

# CAMDEN COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
*CAMD01	J 296R	Niangua River Bridge	<b>3-343'</b> riveted cantilever through truss 1931 Wisconsin Bridge and Iron Co.
*CAMD02	J 832	Grand Glaize Bridge	(removed)
*CAMD03	K 510A	Niangua River Bridge	<b>5-401'</b> riveted cantilever deck truss 1936 W.A. Ross Construction Co.
*CAMD04	K 961R	Hurricane Deck Bridge	<b>5-463'</b> riveted cantilever deck truss 1935 W.A. Ross Construction Co.
*CAMD05	S 391	Little Niangua R. Bridge	<b>3-225'</b> steel cable suspension bridge 1933 Clinton Bridge Works
CAMD06	178000.7	Bridge	1- 24' c1930 stone masonry arch

## EXCLUDED:

Steel stringer  
 S 392 S 503 XS499 XS500 XS501 237001.1 366001.4

Concrete girder  
 G 807 T 345 W 251 X 490

Concrete slab  
 167000.9 195000.1

Concrete box culvert  
 G 806R

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	4	1	0	0	5
Excluded	10	4	0	0	14
	14	5	0	0	19 structures

# Niangua River Bridge

CAMD01

## GENERAL DATA

structure no.:	J 296R	city/town:	2.7 miles southwest of Camdenton
county:	Camden	feature inters.:	Niangua River
		cadastral grid:	S34, T38N, R17W
		highway route:	U.S. Highway 54
		highway distr.:	5
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, 14-panel, rigid-connected Warren cantilever through truss, with flanking 6-panel, rigid-connected Pratt through truss approach spans

substructure: concrete abutments, wingwalls and piers

span number:	3	condition:	good
span length:	343.0'	alterations:	none
total length:	1229.0'	floor/decking :	asphalt-covered concrete over steel stringers
roadway width:	20.0'	other features:	inclined end post: 2 channels with cover plate and double lacing; upper chord: 2 channels with double lacing; lower chord: 2 channels with batten plates; vertical: wide flange or 4 angles with continuous plate; diagonal: 2 channels with double lacing; lateral bracing: 2 angles with lacing; strut: 4 angles with lacing; floor beam: I-beam; guardrail: steel pipe; Missouri Highway Department bridge plate

## HISTORICAL DATA

erection date: 1930-31

erection cost: \$180,157.49

designer: Missouri State Highway Department

fabricator : Wisconsin Bridge and Iron Company, Milwaukee WI;  
Illinois Steel Company, Chicago IL

contractor: Wisconsin Bridge and Iron Company, Milwaukee WI

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 296R; **Seventh Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1930, page 259; **Ninth Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1934, page 426; Missouri Highway and Transportation Department Primary System Bridge Record, Book 1, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 5 May 1990.

sign. rating: 54

evaluation: NRHP determined eligible (well-preserved example of long-span truss construction)

Inventoried by: Clayton B. Fraser 15 March 1993

# Niangua River Bridge

CAMD03

## GENERAL DATA

structure no.:	K 510A	city/town:	6.3 miles northwest of Camdenton
county:	Camden	feature inters.:	Lake of the Ozarks
		cadastral grid:	S33, T39N, R17W
		highway route:	Missouri State Highway 5
		highway distr.:	5
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, rigid-connected, Warren cantilever deck truss  
substructure: concrete abutments, wingwalls and piers

span number:	2; 3	condition:	good
span length:	315'; 401'	alterations:	none
total length:	1958.0'	floor/decking :	asphalt-covered concrete deck over steel stringers
roadway width:	20.0'	other features:	upper and lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates; diagonal: 2 built-up channels with lacing; 4 angles with batten plates; lateral bracing: 2 angles with batten plates; strut: 4 angles with lacing; floor beam: I-beam with cantilevered sidewalks; guardrail: steel rail

## HISTORICAL DATA

erection date: 1935-36  
erection cost: \$530,899.14  
designer: Missouri State Highway Department  
fabricator : Illinois Steel Company, Chicago IL  
contractor: W.A. Ross Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 510A; Missouri Highway and Transportation Department Primary System Bridge Record, Book 1, located at Bridge Division, MHTD, Jefferson City MO; Tenth Biennial Report of the State Highway Commission of Missouri, for the period ending 1 December 1936, page 262; field inspection by Clayton Fraser, 5 May 1990.

