JASPER COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
JASP01	H 274	Dry Fork Bridge	(replaced)
*JASP02	H 278	Kendricktown Bridge	1- 80' **concrete open spandrel arch** 1929 List and Weatherly
*JASP03	H 279	Spring River Bridge	**3**-122' **concrete open spandrel arch** 1929 List and Weatherly
*JASP04	H 311	Highway 71 Viaduct	**13**-45' **concrete deck girder viaduct** 1929 List and Weatherly
JASP05	T 425	Center Creek Bridge	1-140' **riveted Pratt through truss** 1935 J.M. Roark
JASP06	T 426	Spring River Bridge	1-140' **riveted Pratt through truss** 1935 J.M. Roark
JASP07	X 435	Spring River Bridge	1-**100'** riveted Pratt pony truss 1949 Joseph L. Pohl
JASP08	U2205001	Seventh Street Viaduct	**12**-55' **concrete deck girder viaduct** 1940
JASP09	006000.7	Blackberry Creek Bridge	1- 64' pinned Pratt pony truss **1903** J.H. Sparks
*JASP10	067000.5	Coon Creek Bridge	2- 27' steel rolled deck girder **1910**
JASP11	072000.1	Hawthorne Drive Viaduct	1-**100'** **steel plate through girder** 1936 Neyer Construction Co.
JASP12	091001.2	Blackberry Creek Bridge	1- 50' riveted Warren pony truss **1913** Illinois Steel Bridge Company
*JASP13	114001.9	Hille's Ford Bridge	1-120' **riveted Pratt through truss** **1913** Fred L. Appleby
*JASP14	175000.5	Buck Branch Bridge	1- 60' pinned Pratt bedstead **1906** Vincennes Bridge Company
JASP15	179001.0	Miller Ford Bridge	**5**- 32' concrete slab **1917** Fred L. Appleby
*JASP16	196001.7	Spring River Bridge	1- 52' **concrete filled spandrel arch** c1920
*JASP17	202002.0	Purcell Bridge	1-148' **riveted Parker through truss** **1912** Blodgett Construction Company
*JASP18	218000.2	Galesburg Bridge	1-130' **pinned Pratt through truss** **1886** **Wrought Iron Bridge Company**
JASP19	220501.7	Joplin Creek Bridge	**12**-55' **concrete deck girder viaduct** 1929
*JASP20	223002.7	Georgia City Bridge	1-120' **bowstring through arch-truss** **1871** **Wrought Iron Bridge Company**
JASP21	228000.7	Bridge	1- 32' **concrete filled spandrel arch** c1935
JASP22	248000.8	Little Spring River Bridge	1- 60' pinned Pratt pony truss **1911**

JASPER COUNTY

INCLUDED (cont.):

*JASP23	321000.6	Merrick Ford Bridge	1-150'	**pinned Pratt through truss**
			1891	Missouri Valley B&I Works
*JASP24	359000.9	Center Creek Bridge	1-110'	**pinned Pratt through truss**
			c1895	
JASP25	566000.6	Jenkins Creek Bridge	1- 60'	pinned Pratt pony truss
			c1910	
*JASP26	628000.7	Johnson Arch Bridge	1- 80'	**concrete filled spandrel arch**
			1912	Missouri Valley B&I Works
*JASP27	685002.1	Bridge	1- 22'	concrete slab
			1908	
*JASP28	697001.2	Jenkins Creek Bridge	1- 80'	pinned Pratt pony truss
			1885	Wrought Iron Bridge Company
JASP29	699002.5	Jones Creek Bridge	1- 20'	**concrete filled spandrel arch**
			1919	

EXCLUDED:

Pratt pony truss
088000.8 561000.2

Warren pony truss
T 373 Y 593 073000.8 145001.2 202001.9 259000.8 399000.1
562000.9 571000.9

Steel stringer
F1139R1 L 289R L 293R S 834 U220500.4 022000.3 034000.5
072000.5 140001.8 185000.6 324000.1 324000.2 391000.3 391000.4
641000.4 702000.6 712000.4

Steel girder
071500.1 310000.8 606000.1

Concrete slab
H 524 H 592R U220501.5 U220501.6 U450500.2 015000.6 026000.4
038000.1 050000.1 052000.5 062000.2 071500.1 072000.3 076001.7
104001.4 105001.1 116001.2 126000.9 129001.3 130000.5 134000.5
135001.1 136001.3 138001.0 140001.4 140003.1 141001.0 143001.5
150000.9 170000.8 179001.0 195000.2 220500.1 220500.2 220500.3
220500.8 233000.1 246000.2 248000.6 251000.9 254000.9 260003.4
303000.1 337000.2 359000.6 360000.0 363000.3 368000.1 368001.2
370000.8 374000.3 385001.2 391000.1 391000.2 391000.5 438000.8
443000.9 460000.1 460000.3 461000.5 476000.1 476000.6 483000.3
491000.8 523000.4 539001.3 540000.4 550000.3 553000.5 571001.0
571001.2 571001.3 571001.4 575000.3 587001.2 589000.8 603000.1
635000.5 639000.4 656000.4 638000.9 683002.1 699002.6 705000.1

JASPER COUNTY

EXCLUDED (cont.):

Concrete girder

G 530R	H 83R1	H 273R	H 277R1	H 525	H 949	J 199
J 339R1	J 427R	K 415R	K 428	K 921R	L 290	L 409
072000.4	230000.3	542001.2	667000.1	707001.0	710000.2	

Concrete box culvert

H 11R	H 13R	H 275	H 276	H 526R	H 528	H 529R
J 198	J 387	J 540R	J 541	J 801R1	K 122R	K 422R
L 291R	L 292R	L 294R	L 861	S 252	S 835	T 778
T 918	T 990	U072001.0	U072001.1	U220500.7	U220500.8	U220501.0
W 155	W 566	X 532	Y 334	Y 409	Y 428	050000.8
323000.4	469001.2	498001.3	636000.2	688001.0	711000.5	

Timber stringer

U072000.6 519003.8

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	4	21	3	0	28
Excluded	41	118	20	0	179
	45	139	23	0	207 structures

Kendricktown Bridge

JASP02

GENERAL DATA

structure no.: H 278
county: Jasper
city/town: Kendricktown
feature inters.: North Fork of the Spring River
cadastral grid: S33, T29N, R31W
highway route: U.S. Highway 71
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, flanked by five concrete deck girder approach spans on each end
substructure: concrete abutments and wingwalls; concrete spill-through piers

span number: 1
span length: 80.0'
total length: 512.0'
roadway width: 20.0'
condition: good
alterations: light posts removed from bulkheads on parapet
floor/decking : asphalt over concrete
other features: standard Missouri Highway Department concrete guardrails with open balustrade; concrete sidewalk along west side; bridge plate: **Missouri Highway Dept Bridge No H 278 1928**

HISTORICAL DATA

erection date: 1928
erection cost: $36,873.13
designer: Missouri State Highway Department
fabricator : unknown
contractor: List and Weatherly

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 278; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri; **Sixth Biennial Report of the State Highway Commission of Missouri** (for period ending 1 December 1928), pages 170-72; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 45
evaluation: NRHP non-eligible (typical example of MSHD concrete arch bridge construction)

inventoried by: Clayton B. Fraser 1 May 1993

Spring River Bridge

JASP03

GENERAL DATA

structure no.: H 279
county: Jasper
city/town: Carthage
feature inters.: North Fork of Spring River
cadastral grid: S33, T29N, R31W
highway route: U.S. Highway 71
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, with five-span concrete deck girder approach on north end and two-span concrete deck girder approach on the south end
substructure: concrete abutments and wingwalls; concrete spill-through piers

span number: 3
span length: 100.0'; 77.5'; 122.5'
total length: 615.0'
roadway width: 20.0'
condition: good
alterations: none
floor/decking : asphalt over concrete
other features: standard Missouri State Highway Department concrete guardrails with open balustrade; concrete sidewalk along west side; light standards mounted on bulkheads of guardrail parapets, "**Carthage Foundry & Machine Co**" is printed in the steel at the base of each light; bridge plate: **Missouri Highway Dept Bridge No H 279 1928**

HISTORICAL DATA

erection date: 1928
erection cost: $54,788.99
designer: Missouri State Highway Department
fabricator : none
contractor: List and Weatherly

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 279; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri; **Sixth Biennial Report of the State Highway Commission of Missouri** (for period ending 1 December 1928), pages 170-72; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 50
evaluation: NRHP possibly eligible (typical example of MSHD concrete arch bridge construction)

inventoried by: Clayton B. Fraser 1 May 1993

Highway 71 Viaduct

JASP04

GENERAL DATA

structure no.: H 311
county: Jasper
city/town: Carthage
feature inters.: Missouri Pacific Railroad
cadastral grid: S33, T29N, R31W
highway route: U.S. Highway 71
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls; concrete spill-through piers

span number: 13
span length: 45.0'
total length: 494.0'
roadway width: 20.0'
condition: good
alterations: none
floor/decking : asphalt over concrete
other features: standard Missouri Highway Department concrete guardrails with open balustrade; concrete sidewalks along both sides; light posts mounted on bulkheads of guardrail parapets, **Carthage Foundry & Machine Co** at the base of each light; bridge plate: **Missouri Highway Dept Bridge No H 311 1928**

HISTORICAL DATA

erection date: 1928
erection cost: $42,880.52
designer: Missouri Highway and Transportation Department
fabricator : none
contractor: List and Weatherly

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 311; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri; **Sixth Biennial Report of the State Highway Commission of Missouri** (for period ending 1 December 1928), pages 170-72; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 45
evaluation: NRHP non-eligible (typical example of MSHD concrete beam bridge construction)

inventoried by: Clayton B. Fraser 1 May 1993

Center Creek Bridge

JASP05

GENERAL DATA

structure no.: T 425
county: Jasper
city/town: 0.7 mile south of Oronogo
feature inters.: Center Creek
cadastral grid: S5, T28N, R32W
highway route: County Road D
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 7-panel, rigid-connected Pratt through truss, with steel stringer approach spans
substructure: concrete piers and stone masonry abutments with concrete caps

span number: 1
span length: 140.0'
total length: 347.0'
roadway width: 20.0'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1935
erection cost: $21,531.20
designer: Missouri State Highway Department
fabricator : unknown
contractor: J.M. Roark

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. T 425; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri.

sign. rating: 39
evaluation: NRHP non-eligible (typically configured example of MSHD highway truss design)

inventoried by: Clayton B. Fraser 1 May 1993

Spring River Bridge

JASP06

GENERAL DATA

structure no.: T 426
county: Jasper
city/town: 0.9 mile south of Alba
feature inters.: Spring River
cadastral grid: S21/22, T29N, R32W
highway route: County Road O
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 7-panel, rigid-connected Pratt through truss, with steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 140.0'
total length: 188.0'
roadway width: 20.0'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1935
erection cost: $18,513.30
designer: Missouri State Highway Department
fabricator : unknown
contractor: J.M. Roark

