JEFFERSON COUNTY

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

Inv. No.	MHTD	Bridge Name	Description	
*JEFF01	J-24	Morse Mill Bridge	1-**180'**	**pinned Pratt through truss**
			1887	H.W. Sebastian & Co., St. Louis
*JEFF02	J-48	Kingston Slough Bridge	1- 80'	pinned Pratt pony truss
			1917	Miller & Borcherding, St. Louis
*JEFF03	J-51	Vineland Bridge	1-**190'**	**pinned Parker through truss**
			1906	Joliet Bridge and Iron Co.
*JEFF04	J-55	Blackwell Bridge	**3**-140'	**pinned Pratt through truss**
			1931	L.W. Fitzpatrick, Rolla MO / Stupp Brothers Bridge & Iron
*JEFF05	J-102	Sandy Creek Bridge	1- 75'	**timber Howe truss [covered]**
			1886	Henry Steffin (replaced)
*JEFF06	J-114	Klondike Road Bridge		
*JEFF07	J-158	Windsor Harbor Bridge	1-124'	**pinned Pratt through truss**
			1875	Keystone Bridge Co., Pittsburgh
JEFF08	K 294R	Joachim Creek Bridge	1-120'	**riveted Pratt through truss**
			1934	M.E. Gillioz
JEFF09	104500.2	Mississippi Ave. Overpass	5- 21'	concrete slab
			1917	St. Louis and Santa Fe Railroad
JEFF10	192500.1	Herculaneum Bridge	1-100'	**riveted Pratt through truss**
			1924	Vincennes Bridge Company

EXCLUDED:

Pratt pony truss
P 17 114000.6

Warren pony truss
J 610 J-140R

Steel stringer

G 499R1	J-1	J-9	J-13	J-19	J-20	J-22
J-35	J-42	J-46	J-52	J-58	J-59	J-61
J-62	J-66	J-85	J-88	J-97	J-101	J-116
J-118	J-119	J-125	J-127	J-177	J-178	J-181
K 135	K 598	K 614	T 261	T 531	U1140001	U1140003
U3875003	U3875003	U3875004	U3875012	U3875004	U3875005	U3875005
U3875013	U3875014	U3875015	U3875016	U3875017	U3875018	104500.3
114000.2	114000.3	114000.5	114001.1			

Concrete girder

G 439R1	G 846R	G 916	J-161	J-163	J-166

JEFFERSON COUNTY

EXCLUDED (cont.):

Concrete slab

J-33	J-50	J-54	J-57	J-63	J-95	J-104
J-135	J-165	J-171	K 750	U1435001	U3875001	U3875007
U3875009						

Concrete box culvert

G 511R	G 512R	G 641R	J-40	J-53	J-68	J-162
J-167	J-168	J-172	K 597	K 613	K 749	K 751
L 12	L 13	L 68	L 69	L 87	L 262	L 386
T 41	T 223	T 333	U3875001	U3875006	U3875008	

Timber stringer
104500.1

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	1	8	0	0	9
Excluded	28	59	25	0	112
	29	67	25	0	121 structures

Morse Mill Bridge

JEFF01

GENERAL DATA

structure no.: J-24
county: Jefferson
city/town: Morse Mill
feature inters.: Big River
cadastral grid: S23, T41N, R3E
highway route: county road
highway distr.: 6
current owner: Jefferson County

STRUCTURAL DATA

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

span number: 1
span length: 182.0'
total length: 185.0'
roadway width: 15.0'
condition: fair
alterations: closed to vehicular traffic
floor/decking : asphalt-covered timber deck with steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 or 4 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round eyebar with turnbuckle; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to lower chord pins; guardrail: 2 angles

HISTORICAL DATA

erection date: 1886-87
erection cost: $7915.00
designer: St. Louis Bridge and Iron Company, St. Louis MO
fabricator : St. Louis Bridge and Iron Company, St. Louis MO; Carnegie Iron Works, Pittsburgh PA
contractor: St. Louis Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-24; Jefferson County Court Record, Book 4: page 378 (2 February 1886), page 438 (7 July 1886), page 446 (4 August 1886), page 574 (6 April 1887), page 589 (4 May 1887); Jefferson County Court Record, Book 5: page 51 (9 November 1887), page 74 (10 December 1887); Jefferson County Record, Book 8: page 164 (6 July 1900), page 335 (27 September 1901), page 350 (6 November 1901); Jefferson County Court Record, Book 9: page 142 (7 May 1904); Jefferson County Record, Book 11: page 150 (6 July 1909), page 185 (5 August 1910), page 194 (7 September 1910); Jefferson County Record, Book 13: page 358 (7 August 1922) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

Morse Mill Bridge

sign. rating: 58
evaluation: NRHP possibly eligible (significant, long-span example of mainstay structural type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Kingston Slough Bridge

JEFF02

GENERAL DATA

structure no.: J-48
county: Jefferson

city/town: 7.6 miles southwest of DeSoto
feature inters.: Slough of the Big River
cadastral grid: S22, T39N, R3E
highway route: county road
highway distr.: 6
current owner: Jefferson County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt pony truss, with three steel stringer approach spans on north side
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers; steel pile bents at approach

span number: 1
span length: 80.0'
total length: 195.0'
roadway width: 14.9'

condition: fair
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: 4 angles with batten plates; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: steel angle

HISTORICAL DATA

erection date: 1917
erection cost: $1050.00
designer: unknown
fabricator : Lackawanna Steel Company, Pittsburgh PA
contractor: Miller & Borcherding, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-48; Jefferson County Court Record, Book 12: page 411 (20 July 1916), page 443 (23 September 1916), page 518 (19 March 1917), page 520 (19 March 1917) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

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

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Vineland Bridge

JEFF03

GENERAL DATA

structure no.: J-51
county: Jefferson

city/town: 5.7 miles southwest of DeSoto
feature inters.: Big River
cadastral grid: S30, T39N, R4E
highway route: Vineland Road
highway distr.: 6
current owner: Jefferson County

STRUCTURAL DATA

superstructure: steel, 10-panel, pin-connected Parker through truss, with three steel stringer approach spans on south side and one steel stringer approach span on north side

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

span number: 1
span length: 190.0'
total length: 289.0'
roadway width: 15.0'

condition: fair
alterations: none
floor/decking : asphalt-covered 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; counter: 1 round eyerod with slotted turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; portal strut: A-frame; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1905-06
erection cost: $4375.00
designer: Joliet Bridge and Iron Company, Joliet MO
fabricator : Joliet Bridge and Iron Company, Joliet MO
contractor: Joliet Bridge and Iron Company, Joliet MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-51; Jefferson County Court Record, Book 9: page 632 (14 November 1906), page 407 (3 October 1905), page 444 (4 December 1905), page 304 (6 March 1905), page 338 (1 May 1905), page 347 (4 May 1905), page 381 (10 August 1905), page 399 (6 September 1905); Jefferson County Court Record, Book 11: page 368 (5 June 1911), page 410 (12 August 1911), page 416 (6 September 1911) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

