MONTGOMERY COUNTY

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

Inv. No.	MHTD	Bridge Name	Description	
MONT01	H 213	Mineola Bridge	1-100'	**riveted Pratt through truss**
			1925	Pope Construction Co.
*MONT02	J 39R	Loutre River Bridge	1-120'	**riveted Pratt through truss**
			1943	L.V. Hites Construction Co.
*MONT03	K 226A	Hermann Bridge	**7-400'**	**riveted cantilever through truss**
		over Missouri River	1930	Kansas City Structural Steel Co.
MONT04	018001.0	Coal Branch Bridge		(replaced)
MONT05	022000.1	Little Loutre Creek Bridge	1- 36'	riveted lattice bedstead
			1914	Missouri Bridge and Iron Co.
*MONT06	079002.2	Morris Ford Bridge	1- 90'	**pinned Camelback pony truss**
			1930	Missouri Bridge and Iron Co.
*MONT07	115002.6	Bear Creek Bridge	1- 65'	pinned Pratt pony truss
			1912	Missouri Bridge and Iron Co.
MONT08	125000.4	Watkins Bridge		(replaced)
*MONT09	131000.2	Bear Creek Bridge	1- 70'	pinned Pratt pony truss
			1930	Missouri Bridge and Iron Co.
MONT10	154000.6	Palmer Bridge	1- 30'	steel stringer
			1917	county work force
*MONT11	190000.6	Little Loutre Bridge	1- 90'	**pinned Camelback pony truss**
			1930	Missouri Bridge and Iron Co.
MONT12	191000.5	Browne Bridge	1- 65'	riveted Warren pony truss
			1916	Missouri Bridge and Iron Co.
*MONT13	198001.4	Whetstone Creek Bridge	1- 80'	pinned Pratt pony truss
			1903	Missouri Bridge and Iron Co.
MONT14	210000.3	McCarty Bridge		(replaced)
MONT15	251000.4	Camp Creek Bridge		(replaced)
*MONT16	269000.6	Morrow Bridge	1-140'	**pinned Pratt through truss**
			1909	Missouri Bridge and Iron Co.
MONT17	283000.6	Prairie Fork Bridge	1- 80'	pinned Pratt pony truss
			1906	Missouri Bridge and Iron Co.
*MONT18	287002.7	Dry Fork Bridge	1- 46'	pinned Pratt half-hip pony truss
			c1895	

EXCLUDED:

Pratt pony truss
162000.7 183001.7

Warren pony truss
J 193 T 236 074001.2 159000.7 160001.2

MONTGOMERY COUNTY

EXCLUDED:

Steel stringer

P 72	S 368	S 623	S 806	X 108	058000.2	060000.1
071001.6	072001.8	077000.5	088000.1	102001.0	117000.5	142000.3
147000.6	148003.4	156001.1	165000.9	212000.1	219001.0	227001.5
282001.7	293002.0	296000.1	298000.2	306001.4	308000.1	

Steel girder

011000.6	051001.2	079000.5	150000.8

Concrete girder

J 192

Concrete slab

H 214 H 234R

Concrete box culvert

J 194	S 381	S 622	S 626	T 172	T 235	T 478
T 618	X 66	X 308	X 309	X 657		

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	3	15	0	0	18
Excluded	22	41	0	0	63
	25	56	0	0	81 structures

Mineola Bridge

MONT01

GENERAL DATA

structure no.: H 213
county: Montgomery
city/town: immediately west of Mineola
feature inters.: Loutre River
cadastral grid: S34, T48N, R6W
highway route: State Secondary Highway N
highway distr.: 3
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt through truss, with concrete slab approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 100.0'
total length: 301.0'
roadway width: 20.0'
condition: good
alterations: none
floor/decking: concrete deck over steel stringers
other features: steel pipe guardrails

HISTORICAL DATA

erection date: 1925
erection cost: $26,305.32
designer: Missouri State Highway Department
fabricator: unknown
contractor: Pope Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 213; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

sign. rating: 36
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 21 February 1990

Loutre River Bridge

MONT02

GENERAL DATA

structure no.:	J 39R	**city/town:**	1.2 miles south of McKittrick
county:	Montgomery	**feature inters.:**	Loutre River
		cadastral grid:	S26, T46N, R5W
		highway route:	Missouri State Highway 19
		highway distr.:	3
		current owner:	Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 6-panel, rigid-connected Pratt through truss; Warren pony truss and steel stringer approach spans

substructure: timber pile bent abutments, wingwalls and piers

span number:	1	**condition:**	good
span length:	120.0'	**alterations:**	bridge largely rebuilt after washout, 1943
total length:	546.0'	**floor/decking :**	concrete deck over steel stringers
roadway width:	20.0'	**other features:**	steel pipe guardrails

