

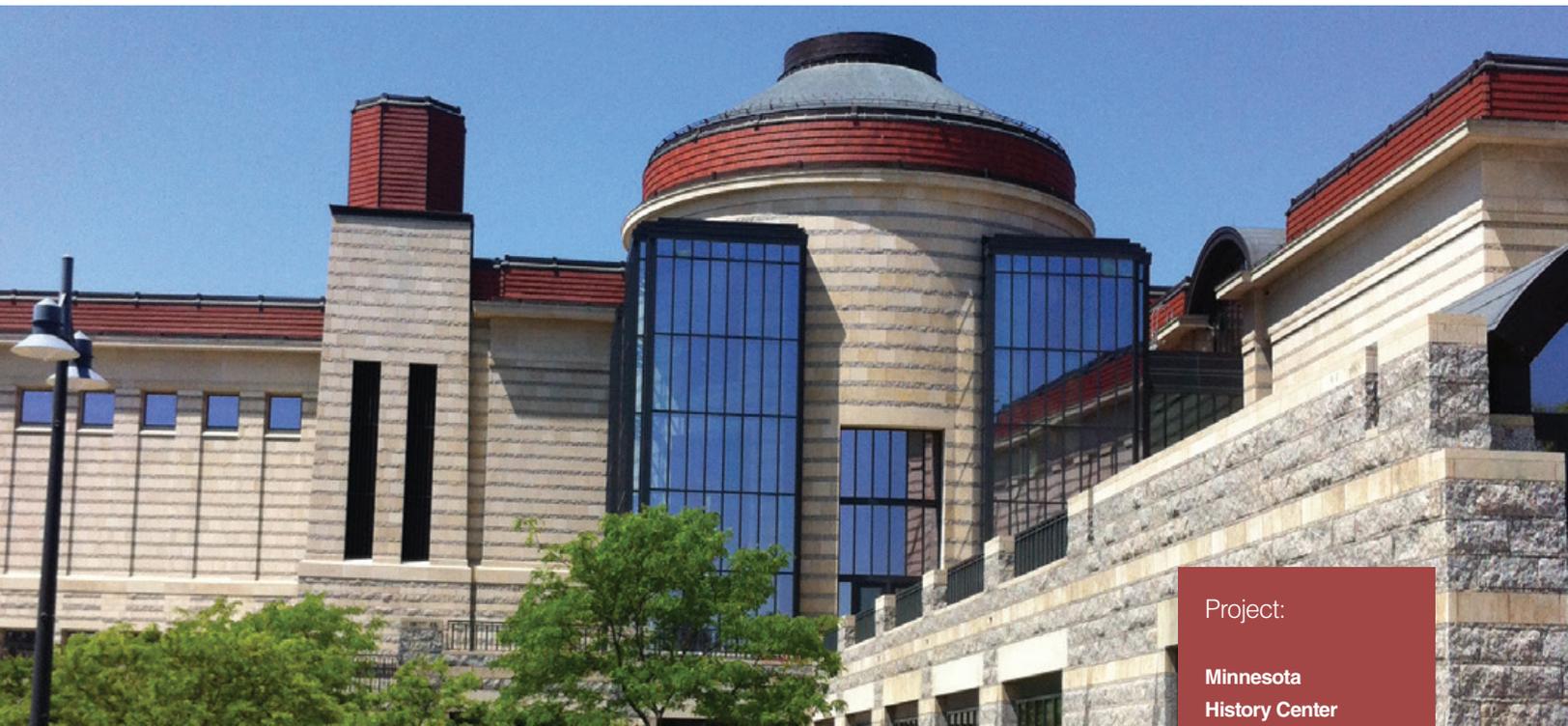


ASPIRATION



Case Study: **Minnesota History Center**

Heritage Under Fire: Protecting Historical Artifacts



The Minnesota History Center installed **FAAST Fire Alarm Aspiration Sensing Technology®** for very early fire detection in its galleries.

The Minnesota History Center, which opened in October of 1992, is home to the Minnesota Historical Society's collections of art and artifacts and provides a place for visitors to discover connections to their past. This landmark building, part of the Minnesota State Capitol complex in St. Paul, Minn., includes 44,000 square feet of museum space and showcases innovative and interactive exhibits, such as a 24-ton box car that visitors can climb aboard and view a multimedia show that recreates the power of a tornado. In addition, the museum displays many artifacts, including pieces from a

traveling exhibit about George Washington, an unusual, early published version of the U.S. Constitution and a rare draft of the Bill of Rights on loan from the Dorothy Tapper Goldman Foundation.

Safeguarding these precious objects and protecting patrons from a fire event is a top priority for the museum. Armed with a comprehensive fire and life safety system, the museum thought it was prepared – until an electrical wire issue caused a small fire in one of the exhibits.

Project:

**Minnesota
History Center**
St. Paul, Minnesota

13



Aspiration FAAST 8100



“It wasn’t detected by the smoke alarms or smoke detectors because the ceilings are very high,” explains Michael Fisch, Facility Manager at the Minnesota History Center.

Fully realizing then that standard smoke detection may respond too late to protect its valuable exhibits, the museum staff researched very early warning fire detection systems for the galleries with the help of a consultant. “Aspirating smoke detection technology was recommended as a good solution for us,” continues Fisch.

“For early warning detection, there is nothing comparable to an aspirating system because it actually samples the air continuously. It’s an active system rather than passively waiting for smoke to arrive,” explains Joe Spencer, project

“Working around the U.S. Constitution exhibit was one of our biggest concerns,” adds Spencer, “making sure not only to protect all the items, but to not damage them because many are priceless and there is no way to replace them.” History center personnel and the ECSI team coordinated to make sure all items were protected.

The ECSI installation team was led by Mike Schmidt, general foreman for the project, capitalizing on his vast experience with aspiration technology. “Having the proper personnel assigned to the job was definitely key to getting things done right,” says Spencer.

Installation in the galleries occurred during a shut down between exhibits or after hours. Special requirements to accommodate the

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manager at ECSI (Electronics Communications Systems Integrator), a St. Paul Engineered Systems Distributor of NOTIFIER® by Honeywell. “They decided on a need for an early warning system, and we decided to go with the latest technology, which was System Sensor’s FFAST aspiration system.”

The FFAST Fire Alarm Aspiration Sensing Technology utilizes a unique Dual Vision sensing technology that uses a high-sensitivity blue LED to detect incipient fire conditions and an infrared laser to detect larger nuisance particulate. Advanced algorithms process data from both sensors to provide the earliest and most accurate fire detection available. FFAST’s combination of high sensitivity to smoke and accuracy is an ideal fit for the museum. It enables early warning of fires while greatly reducing false alarms from dust or other nuisance particulate that could interrupt the museum’s primary display activities. FFAST also provides multiple alert levels and pre-alarm warnings, so the museum can be alerted of potential problems before an actual fire occurs.

open gallery ceiling included using black piping so that it blended and was virtually invisible to the eye, another benefit of aspiration systems. Throughout the three galleries, ECSI integrated 13 FFAST systems into the museum’s existing fire alarm system, made possible through the use of modules and coordination with Honeywell. FFAST oversight is now part of the combined systems’ graphic user interface that is shared throughout the state capitol complex and monitored by a 24-hour security staff that reports to the capitol from all buildings.

While the building – its art and architecture, and the resources it holds – preserves Minnesota’s history, FFAST protects the building’s future.



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