The new structure will be approximately 150,000 gsf, including a shelled, 5th floor for future expansion. The project site is located at the corner of Lee Street and Jefferson Park Avenue.

Both schematic design and preliminary design were submitted and approved by B&G and AARB. Zimmer, Gunsul, Frasca, Partnership (ZGF) of Washington, DC are the project architects leading the design process, along with the University Architect and the Medical Center Steering Committee.

The project had its groundbreaking ceremony on April 12, 2008. The demolition of the East Garage, which previously occupied the site, followed immediately after the ground breaking and was completed in early June. Gilbane of Laurel, MD is providing construction management services. The construction of the new building began in June 2008 and is scheduled to open for patients in spring 2011. The total project budget is \$74,000,000.



Focused Ultrasound MRI Facility

This project, completed in early 2010, provided the necessary building, utilities, and supporting infrastructure to house the University's new Focused Ultrasound MRI Facility. The combination of focused ultrasound and MRI is a new technology being developed for the treatment of tumors. In addition to providing treatment, the facility will also perform clinical trials and research. The building and medical equipment for the Facility were funded from a combination of sources, including the Virginia State Legislature, the School of Medicine, the Medical Center, and the Focused Ultrasound Surgery Foundation. The last of these is a non-profit organization established to promote research into this new technology. The building itself is of modular construction and was purchased from a manufacturer who specializes in modular MRI buildings. It is 1,650 gsf in size and is located at the corner of Lane Road and Crispell Drive. Project cost for the building, utilities, and infrastructure was approximately \$1,900,000. The architect was Nalls Architecture of Philadelphia, Pennsylvania and the engineer was Dewberry Davis of Richmond, Virginia. Artisan Construction of Charlottesville, Virginia was the general contractor.



Intra-Operative MRI ORs (27 & 28)

This project will add two new operating rooms with MRI capabilities to the second floor operating room complex. The operating rooms will both increase the hospital's ability to meet its increasing surgical load, and allow the hospital to offer advanced surgical procedures incorporating surgery and MRI technology in one operation. The MRI machines will move to the patient in these facilities, which will reduce the necessity of either doing invasive examinations of the surgery site in the operating room or moving the patient to an MRI imaging room in the middle of surgery. One of the two operating rooms will also have a bi-plane X-ray system, which will be the first such installation in the United States.

The architect is HKS of Richmond, Virginia. Construction has started and is projected to be complete by the end of 2010. Construction management services are being provided by DPR of Falls Church, Virginia. The total project cost is \$14,294,000.



Lee Street Connective Elements

This project includes 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 East Parking Garage, and a new vertical circulation tower that joins the East Garage with the recently opened connector to the North Garage on the other side of the railroad tracks..

The Emily Couric Clinical Cancer Center and the Hospital Bed Expansion have been designed to complement each other and will change the public face of the Health System at its front door - Lee Street. The Lee Street Connective Elements project will tie them together, allowing a unified sense of place and a new arrival destination. The plaza/traffic oval will provide for better vehicular flow and control the increased usage that will result from the completion of these projects. The first phase of construction is to build the new circulation tower next to the Lee Street Garage. Once this is complete and open for use, the existing brick stair tower will be demolished. The next phase is to erect the new bridge over Lee Street. Then the expansion of the hospital lobby can be built, with its new curved glass front, and the new hospital entry and plaza can be completed. These projects will use the same architect that designed the cancer center, Zimmer-Gunsul-Frasca Partnership of Washington, DC, to ensure design continuity. All three projects will share a new vocabulary of patterned glass curtainwall modulated by the rhythm of vertical mullions and columns. New sidewalks and street trees will create visual continuity from the plaza out to Jefferson Park Avenue. Construction management services are being provided by Gilbane of Laurel, MD. The total project budget is \$24,190,000.

Construction started in May 2010 and will be completed in spring 2012.



McLeod Hall Renovation

McLeod Hall was the central facility for the School of Nursing until the opening of the new Claude Moore Nursing Education Building. McLeod is now nearly forty years old and has had no building-wide renovations or infrastructure upgrades. Beyond the bare facility needs, the school also wishes for McLeod to approach the aesthetic quality of its new building. This renovation project will address these needs in two phases.

McLeod Hall 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.) The scope of this project includes the five core floors only. The goal is to renovate these floors in two phases. Phase I will renovate the first, fourth and fifth floors, phase III will renovate the second and third floors. The phasing is based on the priorities of the school and on the funding currently available.

To date, a detailed programming study and an infrastructure assessment have been completed. These have served as the basis of design for the renovation. The programming study determined the space requirements and the optimal locations for the classrooms, simulations labs, faculty and staff offices, and the various research centers located in McLeod. The infrastructure assessment evaluated building-wide systems such as air and electrical distribution. Deficiencies are being addressed both by this project and by ongoing maintenance reserve projects. The design of phase I is complete, and construction is in progress with a target completion in spring 2011. The schedule for phase II is contingent on funding. The total project budget for phase I is \$6,075,000. The project architect is Bowie Gridley Architects of Washington, DC. Construction of phase I is being done by Facilities Management's own Project Services group.



