

# RALLS COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
RALL01	033000.9	Shiel Bridge	(replaced)
RALL02	051000.1	Bear Creek Bridge	(replaced)
RALL03	071000.1	Ilasco Bridge	2- 20' 1910 concrete through girder
*RALL04	089001.0	Bailey Ford Bridge	1-230' 1910 Portland Cement Co. (poss.) pinned Pennsylv. through truss
RALL05	094002.1	Spencer Creek Bridge	2- 80' 1925 Stupp Brothers B&I Company riveted Warren pony truss
*RALL06	116001.9	Spencer Creek Bridge	1-120' 1911 Louis Rich Construction Co. pinned Pratt through truss
RALL07	128001.1	Turkey Creek Bridge	1-100' c1925 Stupp Brothers B&I Company riveted Pratt pony truss
*RALL08	181001.6	Gill Bridge	1- 95' 1909 pinned Pratt through truss Stupp Brothers B&I Company
RALL09	185001.6	Morowitz Bridge	1- 67' 1904 pinned Pratt pony truss Stupp Brothers B&I Company
RALL10	200001.5	Spencer Creek Bridge	1- 50' c1905 pinned Pratt half-hip pony truss Stupp Brothers B&I (prob.)
*RALL11	202002.0	Menefee Ford Bridge	1- 85' 1911 pinned Pratt pony truss Stupp Brothers B&I Company
*RALL12	220000.4	Butler Ford Bridge	1-100' 1893 pinned Pratt through truss St. Louis Bridge and Iron Co.
RALL13	234000.5	Rohr/Galloway Bridge	(replaced)
*RALL14	241002.3	Hutchison Bridge	1- 60' 1913 pinned Pratt pony truss Miller and Borcharding
*RALL15	279000.1	Al's Tavern Bridge	1- 60' 1910 pinned Pratt pony truss Stupp Brothers B&I Company

## EXCLUDED:

Pratt pony truss

221000.8 246001.1 289000.3

Warren pony truss

J 77 094002.1 188003.5 234001.2 244000.8

Steel stringer

K 443	S 28R	T 212	T 386	T 387	X 377	X 378
026000.3	027001.9	038001.2	040000.9	071002.5	076000.6	080000.6
080000.9	103000.5	125000.6	146000.4	153001.2	188003.4	191002.2
199000.6	238000.2	238002.5	256001.4	257001.4	262001.4	262002.9
267000.7	338500.2					

# RALLS COUNTY

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## EXCLUDED (cont.):

Concrete girder  
J 118      J 337      J 338      J 429R1      J 430R1      S 27      094001.9

Concrete box culvert  
H 586      J 981      P 120      S 453      S 840      X 647      X 697  
X 895      134000.8

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	0	12	0	0	12
Excluded	22	33	0	0	55
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	22	45	0	0	67 structures

# Ilasco Bridge

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RALL03

## GENERAL DATA

<b>structure no.:</b>	071000.1	<b>city/town:</b>	0.3 mile south of Ilasco
<b>county:</b>	Ralls	<b>feature inters.:</b>	Marble Creek
		<b>cadastral grid:</b>	S1/2, T56N, R4W
		<b>highway route:</b>	County Road 71
		<b>highway distr.:</b>	3
		<b>current owner:</b>	Ralls County

## STRUCTURAL DATA

<b>superstructure:</b>	concrete through girder		
<b>substructure:</b>	concrete abutments, wingwalls and pier		
<b>span number:</b>	2	<b>condition:</b>	fair
<b>span length:</b>	20.0'	<b>alterations:</b>	none
<b>total length:</b>	47.0'	<b>floor/decking :</b>	concrete deck
<b>roadway width:</b>	20.0'	<b>other features:</b>	plainly detailed concrete guardrails and bulk-heads

## HISTORICAL DATA

<b>erection date:</b>	1910
<b>erection cost:</b>	unknown
<b>designer:</b>	unknown
<b>fabricator :</b>	none
<b>contractor:</b>	Portland Cement Company, Ilasco MO (possible)
<b>references:</b>	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 071000.1; Ralls County Court Record, Book G, page 154 (9 August 1910), located at the Ralls County Courthouse, New London MO.
<b>sign. rating:</b>	58
<b>evaluation:</b>	NRHP possibly eligible (earliest example in state of uncommon structural type, predating standardization by the state highway department )

inventoried by: Clayton B. Fraser 27 March 1991

# Bailey Ford Bridge

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RALL04

## GENERAL DATA

<b>structure no.:</b> 089001.0	<b>city/town:</b> 5.5 miles southeast of New London
<b>county:</b> Ralls	<b>feature inters.:</b> Salt River
	<b>cadastral grid:</b> S11, T55N, R4W
	<b>highway route:</b> County Road 89
	<b>highway distr.:</b> 3
	<b>current owner:</b> Ralls County

## STRUCTURAL DATA

**superstructure:** steel, 10-panel, pin-connected Pennsylvania through truss, with pin-connected Pratt pony truss and steel stringer approach spans

**substructure:** concrete abutments and wingwalls; concrete-filled steel cylinder piers

<b>span number:</b> 1	<b>condition:</b> fair
<b>span length:</b> 230.0'	<b>alterations:</b> none
<b>total length:</b> 322.0'	<b>floor/decking :</b> timber deck over steel stringers
<b>roadway width:</b> 16.0'	<b>other features:</b> 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 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with turnbuckle; strut: braced angles; portal strut: angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1910 / BUILT BY STUPP BRIDGE & IRON CO. / ST. LOUIS MO. (with listing of county officials' names)

## HISTORICAL DATA

**erection date:** 1910

**erection cost:** \$7699.00 (contract amount)

**designer:** Stupp Brothers Bridge and Iron Company, St. Louis MO

**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 No. 089001.0; Ralls County Court Record G: page 54 (8 February 1910), page 69 (10 February 1910), page 75 (7 March 1910), pages 97 and 99 (7 April 1910), page 148 (3 August 1910), page 172 (4 October 1910), page 174 (5 October 1910), page 183 (11 November 1910), page 204 (30 December 1910), located at Ralls County Courthouse, New London, Missouri; field inspection by Clayton Fraser, 14 September 1990.

## Bailey Ford Bridge

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sign. rating: 67

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

inventoried by: Clayton B. Fraser 27 March 1991

# Spencer Creek Bridge

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RALL05

## GENERAL DATA

<b>structure no.:</b>	094002.1	<b>city/town:</b>	5.5 miles southeast of New London
<b>county:</b>	Ralls	<b>feature inters.:</b>	Spencer Creek
		<b>cadastral grid:</b>	S28, T55N, R5W
		<b>highway route:</b>	County Road 94
		<b>highway distr.:</b>	3
		<b>current owner:</b>	Ralls County

## STRUCTURAL DATA

<b>superstructure:</b>	steel, rigid-connected Warren pony truss		
<b>substructure:</b>	concrete abutments, wingwalls and pier		
<b>span number:</b>	2	<b>condition:</b>	good
<b>span length:</b>	80.0'	<b>alterations:</b>	none
<b>total length:</b>	269.0'	<b>floor/decking :</b>	concrete deck over steel stringers
<b>roadway width:</b>	20.5'	<b>other features:</b>	steel pipe guardrails

