

# Bruton Parish Church

## Williamsburg, Virginia

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Bruton Parish Church, located in the restored area of Colonial Williamsburg in Williamsburg, VA, was established in the 17th century, and has known such distinguished attendees as George Washington, Thomas Jefferson, and Patrick Henry. One of the country's oldest churches in operation, Bruton Parish is a registered historic landmark in a preservation district, and is a cruciform-shaped church (the first in Virginia) extending 124 feet long, 33 feet wide, with 15 foot long transepts (wings.) It still uses the bell that was cast in 1761, which rang to celebrate the signing of the Declaration of Independence in 1776 and the signing of the Treaty of Paris in 1783, marking the end of the American Revolutionary War.

**OPTECH.NET furnished and programmed concealed, scene-based lighting controls built around Crestron infiNET™, a wireless mesh networking technology that eliminates the need for physical control wiring – ideal for retrofit and landmark installations.**

Between 1905 and 1907, some electrical wiring was added to the structure; it was subsequently upgraded in 1939. However, the only electric-powered fixtures in the sanctuary were small lights at each doorway and two sconces in each of the three galleries (located on a second floor level of the transepts). The primary light sources, other than natural light, were a collection of antique sconces, chandeliers and holders that required a total of 73 real candles – costing more than \$12,000 a year to maintain! It wasn't until November 2008 that modern-day logistics and safety concerns necessitated a new approach.



When first contemplating the replacement of most of the candle-based fixtures with authentic-looking electric versions, installation and operation posed more questions than answers. The church's 27" solid masonry walls and a foot-high crawl space made running cable and installing new panels impractical in some areas and in others, impossible – so running new electrical feeds to the replacement fixtures was not an option. Nor was installing traditional switches in multiple locations and running them from several existing panels, all of which would have caused excessive wall clutter.

Jim Duckworth, of Two Rivers Electrical Services, referred Mike Wanless, Bruton Parish Church facility manager, to Crestron dealer OPTECH.NET (Office/Pro Technologies, Inc.) to help implement a lighting control system that would be affordable, workable, and still preserve the church's 18th century ambiance.

OPTECH.NET furnished and programmed concealed, scene-based lighting controls built around Crestron infiNET™, a wireless mesh networking technology that eliminates the need for physical control wiring – ideal for retrofit and landmark installations. By using this simple, cost-effective solution, infiNET dimmers could be installed by Two Rivers Electrical Services in the most convenient and discreet locations while minimizing the overall amount of electrical cabling needed for the project.

"The client was hesitant to modify the existing lighting scheme, out of concern that it would alter the Church's historical uniqueness," observed Adam Theis, OPTECH CTS (Certified Technology Specialist). "But they persevered, and the solution was ultimately well received."



To simplify the user experience, presets were programmed into a Crestron iLux™ integrated lighting system located in the sacristy (a small room behind the altar). These include CHANDELIER, for control of the two small chandeliers on either side of the altar; CHANCEL, tied to the sconces located in the chancel, or altar area; GLOBES, the small light fixtures at each doorway; SCONCES, all the electric candles, and PRESET, which illuminates all connected fixtures at a dim level of 80%. The system is fully operational from wireless remotes and hidden keypads, ensuring that the church's aesthetics are maintained.

The PAC2M control system and infiNET gateway reside on the landing between the west gallery and the tower. Five single-button infiNET dimmers are located under the pews, and a 4-button version is mounted on the wall at the rear of the church. Two compact, infiNET tabletop controllers are housed in small, custom-built wooden boxes (one in the sacristy and one in the tower entrance room). During services and concerts, they can be removed and handheld to adjust the lights from any location.

"It's been really great. I've gotten a lot of comments about how well it performs," said Wanless. "To have, for example, the PRESET button is terrific, and it gets used quite often. And it was nice to be able to hide it all so completely – there's no evidence of electrical conduits or wiring."

The custom-made, natural beeswax electric candles by Elcanco, LTD (also used at Mount Vernon) are enhanced by the dimming capabilities of the Crestron system. "We enjoy the sconces at the lower, dimmed level on most Sundays, and it's all worked out wonderfully," added Rick Boye, Bruton Parish Church Junior Warden. "We now have the look and feel of real candles, with greater safety, simpler maintenance, and the ability to increase illumination on cloudy days, benefits we couldn't have achieved before."

