



July 2015 – June 2016

Annual Report

Office of the University Building Official

Elaine B. Gall, P.E., CBO
University Building Official

Introduction

The University of Virginia's Office of the University Building Official (OUBO) recently celebrated its tenth anniversary. Under the Higher Education Restructuring Act, OUBO was officially organized in July 2006 as part of the management agreement between the University and the Commonwealth of Virginia. As such, our primary duty is to ensure the University's structures are code compliant and safe by being involved with every phase of design and construction from early planning to project completions. Staff reviews construction documents, issues building permits, performs inspections throughout the construction process, performs systems testing, and provides approval for occupancy when complete.

OUBO's professional team includes professional engineers, licensed architects, certified code officials, and a permit technician. By having this level of expertise on grounds, OUBO is able to minimize delays by providing technical assistance and administrative guidance to building construction professionals in real time. Our level of experience with highly complex structures allows OUBO staff to offer unique guidance to designers and contractors to avoid costly mistakes or work interruptions. This team of professionals reports directly to the Board of Visitors and has been led by University Building Official Elaine Gall since 2009.

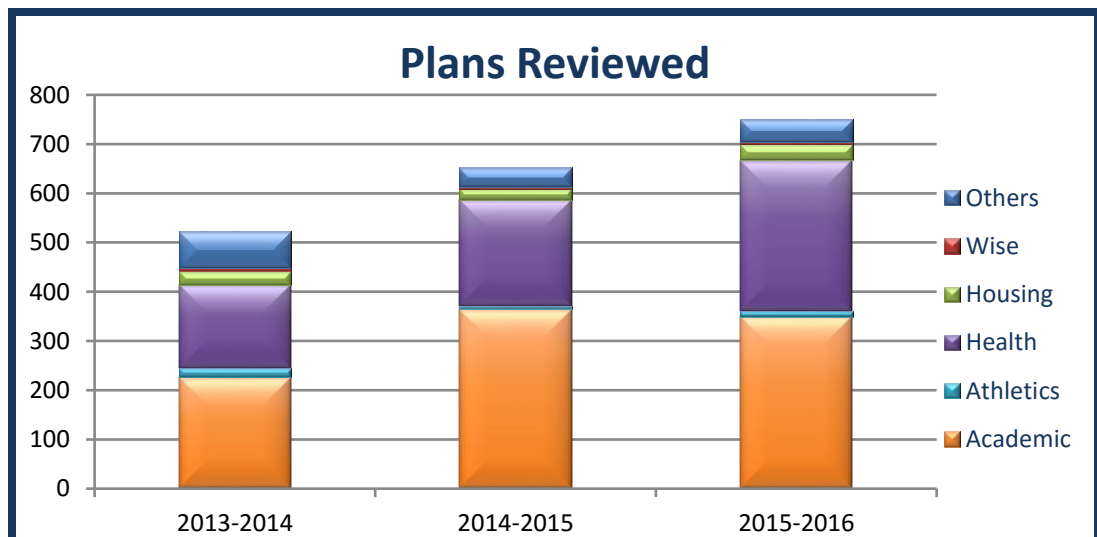


Plan Review

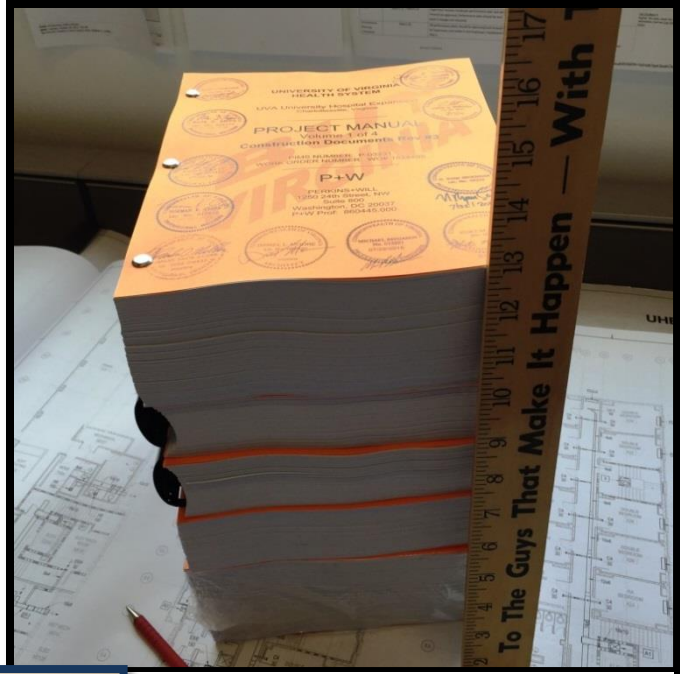
Construction documents for all renovations and new buildings are submitted OUBO for review. OUBO architects and engineers confirm that the drawings comply with applicable Virginia codes and Federal regulations. Staff also ensures that projects comply with the University’s design standards related to energy conservation, standardization of fixtures, and maintainability of materials. For FY2015-2016, OUBO reviewed 751 plan submittals. This included the highly complex and very large submittals related to the hospital expansion including complex utilities and enabling projects. Plan submittals break down as follows:

Type	Reviews in 2015-16	Change from previous year
Academic	350	-15
Athletics	11	+6
Health System	307	+90
Housing	32	+10
UVA College at Wise	5	0
Others	46	+8
TOTAL	751	+99

As noted above, OUBO reviewed 99 more submittals this year than in FY2014-2015. Most of this increase came from Health Systems which accounted for 90 additional submittals compared to the previous fiscal year. As the chart below indicates, total review workload increased for a second consecutive year.



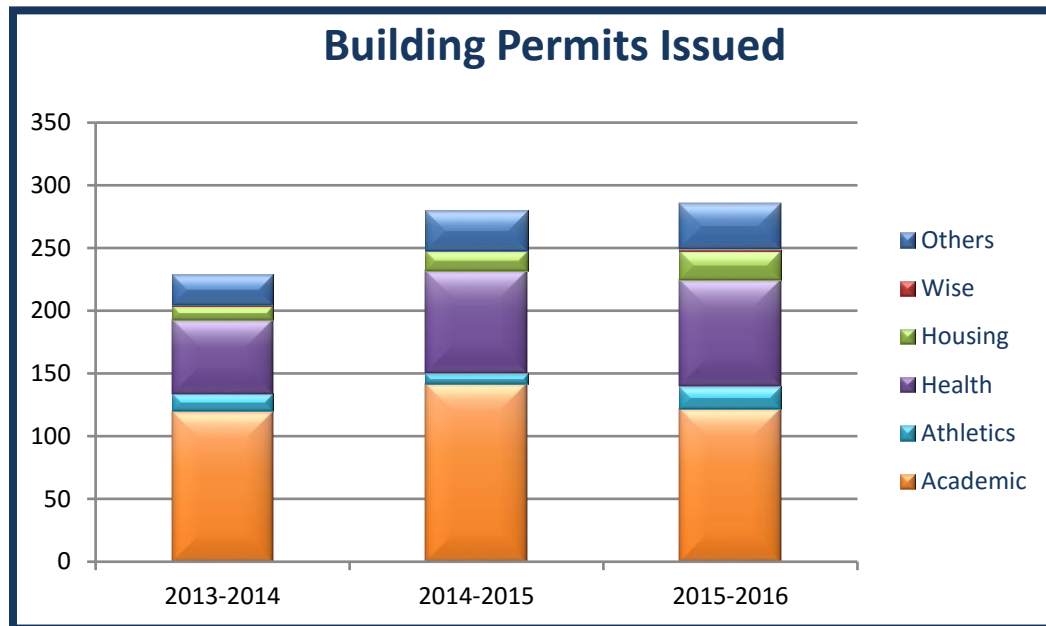
Although review workload was up, OUBO has been able to maintain a consistently high success rate at meeting or beating expected due dates. Much of this is due to the efficiencies introduced in past years that allow small projects to flow through the office rapidly. We implemented unusual measures to complete reviews for the hospital expansion which involved setting aside regular closed-door hours during which review staff concentrated on plan review.



Clients were supportive of this unusual arrangement to minimize interruptions allowing staff to complete the review in a timely manner while also maintaining commitments to other projects.

Building Permits

As indicated in the chart below, the number of building permits issued this year is only slightly higher than last year. Permits for academic projects declined while Athletics, Health Systems, and Housing permits increased.



