



PROTECTING LANDMARKS AND VISITORS AT THE CHRISTIANSTED NATIONAL HISTORIC SITE

SWIFT™ Smart Wireless Integrated Fire Technology

The Christiansted National Historic Site, located in the U.S. Virgin Island of Saint Croix, consists of seven acres of land, housing five buildings built during the 1700's to early 1800's. These landmark structures include Fort Christiansvaern, the Scale House, Danish Custom House, and the Danish West India & Guinea Company Warehouse.

The historic site portrays the human experience during Danish sovereignty at Christiansted. Never having had fire protection, the site needed a comprehensive fire safety system that would protect the tourists and staff, the live ammunition, many archived documents, historic and non-fire rated structures and the protected land.

Needs

- Preserve aesthetics of historic site
- Multiple buildings controlled centrally, with local activation and control available
- Modern, user-friendly technology for easy use
- Able to withstand unpredictable weather patterns
- Preservation of historic, highly reactive materials
- Government approval required for historic site alterations

Challenge

When **Bass United Fire and Security, Inc.**, a Honeywell Fire Solutions authorized distributor in Pompano, Florida was called to the site, the historic buildings had survived hurricanes and tropical storms, but had never had fire protection. The underground structures, large variations of land and building heights, and the historic value of the landmark required a creative, yet comprehensive, fire safety solution.

Developing a way to protect the unique underground dungeons and other thick-walled structures was the first hurdle to overcome. Building a solution that would be unaffected by overlapping and neighboring wireless networks posed its own challenges. In designing the system, it was necessary to evaluate each sensor location individually, and to create new paths for repeaters and sensors. Finally, all buildings were to be monitored centrally, but allow for local control and activation.

On top of the technical challenges, the installation of the comprehensive fire safety system still had to preserve the historic value of the site, while ensuring life safety and landmark preservation across all seven acres.

Honeywell



The Solution

The Christiansted's fire alarm system consists of four fiber-optic networked Honeywell Gamewell-FCI S3 Series® fire alarm control panels with all SWIFT™ addressable sensors and modules. This system has been successful in newer buildings, but installation at a historic site brought a large range of challenges.

"It was kind of an engineering nightmare, with all the physical obstructions of the fort and wireless challenges of four panels. But in the end, it performed very well," says Brad Higdon, President/CEO of Bass United Fire & Security System, Inc.

Part of the historic site challenge were rooms in some Christiansted Historic Site houses with three to five-foot-thick walls - created to safely hold gun powder and other ammunition - which presented a major hurdle for using wireless systems. Many people believe wireless networks are not reliable. Contrary to this belief, it is unaffected by overlapping wireless networks. This product is uniquely programmed to have selective detection and evacuation capability.

Each SWIFT wireless device acts its own repeater, providing expanded radio coverage without requiring additional equipment. Using the SWIFT multi-direction and updated radio capabilities, Bass United avoided the need for wires stretched across the seven acres.

"Most people never would have thought of wireless. We didn't say, 'oh, it's going to have to be wired and ugly.' We had the vision to use a reliable, stable wireless technology," states Brad.

Multiple elevations throughout the park, including a deep dungeon and a four-story steeple, presented another obstacle. The steeple's four elevations required that a detector be installed on each level. Typically, the signal transmits horizontally, but in this particular case it was necessary for the signal to transmit vertically. Similar challenges presented with the depths of the dungeon.

"The wireless smoke and heat detectors installed through this project were ideal, since they minimized the amount of conduit to run and penetrations made into the building. Visual impact, along with the size and quantity of penetrations are a great concern when dealing with significant cultural resources like Fort Christiansvaern," noted Kelly Kachurak, Project Manager for the National Parks Services.

Most important for engagement and operation of this system in a remote location, the Honeywell Gamewell-FCI S3 Series® 4.3-inch color touch screen display panel is easy to use with five buttons for easy access to basic functions. This allows for individuals in the Virgin Islands with little to no fire alarm management experience to respond as quickly as possible in a fire situation.

And finally, the S3 Series' clean, unobtrusive design allowed for maximum flexibility and network-ability. This was key for Bass United in preserving the aesthetics of this historical site while ensuring maximum safety for staff, visitors, and invaluable assets

Benefits

- Wireless connectivity allows for non-intrusive fire systems to protect the aesthetic and also removes the potential mistakes that come with electrical wiring
- Ease of use allowing all staff to access and understand in the event of an emergency
- Reliable product that reduces the cost in the long run due to the lack of wires to maintain
- When an alarm triggers, it allows for evacuation of only that building, rather than causing an evacuation of all buildings

Find your local distributor

www.gamewell-fci.com

Honeywell Gamewell-FCI

12 Clintonville Road
Northford, CT 06472
800-328-0103
www.gamewell-fci.com

HWGW_CS_Christiansted | Rev 01 | 10/22/2018
© 2018 Honeywell International Inc.