Vineland Bridge

sign. rating: 55
evaluation: NRHP determined eligible (noteworthy long-span example of uncommon structural type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Blackwell Bridge

JEFF04

GENERAL DATA

structure no.: J-55
county: Jefferson / St. Francois
city/town: 7.1 miles southwest DeSoto
feature inters.: Big River
cadastral grid: S5, T38N, R4E
highway route: county road
highway distr.: 6
current owner: Jefferson County

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Pratt through truss; steel, 8-panel, pin-connected Pratt through truss; steel, 6-panel, pin-connected Pratt through truss; steel stringer approach spans at each end

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

span number: 3
span length: 140.0'
total length: 415.0'
roadway width: 12.9'
condition: fair
alterations: none
floor/decking : asphalt-covered timber deck over steel stringers
other features: **pin-connected truss:** 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; counter: 1 square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam: field bolted to vertical; guardrail: 2 angles; A-frame portal strut

HISTORICAL DATA

erection date: 1930-31
erection cost: $5478.00 (Fitzpatrick); $3590.00 (Stupp Brothers);$1065.00 (Roll Blackwell)
designer: Missouri State Highway Department; Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO
contractor: L.W. Fitzpatrick, Rolla MO;
Roll Blackwell, Blackwell MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-55; Jefferson County Court Record, Book 12: page 112 (3 February 1914), page 370 (17 April 1914), page 456 (9 November 1916); Jefferson County Court Record, Book 13: page 100 (13 January 1919), page 500 (2 September 1924), page 558 (8 September 1925); Jefferson County Court Record, Book 14: page 174 (4 September 1929), page 221 (4 April 1930), page 236 (2 June 1930);

page 263 (22 September 1930), page 37 (3 October 1930), page 270 (6 October 1930) - located at the Jefferson County Courthouse, Hillsboro MO; contracted dated 9 December 1929 and 25 January 1930, at the St. Francois County Courthouse, Farmington MO; field inspection by Clayton Fraser, 5 September 1991.

sign. rating: 48

evaluation: NRHP possibly eligible (unusually configured structure combining pinned and riveted spans)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Sandy Creek Bridge

JEFF05

GENERAL DATA

structure no.:	J-102	**city/town:**	5.6 miles north of Hillsboro
county:	Jefferson	**feature inters.:**	Sandy Creek
		cadastral grid:	S3, T41N, R4E
		highway route:	Old Lemay Ferry Road
		highway distr.:	6
		current owner:	Missouri State Park Board

STRUCTURAL DATA

superstructure: timber, covered Howe through truss
substructure: concrete abutments and piers

span number:	1	**condition:**	good
span length:	75.0'	**alterations:**	rebuilt using half of the original timber, 1886; restored, 1984
total length:	75.0'		
roadway width:	18.0'	**floor/decking :**	timber deck over timber stringers
		other features:	timber vertical panels with battens; galvanized, corrugated metal roof

HISTORICAL DATA

erection date: 1886
erection cost: $889.00 (contract amount)
designer: unknown
fabricator : none
contractor: Henry Steffin

references: Jefferson County Court Record, Book 4: page 429 (20 May 1886), page 431 (16 June 1886), page 437 (7 July 1886), page 445 (4 August 1886), page 483 (4 November 1886), page 493 (22 November 1886); Jefferson County Court Record, Book 5: page 73 (9 December 1887); Jefferson County Court Record, Book 10: page 163 (7 August 1907), page 367 (16 July 1908), page 544 (April 1909), page 581 (7 June 1909; Jefferson County Court Record, Book 11: page 358 (3 May 1911) - located at the Jefferson County Courthouse, Hillsboro MO; **Historic Sites of Jefferson County, Missouri**, by Walter L. Eschbach and Malcolm C. Drummond, published by Harland Bartholomew and Associates, 1968, Hillsboro MO, pages 123, 1933; **Jefferson County News Democrat**, "Span Stands," by Nan Lee, 20 January 1988, n.p.; nomination to the National Register of Historic Places for the Sandy Creek Covered Bridge, prepared by Charla A. Piggott, Research Historian at the Missouri State Historical Survey and Planning Office, 4 March 1970, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

sign. rating: 71
evaluation: NRHP individually listed, 1970 (rare example of timber truss construction)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Windsor Harbor Bridge

JEFF07

GENERAL DATA

structure no.: J-158
county: Jefferson
city/town: Kimmswick
feature inters.: Rock Creek
cadastral grid: S17, T42N, R6E
highway route: county road
highway distr.: 6
current owner: Kimmswick Historical Society

STRUCTURAL DATA

superstructure: wrought and cast iron, 9-panel, pin-connected Pratt through truss, with steel stringer approach span at each end
substructure: concrete abutments with steel pile bent piers (old steel cylinder piers below bridge)

span number: 1
span length: 124.0'
total length: 194.0'
roadway width: 16.3'
condition: good
alterations: trusses moved, 1930; restricted to pedestrian and bicycle traffic, 1970
floor/decking : asphalt-covered timber deck over steel stringers
other features: end post: cast iron Keystone columns; upper chord: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars (2 square eyebars with turnbuckles at outer panels); vertical: cast iron Keystone columns (2 square eyebars at hip); diagonal: 2 punched rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: square bar with slotted turnbuckle; strut: 4 angles with lacing; floor beam: 2 I-beams (not original); guardrail: 2 angles; cast iron hip blocks and bearing shoes; cast iron portal kneebraces

HISTORICAL DATA

erection date: 1875
erection cost: approximately $13,000.00
designer: Keystone Bridge Company, Pittsburgh PA
fabricator : Keystone Bridge Company, Pittsburgh PA
contractor: Keystone Bridge Company, Pittsburgh PA

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-158; Jefferson County Court Record, Book 9: page 54 (8 December 1903), page 92 (5 February 1904), page 115 (5 April 1904); Jefferson County Court Record, Book 14: page 158 (6 May 1929), page 222 (8 April 1930) - located at the Jefferson County Courthouse, Hillsboro MO; Memorandum of Agreement, dated 8 June 1987; **Globe-Democrat** "Well-traveled Bridge is Saved Again," by

