

American Society
of Civil Engineers

VIRGINIA SECTION
CENTENNIAL
1922–2022



Centennial Events

Centennial Celebration Gala

Saturday, March 26, 2022

Omni Richmond Hotel, Richmond, Virginia

Keynote Speaker: ASCE President Dennis Truax, Ph.D.,
P.E., DEE, D.WRE, F.NSPE, F.ASCE

Site Tours

Chesapeake Bay Bridge and Tunnel Boat Tour
Great Falls Canal and Locks Tour

Historic Landmark Plaque Rededications

Fink Truss Bridge
Crozet Tunnel

As part of our Centennial Celebration, the following pages recognize the seven sites in Virginia designated by the ASCE as Historic Civil Engineering Landmarks.
See the back cover for additional information.

ASCE | Virginia Section

Founded: 1922

Objective: Advancement of engineering knowledge and practice, the cultivation of friendly relations with all engineers, the maintenance of high professional standards, and cooperation with other societies, with a view of promoting the general welfare of the engineering profession and the American Society of Civil Engineers.

BLUE RIDGE PARKWAY



While formal authorization from Congress was granted on June 30, 1936, construction began on the Blue Ridge Parkway on September 11, 1935 at Cumberland Knob. The 469-mile roadway links Shenandoah National Park in Virginia to Great Smoky Mountains National Park in North Carolina and has been the most visited unit of the National Parks System every year, except four, since 1946. Built by private contractors under federal contract and several New Deal agencies, the parkway incorporates context-sensitive design to minimize effects on the natural beauty of the Blue Ridge Mountains. The parkway was completed in 1987.

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CROZET'S BLUE RIDGE TUNNEL



The 4,273-foot Crozet's Blue Ridge Tunnel was the longest railroad tunnel in North America when constructed in 1849–1858. Irish and enslaved craftsmen and laborers excavated the tunnel using hand drills and black powder. Chief Engineer Claudius Crozet designed a singular elliptical cross-section to minimize rock removal. Its slope from west to east presented challenges for drainage and ventilation. Crozet developed unique solutions to these problems. In April 1858, the first train traveled the Blue Ridge Tunnel, which remained in use for over 85 years. The demands of larger locomotives and World War II freight traffic necessitated its replacement in 1944.

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FINK DECK TRUSS BRIDGE



This 56-foot, single-span Fink deck truss was built around 1870 to carry trains of the Atlantic, Mississippi and Ohio Railroad (now the Norfolk Southern Railway). The original location of this structure is unknown. In 1893 it was relocated to carry Old Forest Road over the Norfolk and Western Railway in Lynchburg, Virginia. In 1985 the bridge was again relocated to Riverside Park in the City of Lynchburg to preserve its historic significance. This structure is notable as one of only two remaining examples of this design developed by Albert Fink, a German-born civil engineer. During the mid-nineteenth century, the era of railroad expansion, Fink constructed numerous examples of this unique design.

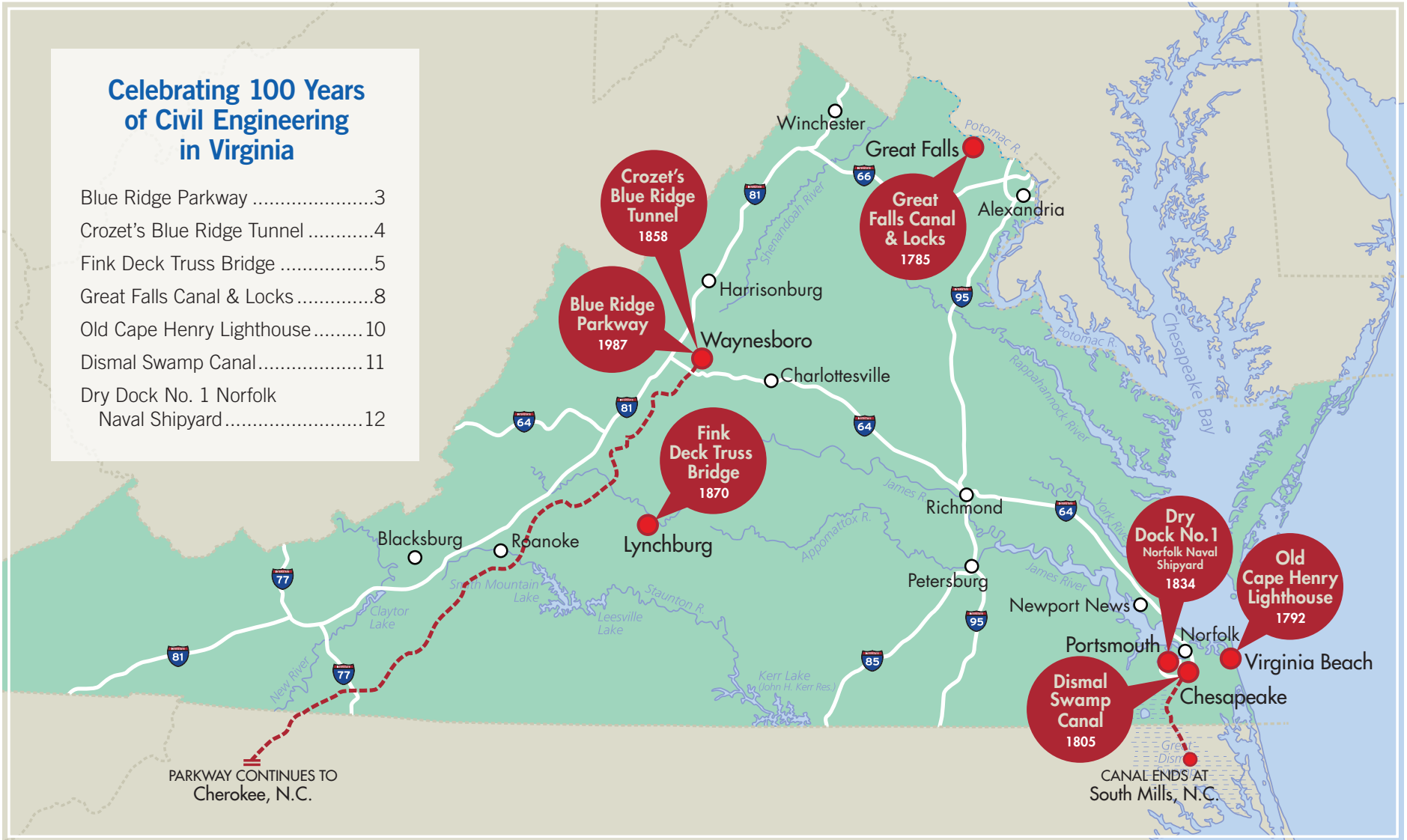
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VIRGINIA HISTORIC CIVIL ENGINEERING LANDMARKS

