FRANKLIN COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
*FRAN01	H 996R1	Meramec River Bridge	**5-105' concrete open spandrel arch** 1930 M.E. Gillioz, Monett MO
FRAN02	J 872	Pacific Overpass	1- 70' **concrete open spandrel arch** 1932 Gaines Brothers
FRAN03	J 959	Big Boeuf Creek Bridge	1-**100'** **riveted polyg. Warren pony truss** 1934 James R. Hancock
*FRAN04	F-6	Big Berger Creek Bridge	1-115' **pinned Pratt through truss** **1912** Stupp Brothers Bridge and Iron
FRAN05	F-31	Bucklick Creek Bridge	1- 45' pinned Pratt pony truss **1910** Stupp Brothers Bridge and Iron
*FRAN06	F-32	Steiner's Ford Bridge	1-**180'** **pinned Parker through truss** **1908** Missouri Bridge and Iron Co.
*FRAN07	F-33	Horstkamp Ford Bridge	1-150' **riveted Parker through truss** **1915** Vincennes Bridge Company
*FRAN08	F-46	Noelker's Ford Bridge	(replaced)
*FRAN09	F-51	Labadie Bottoms Bridge	1- 60' pinned Pratt bedstead **1900** Stupp Brothers Bridge and Iron
FRAN10	F-52	Labadie Creek Bridge	1- 30' **concrete filled spandrel arch** c1930
*FRAN11	F-56	Labadie Creek Bridge	1- 96' **pinned Pratt through truss** **1901** Stupp Brothers Bridge and Iron
FRAN12	F-57	Fiddle Creek Bridge	1- 50' **riveted Pratt/Warren pony truss** 1920 R.L. Miller
*FRAN13	F-59	Tavern Creek Bridge	1- 33' **concrete arched deck girder** c1925
*FRAN14	F-72	Withington Ford Bridge	**2-200' pinned Pennsylv. through truss** **1917** Miller and Borcherding
FRAN15	F-89	Brown Branch Bridge	1- 36' riveted lattice bedstead **c1905** Stupp Brothers B&I (probable)
*FRAN16	F-136	Cedar Fork Bridge	1- 50' **riveted Pratt/Warren pony truss** 1920 R.L. Miller
*FRAN17	F-190	Short's Ford Bridge	1-**194'** **pinned Pratt through truss** **1888** King Iron Bridge Company
*FRAN18	F-191	L. Meramec River Bridge	1-110' **pinned Pratt through truss** **1911** Stupp Brothers Bridge and Iron
*FRAN19	F-207	McGuire Ford Bridge	1-100' **riveted Pratt through truss** **1915** Vincennes Bridge Company
*FRAN20	F-224	South Fork Bridge	1- 40' pinned Pratt half-hip pony **1899** Stupp Brothers Bridge and Iron
*FRAN21	F-284	Bridge	1- 80' **riveted Pratt/Warren pony truss** 1920 R.L. Miller
FRAN22	F-405	Spring Creek Bridge	1- 34' riveted lattice bedstead **1908** Stupp Brothers Bridge and Iron

FRANKLIN COUNTY

INCLUDED (cont.):

*FRAN23	F-420	Hartmann's Ford Bridge	1-**250'**	**pinned Pennsylv. through truss**
			1916	Miller and Borcherding
*FRAN24	F-424	Noser Mill Bridge	1-**190'**	**pinned Parker through truss**
			1902	Midland Bridge Company
*FRAN25	F-425	Noser Mill Bridge	**4**- 19'	steel stringer
			1902	Midland Bridge Company
*FRAN26	U4300003	Washington St. Bridge	1- 30'	stone masonry arch
			c**1890**	
*FRAN27	U4300004	Church Street Bridge	1- 25'	concrete deck girder
			1915	Missouri Construction Company

EXCLUDED:

Pratt pony truss
F-140 F-286

Pratt bedstead
F-116

Warren pony truss
F-40

Steel stringer

F-2	F-11	F-19	F-23	F-95	F-101R	F-106
F-113	F-125	F-135	F-142	F-148	F-153	F-170F-178
F-189R	F-268	F-279	F-285	F-406	H 353R	H 389R1J 960S
244	S 265	T 301	W 409	X 92	Y 721	Y 722
Z 547						

Steel girder

F-314	K 154R	U430000.2

Concrete girder

F-5	F-10	F-14	F-25	F-45	F-85	F-107
F-119	F-120	F-124	F-184	F-218	F-219	F-236
F-272	F-281	F-415	F-422	H 994R	H 995R	K 141
K 479R	U446500.2	W 102	W 103	W 104	X 489	316200.1
430000.1						

Concrete slab

F-141	F-159	F-304

Concrete box culvert

F-50	F-426	H 205R	H 226R	H 992	H 997	L 120
L 163R1	T 199	X 286	X 488	X 913	X 926	X 982
X 983						

Timber stringer
F-423

FRANKLIN COUNTY

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	3	21	2	0	26
Excluded	32	51	3	0	86
	35	72	5	0	112 structures

Meramec River Bridge

FRAN01

GENERAL DATA

structure no.: H 996R1
county: Franklin

city/town: 3.0 miles east of Parkway
feature inters.: Meramec River
cadastral grid: S4, T41N, R1E
highway route: Missouri State Highway 30
highway distr.: 6
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

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

span number: 5
span length: 105.0'
total length: 825.0'
roadway width: 20.0'

condition: excellent
alterations: none
floor/decking : asphalt over concrete deck
other features: concrete guardrails (standard Missouri State Highway Department design); architectural detailing, including: fluted, hammerhead concrete piers; curved haunches on deck girder approach spans; bullnosed cutwaters on channel piers

HISTORICAL DATA

erection date: 1929-30
erection cost: $91,197.45
designer: Missouri State Highway Department
fabricator : none
contractor: M.E. Gillioz, Monett MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 996R1; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 57
evaluation: NRHP potentially eligible (well-preserved, multiple-span example of mainstay structural type, one of best in state)

inventoried by: Clayton B. Fraser 15 January 1994

Pacific Overpass

FRAN02

GENERAL DATA

structure no.: J 872
county: Franklin
city/town: Pacific
feature inters.: Missouri Pacific Railroad
cadastral grid: S9, T43N, R2E
highway route: State Secondary Route AT
highway distr.: 6
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

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

span number: 1
span length: 70.0'
total length: 163.0'
roadway width: 32.0'
condition: good
alterations: none
floor/decking : concrete deck
other features: concrete guardrails (Missouri State Highway Department standard design)

HISTORICAL DATA

erection date: 1932
erection cost: $14,564.46
designer: Missouri State Highway Department
fabricator : none
contractor: Gaines Brothers

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 872; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 40
evaluation: NRHP non-eligible (The Pacific Overpass is a typically built, single-span, concrete open spandrel arch, of average span length and ordinary detailing.)

inventoried by: Clayton B. Fraser 15 January 1994

Big Boeuf Creek Bridge

FRAN03

GENERAL DATA

structure no.: J 959
county: Franklin
city/town: 3.1 miles east of New Haven
feature inters.: Boeuf Creek
cadastral grid: S5, T44N, R2W
highway route: Missouri State Highway 100
highway distr.: 6
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 6-panel, rigid-connected Warren pony truss with polygonal upper chords
substructure: concrete abutments and wingwalls; solid concrete hammerhead spill-through piers

span number: 1
span length: 100.0'
total length: 314.0'
roadway width: 22.0'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1934
erection cost: $36,328.87
designer: Missouri State Highway Department
fabricator : unknown
contractor: James R. Hancock

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 959; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.

sign. rating: 46
evaluation: NRHP non-eligible (typically configured, long-span example of MSHD 1930s truss design)

inventoried by: Clayton B. Fraser 15 January 1994

Big Berger Creek Bridge

FRAN04

GENERAL DATA

structure no.: F-6
county: Franklin

city/town: 5.6 miles south of Berger
feature inters.: Big Berger Creek
cadastral grid: S3, T44N, R4W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss
substructure: concrete abutments

span number: 1
span length: 115.0'
total length: 116.0'
roadway width: 15.7'

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: 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 verticals; guardrail: 2 angles; portal builder's plate: **1912 / Built by Stupp Bros. Bridge & Iron Co. / St. Louis Mo.**

HISTORICAL DATA

erection date: 1912
erection cost: unknown
designer: A.R. Moore, Franklin County Engineer
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO; Illinois Steel Company, Chicago IL
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-6; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 43
evaluation: NRHP non-eligible (well-preserved, typically configured example of a standard truss type)

inventoried by: Clayton B. Fraser 15 January 1994

Bucklick Creek Bridge

FRAN05

GENERAL DATA

structure no.: F-31
county: Franklin

city/town: 3.9 miles south of New Haven
feature inters.: Bucklick Creek
cadastral grid: S24, T44N, R3W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

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

span number: 1
span length: 45.0'
total length: 46.0'
roadway width: 15.6'

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

HISTORICAL DATA

erection date: 1910
erection cost: unknown
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-31; contract between Stupp Brothers Bridge and Iron Company and Franklin County (5 August 1910), located at Franklin County Clerk's Office, Union MO.