HISTORICAL DATA

erection date: 1929; 1943

erection cost: $26,240.93 (1929); $76,171.00 (1943)

designer: Missouri State Highway Department

fabricator : Illinois Steel Company, Chicago IL

contractor: M.E. Gillioz, Monett MO (1929 through truss);
L.V. Hites Construction Company (1943 pony trusses and steel stringers)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 39R; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

sign. rating: 45

evaluation: NRHP non-eligible (typically configured examples of common structural type, built in two different stages)

inventoried by: Clayton B. Fraser 21 February 1990

Hermann Bridge

MONT03

GENERAL DATA

structure no.:	K 226A	**city/town:**	1.8 miles south of McKittrick
county:	Montgomery Gasconade	**feature inters.:**	Missouri River
		cadastral grid:	S35, T46N, R5W
		highway route:	State Highway 19
		highway distr.:	3
		current owner:	Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, rigid-connected cantilevered Warren through truss; Warren deck truss and steel stringer approach spans at the north end; Warren polygonal through truss approach spans at the north end

substructure: concrete abutments and piers

span number:	7	**condition:**	good
span length:	400.0'	**alterations:**	none
total length:	2232.0'	**floor/decking :**	concrete over steel stringers
roadway width:	20.0'	**other features:**	end post: 2 built-up channels with cover plate and double lacing; top chord: 2 built-up channels with cover plate and single lacing; lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates, and 2 channels with lacing; diagonal: 4 angles with batten plates, and 2 channels with lacing; lateral bracing: 4 angles with lacing; strut: 4 angles with lacing, braced; floor beam: I-beam; guardrail: 2 steel pipes

HISTORICAL DATA

erection date: 1928-30

erection cost: $800,000 (engineer's estimate)

designer: L.J. Sverdrup, St. Louis MO

fabricator : Kansas City Structural Steel Company, Kansas City MO;
Illinois Steel Company, Chicago, IL

contractor: Kansas City Structural Steel Company, Kansas City MO (superstructure;
The Foundation Company, Chicago IL (substructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 226A; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City, Missouri; "Bridging the Missouri," **Hermann-Advertiser-Courier**, 22 February 1929; "Bridge Employee Drowns," **Hermann-Advertiser-Courier**, 6 September 1929; "Missouri River Bridge Work in Full Progress," **Hermann-Advertiser-Courier**, 14 March 1930; "Thousands

Expected in Hermann for Bridge Dedication," **Hermann-Advertiser-Courier**, 22 August 1930; "Eight Thousand Attend Bridge Dedication Ceremonies," **Hermann-Advertiser-Courier**, 5 September 1930; "They Build for the Future of Hermann," **Missouri**, September 1930; field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 71

evaluation: NRHP eligible (outstanding, large-scale example of steel truss construction, located on important great river crossing)

inventoried by: Clayton B. Fraser 21 February 1990

Little Loutre Creek Bridge

MONT05

GENERAL DATA

structure no.:	022000.1	**city/town:**	2.5 miles southwest of Wellsville
county:	Montgomery	**feature inters.:**	Little Loutre Creek
		cadastral grid:	S4/9, T49N, R6W
		highway route:	county road
		highway distr.:	3
		current owner:	Montgomery County

STRUCTURAL DATA

superstructure: steel, 2-panel, lattice bedstead, with steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number:	1	**condition:**	fair
span length:	36.0'	**alterations:**	unknown
total length:	61.0'	**floor/decking :**	timber deck
roadway width:	12.0'	**other features:**	unknown

HISTORICAL DATA

erection date: 1913-14
erection cost: $540.00 (engineer's estimate)
designer: Missouri Bridge and Iron Company, St. Louis MO
fabricator : Missouri Bridge and Iron Company, St. Louis MO
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 022000.1; Montgomery County Court Record, Book I: page 202 (2 September 1913), page 249 (2 March 1914), located at Montgomery County Courthouse, Montgomery City MO.

sign. rating: 39
evaluation: NRHP non-eligible (typical example of short-span truss type)

inventoried by: Clayton B. Fraser 21 February 1990

Morris Ford Bridge

MONT06

GENERAL DATA

structure no.:	079002.2	**city/town:**	5.1 miles southeast of Middletown
county:	Montgomery	**feature inters.:**	Elkhorn Creek
		cadastral grid:	S22/27, T50N, R4W
		highway route:	County Road 81
		highway distr.:	3
		current owner:	Montgomery County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Camelback pony truss
substructure: concrete abutments and wingwalls

span number:	1	**condition:**	good
span length:	90.0'	**alterations:**	none
total length:	92.0'	**floor/decking :**	concrete deck over steel stringers
roadway width:	11.8'	**other features:**	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with continuous plate; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1930
erection cost: unknown
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 No. 079002.2; Montgomery County Court Record, Book 1: page 110 (2 December 1912), page 195 (1 September 1913), page 249 (2 March 1914); Bridge Petition from W.W. Cowan et al. for bridge at Morris Ford; Montgomery County Road and Bridge Commissioner's Report re. bridge over Elkhorn Creek, S27, T50N, R4W; contract with Missouri Bridge and Iron Company (court record, petition, report and contract all located at Montgomery County Courthouse, Montgomery City MO); field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 72
evaluation: NRHP eligible (well-preserved example of uncommon truss type)