Carol Rehg, n.p.; letter to County Commission of Jefferson County from the Kimmswick Historical Society, dated 1 June 1987; **The News Democrat**, "Kimmswick's Old Bridge Will Still Have a Place in the Sun," by Sam Shapiro, 9 June 1987, n.p.; Nomination to the National Register of Historic Places for the Windsor Harbor Road, prepared by the Landmarks Association of St. Louis, Inc., Elizabeth Eldridge, Richard Bliss, and Carolyn Toft, Editors, 22 June 1983, St. Louis MO; field inspection by Clayton Fraser, 5 September 1991.

sign. rating: 77

evaluation: NRHP individually listed (only remaining example in Missouri of earliest cast iron bridge construction)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Joachim Creek Bridge

JEFF08

GENERAL DATA

structure no.: K 294R
county: Jefferson
city/town: north edge of Herculaneum
feature inters.: Joachim Creek
cadastral grid: S30, T41N, R6E
highway route: U.S. Highway 67
highway distr.: 6
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

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

span number: 1
span length: 120.0'
total length: 280.0'
roadway width: 42.0'
condition: fair
alterations: deck repaired, 1985
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1933-34
erection cost: $70,564.85
designer: unknown
fabricator : unknown
contractor: M.E. Gillioz

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 294R; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO.

sign. rating: 45
evaluation: NRHP non-eligible (typically configured example of MSHD truss bridge design)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Mississippi Avenue Overpass

JEFF09

GENERAL DATA

structure no.:	104500.2	**city/town:**	Crystal City
county:	Jefferson	**feature inters.:**	Burlington Northern Railroad
		cadastral grid:	S4, T40N, R6E
		highway route:	Mississippi Avenue
		highway distr.:	6
		current owner:	City of Crystal City

STRUCTURAL DATA

superstructure: concrete slab
substructure: unknown

span number:	5	**condition:**	fair
span length:	21.0'	**alterations:**	unknown
total length:	122.0'	**floor/decking :**	unknown
roadway width:	24.0'	**other features:**	unknown

HISTORICAL DATA

erection date: 1917
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: St. Louis and Santa Fe Railroad

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 1045002.

sign. rating: 31
evaluation: NRHP non-eligible (undistinguished, small-scale example of common structural type)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

Herculaneum Bridge

JEFF10

GENERAL DATA

structure no.:	192500.1	**city/town:**	Herculaneum
county:	Jefferson	**feature inters.:**	Joachim Creek
		cadastral grid:	S20, T41N, R6E
		highway route:	Joachim Avenue
		highway distr.:	6
		current owner:	Town of Herculaneum

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt through truss, with concrete deck girder approach spans

substructure: concrete abutments, wingwalls and piers

span number:	1	**condition:**	good
span length:	100.0'	**alterations:**	rehabilitated, 1989
total length:	253.0'	**floor/decking :**	concrete deck over steel stringers
roadway width:	20.2'	**other features:**	sidewalk cantilevered on one side; guardrail: steel angle

HISTORICAL DATA

erection date: 1924

erection cost: $28,024.40

designer: Missouri State Highway Department

fabricator : Vincennes Bridge Company, Vincennes IN

contractor: Vincennes Bridge Company, Vincennes IN

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 1925001; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; Jefferson County Court Record, Book 13: page 596 (7 June 1926) - located at the Jefferson County Courthouse, Hillsboro MO; Steve Puckett, "County Commission Aids Herculaneum's Joachim Bridge Repair Project," **Festus Daily News-Democrat**, 14 August 1985.

sign. rating: 35

evaluation: NRHP non-eligible (typically configured example of MSHD truss bridge design)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Morse Mill Bridge
MHTD: J-24

JEFF01

DATE(S) OF CONSTRUCTION
1886-87

LOCATION
county road over Big River; S23, T41N, R3E
Morse Mill; Jefferson County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / closed

RATING NRHP possibly eligible (score: 58)

CONDITION
fair

OWNER
Jefferson County

span number:	1	superstructure:	wrought iron, 10-panel, pin-connected Pratt through truss
span length:	182.0'	substructure:	stone masonry abutments
total length:	185.0'	floor/decking:	asphalt-covered timber deck with steel stringers
roadway wdt.:	15.0'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 or 4 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round eyebar with turnbuckle; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to lower chord pins; guardrail: 2 angles

Local residents from Big River Township petitioned the Jefferson County Court in February of 1886 for a permanent bridge spanning Big River near Morse Mill. The judges directed road and bridge commissioner J.B. Dover to view the proposed site and estimate the cost of building the bridge. Dover subsequently reported to court officials that a truss at this location would cost approximately $7394.00 to erect. In response to Dover's report, the court then "moved emphatically that the said bridge when built is to be made of iron" and advertised for competitive construction bids. Proposals were received in August, with H.W. Sebastian, proprietor of the St. Louis Bridge and Iron Company, the low bidder at $7315.00. St. Louis B&I began work on the substructural excavation that fall and worked through the winter on the masonry abutments. In April the bridge was complete and accepted by the county. It was, according to Dover, "not exactly to the specifications... but the contractors have put in an extra panel being one more than called for which adds great strength to the bridge, making it equally good if not better than it would have been if built strictly according to the specs." Since its completion, the Morse Hill Bridge has functioned in place with only maintenance-related repairs. The bridge no longer carries vehicular traffic, however, and is restricted to only pedestrian and bicycle traffic in its wooded setting.

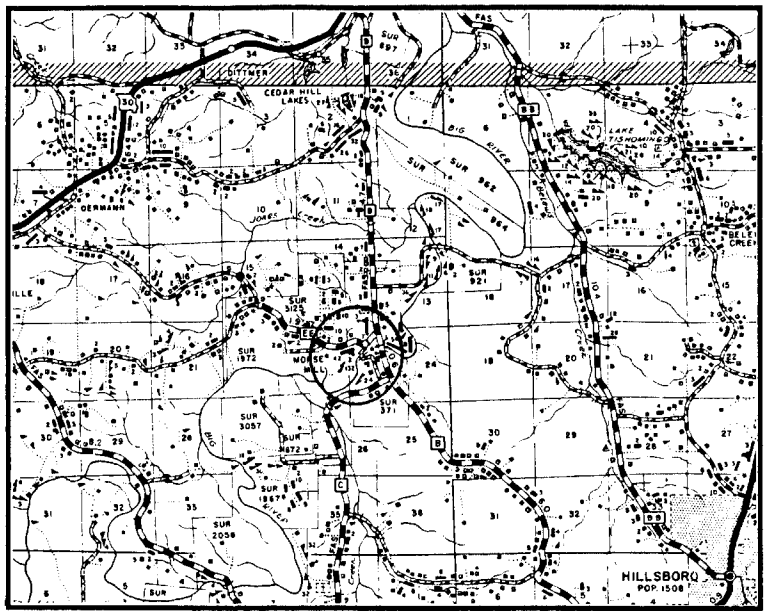
In the early 1880s the pin-connected Pratt through truss superseded the bowstring arch-truss as the iron bridge of choice for medium- and long-span wagon bridges. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design is distinguished by vertical members acting in compression and diagonals that act in tension. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty (250) feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy

of metal, and suitability for connecting to the floor and lateral systems." Virtually all of the major regional bridge fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. Hundreds of Pratts remain in place today. The Morse Mill Bridge is distinguished among these for its long span, its relatively early fabrication and its excellent state of preservation. It is thus a significant example in Missouri of a mainstay structural type: the pin-connected Pratt pony truss.

