orm No. 10-300 REV. (9/77)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED MAR 27 1981
DATE ENTERED MAY 5 1981

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Gillespie Dam Highway Bridge

AND/OR COMMON
Gila River Bridge - Gillespie Dam

2 LOCATION

STREET & NUMBER
NW of Gila Bend
Rural
__NOT FOR PUBLICATION

CITY, TOWN
Gila Bend mc X VICINITY OF
CONGRESSIONAL DISTRICT
3

STATE	CODE	COUNTY	CODE
Arizona	04	Maricopa	013

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	X COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	X TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME
Maricopa County

STREET & NUMBER
Administration Building, Room 603, 111 S. Third Ave.

CITY, TOWN
Phoenix __ VICINITY OF
STATE
Arizona

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Maricopa County Recorder's Officer

STREET & NUMBER
111 S. Third Avenue

CITY, TOWN
Phoenix
STATE
Arizona

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Arizona Historic Engineering Site Inventory

DATE
May 19, 1978
__FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
History of Engineering Program, Texas Tech University

CITY, TOWN
Lubbock
STATE
Texas

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	X UNALTERED	X ORIGINAL SITE
X GOOD	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Gillespie Dam Highway Bridge is located on the Gila River, about 23 miles north of Gila Bend, Arizona. It is a nine span through truss bridge of steel and concrete construction. Five of the spans are Parker type, riveted through trusses 200 feet in length, while four of the spans are riveted, Parker type trusses that are 160 feet long. Total length of the spans is 1,640 feet. The roadway extends 30 feet 6 inches past the end of the bridge at each end, for a total length of 1,701 feet. The deck of the bridge is concrete, poured over four rows of steel stringers. The roadway is 22 feet wide, with a 21 foot clear width. The nine through truss spans rest on ten large concrete piers sunk various depths into the river bed. These piers give the bridge extremely deep and solid foundations, ranging from 10 to 40 feet in depth. The steel used in the bridge weighs approximately 1,200 tons while almost 3,200 cubic yards of concrete were used in the concrete deck and piers. The load rating of the bridge is set to accommodate two 15-ton trucks abreast, with a 30 percent allowance for impact. The bridge is still in sound physical condition although it needs painting and some other minor maintenance.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
__1800-1899	X COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	X TRANSPORTATION	
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1927 BUILDER/ARCHITECT Arizona Highway Department/ Lee Moor Construction Co.

STATEMENT OF SIGNIFICANCE

The Gillespie Dam Highway Bridge, built in 1927, is a significant structure for two major reasons; its size and its strategic function. When completed, the bridge was the longest through truss bridge in the state of Arizona, and was also one of the longest bridges of any type in the state. The Gillespie Dam Highway Bridge also transformed the Yuma-Phoenix Highway into an all-weather route. Until the bridge was built, the traffic on this major east-west transportation artery was forced to cross the Gila River on the apron of the Gillespie Dam, which is several hundred yards upstream from the bridge site. This was an unsatisfactory route, since the annual flooding of the Gila River closed this major artery for several weeks each year. The construction of the Gillespie Dam Highway Bridge eliminated this awkward and dangerous situation and allowed a steady increase in east-west traffic.

The state of Arizona began to consider constructing a bridge across the Gila River at or near Gillespie Dam as early as mid-1925. By December of 1925, the state was taking bids on the structure. In February of 1926, the Lee Moor Construction Company of Tucson was awarded the contract of approximately $330,000. Eighteen months later, on August 1, 1927 the bridge was opened to traffic. The Gillespie Dam Bridge served faithfully as a major structure on U.S. 80, the Phoenix-Yuma Highway, until 1956. In that year, U.S. 80 was realigned and the old bridge reverted to county ownership. It still serves its original function, although at a lesser scale. It is an impressive structure and is one of a dozen or so surviving through truss bridges left in Arizona. If preserved and maintained the Gillespie Dam Highway Bridge could continue to serve the state for many more decades, at a minimal cost to the county road department.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

See continuation sheet

UTM NOT VERIFIED

ACREAGE NOT VERIFIED

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 4.25 acres

QUADRANGLE NAME Spring Mountain, Arizona QUADRANGLE SCALE 7.5'

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	12	334940	3676760
B	12	335480	3677100
C			
D			
E			
F			
G			
H			

VERBAL BOUNDARY DESCRIPTION The nominated boundaries of this nomination shall be a line and all area 50' either side of a line, between Point A and Point B. This will create a rectangle 100' wide and 1,701' long, and the structures will be within this rectangle.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Don Abbe, Project Manager