inventoried by: Clayton B. Fraser 21 February 1990

Bear Creek Bridge

MONT07

GENERAL DATA

structure no.:	115002.6	**city/town:**	4.5 miles east of Bellflower
county:	Montgomery	**feature inters.:**	Bear Creek
		cadastral grid:	S20, T49N, R3W
		highway route:	county road
		highway distr.:	3
		current owner:	Montgomery County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss, with steel stringer approach spans

substructure: concrete-filled steel cylinder piers with timber pile bent abutments

span number:	1	**condition:**	fair
span length:	65.0'	**alterations:**	steel I-beam welded to one end post
total length:	97.0'	**floor/decking :**	concrete over steel stringers
roadway width:	12.0'	**other features:**	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars: floor beam: I-beam, U-bolted to vertical

HISTORICAL DATA

erection date: 1912

erection cost: unknown

designer: Missouri Bridge and Iron Company, St. Louis MO (probable)

fabricator : Missouri Bridge and Iron Company, St. Louis MO (probable)

contractor: Missouri Bridge and Iron Company, St. Louis MO (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 115002.6; Montgomery County Court Record, Book I: page 110 (2 December 1912), located at Montgomery County Courthouse, Montgomery City MO; field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 23

evaluation: NRHP non-eligible (typical, inadequately documented example of common structural type, altered)

inventoried by: Clayton B. Fraser 21 February 1990

Bear Creek Bridge

MONT09

GENERAL DATA

structure no.: 131000.2
county: Montgomery
city/town: 3.2 miles south of Bellflower
feature inters.: Bear Creek
cadastral grid: S3, T48N, R4W
highway route: County Road 131
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

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

span number: 1
span length: 70.0'
total length: 72.0'
roadway width: 11.8'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with continuous plate; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing; round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1930
erection cost: $4800.00
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 No. 131000.2; contract with Missouri Bridge and Iron Company (1930), located at Montgomery County Courthouse, Montgomery City, Missouri; field inspection by Clayton Fraser, 27 October 1989.

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

inventoried by: Clayton B. Fraser 21 February 1990

Palmer Bridge

MONT10

GENERAL DATA

structure no.: 154000.6
county: Montgomery
city/town: 4.7 miles northeast of Montgomery City
feature inters.: Little Wolf Creek
cadastral grid: S13/24, T49N, R5W
highway route: county road
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

superstructure: steel stringer
substructure: concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 30.0'
roadway width: 13.0'
condition: fair
alterations: none
floor/decking : timber deck
other features: unknown

HISTORICAL DATA

erection date: 1917
erection cost: $388.00 (engineer's estimate)
designer: T.L. Cardwell, Montgomery County Road and Bridge Commissioner
fabricator : unknown
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 154000.6; "General Report of the Road and Bridge Commissioner in the matter of bridges on hand" (3 June 1917), located at Montgomery County Courthouse, Montgomery City MO.

sign. rating: 35
evaluation: NRHP non-eligible (small-scale example of common structural type)

inventoried by: Clayton B. Fraser 21 February 1990

Little Loutre Bridge

MONT11

GENERAL DATA

structure no.: 190000.6
county: Montgomery
city/town: 6.5 miles west of Montgomery City
feature inters.: Little Loutre Creek
cadastral grid: S6, T48N, R6W
highway route: county road
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Camelback pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 90.0'
total length: 91.0'
roadway width: 11.5'
condition: good
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord / inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with continuous plate; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1930
erection cost: unknown
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 No. 190000.6; Montgomery County Court Record, Book I, page 355 (9 March 1910), 403 (7 September 1910); contract with Missouri Bridge and Iron Company (court record and contract located at Montgomery County Courthouse, Montgomery City MO);field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 72
evaluation: NRHP determined eligible (well-preserved example of uncommon truss type)

inventoried by: Clayton B. Fraser 21 February 1990

Browne Bridge

MONT12

GENERAL DATA

structure no.:	191000.5	**city/town:**	6.1 miles west of Montgomery City
county:	Montgomery	**feature inters.:**	Little Loutre Creek
		cadastral grid:	S29, T49, R6W
		highway route:	county road
		highway distr.:	3
		current owner:	Montgomery County

STRUCTURAL DATA

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

span number:	1	**condition:**	fair
span length:	65.0'	**alterations:**	unknown
total length:	65.0'	**floor/decking :**	timber deck
roadway width:	11.8'	**other features:**	steel angle guardrails

HISTORICAL DATA

erection date: 1916
erection cost: unknown
designer: Missouri Bridge and Iron Company, St. Louis MO
fabricator : Missouri Bridge and Iron Company, St. Louis MO
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 191000.5; Road and Bridge Commissioner's Report (1 September 1916), located at Montgomery County Courthouse, Montgomery City MO.