sign. rating: 70  
evaluation: NRHP eligible (outstanding long-span example of uncommon structural type)

inventoried by: Clayton B. Fraser 15 March 1993

# Hurricane Deck Bridge

CAMD04

## GENERAL DATA

structure no.:	K 961R	city/town:	1.0 mile southwest of Hurricane Deck
county:	Camden	feature inters.:	Osage River / Lake of the Ozarks
		cadastral grid:	S16, T39N, R17W
		highway route:	Missouri State Highway 5
		highway distr.:	5
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, rigid-connected, Warren cantilever deck truss  
substructure: concrete abutments, wingwalls and piers

span number:	3; 2	condition:	good
span length:	463'; 377'	alterations:	approach span and bridge deck replaced, 1985
total length:	2281.0'	floor/decking:	asphalt covered concrete deck over steel stringers
roadway width:	28.0'	other features:	upper and lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates; diagonal: 2 built-up channels with lacing; 4 angles with batten plates; lateral bracing: 2 angles with batten plates; strut: 4 angles with lacing; floor beam: I-beam with cantilevered sidewalks; guardrail: steel rail

## HISTORICAL DATA

erection date: 1934-35  
erection cost: \$655,000.00  
designer: Missouri State Highway Department  
fabricator: Illinois Steel Company, Chicago IL  
contractor: W.A. Ross Construction Company;  
Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 961R; Primary System Bridge Record, Camden County, located at Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; field inspection by Clayton Fraser, 5 May 1990.

sign. rating: 76  
evaluation: NRHP eligible (outstanding long-span example of uncommon structural type)

inventoried by: Clayton B. Fraser 15 March 1993

# Little Niangua River Bridge

CAMD05

## GENERAL DATA

structure no.:	S 391	city/town:	7.7 miles northeast of Macks Creek
county:	Camden	feature inters.:	Little Niangua River
		cadastral grid:	S4, T38N, R19W
		highway route:	State Secondary Route J
		highway distr.:	5
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel cable suspension bridge with pinned and rigid steel towers  
substructure: concrete abutments, wingwalls and spill-through pedestal piers

span number:	3	condition:	good
span length:	225.0'	alterations:	none
total length:	524.0'	floor/decking :	asphalt-covered timber over steel stringers
roadway width:	20.0'	other features:	tower: 2 channels with lacing; vertical: 2 wide flanges with batten plates; diagonal: 2 angles with batten plates; lateral bracing: 2 angles; floor beam: I-beam field riveted to vertical; guardrail: 2 angles; main cable: 4 separate galvanized wound cables; 1 cable suspender; I-beam through girder; cables connected with pinned eyebars which lead into deadmen at abutments

## HISTORICAL DATA

erection date: 1932-33  
erection cost: \$36,914.00  
designer: Howard Mullins, Engineer, Missouri Highway and Transportation Department  
fabricator : Skully Steel Company;  
American Steel and Wire Company, Trenton NJ  
contractor: Clinton Bridge Works, Clinton IA  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 391; **Eighth Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1932, page 240; "Self-Anchored Suspension Bridge Built in Missouri," **Engineering News-Record**, vol. 111, no. 13, (28 September 1933), pages 367-370; field inspection by Clayton Fraser, 5 May 1990.  
sign. rating: 77  
evaluation: NRHP eligible (nationally significant exercise in structural engineering)

inventoried by: Clayton B. Fraser 15 March 1993

# Bridge

CAMD06

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## GENERAL DATA

structure no.:	178000.7	city/town:	3.0 miles south of Osage Beach
county:	Camden	feature inters.:	intermittent stream
		cadastral grid:	S18, T39N, R15W
		highway route:	County Road 178
		highway distr.:	5
		current owner:	Camden County

## STRUCTURAL DATA

superstructure:	stone arch		
substructure:	stone abutments		
span number:	1	condition:	fair
span length:	24.0'	alterations:	unknown
total length:	34.0'	floor/decking :	earth fill over stone
roadway width:	20.0'	other features:	unknown

## HISTORICAL DATA

erection date:	c1930		
erection cost:	unknown		
designer:	unknown		
fabricator :	unknown		
contractor :	unknown		
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 178000.7; field inspection by Clayton Fraser, 5 May 1990.		
sign. rating:	29		
evaluation:	NRHP non-eligible (inadequately documented example of small-scale stone bridge construction)		

inventoried by: Clayton B. Fraser 15 March 1993

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Niangua River Bridge  
MHTD: J 296R