Distribution of projects for which permits were issued:

Type	Permits in 2015-16	Change from previous year
Academic	122	-20
Athletics	18	+10
Health System	85	+3
Housing	23	+7
UVA College at Wise	1	+1
Others	37	+5

Inspections, Testing, and Occupancy Approvals

OUBO continued to be actively involved with projects throughout construction. Every effort was made to assist project contractors and construction managers in achieving compliance with a minimum of delays or costly rework. Inspectors of all disciplines performed multiple inspections and testing of life safety equipment to ensure projects were ready for occupancy. OUBO was able to perform inspections on weekends or evenings as needed to assist with scheduling challenges or sensitive work areas.



Over 150 projects were inspected and approved in FY2015-2016. Major project completions included:

- Wilson Hall Renovations
- Ivy Foundation Translational Research Building Renovation



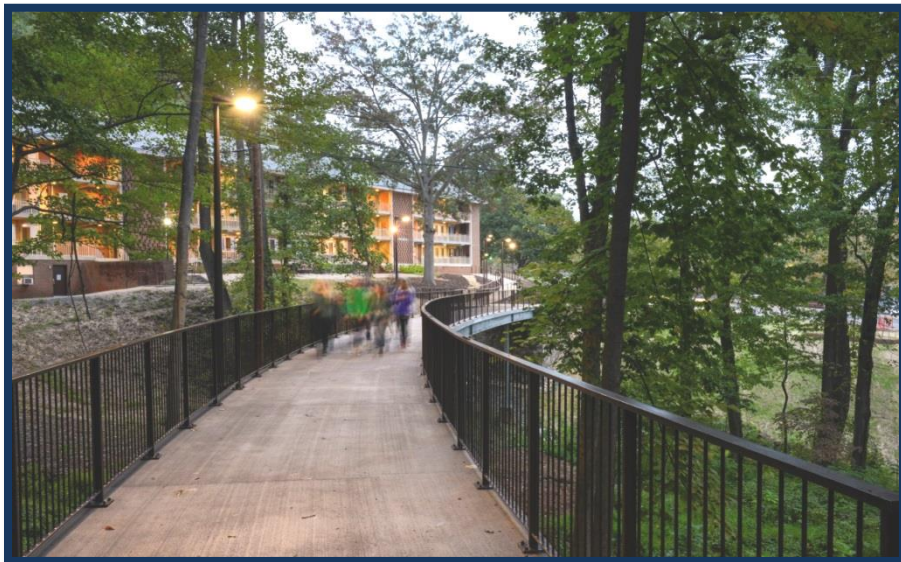
- Gooch Dillard Renovations – Phase II
- Gibbons House



- University Hospital Stem Cell Transplant Unit Expansion
- Facilities Management Shop Support and Office Building



- Milton Regional Firearms Training Center
- The Alderman Pedestrian Path



Organizational Goals

The Office of the University Building Official focused on five strategic goals to further strengthen our service to customers and to utilize our time more efficiently. A summary of the FY2015-2016 goals and achievements is provided below:

1. Proactively Seek Customer Feedback Through Continued Customer Outreach and Surveys.

Lead: Kathy Grove

Associates: Ben Hays and Richard McDaniel

The committee first determined key client groups and drafted starter questions to encourage open communication. They then scheduled a number of feedback meetings throughout the year with groups including Project Services, Facilities Planning and Construction, and Zone Managers. The committee also partnered with Facilities Management Occupational Health and Safety Personnel to engage with our external customers during a Safety Event held in March. We will use the information gained from these sessions to inform our 2016-2017 Organizational Goals.

2. Extend Outreach to Focus on Proactive Customer Assistance and Problem Solving.

Lead: Ben Hays

Associates: Ron Herfurth and Bob Waite

All staff members provided training programs this year to diverse audiences throughout both UVa and for state organizations. A presentation related to ADA Means of Egress was presented to the Virginia Fire Prevention Association. Training was also provided to Facilities Management Building Maintenance inspectors on the basics of plumbing and ventilation hazards and proper firestopping in fire-rated assemblies. Additionally, staff is involved in teaching classes at the School of Architecture and with a student group dedicated to Sustainability.