sign. rating: 42
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 21 February 1990

Whetstone Creek Bridge

MONT13

GENERAL DATA

structure no.: 198001.4
county: Montgomery
city/town: 6.7 miles southwest of Montgomery City
feature inters.: Whetstone Creek
cadastral grid: S7, T48N, R6W
highway route: county road
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt pony truss, with steel stringer approach span
substructure: steel pile bent abutments; concrete-filled steel cylinder pier

span number: 1
span length: 80.0'
total length: 104.8'
roadway width: 10.3'
condition: good
alterations: three approach spans replaced with earth fill; abutments and pier on one side replaced with steel pile bent piers
floor/decking : timber deck over steel stringers
other features: upper chord / inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars; counter: 2 square eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: timber

HISTORICAL DATA

erection date: 1903
erection cost: $1923.00
designer: T.L. Cardwell, Montgomery County Road and Bridge Commissioner
fabricator : Missouri Bridge and Iron Company, St. Louis MO
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 198001.4; Montgomery County Court Record, Book H: page 426 (9 September 1903), pages 463-64 (11 January 1904); Montgomery County Road and Bridge Commissioner's report and contract with Missouri Bridge and Iron Company (8 September 1903), all located at Montgomery County Courthouse, Montgomery City MO; field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 48
evaluation: NRHP non-eligible (well-preserved example of common structural type)

inventoried by: Clayton B. Fraser 21 February 1990

Morrow Bridge

MONT16

GENERAL DATA

structure no.: 269000.6
county: Montgomery
city/town: 3.3 miles northwest of Big Spring
feature inters.: Loutre River
cadastral grid: S24, T47N, R6W
highway route: county road
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Pratt through truss
substructure: concrete abutments and wingwalls, south end; stone abutments, north end

span number: 1
span length: 140.0'
total length: 140.0'
roadway width: 12.2'
condition: good
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord / inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 3 angles with batten plates, 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1909
erection cost: unknown
designer: Missouri Bridge and Iron Company, St. Louis
fabricator : Missouri Bridge and Iron Company, St. Louis
contractor: Missouri Bridge and Iron Company, St. Louis

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 269000.6; Montgomery County Court Record, Book I, page 272 (4 January 1909), located at Montgomery County Courthouse, Montgomery City MO; field inspection by Clayton Fraser, 27 October 1989.

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

inventoried by: Clayton B. Fraser 21 February 1990

Prairie Fork Bridge

MONT17

GENERAL DATA

structure no.:	283000.6	**city/town:**	3.2 miles southwest of Mineola
county:	Montgomery	**feature inters.:**	Prairie Fork
		cadastral grid:	S16, T47N, R6W
		highway route:	county road
		highway distr.:	3
		current owner:	Montgomery County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt pony truss
substructure: concrete-filled steel cylinder piers; timber pile bent abutments

span number:	1	**condition:**	good
span length:	80.0'	**alterations:**	unknown
total length:	103.0'	**floor/decking :**	timber deck
roadway width:	12.0'	**other features:**	unknown

HISTORICAL DATA

erection date: 1906
erection cost: $1594.50
designer: Missouri Bridge and Iron Company, St. Louis MO
fabricator : Missouri Bridge and Iron Company, St. Louis MO
contractor: Missouri Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 283000.6; Montgomery County Court Record, Book H, page 415 (2 June 1903); Missouri Bridge and Iron Company's original construction drawing (6 September 1905); Montgomery County Road and Bridge Commissioner's report (20 September 1905), all located at Montgomery County Courthouse, Montgomery City MO.

sign. rating: 46
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 21 February 1990

Dry Fork Bridge

MONT18

GENERAL DATA

structure no.: 287002.7
county: Montgomery
city/town: 1.5 miles southwest of Americus
feature inters.: Dry Fork
cadastral grid: S10, T46N, R6W
highway route: county road
highway distr.: 3
current owner: Montgomery County

STRUCTURAL DATA

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

span number: 1
span length: 46.0'
total length: 49.0'
roadway width: 11.9'
condition: fair
alterations: truss moved; abutments replaced c1950
floor/decking : concrete over corrugated steel, with steel stringers
other features: inclined end post: 3 channels; upper chord: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars (2 round eyebars at the hip); vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical

HISTORICAL DATA

erection date: c1895
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 287002.7; field inspection by Clayton Fraser, 27 October 1989.

sign. rating: 18
evaluation: NRHP non-eligible (apparently an early example of mainstay structural type, but moved to this location and lacking in documentation)

inventoried by: Clayton B. Fraser 21 February 1990

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Hermann Bridge
MHTD: K 226A

MONT03

DATE(S) OF CONSTRUCTION
1928-30

LOCATION
State Highway 19 over Missouri River; S35, T46N, R5W
1.8 miles south of McKittrick; Montgomery / Gasconade County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / highway bridge

RATING NRHP eligible (score: 71)