CAMD01

**DATE(S) OF CONSTRUCTION**

1930-31

**LOCATION**

U.S. Highway 54 over Niangua River; S34, T38N, R17W  
2.7 miles southwest of Camdenton; Camden County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP determined eligible (score: 54)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3  
span length: 343.0'  
total length: 1229.0'  
roadway wdt.: 20.0'

superstructure: steel, 14-panel, rigid-connected Warren cantilever through truss, with flanking 6-panel, rigid-connected Pratt through truss approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: asphalt-covered concrete over steel stringers  
other features: inclined end post: 2 channels with cover plate and double lacing; upper chord: 2 channels with double lacing; lower chord: 2 channels with batten plates; vertical: wide flange or 4 angles with continuous plate; diagonal: 2 channels with double lacing; lateral bracing: 2 angles with lacing; strut: 4 angles with lacing; floor beam: I-beam; guardrail: steel pipe; Missouri Highway Department bridge plate

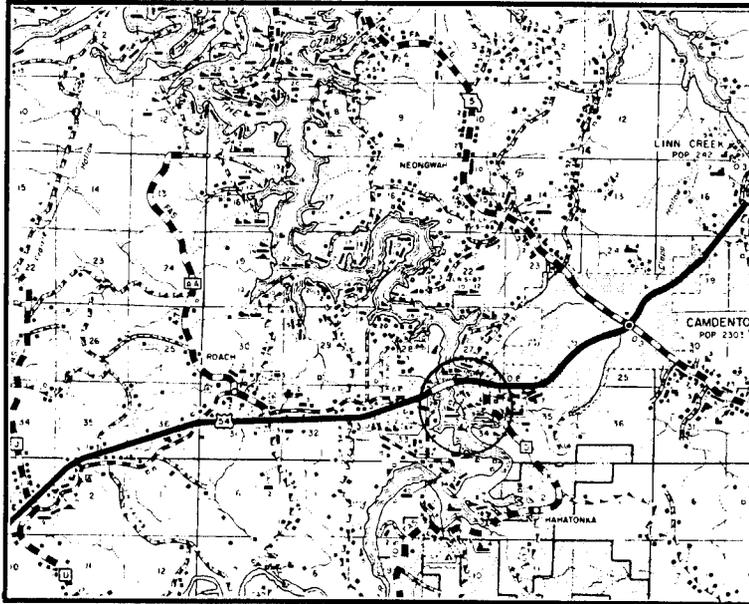
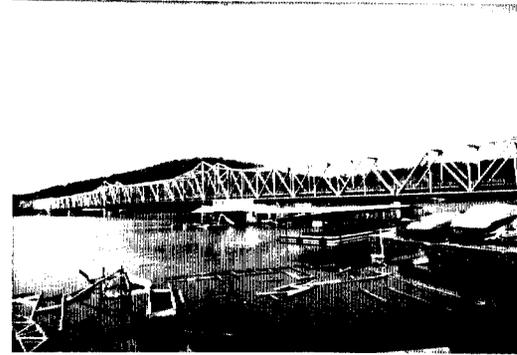
Spanning the Niangua River, this long-span steel truss carries U.S. Highway 54 in south-central Camden County. The bridge is comprised of a central 196-foot Warren truss span suspended from 196-foot cantilever arms over dumbbell concrete piers; the center span is flanked on both sides by anchor spans and simply supported Pratt truss approaches. With an overall length of 1,229 feet, the Niangua River Bridge was designed in the fall of 1930 by engineers for the Missouri State Highway Department. "The superstructure will be of steel cantilever truss design and the substructure of reinforced concrete carried to solid rock," MSHD stated in 1930. A contract to fabricate and erect the bridge was let to the Wisconsin Bridge and Iron Company of Milwaukee, Wisconsin, on October 11, 1930. Using steel components rolled in Chicago by the Illinois Steel Company, WB&I finished construction the following year. Total cost: \$180,157.49. Other than the installation of navigation lights in 1939, the Niangua River Bridge has functioned in place in unaltered condition since its completion in 1931.

During the 1929-1930 biennium, the Missouri State Highway Department produced designs for 529 bridges, ranging from 10 feet to 3,154 feet in length. Most were short-span concrete or steel structures, the longer of which were comprised of Warren pony trusses or Pratt through trusses, simply supported by concrete piers. With its cantilevered through truss spanning 343 feet, the Niangua River Bridge was among the state's longer spans erected during the period. It is distinguished as one of the longer steel spans in Missouri and one of only a dozen such cantilevered trusses in the state.