## HISTORICAL DATA

<b>erection date:</b>	1925
<b>erection cost:</b>	\$23,390.04
<b>designer:</b>	Missouri State Highway Department
<b>fabricator :</b>	unknown
<b>contractor:</b>	Louis Rich Construction Company
<b>references:</b>	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 094002.1; Missouri Highway and Transportation Department Primary System Bridge Record, Book 2 (see entries for Ralls County), located at MHTD, Jefferson City MO; field inspection by Clayton Fraser, 14 September 1990.
<b>sign. rating:</b>	40
<b>evaluation:</b>	NRHP non-eligible (typical example of MSHD truss detailing of the 1920s)

**inventoried by:** Clayton B. Fraser    27 March 1991

# Spencer Creek Bridge

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RALLO6

## GENERAL DATA

structure no.: 116001.9      city/town: 6.9 miles southwest of New London  
county: Ralls      feature inters.: Spencer Creek  
cadastral grid: SUR 3177, T54N, R5W  
highway route: County Road 116  
highway distr.: 3  
current owner: Ralls County

## STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete abutments, wingwalls; concrete-filled steel cylinder piers

span number: 1      condition: fair  
span length: 120.0'      alterations: none  
total length: 158.0'      floor/decking : timber deck over steel stringers  
roadway width: 11.8'      other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 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 with knee braces; floor beam: I-beam, field-bolted to verticals; guardrail: 2 angles; portal builder's plate: 1911 / BUILT BY STUPP BRO'S BRIDGE & IRON / ST. LOUIS, MO. (list of county officers)

## HISTORICAL DATA

erection date: 1911  
erection cost: unknown  
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO  
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO;  
Cambria Steel Company, Pittsburgh PA  
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 116001.9; Ralls County Court Record G: page 290 (3 July 1911), page 294 (7 August 1911) - located at Ralls County Courthouse, New London, Missouri; field inspection by Clayton Fraser, 14 September 1990.  
sign. rating: 43  
evaluation: NRHP non-eligible (typical well-preserved example of mainstay structural type, with undistinguished design and dimensions)  
inventoried by: Clayton B. Fraser      27 March 1991

# Turkey Creek Bridge

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RALL07

## GENERAL DATA

structure no.:	128001.1	city/town:	2.3 miles west of New London
county:	Ralls	feature inters.:	Turkey Creek
		cadastral grid:	SUR 3243, T55N, R5W
		highway route:	County Road 128
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, rigid-connected Pratt pony truss		
substructure:	unknown		
span number:	1	condition:	fair
span length:	100.0'	alterations:	unknown
total length:	102.0'	floor/decking :	concrete deck over steel stringers
roadway width:	11.8'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date:	c1925
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 128001.1.

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

inventoried by: Clayton B. Fraser 27 March 1991

# Gill Bridge

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RALL08

## GENERAL DATA

structure no.:	181001.6	city/town:	western edge of Perry
county:	Ralls	feature inters.:	Lick Creek
		cadastral grid:	S28/33, T54N, R7W
		highway route:	County Road 181
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers

span number:	1	condition:	fair
span length:	95.0'	alterations:	none
total length:	134.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.5'	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 looped rectangular eyebars; diagonal: 2 looped rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: timber; portal builder's plate: 1909 / STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO. / (LISTING OF JUDGES) A.V. ELY COUNTY SURVEYOR

## HISTORICAL DATA

erection date: 1909  
erection cost: unknown  
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO  
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO;  
Cambria Steel Company, Pittsburgh PA  
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 181001.6; Ralls County Court Record G: page 5 (5 July 1909), page 17 (3 August 1909), page 63 (10 February 1910) - located at Ralls County Courthouse, New London MO; **Atlas of Ralls County, Missouri** (New London, Missouri: S.S. Carroll and Company, 1904); Howard, Goldena Roland, **Ralls County, Missouri** (New London, Missouri: By the Author, 1980); "Petition," from M.P. LaFrance et al. to Ralls County Court, 8 August 1905 - located at County Clerk's Office, Ralls County Courthouse, New London, Missouri; **Portrait and Biographical Record of Marion, Ralls, Pike Counties, Missouri** (Chicago:

## Gill Bridge

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C.C. Owen and Company, 1895); Williams, Walter, Jr., **History of Northeast Missouri** (New York: Lewis Publishing Company, 1912); field inspection by Clayton Fraser, 14 September 1990.

**sign. rating:** 45

**evaluation:** NRHP determined eligible (typical, well-preserved example of mainstay structural type)

**inventoried by:** Clayton B. Fraser 27 March 1991

# Morowitz Bridge

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RALLO9

## GENERAL DATA

structure no.:	185001.6	city/town:	5.0 miles west of Ilasco
county:	Ralls	feature inters.:	Bear Creek
		cadastral grid:	S6, T56N, R4W
		highway route:	County Road 185
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt pony truss		
substructure:	unknown		
span number:	1	condition:	fair
span length:	67.0'	alterations:	unknown
total length:	108.0'	floor/decking :	timber deck
roadway width:	13.9'	other features:	unknown

## HISTORICAL DATA

erection date:	1904
erection cost:	\$634.00
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 No. 185001.6; Ralls County Court Record F: page 69 (3 October 1904), located at Ralls County Courthouse, New London MO.
sign. rating:	41
evaluation:	NRHP non-eligible (typical example of common structural type)

Inventoried by: Clayton B. Fraser    27 March 1991

# Spencer Creek Bridge

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RALL10

## GENERAL DATA

structure no.:	200001.5	city/town:	6.4 miles southeast of Perry
county:	Ralls	feature inters.:	Spencer Creek
		cadastral grid:	S34, T54N, R6W / S3, T53N, R6W
		highway route:	County Road 200
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt half-hip pony truss  
substructure: stone masonry abutments

span number:	1	condition:	fair/poor
span length:	50.0'	alterations:	truss heavily damaged
total length:	52.0'	floor/decking:	timber deck
roadway width:	12.0'	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 No. 200001.5.

sign. rating: 19  
evaluation: NRHP non-eligible (poorly preserved, poorly documented example of common structural type)

inventoried by: Clayton B. Fraser 27 March 1991

# Menefee Ford Bridge

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RALL11

## GENERAL DATA

structure no.:	202002.0	city/town:	1.5 miles south of Perry
county:	Ralls	feature inters.:	Lick Creek
		cadastral grid:	S34, T54N, R7W / S3, T53N, R7W
		highway route:	County Road 202
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

**superstructure:** steel, 5-panel, pin-connected Pratt pony truss, with steel stringer approach spans

**substructure:** concrete abutments and wingwalls; concrete-filled steel cylinder piers

span number:	1	condition:	fair
span length:	85.0'	alterations:	none
total length:	127.0'	floor/decking :	timber deck over steel stringers
roadway width:	10.3'	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; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical with knee bracing; guardrail: 2 angles; endpost-mounted builder's plate: <b>BUILT BY STUPP BRO'S BRIDGE &amp; IRON CO. / ST. LOUIS MO. / 1911; bridge plate: CLASS B</b>

## HISTORICAL DATA

**erection date:** 1911

**erection cost:** unknown

**designer:** Stupp Brothers Bridge and Iron Company, St. Louis MO

**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 No. 202002.0; Ralls County Court Record E: page 484 (3 June 1901), page 486 (1 July 1901), page 499 (4 September 1901); Ralls County Court Record G: page 216 (6 February 1911), page 290 (3 July 1911), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser, 14 September 1990.