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. T 426; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri.

sign. rating: 39
evaluation: NRHP non-eligible (typically configured example of MSHD highway truss design)

inventoried by: Clayton B. Fraser 1 May 1993

Spring River Bridge

JASP07

GENERAL DATA

structure no.: X 435
county: Jasper

city/town: 4.0 miles southwest of Jasper
feature inters.: North Fork of the Spring River
cadastral grid: S33, T30N, R31W
highway route: County Road M
highway distr.: 7
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 9-panel, rigid-connected Pratt pony truss, with steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 100.0'
total length: 324.0.0'
roadway width: 20.0'

condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1949
erection cost: $65,940.10
designer: Missouri State Highway Department
fabricator : unknown
contractor: Joseph L. Pohl

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. X 435; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri.

sign. rating: 37
evaluation: NRHP non-eligible (typical example of exceedingly common structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Seventh Street Viaduct

JASP08

GENERAL DATA

structure no.: U2205001
county: Jasper
city/town: Joplin
feature inters.: Joplin Creek and Kansas City Southern RR
cadastral grid: S2, T27N, R33W
highway route: Seventh Street
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls; concrete spill-through piers

span number: 12
span length: 55.0'
total length: 960.0'
roadway width: 42.0'
condition: fair
alterations: none
floor/decking : concrete deck
other features: arched girder haunches; concrete posts with metal guardrails; decorative scoring on concrete pier pylons

HISTORICAL DATA

erection date: 1940
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. U2205001.

sign. rating: 39
evaluation: NRHP determined non-eligible (relatively late, multiple-span example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Blackberry Creek Bridge

JASP09

GENERAL DATA

structure no.: 006000.7
county: Jasper
city/town: 5.8 miles north of Asbury
feature inters.: Blackberry Creek
cadastral grid: S16/17, T30N, R33W
highway route: County Road 6
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss
substructure: stone masonry and concrete abutments

span number: 1
span length: 64.0'
total length: 67.0'
roadway width: 22.0'
condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel lattice guardrails

HISTORICAL DATA

erection date: 1903
erection cost: $1400.00
designer: unknown
fabricator : unknown
contractor: J.H. Sparks

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 006000.7; Jasper County Court Record, Book 29, page 137 (6 August 1903), located at Jasper County Courthouse, Joplin MO.

sign. rating: 44
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Coon Creek Bridge

JASP10

GENERAL DATA

structure no.: 067000.5
county: Jasper
city/town: 7.2 miles east of Jasper
feature inters.: Coon Creek
cadastral grid: S13/18, T30N, R30/29W
highway route: County Road 67
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, rolled deck girder
substructure: concrete abutments and wingwalls; concrete pier with angled cutwaters

span number: 2
span length: 27.0'
total length: 56.0'
roadway width: 17.2'
condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel lattice guardrails with continuous ends and outriders; bridge plate (broken): [1]**910**...[CL]**ASS A** [B]**RIDGE**... **KOHLMAN**... **O**... **ENGINEER**

HISTORICAL DATA

erection date: 1910
erection cost: unknown
designer: unknown
fabricator : Cambria Steel Company, Pittsburgh PA
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 067000.5; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 40
evaluation: NRHP possibly eligible (early example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Hawthorne Drive Viaduct

JASP11

GENERAL DATA

structure no.: 072000.1
county: Jasper
city/town: Carthage
feature inters.: Saint Louis and San Francisco Railway
cadastral grid: S5/6, T28N, R31W
highway route: Hawthorne Drive
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel plate through girder with concrete deck girder approach spans
substructure: concrete abutments and wingwalls, with hammerhead spill-through piers

span number: 1
span length: 100.0'
total length: 380.0'
roadway width: 24.0'
condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: MSHD standard concrete guardrails

HISTORICAL DATA

erection date: 1936
erection cost: $36,095.90
designer: Missouri State Highway Department
fabricator : unknown
contractor: Neyer Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 072000.0; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri.

sign. rating: 54
evaluation: NRHP possibly eligible (well-preserved, long-span example of MSHD beam bridge design)

inventoried by: Clayton B. Fraser 1 May 1993

Blackberry Creek Bridge

JASP12

GENERAL DATA

structure no.: 091001.2
county: Jasper
city/town: 5.4 miles north of Asbury
feature inters.: Blackberry Creek
cadastral grid: S16/21, T30N, R33W
highway route: County Road 91
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 4-panel, rigid-connected Warren pony truss
substructure: stone masonry abutments

span number: 1
span length: 50.0'
total length: 52.0'
roadway width: 17.9'
condition: fair
alterations: unknown
floor/decking : concrete deck over steel stringers
other features: steel pipe guardrails

HISTORICAL DATA

erection date: 1913
erection cost: $920.00
designer: Illinois Steel Bridge Company, Chicago IL
fabricator : Illinois Steel Bridge Company, Chicago IL
contractor: Illinois Steel Bridge Company, Chicago IL

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 091001.2; Jasper County Court Record, Book 39: page 629 (8 January 1913), located at Jasper County Courthouse, Carthage MO.

sign. rating: 37
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Hille's Ford Bridge

JASP13

GENERAL DATA

structure no.: 114001.9
county: Jasper
city/town: 3.7 miles southwest of Jasper
feature inters.: North Fork of the Spring River
cadastral grid: S29/32, T30N, R31W
highway route: County Road 114
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Pratt through truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 120.0'
total length: 124.0'
roadway width: 13.9'
condition: fair
alterations: none
floor/decking : concrete deck over corrugated steel, with steel stringers
other features: upper chord and inclined end post: two channels with cover plate and lacing; lower chord: four angles with lacing; vertical: two channels with lacing (four angles with lacing at the hip); diagonal: two or four angles with lacing; lateral bracing: round rod with threaded ends; strut: four angles, braced; lattice portal strut with curved knee braces; steel lattice guardrail; bridge plate: **J.L. Ross, Perry Brock, J.F. Lee, Co. Court L.M. Thomas, Co Clerk T.V. Grieb, Eng.**

HISTORICAL DATA

erection date: 1913
erection cost: $5480.00
designer: unknown
fabricator : Illinois Steel Company, Chicago IL
contractor: Fred L. Appleby, Springfield MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 114001.9; Jasper County Court Record, Book 40: pages 223-334 (4 March 1913), page 237 (25 March 1913), page 244 (7 April 1913), page 636 (5 December 1913); Book 42: page 4 (20 January 1914), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 47
evaluation: NRHP possibly eligible (well-preserved, early example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Buck Branch Bridge

JASP14

GENERAL DATA

structure no.: 175000.5
county: Jasper
city/town: 4.1 miles north of Carthage
feature inters.: Buck Branch
cadastral grid: S15/16, T29N, R31W
highway route: County Road 175
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt bedstead
substructure: concrete abutments and wingwalls

span number: 1
span length: 60.0'
total length: 60.0'
roadway width: 14.0'
condition: fair
alterations: truss legs cut off and set in concrete abut ments
floor/decking : timber deck over steel stringers
other features: upper chord and upright end post: two channels with cover plate and lacing; lower chord: two angles with batten plates; vertical: four angles with lacing, two channels with lacing; diagonal: two punched rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to lower chord pins; guardrail: two channels

HISTORICAL DATA

erection date: 1906
erection cost: $7279.75 (three-bridge contract)
designer: Vincennes Bridge Company, Vincennes IN
fabricator : Vincennes Bridge Company, Vincennes IN; Jones and Laughlin Steel Company, Pittsburgh PA
contractor: Vincennes Bridge Company, Vincennes IN

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 175000.5; Jasper County Court Record, Book 32: page 104 (7 March 1906), Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 40
evaluation: NRHP non-eligible (typically configured example of common structural type, altered)

inventoried by: Clayton B. Fraser 1 May 1993

Miller Ford Bridge

JASP15

GENERAL DATA

structure no.: 179001.0
county: Jasper
city/town: 6.6 miles north of Carthage
feature inters.: Dry Fork
cadastral grid: S4/5, T29N, R31W
highway route: County Road 179
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete slab
substructure: concrete abutments, wingwalls and piers

span number: 5
span length: 32.0'
total length: 152.0'
roadway width: 15.3'
condition: fair
alterations: unknown
floor/decking : concrete deck
other features: concrete guardrails with recessed rectangular panels

HISTORICAL DATA

erection date: 1917
erection cost: unknown
designer: unknown
fabricator : none
contractor: Fred L. Appleby, Springfield MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 179001.0; Jasper County Court Record, Book 44: page 93 (24 May 1917), page 100 (4 June 1917), page 122 (27 June 1917), page 127 (5 July 1917), located at Jasper County Courthouse, Carthage MO.

sign. rating: 42
evaluation: NRHP non-eligible (structurally undistinguished example of common concrete bridge type)

inventoried by: Clayton B. Fraser 1 May 1993

Spring River Bridge

JASP16

GENERAL DATA

structure no.: 196001.7
county: Jasper
city/town: 4.4 miles northwest of Carthage
feature inters.: Spring River
cadastral grid: S25/26, T29N, R32W
highway route: County Road 196
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete filled spandrel arch
substructure: concrete abutments and wingwalls

span number: 1
span length: 52.0'
total length: 55.0'
roadway width: 17.3'
condition: fair
alterations: bridge widened in 1990 by addition of pre-stressed concrete beams on one side
floor/decking : concrete deck over earth fill
other features: steel pipe guardrails with concrete posts

HISTORICAL DATA

erection date: c1920
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 196001.7; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 21
evaluation: NRHP non-eligible (poorly documented, poorly preserved concrete arch bridge)

inventoried by: Clayton B. Fraser 1 May 1993

Purcell Bridge

JASP17

GENERAL DATA

structure no.: 202002.0
county: Jasper
city/town: 1.0 mile north of Purcell
feature inters.: North Fork of the Spring River
cadastral grid: S4/5, T29N, R32W
highway route: County Road 202
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Parker through truss, with a three-span steel plate through girder approach on the north end
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers with steel plate diaphragm, between main and approach spans; steel pile bent piers on concrete pedestals between approach spans

span number: 1
span length: 148.0'
total length: 253.0'
roadway width: 16.9'
condition: fair
alterations: superstructure raised on piers
floor/decking : asphalt over corrugated steel, with steel stringers
other features: upper chord and inclined end post: two steel channels with cover plate and lacing; lower chord: four angles; vertical: two channels with lacing (four angles with lacing at the hip); diagonal: four angles with lacing; lateral bracing: round rod with threaded ends; strut: angles, braced; floor beam: I-beam, field bolted to verticals; steel pipe guardrails