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

inventoried by: Clayton B. Fraser 15 January 1994

Steiner's Ford Bridge

FRAN06

GENERAL DATA

structure no.: F-32
county: Franklin

city/town: 3.9 miles southeast of New Haven
feature inters.: Boeuf Creek
cadastral grid: S9, T44N, R2W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 10-panel, pin-connected Parker through truss
substructure: stone masonry abutments with stepped wingwalls

span number: 1
span length: 180.0'
total length: 185.0'
roadway width: 15.1'

condition: good
alterations: none
floor/decking : timber 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: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: steel lattice

HISTORICAL DATA

erection date: 1907-08
erection cost: $4239.00: superstructure; $3158.00: substructure
designer: Charles L. Moore, Franklin County Engineer
fabricator : Jones and Laughlin Steel Company, Pittsburgh PA
contractor: Missouri Bridge and Iron Company, St. Louis MO: superstructure; Rosmann and Goeller, substructure

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-32; Franklin County Court Record, Book T: page 300 (8 August 1903), page 311 (13 August 1903), page 342 (2 November 1903), page 375 (24 December 1903), page 398 (3 February 1904), page 523 (2 August 1904); Book V: page 63 (5 March 1907), page 115 (17 May 1907), page 175 (4 June 1907), page 268 (6 November 1907), page 298 (2 December 1907) - located at Franklin County Clerk's Office, Union MO; superstructure contract between Missouri Bridge and Iron Company and Franklin County (3 September 1907); substructure contract between Rosmann and Goeller and Franklin County (6 August 1907); original construction drawings by C.L. Moore - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Steiner's Ford Bridge

sign. rating: 57
evaluation: NRHP potentially eligible (excellent example of uncommon Pratt truss subtype)

inventoried by: Clayton B. Fraser 15 January 1994

Horstkamp Ford Bridge

FRAN07

GENERAL DATA

structure no.: F-33
county: Franklin

city/town: 3.8 miles southeast of New Haven
feature inters.: Boeuf Creek
cadastral grid: S7, T44N, R2W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Parker through truss, with steel stringer approach spans
substructure: concrete abutments and piers

span number: 1
span length: 150.0'
total length: 190.0'
roadway width: 15.8'

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 angles with batten plates; vertical: 2 channels with lacing; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; strut 2 angles, braced; floor beam: I-beam, field bolted to vertical; guard-rail: 2 angles

HISTORICAL DATA

erection date: 1915
erection cost: $3532.00
designer: Vincennes Bridge Company, Vincennes IN
fabricator : Inland Steel Company, East Chicago IN; Illinois Steel Company, Chicago IL
contractor: Vincennes Bridge Company, Vincennes IN

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-33; citizens' petition and subscription (8 September 1859); original construction drawings by J.M. Moore (1915); contract with Vincennes Bridge Company (3 July 1915) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 51
evaluation: NRHP potentially eligible (well-preserved, relatively early example of mainstay structural type)

inventoried by: Clayton B. Fraser 15 January 1994

Noelker's Ford Bridge

FRAN08

GENERAL DATA

structure no.: F-46
county: Franklin

city/town: 5.5 miles west of Washington
feature inters.: St. Johns Creek
cadastral grid: S26, T44N, R2W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss
substructure: stone masonry abutments

span number: 1
span length: 116.0'
total length: 118.0'
roadway width: 14.7'

condition: good
alterations: none
floor/decking : asphalt on timber deck, over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guardrail: steel lattice; builder's plate: **1908 / Stupp Bro's Bridge & Iron Co. / St. Louis Mo.**

HISTORICAL DATA

erection date: 1907-08
erection cost: $1700.00: superstructure; $2282.00: substructure
designer: Charles L. Moore, Franklin County Engineer
fabricator : Cambria Steel Company, Pittsburgh PA
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO: superstructure; Rosmann and Goeller: substructure

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-46; citizens' petition and subscription (5 August 1908); construction progress report from Charles Moore to Franklin County Court (9 December 1908); original construction drawings and specifications by Charles Moore (1908); substructure contract between Rosmann and Goeller and Franklin County (8 September 1908); superstructure contract between Stupp Brothers Bridge and Iron Company and Franklin County (8 September 1908) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Noelker's Ford Bridge

sign. rating: 47
evaluation: NRHP non-eligible (typically configured example of common structural type, undistinguished in its age and design)

inventoried by: Clayton B. Fraser 17 January 1994

Labadie Bottoms Bridge

FRAN09

GENERAL DATA

structure no.: F-51
county: Franklin

city/town: 2.2 miles northwest of Labadie
feature inters.: Missouri River tributary
cadastral grid: S27, T44N, R1E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt truss-leg bedstead, with steel stringer approach spans
substructure: timber pile bent pier under south end of truss; truss legs under north end of truss; concrete abutments

span number: 1
span length: 60.0'
total length: 86.0'
roadway width: 15.7'

condition: fair
alterations: truss moved to this location; original timber deck replaced with concrete
floor/decking : concrete deck over steel stringers
other features: upper chord and upright end post: 2 channels with cover and batten plates; lower chord: 2 angles with batten plates, or 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **Stupp Bros. / Bridge & Iron Co. / Builders / St. Louis Mo.**

HISTORICAL DATA

erection date: 1900
erection cost: $1140.00
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO; Lackawanna and Cambria Steel Companies, Pittsburgh PA
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-51; (standard) construction drawing by Stupp Brothers Bridge and Iron Company (1900); contract between Stupp Brothers and Franklin County (6 August 1900) - both located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Labadie Bottoms Bridge

sign. rating: 38
evaluation: NRHP non-eligible (undistinguished, altered structure, moved to this location.)

inventoried by: Clayton B. Fraser 17 January 1994

Labadie Creek Bridge

FRAN10

GENERAL DATA

structure no.: F-52
county: Franklin

city/town: 1.0 mile southeast of Labadie
feature inters.: Labadie Creek
cadastral grid: S31, T44N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

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

span number: 1
span length: 31.0'
total length: 36.0'
roadway width: 25.5'

condition: good
alterations: none
floor/decking : concrete deck over earth fill
other features: steel pipe guardrails

HISTORICAL DATA

erection date: c1930
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-52.

sign. rating: 27
evaluation: NRHP non-eligible (technologically undistinguished example of a concrete bridge type, dating from the 1930s)

inventoried by: Clayton B. Fraser 17 January 1994

Labadie Creek Bridge

FRAN11

GENERAL DATA

structure no.: F-56
county: Franklin

city/town: 1.8 miles north of Labadie
feature inters.: Labadie Creek
cadastral grid: S18, T44N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

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

span number: 1
span length: 96.0'
total length: 136.0'
roadway width: 15.2'

condition: good
alterations: truss moved to this location
floor/decking : asphalt on timber deck, over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, field bolted to vertical; guardrail: steel pipe; builder's plate: **1901 / Built by Stupp Bros. Bridge & Iron Co. / St. Louis, Mo.**

HISTORICAL DATA

erection date: 1901
erection cost: unknown
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO; Jones and Laughlin, Cambria Steel Companies, Pittsburgh PA
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-57; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 37
evaluation: NRHP non-eligible (early, well-preserved example of a mainstay structural type, moved to this location)

inventoried by: Clayton B. Fraser 17 January 1994

Fiddle Creek Bridge

FRAN12

GENERAL DATA

structure no.: F-57
county: Franklin
city/town: 3.7 miles northwest of Labadie
feature inters.: Fiddle Creek
cadastral grid: S16, T44N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 3-panel, rigid-connected Pratt/Warren pony truss, with 1 steel stringer approach span
substructure: concrete-filled steel cylinder piers

span number: 1
span length: 50.0'
total length: 75.0'
roadway width: 11.6'
condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; end post stiffener: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1920
erection cost: unknown
designer: R.L. Miller, St. Louis MO
fabricator : R.L. Miller, St. Louis MO
contractor: county crew

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-57; Franklin County Court Record, Book AA: page 408 (21 July 1919), page 529 (4 February 1920) - located at Franklin County Courthouse, Union MO.

sign. rating: 50
evaluation: NRHP possible (example of an uncommon structural type, lacking in documentation)

inventoried by: Clayton B. Fraser 17 January 1994

Tavern Creek Bridge

FRAN13

GENERAL DATA

structure no.: F-59
county: Franklin

city/town: 6.1 miles northeast of Labadie
feature inters.: Tavern Creek
cadastral grid: S2, T44N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 33.0'
total length: 34.0'
roadway width: 17.7'

condition: fair
alterations: none
floor/decking : concrete deck
other features: concrete guardrails with recessed panels; concrete gravity arch dam built integrally with bridge

HISTORICAL DATA

erection date: c1925
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-59; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 50
evaluation: NRHP potentially eligible (rare concrete bridge-dam combination structure, apparently built from MSHD standard design)

inventoried by: Clayton B. Fraser 17 January 1994

Withington Ford Bridge

FRAN14

GENERAL DATA

structure no.: F-72
county: Franklin

city/town: 3.2 miles southeast of Gray Summit
feature inters.: Meramec River
cadastral grid: S15/22, T43N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 10-panel, pin-connected Pennsylvania through truss, with steel stringer approach span
substructure: concrete abutments and pier

span number: 2
span length: 200.0'
total length: 422.0'
roadway width: 15.0'

condition: good
alterations: none
floor/decking : asphalt on timber, 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: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **Built by / Miller & Borcherding / St. Louis Mo.**

HISTORICAL DATA

erection date: 1916-17
erection cost: $13,832.00 (contract amount)
designer: J.M. Moore, Franklin County Engineer
fabricator : Illinois Steel Company, Chicago IL
contractor: Miller and Borcherding, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-72; Franklin County Court Record, Book Q: page 48 (6 September 1892), page 109 (8 December 1892); Book T: page 346 (4 May 1903); Book Z: page 575 (10 December 1915), page 618 (16 February 1916), page 626 (22 February 1916); Book AA: page 70 (5 October 1916), page 82 (21 November 1916), page 95 (4 January 1917); citizens' petitions and subscriptions (4 May 1903, 1 August 1914, 10 February 1915; 12 February 1916); construction drawings by J.M. Moore (November 1915); bid summary (16 February 1916); superstructure contract with Miller and Borcherding (18 February 1916); contract for approach work with F.X. Manning (25 February 1916) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Withington Ford Bridge

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

inventoried by: Clayton B. Fraser 18 January 1994

Brown Branch Bridge

FRAN15

GENERAL DATA

structure no.: F-89
county: Franklin

city/town: 5.9 miles west of Labadie
feature inters.: Brown Branch
cadastral grid: S5, R1E, T43N
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 2-panel rigid-connected lattice bedstead truss
substructure: stone masonry abutments

span number: 1
span length: 36.0'
total length: 36.0'
roadway width: 14.9'

condition: fair
alterations: original timber deck replaced with concrete
floor/decking : concrete deck over steel stringers
other features: unknown

HISTORICAL DATA

erection date: c1905
erection cost: unknown
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO (probable)
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO (probable)
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-89.

sign. rating: 32
evaluation: NRHP non-eligible (undistinguished, small-scale structure, lacking in technological significance)

inventoried by: Clayton B. Fraser 18 January 1994

Cedar Fork Bridge

FRAN16

GENERAL DATA

structure no.: F-136
county: Franklin

city/town: 6.8 miles northeast of Gerald
feature inters.: Cedar Fork
cadastral grid: S8, T43N, R3W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 3-panel, rigid-connected Pratt/Warren pony truss
substructure: concrete abutments

span number: 1
span length: 50.0'
total length: 52.0'
roadway width: 11.4'

condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; end post stiffener: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1919-20
erection cost: unknown
designer: J.L. Ekey, Franklin County Highway Engineer
fabricator : R.L. Miller, St. Louis MO
contractor: R.L. Miller, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-136; original drawing by J.L. Ekey, Franklin County Highway Engineer (7 October 1919); citizens' petition (5 August 1918); Right-of-Way conveyance (10 April 1920) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