Old Jordan Hall HVAC Replacement Project

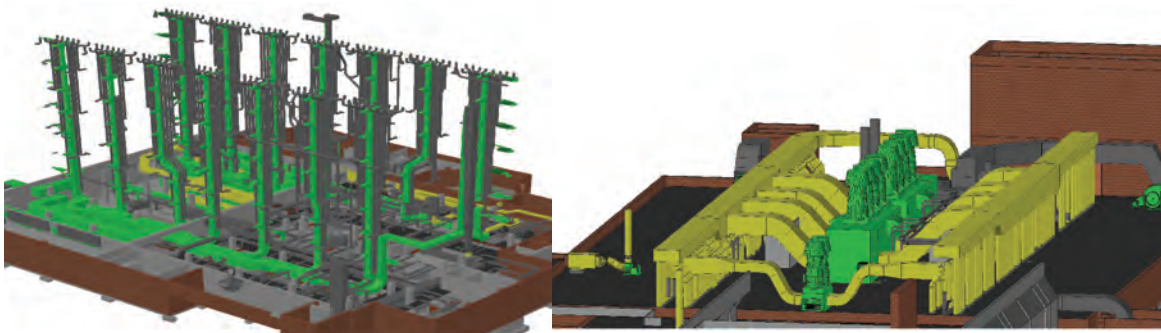
The original building, Old Jordan Hall is a seven story building opened in 1971. A new addition providing laboratory, office and classroom space was opened in December 1995. This HVAC replacement is for the original building and does not cover the new addition.

The first floor of Jordan Hall contains two lecture halls, each seating 152 students, as well as a smaller seminar room and the anatomy laboratories. The majority of the first and second year lectures are given here. The second floor houses additional student laboratories designed for both individual exercises in histology and pathology, as well as group experiments and teaching sessions in microbiology. The rest of the second floor contains basic science research laboratories. The academic offices and research laboratories of the Departments of Anatomy, Physiology, Pharmacology, Biochemistry, and Microbiology occupy floors three through seven, respectively.

In June 1999 the University completed an exhaustive study of the HVAC infrastructure of Old Jordan Hall. The major findings of the study are as follows: 1) nearly all of the HVAC infrastructure equipment is as old as the building; thus it is well beyond anticipated life expectancy and in dire need of replacement; 2) distribution components (ductwork and piping) are obstructed and/or overloaded; 3) controls are functional but outmoded, limit flexibility, and include only minimal interface with the central campus system; 4) provisions for energy reclaim, system redundancy, and adaptability to change are minimal to nonexistent; 5) spare capacity exists for heating only, which in fact wastes energy; 6) there is no smoke evacuation or stairway pressurization, which is noncompliant with current code; and 7) the HVAC infrastructure concepts are no longer commensurate with modern research laboratory facilities. Also, the study concluded that the emergency power system is marginal and will not support necessary HVAC upgrades. This remains an essentially accurate assessment of the system with the following exceptions: 1) in the intervening eleven years the system has continued to deteriorate; 2) the building is now on central chilled water; the original chillers and one of the original cooling towers having already been removed; and 3) the air-handler serving the basement floor has been replaced.

RMF Engineering Inc. of Charlottesville, Virginia has completed the design/construction documents and will provide construction administration. UBO has issued the building permit and the construction contract is finalized. Construction is anticipated to start in August 2010, with construction management services provided by DPR Construction Inc. of Falls Church, Virginia. Construction completion is scheduled for spring 2013. The total project budget is \$28,884,500

Below is an isometric drawing of the mechanical risers through the building and one of the new plenum and exhaust fans on the roof.



Primary Care Center Annex

The PCC Annex was constructed to provide office space for personnel formerly located within the hospital in order to make way for the Hospital Bed Expansion project. However, the personnel needed to maintain close access to the hospital and the location that met the criteria was in the lot occupied by the mobile ORs between Jordan Hall and the Primary Care Center. This was an extremely confined area with very limited room beyond the minimum required for the annex itself. The steel structure was constructed off-site in modules that were later trucked to the site and offloaded onto a prepared foundation over the course of two days. The exterior siding, MEP, links to existing structures, and the interiors were then done on-site. This combination of modules and on site work helped expedite the work by permitting the project team to do the structural fabrication in parallel with the foundations.

The building is designed to house about 120 persons from various groups in individual and open floor plan offices. It was also designed to be LEED certified, which is currently being finalized. The period between the start of the design process and first occupancy was less than 13 months.

The A/E team included Train and Partners and 2RW of Charlottesville, Virginia. Gilbane of Laurel, MD acted as construction manager on the project. The total project budget is \$4,919.950.



Primary Care Center Masonry Repair and Roof Replacement

The Primary Care Center, built in 1979, consists of a five-story main building (approximately 20,400 gsf) with a penthouse, a one-story low rise-area located on the north side (approximately 9,950 square feet) on the north side and a one-story gamma knife center on the south (approximately 1,750 square feet). Due to the building's age, masonry, design and construction techniques used when it was built, the exterior masonry construction has deteriorated. In 2006, an extensive field investigation was performed on the exterior facade by Whitlock Dalrymple Poston & Associates, Inc. of Charlottesville, Virginia.

Major findings of the investigation were: 1) the brick veneer and masonry backup system on the parapet walls were in very poor condition; 2) masonry expansion caused by seasonal weather changes had caused lateral brick veneer displacement; 3) a number of the steel shelf angles supporting the exterior brick façade require repairs or replacement; 4) corrugated metal wall ties that tie the brick into the structure were corroded and require replacement; 5) new flashings, expansion joints and sealants are needed to weatherproof the exterior; and 6) the original Primary Care Center roof has deteriorated and required replacement.

The Primary Care Center's brick facade has since been repaired reusing as much of the original brick as possible while making structural repairs. The roof original to the construction of the Primary Care Center has been replaced with a white Thermoplastic PolyOlefin (TPO) roof. The phased construction of the Primary Care Center Brick Repairs and Roof Replacement project began in August 2008 and finished in May 2010 by R. E. Lee & Son, Inc. of Charlottesville, Virginia was the construction manager. The project was completed within the total approved project budget of \$6,581,000.