NAME(S) OF STRUCTURE

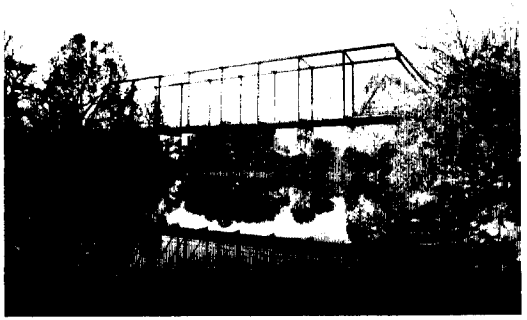
Morse Mill Bridge

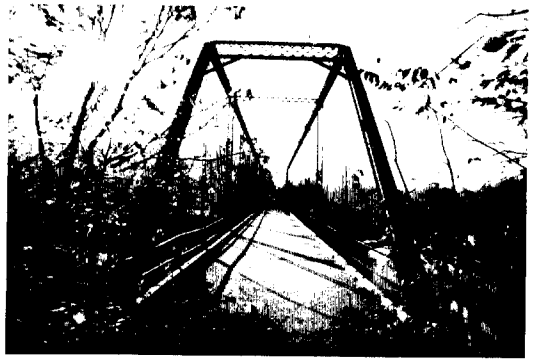
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-24; Jefferson County Court Record, Book 4: page 378 (2 February 1886), page 438 (7 July 1886), page 446 (4 August 1886), page 574 (6 April 1887), page 589 (4 May 1887); Jefferson County Court Record, Book 5: page 51 (9 November 1887), page 74 (10 December 1887); Jefferson County Record, Book 8: page 164 (6 July 1900), page 335 (27 September 1901), page 350 (6 November 1901); Jefferson County Court Record, Book 9: page 142 (7 May 1904); Jefferson County Record, Book 11: page 150 (6 July 1909), page 185 (5 August 1910), page 194 (7 September 1910); Jefferson County Record, Book 13: page 358 (7 August 1922) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Kingston Slough Bridge
MHTD: J-48

JEFF02

DATE(S) OF CONSTRUCTION
1917

LOCATION
county road over Slough of the Big River; S22, T39N, R3E
7.6 miles southwest of DeSoto; Jefferson County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 46)

CONDITION
fair

OWNER
Jefferson County

span number: 1
span length: 80.0'
total length: 195.0'
roadway wdt.: 14.9

superstructure: steel, 5-panel, pin-connected Pratt pony truss, with three steel stringer approach spans on north side

substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers; steel pile bents at approach

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: 4 angles with batten plates; diagonal: 2 punched rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: steel angle

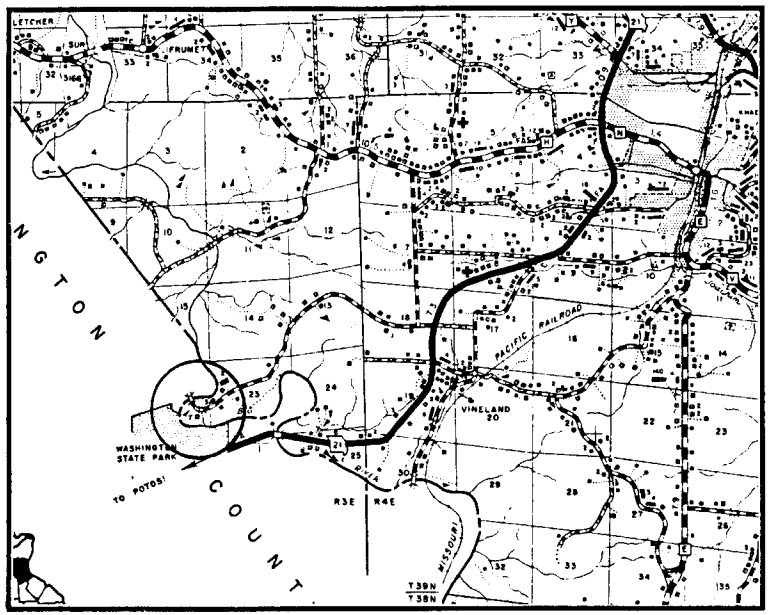
This steel structure was built in 1917 as an approach span over a slough of the Big River for the Kingston Ford Bridge **[WASH02]**, located less than a mile downstream. The structure was constructed by Miller & Borcherding of St. Louis, who was paid $1050.00 for assembling and erecting the pin-connected Pratt pony truss. The bridge contractor utilized steel components rolled in Pittsburgh by the Lackawanna Steel Company. Supported by a concrete and steel substructure, the truss is approached by three steel stringers on the north end. This 195-foot structure was built concurrently with the Kingston Ford Bridge, which is made up of one of the salvaged spans from the Lemay Ferry Bridge. The impressive pre-20th century through truss spans the Big River in western Jefferson County on the county line separating Jefferson and Washington Counties. Both the approach span (Kingston Slough Bridge) and the main truss (Kingston Ford Bridge) continue to carry vehicular traffic with no major alterations of note. The Kingston Slough Bridge, since its construction in 1917, exhibits an excellent degree of both structural and historical integrity

For spans of less than 100 feet, the pinned Pratt pony truss was the bridge of choice for regional bridge companies in the early 20th century. Miller & Borcherding, one of Missouri's most prolific bridge fabricators, was one of many competing firms that marketed Pratt trusses extensively to the counties at this time. With its standard design and detailing, the Kingston Slough Bridge exemplifies this bridge construction trend.