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

inventoried by: Clayton B. Fraser 18 January 1994

Short's Ford Bridge

FRAN17

GENERAL DATA

structure no.: F-190
county: Franklin

city/town: 5.8 miles east of St. Clair
feature inters.: Meramec River
cadastral grid: S26, T42N, R1E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: wrought iron, 10-panel, pin-connected Pratt through truss
substructure: stone masonry abutments and wingwalls

span number: 1
span length: 194.0'
total length: 198.0'
roadway width: 14.8'

condition: good
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped round eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round eyerod with turnbuckle; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to vertical; guardrail: 3 angles; builder's plate: **1888 / King Iron Bridge Co. / Cleveland, O.**

HISTORICAL DATA

erection date: 1888
erection cost: $3759.00 (superstructure only)
designer: King Iron Bridge Company, Cleveland OH
fabricator : Phoenix Iron Company, Philadelphia PA
contractor: George E. King Bridge Company, Des Moines IA

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-190; Franklin County Record, Book O: page 215 (8 May 1884); Book P: page 37 (14 February 1888), page 39 (15 February 1888), page 50 (13 March 1888), page 58 (3 April 1888), page 59 (4 April 1888), page 63 (23 April 1888), page 78 (5 July 1888), page 84 (6 August 1888), page 126 (24 November 1888), page 194 (6 May 1889), page 209 (9 July 1889), page 234 (20 September 1889), page 249 (4 November 1889), page 330 (7 May 1890); citizens' petitions (5 September 1887, 11 November 1887, 2 August 1887); county engineer's reports (30 August 1888, 15 February 1888, 24 November 1888) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Short's Ford Bridge

sign. rating: 60
evaluation: NRHP determined eligible (excellent early example of mainstay structural type, located on an important crossing)

inventoried by: Clayton B. Fraser 18 January 1994

Little Meramec River Bridge

FRAN18

GENERAL DATA

structure no.: F-191
county: Franklin

city/town: 6.6 miles east of St. Clair
feature inters.: Little Meramec River
cadastral grid: S36, T42N, R1E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 110.0'
total length: 112.0'
roadway width: 10.9'

condition: fair
alterations: none
floor/decking : asphalt on timber deck, over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles with knee braces; floor beam: I-beam, field bolted to vertical; guardrail: steel lattice; builder's plate: **1911 / Built by Stupp Bro's Bridge & Iron Co. / St. Louis Mo.**

HISTORICAL DATA

erection date: 1911
erection cost: $634.00 (substructure cost)
designer: Allen R. Moore, Franklin County Highway Engineer
fabricator : Lackawanna Steel Company, Pittsburgh PA
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO: superstructure; Oscar Fisher: substructure

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-191; citizens' petition (8 November 1907); Right-of-Way conveyance (8 February 1912); substructure contract with Oscar Fisher (8 August 1911); shop drawings by Stupp Brothers Bridge and Iron Company (7 November 1911); superstructure contract with Stupp Brothers (8 August 1911); original specifications by Allen R. Moore (1911) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 43
evaluation: NRHP non-eligible (well-preserved and well-documented example of a mainstay structural type, lacking historical or technological distinction)

inventoried by: Clayton B. Fraser 18 January 1994

McGuire Ford Bridge

FRAN19

GENERAL DATA

structure no.: F-207
county: Franklin

city/town: 2.5 miles south of Catawissa
feature inters.: Calvey Creek
cadastral grid: S10, T42N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt through truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 100.0'
total length: 102.0'
roadway width: 15.0'

condition: good
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: 2 channels with lacing; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **1915 Built by Vincennes Bridge Co. Vincennes Ind.**

HISTORICAL DATA

erection date: 1915
erection cost: $1535.00: superstructure; $1048.00: substructure and approaches
designer: J.M Moore, Franklin County Engineer
fabricator : Illinois Steel Company, Chicago IL
contractor: Vincennes Bridge Company, Vincennes IN: superstructure; Walter Moore: substructure and approaches

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-207; superstructure contract with Vincennes Bridge Company (3 July 1915); original construction drawings and specifications by J.M. Moore (14 June 1915); substructure contract with Walter Moore (3 July 1915) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 41
evaluation: NRHP non-eligible (relatively early example of typically configured riveted Pratt through truss construction)

inventoried by: Clayton B. Fraser 18 January 1994

South Fork Bridge

FRAN20

GENERAL DATA

structure no.: F-224
county: Franklin

city/town: 2.5 miles southwest of Lonedell
feature inters.: South Fork
cadastral grid: S19, T41N, R2E
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

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

span number: 1
span length: 40.0'
total length: 42.0'
roadway width: 14.3'

condition: fair
alterations: truss moved, 1913-14
floor/decking : asphalt on timber deck, over steel stringers
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; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 steel pipes; builder's plate: [broken] **...Iron Co. Builders St. Louis Mo.**

HISTORICAL DATA

erection date: 1899
erection cost: $315.00 (superstructure)
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO; Carnegie Rolling Mills, Pittsburgh PA (probable)
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-224; Franklin County Court Record, Book S: page 50 (6 February 1899), page 85 (3 April 1899), page 90 (7 April 1899), page 104 (4 May 1899); original construction drawing by Stupp Brothers (1898 standard); citizens' petition (23 January 1912); subscription (6 March 1912); contract with Oscar Fisher to build new abutments and move bridge (1913) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 42
evaluation: NRHP non-eligible (a well-documented, but technologically undistinguished example of a standard truss type, moved to this location)

inventoried by: Clayton B. Fraser 18 January 1994

Little Bourbeuse Bridge

FRAN21

GENERAL DATA

structure no.: F-284
county: Franklin

city/town: 10.2 miles south of Gerald
feature inters.: Bourbeuse River tributary
cadastral grid: S35, T41N, R4W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 4-panel, rigid-connected Pratt/Warren pony truss
substructure: concrete abutments

span number: 1
span length: 80.0'
total length: 80.0'
roadway width: 11.6'

condition: good
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; end post stiffener: 2 angles with batten plates

HISTORICAL DATA

erection date: 1920
erection cost: unknown
designer: R.L. Miller, St. Louis MO
fabricator : R.L. Miller, St. Louis MO
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-284; Franklin County Court Record, Book AA: page 421 (7 August 1919); citizens' petition (7 August 1919) - located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 52
evaluation: NRHP possibly eligible (well-preserved, well-documented example of uncommon structural type)

inventoried by: Clayton B. Fraser 18 January 1994

Spring Creek Bridge

FRAN22

GENERAL DATA

structure no.: F-405
county: Franklin

city/town: 0.5 mile west of Oak Grove Village
feature inters.: Spring Creek
cadastral grid: S4, T40N, R2W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 2-panel, rigid-connected lattice bedstead truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 34.0'
total length: 36.0'
roadway width: 16.1'

condition: fair
alterations: pier added at mid-span; original timber deck replaced with concrete
floor/decking : concrete deck over steel stringers
other features: unknown

HISTORICAL DATA

erection date: 1908
erection cost: $499.00
designer: Charles L. Moore, Franklin County Engineer
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-405; citizens' petition (8 May 1907); contract with Stupp Brothers Bridge and Iron Company (8 September 1908); original construction drawings by C.M. Moore (1908); bill from Stupp Brothers (4 December 1908) - all located at Franklin County Courthouse, Union MO.

sign. rating: 35
evaluation: NRHP non-eligible (well-documented, but is undistinguished and exhibits below-average physical integrity)

inventoried by: Clayton B. Fraser 18 January 1994

Hartmann's Ford Bridge

FRAN23

GENERAL DATA

structure no.: F-420
county: Franklin

city/town: Union
feature inters.: Bourbeuse River
cadastral grid: S34, T43N, R1W
highway route: North Bend Road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 12-panel, pin-connected Pennsylvania through truss, with steel stringer approach span
substructure: concrete abutments and pier

span number: 1
span length: 250.0'
total length: 271.0'
roadway width: 14.9'

condition: good
alterations: none
floor/decking : asphalt on timber 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: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **Built by Miller & Borcherding / St. Louis / Mo.**

HISTORICAL DATA

erection date: 1916
erection cost: $8960.00
designer: J.M. Moore, Franklin County Engineer
fabricator : Illinois Steel Company, Chicago IL
contractor: Miller and Borcherding, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-420; Franklin County Court Record, Book Z: page 533 (3 November 1915), page 618 (16 February 1916), page 626 (22 February 1916); Book AA: page 82 (21 November 1916); construction drawings by J.M. Moore (November 1915); bid summary (16 February 1916); contract with Miller and Borcherding (25 February 1916); miscellaneous notes (5 October 1916, 15 March 1917, 7 December 1915) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 62
evaluation: NRHP possibly eligible (excellent long-span example of uncommon truss type)

inventoried by: Clayton B. Fraser 18 January 1994

Noser Mill Bridges

FRAN24; FRAN25

GENERAL DATA

structure no.: F-424; F-425
county: Franklin
city/town: Noser Mill
feature inters.: Bourbeuse River
cadastral grid: S7, T42N, R2W
highway route: county road
highway distr.: 6
current owner: Franklin County

STRUCTURAL DATA

superstructure: steel, 10-panel, pin-connected Parker through truss, with 4 steel stringer approach spans (**Structure No. F-425**) at the east end
substructure: stone masonry abutments

span number: 1; 4
span length: 190.0; 19.0'
total length: 190.0; 72.0'
roadway width: 15.0; 15.0'
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: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: steel pipe; decorative finials and portal cresting.

