

Allegheny Portage Railroad

National Park Service
U.S. Department of the Interior

Allegheny Portage Railroad
National Historic Site



Staple Bend Tunnel



Location

Staple Bend is open as a separate area of Allegheny Portage Railroad National Historic Site since 2001. It is not in the immediate area of the Summit Visitor Center, it is near the town of Mineral Point, 5 miles from Johnstown. It is a two mile walk from the area parking lot to the Staple Bend Tunnel (and, of course, a two mile return trip to your vehicle). You are welcome to bring bicycles, but no motorized transport for the limestone dust surfaced trail.

Directions from the Summit Visitor Center: Take US Route 22 West approximately 17.5 miles to the Mundy's Corner/Nanty Glo exit. Keep right at the fork in the ramp and merge onto PA Route 271 South. Continue on Route 271 South approximately 5 miles until a (marked) left turn onto Mineral Point Road (PA 3030). After approximately 2 miles make a (marked) right turn onto Beech Hill Road and proceed over the bridge. Go through the railroad underpass; the paved parking lot for Staple Bend Tunnel will be located on the right. Please use the paved parking lot and do not block the emergency access road. This same parking area is used for the Path of the Flood trail as well.

History

Finished in June 1833, the Staple Bend tunnel was advertised as the first railroad tunnel in the United States. It was the third tunnel of any kind built in the US, the first tunnels were for other canals in Pennsylvania. Work began on November 21, 1831 and often occurred during inclement conditions. The men were paid \$13 per month plus room and board for 12 hour days 6 days per week.

Workers chipped and blasted 901 feet of solid rock to make the tunnel. Approximately 14,900 cubic yards of bedrock was removed using black powder blasting. This was done by drilling three feet long holes and packing them with powder. Drilling one typical hole took up to three hours of hard effort using a three man crew. Nine to ten holes, each one-inch in diameter and thirty-six inches in length, were made before blasting.

One pound of explosive powder wrapped in paper was pushed into each hole, tamped down, punctured with a sharp needle, and a fuse added. Fuses were lit with explosions to occur at mealtime. Workers would eat while the dust settled then get to work cleaning (mucking) the tunnel. Of the 36-inch hole

drilled only 18 inches, or half of the hole, was blasted. The tunnel grew about 18 inches each day, with both sides moving toward the center.

On December 21, 1832 the workmen broke through the final barrier and connected the two ends of the tunnel. There was much celebration with speeches and toasts. The full tunnel excavation was completed in April 1833.

The ends of the Staple Bend Tunnel were lined with cut stone for safety. Rock and dirt might fall due to rain or other weather, or from the effects of the portage railroad going through the tunnel. The fancy entranceways to the tunnel were to impress the travelers and the general public. The style was described as a "Roman Revival style with low relief lintel supported by Doric pilasters on each side." Of the money spent (the total cost was \$37,498.85) nearly half was to build the fancy entrance ways.

In 1907 Henry Storey wrote that the east entrance facade of the tunnel had been removed for building purposes. He gave no indication of a date or the building on which the stones were used. The west entrance facade remains and has been restored to its former grandeur.

Renovations

After the demise of the old Portage Railroad the tunnel had other uses. Neither the "new Portage" nor the Pennsylvania Railroad used the tunnel. It was instead a popular carriage route until the Flood of 1889. Afterward, Flood damage and other concerns made the tunnel a less desirable driving spot although local residents continued to visit, and even go courting at the tunnel up until the 1940s. In the 1940s a concrete liner was added to the east portal of the tunnel and large water lines as well as a water vault structure were built. The Manufacturer's Water Company closed the tunnel to the public, the water lines were used by Bethlehem Steel. In 2001 the tunnel became part of Allegheny Portage Railroad National Historic Site. Rock bolts, shoring posts, and other reinforcements were added as well as a thin mortar between the historic blocks.

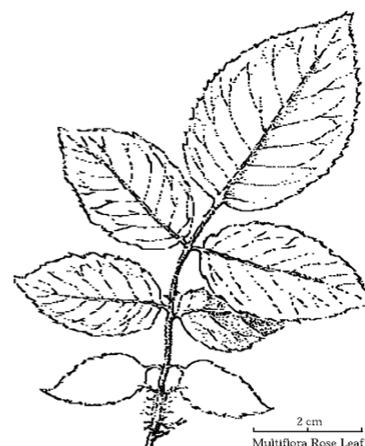
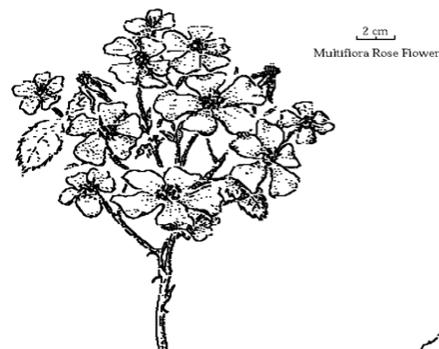
Environmental Concerns

Past History

The immediate area of Staple Bend Tunnel has been extensively strip mined and some spots were used as a slag dump. This leads to concerns over possible soil contamination and acid mine drainages. There are several studies of the area related to these concerns in progress. Park visitors are asked not to disturb any test sites. This is one of the many reasons pets are required to be on a 6 foot leash at all times as well.

Invasive Plants

One need not look far to find a non-native plant species within the park. Many of these plants were used as ornamentals or for erosion prevention and bank stabilization. Now they are invading our native woodlands and fields, and in some cases have reached problematic stages. Efforts are currently underway to maintain control of the most threatening exotic species in areas of the park where the infestations can be managed. The park presently has an integrated pest management program for giant and Japanese knotweed, Japanese barberry, Japanese and exotic bush honeysuckles, multiflora rose and Asiatic bittersweet.



Factors Requiring Caution

West Nile Virus is carried by infected mosquitoes. To reduce the risk of being bitten, avoid wet areas, wear long sleeves and long pants, and use insect repellent.

Lyme Disease is transmitted by infected deer ticks. To reduce your risk, avoid woody, brushy or un-mowed areas, and use insect repellent.

Poisonous plants and animals make their homes in the park. Be aware of your surroundings at all times. Do not put your hands or feet anywhere that you cannot see.

Rabies occurs in our area. Avoid close contact with wildlife and report animals that are behaving in an unusual or aggressive manner.



For Further Reading

[An Account of the Portage Railroad Over the Allegheny Mountains](#)

by S.W. Roberts

[The Pennsylvania Mainline Canal](#)

by Robert McCullough and Walter Leuba

[A Pleasant Peregrination Through the Prettiest Parts of Pennsylvania](#)

by Peregrine Prolix

[Tunneling, Explosive Compounds, and Rock Drills](#)

by Henry S. Drinker