

Newcomb Hall

180 MCCORMICK ROAD, BUILT 1954



Building Type: Multi-use

Types of Spaces: Offices, meeting rooms, student centers, dining hall, café space, lounge, gallery, ballroom

Square Footage: 194,188 ft²

Project Cost: \$1.5 million

Annual Savings: ~\$300,000

Simple Payback: ~5 years

“The Newcomb project is a terrific example of what Facilities Management can accomplish to help our customers and the University achieve energy savings... I could not be more proud of the results this project achieved and highly recommend leveraging [the Building Efficiency Program] to investigate your buildings!”

- James N. Joyner III
Zone Maintenance Mgr

Since opening in 1958, Newcomb Hall has continuously evolved to meet the needs of a dynamic University as a community gathering place and a center for student activities on Grounds. In 2014, Newcomb Hall was identified by UVA's Sustainability Services group as a candidate for a building-wide energy efficiency upgrade.

Newcomb Hall's energy consumption profile suggested that there were opportunities to save energy and operating costs through UVA's Building Efficiency Program (BEP, formerly known as the Delta Force Program). UVA's BEP provides a framework for administering targeted energy efficiency upgrades and integral financing.

Major initiatives for Newcomb's BEP project included a digital building controls system upgrade, HVAC system commissioning and optimization, LED lighting retrofits, and low-flow restroom fixtures. Sustainability Services engineers designed and managed the projects in collaboration with many in-house partners, including UVA's Building Optimization Team, HVAC and controls technicians, plumbers, electricians, and building maintenance staff.

The project was provided at no upfront cost and has resulted in annual utility cost savings of \$300,000 per year. System modernization also led to more comfortable and responsive spaces with fewer maintenance requirement.

Initiatives

Building controls modernization

- Upgraded pneumatic to digital controls system
- Introduced time-of-day scheduling and other energy conserving measures

HVAC system upgrades

- Fully commissioned HVAC systems for optimization
- Installed variable frequency drives on pumps, fans, and motors

LED lighting upgrade

- Replaced existing fluorescent fixtures with LEDs
- Installed new, automated occupancy sensors
- Reduced lighting power densign by by 70-80%

Installed low-flow fixtures in restrooms

- Reduced domestic water consumption by 30%

Efficiency Savings (2014 v. 2018)

Energy Use Intensity (kBtu/ft²/yr)



Carbon Dioxide Equivalent Emissions (MTCO_{2e}/yr)



Annual Cost Savings

