

Stone Arch Bridges

Brackenville Road (Road 274) over Mill Creek

*State Bridge NC-177
Southwest of Hockessin,
New Castle County
Designer/Builder: Unknown
1846*

Brackenville Road over Mill Creek bridge is a single-span, 26'-long, stone arch bridge with rubble fieldstone spandrel walls, arch ring, and voussoirs. The bridge was widened in 1965 by the addition of a cantilevered concrete slab deck that resulted in the removal of the stone parapets. In 1996, the Delaware Department of Transportation replaced the 1965 deck with another pre-cast concrete slab deck with 3'-wide cantilevered overhangs and metal beam guide rails. The arch intrados is coated with shotcrete, and the spandrel walls have been re-pointed and patched with concrete. The

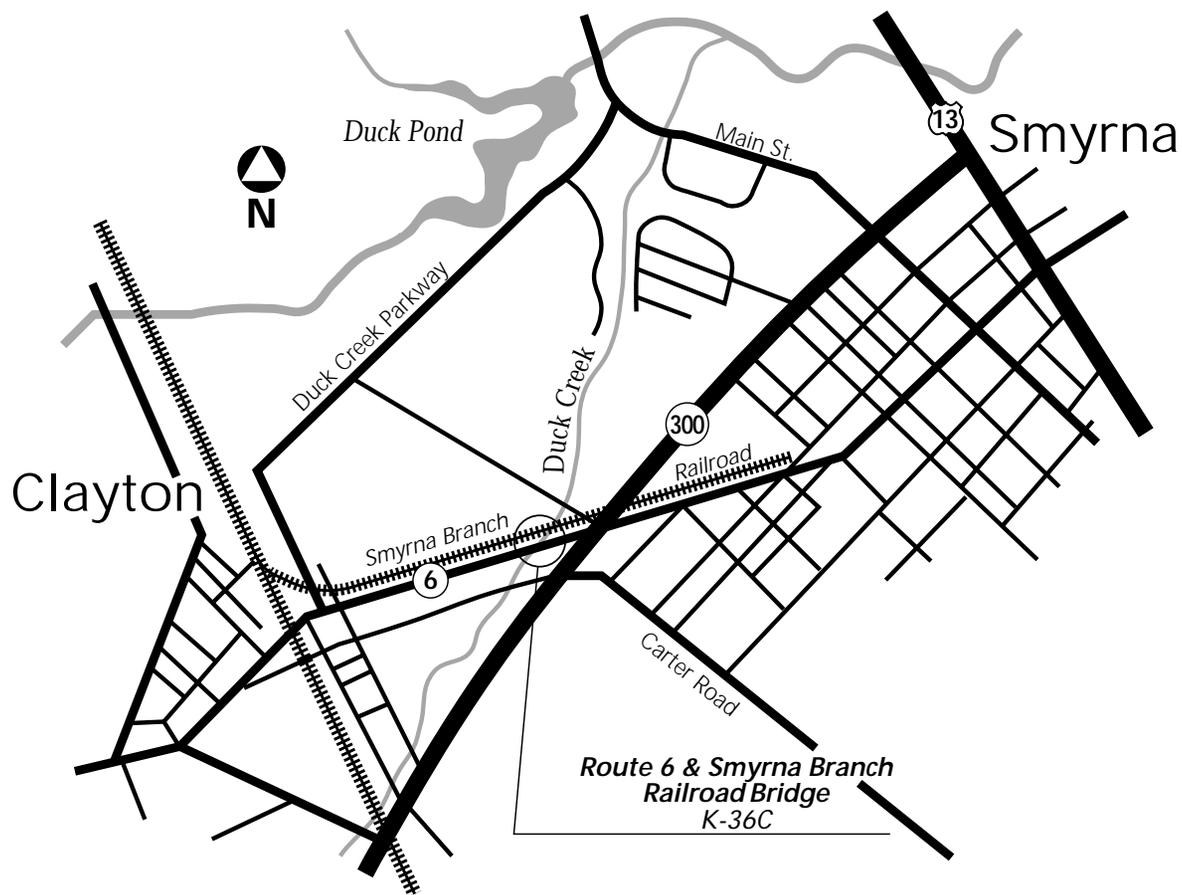
Brackenville Road bridge (State Bridge NC-177) is a one-span, 26'-long stone arch bridge.



Brackenville Road bridge as it appeared in 1921, before the parapets had been removed and the cantilevered concrete slab deck added in 1965.

The datestone in the spandrel wall reads "N. C. C. 1846," indicating the stone arch was built under the auspices of New Castle County's Levy Court.





State Route 6 and Smyrna Branch Railroad over Duck Creek

*State Bridge K-39C
Clayton, Kent County
Designer/Builder: Unknown
ca. 1860*

bridge was documented to Historic American Engineer Record standards in 1996. The 1846 stone arch bridge, although altered from the deck up, is one of only four stone arch highway bridges identified by the survey. It is historically significant based on the rarity of traditional stone arch highway bridges in the state.

The skewed, one-span, 18'-long bridge consists of a 35'-wide rubble stone arch on its south (upstream) side to carry two lanes of State Route 6 and a 29'-wide reinforced concrete arch on its north (downstream) side to carry the abandoned right-of-way of the Smyrna Branch Railroad. The date of construction of the stone arch is ca. 1860 based on its style and local history. The date of construction of the reinforced concrete arch is 1916 based on an inscription in the plain concrete spandrel wall. A concrete sidewalk and a metal beam guide rail were added to the stone arch side of the bridge ca. 1969. Flared concrete