COOPER COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
*COOP01	G 366	Lamine River Bridge	**1-180' riveted Parker through truss** 1924 Haller and Davis
COOP02	J 72	Lamine River Bridge	1-120' **concrete open spandrel arch** 1930 Yancey Construction Company
*COOP03	K 236	Lamine River Bridge	**1-200' riveted Parker through truss** 1933 Carruthers and Crouch
*COOP04	W 304	Turley Bridge	1-170' **pinned Parker through truss** **1906** Kansas City Bridge Company
COOP05	002000.7	Bridge	(replaced)
COOP06	003001.7	Bridge	(replaced)
*COOP07	025000.0	Dicks Bridge	**2-160' pinned Parker through truss** **1908** Kansas City Bridge Company
*COOP08	026000.4	Bridge	1- 60' pinned Pratt pony truss **c1910** 1- 22' steel stringer
COOP09	067001.8	Bridge	**1912** Kansas City Bridge Company
COOP10	070000.0	Petite Saline Ck. Bridge	1-**100'** pinned Pratt pony truss **c1910**
COOP11	140000.0	Billingsville Bridge	1-**100'** pinned Pratt pony truss **1913** Kansas City Bridge Company
*COOP12	156000.6	Roberts Ford Bridge	(replaced)
*COOP13	173002.9	Cordry Bridge	(replaced)
*COOP14	202000.0	Bryant Bottom Bridge	1-**210' pinned Parker through truss** **1908** Missouri Bridge and Iron Co.
*COOP15	211000.0	Shakleton Ford Bridge	1-160' **pinned Parker through truss** **1913** Kansas City Bridge Company
*COOP16	223000.4	Klenklen Bridge	1-**210' steel cable suspension bridge** 1930 J.A. Dice
*COOP17	231001.3	Streit Ford Bridge	1-140' **pinned Pratt through truss** **1913** Kansas City Bridge Company
*COOP18	238002.0	Otterville Ford Bridge	1-160' **pinned Parker through truss** **1908** Missouri Bridge and Iron Co.
*COOP19	258001.3	Otter Creek Bridge	1- 72' riveted Pratt pony truss 1920 Kansas City Bridge Company
*COOP20	314000.5	Cotton Bridge	(replaced)
*COOP21	333001.3	Moniteau Creek Bridge	1- 50' **pinned kingpost pony truss** **1899** A.M. Blodgett, Kansas City **1902** A.M. Blodgett, Kansas City
COOP22	030003.7	Thomas Branch Bridge	1- 36' concrete deck girder **1920** Pope Construction Company

COOPER COUNTY

EXCLUDED:

Pratt pony truss
G 365 196001.2 298002.3 314000.5 340001.0

Warren pony truss
236002.0 270000.9 148000.6

Steel girder
013001.9 123000.4 284000.5 327002.3 329000.4

Steel stringer
G 365R G 581R S 123 S 621 X 21R 023001.0 047001.0
113000.6 114001.3 117000.2 123001.1 137000.4 143002.0 162000.6
164001.1 180000.3 189000.2 219000.7 228000.9 232000.3 237001.1
246000.3 284000.3 300000.3 331000.4

Concrete girder
J 431 X 827 045500.1 344003.0

Concrete slab
G 581 G 702R G 731R J 129 107001.5 148001.1 252000.9
254001.2 279001.3 282001.1

Concrete box culvert
H 497 T 939 X 544 X 860 343000.7

Timber stringer
020000.9 192000.8 193000.6

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	4	13	0	0	17
Excluded	16	44	0	0	60
	20	57	0	0	77 structures

Lamine River Bridge

COOP01

GENERAL DATA

structure no.: G 366
county: Cooper

city/town: 4.2 miles northwest of Pilot Grove
feature inters.: Lamine River
cadastral grid: S12, T48N, R19W
highway route: State Secondary Route M
highway distr.: 5
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 9-panel, rigid-connected Parker through truss, with rigid-connected Warren pony truss approach spans at each end
substructure: concrete abutments, wingwalls and piers

span number: 1; 2
span length: 180'; 80'
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: 1924
erection cost: $46,638.37
designer: Missouri State Highway Department
fabricator : unknown
contractor: Haller and Davis

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 366; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; **Fourth Biennial Report of the Missouri State Highway Commission,** for the period ending 1 December 1924, page 145; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 46
evaluation: NRHP non-eligible (typically configured, long-span highway truss of the 1920s)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 11 December 1993

Lamine River Bridge

COOP02

GENERAL DATA

structure no.: J 72
county: Cooper

city/town: 1.2 miles east of Otterville
feature inters.: Lamine River
cadastral grid: S2, T45N, R19W
highway route: State Secondary Route A
highway distr.: 5
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: concrete, two-rib open spandrel arch, with four concrete deck girder approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 120.0'
total length: 318.0'
roadway width: 20.0'

condition: good
alterations: none
floor/decking : concrete deck
other features: MSHD standard concrete guardrails

HISTORICAL DATA

erection date: 1930
erection cost: $31,847.70
designer: Missouri State Highway Department
fabricator : none
contractor: Yancey Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 72; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 47
evaluation: NRHP non-eligible (typically configured, long-span arch configuration)

inventoried by: Michelle Crow-Dolby 11 December 1993

Lamine River Bridge

COOP03

GENERAL DATA

structure no.: K 236
county: Cooper
city/town: 7.4 miles southwest of Boonville
feature inters.: Lamine River
cadastral grid: S10, T48N, R18W
highway route: Missouri State Highway 41
highway distr.: 5
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 9-panel, rigid-connected Parker through truss; rigid-connected Warren pony truss approach span at each end; three steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1; 2
span length: 200'; 80'
total length: 524.0'
roadway width: 22.0'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1933
erection cost: $40,246.02
designer: Missouri State Highway Department
fabricator : unknown
contractor: Carruthers and Crouch

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 236; field inspection by Clayton Fraser, 1 May 1990; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri.

sign. rating: 50
evaluation: NRHP possibly eligible (well-preserved, long-span highway truss of the 1920s)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 11 December 1993

Turley Bridge

COOP04

GENERAL DATA

structure no.: W 304
county: Cooper

city/town: 6.5 miles northeast of Prairie Home
feature inters.: Petite Saline Creek
cadastral grid: S22, T48N, R15W
highway route: State Secondary Route V
highway distr.: 5
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 9-panel, pin-connected Parker through truss
substructure: concrete abutments; non-original masonry abutments and pier from previous bridge

span number: 1
span length: 170.0'
total length: 171.0'
roadway width: 13.0'

condition: fair
alterations: truss moved, 1938
floor/decking : asphalt over timber deck with steel stringers
other features: upper chord: two channels with cover plate and lacing; lower chord: two punched rectangular eyebars; vertical: two channels with lacing; hip vertical: two angles with batten plates; diagonal: two punched rectangular eyebars; counter: looped square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles with continuous plate; lateral bracing on struts: round looped rods; portal strut: two angles with lacing and curved knee braces; floor beam: I-beam, field-bolted to verticals; guardrail: four angles with lattice and continuous ends

HISTORICAL DATA

erection date: 1906-07; moved 1938
erection cost: $8200.00 (original two-span bridge)
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO; Carnegie Steel Company, Pittsburgh PA
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number W 304; Cooper County Court, Record X: pages 90-91 (9 May 1906), page 98 (6 June 1906), page 102 (9 July 1906), page 162 (4 December 1906); original bridge drawing, 4 June 1906, located at the Cooper County Courthouse, Boonville MO; County Engineer's report, 4 February 1907, located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

Turley Bridge

sign. rating: 47
evaluation: NRHP possibly eligible (well-documented example of uncommon structural type, moved to this location)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 11 December 1993

Dicks Bridge

COOP07

GENERAL DATA

structure no.: 025000.0
county: Cooper
city/town: 3.5 miles southeast of Blackwater
feature inters.: Lamine River
cadastral grid: S12, T49N, R19W
highway route: County Road 25
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Parker through trusses; one 50-foot, 3-panel, pin-connected Pratt pony truss approach span at west end and three steel stringer approach spans at east end

substructure: concrete abutments and wingwalls with concrete-filled steel cylinder piers

span number: 2
span length: 160.0'
total length: 390.0'
roadway width: 14.0'

condition: fair
alterations: none
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; diagonal: two looped rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles, braced; portal strut: two angles, latticed; floor beam: I-beam, field-bolted to verticals; endpost stiffener: two angles with batten plates; guardrail: lattice; builder's plate text on pony truss: **built by / A.M. Blodgett, C. E. / Kansas City, MO**; county portal plate: **1908** on through truss endpost

HISTORICAL DATA

erection date: 1908
erection cost: $9600.00
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Cambria Steel Company, Pittsburgh PA
contractor: Kansas City Bridge Company, Kansas City MO; A.M. Blodgett, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 025000.0; Cooper County Court Record, Book X: page 256 (8 May 1907), page 264 (3 June 1907), pages 281-282 (5 August 1907), page 304 (3 September 1907), page 334 (6 November 1907), page 356 (8 January 1908), page 365 (3 February 1908), page 447 (4 May 1908) - located at the Cooper

County Courthouse, Boonville MO; report of county road and bridge commissioner E. T. Hale to the county court regarding reconstruction of the Dicks Bridge, 3 June 1907 - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 53
evaluation: NRHP possibly eligible (well-preserved, well-documented example of uncommon Pratt truss variant)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 11 December 1993

Bridge

COOP08

GENERAL DATA

structure no.: 026000.4
county: Cooper

city/town: 7.6 miles southwest of Boonville
feature inters.: unnamed tributary to the Lamine River
cadastral grid: S10, T49N, R18W
highway route: County Road 26
highway distr.: 5
current owner: Cooper 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: 13.8'

condition: fair
alterations: none
floor/decking : timber 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: four angles with lacing; diagonal: two punched rectangular eyebars; counter: round eyebar with turnbuckle; lateral bracing: round bar; floor beam: I-beam, field-bolted to verticals; guardrail: two channels

HISTORICAL DATA

erection date: c1910
erection cost: unknown
designer: unknown
fabricator : Lackawanna Steel Company, Pittsburgh PA
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 026000.4; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 30
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Michelle Crow-Dolby 11 December 1993

