

OHIO DEPARTMENT OF TRANSPORTATION
HISTORIC BRIDGE SURVEY REPORT

2/17/2011



SFN #: 0732141 County: BELMONT Municipality: BLAINE
NR Rec: Eligible Previous Inventory/Date: ARCH SUPPLEMENT, 1994 Status: Select

ODOT District: Owner: COUNTY Lat/Long: /
Location: 0.25 MI W OF JCT US 40 (BLAINE HILL "S" BRIDGE/BICENTEN UTM: 17.515260.4434990
Feature On: TR 649 (OLD NATIONAL ROAD)
Feature Intersected: WHEELING CREEK
Type: ARCH Design:
Material: STONE
Railing Type: STONE PARAPETS
Spans: 3 Overall Length: ft. Out to Out Width: ft. Roadway Width: 0 ft.
Year Built: 1826 Alteration (Date): 1915,2004 Source: ODOT Inspection Files
Designer/Builder

Setting/Context:

The bridge carries a pedestrian walkway over the stream in a setting of 20th-century residents at the foot of Blaine Hill. The open-spandrel arch bridge carrying US 40 is adjacent.

Physical Description:

The 3 span, stone arch bridge has stone parapets, brick roadway surface, string course, coursed ashlar spandrel walls, and arch rings. The piers have rounded ends that extend upward into shaped, tapered pilasters. Built in 1826, it partially collapsed in 1998.

Integrity:

Following the partial collapse in 1998, the bridge was rehabilitated to the Secretary of Interior's Standards (no adverse effect).

Summary of Significance:

The Blaine "S" Bridge is one of the signature bridges on the old National Road and was selected as Ohio's Bicentennial Bridge. It has been rehabilitated without adversely affecting the significance/integrity. The eligible recommendation of the prior assessment remains appropriate.

Stone arch highway bridges and culverts are not uncommon in Ohio with approximately 190 examples dating from ca. 1825 to 1940 (Phase 1A Survey, 2008). Significant examples date to the 2nd quarter of the 19th century (fewer than 26 pre-1851) and are often associated with historically important transportation routes such as the National Road and the state's early canals or railroads. Later examples may have significance on the merits of the aesthetic quality/craftsmanship of the masonry work or in association with parks, such as the stone arch bridges in Cleveland's Rockefeller Park (ca. 1897-1904) or Youngstown's Mill Creek Park (ca. 1913). Stone arch culverts have roadways on earth fill atop the arch, which may or may not have headwalls, but they are the same traditional technology as arch bridges that have spandrel walls and parapets.

"The immigrants who settled America came from European countries where masonry arch bridge construction was well established. Our most distinctive collection of stone arch bridges are found on the early, eastern trunkline railroads such as the B&O and Erie railroads. Early turnpikes such as the National Road had impressive stone arch bridges in Maryland. Along the road in Ohio, the famous S-bridges were built. Canals such as the Erie and the Chesapeake & Ohio had stone arch aqueducts. The technology of stone arch construction is ancient. Increased use of metal truss

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bridges from the late 1800s into the early twentieth century, led to a decline in stone arch bridge construction. The strength and durability of stone arch bridges made them popular. Generally, stone arch bridges built during the nineteenth century are found today in areas where good stone was available. Stone arches were common in the first half of the nineteenth century, and a number of these structures still exist. Stone arch bridges from the late eighteenth and first half of the nineteenth century are highly significant if they retain their character-defining features, which include the arch ring with keystone, barrel, spandrel wall, parapet, headwalls and abutments/wingwalls. Piers may also be a character-defining feature. Many of these stone arch structures possess both engineering and historical significance for their associations with the work programs of the Great 1930s. Stone arch bridges that do not fit within these areas (early, Depression-era, association with parks) generally possess less significance, but are still significant." [From: A Context for Common Historic Bridge Types by Parsons Brinckerhoff, October 2005]

Reviewed By/ Date: JPH (12/07)

Notes:

Bridge partially collapsed in 1998, OHPO concurrence 4/1/99 no adverse effect stabilization of bridge/TEA project. IOC, 2/2/00, modify the bridge. Currently being rehabbed. Major rehab completed in 2003-04.

For Eligible Bridge:

Level of Significance: High

Justification:

The bridge ranks as oldest complete stone arch in the state, and it is a character-defining landmark on the National Road. It is the most historically and technologically example of its type in the state.

In Management Plan (2009)? No