Surgical Pathology Renovation / Relocations / Simulation Center / ORs 29 & 30 / Level 2

Surgical Pathology Renovation: This project will provide a bigger surgical pathology laboratory on the second floor of the main hospital building. This will allow the hospital to meet the increasing demands for analyzing specimen samples resulting from the increased number of operating room procedures. The new laboratory will be a 3,700 gsf, state-of-the-art facility, with all the equipment necessary to provide complete pathology services to the operating rooms in the one location.

Construction started in the March 2010 and is planned to be completed in fall 2010.



Simulation Center Renovation: The University Hospital is building two, new general surgery operating rooms in anticipation of increased demand for operating rooms. Each room will be approximately 600 gsf and will support the latest operating room procedures. Because the operating rooms are being built to meet future needs, they will be used as simulation operating rooms for doctor and staff training until they are needed as functional ORs.

Construction of ORs 29 and 30 is expected to start in spring 2011 and be completed in the late 2012.

The total project cost is \$6,581,250.

University Hospital Bed Expansion

The Hospital Bed Expansion (HBE) will add 72 acuity adaptable patient rooms to University Hospital. The project consists of 12 private room nursing units located on each of floors 3 through 8. The patient rooms are designed with a full bathroom, allowing them to be used for critical care, step-down care, or acute care. This project will provide much needed bed capacity to the hospital while providing maximum flexibility.

The design of the exterior of the HBE was influenced, in large part, by the design of the Emily Couric Clinical Cancer Center (ECCCC). The University Hospital bed towers are oriented to face the ECCCC building site. The HBE facade is a unitized factory-glazed curtainwall system. On the interior, the patient rooms are oriented to fully utilize this system to provide wall-to-wall and floor-to-ceiling glass. This maximizes the use of natural light in the patient rooms while taking advantage of the northern exposure.

Designed by SmithGroup, Inc. of Washington, DC, the project is a six story, 61,000 gsf addition to the north facade of the Hospital's Central bed tower. The HBE bears on a truss structure constructed over the second story roof of the Hospital Lobby. An expanded mechanical penthouse is included to house new air handling equipment to serve the HBE. The project also involves 62,000 gsf of renovation to create the adjacent nursing units on each of the six patient care floors. Gilbane Building Company of Richmond, Virginia, in association with H.J. Russell & Company of Atlanta, Georgia, is providing Construction Manager-as-Agent services through the design, procurement, and construction phases of this project.

The HBE began construction in October 2008 with completion scheduled for the early 2012. By combining several trade packages with the ECCCC project, high trade interest in this project, and a favorable bidding climate, excellent construction pricing was achieved, resulting in a buy-out savings of \$13,000,000 from the original project budget. The total project budget is now \$77,772,000.



University Hospital Emergency Power Upgrade

This phase of the project is installing a new 1150kw generator in the East Garage, running a new 5,000 amp bus duct from the East Garage to the hospital emergency switchgear room, and installing a new emergency switchgear system. This additional emergency power will meet the added load requirements of the University Hospital Bed Expansion project. Also under this project is a preliminary study for phase 3, which will add additional capacity to the hospital's emergency power system to handle future upgrades to the air handler units, new electronic medical records, and fire alarm upgrades.

Construction started in March 2010 and is planned to be completed by fall 2010. Total project cost is \$4,222,500.

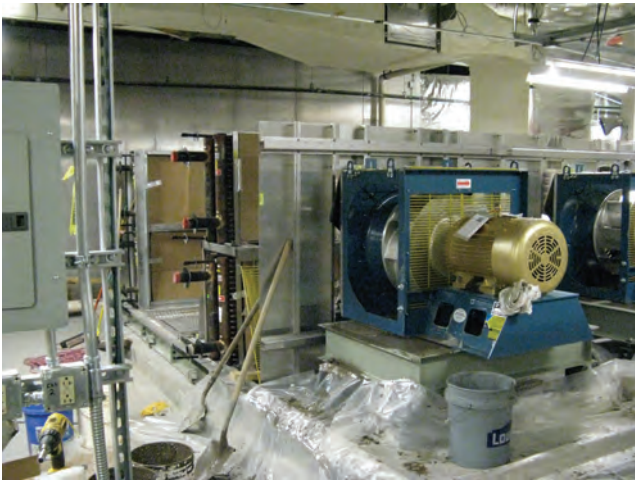


University Hospital HVAC Infrastructure Upgrade Phase I

The first phase of the HVAC Infrastructure Upgrade will replace six existing air handling units and return fans in the University Hospital. Included in the replacements are units 2M-1 serving surgical pathology, 2M-16 serving radiology, 2M-21 and 22 serving the cath lab and IMRIS, 2M-24 serving the heart center, and OX-2 serving diagnostic radiology.

The replacement equipment will increase the overall HVAC capacity to each department and will change several of the units from normal power over to emergency power. This will require new feeds for the electrical, chilled water, and steam to each unit. In addition to the new units, three temporary air handling units and extensive temporary ductwork have been installed on the exterior of the hospital to serve the various departments during the period of demolition and construction for each new unit. Due to the severe space restrictions and limited access, each of the new air handlers will need to be brought into the building as individual components. This will require that the assembly of all fans, coils, humidifiers, control, and wall panels along with pressure testing normally performed at the factory will instead be performed within the mechanical spaces of the hospital.

Construction began in September 2009, with installation and full commissioning scheduled to finish in spring 2011. Construction management services are being provided by DPR Construction, Inc. of Washington, DC. The total project budget is \$6,372,000.