Bridge

COOP09

GENERAL DATA

structure no.: 067001.8
county: Cooper
city/town: 3.9 miles southwest of Wooldridge
feature inters.: branch of Wolf Creek
cadastral grid: S30, T48N, R15W
highway route: County Road 67
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel stringer
substructure: concrete abutments and wingwalls

span number: 1
span length: 22.0'
total length: 24.0'
roadway width: 14.1'
condition: fair
alterations: unknown
floor/decking : timber deck
other features: no guardrails

HISTORICAL DATA

erection date: 1912
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 067001.8; Cooper County Court Record, Book Z: page 200 (1 July 1912), page 208 (23 July 1912) - located at the Cooper County Courthouse, Boonville MO.

sign. rating: 34
evaluation: NRHP non-eligible (typical small-scale example of common structural type)

inventoried by: Michelle Crow-Dolby 12 December 1993

Petite Saline Creek Bridge

COOP10

GENERAL DATA

structure no.: 070000.0
county: Cooper
city/town: 6.1 miles southeast of Boonville
feature inters.: Petite Saline Creek
cadastral grid: S15, T48N, R16W
highway route: County Road 70
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt pony truss
substructure: concrete-filled steel cylinder piers

span number: 1
span length: 100.0'
total length: 134.0'
roadway width: 12.7'
condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel angle 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 Number 070000.0.

sign. rating: 25
evaluation: NRHP non-eligible (typical example of mainstay structural type, poorly documented)

inventoried by: Michelle Crow-Dolby 12 December 1993

Billingsville Bridge

COOP11

GENERAL DATA

structure no.: 140000.0
county: Cooper
city/town: 5.2 miles south of Boonville
feature inters.: Petite Saline Creek
cadastral grid: S26/27, T48N, R17W
highway route: County Road 140
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt pony truss, with steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 100.0'
total length: 164.0'
roadway width: 12.8'
condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1913
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 140000.0; Cooper County Court Record, Book Z: page 450 (7 May 1913), page 475 (5 June 1913) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

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

inventoried by: Michelle Crow-Dolby 12 December 1993

Bryant Bottom Bridge

COOP14

GENERAL DATA

structure no.: 202000.0
county: Cooper

city/town: 4.4 miles southeast of Blackwater
feature inters.: Lamine River
cadastral grid: S15, T48N, R19W
highway route: County Road 202
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 12-panel, pin-connected Parker through truss
substructure: limestone masonry abutments and extensive wingwalls

span number: 1
span length: 210.0'
total length: 212.0'
roadway width: 14.0'

condition: fair
alterations: none
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; diagonal: two looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: four angles with lacing, braced; portal strut: angle A-frame; stringer: steel; floor beam: I-beam, field-bolted to verticals; guardrail: steel pipe; portal builder's plate: **1908 / BUILT BY MISSOURI BRIDGE & IRON CO. / ST. LOUIS MO. / A.M. HALL PRESIDING JUDGE / JOSH. MINTER B.O. JEWETT ASSOCIATE JUDGES / JESSE T. HAYES COUNTY CLERK / E.T. HALE ROAD AND BRIDGE COMM'R**

HISTORICAL DATA

erection date: 1908
erection cost: $3300.00 (contract amount); $4400.00 (actual payment)
designer: Missouri Bridge and Iron Company, St. Louis MO
fabricator : Missouri Bridge and Iron Company, St. Louis MO;
Jones and Laughlin Steel Company, Pittsburgh PA;
Lackawanna Steel Company, Pittsburgh PA
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 202000.0; Cooper County Court Record, Book X: page 173 (4 February 1907), page 256 (8 May 1907), page 263 (3 June 1907), page 273 (1 July 1907), page 280 (5 August 1907), page 461 (6 May 1908), page 473 (6 July 1908), page 500 (8 August 1908), pages 586-587 (9 December 1908), page 608 (1 February 1909); county engineer's report, no date - both located at the Cooper County Courthouse, Boonville MO; report of road and bridge commissioner E.T. Hale regarding construction of the Bryant Bottom Bridge, June 1907 - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 60

evaluation: NRHP possibly eligible (outstanding early county-built truss bridge)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 12 December 1993

Shakleton Ford Bridge

COOP15

GENERAL DATA

structure no.: 211000.0
county: Cooper

city/town: 6.7 miles west of Pilot Grove
feature inters.: Lamine River
cadastral grid: S32, T48N, R19W
highway route: County Road 211
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 9-panel, pin-connected Parker through truss; steel stringer approach span at one end
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers

span number: 1
span length: 160.0'
total length: 232.0'
roadway width: 14.0'

condition: fair
alterations: none
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; hip vertical: two angles with batten plates; diagonal: two looped rectangular eyebars; lateral bracing: round rod with threaded end; strut: two angles; portal strut: angle lattice with curved knee braces; floor beam: I-beam, field-bolted; guardrail: two channels; portal builder's plate: 1913 / BUILT BY KANSAS CITY BRIDGE CO. / KANSAS CITY, MO. / A.M. HALL PRES. JUDGE / ANDREW DAVIN ASSOC. JUDGE / B.L. MOORE ASSOC. JUDGE / J. THAYS COUNTY CLERK / W.E. HARRIS COUNTY ENG'R

HISTORICAL DATA

erection date: 1913
erection cost: $11,400.00
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO; Lackawanna Steel Company, Pittsburgh PA
contractor: Kansas City Bridge Company, Kansas City MO

Shakleton Ford Bridge

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 211000.0; Cooper County Court Record, Book Z: page 424 (7 April 1913), page 457 (8 May 1913) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 48

evaluation: NRHP possibly eligible (well-preserved example of uncommon truss type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 12 December 1993

Klenklen Bridge

COOP16

GENERAL DATA

structure no.: 223000.4
county: Cooper

city/town: 4.3 miles northwest of Pleasant Green
feature inters.: Lamine River
cadastral grid: S20, T47N, R19W
highway route: County Road 223
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel cable suspension bridge
substructure: concrete abutments and wingwalls

span number: 1
span length: 210.0'
total length: 368.0'
roadway width: 10.5'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: tower vertical: two channels and I-beam with lacing; portal strut: I-beam with channel knee braces; cast iron cradle; cables and suspenders: galvanized steel, parallel strand, anchored in concrete deadmen; floor beam: I-beam; guardrail: three channels on main span, gas pipe on approach span

HISTORICAL DATA

erection date: 1930
erection cost: $6200.00
designer: J.A. Dice, Warsaw MO
fabricator : Illinois Steel Company, Chicago IL (towers);
Jones and Laughlin Steel Company, Pittsburgh PA (floor beams)
contractor: J. A. Dice, Warsaw MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 223000.4; Cooper County Court Record, Book F: page 272 (6 May 1929), page 345 (7 August 1929), page 349 (26 August 1929), page 366 (24 September 1929), page 475 (5 March 1930) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 58
evaluation: NRHP determined eligible (technologically significant example of an esoteric bridge type, built using vernacular tradition)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 13 December 1993

Streit Ford Bridge

COOP17

GENERAL DATA

structure no.: 231001.3
county: Cooper

city/town: 4.4 miles southwest of New Lebanon
feature inters.: Lamine River
cadastral grid: S16, T46N, R19W
highway route: County Road 231
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Pratt through truss; 4-span steel stringer approach on north end, 1-span steel stringer approach on south end
substructure: concrete abutments and piers with stone retaining walls

span number: 1
span length: 140.0'
total length: 228.0'
roadway width: 12.7'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord: two channels with cover plate and lacing; lower chord: two looped rectangular eyebars; vertical: two channels with lacing; hip vertical: two angles with batten plates; diagonal: two looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: two angles; floor beam: I-beam, field-bolted to verticals; guardrail: two channels; portal builder's plate: **1913 / BUILT BY KANSAS CITY BRIDGE CO. / KANSAS CITY MO. / A.M. HALL PRES. JUDGE / ANDREW W. DAVIN ASSOC. JUDGE / B.E. MOORE ASSOC. JUDGE / J.T. HAYS COUNTY CLERK / W.E. HARRIS COUNTY ENG'R.**

HISTORICAL DATA

erection date: 1913
erection cost: $9400.00
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO; Lackawanna Steel Company, Pittsburgh PA
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 231001.3; Cooper County Court Record, Book Z: page 424 (7 April 1913), page 457 (8 May 1913) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton B. Fraser, 1 May 1990.

Streit Ford Bridge

sign. rating: 46
evaluation: NRHP possibly eligible (well-preserved, well-documented example of mainstay structural type, built relatively late)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 13 December 1993

Otterville Ford Bridge

COOP18

GENERAL DATA

structure no.: 238002.0
county: Cooper

city/town: 3.3 miles southwest of New Lebanon
feature inters.: Lamine River
cadastral grid: S26, T46N, R19W
highway route: County Road 238
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 9-panel, pin-connected Parker through truss; 3-panel, pin-connected Pratt half-hip pony truss approach span on west end, four steel stringer approach spans on east end

substructure: concrete abutments and wingwalls, concrete-filled steel cylinder piers under channel span; steel pile bents under stringer approach spans

span number: 1
span length: 160.0'
total length: 285.0'
roadway width: 14.0'

condition: fair
alterations: none
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 looped rectangular eyebars; vertical: two channels with lacing; diagonal: two looped rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: four angles with lacing, braced; floor beam: I-beam, field-bolted to verticals; guardrail: steel pipe

HISTORICAL DATA

erection date: 1908
erection cost: $4945.50; $850.00 [80-foot approach span]
designer: Missouri Bridge and Iron Company, St. Louis MO
fabricator : Missouri Bridge and Iron Company, St. Louis MO; Lackawanna Steel Company, Pittsburgh PA
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 238002.0; Cooper County Court Record, Book V: page 592 (9 August 1905); Book X: page 256 (8 May 1907), page 263 (3 June 1907), page 273 (1 July 1907), page 280 (5 August 1907), page 461 (6 May 1908), page 473 (6 July 1908), pages 500-501 (8 August 1908); County Engineer's Report, undated - both located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

Otterville Ford Bridge

sign. rating: 50
evaluation: NRHP possibly eligible (well-preserved, well-documented example of uncommon structural type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 13 December 1993