CONDITION
good

OWNER
Missouri Highway and Transportation Department

span number:	7
span length:	400.0'
total length:	2232.0'
roadway wdt.:	20.0'

superstructure:	steel, rigid-connected cantilevered Warren through truss; Warren deck truss and steel stringer approach spans at the north end; Warren polygonal through truss approach spans at the north end
substructure:	concrete abutments and piers
floor/decking:	concrete over steel stringers
other features:	end post: 2 built-up channels with cover plate and double lacing; top chord: 2 built-up channels with cover plate and single lacing; lower chord: 2 built-up channels with lacing; vertical: 4 angles with batten plates, and 2 channels with lacing; diagonal: 4 angles with batten plates, and 2 channels with lacing; lateral bracing: 4 angles with lacing; strut: 4 angles with lacing, braced; floor beam: I-beam; guardrail: 2 steel pipes

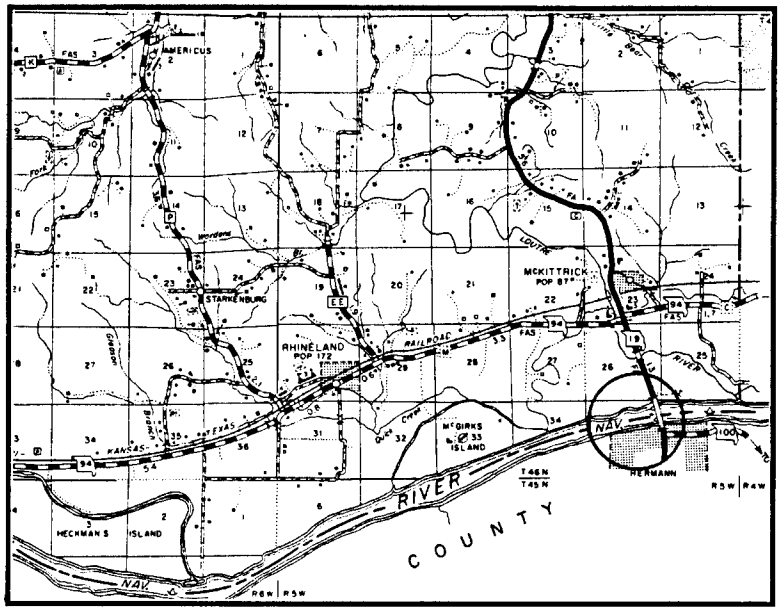
After years of boosting for a vehicular bridge across the Missouri River at Hermann and waiting in vain for the state highway department to build it, a committee of local businessmen took the initiative and began serious planning for the proposed structure themselves in 1925. L.J. Sverdrup, then the MSHD Chief Highway Bridge engineer, advised them that the state could not undertake the bridge due to restrictions under the Centennial Road Law that prohibited the state from building any bridges over navigable streams. MSHD did offer to build the approaches, if the city could build the bridge proper. Funded jointly by the Hermann Commercial Club, Gasconade County and the City of Hermann, soundings were made at the proposed crossing site by the Long Year Exploration Company of Minneapolis; Sverdrup estimated that a bridge here would cost some $800,000. The Commercial Club then convinced the National Toll Bridge Company, a subsidiary of the J.G. White Engineering Company of New York, to fund the erection of a toll span here, along with other similar structures by the company at Madison, Indiana, and Independence, Missouri. The city of Hermann and Gasconade and Montgomery Counties immediately granted a franchise for the bridge to the Hermann Bridge Company and, after a couple of delays, so did Congress, with the enabling legislature finally signed by President Coolidge on February 29–leap day–1928.

After the National Toll Bridge Company offered Sverdrup a position as general manager of the bridge project, he resigned from the highway department and began the engineering work for the structure. Sverdrup secured approval of the plans from the War Department in July 1928 and finalized the drawings and specifications later that summer. As delineated by Sverdrup the Hermann Bridge was comprised of four 400-foot, rigid-connected Warren through trusses cantilevered over the main channel of the Missouri River, with simply supported trusses over the flood plain north of the river. The trusses would all be supported by bull-nosed concrete piers, founded on

NAME(S) OF STRUCTURE

Hermann 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. K 226A; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City, Missouri; "Bridging the Missouri," **Hermann-Advertiser-Courier**, 22 February 1929; "Bridge Employee Drowns," **Hermann-Advertiser-Courier**, 6 September 1929; "Missouri River Bridge Work in Full Progress," **Hermann-Advertiser-Courier**, 14 March 1930; "Thousands Expected in Hermann for Bridge Dedication," **Hermann-Advertiser-Courier**, 22 August 1930; "Eight Thousand Attend Bridge Dedication Ceremonies," **Hermann-Advertiser-Courier**, 5 September 1930; "They Build for the Future of Hermann," **Missouri**, September 1930; field inspection by Clayton Fraser, 27 October 1989.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	21 February 1990

caissons deep beneath the river. The contract to sink the caissons and build the substructure was awarded to the Foundation Company of Chicago and the contract to fabricate and erect the massive trusses went to the Kansas City Structural Steel Company. Work on the substructure began almost immediately, with the Foundation Company shipping equipment and laborers to the site by train late in 1928. The contractors faced exceedingly wet conditions in 1929 and dry conditions in 1930, hampering work of the bridge. Finally, on August 29, 1930, the bridge was formally dedicated and opened to traffic. Since that time, it has continued to function in place, without serious alteration. With administration of the bridge assumed by the Missouri Highway and Transportation Department, tolls are no longer collected for passage over it.