University Hospital Level 2 Heart Center Renovation

This project will completely renovate all 21,600 gsf on the east end of the second floor into the new invasive wing of the heart center. When the project is complete it will contain a new hybrid cath lab, four new electro physiology labs, support offices, supply rooms, and locker rooms. The five new procedure rooms will be added to the existing four rooms to give a total of nine procedure rooms available to the Heart Center. The corridor system within the heart center is also being renovated to meet semi-sterile standards and will be closed to the public.

One of the most complex components of this project is the construction of a floor in the two-story space above the emergency room public entrance. This is being built while the emergency room entrance remains open, which requires an elaborate temporary pedestrian tunnel in order to keep the entrance safe.

Construction has started and phase 1A, the administrative offices, has already been completed and occupied. Construction for this project is relatively complex however, because the four existing procedure labs and temporary offices must remain open while the new labs are being built. Included in this project is the replacement of the entire mechanical system feeding this end of the second floor.

The project is scheduled to be complete in early 2012. The total project cost is \$14,692,000.





Engineering and Design:

Engineering and Design is composed of two work centers, the Design Group (CC 07) and the Project Management Group (CC 78). The Engineering & Design was active in the design and/or execution of over 100 individual projects or other activities in support of University facilities, throughout fiscal year 2009-2010 and executed approximately \$12,000,000 in project and technical support activities.

Project Management Group

<u>In Design During '09 – '10</u>	<u>In Construction During '09 – '10</u>	<u>Completed During '09 – '10</u>
Aquatics and Fitness Center (AFC) HVAC System Upgrades	Alderman Road Dorms Concrete Repairs	AFC 5 Meter Dive Platform
Bayly Terrace Modifications	Carruthers Hall ITC Server Room Cooling	Bayly Museum Renovation / HVAC Upgrades
Brooks Hall Fire Escape Repair	Chemistry Elevator Modernization	Campbell Hall – West Masonry Replacement
Carr's Hill Chilled Water Optimization	Chemistry Exhaust Infrastructure Upgrades	Campbell Hall CNC Router & Dust Collection System Install
Clemons Library Elevator Modernization	Fire Alarm Monitoring (Grounds-wide)	Campbell Hall Complex Brick Tie Survey
Darden Terrace Expansion Joint Corrections	McCormick Observatory Fire Alarm System	CW Thermal Storage Tank Repairs/Upgrades
Gilmer Hall – Main Steam Service Equipment Upgrade	Sand Volleyball Courts	Gilmer Hall – PVC Chilled Water Piping Replacement
Gilmer Hall Addition Elevator Modernization	Chemistry Building Condensate Drain System	Gilmer Hall High Voltage Fire Alarm Replacement
Gilmer Hall West Section Roof Replacement	Lambeth Field Apartments – Interior Renovation Phase 3	JPJ Arena Exhaust Fans / HVAC Upgrades
Gooch-Dillard Exterior Repairs Study		JPJ Arena Leak Repairs
Hospital Expansion Level ME2 – IT Closet Backup Cooling		Lambeth Field Apartment Interior Renovations – Phase 2
Ivy Stacks Retrofit		Mountain Lake Caretaker's Cabin Renovation
Lambeth Field Pedestrian Bridge Replacement		Mountain Lake Wastewater Treatment Plant
Madison Hall Elevator Modernization		Photovoltaic Array Install
Massie Road Chilled Water System Optimization		Physics Building – PVC Chilled Water Piping and Replacement
Milmont Conservator Labs – Study		SCADA for Substations
		Scott Stadium – Replace Camera Platforms
		Scott Stadium – Replace Ramp Facade Walls

Continued:		
<u>In Design During '09 – '10</u>	<u>In Construction During '09 – '10</u>	<u>Completed During '09 – '10</u>
Old Med School – Toxicology Fume Hood		Scott Stadium High Mast Inspections
Stacy Hall Fire Suppression & HVAC Upgrades		Tomotherapy Equipment Room – HVAC Upgrade
Wilson – New Cabell Pedestrian Link Investigation/Repair		Wilsdorf Hall – MOCVD Lab Commissioning

Design Group

<u>In Design During '09 – '10</u>	<u>In Construction During '09 – '10</u>	<u>Completed During '09 – '10</u>
JAG Lodging Rooms Fan Coil Replacement	Campbell Hall /Fiske Library Roof Replacement	Astronomy Building Partial Roof Replacement
JAG Lodging Rooms Renovations	Clinical Department Wing Roof Replacement	Chemical Engineering Fume Hood Install
Lambeth Commons Interior Renovation	Clark Hall 107 HVAC Replacement	Withers Brown Hall Two Elevators Modernization
Lambeth Commons Roof Replacement & Exterior Upgrade	Darden - Learning Team Rooms Renovation Phase II	Darden - Learning Team Rooms Renovation Phase I
Mechanical Engineering Prototyping Lab	Darden - CDC/Admissions Bathroom Renovations	I-Lab Renovation Sponsor's Hall
Replace Low Slope Roofs Sponsors Hall	ABCRC Dock Improvements	JAG Admin & Civil Law Office Renovation
Ruffner Hall Renovations	Hoxton-Lewis Gutter and Fascia Replacement	Mechanical Engineering 205 Classroom Renovation
Scott Stadium Coaches Box Upgrades		GCRC Office Suite, Clinical Department Wing
UVA Police Station Roof Replacement		Zehmer IDT Renovation
Special Materials Handling Facility Roof Replacement		
Lambeth Residences Roof Replacement		
Minor Hall Partial Roof Replacement		

Engineering and Design Major Commissions

Batten I-Lab, Sponsor's Hall Dining

The project consists of the renovation of approximately 3,415 gsf of interior space in Sponsors' Hall Dining, for use by the Batten Institute of the Darden School of Business. The space will be used for classroom and workspaces that will support teaching programs that focused on the development of innovation and entrepreneurship.