**sign. rating:** 48

**evaluation:** NRHP possibly eligible (well-preserved, long-span example of mainstay structural type)

inventoried by: Clayton B. Fraser 27 March 1991

# Butler Ford Bridge

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RALL12

## GENERAL DATA

<b>structure no.:</b> 220000.4	<b>city/town:</b> 4.6 miles southeast of Center
<b>county:</b> Ralls	<b>feature inters.:</b> Spencer Creek
	<b>cadastral grid:</b> S19, T54N, R5W
	<b>highway route:</b> County Road 220
	<b>highway distr.:</b> 3
	<b>current owner:</b> Ralls County

## STRUCTURAL DATA

**superstructure:** wrought iron, 6-panel, pin-connected Pratt through truss, with steel stringer approach spans

**substructure:** concrete abutments and wingwalls; concrete-filled steel cylinder piers

<b>span number:</b> 1	<b>condition:</b> fair
<b>span length:</b> 100.0'	<b>alterations:</b> none
<b>total length:</b> 130.0'	<b>floor/decking :</b> timber deck over steel stringers
<b>roadway width:</b> 13.3'	<b>other features:</b> 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 bars at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: bottom - round rod with turnbuckle, top - round rod with threaded ends - bottom; strut: 2 angles with knee braces; floor beam: I-beam, U-bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

**erection date:** 1893  
**erection cost:** \$2680.00  
**designer:** St. Louis Bridge and Iron Company, St. Louis MO  
**fabricator :** St. Louis Bridge and Iron Company, St. Louis MO  
**contractor:** St. Louis Bridge and Iron Company, St. Louis MO

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 220000.4; Ralls County Court Record D: page 440 (3 October 1892), page 443 (4 October 1892), page 450 (7 November 1892), page 475 (6 April 1893), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser, 14 September 1990.

**sign. rating:** 50  
**evaluation:** NRHP possibly eligible (well-preserved, early example of mainstay structural type)

**inventoried by:** Clayton B. Fraser 27 March 1991

# Hutchison Bridge

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RALL14

## GENERAL DATA

structure no.:	241002.3	city/town:	6.1 miles south of Perry
county:	Ralls	feature inters.:	East Lick Creek
		cadastral grid:	S26, T53N, R7W
		highway route:	County Road 241
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt pony truss		
substructure:	concrete abutments and wingwalls (collapsed at west end)		
span number:	1	condition:	fair
span length:	60.0'	alterations:	none
total length:	60.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.6'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 angles with batten plates; diagonal: 2 looped rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date:	1913
erection cost:	\$1550.00 (contract amount)
designer:	Miller and Borcharding, St. Louis MO
fabricator :	unknown
contractor:	Miller and Borcharding, St. Louis MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 241002.3; Ralls County Court Record G: page 481 (7 April 1913), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser, 14 September 1990.
sign. rating:	37
evaluation:	NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 27 March 1991

# Al's Tavern Bridge

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RALL15

## GENERAL DATA

structure no.:	279000.1	city/town:	0.7 mile south of Ilasco
county:	Ralls	feature inters.:	Marble Creek
		cadastral grid:	S11, T56N, R4W
		highway route:	County Road 279
		highway distr.:	3
		current owner:	Ralls County

## STRUCTURAL DATA

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

span number:	1	condition:	fair
span length:	60.0'	alterations:	deck removed from sidewalk
total length:	62.0'	floor/decking :	asphalt over timber deck, with steel stringers
roadway width:	14.3'	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 turn-buckle; guardrail: 2 angles; sidewalk cantilevered from west web; endpost-mounted builder's plate: BUILT BY STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO / 1910

## 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 279000.1; Ralls County Court Record G: page 135 (4 July 1910), page 154 (9 August 1910), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser, 14 September 1990.

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

inventoried by: Clayton B. Fraser 27 March 1991

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Ilasco Bridge  
MHTD: 071000.1

RALL03

**DATE(S) OF CONSTRUCTION**

1910

**LOCATION**

County Road 71 over Marble Creek; S1/2, T56N, R4W  
0.3 mile south of Ilasco; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 58)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 2	superstructure: concrete through girder
span length: 20.0'	substructure: concrete abutments, wingwalls and pier
total length: 47.0'	floor/decking: concrete deck
roadway wdt.: 20.0'	other features: plainly detailed concrete guardrails and bulkheads

Located immediately south of the small town of Ilasco, this short-span concrete bridge carries a county road over Marble Creek. The Ilasco Bridge is comprised of two through girder spans, supported by concrete abutments and pier. The structure is plainly detailed, with modest copings and bulkheads as the only architectural expression. County records are sparse regarding the bridge and its builder's plate has been removed, but it appears to have been built in 1910. The probable manufacturer of the cement and contractor for the bridge is the Portland Cement Company, located nearby in Ilasco. The lack of documentation is unfortunate: the Ilasco Bridge may have marked an experimental use of concrete for bridge construction by Ralls County, which was otherwise committed to steel trusses for its vehicular spans. Since its completion, the Ilasco Bridge has carried traffic in essentially unaltered condition. Today, checking and spalling of the concrete surface constitute the only diminution of the bridge's structural integrity.

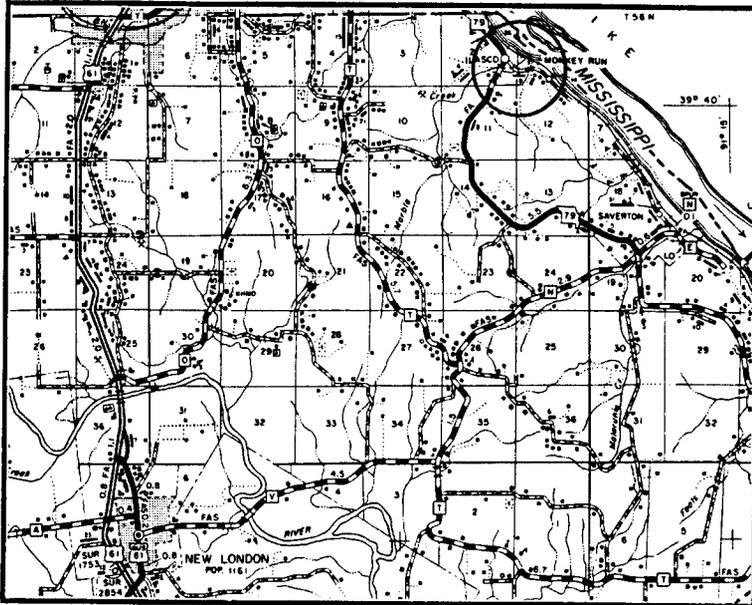
Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. The Ilasco is distinguished among these as the earliest of the less than ten concrete through girders found in the state. Modestly scaled and simply detailed, it is noteworthy as an early, well-preserved example of concrete bridge construction in Missouri.