Otter Creek Bridge

COOP19

GENERAL DATA

structure no.: 258001.3
county: Cooper
city/town: 5.0 miles southeast of New Lebanon
feature inters.: Otter Creek
cadastral grid: S4, T45N, R18W
highway route: County Road 258
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

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

span number: 1
span length: 70.0'
total length: 72.0'
roadway width: 16.8'
condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: two channels with cover plate and lacing; lower chord: two angles with batten plates; vertical: two angles with batten plates; diagonal: two angles with batten plates; lateral bracing: one angle; floor beam: I-beam, field-bolted to verticals; guardrail: two channels

HISTORICAL DATA

erection date: 1920
erection cost: $6910.00
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 258001.3; original bridge contract, 5 January 1920 - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

sign. rating: 40
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Michelle Crow-Dolby 13 December 1993

Moniteau Creek Bridge

COOP21

GENERAL DATA

structure no.: 333001.3
county: Cooper
city/town: 5.6 miles southwest of Prairie Home
feature inters.: Moniteau Creek tributary
cadastral grid: S24, T46N, R16W
highway route: County Road 333
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt pony truss; 2-panel, pin/rigid-connected Kingpost pony truss approach span
substructure: concrete abutments and wingwalls; spill-through concrete pier

span number: 1; 1
span length: 50.0'; 25.0'
total length: 76.0'
roadway width: 11.7'
condition: fair
alterations: substructure replaced; kingpost truss added
floor/decking : timber 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: four angles with lacing (Pratt), four angles with batten plates (Kingpost); diagonal: one square eyebar; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to lower chord pins (round bolt); guardrail: lattice; builder's plate: **A. M. BLODGETT / 1899 / KANSAS CITY MO**

HISTORICAL DATA

erection date: 1899; 1902
erection cost: $1349.00 (superstructure); $441.30 (substructure)
designer: unknown
fabricator : unknown
contractor: A. M. Blodgett, Kansas City MO (superstructure); C.N. Hutchinson (stone abutments)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 333001.3; Cooper County Court Record, Book V: page 26 (7 August 1899), page 95 (5 December 1899), page 97 (5 December 1899), page 466 (7 August 1901), page 484 (3 September 1901), page 495 (7 October 1901), page 525 (2 December 1901), page 627 (2 June 1902); Record W: page 6 (8 July 1902); original contract, 7 October 1901 - both located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

Moniteau Creek Bridge

sign. rating: 59
evaluation: NRHP possibly eligible (now-rare example of what once was a mainstay structural type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 16 December 1993

Thomas Branch Bridge

COOP22

GENERAL DATA

structure no.: 030003.7
county: Cooper
city/town: 3.0 miles west of Boonville
feature inters.: Thomas Branch
cadastral grid: S4, T48N, R17W
highway route: County Road 30
highway distr.: 5
current owner: Cooper County

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 36.0'
total length: 38.0'
roadway width: 19.2'
condition: good
alterations: none
floor/decking : concrete deck
other features: MSHD-standard concrete guardrails with square balusters and paneled bulkheads

HISTORICAL DATA

erection date: 1920
erection cost: $7407.20
designer: Missouri State Highway Department
fabricator : none
contractor: Pope Construction Company, Jefferson City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 366; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pp. 130, 134.

sign. rating: 46
evaluation: NRHP possibly eligible (one of earliest remaining MSHD-designed bridges)

inventoried by: Michelle Crow-Dolby 16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Lamine River Bridge
MHTD: K 236

COOP03

DATE(S) OF CONSTRUCTION
1933

LOCATION
Missouri State Highway 41 over Lamine River; S10, T48N, R18W
7.4 miles southwest of Boonville; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / highway bridge

RATING NRHP possibly eligible (score: 50)

CONDITION
good

OWNER
Missouri Highway and Transportation Department

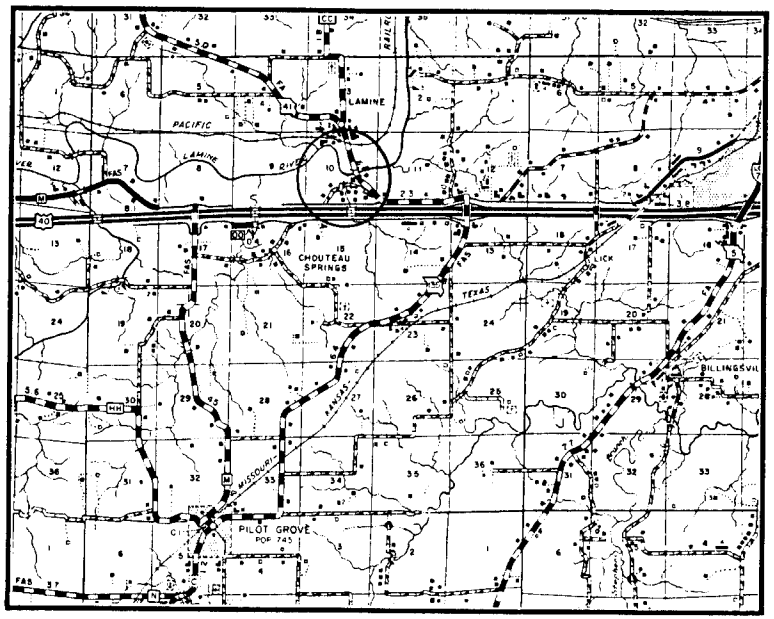
span number:	1; 2	superstructure:	steel, 9-panel, rigid-connected Parker through truss; rigid-connected Warren pony truss approach span at each end; three steel stringer approach spans
span length:	200'; 80'		
total length:	524.0'	substructure:	concrete abutments, wingwalls and piers
roadway wdt.:	22.0'	floor/decking:	concrete deck over steel stringers
		other features:	steel guardrails

This large-scale highway truss spans the Lamine River some seven miles southwest of Boonville, the Cooper County seat. The bridge is comprised of a 200-foot Parker through truss over the river's main channel, flanked on both sides by 80-foot Warren pony trusses. In 1933 engineers for the Missouri State highway Department designed the Lamine River Bridge as a replacement for an earlier county-built truss. A contract for its fabrication and erection was let that May to Carruthers and Crouch for $40,246.02. Completed later that year, the Lamine River Bridge has carried vehicular traffic, with only maintenance-related repairs.

In the early 1930s the state highway department began using rigid-connected Parker trusses for its long-span crossings. With its polygonal upper chords, the Parker was somewhat more materially conservant that straight-chorded Pratt trusses, making its use more economical for spans in excess of 160 feet. Most of MSHD's Parkers ranged between 150 and 180 feet in span length. With its 200-foot length, the central span on the Lamine River Bridge in Cooper County ranked among the state's longest Parker trusses. Seven other 200-foot Parkers and two other bridges with longer spans have been identified by the statewide inventory. The Lamine River Bridge is thus a well-preserved, relatively long-span example of a mainstay structural type in Missouri.

NAME(S) OF STRUCTURE
Lamine 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 236; field inspection by Clayton Fraser, 1 May 1990; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri.

INVENTORIED BY
Clayton B. Fraser and Michelle Crow-Dolby

AFFILIATION
Fraserdesign, Loveland CO

DATE
16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Turley Bridge
MHTD: W 304

COOP04

DATE(S) OF CONSTRUCTION
1906-07; moved 1938

LOCATION
State Secondary Route V over Petite Saline Creek; S22, T48N, R15W
6.5 miles northeast of Prairie Home; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / highway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Missouri Highway and Transportation Department

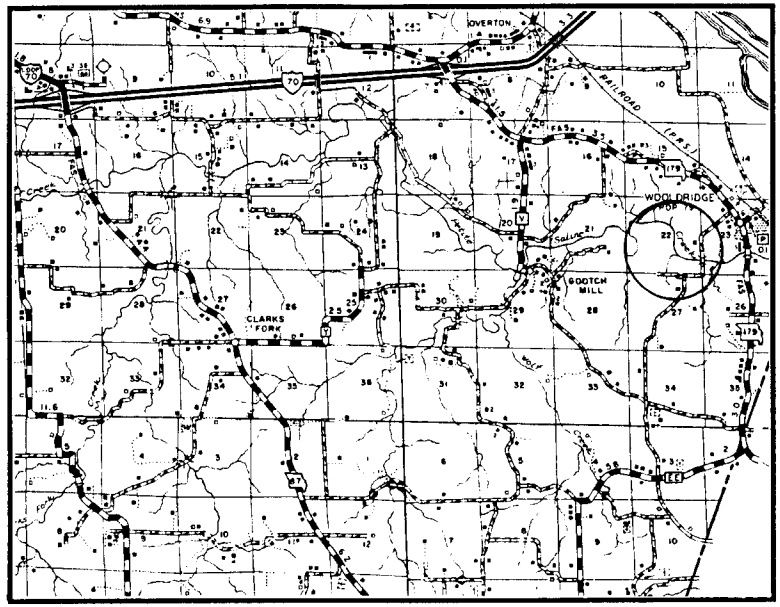
span number:	1	superstructure:	steel, 9-panel, pin-connected Parker through truss
span length:	170.0'	substructure:	concrete abutments; non-original masonry abutments and pier from previous bridge
total length:	171.0'	floor/decking:	asphalt over timber deck with steel stringers
roadway wdt.:	13.0'	other features:	upper chord: two channels with cover plate and lacing; lower chord: two punched rectangular eyebars; vertical: two channels with lacing; hip vertical: two angles with batten plates; diagonal: two punched rectangular eyebars; counter: looped square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles with continuous plate; lateral bracing on struts: round looped rods; portal strut: two angles with lacing and curved knee braces; floor beam: I-beam, field-bolted to verticals; guardrail: four angles with lattice and continuous ends

This long-span pinned Parker truss carries State Secondary Route V over the Petite Saline Creek some seven miles northeast of Prairie Home. Supported by a masonry pier and abutments, remnants of an earlier bridge at this location, the bridge was originally built as part of a two-span structure over the Lamine River. It was later moved to its present site in 1938. The truss on the Turley Bridge dates to 1906. In May of that year, the Cooper County Court declared "an urgent necessity for re-building the Turley Bridge across the Lamine River." When the job was let for bids in early June, several competitive proposals were received but were rejected by the court as too high. Negotiations to lower the bid estimates ensued. The resulting low bidder at $8200.00, the Kansas City Bridge Company, was awarded the contract to fabricate and erect the long-span trusses. Using steel components rolled in Pittsburgh by Carnegie, KCBCo fabricated the two 170-foot spans and erected them on stone abutments and piers. Reported finished in March 1907, the bridge carried traffic at the rural crossing for almost thirty years before it was replaced by the state highway department with a heavier bridge [**COOP03**]. One of the spans of the 1907 bridge was moved in 1938 to a Boone County crossing near Columbia [**BOON06**]. The other was moved the same year to this location in Cooper County over Petite Saline Creek. It has functioned in place since the move, in unaltered condition.