The project was designed by the Facilities Management Design Group, with SmithGroup, Inc. of Charlottesville, Virginia providing consulting engineering services for mechanical and electrical work. Construction was procured by on-demand invitation for bids, Artisan Construction, Inc. of Charlottesville, Virginia was the general contractor for the project. Construction began July 2009, with substantial completion on November 13, 2009.

The project was officially opened at a ribbon-cutting on March 19, 2010 at an event featuring an open house and a speech by Daniel Pink, a *New York Times* best-selling author. The I-Lab has been described by the Batten Institute as "a state-of-the-art learning environment that inspires a new approach to teaching innovation and entrepreneurship." The project budget was \$679,000.



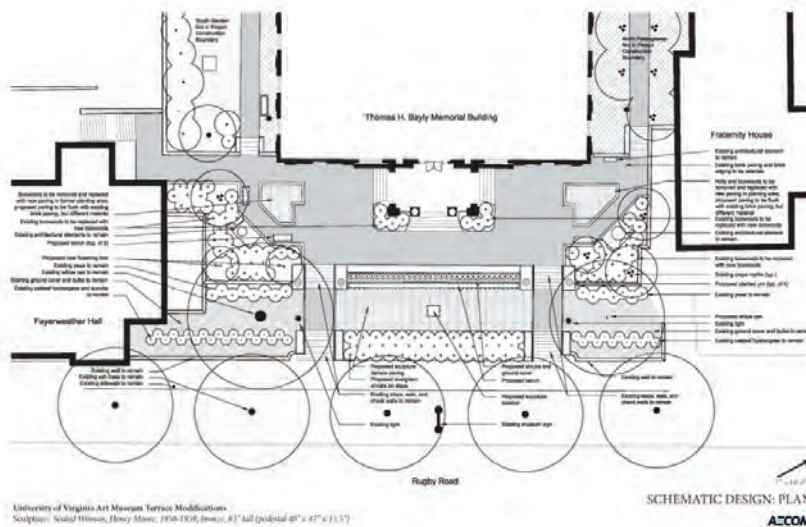
Bayly Museum Renovation

The Thomas H. Bayly building, built in 1935, is home to the University of Virginia Art Museum. The building is considered essential to the University's history and present character within the historic preservation framework plan. The interior renovation focused on architectural enhancements including new lighting to adequately light gallery walls and objects on display mechanical upgrades to condition all gallery and office space and electrical and fire detection modifications to comply with code and University requirements. All of these enhancements enabled the museum to retain its program accreditation through the American Association of Museums. The architect of record is Arch Et Al of Chevy Chase, MD. Construction was managed by Facilities Management, Project Services. The project was completed in August 2009. The project budget was \$2,000,000.



Bayly Museum Terrace Modifications

The Bayly Terrace Modifications project will identify a location for outdoor sculpture, increase visibility of the museum from Rugby Road, consider new treatment options for the existing earthen terrace, identify locations that support events, educational use, and individual seating, and protect the historic integrity of the Thomas A. Bayly Building. The new proposed sculpture terrace is approximately 13.5' x 57.5'. The terrace will function as an extension of the museum's gallery space. The planting beds on the north and south ends of the main terrace area and in front of the portico will remain unchanged. New evergreen shrubs will be recommended to replace existing overgrown boxwoods. Repairs will be made to the exiting stairs that flank the north and south sides of the terrace. Construction will be implemented by Facilities Management Project Services. The project has a budget of \$250,000 and will be completed in December 2010.



Campbell Hall / Fiske Kimball Library Roof Replacement

This project reencompasses the complete removal of existing roof systems, inspection of the existing substrate, and the installation of new roof systems, including roofing and insulation materials, flashing components, and related roof work.

The work consists of 27,300 gsf of low-slope roof that was re-roofed with a fully-adhered, 60-mil, reinforced EPDM roof system, including flat rigid insulation board and shop formed metal flashing components.

The roof replacement project was designed by the Facilities Management Design Group with Baker Roofing Company of Charlotte, North Carolina as the general contractor. Construction began in March 2010 and will be completed by September 2010 at a projected total project cost of \$736,000.



Chemistry Building Exhaust Upgrade

This Chemistry Building Exhaust Upgrade project will install a manifold exhaust system on the roof of the Chemistry Building. An industrial stair and roof hatch will be constructed to provide access to the existing roof through the mechanical penthouse. Existing individual exhaust fans will be replaced with exhaust air valves that will be connected to the exhaust manifold on the roof. The engineer of record is Affiliated Engineers of Raleigh, North Carolina. Construction is being managed by Nielsen of Harrisonburg, Virginia. The project budget is \$3,100,000 million and completion is scheduled for December 2010.



Lambeth Field Apartments Renovation

The Lambeth Field Apartments, which house University students, are located off of Emmet Street close to Central Grounds. There are 174 apartments among the 24 buildings, each containing either two or three double-occupancy bedrooms. Each apartment has a living room, a kitchen, and 1½ baths. Facilities provided within the complex include a computer room, laundry machines, a vending area, and a convenience store.

The Housing Division completed interior renovations of Lambeth Field Apartments buildings 450 and 452 during the summer of 2007. The second phase of the Lambeth project, which took place during the summer of 2008 included buildings 454 and 456. Completed during the summer of 2009 were buildings 458, 460 and 462. Now under renovation are buildings 451, 453, 455, 457, and 459 the largest number to be completed at one time. These renovations include asbestos abatement of VAT and wall base adhesive, mold remediation, replacement domestic hot water heaters, new plumbing fixtures, new toilet accessories, new kitchen cabinets, new light fixtures, new flooring, new entry and bedroom doors, and new paint throughout the units.

