

CHELYAN BRIDGE
Spanning the Kanawha River at U.S. Route 61 spur
Chelyan
Kanawha County
West Virginia

HAER No. WV-46

HAER
WVA
20-CHEY
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

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WVA
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HISTORIC AMERICAN ENGINEERING RECORD

CHELYAN BRIDGE

HAER NO. WV-46

LOCATION: US Route 61 Spur, spanning the Kanawha River
Chelyan
Kanawha County, West Virginia

UTM: 17.456910.4227610
Quad: Cedar Grove, West Virginia, 1:24,000

DATE OF
CONSTRUCTION: 1928-29

ENGINEER: J. E. Greiner Company

ARCHITECT: Unknown

PRESENT OWNER: West Virginia Division of Highways
Charleston, West Virginia 25305

PRESENT USE: Vehicular Bridge

SIGNIFICANCE: This bridge, spanning the Kanawha River at Chelyan, was constructed in 1928-29. The construction of the bridge showed how the volume of traffic increased as advances were made in the automobile industry and the automobile became more in demand. It was also evidence of the increase in coal production. Consisting of seventeen spans, it is an excellent example of an early twentieth century steel bridge.

PROJECT
INFORMATION: The project is part of the statewide bridge replacement and upgrading program. Due to the poor condition of the structure, heavy traffic, and potential closure of the structure to all traffic with future deterioration, the existing bridge warrants replacement.

Michael K. Wilson, Historian
West Virginia Division of Highways
Charleston, West Virginia 25305
November 16, 1993

Built in 1928-29, the Chelyan Bridge is an excellent example of an early Twentieth Century steel bridge. The bridge crosses the Kanawha River which has long been one of the most important waterways in the state. The structure consists of seventeen spans. The main section is comprised of three cantilevered Pennsylvania through-trusses constructed of riveted members. The through-truss spans on the north and south are each two hundred feet long. The center span is four hundred fifty feet in length. The south approach viaduct consists of thirteen spans and is a total of four hundred eighty-seven feet long. The northern approach is eighteen feet in length and spans the CSX railroad. These fourteen approach spans are of simple girder and steel beam design. The spans are supported by riveted steel piers. These spans comprise five hundred five feet of the total one thousand three hundred fifty-five feet length of the bridge.

The clear width between middle piers fourteen and fifteen is four hundred thirty feet. These piers are constructed of portland cement concrete. The normal distance from the river surface to the bottom of the roadway, at the mid-point of the bridge, is eighty-nine feet, six inches.

The first quality road into the Greenbrier Valley was constructed in 1782 from Warm Springs, Virginia to Lewisburg. In about 1790 the Midland Trail was extended onto Gauley Bridge at the headwaters of the Kanawha River. The road mainly followed the old Kanawha Trail which had been a buffalo path. This road would become what is present day US 60. In 1800 the roadbed was widened and was extended to the Ohio River, thus passing through the project site.

In 1809 the Midland Trail became a toll road with toll gates installed in several places. The toll gates were usually put in at or near a house in which the toll collector and his family lived. The tolls were used for the upkeep of the road. In addition, the name of the road became the James River and Kanawha Turnpike.

After additional improvements were made in 1826, the turnpike became one of the most important east-west routes in the region. During a two month period, in 1826, 26,000 hogs went from the Ohio Valley to eastern markets. During the same period, the road accommodated immigrants, slaves, cargo, and wagons of infinite types.

The first major industry in the area was salt manufacturing. As early as 1780, Thomas Jefferson, then Governor of Virginia, issued a patent to George Washington and Andrew Lewis for 250 acres above Malden, which is approximately eight miles west of present day Chelyan. This land later passed to the Dickinson and Shrewsbury Company which operated in the area.

The first commercial salt manufacturer in the Kanawha Valley was Elisha Brooks in 1797. The salt from the area came to be known as "red salt from Kanawha" because of its iron content. The salt earned a well-deserved reputation for making butter and curing meat before the days of refrigeration.

The first large scale producers were David and Joseph Ruffner in 1807. By 1835 Kanawha Valley salt makers were producing over one million bushels a year. The James River and Kanawha Turnpike played a vital role in the transportation of salt to markets with assistance from flat-boats and steamboats.

When our country was gripped by civil war the turnpike was valuable to both sides. Since the rough terrain of then western Virginia made it difficult for tactical movements and roads of quality were few in the region, the turnpike was widely used by both Federals and Confederates for the transport of troops and supplies. Action was common all along the turnpike, most notably at Gauley Bridge in Fayette County and Lewisburg in Greenbrier County.

As the coal industry grew in West Virginia, so did the area. This is especially true for the area of eastern Kanawha County where the Chelyan Community is located. When local coal companies began hiring more and more miners, the small towns and communities grew rapidly. Communities such as Diamond, Dickinson, Cabin Creek, and Chelyan were first settled in the 1880's and grew with the coal industry and the arrival of the Kanawha and Michigan Railroad.