HISTORICAL DATA

erection date: 1880: substructure; 1902: superstructure
erection cost: $3345.00 (superstructure)
designer: A.R. Moore, Franklin County Engineer
fabricator : Carnegie Steel Company, Pittsburgh PA
contractor: substructure: H.W. Sebastian;
superstructure: Midland Bridge Company, Kansas City

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Numbers F-424 and F-425; Franklin County Court Record, Book N: page 427 (5 May 1880), page 449 (22 September 1880), page 452 (15 October 1880); Book O: page 263 (1 December 1894); Book P: page 296 (6 February 1890), page 512 (5 August 1891), page 542 (3 November 1891), page 637 (27 April 1892); Book Q: page 15 (7 June 1892), page 100 (5 September 1892); Book S: page 541 (30 July 1901), page 542 (5 August 1901), page 548 (8 August 1901), page 557 (21 September 1901), page 568 (24 September 1901), page 578 (4 November 1901), page 589 (9 November 1901); Book T: page 8 (12 April 1902); Book AA: page 231 (12 August 1914) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

Noser Mill Bridges

sign. rating: 54
evaluation: NRHP possibly eligible (excellent, long-span example of uncommon truss type, built on abutments of earlier covered bridge)

inventoried by: Clayton B. Fraser 18 January 1994

Washington Street Bridge

FRAN26

GENERAL DATA

structure no.: U4300003
county: Franklin
city/town: Union
feature inters.: Flat Creek
cadastral grid: S27, T43W, R1W
highway route: Washington Street
highway distr.: 6
current owner: City of Union

STRUCTURAL DATA

superstructure: stone masonry filled spandrel arch
substructure: stone/concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 63.0'
roadway width: 40.0'
condition: good
alterations: arch barrel extended with concrete arch on east side; north wingwall extended with stone; steel stringer sidewalk added on west side; new concrete guardrails added on east side
floor/decking : asphalt over earth fill
other features: rusticated keystone; stone guardrails with tooled stone copings, on west side

HISTORICAL DATA

erection date: c1890
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4300003; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 44
evaluation: NRHP non-eligible (early example of stone arch construction, inadequately documented and extensively altered)

inventoried by: Clayton B. Fraser 18 January 1994

Church Street Bridge

FRAN27

GENERAL DATA

structure no.: U4300004
county: Franklin
city/town: Union
feature inters.: Flat Creek
cadastral grid: R26/27, T43N, R1W
highway route: Church Street
highway distr.: 6
current owner: City of Union

STRUCTURAL DATA

superstructure: concrete deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 25.0'
total length: 30.0'
roadway width: 30.6'
condition: good
alterations: sidewalk added on west side
floor/decking : asphalt over concrete deck
other features: concrete guardrails with recessed panels; builder's plate: **1915 / Missouri Construction & Ballast Co. / Contractors**

HISTORICAL DATA

erection date: 1915
erection cost: unknown
designer: unknown
fabricator : none
contractor: Missouri Construction and Ballast Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4300004; field inspection by Clayton Fraser, 23 October 1989.

sign. rating: 42
evaluation: NRHP non-eligible (technologically undistinguished example of concrete bridge construction)

inventoried by: Clayton B. Fraser 18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Meramec River Bridge
MHTD: H 996R1

FRAN01

DATE(S) OF CONSTRUCTION
1929-30

LOCATION
Missouri State Highway 30 over Meramec River; S4, T41N, R1E
3.0 miles east of Parkway; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / highway bridge

RATING NRHP possibly eligible (score: 57)

CONDITION
excellent

OWNER
Missouri Highway and Transportation Department

span number:	5	superstructure:	concrete, two-rib, open spandrel arch, with seven concrete deck girder approach spans
span length:	105.0'	substructure:	concrete abutments, wingwalls and piers
total length:	825.0'	floor/decking:	asphalt over concrete deck
roadway wdt.:	20.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); architectural detailing, including: fluted, hammerhead concrete piers; curved haunches on deck girder approach spans; bullnosed cutwaters on channel piers

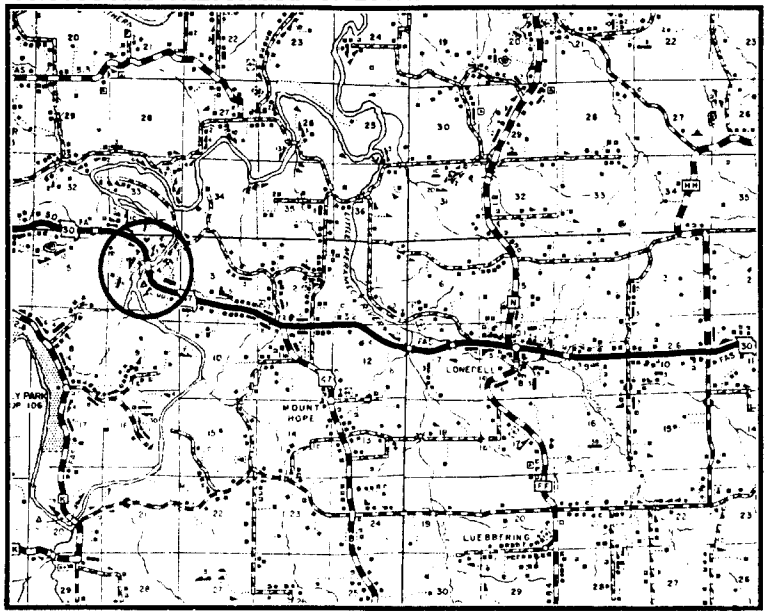
Extending east from St. Clair, State Highway 30 is a principal route leading from St. Louis to southern Franklin County. In the late 1920s the Missouri State Highway Commission began efforts to improve the roadway, including the construction of this major bridge over the Meramec River. Opting for concrete construction rather than steel, the highway commission built this graceful five-span open spandrel arch, with shorter concrete deck girder spans over the river's floodplain. Drawings were prepared by the Missouri State Highway Department in early 1929. As delineated by MSHD, the structure was comprised of five 105-foot arches and seven 40-foot deck girder approach spans, all supported by a concrete substructure on driven piles. The bridge featured typical MSHD detailing, with standard concrete guardrails and fluted pylons at the piers. MSHD advertised the project for bids that fall. On November 7, 1929, a contract for the bridge's construction was awarded to M.E. Gillioz. Based in Monett, Missouri, Gillioz was one of Missouri's most prolific builders during the 1920s and 1930s, and was especially active in the southern half of the state. Gillioz completed the crossing the following year. Today unchanged from its original construction, the Meramec River Bridge displays an exceptionally high degree of historical integrity as it continues to carry traffic in southeastern Franklin County.

In the 1920s and 1930s the Missouri State Highway Department developed plans for numerous concrete bridges that were erected on the state's highways. For concrete bridges with span lengths under 80 feet, filled spandrel arches were most often executed, while for longer-span bridges, the highway department usually opted for open spandrel designs. Single-span examples of the latter configuration were fairly common, but multiple-span open spandrel arches were built far less often, largely because of their relatively high erection costs. Approximately twenty multiple-span, open spandrel arches have been identified as standing today by the statewide bridge inventory. The Meramec River Bridge in Franklin County is significant among these as a well-preserved, five-span example. Only five of Missouri's open spandrel arches have individual span lengths greater than those on the Meramec River Bridge, and only three such bridges are comprised of more than five spans. The Meramec River Bridge is thus distinguished as one of the most noteworthy examples remaining in the state of this mainstay structural type.

NAME(S) OF STRUCTURE

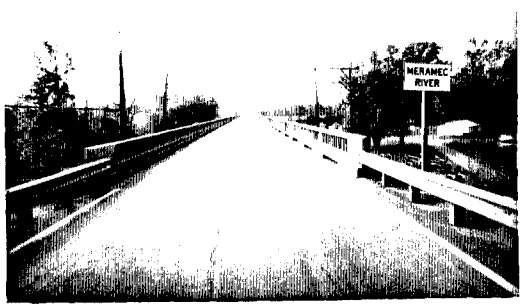
Meramec River Bridge

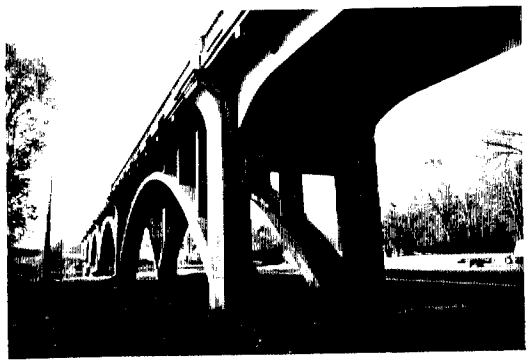
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 996R1; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign	18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Steiner's Ford Bridge
MHTD: F-32

FRAN06

DATE(S) OF CONSTRUCTION
1907-08

LOCATION
county road over Boeuf Creek; S9, T44N, R2W
3.9 miles southeast of New Haven; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 57)

CONDITION
good

OWNER
Franklin County

span number:	1	superstructure:	steel, 10-panel, pin-connected Parker through truss
span length:	180.0'	substructure:	stone masonry abutments with stepped wingwalls
total length:	185.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	15.1'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: steel lattice

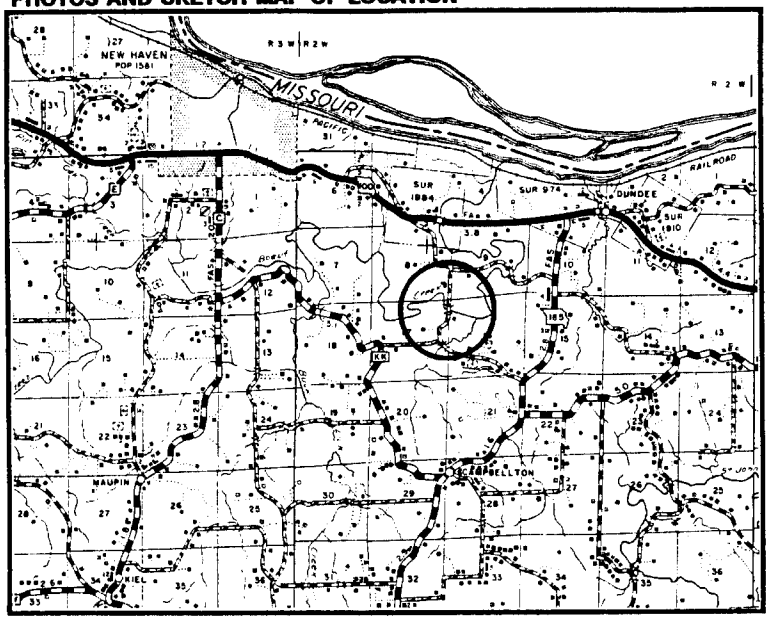
Located four miles southeast of New Haven, Steiner's Ford on Boeuf Creek formed a pivotal crossing on the Washington-New Haven Road in northwest Franklin County. The county court first received a citizens' petition for a permanent bridge at this location in August 1903. Several petitions and subscriptions later, the court finally acted to construct the bridge in May 1907. At this time the judges ordered county engineer Charles L. Moore to survey and prepare specifications for the structure and advertise for competitive bids. In August 1907 the court contracted with local masons Henry Rosmann and George Goeller to build the bridge's stone abutments for $3158.00. A month later the county awarded the contract to fabricate and erect a long-span Parker through truss to the Missouri Bridge and Iron Company of St. Louis for $4239.00. Rosmann and Goeller completed the substructure that December, while MoB&I assembled the pin-connected truss early the following year in 1908. The Steiner's Ford Bridge carried regional traffic alongside the Missouri River's south bank until the subsequent construction of State Highway 100 superseded the original road. The bridge now carries relatively light vehicular traffic in essentially unaltered condition.