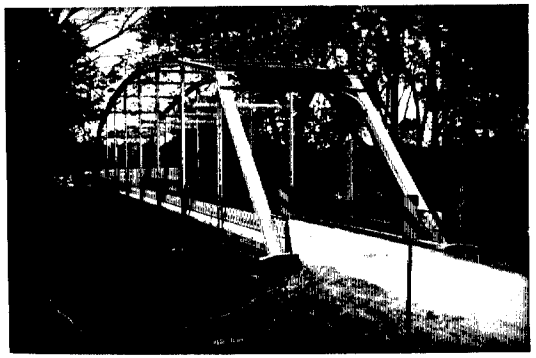
Between the early 1880s, when trusses superseded bowstrings, and the 1920s, when field riveting attained widespread use, the pin-connected truss was the structure of choice for medium- and long-span wagon bridges in Missouri. Virtually all of the major Midwestern bridge companies fabricated pinned trusses and marketed them extensively to counties throughout the state in the late 19th and early 20th centuries. This corresponded with a period of intense bridge construction, as the counties were busily upgrading their road and

NAME(S) OF STRUCTURE
Turley 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 W 304; Cooper County Court, Record X: pages 90-91 (9 May 1906), page 98 (6 June 1906), page 102 (9 July 1906), page 162 (4 December 1906); original bridge drawing, 4 June 1906, located at the Cooper County Courthouse, Boonville MO; County Engineer's report, 4 February 1907, located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser and Michelle Crow-Dolby	Fraserdesign, Loveland CO	16 December 1993

highway systems. As a result, thousands of pinned trusses were built in Missouri during this formative period, and many remain in place today.

Most of these featured straight-chorded Pratt configurations. After the turn of the century, however, bridge manufacturers found a greater economy in polygonal-chorded Pratt variants (particularly the Parker truss) for long-span applications. Their relatively long spans, light structural members and archaic detailing have rendered pin-connected Parker trusses particularly vulnerable to subsequent replacement. As a result, of the hundreds that once carried vehicular traffic throughout the state, fewer than three dozen remain in place today. These range in span length from 110 feet to 200 feet and in erection date from 1900 to 1932. The Turley Bridge, with its 170-foot span and 1907 construction date, falls within the mainstream of this trend. It is not unique among Missouri's early roadway spans. Rather, the significance of this structure accrues from its representation of early wagon/auto bridge construction. It is among the longest and best-preserved trusses in Missouri: a noteworthy example of a now-uncommon structural type.

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Dicks Bridge
MHTD: 025000.0

COOP07

DATE(S) OF CONSTRUCTION
1908

LOCATION
County Road 25 over Lamine River; S12, T49N, R19W
3.5 miles southeast of Blackwater; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 53)

CONDITION
fair

OWNER
Cooper County

span number: 2
span length: 160.0'
total length: 390.0'
roadway wdt.: 14.0'

superstructure: steel, 8-panel, pin-connected Parker through trusses; one 50-foot, 3-panel, pin-connected Pratt pony truss approach span at west end and three steel stringer approach spans at east end
substructure: concrete abutments and wingwalls with concrete-filled steel cylinder piers
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; diagonal: two looped rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: two angles, braced; portal strut: two angles, latticed; floor beam: I-beam, field-bolted to verticals; endpost stiffener: two angles with batten plates; guardrail: lattice; builder's plate text on pony truss: **built by / A.M. Blodgett, C. E. / Kansas City, MO**; county portal plate: **1908** on through truss endpost

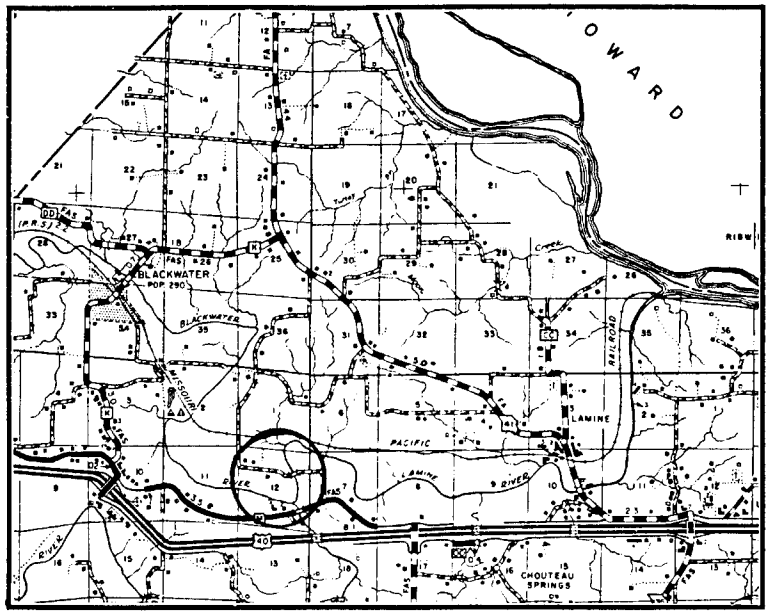
In May 1907, the Cooper County Court conditionally announced that it would rebuild the Dicks Bridge if the local citizenry would pay for one-half its estimated cost. Located over the Lamine River some three miles southeast of Blackwater, the existing structure here had deteriorated beyond the point of repair. County road and bridge commissioner, E.T. Hale, presented the following month his estimate of $6000.00 to construct the Dicks Bridge. He noted that the previous bridge's masonry abutments and steel cylinder piers were largely salvageable, but would need to be elevated approximately four feet. Competitive bids for the reconstruction project were received on August 5, 1907. The Kansas City Bridge Company of Missouri, a prominent contractor in Cooper County, was awarded the contract for this and other structures, totaling $49,600.00. To the discouragement of the county court, local citizens eventually only met a fraction of this amount. The contract for improving the existing abutments was awarded in November to Charles Hutchinson for $5.75 per cubic yard. Hutchinson also handled the re-erection of several piers which had collapsed or were missing. Completed in early May the next year, the Dicks Bridge, a pin-connected Parker through truss, continues to retain a strong degree of visual integrity.

As one of Missouri's most prolific bridge fabricators, the Kansas City Bridge Company maintained an extensive catalogue of truss types, ranging from the exotic to the commonplace. KCBCo, like most of the region's bridge builders of the time, relied heavily on pin-connected Pratt truss variants for its standard truss types. After the turn of the century, however, KCBCo began fabricating polygonal-chorded Pratt variants (particularly Parkers) for long-span applications. Their relatively long spans, light structural members and archaic detailing have

rendered pin-connected Parker trusses particularly vulnerable to subsequent replacement. As a result, of the hundreds that once carried vehicular traffic throughout the state, fewer than three dozen remain in place today. These range in span length from 110 feet to 200 feet and in erection date from 1900 to 1932. The Dicks Bridge, with its 160-foot span and 1908 construction date, falls within the mainstream of this trend. It is noteworthy for its excellent state of preservation and its two-span configuration.

NAME(S) OF STRUCTURE
Dicks 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 025000.0; Cooper County Court Record, Book X: page 256 (8 May 1907), page 264 (3 June 1907), pages 281-282 (5 August 1907), page 304 (3 September 1907), page 334 (6 November 1907), page 356 (8 January 1908), page 365 (3 February 1908), page 447 (4 May 1908) - located at the Cooper County Courthouse, Boonville MO; report of county road and bridge commissioner E. T. Hale to the county court regarding reconstruction of the Dicks Bridge, 3 June 1907 - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign, Loveland CO

DATE
16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Bryant Bottom Bridge
MHTD: 202000.0

COOP14

DATE(S) OF CONSTRUCTION
1908

LOCATION
County Road 202 over Lamine River; S15, T48N, R19W
4.4 miles southeast of Blackwater; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 60)

CONDITION
fair

OWNER
Cooper County

span number: 1
span length: 210.0'
total length: 212.0'
roadway wdt.: 14.0'

superstructure: steel, 12-panel, pin-connected Parker through truss
substructure: limestone masonry abutments and extensive wingwalls
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; diagonal: two looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: four angles with lacing, braced; portal strut: angle A-frame; stringer: steel; floor beam: I-beam, field-bolted to verticals; guardrail: steel pipe; portal builder's plate: **1908 / BUILT BY MISSOURI BRIDGE & IRON CO. / ST. LOUIS MO. / A.M. HALL PRESIDING JUDGE / JOSH. MINTER B.O. JEWETT ASSOCIATE JUDGES / JESSE T. HAYES COUNTY CLERK / E.T. HALE ROAD AND BRIDGE COMM'R**

The first recorded discussion in the Cooper County court records concerning the Bryant Bottom Bridge is a February 1907 court decision to delay the bridge's construction owing to a lack of money. Three months later, in an effort to procure extra funding, the court announced the county would build the bridge contingent upon receipt of a subscription, totaling one-third of the structure's cost, from local citizens. In June E.T. Hale, county road and bridge commissioner, presented his $4000.00 estimate to build a permanent bridge over the Lamine River some four miles southeast of Blackwater. Hale reiterated the urgent need for a bridge at this location by explaining to the court how a ferry was trying to accommodate traffic at this crossing. The county solicited competitive bids for the bridge's fabrication and construction in August 1907, concurrent with a $600.00 pledge from the citizenry. These bids, however, were never used because the county court delayed the project for nine months for unspecified reasons. Finally, in early May 1908, county engineer R.S. Roe was ordered to re-advertise for bids. The ensuing contract was awarded in late summer to the Missouri Bridge and Iron Company of St. Louis for $3300.00. This amount swelled to $4400.00 after the length of the main span needed to be increased by 35 feet. Using steel rolled by Jones and Laughlin and Lackawanna Steel Companies, MoB&I competed the structure by February 1909. The Bryant Bottom Bridge continues to carry traffic at this rural crossing.