Possibly more important than the turnpike in the transportation of coal was the Kanawha River. On July 3, 1880, Lock #4 opened below the present Chelyan Bridge. This was just one part of a complete system of locks and dams that aided barge traffic on the Kanawha River. Lock #4 was later replaced downstream by the Marmet lock in the 1930's.

As automobile traffic became more popular, as well as necessary, the need for a major bridge to connect the growing communities and commercial interests along the upper Kanawha Valley became apparent. The Chelyan Bridge was constructed in 1928-29 for the Midland Trail-Kanawha River Bridge Company by General Contracting Corporation for a total cost of \$592,112.73. The consulting engineering firm was the J.E. Greiner Company of Baltimore, Maryland. The piers were designed and arranged to facilitate barge traffic that flowed into the nearby lock.

The structure was originally a toll bridge. A toll house, constructed near the south end, provided shelter for the toll collectors. The first toll collector seems to have been L. R. "Coxie" Eskins. The toll house was later removed and today no evidence remains of the structure.

The Chelyan Bridge was purchased by the West Virginia State Road Commission (now the West Virginia Division of Highways) in 1946 from the Midland Trail-James River Bridge Company for the sum of \$431,900.00.

Since completion, three major renovations have been needed. In 1963 a new concrete deck replaced the old surface and curbs were added. In 1970, a new sidewalk was constructed. There were also improvements to the roadway, the concrete slab deck, the curbs, and the substructure. The final major rehabilitation work was done in the years of 1985-88. Work was completed to replace deteriorated diagonals, laterals, sway frames, and ends of stringers. Also, sections of the deck were replaced and steel towers at the piers were replaced. This work was done to strengthen the bridge and insure a remaining life of ten years. Originally, the Chelyan Bridge carried up to forty ton loads, but current conditions have forced a twelve ton weight limit.

The Chelyan Bridge is being replaced as part of the West Virginia statewide bridge replacement and upgrading program. Due to the deteriorated condition of the old bridge, construction at the time of this writing is scheduled to begin on the new Chelyan Bridge in early 1995.