Serving as a regionally important Boeuf Creek crossing for more than eighty years, the Steiner's Ford Bridge is noteworthy for its longstanding role in the development of regional transportation. The structure is technologically significant as a well-preserved example of a Pratt truss subtype - the Parker truss. 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. With a construction date of 1908 and a span length of 180 feet, the Steiner's Ford Bridge in Franklin County falls within the mainstream of Parker truss construction in Missouri. It is distinguished among the thirty-some Parkers remaining in the state by its retention of physical integrity and high degree of documentation.

NAME(S) OF STRUCTURE
Steiner's Ford Bridge

PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP

SOURCES
Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-32; Franklin County Court Record, Book T: page 300 (8 August 1903), page 311 (13 August 1903), page 342 (2 November 1903), page 375 (24 December 1903), page 523 (2 August 1904); Book V: page 63 (5 March 1907), page 115 (17 May 1907), page 175 (4 June 1907), page 268 (6 November 1907), page 298 (2 December 1907); superstructure contract between Missouri Bridge and Iron Company and Franklin County (3 September 1907); substructure contract between Rosmann and Goeller and Franklin County (6 August 1907); construction drawings by C.L. Moore - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign

DATE
18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Horstkamp Ford Bridge
MHTD: F-33

FRAN07

DATE(S) OF CONSTRUCTION
1915

LOCATION
county road over Boeuf Creek; S7, T44N, R2W
3.8 miles southeast of New Haven; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 51)

CONDITION
good

OWNER
Franklin County

span number:	1	superstructure:	steel, 8-panel, rigid-connected Parker through truss, with steel stringer approach spans
span length:	150.0'	substructure:	concrete abutments and piers
total length:	190.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	15.8'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: 2 channels with lacing; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; strut 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

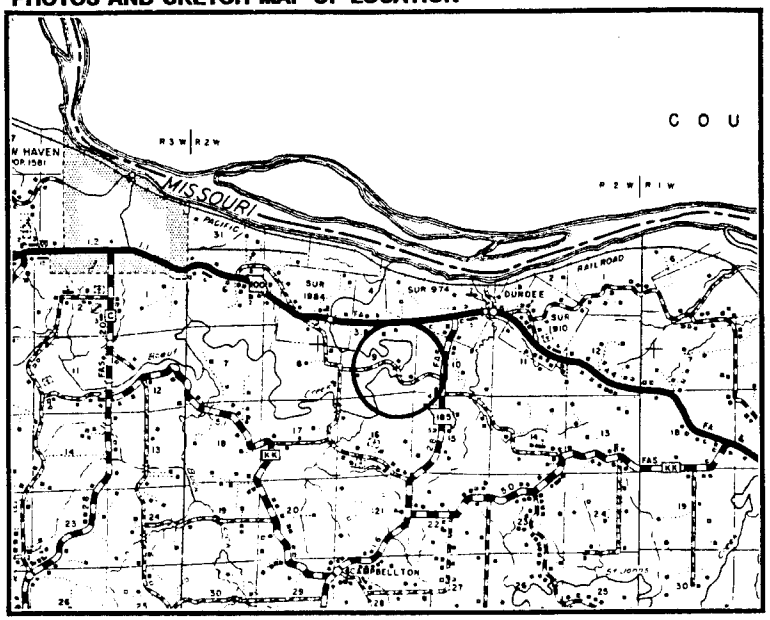
Early in 1915 the post office established a new route north of Campbellton in northwest Franklin County. Branching southward from the Washington-New Haven Road, the route crossed Boeuf Creek at Horstkamp Ford, about a mile from the Steiner's Ford Bridge (**FRAN06**), built in 1907-08. To bridge the creek at this point, county engineer J.M. Moore delineated a timber-decked, 160-foot pinned Parker through truss that was nearly identical to the Steiner's Ford structure. The bridge was let for competitive bids in June 1915 along with another truss over Calvey Creek, but at some point in the bidding process its design was changed to a rigid-connected Parker through truss with a concrete deck and tubular steel piers. Why the design was changed is unclear; perhaps the new configuration had been proposed as an alternate choice by the Vincennes Bridge Company of Indiana, the successful bidder for both spans. (The McGuire Ford Bridge (**FRAN19**), a 100-foot Pratt through truss, featured similarly detailed riveted connections.) Using steel components rolled by the Inland and Illinois Steel Companies of Indiana and Illinois respectively, Vincennes completed both structures by early January 1916. Total cost for the Horstkamp Ford Bridge was $3532.00. Secondary in traffic volume to the Steiner's Ford Bridge, this structure has carried intermittent county-road traffic to the present in essentially unaltered condition.

Dozens of riveted Parker through trusses were erected throughout Missouri, beginning in the 1910s. Marketed by many of the in-state and regional bridge companies, this versatile structural type was used by counties for medium- and long-span applications. With standard dimensions and detailing, the Horstkamp Ford Bridge typifies this statewide bridge building trend. It is distinguished somewhat by its early construction date and is exceeded in age by only one other riveted Parker truss.

NAME(S) OF STRUCTURE

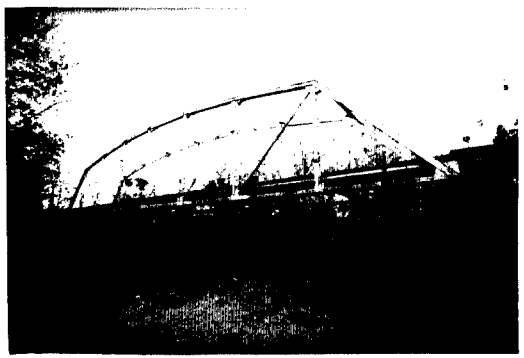
Horstkamp Ford Bridge

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 F-33; citizens' petition and subscription (8 September 1859); original construction drawings by J.M. Moore (1915); contract with Vincennes Bridge Company (3 July 1915) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign

DATE

18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Fiddle Creek Bridge
MHTD: F-57

FRAN12

DATE(S) OF CONSTRUCTION
1920

LOCATION
county road over Fiddle Creek; S16, T44N, R2E
3.7 miles northwest of Labadie; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 50)

CONDITION
good

OWNER
Franklin County

span number: 1
span length: 50.0'
total length: 75.0'
roadway wdt.: 11.6'

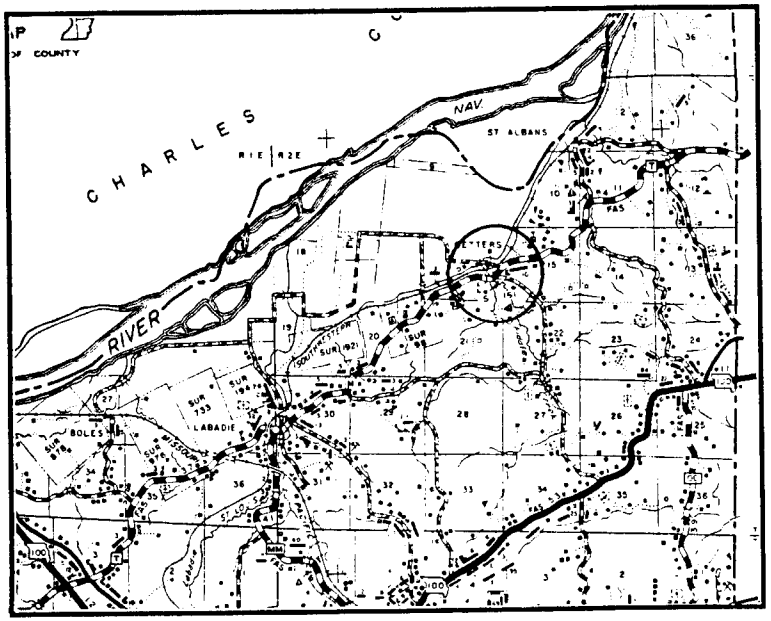
superstructure: steel, 3-panel, rigid-connected Pratt/Warren pony truss, with 1 steel stringer approach span
substructure: concrete-filled steel cylinder piers
floor/decking: concrete deck over steel stringers
other features: upper chord and inclined end post: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; end post stiffener: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

Located northwest of Labadie, this medium-span steel truss spans Fiddle Creek. The truss was fabricated by St. Louis bridge builder R.L. Miller and erected by a county work Crew. Since its completion in 1920, the Fiddle Creek Bridge has functioned in place with only maintenance-related repairs.

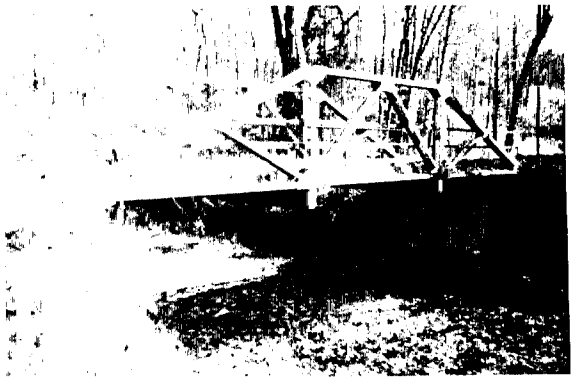
The rigid-connected truss configuration that R.L. Miller used for the Fiddle Creek Bridge features an unusual combination of Warren and Pratt elements. The diagonals and verticals function like a Warren web, using simple triangulation for structural strength, but the end posts are sloped shallowly like a Pratt. A number of these bridges were built in southeastern and east-central Missouri between circa 1915 and 1930, with the greatest concentration found in Butler County. And virtually all of these bridges are attributable to Miller and/or Louis Borcherding. (Miller and Borcherding were in the bridge building business together, until they separated in 1917.) The Fiddle Creek Bridge is distinguished as a well-preserved, well-documented example of this proprietary truss type.