HISTORICAL DATA

erection date: 1912
erection cost: $8597.00
designer: unknown
fabricator : Lackawanna Steel Company, Pittsburgh PA
contractor: Blodgett Construction Company (superstructure); W.W. Williams (substructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 202002.0; Jasper County Court Record, Book 39: page 77 (9 November 1911), page 338 (7 March 1912); Book 40: page 86 (16 July 1912), page 89 (5 August 1912), page 90 (21 October 1912), page 632 (6 January 1913), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 51
evaluation: NRHP possibly eligible (earliest example in Missouri of mainstay long-span truss type)

inventoried by: Clayton B. Fraser 1 May 1993

Galesburg Bridge

JASP18

GENERAL DATA

structure no.: 218000.2
county: Jasper

city/town: 1.5 miles north of Galesburg
feature inters.: North Fork of the Spring River
cadastral grid: S3, T29N, R33W
highway route: County Road 218
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: wrought iron, 8-panel, pin-connected Pratt through truss
substructure: stone masonry abutments

span number: 1
span length: 130.0'
total length: 135.0'
roadway width: 12.0'

condition: fair
alterations: wire fence has been installed in lieu of guardrails
floor/decking : timber deck over timber stringers
other features: upper chord and inclined end post: two channels with cover and batten plates; lower chord: two looped rectangular eyebars; vertical: two channels with flat wide laces; diagonal: two looped rectangular eyebars; counter: round eyerod with sleeve bolt; lateral bracing: round rod with threaded ends (lower), looped round eyerod (upper); strut: I-beam; lattice portal strut, with latticed, curved knee braces; floor beam: I-beam, U-bolted to lower chord pins; no guardrail; portal builder's plate: **Wrought Iron Bridge Co Builders Canton Ohio**

HISTORICAL DATA

erection date: 1886
erection cost: $3050.00
designer: Wrought Iron Bridge Company, Canton OH
fabricator : Wrought Iron Bridge Company, Canton OH;
Phoenix Iron Company, Philadelphia PA
contractor: Wrought Iron Bridge Company, Canton OH (superstructure);
Israel Brewer (substructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 218000.2; Jasper County Court Record, Book M: page 610 (4 May 1886); Book N: page 55 (21 June 1886), pages 94-5 (9 August 1886), page 124 (27 October 1886), page 231 (23 February 1887), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

Galesburg Bridge

sign. rating: 56
evaluation: NRHP possibly eligible (well-preserved, early example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Joplin Creek Viaduct

JASP19

GENERAL DATA

structure no.: 220501.7
county: Jasper
city/town: Joplin
feature inters.: Joplin Creek and Kansas City Southern Railway
cadastral grid: S2, T27N, R33W
highway route: city street
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls, with hammerhead spill-through piers

span number: 12
span length: 55.0'
total length: 483.0'
roadway width: 26.8'
condition: fair
alterations: none
floor/decking : concrete deck
other features: concrete guardrails

HISTORICAL DATA

erection date: 1929
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 220501.7.

sign. rating: 39
evaluation: NRHP non-eligible (typically configured urban viaduct)

inventoried by: Clayton B. Fraser 1 May 1993

Georgia City Bridge

JASP20

GENERAL DATA

structure no.: 223002.7
county: Jasper
city/town: 3.3 miles southeast of Asbury
feature inters.: Spring River
cadastral grid: S4, T29N, R33W
highway route: County Road 223
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: wrought iron, 12-panel, bowstring through-arch truss, with three pin-connected Pratt pony truss approach spans
substructure: stone masonry abutments and piers

span number: 1
span length: 120.0'
total length: 218.0'
roadway width: 14.3'
condition: fair
alterations: pony trusses added, 1885
floor/decking : timber deck over timber stringers
other features: tubular arch ribs of Hammond and Abbotts Column, patented April 1870; lower chord: two flat bars; vertical: star bars alternate with two angles, bolted through arch ribs; diagonal: round looped eyerods, creating an "X" pattern between the verticals; lateral bracing: round looped eyerods; strut: four angles with double lacing; transverse timber stringers lie directly on the lower chords; **Patent June 17, 1862** on main span

HISTORICAL DATA

erection date: 1871
erection cost: $9100.00
designer: Wrought Iron Bridge Company, Canton OH
fabricator : Wrought Iron Bridge Company, Canton OH;
Phoenix Iron Company, Philadelphia PA;
Carnegie Iron Company, Pittsburgh PA
contractor: Wrought Iron Bridge Company, Canton OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 223002.7; Jasper County Court Record, Book E: page 744 (3 May 1870), page 755 (5 May 1870); Book F: page 13 (2 August 1870), pages 18-28 (3 August 1870), pages 52-3 (31 August 1870), pages 62-4 (5 September 1870), page 131 (12 December 1870), pages 144-45 (22 December 1870), page 154 (17 January 1871), pages 157-160 (18 January 1871); Book L: page 446 (19 Decem ber 1883); Book M: page 119 (29 September 1884), page 207 (2

February 1885), page 293 (11 April 1885), page 299 (21 April 1885), page 320 (9 May 1885), page 340 (21 May 1885); Book P: page 6 (30 December 1889); Book V: page 597 (15 February 1897); Book W: page 54 (3 May 1897), pages 388-89 (4 January 1898); Victor C. Darnell, **American Bridge Building Companies 1840 - 1900**, pages 48, 79; "Group Starts Effort To Save Historic Bridge." **The Joplin Globe**, 27 February 1988, sec. B, page 1, located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 86

evaluation: NRHP determined eligible (Missouri's oldest remaining all-metal vehicular bridge)

inventoried by: Clayton B. Fraser 1 May 1993

Bridge

JASP21

GENERAL DATA

structure no.: 228000.7
county: Jasper

city/town: 4.0 miles north of Carl Junction
feature inters.: Spring River Tributary
cadastral grid: S17/18, T29N, R33W
highway route: County Road 228
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete filled spandrel arch
substructure: concrete abutments and wingwalls

span number: 1
span length: 32.0'
total length: 43.0'
roadway width: 16.0'

condition: fair
alterations: unknown
floor/decking : concrete deck over earth fill
other features: concrete guardrails with recessed rectangular panels

HISTORICAL DATA

erection date: c1935
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 228000.7.

sign. rating: 18
evaluation: NRHP non-eligible (undistinguished, small-scale concrete arch bridge)

inventoried by: Clayton B. Fraser 1 May 1993

Little Spring River Bridge

JASP22

GENERAL DATA

structure no.: 248000.8
county: Jasper

city/town: 2.8 miles northwest of Neck City
feature inters.: Little Spring River
cadastral grid: S1, T29N, R33W
highway route: County Road 248
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 60.0'
total length: 62.0'
roadway width: 15.0'

condition: fair
alterations:
floor/decking : concrete deck over steel stringers
other features: steel pipe guardrails

HISTORICAL DATA

erection date: 1911
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 248000.8.

sign. rating: 32
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Merrick Ford Bridge

JASP23

GENERAL DATA

structure no.: 321000.6
county: Jasper

city/town: 3.6 miles northwest of Carl Junction
feature inters.: Spring River
cadastral grid: S26, T29N, R34W
highway route: County Road 321
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: wrought iron or steel, 7-panel, pin-connected Pratt through truss, with flanking pin-connected Pratt pony truss approach spans and one additional steel stringer approach on the east end

substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers between main and approach spans; concrete and stone pier between pony truss and steel stringer approaches on the east end

span number: 1
span length: 150.0'
total length: 249.0'
roadway width: 14.0'

condition: fair
alterations: collision damage and repair to one vertical on the main span
floor/decking: timber deck over steel stringers
other features: upper chord and inclined end post: two channels with cover plate and lacing; lower chord: two punched rectangular eyebars; vertical: two channels with lacing (two punched rectangular eyes at the hip); diagonal: two punched rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles with angle knee braces; lattice portal strut with knee braces; floor beam: riveted plate girder, U-bolted to lower chord pins; steel angle guardrails; builder's plate: **Built By Mo Valley Bridge and Iron Works Leavenworth Kansas**

HISTORICAL DATA

erection date: 1891
erection cost: $4500.00
designer: Missouri Valley Bridge and Iron Works Company, Leavenworth KS
fabricator: Missouri Valley Bridge and Iron Works Company, Leavenworth KS
contractor: Missouri Valley Bridge and Iron Works Company, Leavenworth KS

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 321000.6; Jasper County Court Record, Book P: page 367 (7 October 1890), page 373 (29 October 1890), page 519 (23 February 1891), pages 556-57 (18 March 1891), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

Merrick Ford Bridge

sign. rating: 55
evaluation: NRHP possibly eligible (early, well-preserved example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Center Creek Bridge

JASP24

GENERAL DATA

structure no.: 359000.9
county: Jasper

city/town: 2.4 miles northwest of Webb City
feature inters.: Center Creek
cadastral grid: S1/2, T28N, R33W
highway route: County Road 359
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: wrought iron or steel, 7-panel, pin-connected Pratt through truss, with a three-span steel stringer approach on the north end and a one-span steel stringer approach on the south end
substructure: stone masonry and concrete abutments and piers

span number: 1
span length: 110.0'
total length: 235.0'
roadway width: 13.6'

condition: fair
alterations: truss possibly moved to this location; deck replaced with concrete
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: two channels with cover and batten plates; lower chord: two punched rectangular eyebars; vertical: two channels with lacing (two square looped eyebars at the hip); diagonal: two looped rectangular eyebars; counter: round eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: four angles with lacing; latticed A-frame portal strut; floor beam: tapered "fishtail" plate girder, U-bolted to lower chord pins; steel lattice guardrail

HISTORICAL DATA

erection date: c1895
erection cost: unknown
designer: unknown
fabricator : Jones and Laughlin Steel Company, Pittsburgh PA
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 359000.9; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 25
evaluation: NRHP non-eligible (typically configured example of mainstay structural type, largely undocumented and possibly moved to this location)

inventoried by: Clayton B. Fraser 1 May 1993

Jenkins Creek Bridge

JASP25

GENERAL DATA

structure no.: 566000.6
county: Jasper
city/town: 5.9 miles west of Sarcoxie
feature inters.: Jenkins Creek
cadastral grid: S16/17, T27N, R30W
highway route: County Road 566
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 60.0'
total length: 62.0'
roadway width: 15.8'
condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel lattice guardrails

HISTORICAL DATA

erection date: c1910
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 566000.6.

sign. rating: 28
evaluation: NRHP non-eligible (typically configured, inadequately documented example of common structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Johnson Arch Bridge

JASP26

GENERAL DATA

structure no.: 628000.7
county: Jasper
city/town: 3.8 miles northwest of Joplin
feature inters.: Turkey Creek
cadastral grid: S30, T28N, R33W
highway route: County Road 628
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete, filled spandrel arch
substructure: concrete abutments and wingwalls

span number: 1
span length: 80.0'
total length: 114.0'
roadway width: 20.2'
condition: good
alterations: fill raised on one end to provide for approach
floor/decking : asphalt deck over earth fill
other features: concrete guardrails with open concrete balustrade