An example of creatively teaching code regulations was our mid-year training to UVa's Project and Construction Managers. Staff began a presentation related to arc flash requirements with M.C. Hammer's "Don't Touch This" playing in the background. To illustrate the reason why there are new regulations, a staff member dressed in full electrical safety gear, including head cover and face shield. He entered the presentation to the theme from Star Wars. Another staff member dressed up as a grandmother to give a presentation entitled "Let's Talk about Grandfather" to explain when code requirements can be grandfathered in existing buildings and how that has changed since the adoption of the Virginia

Rehabilitation Code. Based on the positive reviews, we plan a similar training event for 2017.

3. Provide Specialized Technical Services To More Fully Protect the University's Resources and Heritage. Utilize Unique Expertise to Assist Other Departments and Resolve Complex Issues.

Lead: Bob Waite

Associates: Dave Cooper and Elaine Gall

Staff worked to improve messaging across grounds related to expertise and guidance that our office can provide. Goal 2 supported this focus. Other activities included partnering with the Office of Emergency preparedness to develop a bi-monthly gathering of key officials for collaboration of efforts at UVa. Staff is also actively involved with the Accessibility Committee, the HVAC Committee, review of Post-Occupancy reports, and Sustainability efforts.

Staff is also active in several statewide organizations and efforts. This includes active involvement to change codes to allow chemicals used in research laboratories to be governed by codes written for laboratories instead of industrial standards. Staff participates in meetings with other University Building Officials, the local chapter of the Virginia Building and Code Officials Association, and the Fire Prevention Association. The University Building Official was chosen to be on the founding board of the first state chapter of Women in Code Enforcement.

4. Strive for Continued Process Simplification and Organizational Excellence, Concentrating on Improved Automation

Lead: Elaine Gall

Associates: Betty Bowman and Scott Clough

The main focus of this goal continues to be a challenge due to interdependence with Facilities Management's search for new record-keeping software. However, several internal improvements were made to assist clients with regulations and processes. All disciplines reviewed and updated their tip sheets while two additional tools were added to answer common questions related to inspections and administrative procedures such as how to submit drawings or to apply for a building permit.

In order to move forward with automation, OUBO has requested and received funding to independently pursue a software program modeled after the one that has recently been implemented by Virginia Tech's University Building Official.

5. Automation of Inspection Requests and Tracking

Lead: Scott Clough

Associates: Kathy Grove and Ron Herfurth

Much of this has been accomplished with the final piece to come in August with the transition to the newest version of SharePoint. The committee first evaluated and consolidated all inspections required by the Virginia Uniform Statewide Building Code. The building permit form was altered to include these required inspections. Staff marks the appropriate inspection blocks depending upon size and complexity of the project for which the building permit is being issued. Since permits are posted on site, contractors can refer to this and know when to call for inspections. The final piece for automation will utilize SharePoint to track inspections and notify the University Building Official when all required inspections are complete for issuance of a certificate of occupancy.

Office of the University Building Official Staff

Betty A. Bowman Permit Technician

B.S. in Business Administration, Averett University

Betty joined OUBO as the Permit Technician in October 2015. However, she has been assisting the Office of the University Building Official for over 10 years.

Betty receives all schematic, preliminary, contract documents, and yellow-out plans from Project Managers for submittal to the Review Unit. She logs each project submitted for review into SharePoint, distributes documents and prepares headers for the Review Unit to complete their reviews.

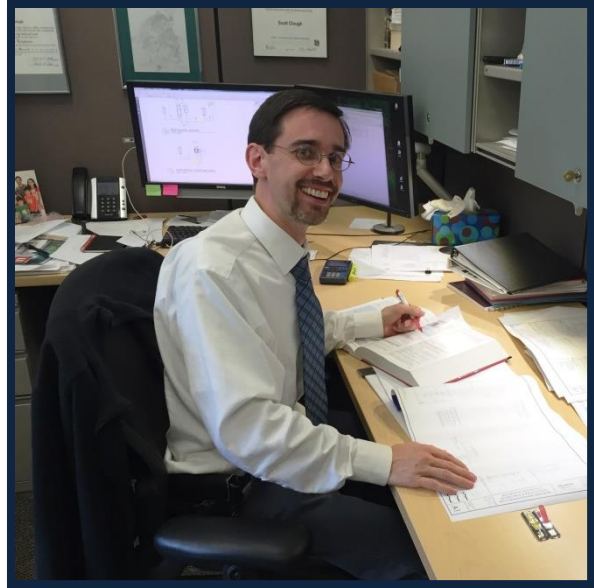
Betty also electronically applies the OUBO approval stamp to drawings when approved for construction. She then distributes stamped documents notification to the Geospatial Resource Center and UVa Project Managers and updates the permit log to reflect completed stamped drawings. Once small projects are approved for occupancy, Betty prepares and distributes the project approval documentation to clients. Betty serves as OUBO's primary customer service representative to answer client questions related to permit submittal process, status/schedule of plan reviews, building permits, and project approvals.