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**NAME(S) OF STRUCTURE**

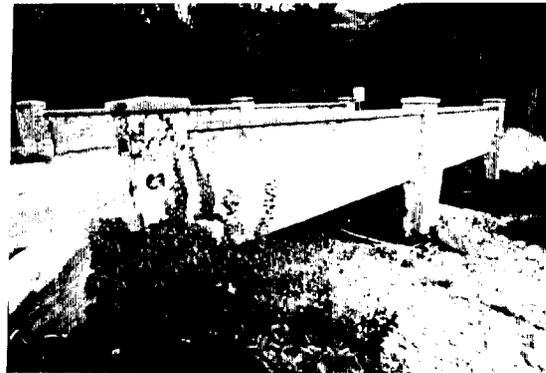
Ilasco Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 071000.1; Ralls County Court Record, Book G, page 154 (9 August 1910), located at the Ralls County Courthouse, New London MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bailey Ford Bridge  
MHTD: 089001.0

RALL04

**DATE(S) OF CONSTRUCTION**

1910

**LOCATION**

County Road 89 over Salt River; S11, T55N, R4W  
5.5 miles southeast of New London; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 67)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 1  
span length: 230.0'  
total length: 322.0'  
roadway wdt.: 16.0'

superstructure: steel, 10-panel, pin-connected Pennsylvania through truss, with pin-connected Pratt pony truss and steel stringer approach spans  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with turnbuckle; strut: braced angles; portal strut: angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: **1910 / BUILT BY STUPP BRIDGE & IRON CO. / ST. LOUIS MO.** (with listing of county officials' names)

On February 8, 1910, Abner S. Hoden and his neighbors in southeastern Ralls County presented a petition to the county court asking that a bridge be built across the Salt River at Bailey Ford. Agreeing with the petitioners, the court directed county surveyor A. Victor Ely to locate a site and estimate the cost of the proposed structure. Two days later Ely reported back that a 230-foot span with flanking 24-foot approach spans would be required, and that the bridge would cost an estimated \$7000.00. In March he solicited competitive proposals to erect the bridge at Bailey Ford. Having received bids from five firms, the county court, on April 7, 1910, awarded the contract to fabricate and erect the long-span truss to the Stupp Brothers Bridge and Iron Company for \$7699.00. The St. Louis-based firm worked throughout the summer and fall of 1910, completing the bridge late in September. As built, the Bailey Ford Bridge consisted of a long-span pinned Pennsylvania truss, supported by tubular piers and approached on both ends by pinned pony truss and steel stringer spans. Ely and the county court met at the new structure on October 5th. Ely examined the truss and proclaimed that it had been built according to specifications. The court then formally accepted the bridge, authorizing final payment to Stupp Brothers. Its physical integrity intact, the Bailey Ford bridge still serves to carry vehicular traffic in a rural setting.

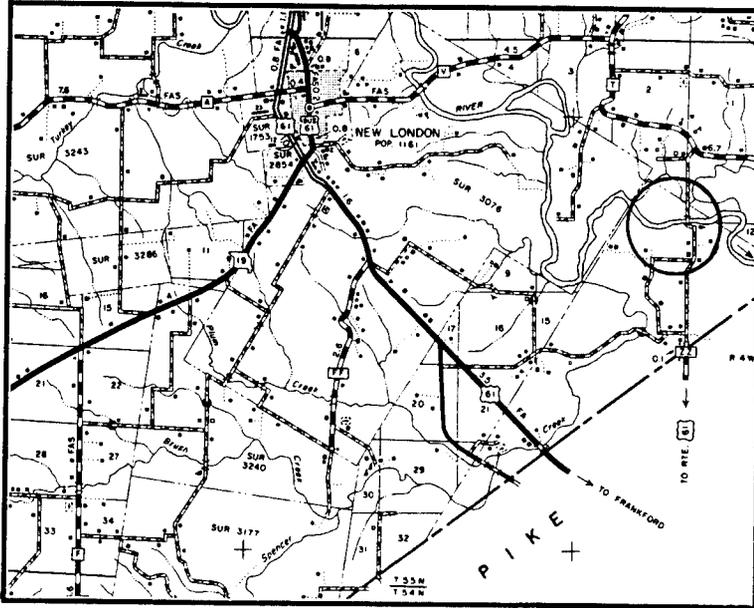
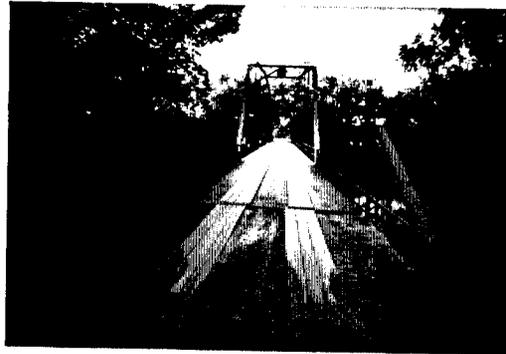
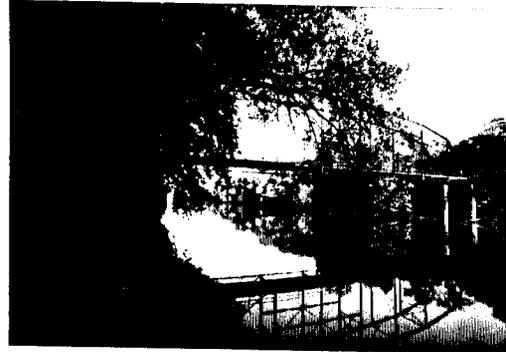
Between the early 1880s, when trusses superseded bowstrings, and the 1920s, when field riveting attained widespread use, the pin-connected truss was the structure of choice for medium- and long-span wagon bridges in Missouri. Virtually all of the major Midwestern bridge companies fabricated pinned trusses 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 for long-span applications. Their relatively long spans, light structural members and archaic detailing have rendered these trusses particularly vulnerable to subsequent replacement. As a result, of the few pinned Pennsylvania trusses that once carried vehicular traffic in the state, fewer than ten remain in place today. The Bailey Ford Bridge is distinguished among these as a well-preserved example. With its polygonal top chord and subdivided panels, the truss exemplifies this relatively uncommon type. And with its 230-foot span length, it is among the longest pin-connected trusses remaining in use in Missouri. Serving as a major crossing of the Salt River for more than eighty years, the Bailey Ford Bridge is historically significant for its longstanding role in the development of regional transportation. It is one of the state's more significant early roadway trusses.

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**NAME(S) OF STRUCTURE**

Bailey Ford Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 089001.0; Ralls County Court Record G: page 54 (8 February 1910), page 69 (10 February 1910), page 75 (7 March 1910), pages 97 and 99 (7 April 1910), page 148 (3 August 1910), page 172 (4 October 1910), page 174 (5 October 1910), page 183 (11 November 1910), page 204 (30 December 1910), located at Ralls County Courthouse, New London, Missouri; field inspection by Clayton Fraser, 14 September 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Spencer Creek Bridge  
MHTD: 116001.9

RALL06

**DATE(S) OF CONSTRUCTION**

1911

**LOCATION**

county road over Spencer Creek; SUR 3177, T54N, R5W  
6.9 miles southwest of New London; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 43)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 1  
span length: 120.0'  
total length: 158.0'  
roadway wdt.: 11.8'

superstructure: steel, 7-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete abutments, wingwalls; concrete-filled steel cylinder piers  
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 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 with knee braces; floor beam: I-beam, field-bolted to verticals; guardrail: 2 angles; portal builder's plate: 1911 / BUILT BY STUPP BRO'S BRIDGE & IRON / ST. LOUIS, MO. / H.J. PRIEST PRESIDING JUDGE, M.T. GILL[,] W.T. GORE[,] ASSOCIATE JUDGES / J.W. PITT COUNTY CLERK / A.V. ELY HIGHWAY ENGINEER