This phase of the Lambeth Field Apartment Renovations will be completed in August 2010. The architect is Heyward Boyd Architects, PC of Charlottesville, Virginia and the general contractor is Harrisonburg Construction of Harrisonburg, Virginia. The project budget is \$1,250,000.



Lodging Room Renovations, Judge Advocate General's Legal Center & School

This project is a renovation of 78 lodging rooms on the third and fourth floors of the Judge Advocate General's School building. These rooms serve as quarters for JAG students and guests of the JAG School. The renovation of these lodging facilities is a high priority for the JAG Legal Center and School, which is the long-term lessee of this building. This renovation is needed to renew these facilities and maintain an acceptable standard of lodging quality for U.S. Army facilities.

The scope of this project will include: renovations to bathroom fixtures and finishes, the installation of convenience casework within the rooms, new room finishes, asbestos remediation, fire sprinkler system, sound/noise mitigation measures, and HVAC upgrades.

The project is being designed and managed by Design Services, with Virginia A & E as consulting engineers. The project will also renovate two model rooms for a major conference to be held in October 2010; construction of these rooms will be done by Project Services. Construction services for the remaining rooms will be by invitation for bids from the on-demand general contractors list. Total project budget is \$3,825,000; project completion is scheduled for September 2011.



Existing Single Room and Bath



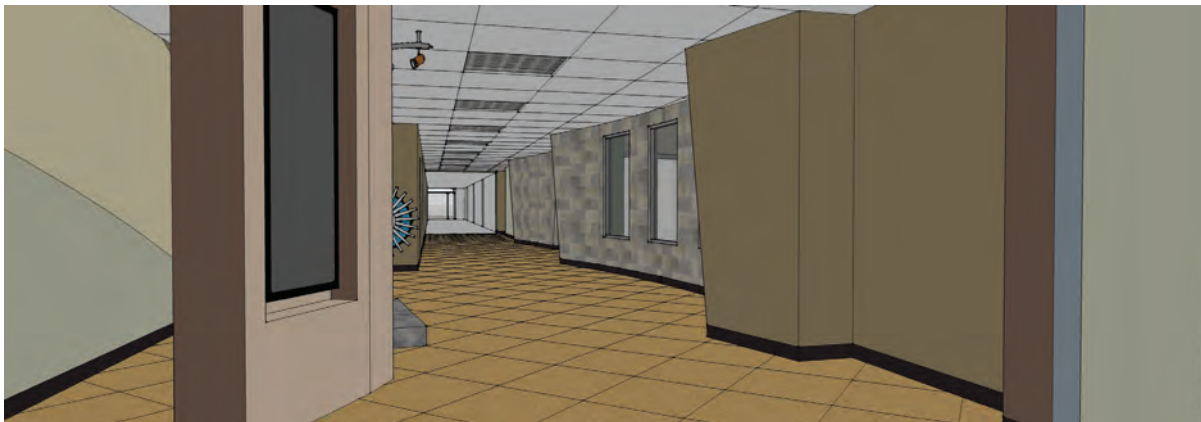
Sketches of Renovated Rooms

Mechanical Engineering Prototyping Lab

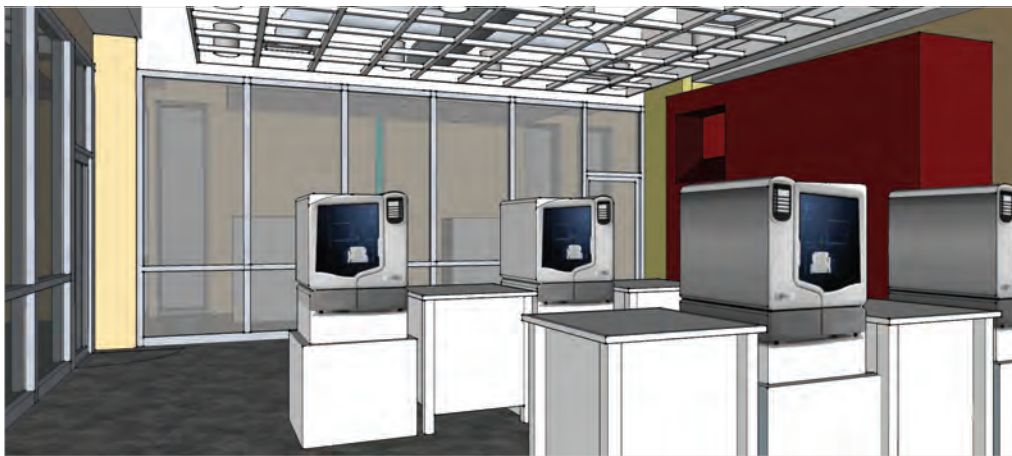
The Mechanical Engineering Department was given a grant by Rolls Royce to create a prototyping lab. These machines “print” working parts designed with 3D computer software. The new space will showcase the process and the work that is created in the lab. The prototyping lab is to become a larger part of the engineering program for the School of Engineering and Applied Sciences. By showcasing the space it, “the school hopes to increase student involvement and participation, as well as recruit new faculty and donors.”

These renovations will take place in three existing classrooms. The walls separating the three classrooms will be demolished, as will be the corridor wall running along them. Windows will be installed in the new corridor wall, allowing visitors to view the pieces being created by the machines. Glass storefront will also be installed between the printing area and the computer area, allowing one to see the printers creating the parts as design work is being done on the computers. Adjacent to the computer area will be a student lounge to encourage collaborative participation between students.