Scott Clough, PE, LEED AP
Senior Electrical Engineer

*B.S. in Electrical Engineering,
Purdue University*

Scott joined OUBO as Senior Electrical Engineer in January 2014. Prior to joining UVa, he worked as a Senior Project Manager in Ohio. He has 17 years of engineering experience including consulting, peer review, standards, and electrical design for education, healthcare, hospitality, and utility projects. At OUBO, he reviews plans and specifications and performs inspections for electrical and fire alarm systems. He also serves as in-house consultant for electrical systems, lighting, fire alarm, and value management studies.

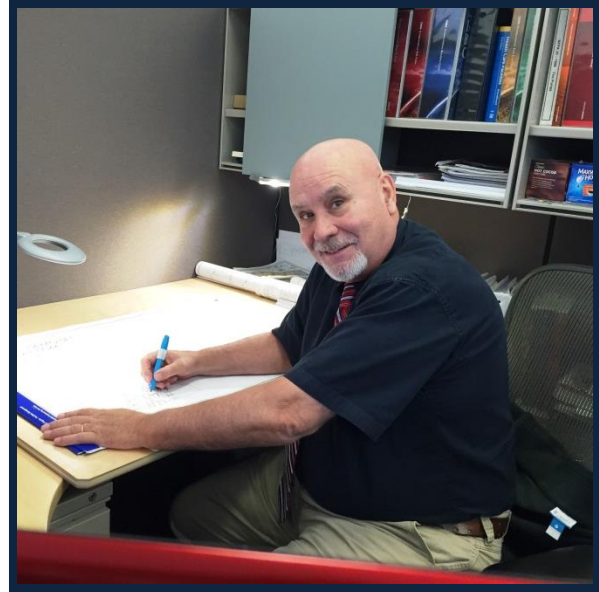


Scott is a member of UVa's Electrical Safety Committee and the FM Green Building Standards Working Group. He is also a Leadership in Energy and Environmental Design (LEED) Accredited Professional and a member of the Institute of Electrical and Electronics Engineers (IEEE).

Scott is a registered Professional Engineer in Virginia and 5 other states. He is licensed by Virginia DHCD and ICC as a certified Electrical Plans Examiner and Commercial Electrical Inspector. Scott recently became NICET Level 1 certified for Fire Alarm Systems.

David J. Cooper, CBO
Fire Protection Review Engineer

David joined OUBO as a Fire Protection Engineer in June 2014. Prior to joining UVA he spent 10 years as the Building Official for Fauquier County. He has 29 years of experience in the construction field as a field inspector, plan reviewer and general code compliance reviewer. His experience includes field inspections for all building trades, plan review and oversight of all processes of a County Building Department. Additionally he has



spent several years with The State Fire Marshal's office where he performed construction and general fire safety inspections for existing and new construction of State owned universities and hospitals. At OUBO his primary responsibility is plan review and consultation related to fire safety provisions including fire suppression, egress and fire resistance rated construction.

Continuing education is an integral part of staying up to date with changing codes and requirements and David has completed CEU training in fire suppression from NFPA as well as training in other job related specialties. During the past 2 years David has also completed over 16 hours of mandated continuing education to maintain his State of Virginia certification status.

David holds the following certifications from Virginia Department of Housing and Community Development:

Certified Building Official, Fire Protection Plans Examiner, Commercial Plans Examiner, Commercial Electrical Plans Examiner, Combination Commercial Inspector; which includes Commercial Building, Electrical, Plumbing, and Mechanical Inspector Certifications; Combination Residential Inspector; which includes Residential Building, Electrical, Plumbing and Mechanical Inspector Certifications, Fire Protection Inspector, Elevator Inspector, and Amusement Device Inspector. David is also a member of the Virginia Building Code Official Association and National Fire Protection Association.