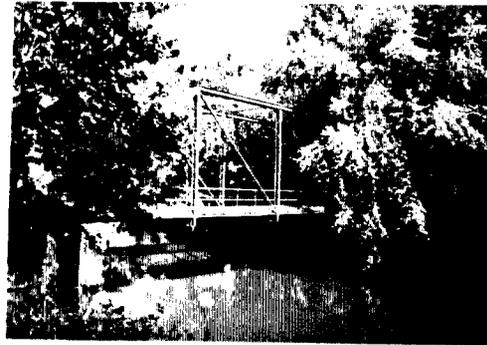
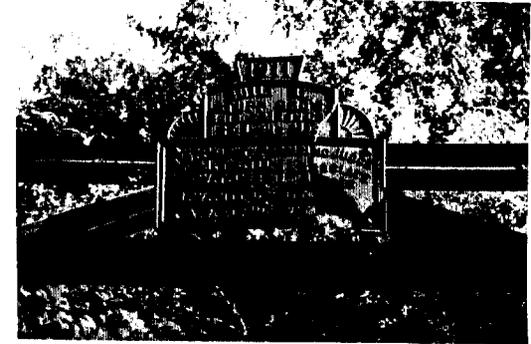
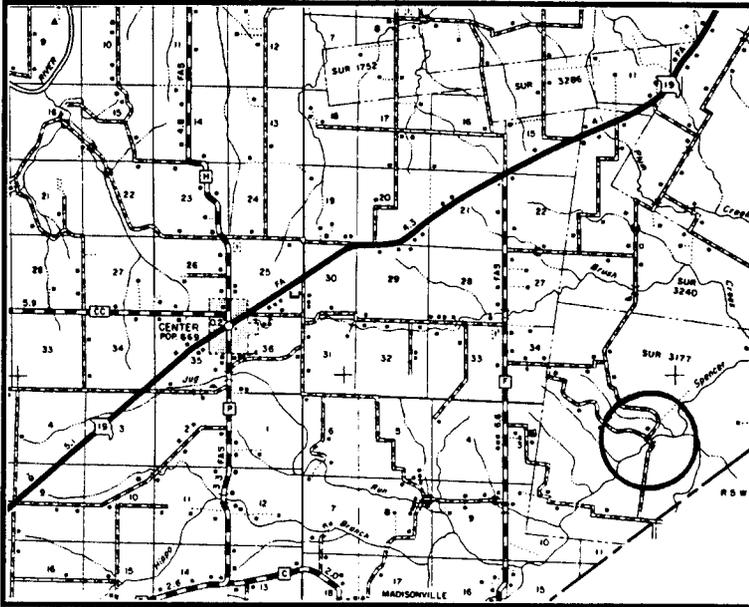
This bridge carries a county road over Spencer Creek about seven miles southwest of New London near the Pike County line. Designed as a seven-panel pin-connected Pratt through truss, the structure rests on concrete abutments and steel cylinder piers. The 120-foot main span is flanked by two steel stringer approach spans, creating an overall structure length of 158 feet. A builder's plate denotes that the bridge was built in 1911 by the Stupp Brothers Bridge and Iron Company of Saint Louis. County Court minutes reveal that the Stupp Brothers were active in Ralls County bridge building in 1911, but planning efforts for this bridge are not specifically discussed. The minutes do show, though, that on July 3, 1911, the county paid Stupp Brothers \$2900.00, a portion of which was for partial payment for the Spencer Creek Bridge. Just over a month later, on August 7th, the county issued three more warrants totaling \$3767.00 to Stupp Brothers. A portion of those monies, presumably, also included payment for the Spencer Creek Bridge. Since its erection, the bridge has carried local vehicular traffic in a rural setting. Appearing largely as originally built, the structure has suffered no measurable loss of physical integrity.

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

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**NAME(S) OF STRUCTURE**  
Spencer Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 116001.9; Ralls County Court Record G: page 290 (3 July 1911), page 294 (7 August 1911) - located at Ralls County Courthouse, New London, Missouri; field inspection by Clayton Fraser and Carl McWilliams, 14 September 1990.

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**INVENTORIED BY**

Clayton Fraser and Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Gill Bridge  
MHTD: 181001.6

RALL08

**DATE(S) OF CONSTRUCTION**

1909

**LOCATION**

County Road 181 over Lick Creek; S28/33, T54N, R7W  
western edge of Perry; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP determined eligible (score: 45)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 1  
span length: 95.0'  
total length: 134.0'  
roadway wdt.: 11.5'

superstructure: steel, 5-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; 2 looped rectangular eyebars; diagonal: 2 looped rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: timber; portal builder's plate: 1909 / STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO. / (LISTING OF JUDGES) A.V. ELY COUNTY SURVEYOR

Ralls County, Missouri, was formed by an act of the state legislature on November 6, 1820. Named after Daniel Ralls, a state legislator who had died earlier that year, the county originally encompassed most of the northeastern corner of the state. It extended north to the Iowa border and east to the Mississippi River and included lands that eventually became Audrain, Monroe, Shelby, Marion, Know, Lewis, Clark and Scotland counties. By the time the last of these was partitioned from Ralls County in 1836, the region had undergone some thirty years of settlement. By the mid-1840s Ralls County was largely homesteaded, with a handful of crossroads villages established as centers of commerce. As towns such as New London, Saverton, Hazard and Renssalaer developed, an impromptu network of roads and trails formed to link them, following the typical pattern of settlement and transportation.

The first planned road in the county was reportedly the route that Marturin Bouvet built from his salt works on Lick Creek to the Bay de Charles on the Mississippi River. Another road was later cleared to link New London, the Ralls County seat, with Hannibal. In 1823 the Salt River Road was extended from St. Charles through Ralls County to the mouth of the Des Moines River at Missouri's northeastern tip. Other local trails and post roads developed over time to link settlers with the mills and towns. Most were surfaced with hard-packed earth and often became seething quagmires after heavy rains, but two of the county's early roads were covered with timber planks. The more famous of these latter tracks was the Hannibal and New London Plank Road, a toll route that linked the interior with a port on the Mississippi River. Agitation for this road began in 1852; that year a contingent from Hannibal approached the Ralls County Court with a proposal to build the road if the county would construct a bridge over the Salt River along its route. With the county's approval for the bridge, the road was laid using oak planks set on a tamped earth base.

Plagued by severe maintenance costs, the plank road lasted only a short time. It was eventually sold at a substantial loss to the Hannibal and Ralls County Gravel Road Company, which removed the timbers and resurfaced the route with stone. The Salt River Bridge-Ralls County's first major wagon span-fared somewhat better than the road, although it too required frequent repairs to keep it serviceable. In this it was indicative of early bridge construction in the county. As the region developed, road maintenance and bridge construction fell under the aegis of the county court. To span the myriad of streams, runs, gullies, sloughs and washes that crisscrossed the region, the judges ordered small-scale timber stringer structures built in the mid-19th century. Though inexpensive to erect, most of these spans tended to be structurally suspect and required constant maintenance to prevent their collapse. Moreover, they were limited to short-span applications. Timber/iron combination trusses, covered with wood walls and roofs, were used for crossings that required longer spans. And in the late 1870s the county court began contracting for all-iron structures as a more durable alternative to wood construction.

At the turn of the century some 825 miles of public road extended through Ralls County. Of these 35 miles were surfaced with gravel or stone. Most of the better roads were old turnpikes, all but the New London-Hannibal Gravel Road by then freed of tolls. After 1900 the county court continued its modest program of road and bridge construction, typically building one or two steel trusses per year. The judges at this time contracted for such major structures as the Joanna Bridge over the Salt River (1900) and the Menafee Ford Bridge over Lick Creek (1901), as well as shorter spans over Spencer, Ely and Bear creeks. In 1905 the pace quickened somewhat, as the county began erecting short-span trusses in groups. Though the structures were strictly utilitarian, they were also a symbol of accomplishment, at least for County Surveyor George H. Engle, who began using a lithograph of the Ashers Ford Bridge over the Salt River on his office letterhead.