Celebrating 100 Years of Civil Engineering in Virginia

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GREAT FALLS CANAL & LOCKS



These works were the major feature of the first river navigation system constructed to facilitate trade with the west. This waterway development was begun under the leadership of George Washington as President of the Patowmack Company, 1785–1789. The Great Falls Canal and Locks are one segment of the Patowmack Canal, which involved five individual bypass canals to make the Potomac River navigable north of Washington, D.C. It took 17 years to construct the Patowmack Canal system, which opened in 1802 and operated for 26 years. The Patowmack Canal Charter was acquired by the Chesapeake and Ohio Company, which then constructed a still water canal along the river in Maryland.

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OLD CAPE HENRY LIGHTHOUSE



The Old Cape Henry Lighthouse was the first construction project authorized by the 1st U.S. Congress during its initial session (March 1789–March 1791). Constructed by John McComb, Jr. of New York City, this project set the stage for all subsequent public works projects of the Federal Government. In addition, this specific lighthouse was a vital navigation aid on all shipping through the Virginia Capes, thereby enhancing international and coastal trade with the Mid-Atlantic States. The lighthouse was completed in 1792.

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DISMAL SWAMP CANAL



Colonel William Byrd II initially suggested a canal through the Dismal Swamp in 1728. Subsequently, George Washington's Dismal Swamp Land Company (1763) attempted to drain the swamp for logging. A Dismal Swamp Canal was ultimately proposed by Virginia Governor Patrick Henry in 1784 and completed in 1805 after 12 years of hand excavation by enslaved laborers. The 22-mile canal connects Virginia's Chesapeake Bay and North Carolina's Albemarle Sound, and is the oldest continually operating canal in the United States. In addition to improving trade between the two states, the canal was known as a route for freedom seeking runaway slaves.

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DRY DOCK No.1

NORFOLK NAVAL SHIPYARD



The War of 1812 taught America the importance of a strong navy. Designed by Loammi Baldwin, Jr. and completed in 1834, Dry Dock No. 1 at the Norfolk Naval Shipyard was of a size and complexity not previously known in the United States. Measuring 314 feet long and 100 feet wide, the dry dock was constructed with New England granite and utilized eight lift pumps powered by steam engines. This dry dock, as well as its companion dry dock in the Boston Navy Yard, strengthened the United States' naval capabilities. Dry Dock No. 1 is still in use today.

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Acknowledgements

This Recognition of 100 years of Civil Engineering Excellence in Virginia was made possible through the dedicated work of the Virginia Section's Centennial Celebration Committee, the Gala Sub-Committee, and the Interactive Map Sub-Committee, along with the strong support from the officers of the Virginia Section, the National Capital Section members, and American Society of Civil Engineers officers, staff, and national committees.

**Get details of the
Virginia Section's 2022
Gala Celebration**



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ASCE's Historic Civil
Engineering Landmarks**

**Visit the Virginia
Section's Interactive
Landmark Map**