No less a personage than Missouri Governor Caulfield attended the dedication ceremony in 1930. "I am proud of the work that Missouri is doing in the building of highways," he said to the audience gathered around the podium. "I am glad that during the year of 1930, when there has been considerable unemployment, Missouri will have doubled her highway construction record of 1929, and will have given employment to thousands of Missouri citizens who otherwise would face the problem of being out of work." Undertaken during the early years of the Great Depression, the Hermann Bridge marked the first of what would be a series of great river bridges built in the state. It has formed a regionally important crossing of the Missouri River: the only span between Jefferson City and Washington. Featuring a cantilevered design, the Hermann Bridge ranks among Missouri's most monumental examples of steel truss construction. With a span length of 400 feet and an overall length of 2232 feet, the multiple-span structure clearly ranks as a superlative example of its type. Its distinctive curved profile formed the prototype for several other great river bridges undertaken by L.J. Sverdrup. Similarly configured structures undertaken by Sverdrup and Parcel include the Mark Twain Bridge in Hannibal, the Miami Bridge and the Washington Bridge. As an important river crossing and a well-preserved example of large-scale bridge construction, the Hermann Bridge is one of Missouri's more noteworthy highway trusses.

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Little Loutre Bridge
MHTD: 190000.6

MONT11

DATE(S) OF CONSTRUCTION
1930

LOCATION
county road over Little Loutre Creek; S6, T48N, R6W
6.5 miles west of Montgomery City; Montgomery County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 72)

CONDITION
good

OWNER
Montgomery County

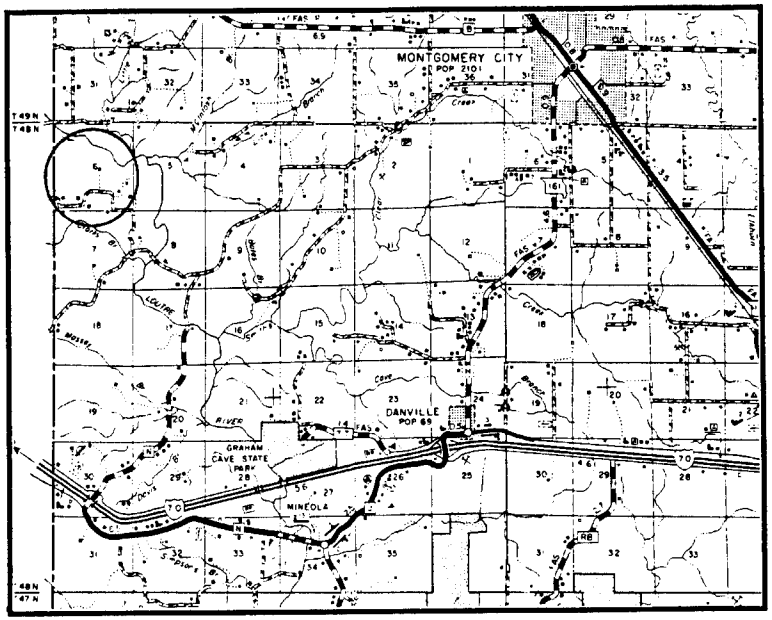
span number:	1	superstructure:	steel, 5-panel, pin-connected Camelback pony truss
span length:	90.0'	substructure:	concrete abutments and wingwalls
total length:	91.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	11.5'	other features:	upper chord / inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with continuous plate; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

In March 1910 the Montgomery County Court ordered county road and bridge commissioner T.L. Cardwell to view the site for a new bridge over Little Loutre Creek petitioned for by Orin Sailor. The court soon thereafter ordered a truss bridge built on steel cylinder piers by the Missouri Bridge and Iron Company of St. Louis. In 1930 the county contracted again with the MoB&I, this time to fabricate and erect a replacement structure for the 1910 truss. The St. Louis firm built a single-span, pinned Camelback pony truss on concrete abutments, poured directly over the foundations for the earlier structure. (The steel tubes were incorporated in the bridge's west abutment and can still be seen.) Completed later that year, the Little Loutre Bridge has carried county-road traffic since, in essentially unaltered condition.

