

HABS/HAER INVENTORY

See "HABS/HAER Inventory Guidelines" before filling out this card.

1. NAME(S) OF STRUCTURE

Allentown Bridge (Rio Puerco Bridge)

ADOT: 3073

3. DATE(S) OF CONSTRUCTION

1923

2. LOCATION

Indian Route 9402 over the Puerco River; milepost 9.10
4.4 miles east of Houck; NW1/4 S27 T22N R30E
Apache County, Arizona

4. USE (ORIGINAL/CURRENT)

highway bridge / roadway bridge

6. RATING

NRHP eligible: local significance

6. CONDITION

fair; sufficiency rating: 48.6

owner: U.S. Bureau of Indian Affairs

span number : 1
span length : 90.0'
total length: 206.0'
roadway wdt.: 15.2'

superstructure: riveted steel 9-panel Pratt deck truss w/ cantilevered ends
substructure : concrete abutments w/ solid concrete piers
floor decking : timber deck
other features: top chord: 2 channels w/ cover plate and webbing; lower chord: 2 channels w/ batten plates; vertical: wide flange; diagonal: wide flange; strut: 4 angles w/ webbing; lateral bracing: 1 angle; floor beam: I beam; steel lattice guardrails; timber stringer / pile approach spans, both sides

7. DESCRIPTION

In 1922, the Arizona Highway Department began the major reconstruction of the Holbrook-Lupton Highway between Adamana and the state line. Two critical components of the project were the erection of substantial bridges over the Rio Puerco near the small Indian settlements of Allentown and Sanders. For the Allentown Bridge, AHD staff engineers designed a medium-span deck truss with 20' cantilevered ends. Using money from the state road fund and an Apache County bond issue, AHD let the contracts for the Sanders and Allentown bridges and a small pony truss over Lupton Arroyo at Lupton on January 1, 1923. The Midland Bridge Company of Denver was awarded the contract for the Allentown bridge. Midland began construction of the bridge on January 17 and, using steel milled by Illinois, completed the structure on July 11. Total construction cost: \$11,675. Both the Allentown and Sanders crossings were removed from the highway by another realignment in 1931, and the bridges have since carried local traffic on the Navajo Indian Reservation.

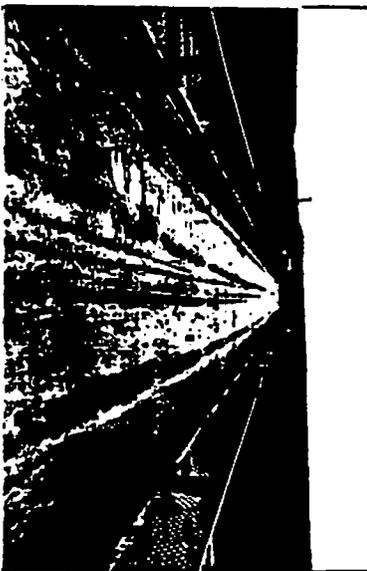
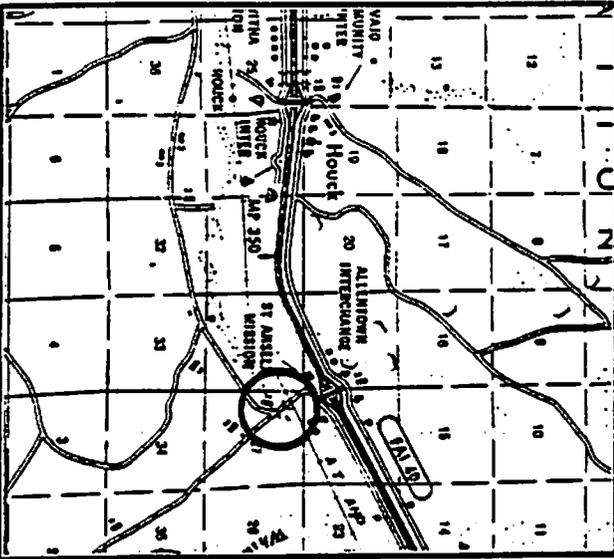
8. HISTORICAL DATA

Later designated U.S. Highway 66, the Santa Fe Highway was a major transcontinental route across northern Arizona. Before the construction of this bridge, traffic on the highway often was forced to wait up to 24 hours for the Rio Puerco to subside enough to permit fording. The Allentown Bridge thus formed an important link on a major interstate route. The Allentown Bridge is further significant as one of the earliest deck trusses built by the State Engineer, erected by a regionally active bridge contractor. Technologically, the Allentown Bridge is distinguished as one of the two earliest deck trusses identified in the inventory (other: Little Hell Canyon Bridge, 1923). Its cantilevered ends are unique among Arizona's vehicular trusses, but by no means technologically noteworthy.

9. SIGNIFICANCE

10. NAME(S) OF STRUCTURE
Allentown Bridge

11. PHOTOS (W/ FILM ROLL # FRAME NO.) AND SKETCH MAP OF LOCATION



LOCATION MAP
TAKEN FROM DEPARTMENT OF TRANSPORTATION
GENERAL HIGHWAY MAP

Bridge Record, Arizona State Highway System: 3037; Structures Section, Arizona Department of Transportation, Phoenix AZ
Fifth Biennial Report of the State Engineer, Arizona, 1920-1922 (n.p., 1922), pages 54, 93-94.
Sixth Biennial Report of the State Engineer, Arizona, 1922-1924 (Phoenix: Manufacturing Stationers, Inc., 1924),
pages 145, 166, 172.
Seventh Biennial Report of the State Engineer, Arizona, 1924-1926 (Phoenix: Kelly Print, 1926), page 51.
Field inspection by Clayton Fraser, 9 October 1986.

13. INVENTORIED BY:

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AFFILIATION

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DATE

1 Apr 11 1987