NAME(S) OF STRUCTURE
Fiddle 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 F-57; Franklin County Court Record, Book AA: page 408 (21 July 1919), page 529 (4 February 1920) - located at Franklin County Courthouse, Union MO.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign, Loveland CO

DATE
18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Tavern Creek Bridge
MHTD: F-59

FRAN13

DATE(S) OF CONSTRUCTION
c1925

LOCATION
county road over Tavern Creek; S2, T44N, R2E
6.1 miles northeast of Labadie; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 50)

CONDITION
fair

OWNER
Franklin County

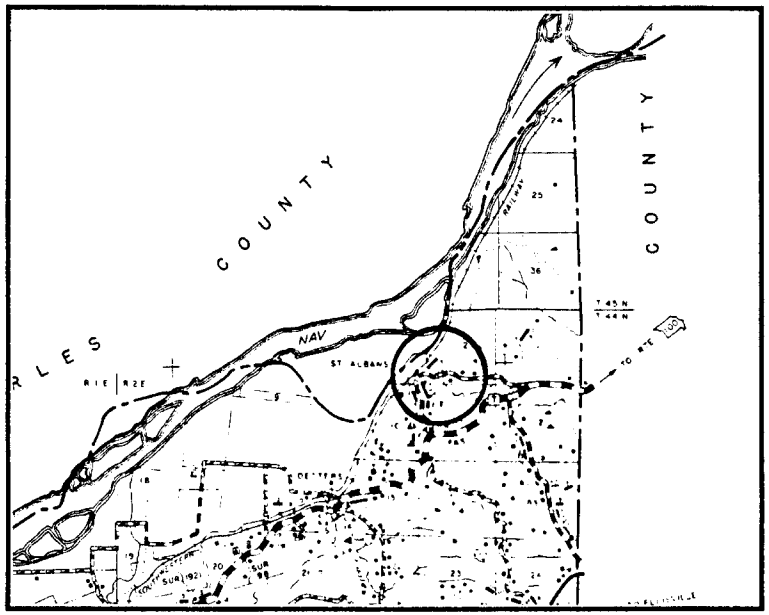
span number:	1	superstructure:	concrete deck girder
span length:	33.0'	substructure:	concrete abutments and wingwalls
total length:	34.0'	floor/decking:	concrete deck
roadway wdt.:	17.7'	other features:	concrete guardrails with recessed panels; concrete gravity arch dam built integrally with bridge

Located some six miles northeast of Labadie, in Franklin County's northeast corner, the Tavern Creek Bridge is a visually striking concrete deck girder structure. Built in conjunction with a small concrete dam with a curved gravity design, the bridge is a remarkably well-preserved example of a concrete deck girder design. Although Franklin County has retained virtually all of its records pertaining to bridge construction, no record of the Tavern Creek Bridge was revealed. Additionally, an extensive review of bridge construction records at the Missouri State Highway and Transportation Department also yielded no reference to this intriguing crossing. Despite its lack of documentation, the Tavern Creek Bridge is technologically noteworthy for its exceptional state of preservation and for its unique association with the small dam. Based on the structure's appearance and concrete deck girder design, it was probably built in the mid-1920s, from a modified Missouri State Highway Department standard design.

Although its construction history is largely undocumented, the Tavern Creek Bridge possesses significance as a remarkably well-preserved example of a concrete deck girder design. Representative of the Missouri State Highway Department's proclivity for concrete construction in the 1920s, the structure is distinguished because it was built integrally with a small concrete, gravity arch dam.

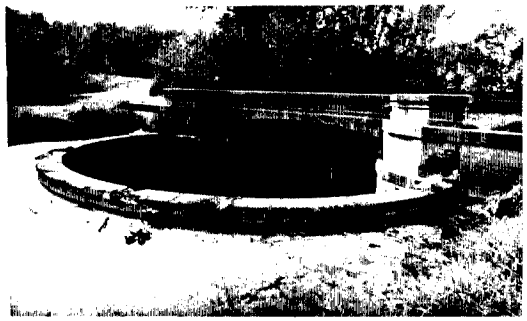
NAME(S) OF STRUCTURE
Tavern Creek Bridge

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 F-59; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign	18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Withington Ford Bridge
MHTD: F-72

FRAN14

DATE(S) OF CONSTRUCTION
1916-17

LOCATION
county road over Meramec River; S15/22, T43N, R2E
3.2 miles southeast of Gray Summit; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 63)

CONDITION
good

OWNER
Franklin County

span number: 2
span length: 200.0'
total length: 422.0'
roadway wdt.: 15.0'

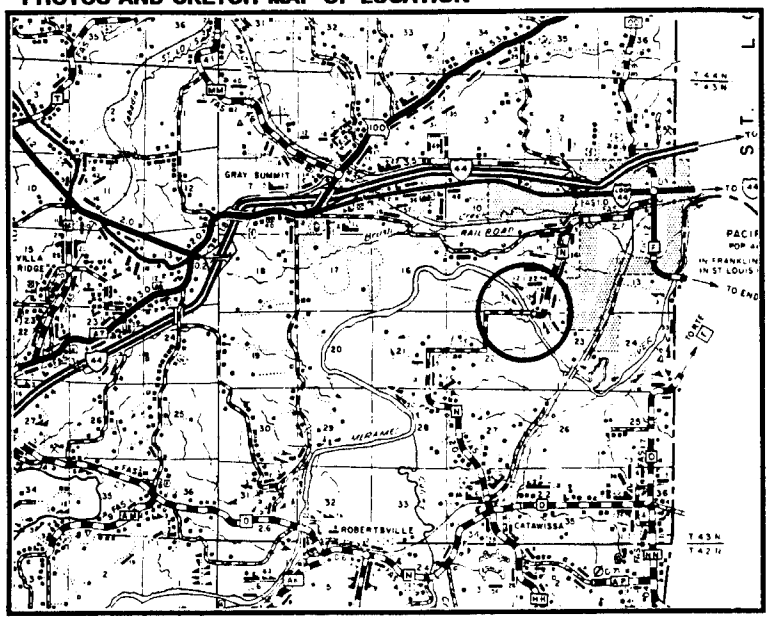
superstructure: steel, 10-panel, pin-connected Pennsylvania through truss, with steel stringer approach span
substructure:concrete abutments and pier
floor/decking: asphalt on timber, over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **Built by / Miller & Borcherding / St. Louis Mo.**

With its wide channel and high bordering cliffs, the Meramec River proved to be a formidable obstacle to overland travelers in central Franklin County. Local citizens began subscribing for a bridge over the river on the Catawissa-Pacific Road as early as 1892. The Withington Ford crossing, as it was known locally, became the object of repeated petitions to - and rejections by - the county court over the next 23 years. The judges finally directed county engineer J.M. Moore to design a bridge for the crossing in December 1915. Moore delineated a pair of 200-foot Pennsylvania through trusses, with typical pin-connected detailing, supported by concrete abutments and center pier. After receiving competitive proposals from nine bridge companies later in the month for the Withington Ford and Hartmann's Ford (**FRAN23**) bridges, the county selected the East St. Louis Bridge Company to erect the two trusses. For an unknown reason, the bridge company asked to be released from its bid, however, and in February 1916 the St. Louis firm of Miller and Borcherding agreed to construct both bridges for the same price. Construction proceeded slowly throughout the next two years. Using steel components milled by the Illinois Steel Company of Chicago, Miller and Borcherding completed the Withington Ford Bridge in December 1917 for the contract cost of $13,832.00. It has carried traffic since, with only minor maintenance-related repairs.

Serving as a major crossing of the Meramec River for more than seventy years, the Withington Ford Bridge is historically significant for its longstanding role in the development of regional transportation. The structure's channel spans are technologically significant as well-preserved examples of a Pratt truss subtype–the Pennsylvania through truss. With their polygonal top chord and subdivided panels, the trusses exemplify this relatively uncommon truss type which was used primarily at long-span crossings after the turn of the century. As a rare multiple-span example of this configuration, the Withington Ford Bridge is one of the state's more noteworthy roadway trusses dating from the 1910s.

NAME(S) OF STRUCTURE
Withington 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 F-72; Franklin County Court Record, Book Q: page 48 (6 September 1892); Book T: page 346 (4 May 1903); Book Z: page 575 (10 December 1915); Book AA: page 70 (5 October 1916), page 82 (21 November 1916), page 95 (4 January 1917); citizens' petitions and subscriptions (4 May 1903, 1 August 1914, 10 February 1915; 12 February 1916); construction drawings by J.M. Moore (November 1915); bid summary (16 February 1916); superstructure contract with Miller and Borcherding (18 February 1916); contract for approach work with F.X. Manning (25 February 1916) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign	18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Cedar Fork Bridge
MHTD: F-136

FRAN16

DATE(S) OF CONSTRUCTION
1919-20

LOCATION
county road over Cedar Fork; S8, T43N, R3W
6.8 miles northeast of Gerald; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP potentially eligible (score: 50)

CONDITION
good

OWNER
Franklin County

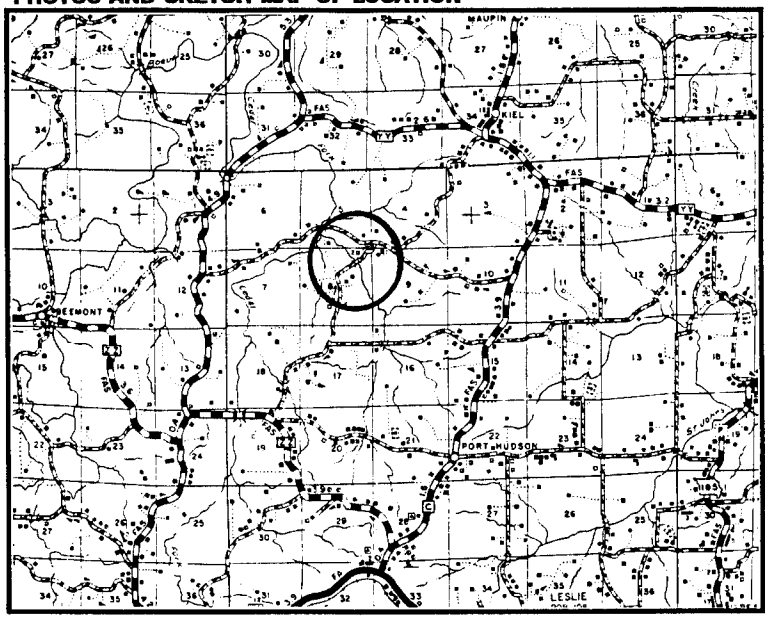
span number:	1	superstructure:	steel, 3-panel, rigid-connected Pratt/Warren pony truss
span length:	50.0'	substructure:	concrete abutments
total length:	52.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	11.4'	other features:	upper chord and inclined end post: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; end post stiffener: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

In August 1918 citizens petitioned the Franklin County Court for the re-alignment of a county road and construction of a new bridge in the northeast part of the county. Located some seven miles northeast of the small town of Gerald, the bridge would carry the proposed road over Cedar Fork, a minor branch of Boeuf Creek. Over a year later, in October 1919, county highway engineer J.L. Ekey drafted plans and specifications for a short-span steel truss in response to the petition. Undoubtedly using standard plans prepared by St. Louis bridge builder, R.L. Miller, Ekey delineated a rigid-connected pony truss of a hybrid design peculiar to Missouri, which combined the web pattern of a Warren with the end post angle of a Pratt. The county purchased the small truss from R.L. Miller and erected it on concrete abutments using force account labor. The Cedar Fork Bridge has carried relatively light traffic since, in essentially unaltered condition.

