# Project Overview

## Liberty University
## Lynchburg, Virginia

**Liberty University**

**New Construction and Lighting Retrofit**

Occupancy controls throughout the library ensure lights are off when an area is vacant.

### Planning for the future with scalable, energy-saving building systems.

Liberty University is in the midst of a $500 million campus rebuilding plan designed to promote a sense of community, encourage stewardship through energy conservation, enhance academic opportunity, and establish the institution firmly in the conversation about prominent, national universities.

Campus-wide, construction projects focus on state-of-the-art facilities with advanced building systems that maximize energy efficiency such as smart, expandable, automatic lighting control systems.

Beginning with the new Jerry Falwell Library, which included nearly 300 wireless occupancy/vacancy sensors and controls, Liberty adopted the Lutron wireless protocol as the campus standard for energy-saving, advanced lighting systems. These systems not only improve the total campus environment, they reduce energy bills, and those savings are passed onto student programs.

The projects include vacancy sensors throughout Residential Commons I and II, and lighting and shade control systems in the Science Hall, LaHaye Student Union, and DeMoss Student Center.

*"Lutron has been a tremendous asset to the Liberty University projects– not only because of their excellent products and systems, but also because of their design support and their commitment to meeting the needs and wants of the customer."*

*Ryan W. Holloway, P.E., LEED AP,*
*Lawrence Perry & Assoc.*

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Photos courtesy of Liberty University

Charles Spence, Sr. Vice President for Planning and Construction


Liberty's expansion plans include lighting control systems throughout campus buildings, such as the LaHaye Student Union (shown above)

*"Our visit to the Experience Center was the key to getting everyone on the same page. We looked at every product, saw how integration would work across systems, and were 100% confident that the standards we were setting would make future projects easier, less time consuming, and more efficient."*

*Charles Spence*

*Sr. Vice President for Planning and Construction, Liberty University*

## Challenge

Charles Spence, Senior Vice President for Planning and Construction, takes a long-term view of campus expansion. One of his goals for rebuilding projects was to standardize on a system that provides essential, beautiful lighting and shade control when it is installed, and can be expanded easily as the university continues to grow.

Working with Lawrence Perry & Associates, Spence chose Lutron standalone wireless and Quantum Total Light Management systems to deliver energy savings and provide the ability to measure and analyze lighting use. Wireless protocols help to "future proof" the system, allowing changes and reprogramming without rewiring, or otherwise disrupting the previously installed controls.

## Solution

Liberty's master plan is aggressive and dynamic, but it is also respectful of the founder's commitment to developing men and women with the values, knowledge, and skills essential for impacting tomorrow's world. Expanding the campus in a way that is forward-thinking, financially responsible, and beneficial to the university community is essential.

Lutron's 5 corporate principles and 50-year history of product innovation, service, smart control technology, and scalable systems gave the team confidence that from products to support systems, Lutron was committed to helping Liberty through the entire process.

The university was determined to work with a manufacturer able to help set a design standard, establish a sequence-of-operations, and provide lighting control strategies for every type of space. To ensure they were making the right proposals, members of Liberty's Facilities team and engineering firm Lawrence Perry & Associates, Inc. (LPA) visited Lutron's Washington, D.C. Experience Center to get hands-on experience with the suggested control strategies.

Wireless, energy-saving occupancy sensors in each residence hall room helped meet aggressive construction time lines.

Students take a break to visit between classes.

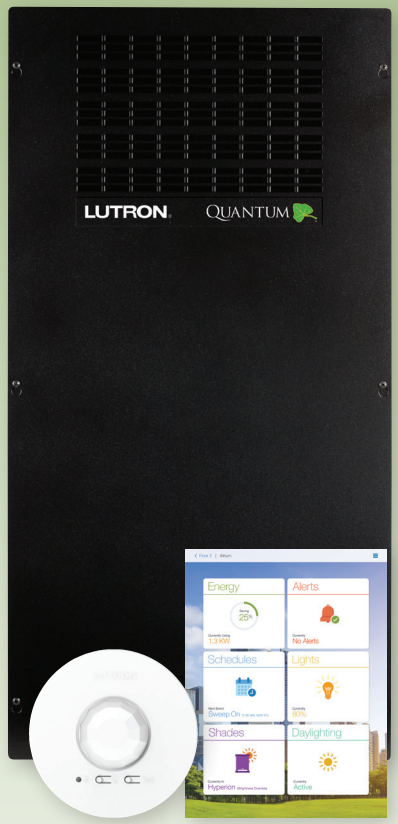
## Creating efficient, attractive, productive spaces

Much of the campus is using advanced lighting control strategies to maximize energy efficiency and enhance personal comfort. In the Jerry Falwell Library, occupancy sensors are broadly used to ensure that lights are not left on when a space is vacant, but that people are not ever left in the dark when they are in the space.

In residence halls, simple, wireless vacancy sensors in each room reduce energy waste without relying on students to remember to turn off the lights, but students can still turn lights on and off from convenient, wireless wall controls. Liberty University understands the importance of encouraging group activities in public areas, thereby fostering a greater sense of community. To create more vibrant, welcoming spaces at any time of the day, the university installed integrated lighting and shade control solutions that automatically change according to time of day and daylight availability.

Networked, digital control offers the ability to standardize across the campus and deliver customized results depending on the specific building purpose and the way occupants utilize lighting control. Wireless systems also made it possible to reduce installation and materials cost and meet aggressive construction time lines while ensuring that the systems deliver comfortable, energy-efficient lighting.

Liberty University is strongly committed to sustainable technologies. LED lamps and controls are used throughout the campus to reduce lighting electricity costs. Integrated, solar adaptive shading systems in academic buildings and public areas automatically adjust according to the position of the sun in order to take greatest advantage of daylight, reduce HVAC costs, and create a dynamic environment for students, staff, and visitors.




Lutron's Quantum® Total Light Management system is helping to reduce lighting energy use and lower costs.

Motorized shading solutions help ensure a positive, glare-free learning environment for students.

## Results

Many universities boast about their exceptional facilities, state-of-the-art technology, diverse degree programs, or dedicated faculty. Liberty is proud to offer all of these advantages as well as financial strength and uncompromising commitment to being a teaching university, investing in the lives of students, and helping them realize their potential. Lutron lighting control contributes to this mission in several ways.

Saving energy helps the university ensure that its financial resources are not wasted, and neither are natural resources. Providing total light managment control helps professors ensure a learning environment that is comfortable and productive, and lighting controls help to manage visibility in both classroom and non-classroom spaces.

Creating an academic, social, and spiritual environment is all part of Liberty University's commitment to its students. With a growing residential population, and a community of more than 95,000 online students, Liberty University is the largest private, nonprofit university in the country.

As the University approaches its 45th year, its leaders recognize that every aspect of the campus environment works to improve the student experience. Installing lighting controls that help reduce energy costs while improving the living, learning atmosphere is one important piece of a master plan that defines a vibrant future for the Liberty University community.



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