HISTORICAL DATA

erection date: 1912
erection cost: $6390.00
designer: unknown
fabricator : none
contractor: Missouri Valley Bridge and Iron Works Company, Leavenworth KS

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 628000.7; Jasper County Court Record, Book 39: page 338 (7 March 1912), page 375 (8 May 1912), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 56
evaluation: NRHP possibly eligible (excellent, large-scale example of pre-MSHD concrete bridge construction)

inventoried by: Clayton B. Fraser 1 May 1993

Bridge

JASP27

GENERAL DATA

structure no.: 685002.1
county: Jasper
city/town: 3.7 miles west of Sarcoxie
feature inters.: tributary of Motley Creek
cadastral grid: S11, T27N, R30W
highway route: County Road 685
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete slab, skewed
substructure: concrete abutments and wingwalls

span number: 1
span length: 22.0'
total length: 24.0'
roadway width: 13.8'
condition: fair
alterations: none
floor/decking : concrete deck
other features: plainly formed low parapet guardrails; **NO 91** on parapet

HISTORICAL DATA

erection date: 1908
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 685002.1; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 28
evaluation: NRHP non-eligible (undistinguished, small-scale example of common structural type, built early but inadequately documented)

inventoried by: Clayton B. Fraser 1 May 1993

Jenkins Creek Bridge

JASP28

GENERAL DATA

structure no.: 697001.2
county: Jasper

city/town: 4.9 miles southwest of Sarcoxie
feature inters.: Jenkins Creek
cadastral grid: S15/22, T27N, R30W
highway route: County Road 697
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: wrought iron, 5-panel, pin-connected Pratt pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 80.0'
total length: 82.0'
roadway width: 15.8'

condition: fair
alterations: bridge moved to this location, I-beams welded to ends of floor beams to form outriders
floor/decking : timber deck over timber stringers
other features: upper chord and inclined end post: two channels with cover and batten plates; lower chord: two looped rectangular eyebars; vertical: two tees with double lacing; diagonal: two looped square eyebars; counter: round eye rod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: tapered "fishtail" plate girder, U-bolted to lower chord pins; steel channel guardrails; cast iron hip blocks

HISTORICAL DATA

erection date: 1884-85
erection cost: unknown
designer: Wrought Iron Bridge Company, Canton OH
fabricator : Wrought Iron Bridge Company, Canton OH
contractor: Wrought Iron Bridge Company, Canton OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 697001.2; Jasper County Court Record, Book M: pages 43-44 (23 June 1884), page 98 (22 August 1884), page 106 (11 September 1884), page 119 (29 September 1884), page 195 (20 December 1884), page 243 (16 February 1885) - located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

sign. rating: 54
evaluation: NRHP possibly eligible (early, patented example of mainstay structural type)

inventoried by: Clayton B. Fraser 1 May 1993

Jones Creek Bridge

JASP29

GENERAL DATA

structure no.: 699002.5
county: Jasper

city/town: 2.9 miles southeast of Fidelity
feature inters.: Jones Creek
cadastral grid: S13/24, T27N, R31W
highway route: County Road 699
highway distr.: 7
current owner: Jasper County

STRUCTURAL DATA

superstructure: concrete filled spandrel arch
substructure: concrete abutments and wingwalls

span number: 1
span length: 20.0'
total length: 26.0'
roadway width: 16.9'

condition: fair
alterations: none
floor/decking : concrete deck over earth
other features: concrete guardrails with recessed rectangular panels

HISTORICAL DATA

erection date: 1919
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 699002.5; Jasper County Court Record, Book 46: page 568 (22 July 1919), page 592 (3 September 1919), located at Jasper County Courthouse, Carthage MO.

sign. rating: 24
evaluation: NRHP non-eligible (structurally undistinguished, small-scale concrete arch bridge)

inventoried by: Clayton B. Fraser 1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Spring River Bridge
MHTD: H 279

JASP03

DATE(S) OF CONSTRUCTION
1928

LOCATION
U.S. Highway 71 over North Fork of Spring River; S33, T29N, R31W
Carthage; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / highway bridge

RATING NRHP possibly eligible (score: 50)

CONDITION
good

OWNER
Missouri Highway and Transportation Department

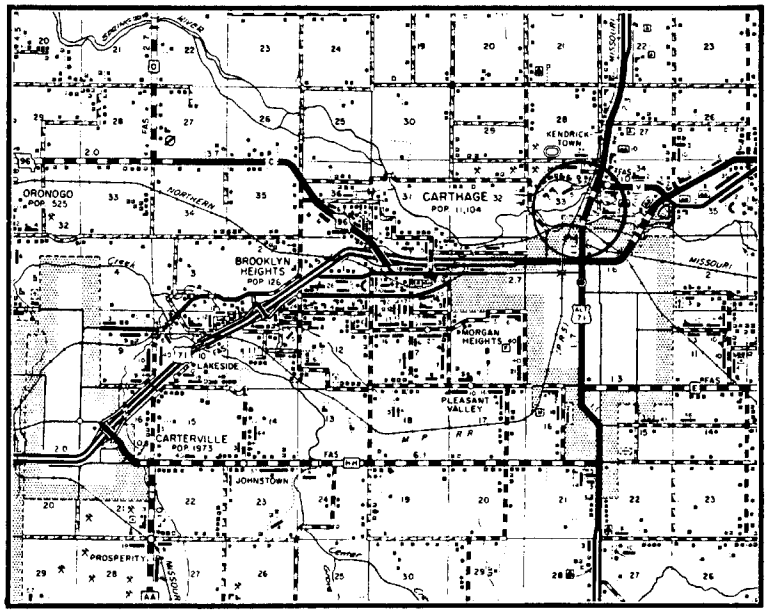
span number:	3	superstructure:	concrete, two-rib, open spandrel arch, with five-span concrete deck girder approach on north end and two-span concrete deck girder approach on the south end
span length:	100.0'; 77.5'; 122.5'	substructure:	concrete abutments and wingwalls; concrete spill-through piers
total length:	615.0'	floor/decking:	asphalt over concrete
roadway wdt.:	20.0'	other features:	standard Missouri State Highway Department concrete guardrails with open balustrade; concrete sidewalk along west side; light standards mounted on bulkheads of guardrail parapets, "**Carthage Foundry & Machine Co**" is printed in the steel at the base of each light; bridge plate: **Missouri Highway Dept Bridge No H 279 1928**

Spanning the North Fork of the Spring River, this multiple-span concrete bridge carries U.S. Highway 71 at the northern edge of Carthage. The structure is comprised of three open spandrel arches approached by a total of seven concrete deck girder spans, all on concrete piers and abutments. Engineers for the Missouri State Highway Department delineated plans and specifications for the bridge and on July 6, 1928, contracted with List and Weatherly to build the structure. Completed in 1928 for $54,788.99, the Spring River Bridge continues to carry traffic with no notable alterations.

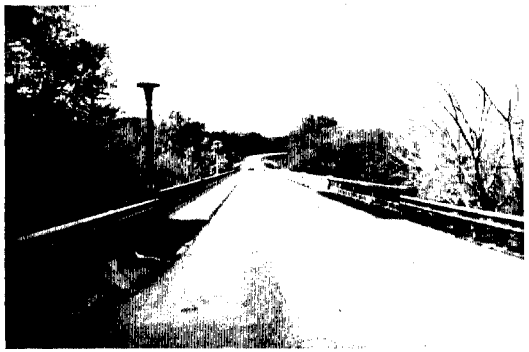
After it developed designs for the concrete open spandrel arch in the mid-1920s, the Missouri State Highway Department characteristically used this graceful design for its concrete structures with 80 feet or more of span length. With some notable exceptions, filled arches were employed for shorter-span applications. MSHD engineers designed a number of open spandrel arches in the 1920s and 1930s, primarily in the southern counties, employing both single- and multiple-span configurations. Built in 1929, with a span length of 122 feet, the Highway 71 Viaduct Bridge falls squarely within the mainstream of this bridge building trend. The structure is a well-preserved, multiple-span example of open spandrel arch construction.

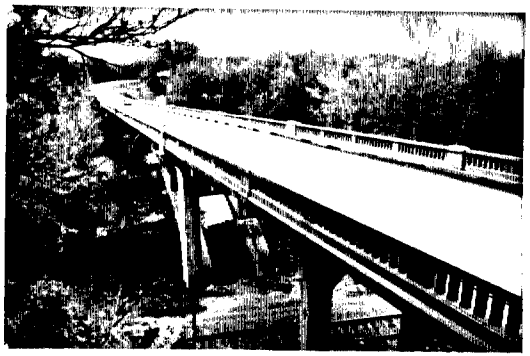
NAME(S) OF STRUCTURE
Spring River Bridge

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 No. H 279; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri; **Sixth Biennial Report of the State Highway Commission of Missouri** (for period ending 1 December 1928), pages 170-72; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign, Loveland CO

DATE
1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Coon Creek Bridge
MHTD: 067000.5

JASP10

DATE(S) OF CONSTRUCTION
1910

LOCATION
County Road 67 over Coon Creek; S13/18, T30N, R30/29W
7.2 miles east of Jasper; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 40)

CONDITION
fair

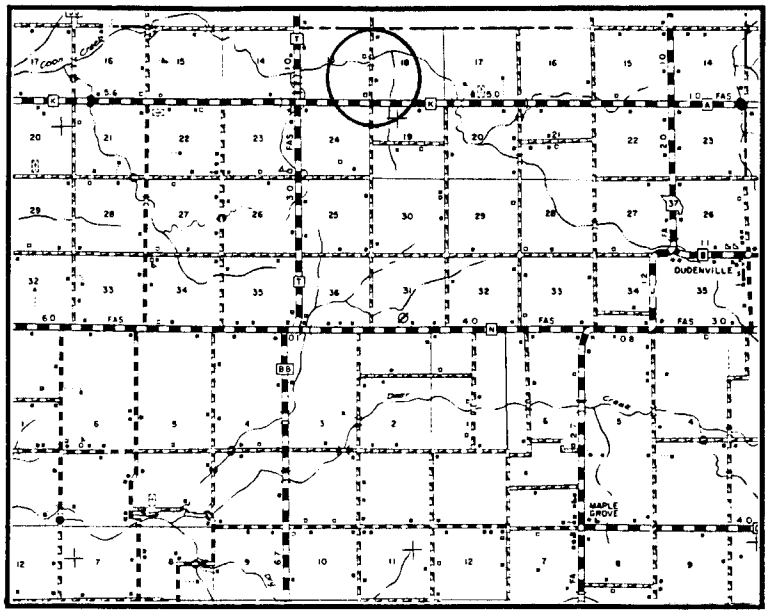
OWNER
Jasper County

span number:	2	superstructure:	steel, rolled deck girder
span length:	27.0'	substructure:	concrete abutments and wingwalls; concrete pier with angled cutwaters
total length:	56.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	17.2'	other features:	steel lattice guardrails with continuous ends and outriders; bridge plate (broken): [1]**910**...[CL]**ASS A** [B]**RIDGE... KOHLMAN... O... ENGINEER**