ORGANIZATION: History of Engineering Program, Texas Tech University

DATE: July 16, 1980

STREET & NUMBER: P.O. Box 4089

TELEPHONE: (806) 742-3591

CITY OR TOWN: Lubbock

STATE: Texas

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE X LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE Richard W. Stamm

TITLE Acting State Historic Preservation Officer DATE 19 MAR 81

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

Entered in the National Register DATE 5/5/81

Deborah Byers

for KEEPER OF THE NATIONAL REGISTER

ATTEST: DATE

CHIEF OF REGISTRATION

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

"Arizona's Longest Steel Highway Bridge." Arizona Highways. Vol. 1, No. 12, (December, 1925), p. 6.

"Conditions of Roads on Arizona State Highway System." Arizona Highways. Vol. 3, No. 3, (March, 1927), pp. 15, 23.

"The Engineer's Log." Arizona Highways. Vol. 3, No. 1, (January, 1927), pp. 14, 16, 17.

"Gila River Bridge near Gillespie Dam, Important Link on Phoenix-Yuma Highway, Open to Traffic." Arizona Highways. Vol. 3, No. 7, (October, 1927), pp. 14, 15.

"New Gila River Bridge Near Gillespie Dam." Arizona Highways. Vol. 3, No. 7, (October, 1927), unpaged frontspiece.

"New State Bridge Over Gila River." Arizona Republican. August 2, 1927.

"Renovated Old Bridge Might Combat Floods. The Gila River Crossing Bridge May Be Replaced by a Bridge Five Times Its Size Which Might Cause Flooding on the Maricopa Road 22 Miles South of Phoenix." Arizona Republic. August 1, 1927.

"Seventeen Hundred Foot Bridge Over the Gila Near Gillespie Dam is Opened for Use." Arizona Republic. August 1, 1927.

PREV. LISTED

HABS/HAER INVENTORY

81000136

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

1. NAME(S) OF STRUCTURE

Gillespie Dam Bridge (Gila River Bridge) ADOT: 8021

2. LOCATION

Old U.S. Highway 80 over the Gila River
6.7 miles south of Arlington; NE1/4 S28 T2S R5W
Maricopa County, Arizona

113

3. DATE(S) OF CONSTRUCTION

1926-27

4. USE (ORIGINAL/CURRENT)

highway bridge / roadway bridge

5. RATING

individually listed, NRHP: state significance

6. CONDITION

good; sufficiency rating: 56.3 owner: Maricopa County

7. DESCRIPTION

span number : 9
span length : 200.0'
total length: 1662.0'
roadway wdt.: 19.0'

superstructure: riveted steel, 8- and 10-panel Camelback through trusses
substructure : concrete abutment and wingwalls w/ solid concrete piers
floor/decking : concrete deck over steel stringers
other features: upper chord: 2 channels w/ cover plate and double webbing; lower chord: 2 channels w/ batten plates, vertical: 2 channels w/ webbing; diagonal: 2 channels / angles w/ batten plates; strut: 4 angles w/ webbing; floor beam: I beam; lateral bracing: 1 angle; steel pipe guardrails

8. HISTORICAL DATA

The Arizona Highway Department began planning for a concrete girder bridge over the Gila River at this point even before Frank Gillespie completed his dam in 1921. In the interim , a novel crossing was devised in which autos were pulled by horse teams across an apron poured at the dam's downstream toe. Mindful of the problems encountered at other large-scale concrete bridges over the Gila, AHD in April 1925 contracted for soundings and borings and then hired a consulting engineer to help locate and design the structure. For its superstructure, the engineers designed a series of Camelback through trusses weighing a total of 1175 tons. Most of the concrete piers could be placed on bedrock at a 25'depth, with the deepest pier extending 43' below the river bed. In January 1926, 11 contractors bid for the construction. AHD let the contract to the low bidder, Lee Moor Construction Company of El Paso, Texas. Moor began work on the piers immediately and completed the immense structure in July. Total cost: $320,000. After a route realignment in 1956, the Gillespie Dam Bridge reverted to county bridge status, under which it now functions unaltered.