NAME(S) OF STRUCTURE

Kingston Slough 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 J-48; Jefferson County Court Record, Book 12: page 411 (20 July 1916), page 443 (23 September 1916), page 518 (19 March 1917), page 520 (19 March 1917) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Vineland Bridge
MHTD: J-51

JEFF03

DATE(S) OF CONSTRUCTION
1905-06

LOCATION
Vineland Road over Big River; S30, T39N, R4E
5.7 miles southwest of DeSoto; Jefferson County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 55)

CONDITION
fair

OWNER
Jefferson County

span number: 1
span length: 190.0'
total length: 289.0'
roadway wdt.: 15.0'

superstructure: steel, 10-panel, pin-connected Parker through truss, with three steel stringer approach spans on south side and one steel stringer approach span on north side
substructure: concrete abutments and wingwalls with concrete-filled steel cylinder piers
floor/decking: asphalt-covered 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; counter: 1 round eyerod with slotted turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; portal strut: A-frame; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

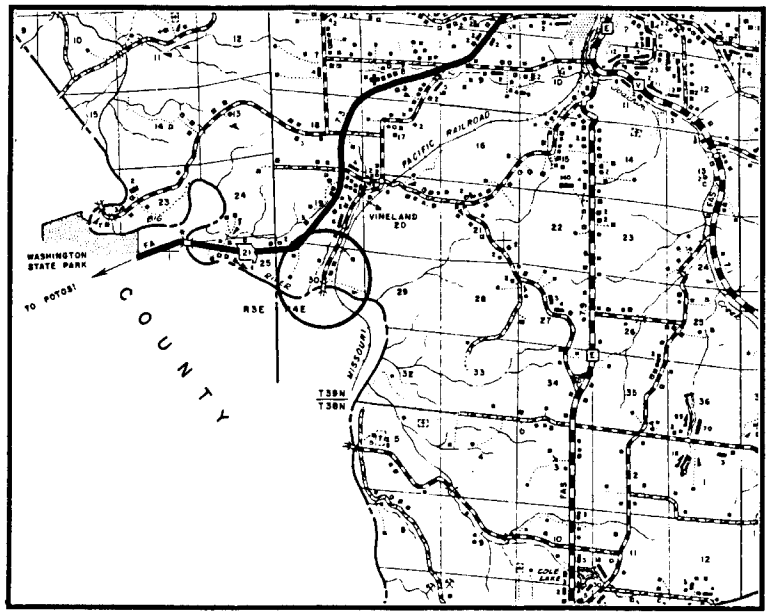
Citizens from Valle Township petitioned the Jefferson County Court in March 1905, asking for a permanent bridge over Big Creek near the small community of Vineland. The Court responded by directing special road and bridge commissioner J.B. Dover to view the site and prepare an estimate for construction of the proposed structure. Dover surveyed the surrounding rights-of-way for the new crossing, recommended a 190-foot span and estimated its cost at $4500.00. Located on the line between Jefferson and St. Francois Counties, the bridge was to be financed by both counties. The court advertised for competitive construction bids and awarded the contract to fabricate and erect the bridge to the Joliet Bridge and Iron Company for $4375.00. Work progressed on the pin-connected Parker through truss through 1905. When Joliet B&I had not completed the structure by December, however, the county extended the contract to the following March. Completed by new the contractual deadline, the Vineland Bridge has since functioned in place, without serious alteration.

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

Most of these featured straight-chorded Pratt configurations. After the turn of the century, however, bridge manufacturers found a greater economy in polygonal-chorded Pratt variants (particularly the Parker truss) for long-span applications. Their relatively long spans, light structural members and archaic detailing have rendered pin-connected Parker trusses particularly vulnerable to subsequent replacement. As a result, of the hundreds that once carried vehicular traffic throughout the state, fewer than three dozen remain in place today. These range in span length from 110 feet to 200 feet and in erection date from 1900 to 1932. The Vineland Bridge, with its 190-foot span and 1906 construction date, falls within the mainstream of this trend. It is noteworthy for its excellent state of preservation. The Vineland Bridge is not unique among Missouri's early roadway spans. Rather, the significance of this structure accrues from its representation of early wagon/auto bridge construction. It is among the longest and best-preserved trusses in Missouri: a noteworthy example of a now-uncommon structural type.

NAME(S) OF STRUCTURE
Vineland 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 J-51; Jefferson County Court Record, Book 9: page 632 (14 November 1906), page 407 (3 October 1905), page 444 (4 December 1905), page 304 (6 March 1905), page 338 (1 May 1905), page 347 (4 May 1905), page 381 (10 August 1905), page 399 (6 September 1905); Jefferson County Court Record, Book 11: page 368 (5 June 1911), page 410 (12 August 1911), page 416 (6 September 1911) - located at the Jefferson County Courthouse, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Blackwell Bridge
MHTD: J-55

JEFF04

DATE(S) OF CONSTRUCTION
1930-31

LOCATION
county road over Big River; S5, T38N, R4E
7.1 miles southwest DeSoto; Jefferson / St. Francois County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 48)

CONDITION
fair

OWNER
Jefferson County

span number: 3
span length: 140.0'
total length: 415.0'
roadway wdt.: 12.9'

superstructure: steel, 8-panel, rigid-connected Pratt through truss; steel, 8-panel, pin-connected Pratt through truss; steel, 6-panel, pin-connected Pratt through truss; steel stringer approach spans at each end

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

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

other features: **pin-connected truss**: 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; counter: 1 square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles, braced; floor beam: I-beam: field bolted to vertical; guardrail: 2 angles; A-frame portal strut

As early as 1914 citizens of Valle Township in Jefferson County and Blackwell Township in St. Francois County began petitioning for a large-scale steel bridge over the Big River at the Blackwell Station on the St. Louis, Iron Mountain and Southern Railroad. They provided county court officials with testimony and petitions, all attesting to the urgent need of a permanent bridge at this location. The highway engineers for both counties met at the site in the spring of 1914 to investigate "the practicability and necessity for such bridge and probable cost of same." Although the counties agreed in principle about the necessity for the bridge, they delayed further consideration on it for two years, until another petition was received in April 1916. "The court finds from the petition and from testimony that a bridge at said location is a public necessity and that the location is practicable," the Jefferson County Court stated, and agreed to fund the bridge in part if St. Francois County paid its share. St. Francois County agreed to fund the bridge later that year, but again the two counties postponed action for thee more years. In 1919 a low water trestle was built at Blackwell. Predictably short-lived, it had washed out soon after it was built.