Pin-connected trusses were built by the thousands throughout Missouri in the late 19th and early 20th centuries. Camelback pony trusses were much less common, and relatively few remain in place today, virtually all rigid-connected. But pin-connected Camelback pony trusses are a true rarity in Missouri. Only the Little Loutre Bridge and another span in Montgomery County **[MONT06]** use this peculiar configuration. The bridges are further distinguished by their composition - combining pin-connected technology of an early county-built truss with the heavy web members and concrete substructure and deck of a later highway truss. As a well-preserved example of an uncommon truss type, built relatively late in the milieu of pinned truss construction, the Morris Ford Bridge is a noteworthy structural anomaly.

NAME(S) OF STRUCTURE
Little Loutre 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. 190000.6; Montgomery County Court Record, Book I, page 355 (9 March 1910), 403 (7 September 1910); contract with Missouri Bridge and Iron Company (court record and contract located at Montgomery County Courthouse, Montgomery City MO);field inspection by Clayton Fraser, 27 October 1989.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	21 February 1990

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Morris Ford Bridge
MHTD: 079002.2

MONT06

DATE(S) OF CONSTRUCTION
1930

LOCATION
County Road 81 over Elkhorn Creek; S22/27, T50N, R4W
5.1 miles southeast of Middletown; Montgomery County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP eligible (score: 72)

CONDITION
good

OWNER
Montgomery County

span number:	1	superstructure:	steel, 5-panel, pin-connected Camelback pony truss
span length:	90.0'	substructure:	concrete abutments and wingwalls
total length:	92.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	11.8'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with continuous plate; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

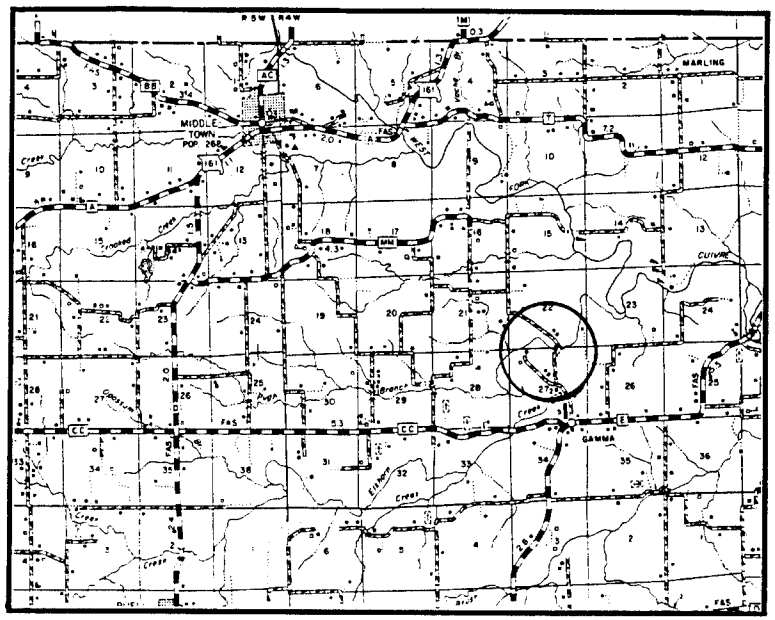
In 1911 the Montgomery County Court received a petition from W.W. Cowan et al. for a bridge on the Middletown and Gamma Road over Elkhorn Creek, a mile north of the small town of Gamma at the Morris Ford. The court ordered county road and bridge commissioner T.L. Cardwell to investigate the site, and in September he presented two plans to the court based upon drawings by the Missouri Bridge and Iron Company for 75- and 80-foot pony trusses. The judges set the petition aside at the time, but acted tentatively on it late in 1912, when they again ordered Cardwell to investigate the site. Again the court failed to act when presented with Cardwell's report. In September 1913 the court ordered Cardwell - by now well familiar with the site - to visit once more to survey for a bridge and estimate for its construction. County records are sketchy, and it is unclear whether the court ever did order a bridge built at this time, but in 1930 the county contracted with the Missouri Bridge and Iron Company of St. Louis for a steel bridge at the Morris Ford. Comprised of a single pinned Camelback pony truss supported by concrete abutments, the structure has since its completion carried county-road traffic in essentially unaltered condition.

Pin-connected trusses were built by the thousands throughout Missouri in the late 19th and early 20th centuries. Camelback pony trusses were much less common, and relatively few remain in place today, virtually all rigid-connected. But pin-connected Camelback pony trusses are a true rarity in Missouri. Only the Morris Ford Bridge and another span in Montgomery County [MONT11] use this peculiar configuration. The bridges are further distinguished by their composition - combining pin-connected technology of an early county-built truss with the heavy web members and concrete substructure and deck of a later highway truss. As a well-preserved example of an uncommon truss type, built relatively late in the milieu of pinned truss construction, the Morris Ford Bridge is a noteworthy structural anomaly.