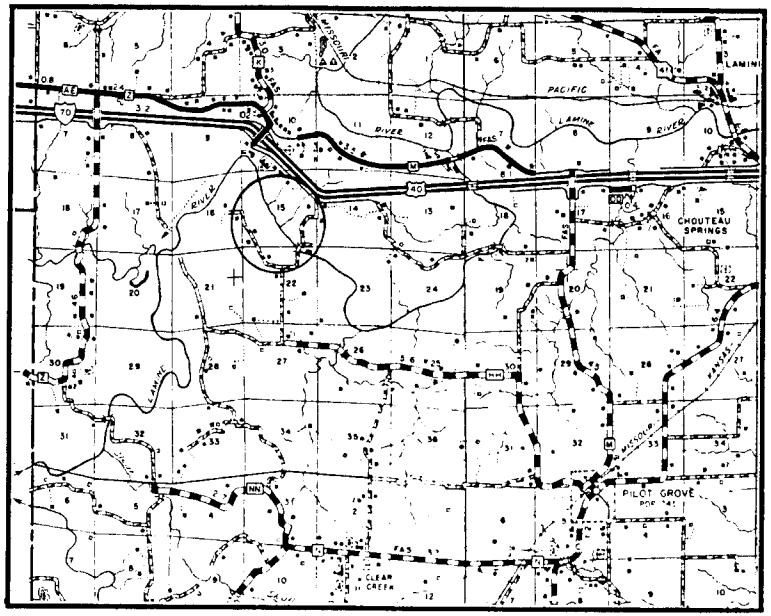
It is unclear who engineered the truss for the Bryant Bottom Bridge or whether MoB&I was responsible for its design. County engineer Hale probably delineated the general outline of the bridge and left the specific truss design to the bridge company. As built, the channel span consisted of a pin-connected Parker through truss, subdivided into twelve equal-length panels. Developed in the 19th century by

C.H. Parker, the Parker truss was characterized by upper chords and vertical members that acted in compression and lower chords and diagonals acting in tension. In this it resembled the venerable Pratt and was, in fact, universally regarded by civil engineers as a Pratt subtype. J.A.L. Waddell in his influential **Bridge Engineering** gave the Parker only passing mention in his discussion of truss types, stating: "[The Pratt's] chords are not necessarily parallel, but may be inclined. This latter form is frequently known as the Parker truss."

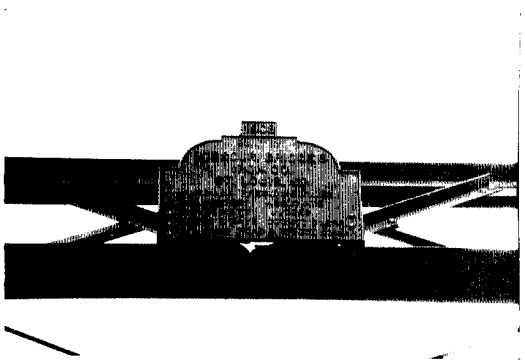
The inclined upper chords afforded a degree of efficiency in long span trusses, where bending moment stresses at mid-span greatly exceed the sheer stresses at the ends. The Parker's drawback was that, unlike the straight-chorded Pratt truss, the polygonal chords necessitated different-length verticals and diagonals at each panel, increasing its fabrication costs somewhat. Because trusses were generally priced on the basis of their superstructural steel weight, the lighter overall weight of a polygonal-chord truss more than offset the slight increase in fabricating costs in spans greater than 160 feet. In the highly competitive bridge industry, this economy equated directly with profit. The Parker truss on the Rock House Ford Bridge extended 210 feet between the bearing pins, distinguishing it among Missouri's longest county-built trusses. It is thus technologically significant as a well-preserved, long-span example of this Pratt truss sub-type–an outstanding example of a now-uncommon structural type.

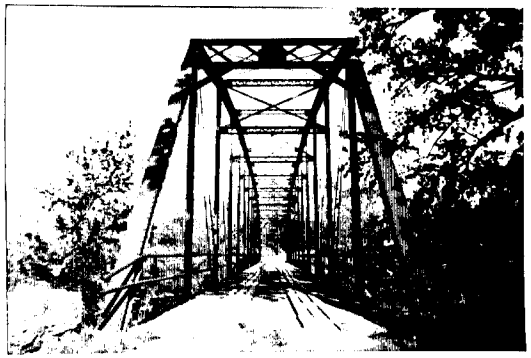
NAME(S) OF STRUCTURE
Bryant Bottom Bridge

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 202000.0; Cooper County Court Record, Book X: page 173 (4 February 1907), page 256 (8 May 1907), page 263 (3 June 1907), page 273 (1 July 1907), page 280 (5 August 1907), page 461 (6 May 1908), page 473 (6 July 1908), page 500 (8 August 1908), pages 586-587 (9 December 1908), page 608 (1 February 1909); county engineer's report, no date - both located at the Cooper County Courthouse, Boonville MO; report of road and bridge commissioner E.T. Hale regarding construction of the Bryant Bottom Bridge, June 1907 - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY
Clayton B. Fraser and Michelle Crow-Dolby

AFFILIATION
Fraserdesign, Loveland CO

DATE
16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Shakleton Ford Bridge
MHTD: 211000.0

COOP15

DATE(S) OF CONSTRUCTION
1913

LOCATION
County Road 211 over Lamine River; S32, T48N, R19W
6.7 miles west of Pilot Grove; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 48)

CONDITION
fair

OWNER
Cooper County

span number: 1
span length: 160.0'
total length: 232.0'
roadway wdt.: 14.0'

superstructure: steel, 9-panel, pin-connected Parker through truss; steel stringer approach span at one end
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers
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; hip vertical: two angles with batten plates; diagonal: two looped rectangular eyebars; lateral bracing: round rod with threaded end; strut: two angles; portal strut: angle lattice with curved knee braces; floor beam: I-beam, field-bolted; guardrail: two channels; portal builder's plate: **1913 / BUILT BY KANSAS CITY BRIDGE CO. / KANSAS CITY, MO. / A.M. HALL PRES. JUDGE / ANDREW DAVIN ASSOC. JUDGE / B.L. MOORE ASSOC. JUDGE / J. THAYS COUNTY CLERK / W.E. HARRIS COUNTY ENG'R**

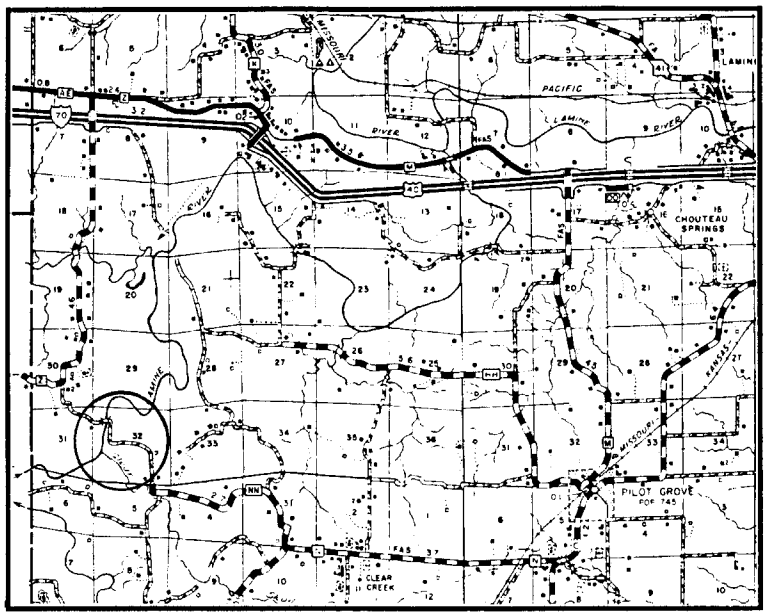
Situated about seven miles west of Pilot Grove in west-central Cooper County, the Shakleton Ford Bridge carries County Road 211 over the Lamine River. The medium-span Parker through truss dates to 1913. Approached on one end by a steel stinger span and supported by steel cylinder piers, the timber-decked bridge features pinned connections throughout. After advertising for competitive bids for a bridge at this location, the Cooper County Court, on April 7, 1913, rejected all proposals submitted by various contractors owing to excessive cost. One month later, in an effort to secure the contract, the Missouri-based Kansas City Bridge Company offered the county court the required construction bond valued at $5700.00, approximately half the estimated cost of the bridge. The county court accepted the bond and promptly awarded KCBCo the construction contract. The bridge was completed the same year for the aggregate cost of $11,400.00. Retaining a high degree of structural integrity since its construction, the Shakleton Ford Bridge continues to carry intermittent traffic at this rural crossing.

The Shakleton Ford Bridge is technologically significant as a well-preserved example of a relatively uncommon structural type. Pin-connected Pratt trusses were built by the thousands throughout Missouri in the late 19th and early 20th centuries. Pinned Parker trusses,

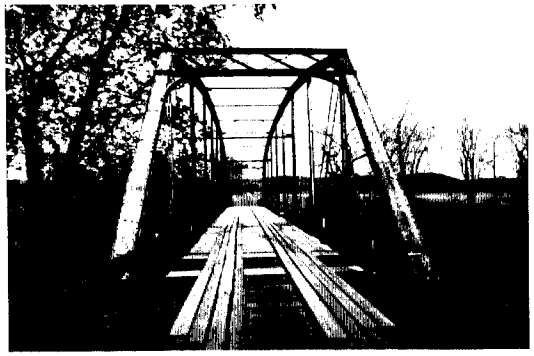
a polygonal-chorded Pratt variant, were typically used for crossings requiring long spans, where a savings in material could be effected by angling the upper chords. Pinned Parker trusses such as the Shakleton Ford Bridge were built far less often than Pratts; fewer than three dozen remain in place today on Missouri's road system. Among these, the Shakleton Ford Bridge is distinguished by its excellent degree of structural integrity.