Jefferson and St. Francois counties negotiated for the bridge over the next five years, while the residents of the area could only wait in frustration. Finally, in September 1929 the two county courts executed a joint-funding agreement for the Blackwell Bridge. Even in this they could not agree, however. Instead of each contributing funds to design and build a single bridge–which was the norm for inter-county highway spans–each county designed and contracted separately for its half of the structure. "It is agreed that Jefferson County will construct 186 lineal feet and St. Francois County 246 lineal feet of said bridge, which shall be 14 feet in the clear, together with the earth fills or approaches at their respective ends of said bridge." The center pier was funded jointly under a separate contract signed

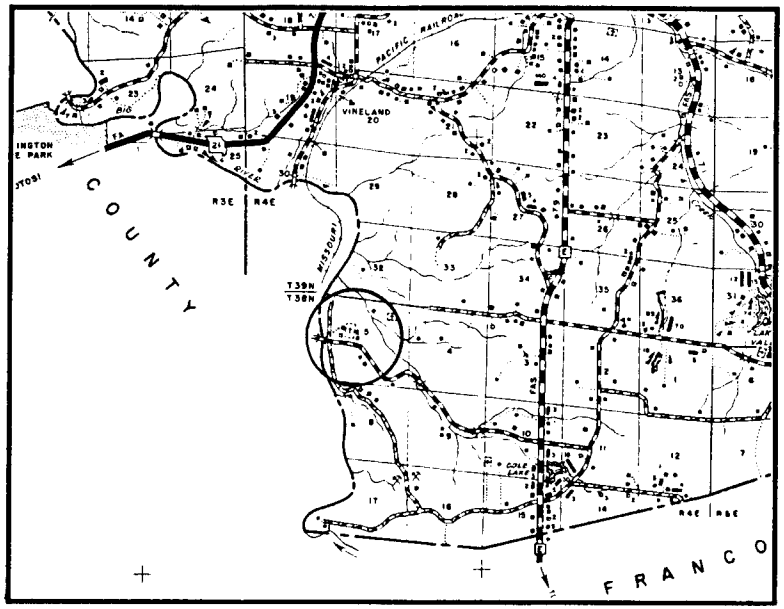
in December. The result was an oddly mismatched bridge: Jefferson County's section a single MSHD-standard, rigid-connected Pratt truss with a steel stringer approach span, St. Francois County's section two pinned Pratt trusses with a steel stringer approach. In 1930 St. Francois County hired L.W. Fitzpatrick of Rolla to build the substructure and erect the pin-connected trusses, which had been salvaged from another bridge. Jefferson County contracted with the Stupp Brothers Bridge and Iron Company of St. Louis to fabricate a 140-foot riveted truss and with Roll Blackwell to erect it. Construction of the Blackwell Bridge proceeded more smoothly than the negotiations had, and the structure was completed in 1931. Since that time it has functioned in place, with no serious alterations.

With many of Missouri's counties divided by watercourses, inter-county bridges were relatively common. Few have had such a contentious past as did the Blackwell Bridge. Local residents waited more than 15 years while Jefferson and St. Francois counties quibbled over the bridge's construction. And when they finally did build the bridge, the two counties barely managed to cooperate on the center pier. The result is one of the state's more unusual highway spans, which combines pinned and riveted truss technologies in a single structure that spans decades in its fabrication and erection.

NAME(S) OF STRUCTURE

Blackwell 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 J-55; Jefferson County Court Record, Book 12: page 112 (3 February 1914), page 370 (17 April 1914), page 456 (9 November 1916); Jefferson County Court Record, Book 13: page 100 (13 January 1919), page 500 (2 September 1924), page 558 (8 September 1925); Jefferson County Court Record, Book 14: page 174 (4 September 1929), page 221 (4 April 1930), page 236 (2 June 1930); page 263 (22 September 1930), page 37 (3 October 1930), page 270 (6 October 1930) - located at the Jefferson County Courthouse, Hillsboro MO; contracted dated 9 December 1929 and 25 January 1930, at the St. Francois County Courthouse, Farmington MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Sandy Creek Bridge
MHTD:
J-102

JEFF05

DATE(S) OF CONSTRUCTION
1886

LOCATION
Old Lemay Ferry Road over Sandy Creek; S3, T41N, R4E
5.6 miles north of Hillsboro; Jefferson County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / pedestrian traffic only

RATING NRHP individually listed, 1970 (score: 71)

CONDITION
good

OWNER
Missouri State Park Board

span number:	1	superstructure:	timber, covered Howe through truss
span length:	75.0'	substructure:	concrete abutments and piers
total length:	75.0'	floor/decking:	timber deck over timber stringers
roadway wdt.:	18.0'	other features:	timber vertical panels with battens; galvanized, corrugated metal roof

During the 19th century the covered timber bridge was a mainstay means of spanning streams and rivers on roadways throughout rural Missouri. During this era, the ready availability and concomitant low cost of timber contributed to the popularity of wooden bridges. Moreover, because wooden structural members could not long withstand the forces of nature, such bridges were often covered to provide protection, and thus increase their longevity. After the industrial revolution, timber bridges, covered or otherwise, were eclipsed first by all-metal trusses. Early covered bridges were usually kingpost or queenpost trusses (for shorter crossings), Burr arch-trusses (patented by Theodore Burr of Pennsylvania in 1804), or Town lattice trusses (patented by Ithiel Town in 1820). In 1840 William Howe of Massachusetts patented a new truss design which featured diagonal wooden members acting in compression, combined with iron verticals acting in tension. Located on the Lemay Ferry Road, the Sandy Creek Covered Bridge is an example of this latter design.

The Sandy Creek Covered Bridge, located some six miles north of Hillsboro, was built in 1872 as a part of a Jefferson County road-building program after the Civil War. The Lemay Ferry Road, on which the bridge is located, was constructed to connect Hillsboro with St. Louis County. By spring of 1872 the road was complete except for this crossing over Sandy Creek. John Hathaway Morse, President of the House Springs, Big River Valley Macadamized and Gravel Road Company, proposed to construct a wooden bridge and described the structure to the county court as, "...a first class Howe Truss Seventy Six feet long Sixteen feet high not less than Twelve feet in the clear. The Cords and Braces to be of white pine Lumber of the best quality and the Timbers and Iron Work to be of sufficient strength and capacity to sustain a pressure of Seventy Tons in weight. The Bridge to be covered in with the best of white pine shingles on the Roof and the sides to be covered with good white lumber and all the joists Batoned and the entire Bridge exposed to wet to be painted with not less than three coats of paint..." Subsequently awarded the contract, Morse completed the bridge in 1872 at a total cost of $2000.00.

