

CASE HISTORY

National Museum of African American History and Culture, Washington DC

Going for the Gold with Chicago Faucets

The Challenge

As part of the National Mall in Washington, D.C., the National Museum of African American History and Culture (NMAAHC) opened in 2016 amidst iconic buildings like the Washington and Lincoln monuments. The approximately 400,000-square-foot museum is the nation's largest and most comprehensive cultural destination devoted to the African American story and its domestic and international history. Five stories below ground and five above make it the deepest museum on the National Mall. The award-winning museum includes exhibition galleries, an education center, a theater, a café, a store, and offices.

Thirty percent of the building, comprising three historical galleries, is on the underground mezzanine levels below grade. Because it sits on a 12-foot water table at a low point in the National Mall, the museum was built like an upright bathtub to keep water out of the building. To create the below-ground gallery space, a concrete wall 75 feet high was built on the north side of the building, and on the south side a foundation wall was built 50 feet deep in the underground space.

From its inception, the design and construction emphasis was on eco-friendliness, with the added requirement to meet Leadership in Energy and Environmental Design (LEED) standards and avoid resource waste. To achieve LEED certification the museum had to meet the prerequisites and earn points in key areas of sustainable design, including reducing water use. The LEED Green Building Rating System™ was developed by the U.S. Green Building Council (USGBC) as the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings.

To help achieve LEED Gold status, reduce water costs, and improve overall environmental stewardship, the faucets in the building, as part of the indoor water strategy, had to be water-efficient. Moreover, the faucets had to be one-percent or less lead content, be recyclable, have low-flow outlets and metering cartridges, be sensor operated, and meet all local codes and standards.

CHICAGO FAUCETS

Geberit Group



Photo credit: Alan Karchmer

The National Museum of African American History and Culture opened on September 24, 2016 on the National Mall in Washington, D.C. The 400,000-square-foot museum is the nation's largest building dedicated to the African American story and its impact on American and World History. In 2018, the museum earned LEED® Gold certification for design and construction.



Sensor-operated, touch-free HyTronic® Edge faucet with SSPS technology.

The Solution

HyTronic® Edge faucets from Chicago Faucets met all the requirements. Approximately 90 of the sensor-operated, touch-free faucets were installed in the museum restrooms and companion rooms. All HyTronic faucets are ADA compliant; the models specified are vandal resistant and feature a 0.5 GPM (1.9 L/min) non-aerating spray outlet. Each faucet uses a Self-Sustaining Power System (SSPS) with a water turbine that generates the necessary power to operate the faucet for more than ten years. The SSPS eliminates battery replacement and the expense of hard-wiring the faucet to the building's power supply.

"We recommended Chicago Faucets over the competition for the museum because of their environmental friendliness and their ability to stand up to the public's daily use," says Ned Dwyer, president of E. J. Dwyer Company and Chicago Faucets representative. "For example, Chicago Faucets uses permanent mold casting that dramatically reduces landfill waste, recycled brass in their castings, and recycled paper and packaging."

"Easy programmability and a comprehensive range of flow options helped meet the most stringent conservation requirements at the museum," says Matt Bruening, Operations Manager at Southland Industries, installer of the faucets. "Because DC is prone to drought, plus the building's LEED requirement, it was important that the faucets we installed met the 0.5 GPM flow rate and code requirements."

This building is the first museum on the National Mall designed to sustainability standards, serving as the Smithsonian's "Green Flag." In 2018, the museum was officially awarded LEED® Gold Certification.

For additional information about HyTronic touch-free faucets, contact The Chicago Faucet Company at 2100 South Clearwater Drive, Des Plaines, Illinois 60018, or call 800-566-2100. You can also visit Chicago Faucets at chicagofaucets.com.

About the National Museum of African American History and Culture

Since opening Sept. 24, 2016, the National Museum of African American History and Culture has welcomed nearly 4.5 million visitors. Occupying a prominent location next to the Washington Monument on the National Mall in Washington, D.C., the nearly 400,000-square-foot museum is the nation's largest and most comprehensive cultural destination devoted exclusively to exploring, documenting and showcasing the African American story and its impact on American and world history. For more information about the museum, visit nmaahc.si.edu, follow @NMAAHC on Twitter, Facebook, Instagram, and Snapchat—or call Smithsonian information at (202) 633-1000.

ECAST®

ECAST®, from Chicago Faucets, is the line of durable, high-quality brass faucets and fixtures that are designed and manufactured with less than one quarter of one percent (0.25%) total lead content by weighted average. These products are intended for installation in locations where federal/state laws and local codes mandate lead content levels or wherever lead content is a concern. In 2014, a new federal law regarding lead content in plumbing products that deliver water for human consumption took effect throughout the United States. Once again, Chicago Faucets is leading the way to respond to these new low-lead initiatives with ECAST®.



Chicago Faucets Commitment to Conservation and Sustainability

Chicago Faucets has a long-standing commitment to water conservation and sustainability. An extensive product offering incorporates low-flow outlets, adjustable metering cartridges, and our line of HyTronic® and EQ Series sensor-operated faucets. All of these products help to conserve water by limiting the flow rate and controlling operation time. Chicago Faucets makes products that are designed to last as long as the building. A product built to last means fewer replacements and less waste from replacing an inferior product. At Chicago Faucets, we believe that quality can have a lasting impact on our natural resources by extending the replacement timeline and reducing the use of raw materials.

Chicago Faucets is a member of the U.S. Green Building Council, developer of The Leadership in Energy and Environmental Design (LEED) Green Building Rating System.™ Chicago Faucets also partners with WaterSense, a program sponsored by the EPA, and promotes water efficiency by enhancing the market for water efficient products, programs, and practices. We are also a charter sponsor of the Alliance for Water Efficiency, a non-profit organization dedicated to the efficient and sustainable use of water.



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