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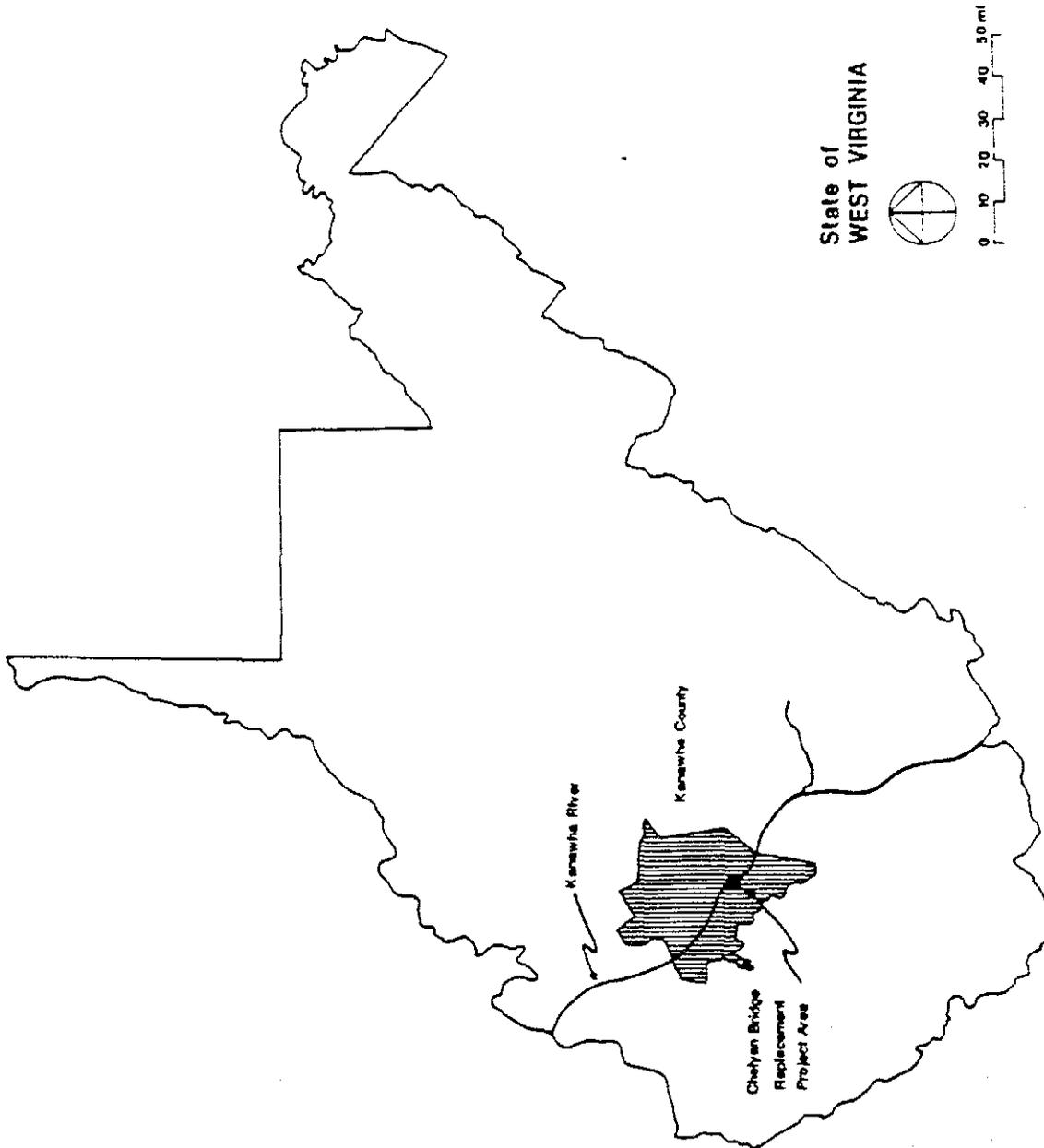
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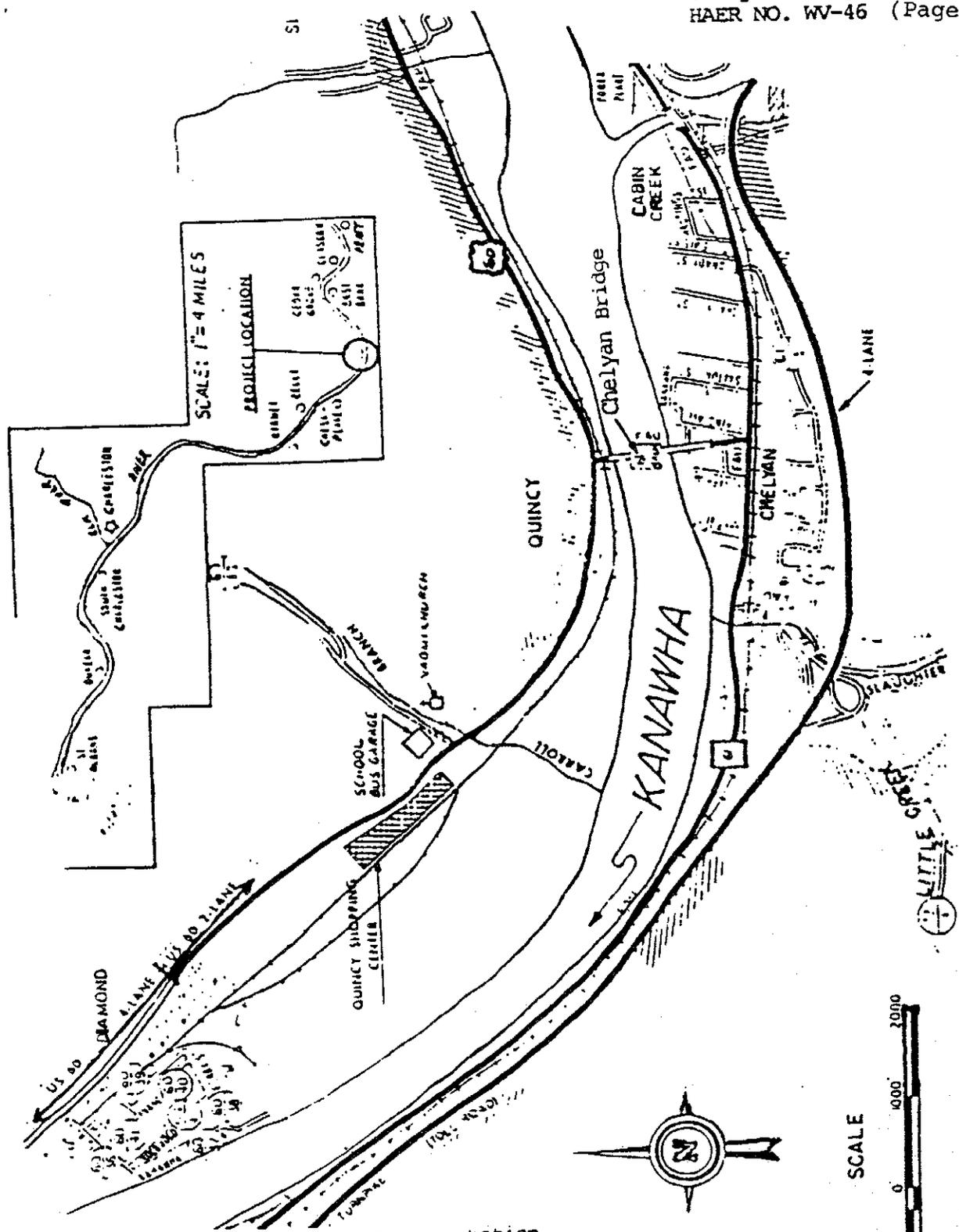
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West Virginia Department of Transportation
 Urban Location Map



ADDENDUM TO:
CHELYAN BRIDGE
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FIELD RECORDS

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National Park Service
U.S. Department of the Interior
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