NAME(S) OF STRUCTURE

Morris 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. 079002.2; Montgomery County Court Record, Book 1: page 110 (2 December 1912), page 195 (1 September 1913), page 249 (2 March 1914); Bridge Petition from W.W. Cowan et al. for bridge at Morris Ford; Montgomery County Road and Bridge Commissioner's Report re. bridge over Elkhorn Creek, S27, T50N, R4W; contract with Missouri Bridge and Iron Company (court record, petition, report and contract all located at Montgomery County Courthouse, Montgomery City MO); field inspection by Clayton Fraser, 27 October 1989.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	21 February 1990

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Whetstone Creek Bridge
MHTD: 198001.4

MONT13

DATE(S) OF CONSTRUCTION
1903

LOCATION
county road over Whetstone Creek; S7, T48N, R6W
6.7 miles southwest of Montgomery City; Montgomery County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 48)

CONDITION
good

OWNER
Montgomery County

span number:	1	superstructure:	steel, 5-panel, pin-connected Pratt pony truss, with steel stringer approach span
span length:	80.0'	substructure:	steel pile bent abutments; concrete-filled steel cylinder pier
total length:	104.8'	floor/decking:	timber deck over steel stringers
roadway wdt.:	10.3'	other features:	upper chord / inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars; counter: 2 square eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: timber

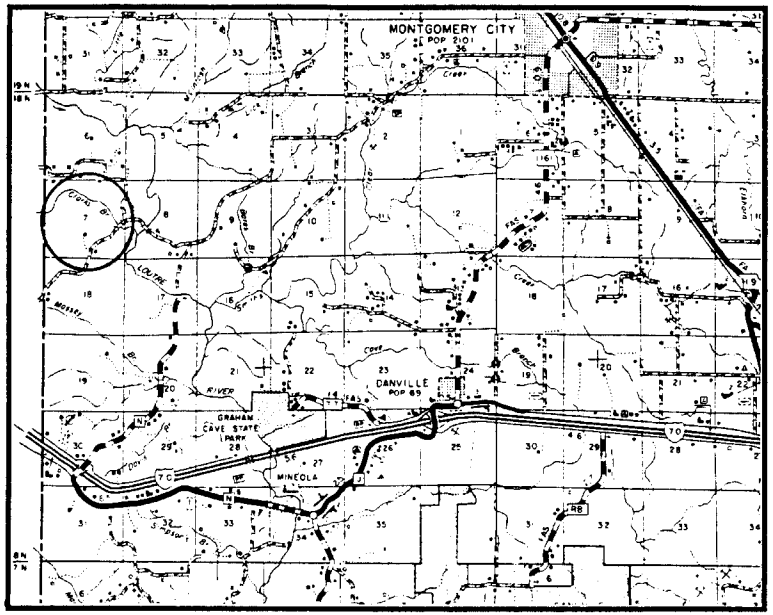
The Montgomery County Court in September 1903 contracted with the Missouri Bridge and Iron Company of St. Louis to fabricate and erect a single-span steel bridge on the western edge of the county, near the border with Callaway County. The medium-span truss would carry the Montgomery City / Williamsburg Road over Whetstone Creek, some six miles west of Montgomery City, the county seat. For this crossing T.L. Cardwell, the county road and bridge commissioner, designed a pin-connected Pratt pony truss with four steel stringer approach spans, supported by steel pile bent abutments and a 24-inch-diameter, concrete-filled steel cylinder pier. MoB&I began work on the substructure soon thereafter, completing the truss by the end of the year. Total cost: $1923.00. The Whetstone Creek Bridge has carried traffic since. The three approach spans on the east side have since been replaced with an earth fill, but the structure remains otherwise intact.

Marketed extensively by virtually all of the in-state bridge contractors and promoted in the form of standardized designs, the pinned Pratt pony truss was used extensively by Missouri's counties to carry roads over the state's myriad small streams. Thousands of such small-scale trusses were erected across the state, and many remain today. The Whetstone Creek Bridge is noteworthy as a well-preserved, relatively early example of this mainstay structural type - the earliest documented wagon bridge in Montgomery County.

NAME(S) OF STRUCTURE

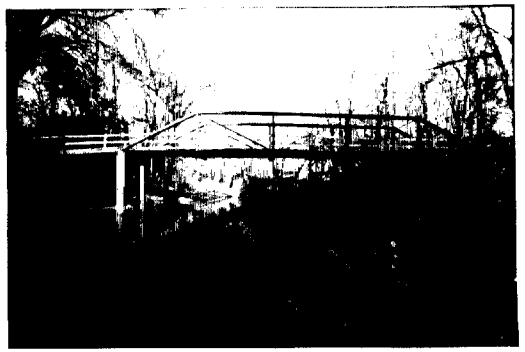
Whetstone Creek Bridge

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. 198001.4; Montgomery County Court Record, Book H: page 426 (9 September 1903), pages 463-64 (11 January 1904); Montgomery County Road and Bridge Commissioner's report and contract with Missouri Bridge and Iron Company (8 September 1903), all located at Montgomery County Courthouse, Montgomery City MO; field inspection by Clayton Fraser, 27 October 1989.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	21 February 1990