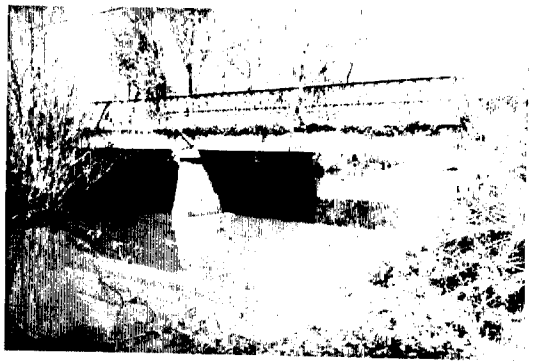
Located on a gravel-surfaced county road east of Jasper, this small-scale steel bridge spans Coon Creek. The structure is comprised of two rolled steel deck girder spans, supported by a concrete substructure, with steel lattice guardrails. A plate mounted on the bridge indicates that it was built in 1910. Jasper County Court records do not mention its construction, however, suggesting that it was funded by one of the special road districts then functioning in the county. This lack of documentation is unfortunate, because this bridge is noteworthy as among the state's oldest remaining steel deck girder structures, a mainstay beam bridge configuration. As it stands, the Coon Creek Bridge is a well-preserved, early example of its type, with only partial documentation by which to interpret its history.

NAME(S) OF STRUCTURE
Coon Creek 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 No. 067000.5; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Hawthorne Drive Viaduct
MHTD: 072000.1

JASP11

DATE(S) OF CONSTRUCTION
1936

LOCATION
Hawthorne Drive over Saint Louis and San Francisco Railway; S5/6, T28N, R31W
Carthage; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / roadway bridge

RATING possibly eligible (score: 54)

CONDITION
fair

OWNER
Jasper County

span number:	1	superstructure:	steel plate through girder with concrete deck girder approach spans
span length:	100.0'	substructure:	concrete abutments and wingwalls, with hammerhead spill-through piers
total length:	380.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	24.0'	other features:	MSHD standard concrete guardrails

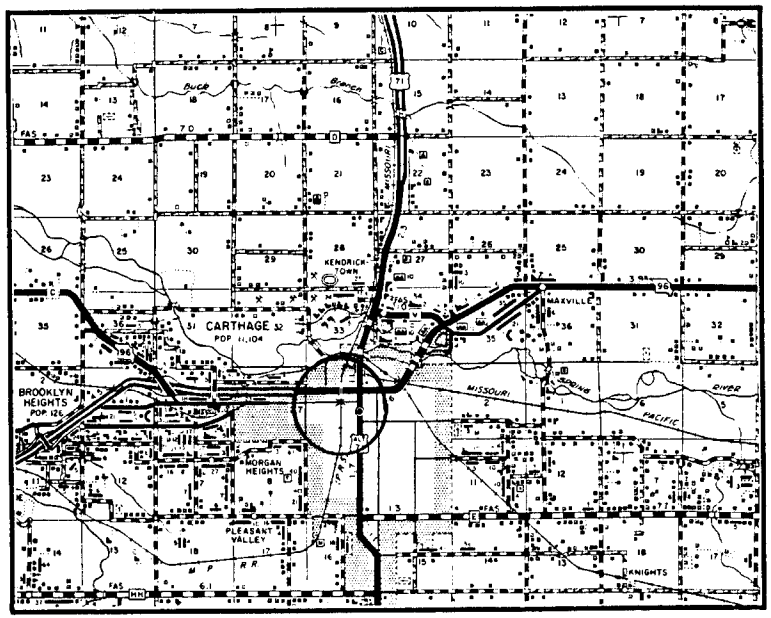
As part of the effort to create jobs during the Depression, Congress in 1934 passed an act allowing federal monies to be used for road and bridge construction within municipalities. Taking advantage of the new legislation, the Missouri State Highway Commission undertook a number of urban road and bridge projects that year. Located on Hawthorne Drive (old U.S. Highway 66) in the city of Carthage, this multiple-span viaduct was one such construction project. To span the tracks of the St. Louis and San Francisco Railroad, the highway department engineered a 100-foot steel plate through girder, flanked by three 55-foot and two 50-foot concrete deck girder spans, all supported by concrete spill-through piers. On April 10, 1936, a $36,095.90 contract for the structure's construction was awarded to the Neyer Construction Company. Completed later that year, the Hawthorne Drive Viaduct has since carried increasingly heavy traffic loads on the principal highway through the city.

As an important crossing of the SL&SF Railroad on Route 66, the Hawthorne Drive Viaduct has formed an integral part of the city's street system. The viaduct is also important as one of the railroad separation projects funded through the New Deal's Hayden-Cartwright Act. Federal relief programs of the 1930s broke with past practice by allowing federal funds to be used for urban, as well as rural highways. Grade separation was a major focus of the highway department during this period, requiring commitment of much staff time. The Hawthorne Drive Viaduct is technologically distinguished as one of the few steel through girders identified in the statewide bridge inventory. Through the 1930s and 1940s, the Missouri State Highway Department designed and built progressively longer steel beam bridges, using both rolled and plate girders in through and deck configurations. This culminated at the end of the decade with spans around 150 feet. Other longer girders had been built elsewhere in the country, but for Missouri, this represented a noteworthy technological feat. With its 100-foot through girder span and 1936 construction date, the Hawthorne Drive Viaduct is noteworthy as one of the earliest of these long-span beam bridges.

NAME(S) OF STRUCTURE

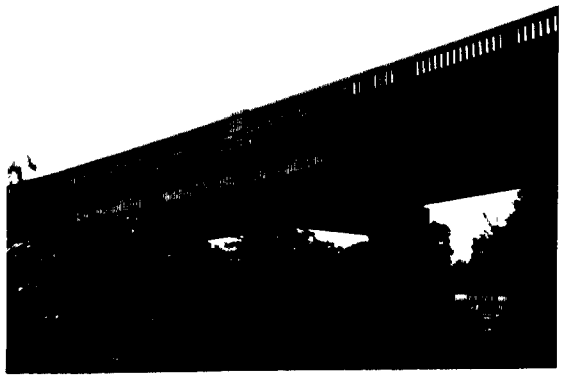
Hawthorne Drive Viaduct

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 No. 072000.0; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City, Missouri.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	3 July 1993

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Hille's Ford Bridge
MHTD: 114001.9

JASP13

DATE(S) OF CONSTRUCTION
1913

LOCATION
County Road 114 over North Fork of the Spring River; S29/32, T30N, R31W
3.7 miles southwest of Jasper; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Jasper County

span number:	1	superstructure:	steel, 8-panel, rigid-connected Pratt through truss
span length:	120.0'	substructure:	concrete abutments and wingwalls
total length:	124.0'	floor/decking:	concrete deck over corrugated steel, with steel stringers
roadway wdt.:	13.9'	other features:	upper chord and inclined end post: two channels with cover plate and lacing; lower chord: four angles with lacing; vertical: two channels with lacing (four angles with lacing at the hip); diagonal: two or four angles with lacing; lateral bracing: round rod with threaded ends; strut: four angles, braced; lattice portal strut with curved knee braces; steel lattice guardrail; bridge plate: **J.L. Ross, Perry Brock, J.F. Lee, Co. Court L.M. Thomas, Co Clerk T.V. Grieb, Eng.**

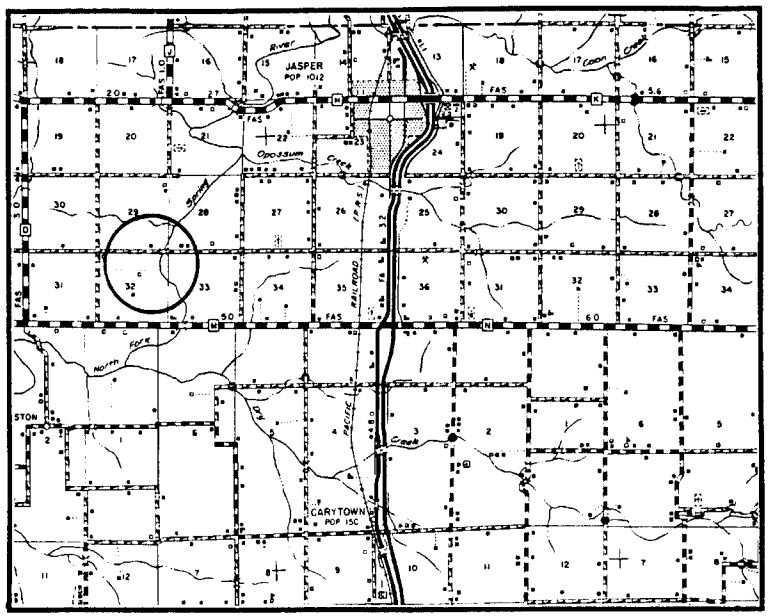
The Hille's Ford Bridge carries a county road over the North Fork of the Spring River in north-central Jasper County. A single-span riveted Pratt through truss, the bridge was erected in 1913 by Fred L. Appleby. A regionally active bridge builder from Springfield, Appleby received a $16,609.00 contract to erect four Jasper County bridges on March 4, 1913. Among these was a 120-foot span to be built at Hille's Ford, between sections 29 and 32, Township 30 North, Range 31 West. Construction of the four bridges was carried out by Appleby in routine fashion. On December 5, 1913, he was paid $4500.00 for "part payment Hille's Ford Bridge." This was followed by a payment of $980.00 issued to Appleby on January 20, 1914, with the notation "payment in full Hille's Ford Bridge." Having now served to carry vehicular traffic for eighty years, the Hille's Ford Bridge has not been significantly altered.

The Missouri State Highway Department employed the riveted Pratt configuration as its standard medium-span truss design for hundreds of bridges throughout the state. This bridge type was thus a mainstay structural type in Missouri during the 1920s and 1930s. But before the highway department developed its design, the counties had begun building riveted Pratts on their own, based on standard designs by the regional bridge builders. Relatively few pre-MSHD riveted Pratts were built in Missouri by the counties, owing to the short time span between their introduction and their adoption by the highway department. The Hille's Ford Bridge is noteworthy among these as one of the oldest surviving riveted Pratt through truss in Missouri–a well-preserved, early example of a state bridge staple.