Elaine Gall, PE, CBO, CFO
University Building Official

B.S. Mechanical Engineering, Virginia Tech
M.E. Fire Protection Engineering,
University of Maryland



Elaine was appointed University Building Official in 2009. She joined the University of Virginia in 2006, serving first as Senior Fire Protection Engineer. Prior to joining UVa, Elaine served in the Virginia State Fire Marshal's Office as Regional Engineer for a 20 county area in Western and Central Virginia. She also served as Building Commissioner for Roanoke County. Elaine has 31 years of professional experience in construction, code enforcement, and fire protection engineering. She has been actively involved in code development on both the state and national levels throughout her career.

Elaine's current role involves the administration of OUBO, including the code compliance program for all construction projects at UVa. This includes UVa College at Wise, Blandly Farm, and UVa's various other properties throughout the state. She is also actively involved in inspections and provides technical guidance to staff and clients.

Elaine is a registered Professional Engineer and is a Certified Building Official. She is also a Certified Fire Official and holds certifications in Mechanical, Building, and Fire Code Plan Review and Inspections. She is a member of the Virginia Building and Code Officials Association and the Virginia Fire Prevention Association where she serves as First Vice-President and Chair of the Education Committee. Elaine also served as a Governor-appointed member of the Virginia Fire Services Board for four years and represented that Board as a member of the Virginia Board of Housing and Community Development for two years. Elaine currently participates on the Virginia Building and Code Officials' Building Code Committee and the Virginia Fire Services Board Code Committee.

**Katherine Grove, CBO, AIA, LEED AP
Senior Review Architect**

*B.S. in Architecture with Minor in
Architectural History, University of Virginia
M.A. in Architecture, Syracuse University*



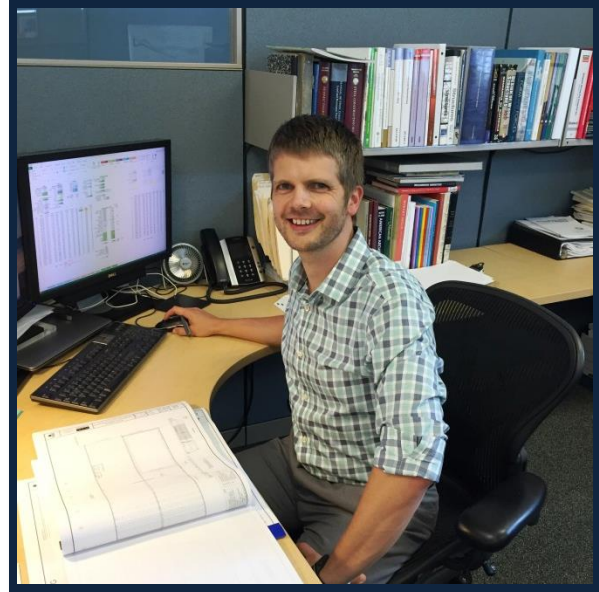
Katherine joined OUBO as Senior Review Architect in April 2012. She provides review, in-house consultation and value-management input for architectural projects with regard to code and ADA compliance, constructability, and compliance with UVA's Facilities Design Guidelines. She also conducts building inspections for code, ADA compliance, and occupancy. Katherine is a member of UVA's Environmental Impact Subcommittee where she co-chairs the Water Working Group. She is a mentor to UVA's interdisciplinary Global Sustainability class, an appointed representative on the Facilities Management Sustainability Council, and a member of the 3 person team which shepherded certification of the Leake building upper floor as a 'Green Workplace'. In August 2015, she was invited to facilitate a round table work session at UVA's annual pan-university Sustainability Retreat.

In 2016 Katherine completed bi-annual Virginia DHCD and ICC certification as a Certified Building Official, licensed Commercial Building Inspector, and licensed Commercial Building Plans examiner, and she attended the national Greenbuild conference sessions on green building codes and construction practices. Katherine is a registered Professional Architect in Virginia, a member of the American Institute of Architects (AIA), and a Leadership in Energy and Environmental Design (LEED) Accredited Professional.