Asbestos is to be removed from the spaces, and new walls, finishes, and lighting will be installed. The construction work is to be completed by Facilities Management Project Services. The design of the new space is by the Facilities Management Design Group. The project has a budget of \$596,974 and it will be completed by the end of December 2010.



New corridor showing windows into the new lab.



Prototyping machines in the foreground looking towards the computer area and student lounge.

MOCVD Lab

Professor Archie Holmes heads the metal organic composition vapor deposition (MOCVD) lab in the Department of Electrical and Computer Engineering housed in Wilsdorf Hall. His grant focuses on research in compound semiconductor growth for optoelectronic devices. This project provided programming, code review, and engineering to bring the lab into compliance and bring the MOCVD reactor and associated equipment online. The engineer of record is Powers Engineers of Atlanta, GA. Construction was managed by Facilities Management Project Services, and the project budget was \$400,000. Commissioning of the MOCVD lab reactor is scheduled for summer 2010.



Support Divisions

Contract Administration:

For the first time in recent years, the number of contracts processed decreased in comparison to the previous year. The Office of Contract Administration managed the procurement processes and made awards for a total of 439 contracts in the 2009-2010 fiscal year (FY10) compared to 556 the previous year.

Professional services contracts (architectural, engineering, and consulting), and service orders on consulting term contracts numbered 345 for a total of \$18,680,971 compared to 388 contracts the previous year totaling \$40,713,498. There were 121 change orders processed with an additive value of \$4,448,518 and a deductive value of \$4,011,032 for a net additive value of \$437,486.

The construction side of the office handled 94 procurements for a total of \$169,838,188 in a very favorable bid market, compared to 166 procurements the previous year totaling \$200,454,204. There were 342 associated construction change orders processed, with a net value of \$24,074,538. Major planned change orders included in this total were the College at Wise Multi-Purpose Building Final Building Package valued at \$1,150,666, the CAS Physical and Life Science Research Building MEP Package valued at \$1,927,797, and the Rice Hall MEP Package valued at \$1,318,652.

Over the course of the year, the office issued a total of 23 requests for proposals (RFPs). The number of professional services RFPs executed was seven, and construction RFPs totaled 16 (nine of these were associated with the Lee Street Connective Elements project). This compared to 39 RFPs the previous year - half of which were for the Hospital Bed Expansion Project Trade Package procurements.

We continue to team with the Director of Supplier Diversity and his staff to strategize and plan for increased diversity in Prime and Trade Contractor spending through the recruitment of small, women-owned, and minority-owned (SWaM) firms. In addition the following new SWaM initiatives were put into place in FY10:

- 1) Office of Supplier Diversity staff, in addition to participating as advisors to the selection committees for capital project construction RFPs, are now exclusively responsible for providing the SWaM portion of the technical proposals score on competitive negotiations of all sizes.
- 2) An increased emphasis on SWaM participation in Facilities Management's procurements over the last few years, under the guidance of the Director of Supplier Diversity, has lead to the accomplishment of the overall aspirational goal of 40% SWaM spending for the University's 207 and 209 agencies. We continue to have increases in SWaM spending, with indications that the numbers are still on the rise. Special efforts are continuing to work with the women-and-minority-owned firm component of SWaM to improve their representation in the overall total of spending.
- 3) Our Senior Contract Administrator for Health System Construction continues to take the lead in promoting SWaM participation in our procurements, and he participated in the National Minority Supplier Development Council (NMSDC) seminar again this past year. Members of the Office of Contract Administration also staffed a booth at the excellently attended SWaM Fest V in Roanoke and participated in SWaM outreach meetings for various projects.

The 2nd Edition, Revision VI, of the University of Virginia Higher Education Capital Outlay Manual (HECOM) was posted to our web site on April 29, 2009, and we've continued to make minor improvements since that time. The update and revision of this 306 page manual involves many hours of editing by our office to implement the steady flow of suggestions for improvement. The electronic document is now fully linked with our web site content for ease of reference.

The office continues to spearhead efforts to enhance, expand, and update the Contract Administration web site, the FP&C "Links and Forms" web page, and the FP&C "Desktop" online resource as a service for the FP&C Staff, as well as University consultants and contractors. The continuous improvement effort is contributing to enhanced consultant and contractor participation and pricing, as well as increased FP&C efficiency and consistency. Significant 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. Work is in progress to further define and refine the more commonly used and more complex construction procurement options. Specific web sections have been created for Professional Services, Construction Administration, and Contracting Options, and existing web pages and templates (including the UVA HECO/CO/DGS Forms page) continue to be updated. New forms and templates are created and posted as needs are identified.

As part of our ongoing posture to improve the capital project execution process, a Building Information Modeling (BIM) Committee has been established within FP&C that has reviewed literature, interviewed A/Es and CMs that use aspects of BIM on UVa projects, and discussed best practices with representatives of other universities. An Integrated Project Delivery (IPD) Trade/Subcontractor Committee was also established to explore contracting options to allow trade/subcontractor design-phase services that will satisfy the UVa procurement rules for competitive pricing. The BIM Committee has made recommendations for BIM implementation at UVa and the IPD Committee is expected to make recommendations soon. Committee members are starting to develop procedures and contract documents for use in procuring A/E and CM services to implement BIM as a design collaboration tool and for contracting with major trade/subcontractors early in the design process as part of a customized IPD methodology.