The Sandy Creek Bridge serviced the important farm-to-market road in Jefferson County until it was damaged by flooding in 1886. Acting quickly to re-open the crossing, J.B. Dover, road and bridge commissioner, estimated it would cost $810.00 to replace the span and

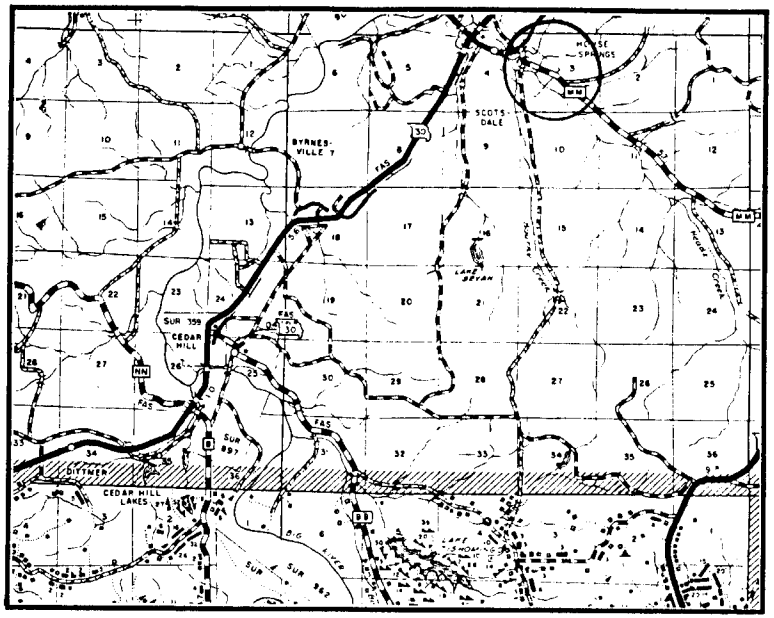
advertised the project to contractors. All initial bids were deemed too high by the court, and, after a deferred court action, "for the purpose of giving time to investigate and ascertain the cost of an iron bridge at said place," county officials readvertised for bids. Low-bidder Henry Steffin was awarded the contract to reconstruct the bridge, using half the original lumber, for $899.00. Since being rebuilt by Steffin, the Sandy Creek Bridge has functioned in place. After the 1940s the truss went through a period of neglect, but maintenance-related repairs and minor restorations in 1940-41 and 1952 by the county and Jefferson County Chamber of Commerce helped to maintain the bridge's structural integrity. The original timber substructure was severely damaged in a 1981 flood and was replaced with concrete piers and wingwalls.

The bridge was extensively restored in 1984 by the Department of Natural Resources. The bridge–now restricted to pedestrian and bicycle traffic–and surrounding fourteen acres were obtained by the state and have since been managed as a historic site. In 1967 the State of Missouri took over stewardship of its remaining covered bridges. Administered as State Historic Sites by the Department of Natural Resources, four such bridges still exist, and have each been listed in the National Register of Historic Places. In addition to the Sandy Creek Covered Bridge, Missouri's three other covered bridges include the Burfordville Bridge, located adjacent to the historic Bollinger Mill, the Locust Creek Covered Bridge in Linn County, and the Union Covered Bridge near Paris in Monroe County. The Sandy Creek Bridge was listed in the National Register of Historic Places in 1970.

NAME(S) OF STRUCTURE

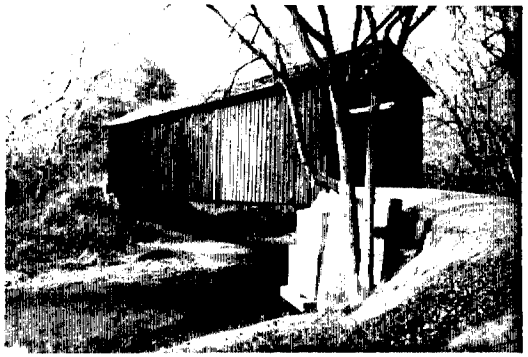
Sandy Creek Bridge

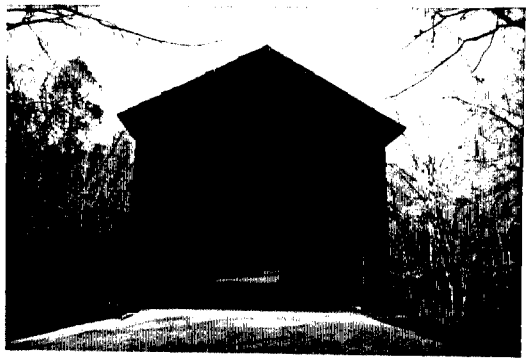
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Jefferson County Court Record, Book 4: page 429 (20 May 1886), page 431 (16 June 1886), page 437 (7 July 1886), page 445 (4 August 1886), page 483 (4 November 1886), page 493 (22 November 1886); Jefferson County Court Record, Book 5: page 73 (9 December 1887); Jefferson County Court Record, Book 10: page 163 (7 August 1907), page 367 (16 July 1908), page 544 (April 1909), page 581 (7 June 1909; Jefferson County Court Record, Book 11: page 358 (3 May 1911) - located at the Jefferson County Courthouse, Hillsboro MO; **Historic Sites of Jefferson County, Missouri**, by Walter L. Eschbach and Malcolm C. Drummond, published by Harland Bartholomew and Associates, 1968, Hillsboro MO, pages 123, 1933; **Jefferson County News Democrat**, "Span Stands," by Nan Lee, 20 January 1988, n.p.; nomination to the National Register of Historic Places for the Sandy Creek Covered Bridge, prepared by Charla A. Piggott, Research Historian at the Missouri State Historical Survey and Planning Office, 4 March 1970, Hillsboro MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Windsor Harbor Bridge
MHTD: J-158

JEFF07

DATE(S) OF CONSTRUCTION
1875

LOCATION
county road over Rock Creek; S17, T42N, R6E
Kimmswick; Jefferson County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / pedestrian bridge

RATING NRHP individually listed (score: 77)

CONDITION
good

OWNER
Kimmswick Historical Society

span number: 1
span length: 124.0'
total length: 194.0'
roadway wdt.: 16.3'

superstructure: wrought and cast iron, 9-panel, pin-connected Pratt through truss, with steel stringer approach span at each end
substructure: concrete abutments with steel pile bent piers (old steel cylinder piers below bridge)
floor/decking: asphalt-covered timber deck over steel stringers
other features: end post: cast iron Keystone columns; upper chord: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars (2 square eyebars with turnbuckles at outer panels); vertical: cast iron Keystone columns (2 square eyebars at hip); diagonal: 2 punched rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: square bar with slotted turnbuckle; strut: 4 angles with lacing; floor beam: 2 I-beams (not original); guardrail: 2 angles; cast iron hip blocks and bearing shoes; cast iron portal kneebraces

The Windsor Harbor Bridge, which currently spans Rock Creek in Kimmswick, was originally built in 1875 to "carry farm-to-market traffic across the river Des Peres from Alabama Avenue in St. Louis to Lemay Ferry Road" in what is now the town of Mehlville. The truss's history, therefore, dates to 1875, when city and county officials let a construction contract to the Keystone Bridge Company of Pittsburgh to erect a structure at this location, for the aggregate sum of $13,000.00. The 124-foot pin-connected Pratt through truss was completed the same year and carried wagon traffic with no alterations until 1903 when the Jefferson County Road and Bridge Commissioner, P.M. Reilly, contracted with W.J. Knopp for $290.00 to replace the structure's flooring.