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**NAME(S) OF STRUCTURE**

Niangua River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 296R; **Seventh Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1930, page 259; **Ninth Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1934, page 426; Missouri Highway and Transportation Department Primary System Bridge Record, Book 1, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**15 March 1993

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Niangua River Bridge  
MHTD: K 510A

CAMD03

**DATE(S) OF CONSTRUCTION**

1935-36

**LOCATION**

Missouri State Highway 5 over Lake of the Ozarks; S33, T39N, R17W  
6.3 miles northwest of Camdenton; Camden County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP eligible (score: 70)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 2; 3

span length: 315'; 401'

total length: 1958.0'

roadway wdt.: 20.0'

superstructure: steel, rigid-connected, Warren cantilever deck truss

substructure: concrete abutments, wingwalls and piers

floor/decking: asphalt-covered concrete deck over steel stringers

other features: upper and lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates; diagonal: 2 built-up channels with lacing; 4 angles with batten plates; lateral bracing: 2 angles with batten plates; strut: 4 angles with lacing; floor beam: I-beam with cantilevered sidewalks; guardrail: steel rail

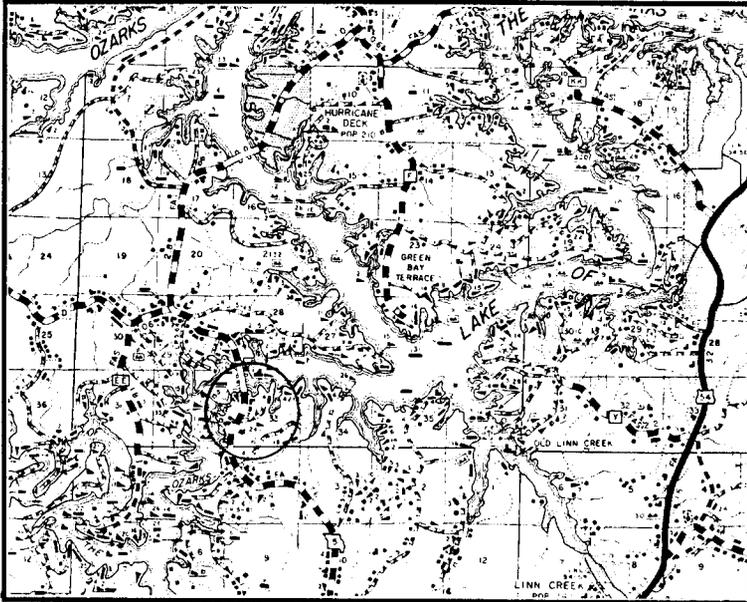
Situated some six miles northwest of Camdenton, this dramatic long-span structure carries State Highway 5 over the Niangua Arm of Lake of the Ozarks. Featuring an exceedingly rare cantilever deck truss, the superstructure is supported by concrete piers and abutments. The design for this five-span bridge was completed in the summer of 1935 by engineers for the Missouri State Highway Department. "This bridge is 1,958 feet in length," MSHD reported in 1936. "The superstructure consists of 2-57' I-beams, 2-315' and 3-401' deck cantilever truss spans. All foundations are of concrete piers and carried to rock." A contract for the bridge's fabrication and erection was let that September to the W.A. Ross Construction Company. Using steel components rolled by the Illinois Steel Company of Chicago, the contractors erected the bridge in 1936 for \$530,899.14. Virtually unchanged since its completion, the Niangua River Bridge continues to carry traffic in central Camden County.

During the late 19th and early 20th centuries, numerous through and pony trusses were built on roads and highways throughout Missouri. Deck trusses—in which the roadway is carried by the truss's upper chords—were built far less often. Never very common, this truss type has suffered attrition throughout the state, until only six deck trusses are now listed in Missouri's Structure Inventory and Appraisal list. Significantly, all are located on the state highway system, and were built in the 1930s. Three of these bridges span the Lake of the Ozarks in Camden County. Of the remaining deck trusses, only the Camden County bridges employ cantilevered construction; the balance are all simply supported. Listed as one of the most important bridges built in the 1935-36 biennium, the Niangua River Bridge thus stands out as the second longest of Missouri's remaining deck trusses and one of only three such cantilevered spans in the state.