The rigid-connected truss configuration that R.L. Miller used for the Cedar Fork Bridge features an unusual combination of Warren and Pratt elements. The diagonals and verticals function like a Warren web, using simple triangulation for structural strength, but the end posts are sloped shallowly like a Pratt. A number of these bridges were built in southeastern and east-central Missouri between circa 1915 and 1930, with the greatest concentration found in Butler County. And virtually all of these bridges are attributable to Miller and/or Louis Borcherding. (Miller and Borcherding were in the bridge building business together, until they separated in 1917.) The Cedar Fork Bridge is distinguished as a well-preserved, well-documented example of this proprietary truss type.

NAME(S) OF STRUCTURE
Cedar Fork 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 F-136; original drawing by J.L. Ekey, Franklin County Highway Engineer (7 October 1919); citizens' petition (5 August 1918); Right-of-Way conveyance (10 April 1920) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign

DATE
18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Short's Ford Bridge
MHTD: F-190

FRAN17

DATE(S) OF CONSTRUCTION
1888

LOCATION
county road over Meramec River; S26, T42N, R1E
5.8 miles east of St. Clair; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 60)

CONDITION
good

OWNER
Franklin County

span number: 1
span length: 194.0'
total length: 198.0'
roadway wdt.: 14.8'

superstructure: wrought iron, 10-panel, pin-connected Pratt through truss
substructure: stone masonry abutments and wingwalls
floor/decking: timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped round eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round eyerod with turnbuckle; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to vertical; guardrail: 3 angles; builder's plate: **1888 / King Iron Bridge Co. / Cleveland, O.**

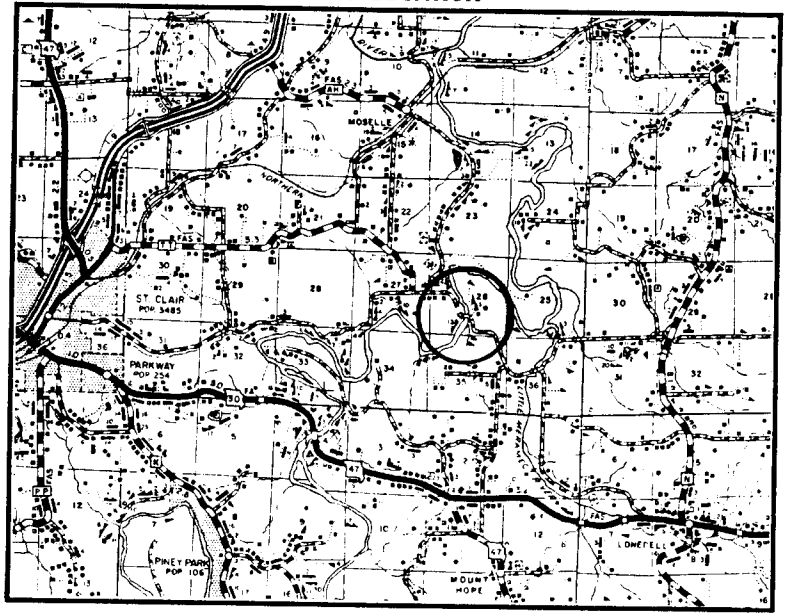
After receiving a petition and substantial local subscription in September 1887, the Franklin County Court acted to construct an iron bridge over the Meramec River, just upstream from its confluence with the Little Meramec. Known as Short's Ford, the crossing site would link the towns of St. Clair and Union (the county seat) with the southeast part of the county. The county hired local masons to build the stone abutments in February 1888. In addition, the contract for the long-span iron truss was awarded to the George E. King Bridge Company of Des Moines, Iowa. An agent for the huge King Bridge Works of Cleveland, George King used a pin-connected Pratt through truss engineered and fabricated (using sections rolled by the Phoenix Iron Company of Philadelphia) by the Ohio firm. The stonework was complete by early August, and the truss assembled by mid-November. Poorly constructed, the west abutment began to collapse almost immediately after the bridge was opened to traffic, an occurrence which evidently cost the county's road and bridge commissioner his job. Both abutments required numerous repairs to maintain the bridge over the next three decades. Although it no longer carries mainline traffic, the Short's Ford Bridge still functions as originally designed, with only minor deck modifications.

Like virtually all of Missouri's counties, Franklin County followed a definite progression in its bridge construction in the 19th century, in response to evolving transportation needs and technological development in the bridge industry. The first simple spans, built as the county was undergoing its initial settlement, were rudimentary timber structures. These were cheap and easy to build but lacking in durability and limited in span length. With greater revenues from increased settlement, the county could undertake more ambitious timber/iron combination trusses in the 1860s and 1870s. These, in turn, were superseded in the 1880s by all-iron spans, made readily available by mass production. Although the county court barely noticed the transition from iron to steel in the 1890s, this evolution

marked a watershed that would continue into the 20th century for bridge fabricators and the rolling mills that supplied them. As the oldest documented wagon bridge in Franklin County and the last remaining example in the county of wrought iron truss construction, the Short's Ford Bridge is historically noteworthy as an intact remnant of early transportation.

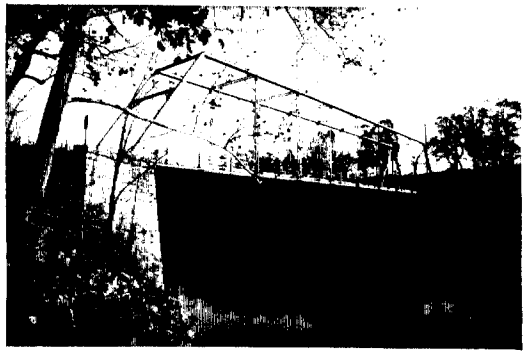
NAME(S) OF STRUCTURE
Short's Ford Bridge

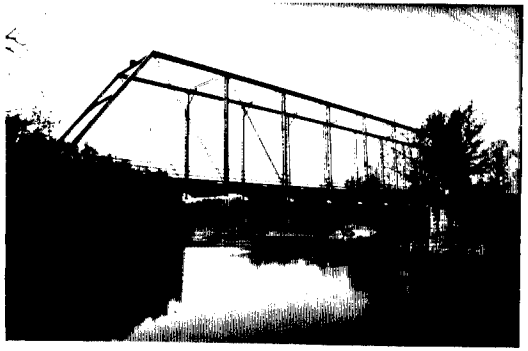
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-190; Franklin County Record, Book O: page 215 (8 May 1884); Book P: page 37 (14 February 1888), page 39 (15 February 1888), page 50 (13 March 1888), page 58 (3 April 1888), page 59 (4 April 1888), page 63 (23 April 1888), page 78 (5 July 1888), page 84 (6 August 1888), page 126 (24 November 1888), page 209 (9 July 1889), page 234 (20 September 1889), page 249 (4 November 1889), page 330 (7 May 1890); citizens' petitions (5 September 1887, 11 November 1887, 2 August 1887); county engineer's reports (30 August 1888, 15 February 1888, 24 November 1888) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign

DATE
18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Little Bourbeuse Bridge
MHTD: F-284

FRAN21

DATE(S) OF CONSTRUCTION
1920

LOCATION
county road over Bourbeuse River tributary; S35, T41N, R4W
10.2 miles south of Gerald; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 52)

CONDITION
good

OWNER
Franklin County

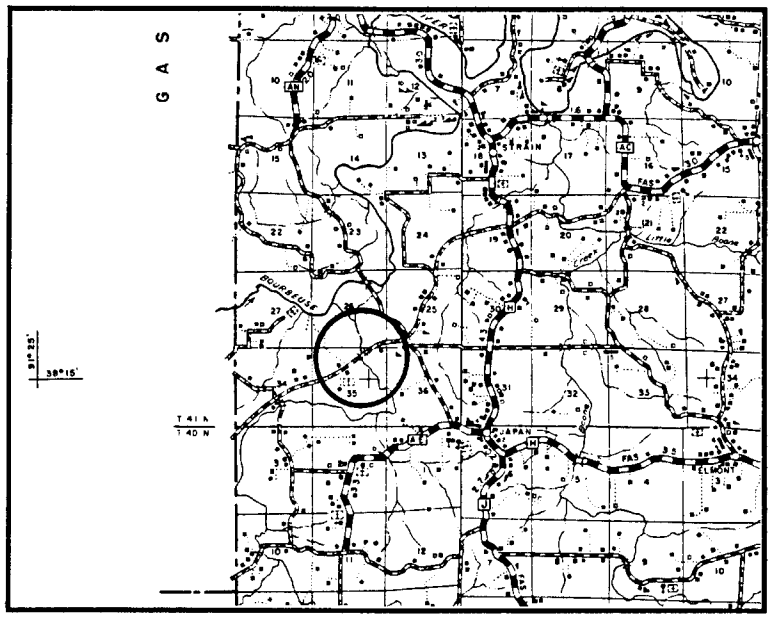
span number:	1	superstructure:	steel, 4-panel, rigid-connected Pratt/Warren pony truss
span length:	80.0'	substructure:	concrete abutments
total length:	80.0'	floor/decking:	concrete deck over steel stringers
roadway wdt.:	11.6'	other features:	upper chord: I-beam; lower chord: 2 angles with batten plates; vertical: 2 angles with batten plates; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; end post stiffener: 2 angles with batten plates

In August 1919 the Franklin County Court received a citizens' petition for a small bridge in the southwest corner of the county. Located near the Boone Store, between the crossroads settlements of Strain and Japan, the span would carry a county road over a small tributary of the Bourbeuse River. The judges instructed county highway engineer Jesse E. Ekey to purchase a 50-foot steel span with a concrete deck and abutments. Ekey ordered this rigid-connected structure from St. Louis bridge contractor R.L. Miller that year, and erected it on concrete abutments using local force account labor. The Little Bourbeuse Bridge, a Pratt/Warren pony truss, has carried county-road traffic since, in relatively unaltered condition.

