

DALLAS COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*DALL01	J 782	Bennett Springs Bridge	2-105' concrete open spandrel arch 1931 Martin Wunderlich
*DALL02	X 195	Niangua River Bridge	1-130' pinned Pratt through truss c1910 moved by division maint. crew (replaced)
DALL03	109000.3	Culvert	
*DALL04	310000.7	Dousinberry Creek Bridge	1- 40' pinned Pratt half-hip pony truss c1910 Canton Bridge Co., Canton OH

EXCLUDED:

Steel stringer

L 339	114000.3	152000.3	224R01.0	353000.6	363000.3	380000.7
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Concrete girder

G 911R	H 834R	X 60	238000.0	433000.1
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Concrete slab

G 910R	G 912R	S 454	030001.2	132000.9	170001.5	180000.3	204000.3
216000.2	230001.6	265000.8	305R00.4				

Concrete box / steel pipe culvert

H 818	H 820	H 821	H 822	H 823	H 835	H 836
H 837	H 838	J 113	K 206	L 215	L 282	T 34
X 678	012000.6	381000.3				

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	1	0	0	3
Excluded	22	19	0	0	41
	24	20	0	0	44 structures

Bennett Springs Bridge

DALL01

GENERAL DATA

structure no.: J 782	city/town: 0.2 mile west of Bennett Springs
county: Dallas	feature inters.: Niangua River
	cadastral grid: S25, T35N, R18W
	highway route: State Highway 64
	highway distr.: 8
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: concrete, 2-rib, open spandrel arch, with 2-span concrete girder at south approach and 4-span concrete girder at north approach	
substructure: concrete abutments, wingwalls and spill-through piers, with fluted pylons (rock and stone blocks under abutment and wingwalls on north side)	
span number: 2	condition: good
span length: 105.0'	alterations: none
total length: 467.0'	floor/decking : asphalt over concrete
roadway width: 22.0'	other features: Missouri State Highway Department standard concrete guardrails with square balusters and paneled bulkheads; bridge plate: MISSOURI HIGHWAY DEPARTMENT / BRIDGE No. J782 / 1931

HISTORICAL DATA

erection date: 1931	
erection cost: \$39,397.50	
designer: Missouri State Highway Department	
fabricator : none	
contractor: Martin Wunderlich	
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 782; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.	
sign. rating: 49	
evaluation: NRHP possibly eligible (typically configured example of MSHD open-spandrel arch design)	

inventoried by: Clayton B. Fraser 9 March 1992

Niangua River Bridge

DALL02

GENERAL DATA

structure no.: X 195	city/town: 5.2 miles north of Long Lane
county: Dallas	feature inters.: Niangua River
	cadastral grid: S8, T34N, R18W
	highway route: State Supplementary Route K
	highway distr.: 8
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss, with steel stringer approach spans	
substructure: concrete abutments, wingwalls and solid concrete piers	
span number: 1	condition: good
span length: 130.0'	alterations: truss moved, 1936
total length: 295.0'	floor/decking : asphalt-covered concrete over steel stringers
roadway width: 20.0'	other features: upper chord and inclined end post: 2 channels with double lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with double lacing (2 rectangular eyebars at hip); diagonal: 2 rectangular eyebars; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to lower chord pins; guardrail: 2 wide channels

HISTORICAL DATA

erection date: c1910; moved 1936	
erection cost: unknown	
designer: unknown	
fabricator : Scullin Steel Company	
contractor: unknown	
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 195; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.
sign. rating: 27	
evaluation:	NRHP determined non-eligible (typically configured, inadequately documented example of common structural type moved to this location)

inventoried by: Clayton B. Fraser 9 March 1992

Dousinberry Creek Bridge

DALL04

GENERAL DATA

structure no.:	310000.7	city/town:	2.7 miles southeast of Long Lane
county:	Dallas	feature inters.:	Dousinberry Creek
		cadastral grid:	S11, T33N, R18W
		highway route:	County Road 310
		highway distr.:	8
		current owner:	Dallas County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt half-hip pony truss
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	40.0'	alterations:	none
total length:	40.0'	floor/decking :	timber deck over steel stringers
roadway width:	10.9'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; decorative acorn-shaped finials (broken) at hips