**NAME(S) OF STRUCTURE**

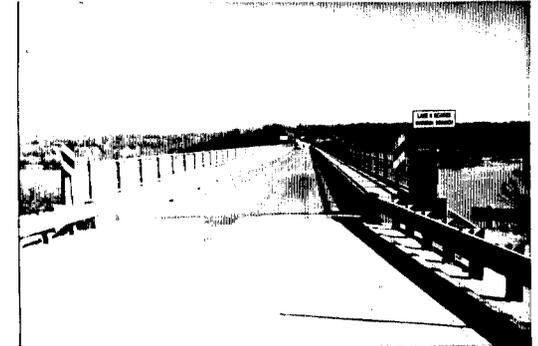
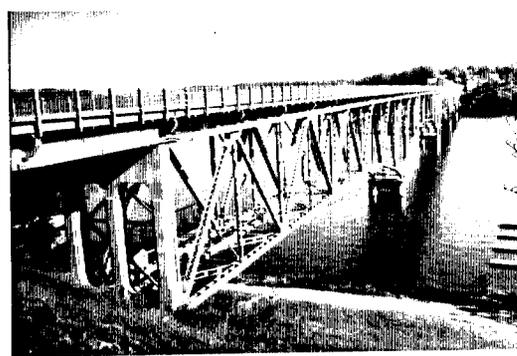
Niangua River Bridge

**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 K 510A; Missouri Highway and Transportation Department Primary System Bridge Record, Book 1, located at Bridge Division, MHTD, Jefferson City MO; Tenth Biennial Report of the State Highway Commission of Missouri, for the period ending 1 December 1936, page 262; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

15 March 1993

# HAER INVENTORY

Missouri Historic Bridge Inventory

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**NAME(S) OF STRUCTURE**

Hurricane Deck Bridge  
MHTD: K 961R

CAMD04

**DATE(S) OF CONSTRUCTION**

1934-35

**LOCATION**

Missouri State Highway 5 over Osage River / Lake of the Ozarks; S16, T39N, R17W  
1.0 mile southwest of Hurricane Deck; Camden County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP eligible (score: 76)

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**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3; 2	superstructure: steel, rigid-connected, Warren cantilever deck truss
span length: 463.0'; 377.0'	substructure: concrete abutments, wingwalls and piers
total length: 2281.0'	floor/decking: asphalt covered concrete deck over steel stringers
roadway wdt.: 28.0'	other features: upper and lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates; diagonal: 2 built-up channels with lacing; 4 angles with batten plates; lateral bracing: 2 angles with batten plates; strut: 4 angles with lacing; floor beam: I-beam with cantilevered sidewalks; guardrail: steel rail

Known locally as the Hurricane Deck Bridge, owing to its proximity to the town of Hurricane Deck, this dramatic long-span cantilever deck truss dates to 1934. The bridge carries State Highway 5 over the Osage Arm of Lake of the Ozarks. Featuring an exceedingly rare cantilever deck truss, the superstructure is supported by concrete piers and abutments. The design for this five-span bridge was completed in the fall of 1934 by engineers for the Missouri State Highway Department. A contract for the bridge's fabrication and erection was let that October to the W.A. Ross Construction Company and the Stupp Brothers Bridge and Iron Company of St. Louis. Made up of steel components rolled by the Illinois Steel Company of Chicago, the bridge was erected in 1935 for \$541,117.00. Virtually unchanged since its completion, the Hurricane Deck Bridge continues to carry traffic in Camden County with only maintenance-related repairs.