To fabricate and erect these steel structures, the county relied exclusively on a single bridge manufacturer-the Stupp Brothers Bridge and Iron Company. In this, Ralls County was simply following a regional trend. As Ralls and other counties in Missouri, Iowa and Illinois contracted with the St. Louis-based bridge firm in the late 19th century, Stupp Brothers emerged as one of the region's most prolific bridge builders. The company had been founded in 1859 as the South St. Louis Iron Works by John Stupp, a German immigrant who had moved to St. Louis from New York. After John Stupp retired in 1879, his three sons, George, Peter and Julius, operated the firm, manufacturing architectural and structural iron, boilers and machinery in their shop on Carondelet Avenue. "They build iron and steel bridges for railways, cities and country highways on contract," an 1898 gazette stated, "or they furnish other contractors the ready made parts, manufacture Wrought Iron and Steel Work for buildings and other articles therewith connected."

The counties and municipalities of Missouri were among the Stupp brothers' best customers. The period of extensive rural road and bridge construction in the state during the late 19th century coincided with the Stupps' ascendance in the industry, combining to create a booming market for the firm's regional sales representatives. The Stupps operated branch offices in Kansas City and Iowa City, from which they solicited contracts, submitted bids and built bridges. In 1886 the company moved its plant to larger quarters at Seventh and Shenandoah streets. There between 80 and 90 men fabricated bridges at works that "cover nearly an entire block and are equipped with the most complete machinery and all facilities for factory purposes." In 1890 the brothers incorporated the firm as the Stupp Brothers Bridge and Iron Company. In 1904 the Stupps exhibited a display on bridge construction at the St. Louis World's Fair.

Ralls County was a steady if unspectacular client of Stupp Brothers Bridge and Iron. The competitive bidding process that the county employed in the 19th century was largely dropped after 1904, as George Engle simply ordered new steel structures from Stupp, based upon the bridge company's plans and specifications. To gauge the necessity for bridges at particular crossings, Engle and the court usually relied on citizens' petitions to the court. These were often accompanied by subscriptions of money to help the county defray the cost of construction. In September 1903, for instance, the court received a "numerously signed" petition and subscription for a steel truss over Taylor's Branch north of Perry. The court responded by directing Engle to "view, survey and estimate the cost" for the bridge. A month later he hired a local contractor to build the abutments. When the abutments were completed, Engle ordered a truss from Stupp; by March 1904 the Taylor's Branch Bridge was complete.

In August 1905 the court received a similar petition for a steel bridge to replace the aging timber span over Lick Creek on the road between Perry, in Ralls County, and Santa Fe, in Monroe County. M.P. LaFrance and several other residents of Salt River Township were joined by a contingent from Monroe County in requesting the new structure. "We the undersigned, resident citizens of Ralls and Monroe Counties," their application stated, "receiving our Mail, transacting our business, Banking, Merchandise of all kinds, and shipping there from produce, live stock and etc. from Perry; respectively ask your favorable consideration of a Petition now before your Honorable Body, to build a wagon bridge across [sic] Lick Creek on the road leading West from Perry to Santa Fe, Missouri." Although many people signed the petition, they did not offer an accompanying subscription of money and could not, therefore, present a persuasive case to the court. The judges tabled their petition indefinitely. It was not until M.T. Gill was elected to the county court three years later that the prospects for a replacement bridge over Lick Creek began to improve.

Judge May Tompkins Gill was born in 1865 on a farm alongside Lick Creek five miles south of Perry. His father, Thomas Gill, was an accomplished merchant farmer who had moved to Missouri from Illinois in 1852. In 1866 Thomas Gill bought a store and relocated the family to the Lick Creek Crossroads, which later developed into the town of Perry. Here he operated the store, as well as a mill, a livery stable and a lumber yard, eventually acquiring two-thirds of the real estate in town. May Gill worked for his father at these businesses before moving out on his own. He married Lena Moss in 1892 and obtained property from his father immediately west of Perry, on which he established a thriving commercial stock farm. "He is widely known among the extensive stockmen and the mule buyers have learned to depend upon his ranch for valuable animals by the carload," one gazetteer stated. In 1899 Gill built a substantial frame house on his farm. "The Gill residence is among the elaborate country homes of Ralls County," the gazetteer continued. "It commands a view of the big farm-ranch, and reflects the substantial character of its owner. Its wooded front echoes the noise of the little commercial center just beyond Lick Creek and its annual output adds materially to the clearings credited to Perry as a business point."

As a vice president of the Perry Bank and one of the small town's chief capitalists, May Gill eventually dominated Perry commerce as his father had. His move into local politics thus seemed a natural extension of his business dealings. In 1908 Gill was elected one of the three judges on the Ralls County Court. There he served for four years as western district judge and for four more years as presiding judge.

After Gill's election in 1908, he, along with judges H.J. Priest and J.H. Holloway, almost immediately undertook an ambitious program of bridge construction. "Their administration has been marked with the improvements to the highways, the building of bridges and other noteworthy accomplishments," a county history reported in 1912. The judges authorized bridges throughout the county, but concentrated much of the new construction in Salt River Township. In late 1908 and 1909 the court ordered at least six new steel bridges built on the roads in the southwestern section of the county. One of these was to span Lick Creek just west of Perry--the crossing that had been petitioned unsuccessfully in 1905. By 1909 the court's receptivity to the bridge had changed appreciably, due largely to the fact that it was located adjacent to Gill's farm. With Gill benefitting directly from the new span, its acceptance by the court was assured, a fact acknowledged by the judges when they referred to the structure as the Gill Bridge.

At the court's direction in the spring of 1909, county surveyor A. Victor Ely ordered a 95-foot truss for the Gill Bridge, to be fabricated and erected by Stupp Brothers. Like his predecessor, George Engle, Ely simply outlined the overall dimensions for the Lick Creek Bridge and left the specific truss design to the bridge company. As delineated by Stupp, the structure consisted of a pin-connected Pratt through truss over the creek's main channel, flanked on both sides by steel stringer approach spans.

Typical of most of the region's bridge builders, the Stupp Brothers relied heavily on pin-connected Pratt truss variants for its standard truss types. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design was characterized by upper chords and vertical members acting in compression and lower chords and diagonals that functioned in tension. Its parallel chords and equal panel lengths resulted in standardized sizes for the verticals, diagonals and chord members, making fabrication and assembly relatively easy. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy of metal, and suitability for connecting to the floor and lateral systems."

In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. As a result, the Pratt truss was the structure of choice in Missouri for medium- and long-span wagon bridges. More Pratt trusses were built in Missouri during the period than all other truss types combined.

The short-span bridge that Stupp fabricated for the Lick Creek crossing in 1909 featured a standard Pratt configuration, straight from Stupp's current roster of designs. With a nominal roadway width of 12 feet and a span length of 95 feet, the truss was divided into five equal panels. The inclined endposts and upper chords consisted of two back-to-back channels, covered by a continuous plate on top and joined by batten plates beneath. The verticals in the interior panels were similarly configured, with two back-to-back channels laced together by metal straps. Two looped square eyebars formed the verticals at the hips. The lower chords and diagonals were each made up of two looped rectangular eyebars; the counters consisted of round eyerods with slotted turnbuckles. I-beam floor beams were field-bolted to the verticals below the lower chord pins; these carried the steel stringers, which in turn supported the timber deck. The struts were comprised of two angles, with A-frame struts at the portals. Both upper and lower lateral braces were round rods with threaded ends.