NAME(S) OF STRUCTURE

Hille's Ford 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 No. 114001.9; Jasper County Court Record, Book 40: pages 223-334 (4 March 1913), page 237 (25 March 1913), page 244 (7 April 1913), page 636 (5 December 1913); Book 42: page 4 (20 January 1914), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Purcell Bridge
MHTD: 202002.0

JASP17

DATE(S) OF CONSTRUCTION
1912

LOCATION
County Road 202 over North Fork of the Spring River; S4/5, T29N, R32W
1.0 mile north of Purcell; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 51)

CONDITION
fair

OWNER
Jasper County

span number: 1
span length: 148.0'
total length: 253.0'
roadway wdt.: 16.9'

superstructure: steel, 8-panel, rigid-connected Parker through truss, with a three-span steel plate through girder approach on the north end

substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers with steel plate diaphragm, between main and approach spans; steel pile bent piers on concrete pedestals between approach spans

floor/decking: asphalt over corrugated steel, with steel stringers

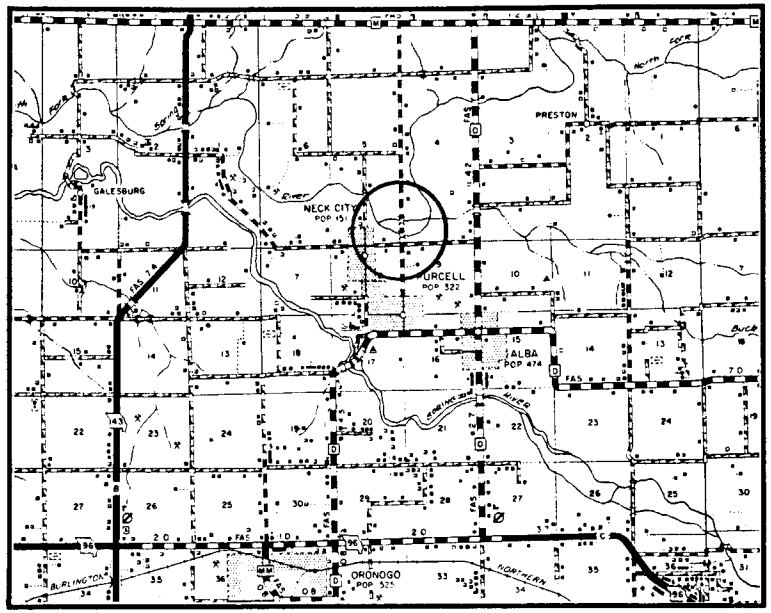
other features: upper chord and inclined end post: two steel channels with cover plate and lacing; lower chord: four angles; vertical: two channels with lacing (four angles with lacing at the hip); diagonal: four angles with lacing; lateral bracing: round rod with threaded ends; strut: angles, braced; floor beam: I-beam, field bolted to verticals; steel pipe guardrails

On March 17, 1912, the Jasper County Court opened competitive bids for the construction of three bridges: The Johnson Arch Bridge, located east of Belleville; the Moss Springs Bridge; and the Purcell Bridge, located over the North Fork of the Spring River a mile north of Purcell. Contracts to erect the superstructures for the Purcell and Moss Springs Bridges were let to the Blodgett Construction Company of Kansas City. Contracts to build the substructures for both bridges, meanwhile, were awarded to W.W. Williams of Joplin. For the Purcell Bridge, Blodgett Construction contracted to erect the superstructure for $6091.00, while Williams contracted to build the substructure for $2506.00. The erection of the Purcell Bridge was evidently carried out as planned. Warrants for work on the abutments were issued to Williams on July 16th, and August 5th, while Blodgett received payments for erecting the truss on October 21st, and on January 6, 1913. Today, the Purcell Bridge still carries traffic in its original location, and has not suffered any measurable loss of physical integrity.

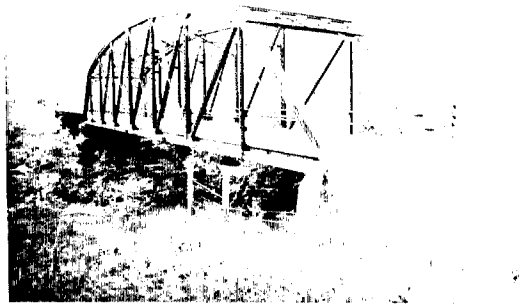
The Missouri State Highway Department employed the riveted Parker configuration as its standard long-span truss design for hundreds of bridges throughout the state. This bridge type was thus a mainstay structural type in Missouri during the 1920s and 1930s. But before the highway department developed its design, the counties had begun building riveted Parkers on their own, based on standard designs by the regional bridge builders. Relatively few pre-MSHD riveted Parkers were built in Missouri by the counties, owing to the short time span between their introduction and their adoption by the highway department. The Purcell Bridge is noteworthy among these as the oldest surviving riveted Parker through truss in Missouri–a well-preserved, early example of a state bridge staple.

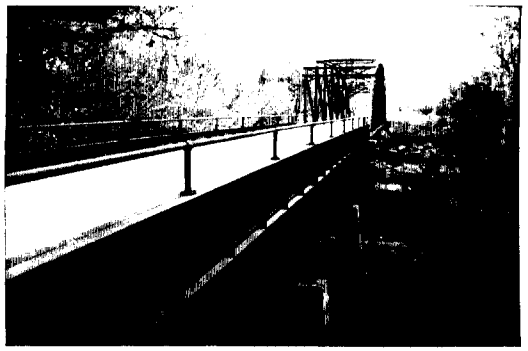
NAME(S) OF STRUCTURE
Purcell Bridge

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 No. 202002.0; Jasper County Court Record, Book 39: page 77 (9 November 1911), page 338 (7 March 1912); Book 40: page 86 (16 July 1912), page 89 (5 August 1912), page 90 (21 October 1912), page 632 (6 January 1913), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign, Loveland CO

DATE
1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Galesburg Bridge
MHTD: 218000.2

JASP18

DATE(S) OF CONSTRUCTION
1886

LOCATION
County Road 218 over North Fork of the Spring River; S3, T29N, R33W
1.5 miles north of Galesburg; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 56)

CONDITION
fair

OWNER
Jasper County

span number: 1
span length: 130.0'
total length: 135.0'
roadway wdt.: 12.0'

superstructure: wrought iron, 8-panel, pin-connected Pratt through truss
substructure: stone masonry abutments
floor/decking: timber deck over timber stringers
other features: upper chord and inclined end post: two channels with cover and batten plates; lower chord: two looped rectangular eyebars; vertical: two channels with flat wide laces; diagonal: two looped rectangular eyebars; counter: round eyerod with sleeve bolt; lateral bracing: round rod with threaded ends (lower), looped round eyerod (upper); strut: I-beam; lattice portal strut, with latticed, curved knee braces; floor beam: I-beam, U-bolted to lower chord pins; no guardrail; portal builder's plate: **Wrought Iron Bridge Co Builders Canton Ohio**

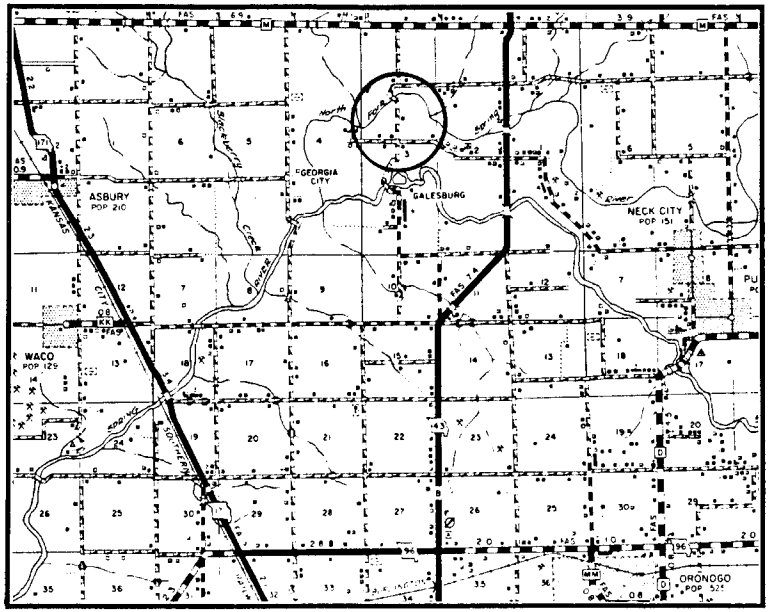
Comprised of a single pinned Pratt through truss, supported by stone masonry abutments, this medium-span wrought iron bridge is located 1½ miles north of Galesburg. The Galesburg Bridge dates to 1886. On June 21st of that year the Jasper County Court directed the county bridge commissioner to advertise for the erection of three iron bridges. One of the three spans, located at Norris Mill (later known as American Mill) was subsequently built by the Missouri Valley Bridge and Iron Company. Contracts to erect the other two bridges, meanwhile, were let to the Wrought Iron Bridge Company. For this crossing over the North Fork of the Spring River, WIBCo's contract called for fabrication and erection of superstructure for $2500.00. Local stonemason Israel Brewer received a separate $550.00 contract to build stone abutments. The bridge was constructed in a timely and routine manner. The abutments were declared completed on October 27, 1886; on February 23, 1887, the bridge commissioner reported that the superstructure had been completed and accepted. Now more than a century old, the Galesburg Bridge remains open to vehicular traffic. Located in a picturesque rural setting, it today exhibits a remarkably high degree of physical integrity.

Marketed extensively by such industry giants as Wrought Iron, the Pratt through truss was the bridge of choice for counties building medium-span structures on their roads. Its standardized fabrication, efficiency of materials and relative ease of erection made it an economical structural type for counties facing extensive bridge construction programs with limited funds. As a result, thousands of such trusses were built on Missouri's roads in the late 19th and early 20th centuries. The Galesburg Bridge is technologically significant as one of the oldest Pratts remaining in the state. One of the three oldest bridges in Jasper County, the Galesburg Bridge is a well-preserved remnant of early overland transportation.