The rigid-connected truss configuration that R.L. Miller used for the Little Bourbeuse Bridge features an unusual combination of Warren and Pratt elements. The diagonals and verticals function like a Warren web, using simple triangulation for structural strength, but the end posts are shallowly sloped like a Pratt. A number of these bridges were built in southeastern and east-central Missouri between circa 1915 and 1930, with the greatest concentration found in Butler County. Virtually all of these bridges are attributable to Miller and/or Louis Borcherding. (Miller and Borcherding were in the bridge building business together, until they separated in 1917.) The Little Bourbeuse Bridge is among the longest and best preserved of this proprietary truss type.

NAME(S) OF STRUCTURE
Little Bourbeuse 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 F-284; Franklin County Court Record, Book AA: page 421 (7 August 1919); citizens' petition (7 August 1919) - located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign

DATE
18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Hartmann's Ford Bridge
MHTD: F-420

FRAN23

DATE(S) OF CONSTRUCTION
1916

LOCATION
North Bend Road over Bourbeuse River; S34, T43N, R1W
Union; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 61)

CONDITION
good

OWNER
Franklin County

span number: 1
span length: 250.0'
total length: 271.0'
roadway wdt.: 14.9'

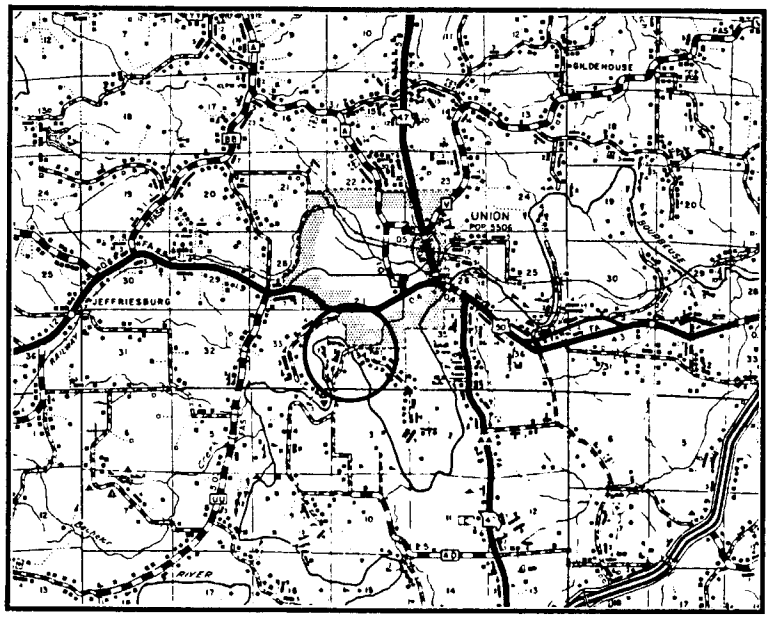
superstructure: steel, 12-panel, pin-connected Pennsylvania through truss, with steel stringer approach span
substructure:concrete abutments and pier
floor/decking: asphalt on timber deck, over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; builder's plate: **Built by Miller & Borcherding / St. Louis / Mo.**

In response to a citizens' petition, in November 1915 the Franklin County Court ordered county engineer J.M. Moore to design a steel bridge for the Hartmann's Ford crossing of the Bourbeuse River. Alternately called Lovers Leap because of the sheer limestone bluffs on the river's north bank, the bridge would link the county seat of Union with settlements to the south. For the crossing, Moore engineered a long-span, pin-connected Pennsylvania through truss, similar to the bridge he designed simultaneously for Withington Ford (**FRAN14**) on the Meramec River. The county let both structures out for bid in December. When proposals were received from nine bridge contractors, Moore recommended letting the contract to the East St. Louis Bridge Company, but the firm asked to be released from its bid. The county instead awarded the construction contract for both bridges in February to Miller and Borcherding of St. Louis for the same price as the East St. Louis Bridge Company's bid. The contractor began excavation for the concrete substructure soon after, and work on the two bridges continued throughout the rest of the year. Using components milled by the Illinois Steel Company, Miller and Borcherding completed the Hartmann's Ford Bridge in December 1916 for the contract price of $8960.00. It has functioned in place since, with no alterations of note.

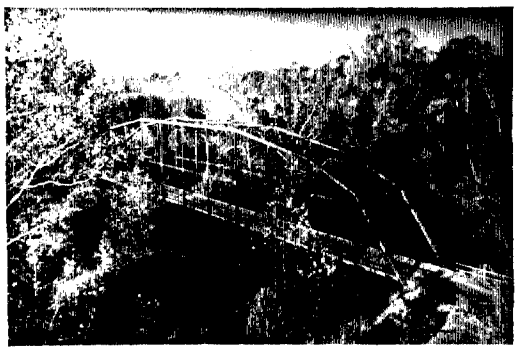
Serving as a locally important crossing of the Bourbeuse River for more than seventy years, the Hartmann's Ford Bridge is technologically significant as a well-preserved example of a Pratt truss subtype - the Pennsylvania through truss. With its polygonal top chord and subdivided panels, the truss exemplifies this relatively uncommon truss type, which was used primarily at long-span crossings after the turn of the century. With its 250-foot span, the Hartmann's Ford Bridge is one of the state's more noteworthy roadway trusses dating from the 1910s.

NAME(S) OF STRUCTURE
Hartmann's Ford Bridge

PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP
TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP



SOURCES
Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F-420; Franklin County Court Record, Book Z: page 533 (3 November 1915), page 618 (16 February 1916), page 626 (22 February 1916); Book AA: page 82 (21 November 1916); construction drawings by J.M. Moore (November 1915); bid summary (16 February 1916); contract with Miller and Borcherding (25 February 1916); miscellaneous notes (5 October 1916, 15 March 1917, 7 December 1915) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign	18 January 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Noser Mill Bridges
MHTD: F-424; F-425

FRAN24
FRAN25

DATE(S) OF CONSTRUCTION
1880: substructure; 1902: superstructure

LOCATION
county road over Bourbeuse River; S7, T42N, R2W
Noser Mill; Franklin County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 54)

CONDITION
good

OWNER
Franklin County

span number: 1; 4 (Structure No. F-425) at the east end
span length: 190.0; 19.0'
total length: 190.0; 72.0'
roadway wdt.: 15.0; 15.0'

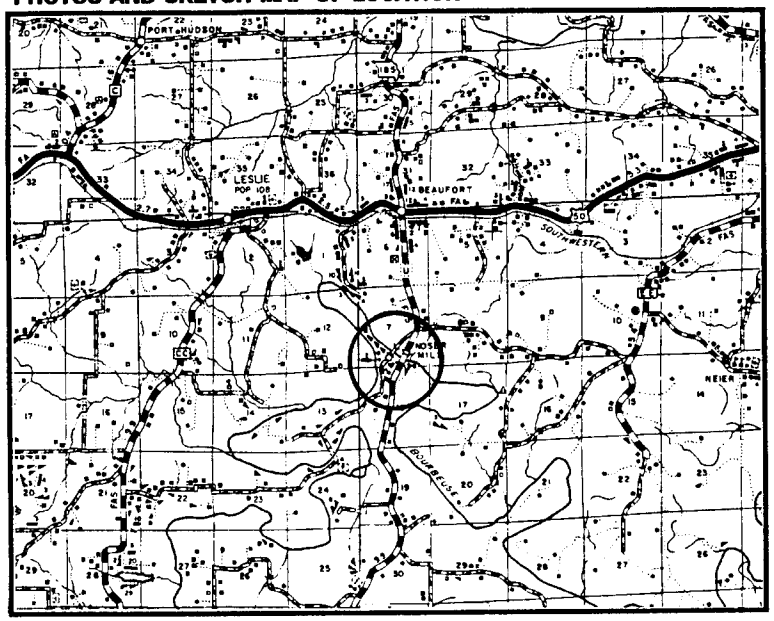
superstructure: steel, 10-panel, pin-connected Parker through truss, with 4 steel stringer approach spans
substructure: stone masonry abutments
floor/decking: concrete deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam, field bolted to vertical; guardrail: steel pipe; decorative finials and portal cresting.

In 1880 Franklin County hired St. Louis bridge contractor H.W. Sebastian to build a 190-foot timber/iron covered Howe truss over the Bourbeuse River at Noser's Mill. With its cut limestone abutments and gabled frame covering, the bridge closely resembled the 1867 Red Bridge built in Union. The Noser Mill Bridge carried traffic for over twenty years before the truss was wrecked late in July of 1901. A.R. Moore, the county engineer immediately acted to replace the span. Within a week, he had designed a similarly sized pinned Parker truss and solicited competitive bids from several bridge companies. The timber and iron pieces from the Howe truss were sold to a local lumberyard as scrap materials. The contract to fabricate and erect the new span was then awarded to the Midland Bridge Company of Kansas City on September 21 for $3345.00. With the same roadway width as the preceding covered bridge, the steel truss was built on the existing stone abutments, which required only minor alteration to raise the bridge level slightly. Local contractor L.H. Scheer completed the abutment work early in November, and Midland erected the truss soon thereafter. As part of the new, higher approach, a four-span steel stringer structure was built at that time over a slough on the bridge's north end. The Noser Mill Bridge, with its approach, has carried traffic since, although a later bridge on State Highway 185 has diverted much of the traffic from it.

Among Franklin County's important early river crossing's, Noser Mill has been the site of two documented bridges since 1880. Replacing an earlier covered bridge, the current structure at Noser Mill is an example of a pin-connected Parker through truss - a mainstay design for long span crossings in the years following the turn of the century. An extremely well-documented and well-preserved truss, the Noser Mill Bridge is historically noteworthy as an intact remnant of early transportation.

NAME(S) OF STRUCTURE
Noser Mill Bridges

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 Numbers F-424 and F-425; Franklin County Court Record, Book N: page 427 (5 May 1880), page 449 (22 September 1880), page 452 (15 October 1880); Book O: page 263 (1 December 1894); Book P: page 296 (6 February 1890), page 637 (27 April 1892); Book Q: page 15 (7 June 1892), page 100 (5 September 1892); Book S: page 541 (30 July 1901), page 542 (5 August 1901), page 548 (8 August 1901), page 557 (21 September 1901), page 568 (24 September 1901), page 589 (9 November 1901); Book T: page 8 (12 April 1902); Book AA: page 231 (12 August 1914) - all located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 23 October 1989.

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Clayton B. Fraser	Fraserdesign	18 January 1994