The office consistently promotes and encourages professional involvement, certification, and training. Members of the office, with the support of the Director of FP&C, attended the Virginia COAA semi-annual workshops and the semi-annual meetings for the national organization. In addition the office director served as the COAA Virginia Chapter Treasurer again this past year, and UVa hosted the April 2010 Virginia COAA workshop with over 120 registered people representing facility owners from around Virginia. In addition one of our contract administrators for academic construction earned the status of Certified Professional Contracts Manager (CPCM). This designation is awarded by the National Contract Management Association. Contract Administration staff also participated in and helped lead FP&C training sessions that were held for all staff and participated in numerous other training opportunities.

Administrative Division:

The mission of the Administrative Division of Facilities Planning and Construction comprised of the Support Staff, Resource Center, and Finance Services Office is to provide a variety of administrative, technical and financial support functions to personnel in the Facilities Planning and Construction operational divisions.

The **Administrative Division & IT Manager** continued as the department Webmaster, overseeing both the FP&C Department website and the FP&C Desktop website. The full-time IT associate hired last year has proven himself to be an asset to the department, assisting with routine IT related duties and responsibilities, including computer and peripheral equipment procurement, web editing, troubleshooting, smartphone setups, processing equipment to surplus, and particularly with the testing and deployment of Microsoft SharePoint 2007 and 2010. The use of SharePoint has proven beneficial in facilitating collaboration and the exchange of information between FP&C staff and construction and professional services personnel on several construction project teams. The Administrative Manager and his associate assisted the Helpdesk staff in identifying and specifying twenty-four life-cycle replacement computers for department personnel, many of these again being notebooks to help senior staff work more productively while away from the office. We exponentially increased the use of smartphones and other mobile devices with the department now supporting 32 iPhones, 21 iPod Touches and two Android OS-based devices. These smart mobile devices allow department staff to optimize their time away from the office by easily and quickly handling e-mail and updating their calendars. The Administrative Manager and his telecommuting wage IT assistant continued to maintain both websites and also assist the Construction Services & Contract Administration Director with updating and reorganizing department web pages to better assist project managers, construction administration managers, and other staff with user-friendly updated forms and document templates. The Administrative & IT Manager made the presentation "Cell Phones 101" at the first Mobile Communications Fair held at Newcomb Hall in February 2010.

The **Support Staff** completed all coordination and planning for the sixteenth Inforum event which was held in March 2010 with 128 representatives from 93 organizations attending.

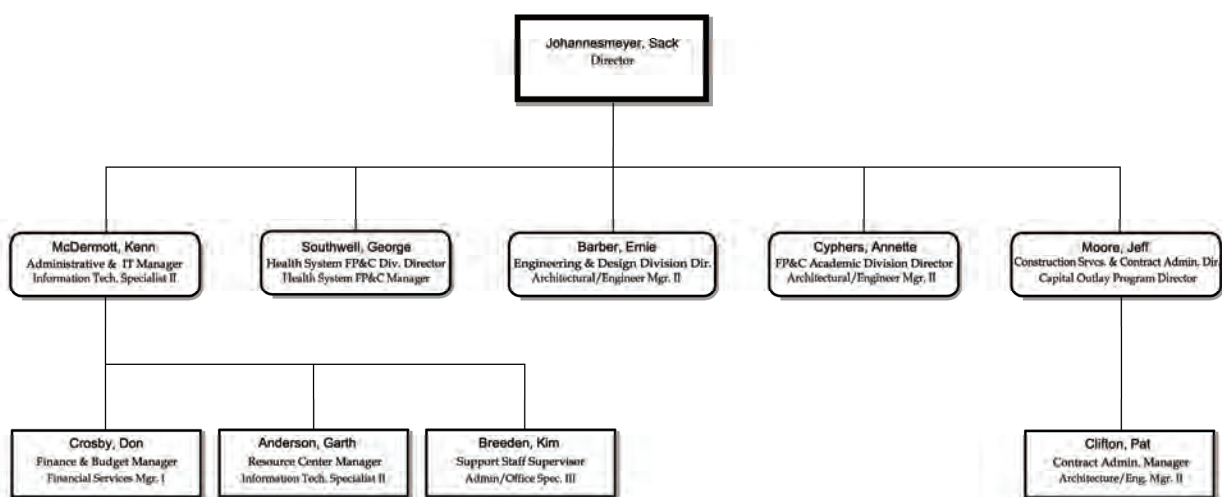
The **Resource Center** continued its mission to acquire, archive and distribute design and construction data for internal use and contract consultants. New archives include 427 sets of drawings (comprised of 2,158 sheets) and 754 specifications and reports. In response to a perceived need, Resource Center staff conducted training for all FP&C staff outlining best management practices for digital documents.

The effort to digitize operation/maintenance manuals, submittals, and shop drawings continued in earnest, and scanned material went up from 52.9GB to 129.6GB in new storage volume. We delivered requested information to consultants digitally, generally within 24 hours of receipt of request. Approximately 900 requests (up 81%) were filled, supplying 55.9GB of data.

Resource Center staff members, with the assistance of the University Records Officer, are working to develop a comprehensive and systematic management plan for both digital and paper records pertaining to construction at UVa. This records management begins with the organization of documents and continues throughout their use and until their scheduled destruction or permanent storage. Part of this overall plan requires the organization of record storage in Fontana. Currently, all boxes that go to Fontana have had permanent records removed and are marked with an ID number and destruction date. The Resource Center is serving as a beta tester for the new University records management database.

Staff members are currently participating in the BIM Standards and Guidelines Committee, co-curated the exhibition *From Village to Grounds* at the Harrison Institute, and spoke at *Jefferson, Palladio, and the Fine Arts in America Symposium*.

Facilities Planning and Construction
July 1, 2009- June 30, 2010



Facilities construction completed during the year represented a contract construction work in place volume of \$208.4 million.