NAME(S) OF STRUCTURE

Galesburg 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 No. 218000.2; Jasper County Court Record, Book M: page 610 (4 May 1886); Book N: page 55 (21 June 1886), pages 94-5 (9 August 1886), page 124 (27 October 1886), page 231 (23 February 1887), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Georgia City Bridge
MHTD: 223002.7

JASP20

DATE(S) OF CONSTRUCTION
1871

LOCATION
County Road 223 over Spring River; S4, T29N, R33W
3.3 miles southeast of Asbury; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 86)

CONDITION
fair

OWNER
Jasper County

span number: 1
span length: 120.0'
total length: 218.0'
roadway wdt.: 14.3'

superstructure: wrought iron, 12-panel, bowstring through-arch truss, with three pin-connected Pratt pony truss approach spans
substructure: stone masonry abutments and piers
floor/decking: timber deck over timber stringers
other features: tubular arch ribs of Hammond and Abbotts Column, patented April 1870; lower chord: two flat bars; vertical: star bars alternate with two angles, bolted through arch ribs; diagonal: round looped eyerods, creating an "X" pattern between the verticals; lateral bracing: round looped eyerods; strut: four angles with double lacing; transverse timber stringers lie directly on the lower chords; **Patent June 17, 1862** on main span

Erected in 1871 by the Wrought Iron Bridge Company, the Georgia City Bridge is Missouri's oldest remaining all-metal bridge. Planning for the structure began to take shape in the spring of 1870. On May 3rd of that year the Jasper County Court appropriated $11,000.00 for a 120-foot iron bridge to be built over the Spring River at Georgia City. Two months later, on August 2nd, County Road Commissioner Alonzo H. Hubbard presented specifications and estimates for the piers, tresselwork (approach spans) and embankments, for the bridge to be built at Georgia City. The work was put out to bid, and on August 31st John Miller and Israel Brewer were awarded a $4,800.00 contract to build the tressels, piers and embankments for the Georgia City Bridge "in a good substantial workmanlike manner, according to the best of their art and skill."

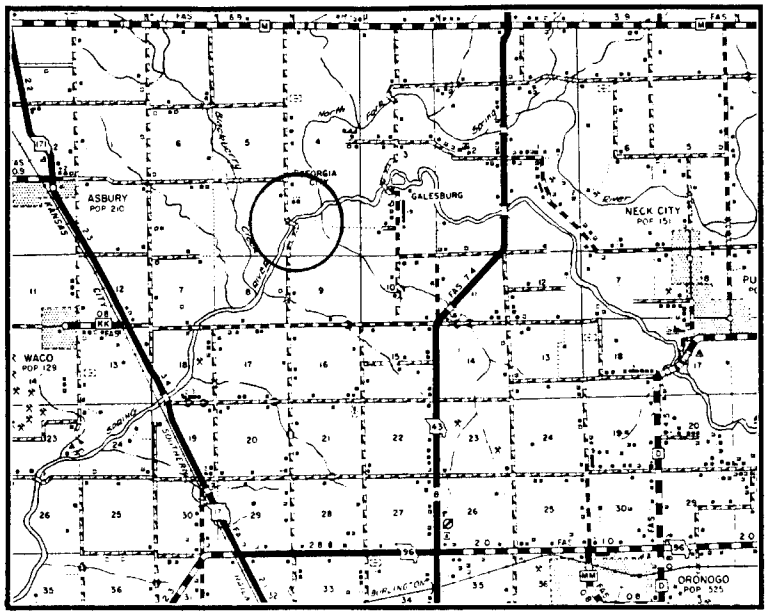
On December 12th, James Spence, who had replaced Hubbard as road commissioner, reported that the piers were in place, and the county then began to plan the erection of the truss itself. On December 21st a $4300.00 contract to build a wrought iron bridge of "Hammonds and Abbotts Column" across the Spring River at Georgia City was let to Eleazer Coffein, agent for the "Canton Ohio Bridge Company." This entry, recorded in the county court minutes on January 17, 1871, seems confusing because the Canton Bridge Company did not come into existence until 1876. In truth the truss was built, not by Canton Bridge which did not yet exist, but rather by another Canton based firm - the newly formed Wrought Iron Bridge Company. The Hammond referred to in the contract was David A. Hammond, who in 1864 had formed a bridge building partnership with Washington R. Reeves. Six years later, in April 1870, Hammond and a new partner, Job Abbott, patented the Hammond and Abbotts Column design, from which the Georgia City Bridge was patterned.

The contract for the Georgia City Bridge was signed on December 21, 1870, with Coffein acting as the agent, and Hammond, and perhaps Abbott, acting as sole proprietors. Then in January 1871, just as work on the Georgia City crossing was beginning, Hammond incorporated his bridge building enterprise under the name of the Wrought Iron Bridge Company. Thus the court's reference to the "Canton Ohio Bridge Company" was actually a general reference to Hammond's firm which was soon to be incorporated as the Wrought Iron Bridge Company. These facts provide compelling evidence that the Georgia City Bridge was likely one of the first iron structures built under the auspices of the Wrought Iron Bridge Company. In 1885 the county contracted with J.C. Gaston to replace the structure's timber approach spans with two small pony trusses. A third pony truss approach was added around the turn of the century. Although closed to vehicular traffic in 1986, the bridge has thus far been preserved in its original location, and retains an exceptionally high degree of structural integrity.

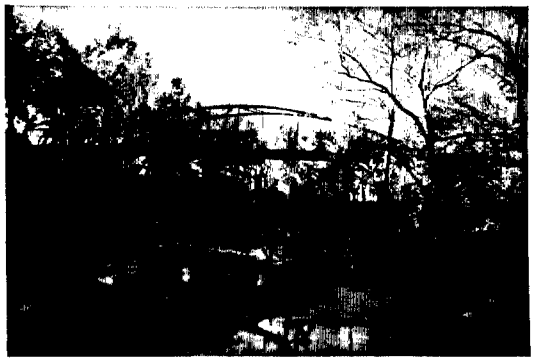
The bowstring arch-truss was the iron span of choice for Missouri counties in the late 1860s and 1870s. Marketed extensively throughout the Midwest by such industry giants as the King Iron Bridge and Manufacturing Company and the Wrought Iron Bridge Company, these often-patented bridge forms featured a wide range of span lengths, economical fabrication cost and relatively quick erection. The proliferation of the bowstring corresponded with the initial development of Missouri's road system; as a result, perhaps thousands of these prototypical iron spans were erected throughout the state. The bowstring had some rather severe structural flaws, however, relating primarily to lateral stability of the arches, and it was largely superseded by the pin-connected truss in the early 1880s. Despite this, some bowstrings were still erected in Iowa in the 1880s, although the number dwindled precipitously by the decade's end. Through subsequent attrition, almost all of Missouri's bowstrings have since been demolished and replaced. Now only four bowstring through arch-trusses remain. The Georgia City Bridge is historically and technologically significant as the oldest example in the state of what was once a mainstay structural type.

NAME(S) OF STRUCTURE
Georgia City 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 No. 223002.7; Jasper County Court Record, Book E: page 744 (3 May 1870), page 755 (5 May 1870); Book F: page 13 (2 August 1870), pages 18-28 (3 August 1870), pages 52-3 (31 August 1870), pages 62-4 (5 September 1870), page 131 (12 December 1870), pages 144-45 (22 December 1870), page 154 (17 January 1871), pages 157-160 (18 January 1871); Book L: page 446 (19 December 1883); Book M: page 119 (29 September 1884), page 207 (2 February 1885), page 293 (11 April 1885), page 299 (21 April 1885), page 320 (9 May 1885), page 340 (21 May 1885); Book P: page 6 (30 December 1889); Book V: page 597 (15 February 1897); Book W: page 54 (3 May 1897), pages 388-89 (4 January 1898); Victor C. Darnell, **American Bridge Building Companies 1840 - 1900**, pages 48, 79; "Group Starts Effort To Save Historic Bridge." **The Joplin Globe**, 27 February 1988, sec. B, page 1, located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Merrick Ford Bridge
MHTD: 321000.6

JASP23

DATE(S) OF CONSTRUCTION
1891

LOCATION
County Road 321 over Spring River; S26, T29N, R34W
3.6 miles northwest of Carl Junction; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 55)

CONDITION
fair

OWNER
Jasper County

span number: 1
span length: 150.0'
total length: 249.0'
roadway wdt.: 14.0'

superstructure: wrought iron or steel, 7-panel, pin-connected Pratt through truss, with flanking pin-connected Pratt pony truss approach spans and one additional steel stringer approach on the east end

substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers between main and approach spans; concrete and stone pier between pony truss and steel stringer approaches on the east end

floor/decking: timber deck over steel stringers

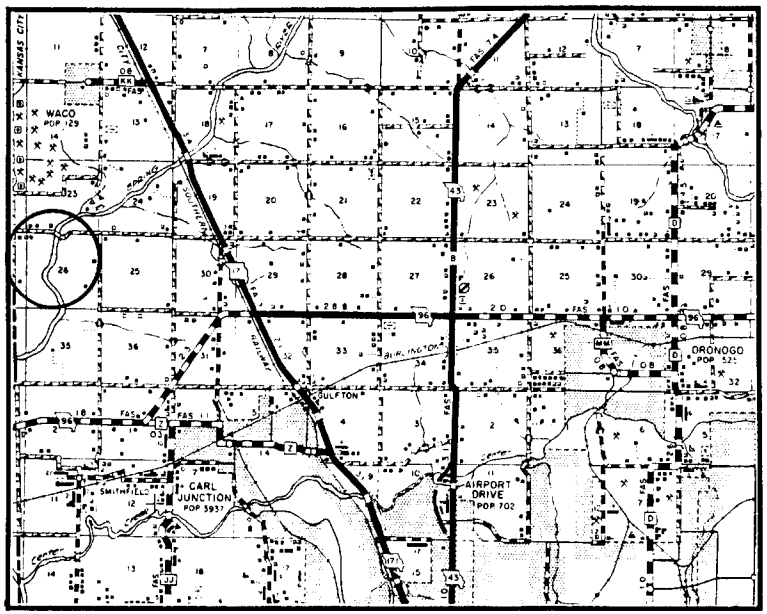
other features: upper chord and inclined end post: two channels with cover plate and lacing; lower chord: two punched rectangular eyebars; vertical: two channels with lacing (two punched rectangular eyes at the hip); diagonal: two punched rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles with angle knee braces; lattice portal strut with knee braces; floor beam: riveted plate girder, U-bolted to lower chord pins; steel angle guardrails; builder's plate: **Built By Mo Valley Bridge and Iron Works Leavenworth Kansas**

The Merrick Ford Bridge carries a county road over the Spring River about 3½ miles northwest of Carl Junction, near the Kansas state line. Configured as a pinned Pratt through truss, flanked on either end by pin-connected Pratt pony truss approach spans, the superstructure is supported by concrete-filled steel cylinder piers and concrete abutments. The bridge was built in 1891 by the Missouri Valley Bridge and Iron Works for $4500.00. In the fall of 1890 the Jasper County Court advertised for the construction of iron bridges at Gibson and Merrick Fords. On October 29, 1890, the court contracted with Missouri Valley for the Merrick Ford crossing, and in early 1891 a contract for the Gibson Ford Bridge was let to the Wrought Iron Bridge Company. There was some confusion between the two contracts, and the one for the Merrick Ford Bridge was subsequently amended and reissued. The confusion, however, caused only slight delay, if any. On March 18, 1891, George Bradford, the county road and bridge commissioner reported that he had inspected the Merrick Ford Bridge, and that he had found it completed in an acceptable manner. The county court then authorized full payment of $4500.00 to Missouri Valley. The Merrick Ford Bridge has changed little over the years, and still carries vehicular traffic in its original location.