The truss was supported on all four corners by built-up steel bearing shoes, with fixed bearings on one end and sliding bearings on the other. The shoes were anchor-bolted to concrete-filled steel cylinder piers founded on driven piles. The channel span was approached on each side by a steel stringer span, with concrete mass abutments and angled wingwalls. Decorative cast iron plates mounted on the bridge's portals identified the builder and listed the members of the county administration.

Soon after receiving the contract for the bridge, a Stupp Brothers crew began work on the substructural excavation. Meanwhile, the truss was fabricated in the firm's St. Louis shops, using members rolled in Pittsburgh by the Cambria Steel Company. Construction progressed quickly through the spring and summer, and by August the bridge was completed and accepted by the county.

The road served as the main route west from Perry until its subsequent replacement by State Highway 154. Today the Gill Bridge and County Road 181 carry local farm-to-market traffic. The bridge's deck has been replaced more than once, its steel angle guardrails have been mangled by several collisions at the approaches, and the walls of its tubular piers are beginning to bulge after several of the rivets have failed. The truss's steel superstructure remains essentially intact, however, although its deteriorating condition has prompted the county to post the bridge with a four-ton load limit. No longer suitable to carry heavy, wide farm implements, the Gill Bridge is now scheduled for replacement.

Like virtually all of Missouri's counties, Ralls 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 late 1870s 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.

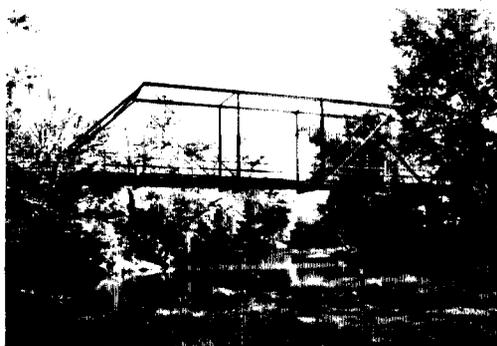
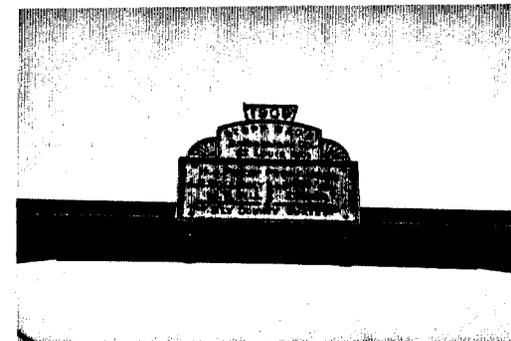
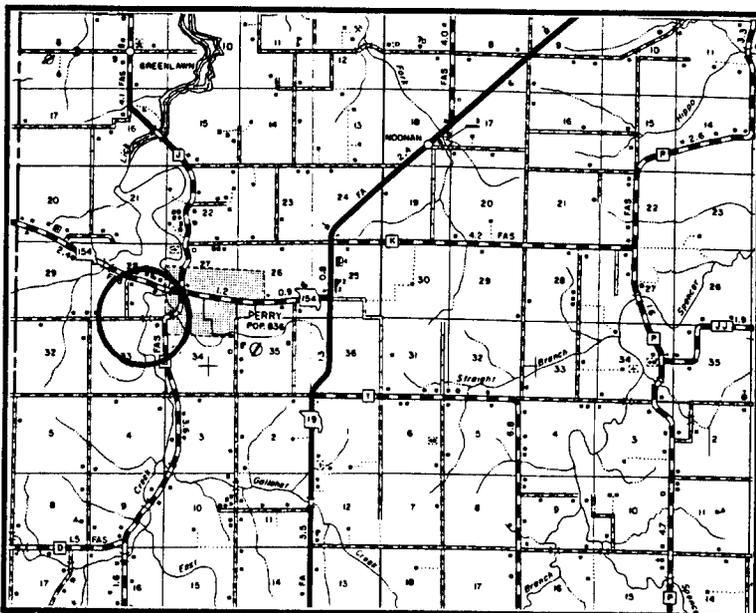
The Gill Bridge, with a fabrication date of 1909 and a span length of 95 feet, is neither the oldest nor the longest of the Ralls County's remaining spans. The significance of this span does not lie in its representation of unusual or innovative technology. At the time of its construction, it was one of the thousands of pinned Pratt trusses erected throughout Missouri. Rather, the Gill Bridge is important for its illustration of two prevailing bridge trends—the construction of rural roadway bridges by county governments and the design and manufacture of pinned Pratt trusses in the late 19th and early 20th centuries. The Gill Bridge is today distinguished among Missouri's pin-connected trusses as well-documented and well-preserved example of what was once a mainstay structural type.

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**NAME(S) OF STRUCTURE**

Lick Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 181001.6; Ralls County Court Record G: page 5 (5 July 1909), page 17 (3 August 1909), page 63 (10 February 1910), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser and Carl McWilliams, 14 September 1990.

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**INVENTORIED BY**

Clayton Fraser and Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Menefee Ford Bridge  
MHTD: 202002.0

RALL11

**DATE(S) OF CONSTRUCTION**

1911

**LOCATION**

County Road 202 over Lick Creek; S34, T54N, R7W / S3, T53N, R7W  
1.5 miles south of Perry; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 48)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 1

span length: 85.0'

total length: 127.0'

roadway wdt.: 10.3'

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

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

floor/decking: timber deck over steel stringers

other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical with knee bracing; guardrail: 2 angles; endpost-mounted builder's plate: **BUILT BY STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO. / 1911**; bridge plate: **CLASS B**

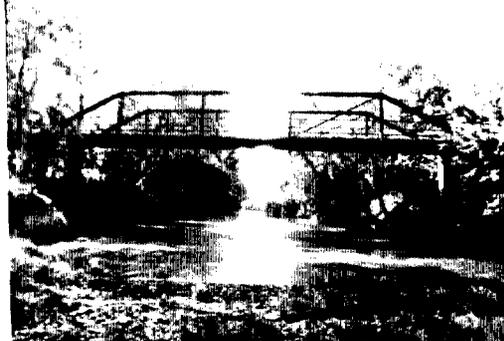
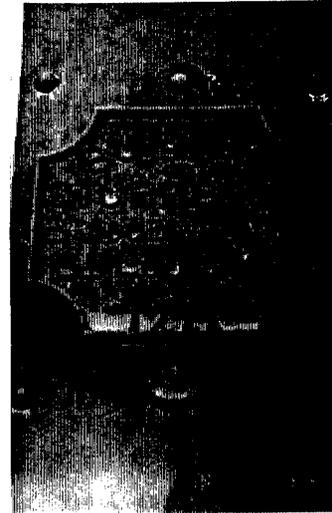
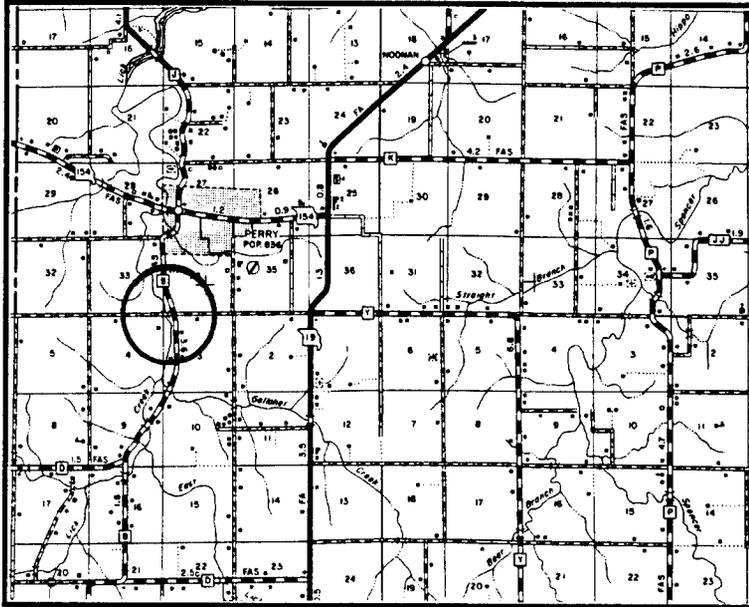
On September 4, 1901, the Ralls County Court contracted with local bridge builder Mort Strode to build a timber stringer bridge at the R.R. Menefee Ford near the town of Perry, in South Salt River Township. Typical of such rudimentary spans, Strode's timber structure lasted less than ten years. By early February 1911, the bridge no longer carried traffic, and nearby residents were again petitioning the county court for a bridge across Lick Creek at the Menefee Ford. As had occurred a decade before, the court viewed the petition favorably. But unlike their predecessors, the members of the 1911 court opted to build a more permanent steel bridge. The new Menefee Ford Bridge was thus configured as a pin-connected Pratt pony truss, supported by steel cylinder piers, with concrete abutments at the approaches. Still in existence, the bridge's 85-foot channel span is flanked by two steel stringer approach spans, creating an overall structure length of 127 feet. A builder's plate confirms 1911 as the date of erection, and reveals that the Stupp Brothers Bridge and Iron Company of Saint Louis was the contractor. On July 3, 1911, the county paid the Stupp Brothers \$2900.00, a portion of which was for "the Menefee approaches". The court's decision to build a steel bridge was a wise one. The Menefee Ford Bridge has now carried local vehicular traffic for 80 years. With no noticeable alterations, the structure has retained virtually all of its original historical integrity.