Katherine has over 25 years of professional experience in architectural design including 15 years as a Director/Project Manager specializing in sustainable design/consulting and construction of institutional, mixed-use and residential projects. She was Project Manager for multiple LEED certified Gold and Platinum projects, has presented at the national AIA and Greenbuild conventions, and maintains a licensed architectural practice specializing in sustainable design.

Ben Hays, PE, SE, LEED AP
Senior Civil/Structural Engineer

B.S. in Civil Engineering, Virginia Tech
M.S. in Civil Engineering, Virginia Tech
M.A. in Theology, Fuller Seminary
M.A. in Architectural History, University of Virginia



Ben joined OUBO as the Senior Civil / Structural Engineer in November 2011. At OUBO he reviews plans and specifications and conducts inspections related to civil and structural engineering. Additionally, he provides in-house consultation for structural engineering related projects and participates in large-project value management studies. Throughout the past year, he has helped develop an inspection program for Athletics and assisted Parking & Transportation in the execution of their inspection program. In addition, he helped document the historic structure of a Corn Crib at Blandy Experimental Farm.

Ben has more than a dozen years of professional design, management, and review experience and has worked as a civil and structural engineer on both the east and west coasts. He holds licenses in both Virginia and California. In addition, Ben is an ICC certified Commercial Plans Examiner, an ICC certified Commercial Building Inspector, a LEED Accredited Professional and an ICC Certified Building Official.

Ben is a member of several professional organizations, including an Associate Member of the American Society of Civil Engineers (ASCE), the Construction History Society of America (CHSA) – where he serves on the national Management Committee, and a member of the Southeast Chapter of the Society of Architectural Historians (SESAH). During spring 2016, Ben co-taught the *Design Develop Studio* in the Architecture School as well as his own *History of Building Technology Course*. This later course constructed two scale models of the Rotunda's domes and was featured in an UVa Today article. His research was presented at last year's *Guastavino Biennial* in Barcelona, Spain and at the *2nd Conference on Improving Seismic Performance of Existing Buildings* in San Francisco.

Ronald Herfurth, PE, CBO
Senior Mechanical Engineer

*B.S. in Mechanical Engineering,
Virginia Tech*

Ron joined OUBO as Senior Mechanical Engineer in 1991. He joined the University of Virginia in 1988. At OUBO he reviews mechanical and plumbing plans and specifications and participates in inspections of mechanical and plumbing systems. He also serves as in-house consultation for mechanical systems and value management studies. He is a standing member and chairman of an interdepartmental Facilities Management HVAC Committee.



Ron is a registered Professional Engineer in Virginia and holds DHCD certification as a Building Official, mechanical plans examiner, plumbing plans examiner, and commercial energy plans examiner commercial mechanical inspector, commercial plumbing inspector, and commercial energy inspector.

In the past year Ron attended the DHCD short course on the 2012 Swimming Pool and Spa Code.

Ron is a member of American Society of Heating Refrigeration and Air-Conditioning Engineers.

Robert A. Waite, Jr., AIA, CBO
Review Unit Managing Architect

B.S. in Architecture, University of Virginia

Bob joined OUBO as Senior Review Architect in December 2008. He has over 25 years of professional experience in architectural design, project management and code compliance inspections. He has experience in all types of building uses including health care facilities, residential and dining facilities, athletic facilities and classroom and laboratory facilities.



At OUBO, Bob manages and distributes the reviews for all projects that the office reviews. He coordinates with Project Managers and helps them schedule the reviews for their projects. He assigns the processing of all building permits. He provides ADA compliance inspections and expertise when needed and assists in reviews for architectural code compliance, constructability, ADA compliance, and compliance with UVa's Facilities Design Guidelines. He also assists the University Building Official on an as-needed basis.

He served with the US Army as a 1st Lieutenant with the 101st Airborne Division in the Republic of Vietnam.

Bob is a registered Professional Architect in Virginia and holds certification with the Virginia Department of Housing and Community Development as a Residential Building Inspector, Combination Building Plans Examiner, and Certified Building Official. He completed the Code Change Training for the 2012 Codes.

Bob is a member of the American Institute of Architects (AIA).