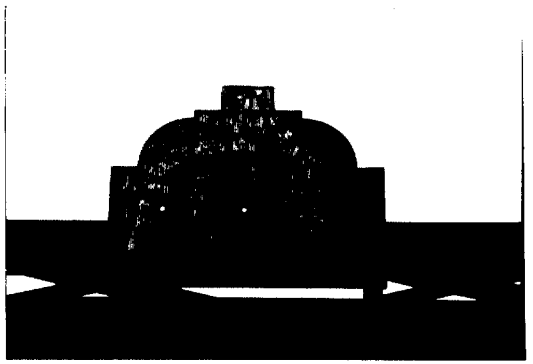
NAME(S) OF STRUCTURE
Shakleton Ford Bridge

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 Number 211000.0; Cooper County Court Record, Book Z: page 424 (7 April 1913), page 457 (8 May 1913) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser and Michelle Crow-Dolby	Fraserdesign, Loveland CO	16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Klenklen Bridge
MHTD: 223000.4

COOP16

DATE(S) OF CONSTRUCTION
1930

LOCATION
County Road 223 over Lamine River; S20, T47N, R19W
4.3 miles northwest of Pleasant Green; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 58)

CONDITION
fair

OWNER
Cooper County

span number: 1
span length: 210.0'
total length: 368.0'
roadway wdt.: 10.5'

superstructure: steel cable suspension bridge
substructure: concrete abutments and wingwalls
floor/decking: timber deck over steel stringers
other features: tower vertical: two channels and I-beam with lacing; portal strut: I-beam with channel knee braces; cast iron cradle; cables and suspenders: galvanized steel, parallel strand, anchored in concrete deadmen; floor beam: I-beam; guardrail: three channels on main span, gas pipe on approach span

Among the twenty-one Cooper County structures included in Missouri's statewide historic bridge inventory is this steel cable suspension bridge located northwest of Pleasant Green. The bridge is situated in Section 20 of Township 47 North, Range 19 West, and has served to carry a secondary county road across the Lamine River on the county's western edge. The bridge consists of a single steel cable suspension span, supported by riveted steel towers and anchored on each end by massive, tapered concrete deadmen. Like virtually all of the suspension bridges designed and built by Warsaw, Missouri, contractor J.A. Dice, the two main cables consist of parallel-strand galvanized wires. To each main cable are attached the wire suspender cables by means of simple wrapping and tying. The steel I-beam floor beams are similarly attached to the suspenders' other ends. Steel stringers, which carry the timber plank deck, bear directly on these floor beams.

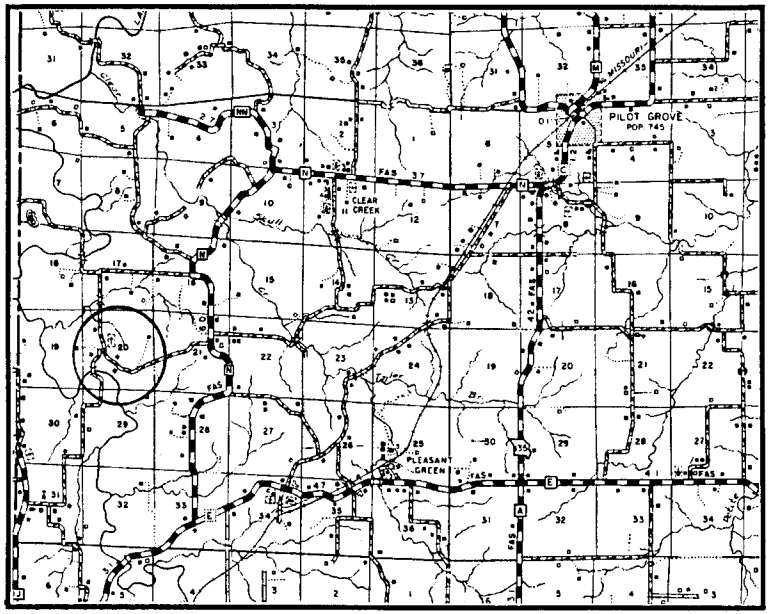
Known locally as the Klenklen Bridge, the structure traces its origins to the 1920s. After years of petitioning for a new bridge across the Lamine River at this location, a committee of citizens, headed by A.J. Deuschler, appeared before the Cooper County Court in May 1929 to request the structure once again. The citizens reported that they had held the petition, as well as a subscription worth nearly $1400.00, for several years, hoping that the county would eventually build a suspension bridge here. In response, the judges agreed to appropriate $4000.00 "when and if said citizens build a suspension bridge under specifications, agreement and contract as specified and approved by the county." In late summer of 1929 the county highway engineer advertised for competitive bids for the erection of a 180-foot suspension bridge. After rejecting a $14,500.00 proposal from the Kansas City Bridge Company, the county awarded a $6200.00 contract to J.A. Dice to design and build a 200-foot suspension bridge. Dice used steel components rolled by the Illinois Steel Company for the towers and by the Jones and Laughlin Steel Company for the floor beams and stringers. In addition, Dice apparently acted as foreman of the project while local citizens provided free labor. A separate contract was let for fill work to George Deuschler, J.T. Kemper, and Joe Klenklen. Completed in early March 1930, the Klenklen Bridge has since carried intermittent rural traffic at this rural crossing.

A committee of citizens, headed by A.J. Deuschler, appeared before the Cooper County Court on 6 May 1929 with a petition for a new bridge across the Lamine River to be located 4.3 miles northwest of Pleasant Green. The citizens reported that they had held the petition as well as a subscription worth nearly $1400.00 for several years, hoping that the county would eventually build the structure. The group informed the court that they wanted the county to make the necessary appropriations to construct a suspension bridge at this location. In response, the court agreed to appropriate $4000.00 "when and if said citizens build a suspension bridge under specifications, agreement and contract as specified and approved by the county." In late summer of the same year the county highway engineer advertised for competitive bids for the erection of a 180-foot suspension bridge. After rejecting a $14,500.00 bid from the Kansas City Bridge Company, the county awarded a $6200.00 contract to J.A. Dice of Warsaw, Missouri for a 200-foot suspension bridge. Dice, designer and contractor, used steel components rolled in Chicago by the Illinois Steel Company and by the Pittsburgh-based Jones and Laughlin Steel Company. In addition, Dice apparently acted as foreman of the project while local citizens provided free labor. A separate contract was let for fill work to George Deuschler, J.T. Kemper, and Joe Klenklen. Completed in early March 1930, the Klenklen Bridge has since carried intermittent rural traffic in north-central Cooper County.

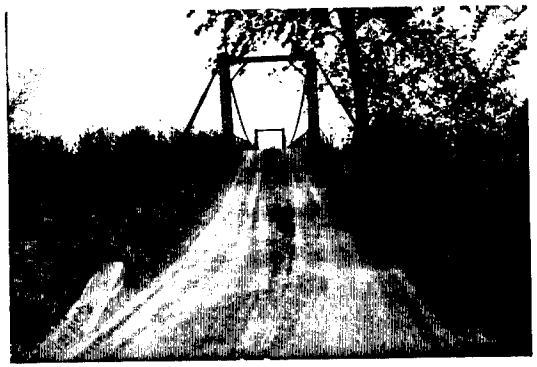
Missouri bridge builder J.A. Dice built a number of suspension bridges between 1897 and 1940 in central Missouri, ten of which remain in place today. As a group, these spans comprise the state's most important examples of vernacular bridge construction, designed and built without benefit of detailed structural analysis or computation. Dice built his lightweight suspension bridges empirically using easily obtainable materials, and, as a result they cost substantially less than comparable steel truss spans. They were breathtakingly light, however, and have fared poorly in subsequent years. The Klenklen Bridge is distinguished as one of the best-preserved among Dice's remaining bridges: a technologically significant example of an esoteric bridge type.

NAME(S) OF STRUCTURE
Klenklen 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 223000.4; Cooper County Court Record, Book F: page 272 (6 May 1929), page 345 (7 August 1929), page 349 (26 August 1929), page 366 (24 September 1929), page 475 (5 March 1930) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser and Michelle Crow-Dolby	Fraserdesign, Loveland CO	16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Streit Ford Bridge
MHTD: 231001.3

COOP17

DATE(S) OF CONSTRUCTION
1913

LOCATION
County Road 231 over Lamine River; S16, T46N, R19W
4.4 miles southwest of New Lebanon; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 46)

CONDITION
fair

OWNER
Cooper County

span number: 1
span length: 140.0'
total length: 228.0'
roadway wdt.: 12.7'

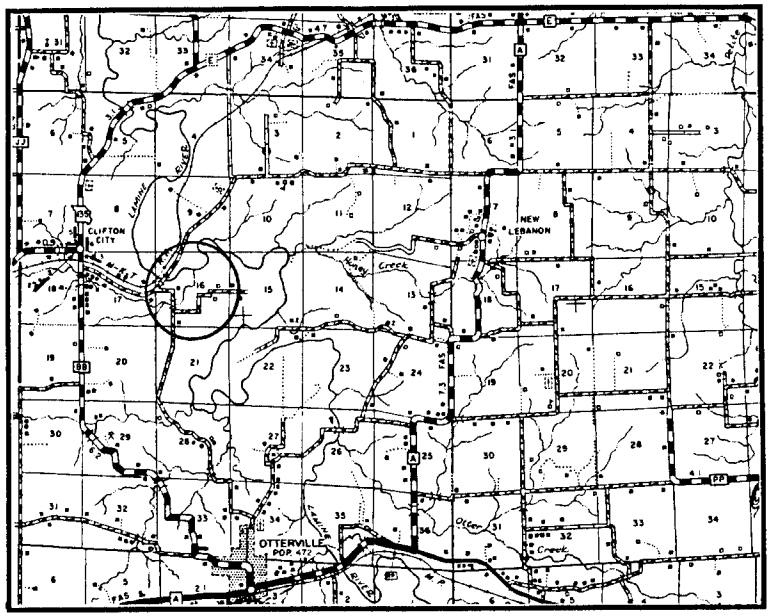
superstructure: steel, 8-panel, pin-connected Pratt through truss; 4-span steel stringer approach on north end, 1-span steel stringer approach on south end
substructure: concrete abutments and piers with stone retaining walls
floor/decking: timber deck over steel stringers
other features: upper chord: two channels with cover plate and lacing; lower chord: two looped rectangular eyebars; vertical: two channels with lacing; hip vertical: two angles with batten plates; diagonal: two looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: two angles; floor beam: I-beam, field-bolted to verticals; guardrail: two channels; portal builder's plate: **1913 / BUILT BY KANSAS CITY BRIDGE CO. / KANSAS CITY MO. / A.M. HALL PRES. JUDGE / ANDREW W. DAVIN ASSOC. JUDGE / B.E. MOORE ASSOC. JUDGE / J.T. HAYS COUNTY CLERK / W.E. HARRIS COUNTY ENG'R.**

The Cooper County Court received several bids on April 7, 1913, for construction of the Streit Ford Bridge over Lamine River, some four miles southwest of New Lebanon. All bids were subsequently rejected by the court as too high. However, one month later a construction bond submitted by the Kansas City Bridge Company was approved. A $9400.00 contract was let to KCBCo to erect a 230-foot long structure at this crossing. Using steel rolled by Lackawanna Steel Company of Pittsburgh, the structure was completed the same year. The pin-connected Pratt through truss is approached on the north by a four-span and on the south by a single-span steel stringer. The timber-decked Streit Ford Bridge, since its construction, has continued to carry intermittent rural traffic.