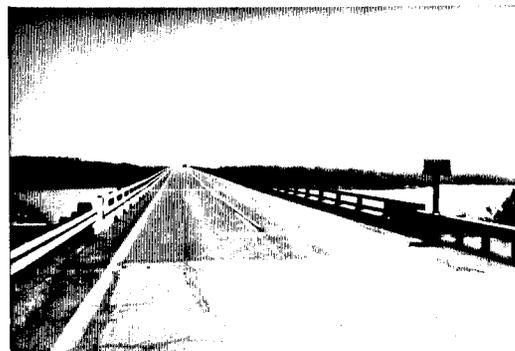
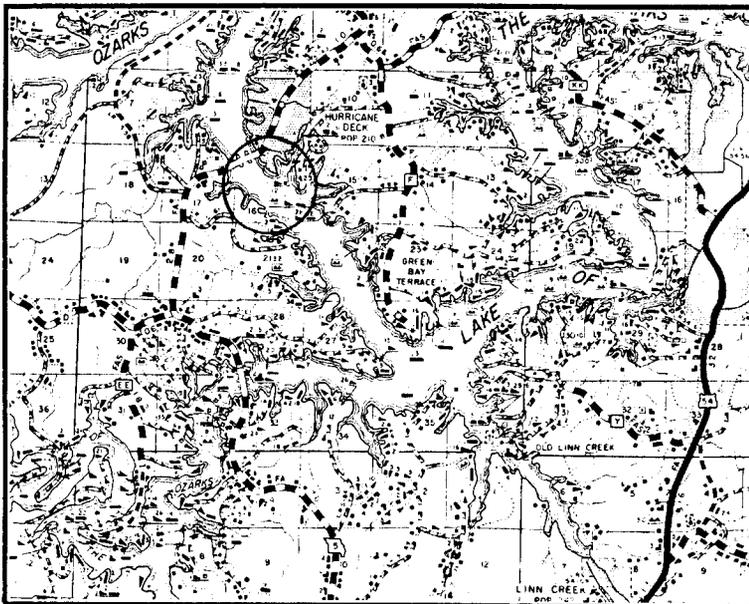
During the late 19th and early 20th centuries, numerous through and pony trusses were built on roads and highways throughout Missouri. Deck trusses—in which the roadway is carried by the truss's upper chords—were built far less often. Never very common, this truss type has suffered attrition throughout the state, until only six deck trusses are now listed in Missouri's Structure Inventory and Appraisal list. Significantly, all are located on the state highway system, and were built in the 1930s. Three of these bridges span Lake of the Ozarks in Camden County. Of the remaining deck trusses, only the Camden County bridges employ cantilevered construction; the balance are all simply supported. The Hurricane Deck Bridge thus stands out as the longest of Missouri's remaining deck trusses. Recognized by the American Institute of Steel Construction as one of the most beautiful medium-span bridges built in America in 1935, it is an important transportation-related resource.

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**NAME(S) OF STRUCTURE**

Hurricane Deck Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 961R; Primary System Bridge Record, Camden County, located at Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

15 March 1993

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Little Niangua River Bridge  
MHTD: S 391

CAMD05

**DATE(S) OF CONSTRUCTION**

1932-33

**LOCATION**

State Secondary Route J over Little Niangua River; S4, T38N, R19W  
7.7 miles northeast of Macks Creek; Camden County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP eligible (score: 77)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3

span length: 225.0'

total length: 524.0'

roadway wdt.: 20.0'

superstructure: steel cable suspension bridge with pinned and rigid steel towers

substructure: concrete abutments, wingwalls and spill-through pedestal piers

floor/decking: asphalt-covered timber over steel stringers

other features: tower: 2 channels with lacing; vertical: 2 wide flanges with batten plates; diagonal: 2 angles with batten plates; lateral bracing: 2 angles; floor beam: I-beam field riveted to vertical; guardrail: 2 angles; main cable: 4 separate galvanized wound cables; 1 cable suspender; I-beam through girder; cables connected with pinned eyebars which lead into deadmen at abutments

Spanning the Little Niangua River in scenic west-central Camden County, the Little Niangua River Bridge is situated some eight miles northeast of the town of Macks Creek. The bridge forms an interesting study in the evolution of bridge design. During its design stage in 1932, with construction funds limited, engineers for the Missouri State Highway Department considered various truss and beam configurations. "The I-beam layout was entirely unsuited from an esthetic viewpoint," MSHD design engineer Howard Mullins wrote in 1933. "The truss layout was little better. The unstiffened suspension layout was considered inadequate for a bridge of such light weight and slender proportions. The self-anchored type proved the most economical and was adopted." The bridge consisted of a central 225-foot suspended span, anchored by shorter 112½-foot flanking spans and supported by steel towers on spill-through concrete pedestals. Spun and prestressed in the Trenton, New Jersey, plant of the American Steel and Wire Company, the four parallel wire cables were attached to steel eyebars at the bridge deck level and anchored to the lightweight concrete supports, without benefit of massive deadmen. Lateral stiffness was provided by 33-inch-deep rolled deck girders. Mullins stated: "Unique features of the design include the application of pre-stressed strands to the self-anchored type: an unusual arrangement of the strands in the cable; the use of rolled beam sections for the stiffening girders; the use of a built-up or laminated cable clamp; and the method of handling the expansion movement."