HISTORICAL DATA

erection date: c1910
erection cost: unknown
designer: Canton Bridge Company, Canton OH
fabricator : Canton Bridge Company, Canton OH;
Jones and Laughlin Steel Company, Pittsburgh PA
contractor: Canton Bridge Company, Canton OH
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 310000.7; field inspection by Clayton Fraser, 30 January 1990.
sign. rating: 30
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 9 March 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Bennett Springs Bridge
MHTD: J 782

DALL01

DATE(S) OF CONSTRUCTION

1931

LOCATION

State Highway 64 over Niangua River; S25, T35N, R18W
0.2 mile west of Bennett Springs; Dallas County, Missouri

USE (ORIGINAL / CURRENT)

highway bridge / highway bridge

RATING NRHP potentially eligible (score: 49)

CONDITION

good

OWNER

Missouri Highway and Transportation Department

span number: 2
span length: 105.0'
total length: 467.0'
roadway wdt.: 22.0'

superstructure: concrete, 2-rib, open spandrel arch, with 2-span concrete girder at south approach and 4-span concrete girder at north approach
substructure: concrete abutments, wingwalls and spill-through piers, with fluted pylons (rock and stone blocks under abutment and wingwalls on north side)
floor/decking: asphalt over concrete
other features: Missouri State Highway Department standard concrete guardrails with square balusters and paneled bulkheads; bridge plate: **MISSOURI HIGHWAY DEPARTMENT / BRIDGE No. J782 / 1931**

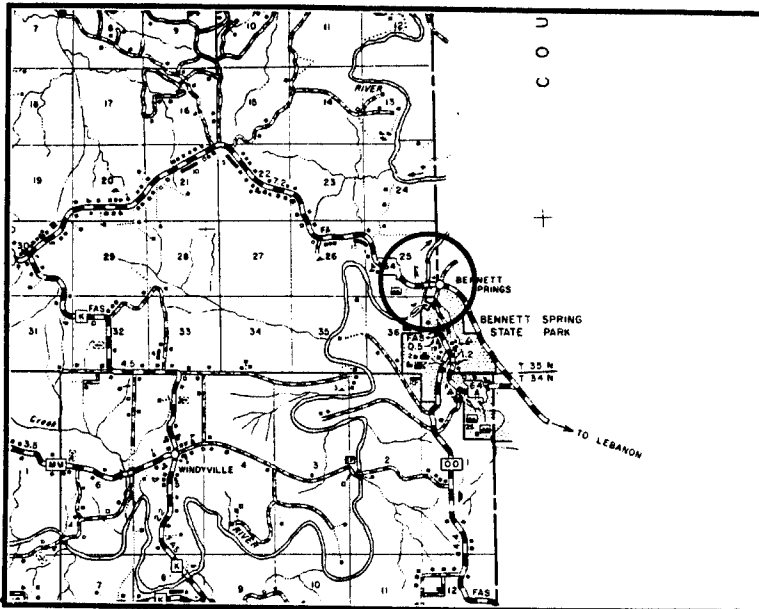
This multiple-span concrete bridge carries Missouri State Highway 64 over the Niangua River on the outskirts of the small town of Bennett Springs, in eastern Dallas County. The bridge features a pair of two-rib, open spandrel arches, flanked on both sides by concrete deck girder approach spans. The approaches and channel spans are all supported by concrete abutments and spill-through piers. The existing Bennett Springs Bridge dates to 1931. Early that year the Missouri State Highway Department designed this concrete structure to replace an earlier bridge at this crossing. In May 1931 competitive bids for the bridge's construction were received, and the highway commission awarded the contract to Martin Wunderlich for \$39,397.50. Since its completion, the Bennett Springs Bridge has carried relatively light highway traffic, in unaltered condition.

In the mid-1920s, the Missouri State Highway Department developed standard plans for an open spandrel concrete arch design. Ranging in span length from 80 feet to 150 feet, these arches featured two fairly massive ribs that supported vertical columns with splayed tops to support a partially cantilevered deck. The highway department built open spandrel arches to replace earlier steel or iron trusses at major river crossings throughout the state, but for some reason concentrated their construction in the Ozark region in southwest Missouri. Never very common, less than forty such bridges remain in place today. Built in Dallas County with a span length of 105 feet and an erection date of 1931, the Bennett Springs Bridge fits well within the mainstream of this construction trend. It is a well-preserved example of MSHD large-scale concrete bridge construction.

NAME(S) OF STRUCTURE

Bennett Springs Bridge

PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP

SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 782; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1990