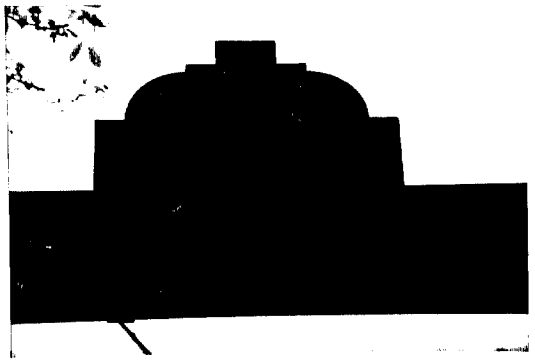
In Missouri the pinned Pratt through truss was the bridge of choice for short- and medium-span applications in the late 19th and early 20th centuries. Most of the structures erected during this period were based on standard plans developed by either the state highway department (after 1917) or by the individual bridge companies, such as the prolific Kansas City-based Kansas City Bridge Company. As a result, thousands of Pratts were built across the state, all very much alike in detailing, and today the Pratt truss constitutes the most populous group of through trusses. The Streit Ford Bridge is a typically configured pin-connected Pratt through truss.

NAME(S) OF STRUCTURE
Streit 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 Number 231001.3; Cooper County Court Record, Book Z: page 424 (7 April 1913), page 457 (8 May 1913) - located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton B. Fraser, 1 May 1990.

INVENTORIED BY
Clayton B. Fraser and Michelle Crow-Dolby

AFFILIATION
Fraserdesign, Loveland CO

DATE
16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Otterville Ford Bridge
MHTD: 238002.0

COOP18

DATE(S) OF CONSTRUCTION
1908

LOCATION
County Road 238 over Lamine River; S26, T46N, R19W
3.3 miles southwest of New Lebanon; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 50)

CONDITION
fair

OWNER
Cooper County

span number: 1
span length: 160.0'
total length: 285.0'
roadway wdt.: 14.0'

superstructure: steel, 9-panel, pin-connected Parker through truss; 3-panel, pin-connected Pratt half-hip pony truss approach span on west end, four steel stringer approach spans on east end
substructure: concrete abutments and wingwalls, concrete-filled steel cylinder piers under channel span; steel pile bents under stringer approach spans
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 looped rectangular eyebars; vertical: two channels with lacing; diagonal: two looped rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: four angles with lacing, braced; floor beam: I-beam, field-bolted to verticals; guardrail: steel pipe

Desirous of a permanent bridge across the Lamine River southwest of New Lebanon, local citizens presented a petition to the Cooper County Court in late summer of 1905. Curiously, the court substantially delayed its decision for reasons not specified by the court recorder. Nearly two years later in early May of 1907, the court announced it would rebuild the Otterville Ford Bridge contingent on a subscription from area residents consisting of one-third the bridge's cost. One month later in his report to the court, E.T. Hale, county road and bridge commissioner, recommended that the new bridge be built one-hundred yards upstream of the existing crossing. In its new location the span could be shortened and the structure would cross the river at a right angle to the current. The estimated cost of the bridge was $4500.00. On August 5, 1907, the county court ordered Hale to advertise for competitive bids for the bridge contract. The county highway engineer, R.S. Roe, was instructed after a second period of inaction to prepare a new construction estimate nine months later. The project was re-advertised and in August 1908 the St. Louis-based Missouri Bridge and Iron Company was awarded the contract for $4945.00. Local subscriptions, at the time only totaling only $400.00, failed to meet one-third of the bridge's cost with the balance presumably being absorbed by the court. The contract amount was later amended by the addition of $850.00 owing to the unforseen expense of a 80-foot approach span. The Otterville Ford Bridge–a Parker through truss–was completed before the end of the year. Today it continues to carry intermittent rural traffic in relatively unaltered condition.

Between the early 1880s, when trusses superseded bowstrings, and the 1920s, when field riveting attained widespread use, the pin-connected truss was the structure of choice for medium- and long-span wagon bridges in Missouri. Virtually all of the major Midwestern bridge companies fabricated pinned trusses and marketed them extensively to counties throughout the state in the late 19th and early

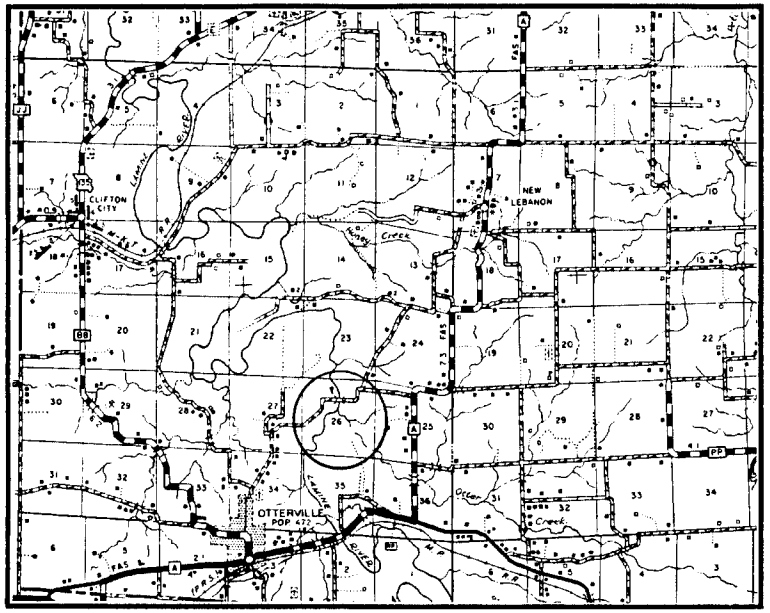
20th centuries. This corresponded with a period of intense bridge construction, as the counties were busily upgrading their road and highway systems. As a result, thousands of pinned trusses were built in Missouri during this formative period, and many remain in place today.

Most of these featured straight-chorded Pratt configurations. After the turn of the century, however, bridge manufacturers found a greater economy in polygonal-chorded Pratt variants (particularly the Parker truss) for long-span applications. Their relatively long spans, light structural members and archaic detailing have rendered pin-connected Parker trusses particularly vulnerable to subsequent replacement. As a result, of the hundreds that once carried vehicular traffic throughout the state, fewer than three dozen remain in place today. These range in span length from 110 feet to 200 feet and in erection date from 1900 to 1932. The Otterville Ford Bridge, with its 160-foot span and 1908 construction date, falls within the mainstream of this trend. It is distinguished by its excellent degree of structural integrity (including its lengthy approach spans) and by its high level of documentation.

NAME(S) OF STRUCTURE

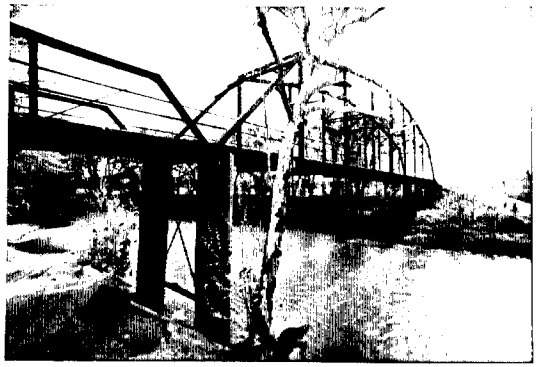
Otterville Ford Bridge

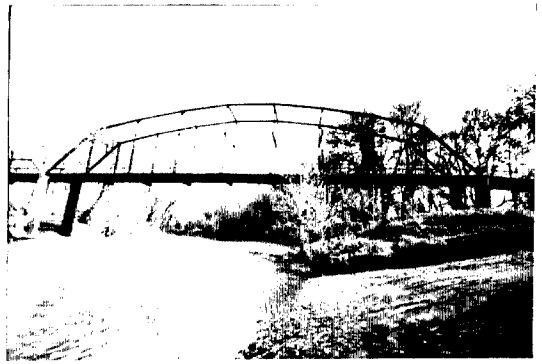
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 238002.0; Cooper County Court Record, Book V: page 592 (9 August 1905); Book X: page 256 (8 May 1907), page 263 (3 June 1907), page 273 (1 July 1907), page 280 (5 August 1907), page 461 (6 May 1908), page 473 (6 July 1908), pages 500-501 (8 August 1908); County Engineer's Report, undated - both located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY

Clayton B. Fraser and Michelle Crow-Dolby

AFFILIATION

Fraserdesign, Loveland CO

DATE

16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Moniteau Creek Bridge
MHTD: 333001.3

COOP21

DATE(S) OF CONSTRUCTION
1899; 1902

LOCATION
County Road 333 over Moniteau Creek tributary; S24, T46N, R16W
5.6 miles southwest of Prairie Home; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 59)

