

HISTORIC AMERICAN ENGINEERING RECORD
ISABELL CREEK BRIDGE HAER No.

Location: State Highway 105, Section 1,
Log Mile 6.97, 7 miles north of Atkins,
Pope County, Arkansas

Date of Construction: 1927-1928

Builder: Maxwell Construction Company,
Columbus, Kansas

Present Owner: Arkansas Highway and Transportation Dept.

Present Use: Vehicular Traffic
To be demolished 1992-1993

Significance: The Isabell Creek bridge was an integral part of the north-south central Arkansas route of State Highway 105. It is one of the few specimens of the open spandrel concrete deck arch remaining in the State, and is situated in an attractive natural and man-made setting. It is a very fine example of the smaller, single span form of this bridge type, and also of an institutionally designed structure.

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ISABELL CREEK BRIDGE
HISTORICAL NARRATIVE

By the late 1920's, scarcely 30 years after the invention of the "horse-less carriage", the impact and importance of the automobile was recognized across America. A nationwide network of highways was in the foreseeable future, and technology was being developed and adapted to meet the needs of a motorized public. Ground surface transportation has always been a basic necessity and a system of roads and bridges had been more or less in place in various parts of the country for the previous century. With the advent of the automobile perceptions of space and time began to alter, from short distance - long time to long distance - short time. To meet the needs of motor travel roads and bridges were being widened, strengthened and improved.

Arkansas Highway and Transportation Department Job Number 859 was initiated to construct six bridges on a new state highway between Atkins and Hector. State Highway 105 was one of a series of highways designed to furnish links between the scattered population in the Ozark Mountains of north Arkansas and the more populous region of the Arkansas River Valley. Bridge Number 811 was one of the six bridges built under this job.

Job Number 859 was advertised through a "Notice to Contractors" in the Arkansas Gazette and the Arkansas Democrat on May 9, 1928. Seven firms bid on the project; Pioneer Construction

Company of Kansas City, Missouri, Lakeside Bridge and Steel Company of Dardanelles, Arkansas, C. W. Green of Rogers, Arkansas, Newell Construction Company of Birmingham, Alabama, Maxwell Construction Company of Columbus, Kansas, Turk Construction Company of Little Rock, Arkansas, and Lynch and Hall Construction Company of Little Rock, Arkansas.

Maxwell Construction was awarded the job for a bid estimate of \$40,053.57, the cost of Bridge Number 811 being \$15,567.75. In a letter dated May 21, 1928 Maxwell Construction was officially informed of the award and the Work Order was issued May 24, 1928.

Mrs. Agnes Coffman Duvall, a long time resident of Pope County, attended school at Oak Grove as a young girl, and recalls that, prior to the bridge being built, she had to cross Isabell Creek on a foot log using a wire hand hold which was also strung across the creek. All pedestrian traffic used the log foot bridge, while wagon traffic forded the creek on the east side of the present bridge. Mrs. Duvall adds that the bridge and road were constructed at the same time. Her recollection is that the bridge was open at least to foot traffic in March, 1928. She says she was able to use the bridge to cross the creek in March of 1928 in order to get to school, March having been the last month of the school year at that time. Her recollection is at variance with AHTD records which show construction beginning in May of 1928 and the bridges being completed in approximately 100

days. It is possible Mrs. Duvall may have the year confused, but her recollection of conditions is certainly valid. Her information is generally verified by Mrs. Lawrence Biffle who has lived in Oak Grove all her life and is a contemporary of Mrs. Duvall.

It is possible that work on the highway was begun prior to the bridge construction which might help account for the variance in dates in Mrs. Duvall's account. Regardless, the six Atkins to Hector bridges and Highway 105 were part of the early efforts to modernize the state's surface transportation system in response to the ever increasing importance of the motor car.

Bridge Number 811 is classified as a Type 111 structure, a concrete deck arch. The main span of this bridge is a 70-foot open spandrel deck arch, which is augmented by a group of four approach spans of Type 103 construction. Type 103 is a concrete girder and floor beam system. The overall structure length is 173 feet. This bridge is not a particularly large example of this type of construction, but it is an excellent example of the form, and is situated in a very attractive rural setting.

The relatively narrow, 18-foot, deck width has caused the bridge to be classified as functionally obsolete. Eighteen feet are sufficient for two passenger cars to pass, but modern truck traffic, not to mention modern trucks, being what they are, this width is too narrow for two-way traffic on the bridge.

REFERENCES

Arkansas Highway and Transportation Department Records:

Job Record, Job Number 859, Bridge Division; original card on file, AHTD Bridge Division, Little Rock, Arkansas.

Bridge Card, Bridge Number 811, original card on file, AHTD Bridge Division, Little Rock, Arkansas

Other Forms and Correspondence, AHTD Microfilm Archives, Little Rock, Arkansas

1. Letter, May 8, 1928, State Highway Engineer to Arkansas Gazette, "Notice to Contractors"
2. Letter, May 21, 1928 to Maxwell Construction Company announcing the award of the contract.
3. Letter, May 24, 1928, Work Order issued by State Highway Engineer to Maxwell Construction Company

Arkansas Highway Commission, 8th Biennial Report for period ending June 30, 1928, Supplemental to September 30, 1928. Page 55, Table 3, Record of Road and Bridge Contracts Awarded January 1, 1928 to September 30, 1928

Arkansas Highway Commission, 9th Biennial Report for period ending June 30, 1930, Supplemental to August 31, 1930. Page 166, Table 11, Record of Road and Bridge Contracts Awarded January 1, 1928 to December 30, 1928