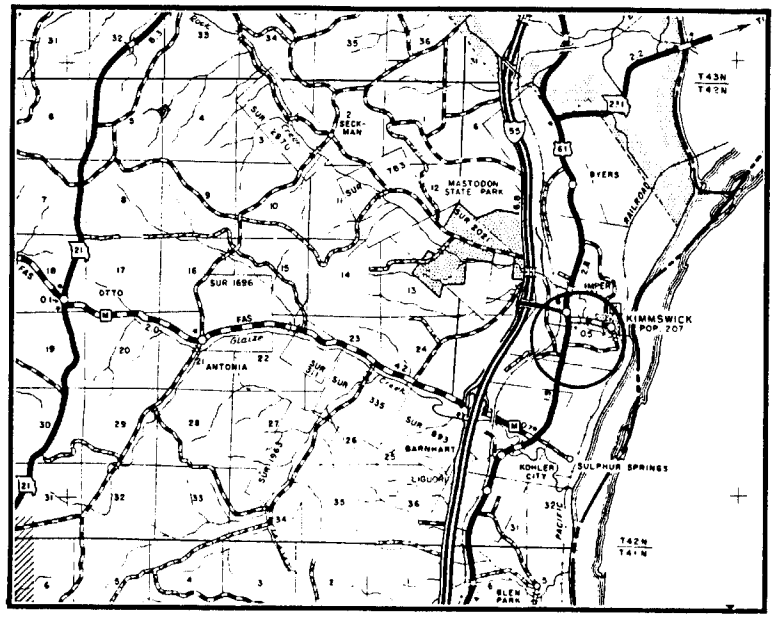
After nearly fifty-three years of service, the court ordered the county engineer in 1928 to delineate a steel bridge to supplant the Lemay Ferry Bridge. The new concrete and steel viaduct was completed in 1930, whereupon the 1875 truss was moved to its present location spanning Rock Creek in Kimmswick, a small community some twenty miles south of St. Louis. The relocation was arranged through the bridge's donation by the city of St. Louis to Jefferson County, if the county would assume moving and re-erection costs. Local contractor H.C. Grunewald, paid $1420.00 by the county for moving the truss, successfully relocated the wrought iron span to its new site across Rock Creek in Kimmswick. Once reliant on river trade, Kimmswick's population began to dwindle over the years as superhighways became the norm, although the resulting light traffic loads helped to preserve the overall structural integrity of the bridge. The late 1970s ushered in new transformations for the town, however, and through an improved water supply and several local restoration projects, the town began to prosper once again. So successful were the residential restoration ventures, the local Kimmswick Historical Society sought

to obtain ownership of the Windsor Harbor Bridge from the Missouri Highway and Transportation Commission when its replacement became evident in the late 1980s. The **Globe-Democrat** reported the eventual outcome in the summer of 1987, "An agreement was reached...making it possible for Kimmswick's Historical Society to accept ownership, control and maintenance of the old bridge. Under terms of the agreement, the future use of the historic bridge will be restricted to bicycle and pedestrian traffic." Under the historical society's stewardship and listed on the National Register of Historic Places since 1983, the Windsor Harbor Bridge functions in place today carrying only recreational traffic. The pre-1880s historical truss, an excellent example of adaptive re-use, has maintained a high degree of both structural and historical integrity. The oldest bridge in Jefferson County and the oldest Pratt through truss in the state of Missouri, The Windsor Harbor Bridge is an remarkably important example of wrought iron bridge construction.

NAME(S) OF STRUCTURE

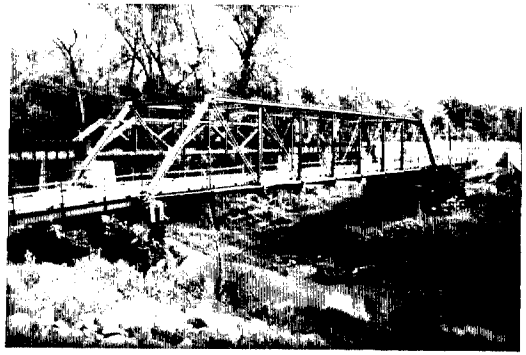
Windsor Harbor Bridge

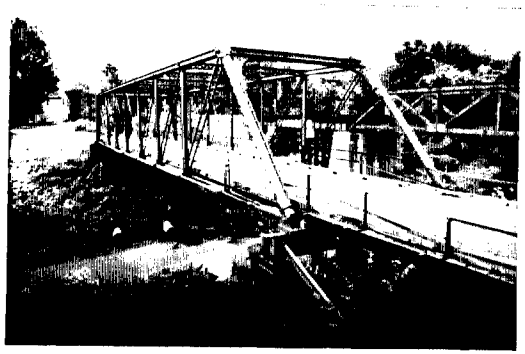
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J-158; Jefferson County Court Record, Book 9: page 54 (8 December 1903), page 92 (5 February 1904), page 115 (5 April 1904); Jefferson County Court Record, Book 14: page 158 (6 May 1929), page 222 (8 April 1930) - located at the Jefferson County Courthouse, Hillsboro MO; Memorandum of Agreement, dated 8 June 1987; **Globe-Democrat** "Well-traveled Bridge is Saved Again," by Carol Rehg, n.p.; letter to County Commission of Jefferson County from the Kimmswick Historical Society, dated 1 June 1987; **The News Democrat**, "Kimmswick's Old Bridge Will Still Have a Place in the Sun," by Sam Shapiro, 9 June 1987, n.p.; Nomination to the National Register of Historic Places for the Windsor Harbor Road, prepared by the Landmarks Association of St. Louis, Inc., Elizabeth Eldridge, Richard Bliss, and Carolyn Toft, Editors, 22 June 1983, St. Louis MO; field inspection by Clayton Fraser, 5 September 1991.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	15 January 1993