CONDITION
fair

OWNER
Cooper County

span number:	1; 1	superstructure:	steel, 3-panel, pin-connected Pratt pony truss; 2-panel, pin/rigid-connected Kingpost pony truss approach span
span length:	50.0'; 25.0'		
total length:	76.0'	substructure:	concrete abutments and wingwalls; spill-through concrete pier
roadway wdt.:	11.7'	floor/decking:	timber 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: four angles with lacing (Pratt), four angles with batten plates (Kingpost); diagonal: one square eyebar; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to lower chord pins (round bolt); guardrail: lattice; builder's plate: **A. M. BLODGETT / 1899 / KANSAS CITY MO**

In the summer of 1901 the Cooper County Court directed W.C. Allison, the county road and bridge commissioner, to view the site for a proposed bridge over Moniteau Creek southwest of Prairie Home. Intended to carry a county road, the bridge would form an important crossing in the southern part of the county. Soon thereafter, Allison recommended that $2000.00 of county funds be set aside for the bridge, and the court decided to let the substructure and superstructure contracts out separately. The court at this time contracted with A.M. Blodgett of Kansas City to erect the truss for $1349.00. The commissioners at that time hired C.N. Hutchinson to build the bridge's stone abutments. The abutments were completed in December 1901, the pin-connected Pratt pony truss the following July. At some later time the bridge was apparently altered. The abutments were replaced with concrete, a center concrete pier added, and a kingpost pony truss affixed to one end of the Pratt span. (This latter truss, built in 1899 by Blodgett, may have originally spanned the Thomas Branch on the Boonville / Sedalia Road in the western part of the county.) Since this latter alteration, the Moniteau Creek Bridge has carried vehicular traffic in essentially unaltered condition.

Like most of Missouri's bridge builders of the time, A.M. Blodgett relied heavily on pin-connected Pratt truss variants as its standard truss types. The short-span bridge that Blodgett fabricated for Cooper County in 1899 was a kingpost pony truss, the most fundamental of the truss configurations. The kingpost's origins are ancient and obscure. Its symmetrical triangular form lent itself naturally to timber roof framing, where the truss was first used in the Middle Ages. In 1570 Italian architect Andrea Palladio described a simple kingpost truss bridge in his general treatise on architecture, **I quattro libri della architettura**; he attributed its source to well-established antecedents. Using Palladio's work (translated into English in 1742) and their own empirical designs, early American carpenters constructed kingpost bridges at minor crossings throughout the East. The technology spread westward to Missouri with the pioneers in the late 18th

and early 19th centuries. As a result, uncounted timber kingposts were built on the region's early roads. The truss form remained the same as its construction evolved from the vernacular to the industrial in the 19th century, with the principle changes involving the materials used: timber, timber/iron, iron, steel.

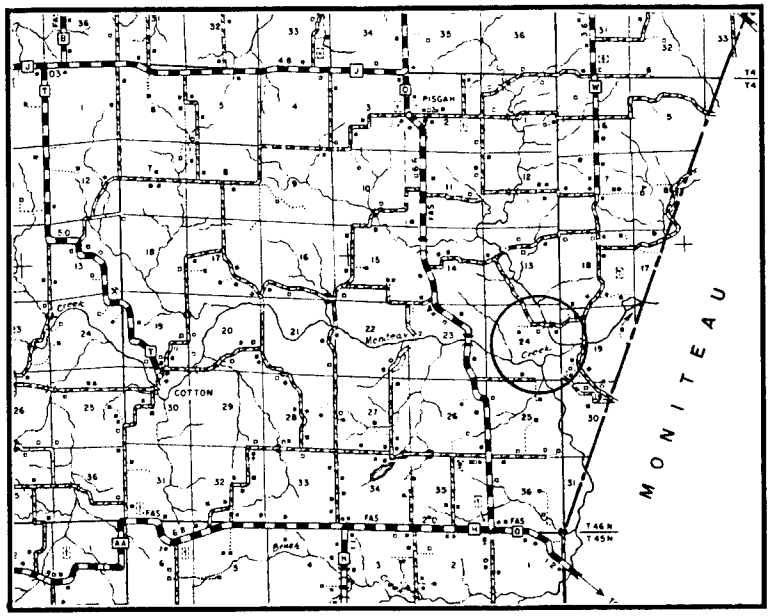
The kingpost's simplicity and straightforward determination of stresses in the individual members made it an ideal subject to illustrate bridge design. Squire Whipple delineated a kingpost truss in his 1847 essay on bridge building, the first such work to rationalize bridge design using scientific principles. Similarly, Merriman and Jacoby, in their **Text-Book on Roofs and Bridges** [1906], and J.A.L. Waddell, in his **Bridge Engineering** [1916]–two of the most influential bridge engineering texts of their time–employed the kingpost to illustrate the principals of static design. "The secret of economical and efficient truss arrangement lies in the panel system," stated Merriman and Jacoby, "which may be regarded as having been developed from the king-post truss."

These texts used the kingpost because the stresses within it are easily rationalized. The bridge companies that marketed kingposts used them because they were materially conservant, economically manufactured and quickly erected. The Moniteau Creek Bridge is a model of simplicity. It is distinguished today as one of the few remaining examples in Missouri of this mainstay structural type.

NAME(S) OF STRUCTURE

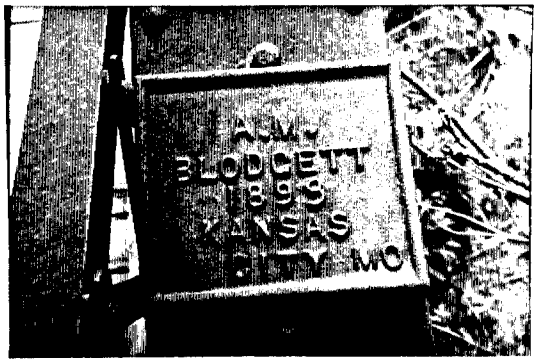
Moniteau Creek Bridge

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 Number 333001.3; Cooper County Court Record, Book V: page 26 (7 August 1899), page 95 (5 December 1899), page 97 (5 December 1899), page 466 (7 August 1901), page 484 (3 September 1901), page 495 (7 October 1901), page 525 (2 December 1901), page 627 (2 June 1902); Record W: page 6 (8 July 1902); original contract, 7 October 1901 - both located at the Cooper County Courthouse, Boonville MO; field inspection by Clayton Fraser, 1 May 1990.

INVENTORIED BY

Clayton B. Fraser and Michelle Crow-Dolby

AFFILIATION

Fraserdesign, Loveland CO

DATE

16 December 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Thomas Branch Bridge
MHTD: 030003.7

COOP22

DATE(S) OF CONSTRUCTION
1920

LOCATION
County Road 30 over Thomas Branch; S4, T48N, R17W
3.0 miles west of Boonville; Cooper County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / roadway bridge

RATING NRHP possibly eligible (score: 46)

CONDITION
good

OWNER
Cooper County

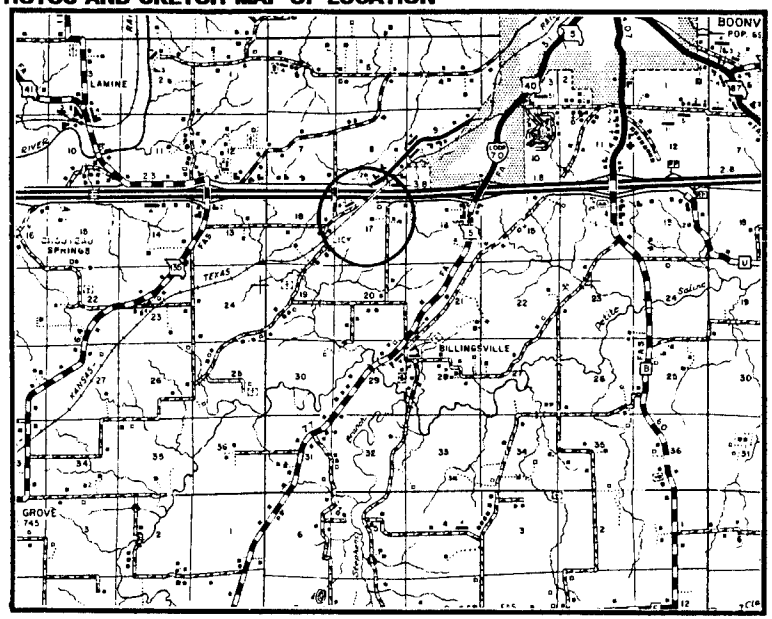
span number:	1	superstructure:	concrete deck girder
span length:	36.0'	substructure:	concrete abutments and wingwalls
total length:	38.0'	floor/decking:	concrete deck
roadway wdt.:	19.2'	other features:	MSHD-standard concrete guardrails with square balusters and paneled bulkheads

This modest concrete girder bridge carries a county road over Thomas Branch west of Boonville. Although now a county-owned structure, the Thomas Branch Bridge was designed and built by the Missouri State Highway Department in 1920 as a part of construction on State Highway 2 (later U.S. 40) along the Missouri River. That May the state contracted with the Pope Construction Company to build this small-scale span. The Jefferson City contractor apparently completed the bridge that year for a total cost of $7407.20. The Thomas Branch Bridge remains in unaltered condition.

One of the provisions of the Hawes Road Law establishing the Missouri State Highway Department was that the newly formed agency develop plans and specifications for bridges and culverts. "The Highway Department has maintained a drafting room which has been called upon for many kinds of service," the department reported in 1918, "but the especial function of which has been the preparation of bridge and culvert designs." By 1920, the department had developed several standards for short- and medium-span bridges, including 13 designs for steel superstructures with spans ranging up to 100 feet. In addition, the department delineated some 185 special bridge designs during the 1919-20 biennium. One of these was the Thomas Branch Bridge in Cooper County, designated Structure No. F-108. Although modest in its design and dimensions, this bridge is historically distinguished as one of the oldest remaining highway bridges designed by the state highway department. It is thus an important resource for interpreting MSHD's formative years and the early development of Missouri's state highway network.

NAME(S) OF STRUCTURE
Thomas Branch 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 G 366; Primary System Bridge Record, Cooper County, located at the Bridge Division, Missouri Highway and Transportation Department, Jefferson City, Missouri; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pp. 130, 134.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	16 December 1993