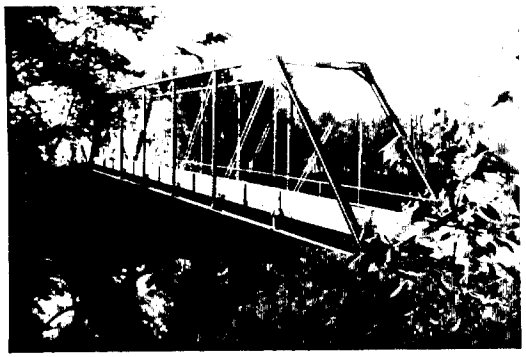
Pinned Pratt through trusses were erected in abundance throughout Missouri during the later 19th and early 20th centuries. Their standardized fabrication, efficiency of materials and relative ease of erection made them an economical structural type for counties facing extensive bridge construction programs with limited funds. The Merrick Ford Bridge is distinguished among the many Pratt trusses remaining in place in the state with its relatively early construction date and its excellent state of preservation. One of the more noteworthy examples of this mainstay structural type, it is a significant early wagon bridge.

NAME(S) OF STRUCTURE
Merrick Ford 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 No. 321000.6; Jasper County Court Record, Book P: page 367 (7 October 1890), page 373 (29 October 1890), page 519 (23 February 1891), pages 556-57 (18 March 1891), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Johnson Arch Bridge
MHTD: 628000.7

JASP26

DATE(S) OF CONSTRUCTION
1912

LOCATION
County Road 628 over Turkey Creek; S30, T28N, R33W
3.8 miles northwest of Joplin; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 56)

CONDITION
good

OWNER
Jasper County

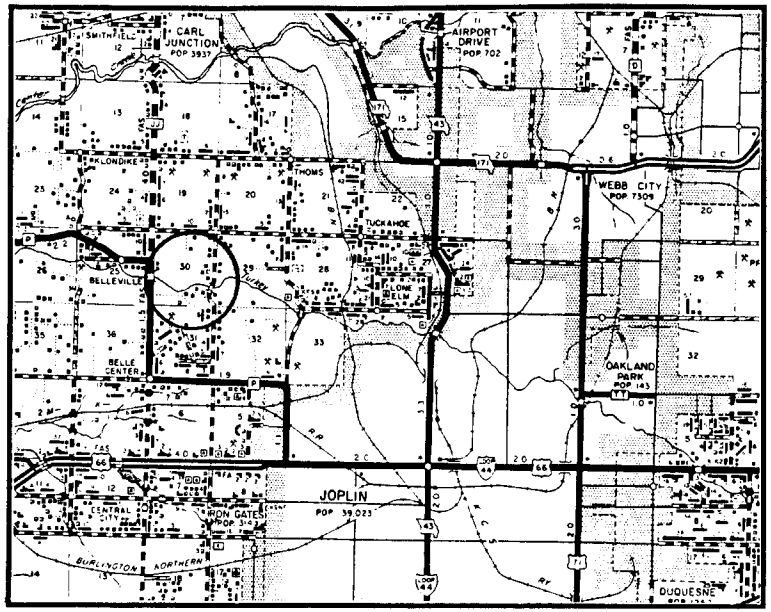
span number:	1	superstructure:	concrete, filled spandrel arch
span length:	80.0'	substructure:	concrete abutments and wingwalls
total length:	114.0'	floor/decking:	asphalt deck over earth fill
roadway wdt.:	20.2'	other features:	concrete guardrails with open concrete balustrade

On March 17, 1912, the Jasper County Court opened bids for the construction of three bridges: the Purcell Bridge, a steel truss located over the North Fork of the Spring River north of Purcell; the Moss Springs Bridge, another steel truss; and the Johnson Arch Bridge, located between Belleville and Joplin. The county hired A.M. Blodgett of Kansas City to erect the two trusses, but the low bidder for the Johnson Arch Bridge at $6390.00 was the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas. Carrying a county road over Turkey Creek in southeastern Jasper County, the Johnson Arch differed from previous vehicular spans built by the county in that it employed a filled spandrel concrete arch, rather than a traditional truss, for its superstructure. The bridge's name alone–Johnson Arch Bridge–indicates that it was viewed differently from the county's other bridges. The bridge has withstood the test of time in fine fashion. Located less than four miles northwest of Joplin, the region's largest city, the Johnson Arch Bridge still functions as originally built. Built from an independently developed design in a county that had not built any concrete arches up until this point, the Johnson Arch Bridge is something of an anomaly. It is noteworthy among Missouri's vehicular bridges for its long span, early construction date and well-preserved condition.

NAME(S) OF STRUCTURE

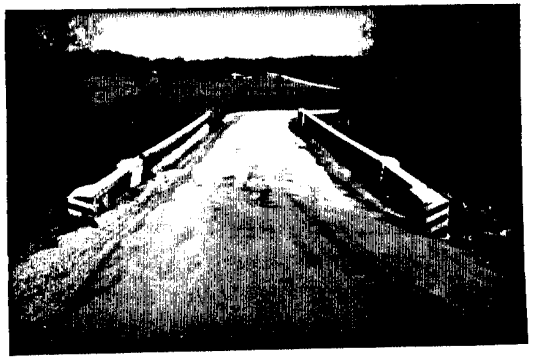
Johnson Arch Bridge

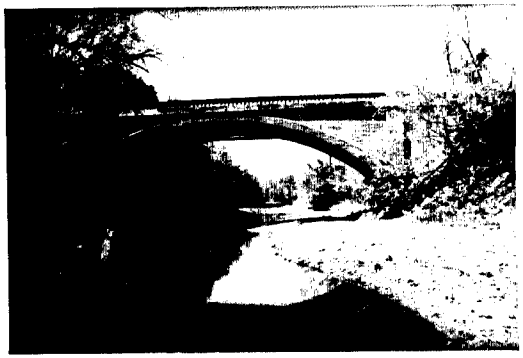
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 628000.7; Jasper County Court Record, Book 39: page 338 (7 March 1912), page 375 (8 May 1912), located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

1 May 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Jenkins Creek Bridge
MHTD: 697001.2

JASP28

DATE(S) OF CONSTRUCTION
1884-85

LOCATION
County Road 697 over Jenkins Creek; S15/22, T27N, R30W
4.9 miles southwest of Sarcoxie; Jasper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 54)

CONDITION
fair

OWNER
Jasper County

span number:	1	superstructure:	wrought iron, 5-panel, pin-connected Pratt pony truss
span length:	80.0'	substructure:	concrete abutments and wingwalls
total length:	82.0'	floor/decking:	timber deck over timber stringers
roadway wdt.:	15.8'	other features:	upper chord and inclined end post: two channels with cover and batten plates; lower chord: two looped rectangular eyebars; vertical: two tees with double lacing; diagonal: two looped square eyebars; counter: round eye rod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: tapered "fishtail" plate girder, U-bolted to lower chord pins; steel channel guardrails; cast iron hip blocks

This long-span pony truss spans Jenkins Creek on a gravel-surfaced county road, almost five miles southwest of Sarcoxie. The structure is comprised of a wrought iron Pratt truss supported by a concrete substructure. The truss employs features–cast iron hip blocks and paired tees for the verticals–that earmark it as having been fabricated by the Wrought Iron Bridge Company in the mid-1880s. In June 1884 the Jasper County Court ordered two 80-foot trusses from WIBCo for a bridge over the North Fork of the Spring River a mile west of Jasper. The court hired Napolean Gosney to build the masonry abutments and pier. In August the court then ordered the masonry work for bridges over Center Creek at Oronogo Ford and at Madill Ford. Gosney had completed the stonework on the Spring River bridge late in September, and a few weeks later WIBCo had delivered the structural steel for the two trusses to be used at this crossing.

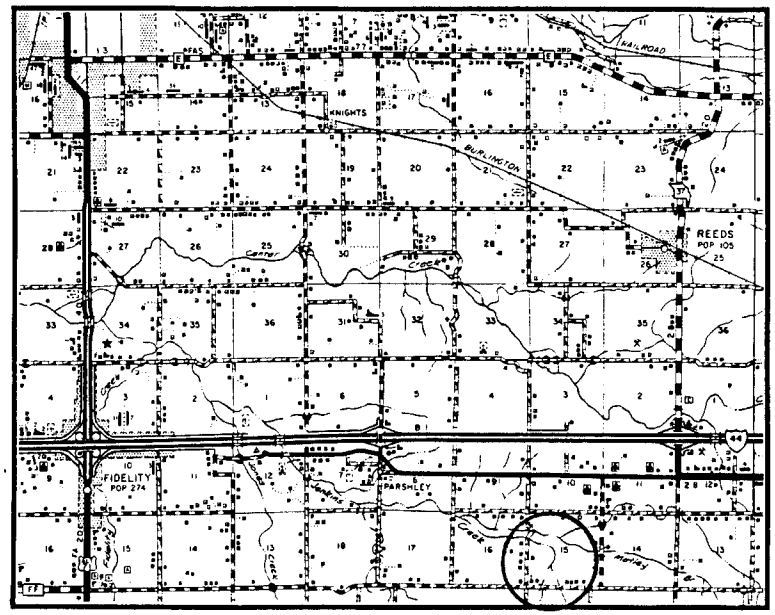
For some reason, however, the county in December instead directed WIBCo to erect one truss at each of the Oronago Ford and Madill Ford crossings, the masonry substructures for which had also been completed. The two structures–along with a third bridge over the Spring River–were reported complete by mid-February 1885. At some later time, one of these spans was probably moved to its present location over Jenkins Creek almost five miles southwest of Sarcoxie. Since its re-erection on new concrete abutments, the Jenkins Creek Bridge has functioned in place, with the addition of welded steel outriders at the verticals the only noteworthy structural alteration.

As one of America's most prolific bridge fabricators, the Wrought Iron Bridge Company maintained an extensive catalogue of truss types, ranging from the exotic to the commonplace. WIBCo, like most of the region's bridge builders of the time, relied heavily on pin-connected Pratt truss variants for its standard truss types. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design was characterized by upper chords and vertical members acting in compression and lower chords and diagonals that acted in tension. Its parallel

chords and equal panel lengths resulted in standardized sizes for the verticals, diagonals and chord members, making fabrication and assembly relatively easy. In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy of metal, and suitability for connecting to the floor and lateral systems." Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. The Jenkins Creek Bridge, although moved to its present location, is distinguished among these for its relatively early fabrication date and its patented configuration.

NAME(S) OF STRUCTURE
Jenkins Creek 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 No. 697001.2; Jasper County Court Record, Book M: pages 43-44 (23 June 1884), page 98 (22 August 1884), page 106 (11 Spetember 1884), page 119 (29 September 1884), page 195 (20 December 1884), page 243 (16 February 1885) - located at Jasper County Courthouse, Carthage MO; field inspection by Clayton Fraser, 23 April 1991.

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