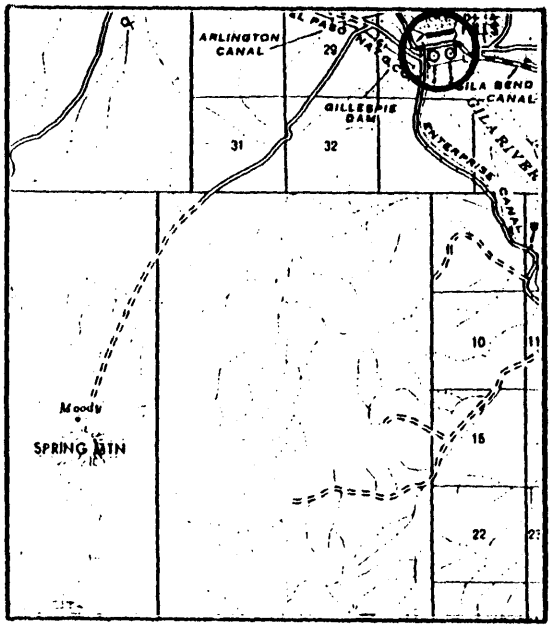
9. SIGNIFICANCE

Prior to 1927, traffic on the Ocean-to-Ocean Highway at this point was often halted by flooding on the Gila River. The Gillespie Dam Bridge was thus strategically important to Arizona in that it finally allowed all-weather travel over this vital transcontinental route. Technologically, the bridge is noteworthy as one of the longest vehicular structures in the state. Of the five longest vehicular bridges in Arizona in 1927 (Antelope Hill, 1765'; Gillespie Dam, 1660'; Tempe, 1508'; Sacaton, 1486'; Florence, 1430'), the Gillespie Dam Bridge was the only steel structure. Several multi-span vehicular through trusses were erected in the state in the 1910s and 20s, but through attrition, only two exist today (the other: Boulder Creek (Wickenburg) Bridge). Individually listed on NRHP in 1981, the Gillespie Dam is one of the most important examples of early bridge construction in Arizona.

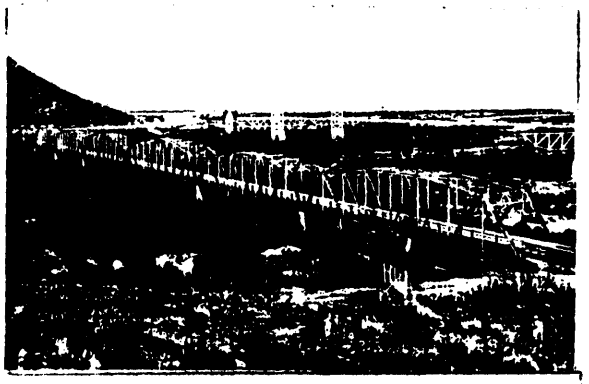
10. NAME(S) OF STRUCTURE

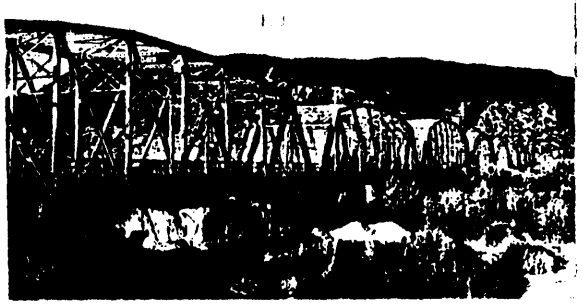
Gillespie Dam Bridge (Gila River Bridge)

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



LOCATION MAP
TAKEN FROM DEPARTMENT OF TRANSPORTATION GENERAL HIGHWAY MAP





Field inspection by Clayton Fraser, 26 March 1987.

12. SOURCES

Bridge Record, Arizona City Streets and County Roads: 8021; Structures Section, Arizona Department of Transportation, Phoenix AZ.

Fourth Biennial Report of the State Engineer of Arizona, 1918-1920, (Phoenix: Republican Print Shop, 1920), page 61; Seventh Biennial Report of the State Engineer of Arizona, 1924-1926, (Phoenix: Kelly Print, 1924), pages 67-68,116-7; "Arizona's Largest Steel Highway Bridge," Arizona Highways, 12:1925:6; "Gila River Bridge near Gillespie Dam, Important Link on Phoenix-Yuma Highway, Open to Traffic," Arizona Highways, 10:1927:6-7; "Seventeen Hundred Foot Bridge over the Gila near Gillespie Dam is Opened for Use," Arizona Republican, 1 August 1927; "New State Bridge over Gila River," Arizona Republican, 2 August 1927.

13. INVENTORIED BY:	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign Loveland Colorado	1 April 1987