After soliciting competitive proposals, the state highway commission awarded a contract to build the bridge to the Clinton Bridge Works of Clinton, Iowa. A Clinton crew set up shop on the west bank of the river and began building a falsework trestle over which the bridge would be erected. Work on the substructure began in August and was completed the following March. "For the superstructure a guy derrick with a 70-ft. boom was set up on the lower tier of falsework and began setting steel at the east abutment," Mullins stated. "Moving toward the west end, this derrick set all upper-tier falsework and all steel complete, including the towers, in one pass. All

superstructure material was delivered to position by a cableway operating along the north side of the bridge. After all riveting was completed, the strands were hoisted into position and adjusted. After placing of the cable clamps and flooring, the hangers were connected by pulling the cable down by a ratchet device connected between a sling over the cable clamp and one underneath the stiffening girder." The superstructure was completed soon after the substructural work in March 1933. Aggregate cost of the bridge was an exceedingly low \$36,914.00. This crossing effectively fulfilled the state highway department's goal of building an aesthetically pleasing bridge that would blend in with the surrounding area at a reasonable cost to the state. The Little Niangua River Bridge continues to carry traffic in Camden County in basically unaltered condition.

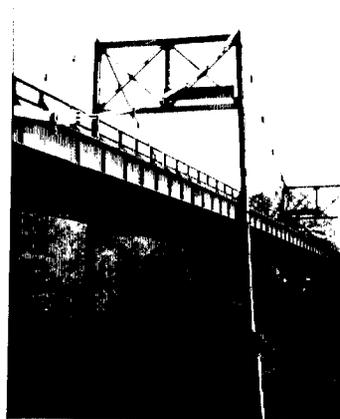
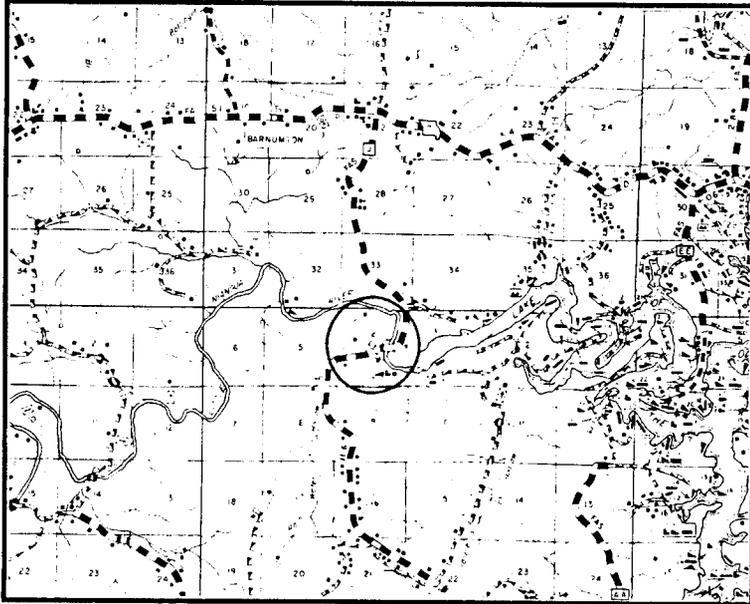
Standing in stark contrast with the ethereal suspension spans by central Missouri bridge builder A.J. Dice, the Little Niangua River Bridge marks a noteworthy foray into suspension bridge design by the state highway department. At the time of its completion, this structure was the fourth self-anchored suspension bridge built in America, preceded by only three urban structures in Pittsburgh. It was the first stiffened suspension bridge built in Missouri since the Grand Avenue Bridge in St. Louis, a cable-braced structure built in 1890. A seldom-used prototype of an esoteric bridge design, the Little Niangua River Bridge represents a daring exploration of structural design by the state highway department, an agency not usually associated with experimentation. It thus ranks among Missouri's most important early highway spans.

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**NAME(S) OF STRUCTURE**

Little Niangua River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 391; **Eighth Biennial Report of the State Highway Commission of Missouri**, for the period ending 1 December 1932, page 240; "Self-Anchored Suspension Bridge Built in Missouri," *Engineering News-Record*, vol. 111, no. 13, (28 September 1933), pages 367-370; field inspection by Clayton Fraser, 5 May 1990.

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**INVENTORIED BY**

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**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

15 March 1993

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