In the late 19th century, an 85-foot span would likely have required construction of a through truss, with overhead bracing. By 1911, however, pony trusses had been strengthened - using heavier endposts and knee braces at the verticals - to the point that they were used as a matter of course for spans up to about 100 feet. The Menefee Ford Bridge is a typical, long-span pinned pony truss, built during a period of intense bridge construction throughout Missouri by one of the state's most prolific bridge fabricators.

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**NAME(S) OF STRUCTURE**

Menefer Ford Bridge (Lick Creek Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 202002.0; Ralls County Court Record E: page 484 (3 June 1901), page 486 (1 July 1901), page 499 (4 September 1901); Ralls County Court Record G: page 216 (6 February 1911), page 290 (3 July 1911), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser and Carl McWilliams, 14 September 1990.

**INVENTORIED BY**

Clayton Fraser and Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Butler Ford Bridge  
MHTD: 220000.4

RALL12

**DATE(S) OF CONSTRUCTION**

1893

**LOCATION**

County Road 220 over Spencer Creek; S19, T54N, R5W  
4.6 miles southeast of Center; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

fair

**OWNER**

Ralls County

span number: 1  
span length: 100.0'  
total length: 130.0'  
roadway wdt.: 13.3'

superstructure: wrought iron, 6-panel, pin-connected Pratt through truss, with steel stringer approach spans  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 square bars at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: bottom - round rod with turnbuckle, top - round rod with threaded ends - bottom; strut: 2 angles with knee braces; floor beam: I-beam, U-bolted to vertical; guardrail: 2 angles

The Butler Ford Bridge carries a county road over Spencer Creek 4½ miles southeast of Center, in southeastern Ralls County. Designed as a six-panel, pin-connected Pratt through truss, the origins of the present bridge date to late 1892. Petitions for a permanent span over Spencer Creek in this vicinity were first submitted to the Ralls County Court in October 1892. Soon after, county surveyor Lee Wells examined various sites and selected the Butler Ford crossing just south of Madisonville as the most feasible location for the new bridge. Bids were solicited, and on November 7, 1892, a \$2680.00 contract "for an iron span as near as practicable (sic) to Madisonville according to plans and specifications on file" was awarded to the Saint Louis Bridge and Iron Company. County Judge J.M. Smith was charged with the responsibility of overseeing the structure's construction. The bridge took five months to build. In April 1893, Wells reported that the wrought iron bridge across Spencer Creek had been satisfactorily completed. Approving Well's report, the court formally accepted the bridge and authorized payment of \$2680.00 to Saint Louis Bridge and Iron. The Butler Ford Bridge survives today with virtually all of its historical integrity intact. Located on a seldom-traveled county road, the structure still serves to carry local traffic.

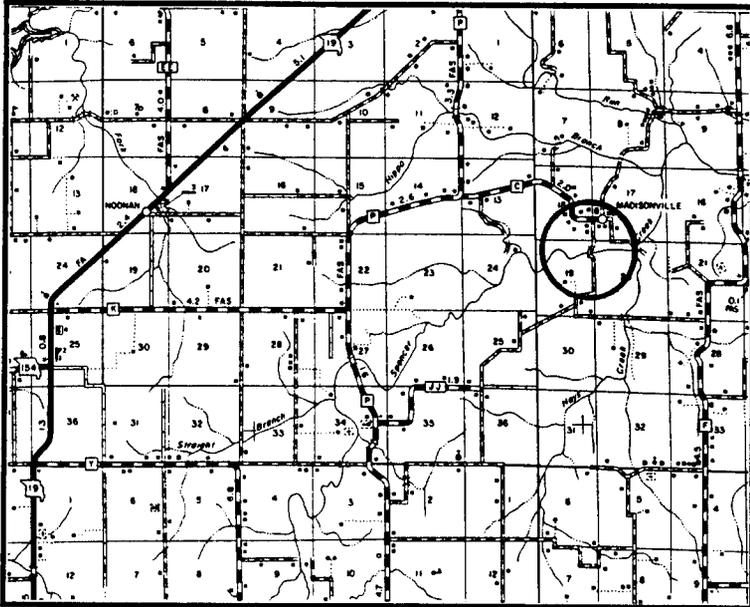
Other iron trusses were built in Ralls County before the Butler Ford Bridge, but none remain in place today. This structure is thus distinguished as the oldest intact vehicular bridge in the county and one of the oldest in the region. Technologically, the bridge is representative of the Pratt trusses built in the late 19th century. With its pinned connections and wrought iron members, it is a well-preserved, early example of wagon bridge construction in Missouri.

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**NAME(S) OF STRUCTURE**

Butler Ford Bridge (Spencer Creek Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 220000.4; Ralls County Court Record D: page 440 (3 October 1892), page 443 (4 October 1892), page 450 (7 November 1892), page 475 (6 April 1893), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser and Carl McWilliams, 14 September 1990.

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**INVENTORIED BY**

Clayton Fraser and Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

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**NAME(S) OF STRUCTURE**

Hutchison Bridge (East Lick Creek Bridge)  
MHTD: 241002.3

RALL14

**DATE(S) OF CONSTRUCTION**

1913

**LOCATION**

county road over East Lick Creek; S26, T53N, R7W  
6.1 miles south of Perry; Ralls County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 37)

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**CONDITION**

fair

**OWNER**

Ralls County

span number: 1  
span length: 60.0'  
total length: 60.0'  
roadway wdt.: 11.6'

superstructure: steel, 4-panel, pin-connected Pratt pony truss  
substructure: concrete abutments and wingwalls (collapsed at west end)  
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 looped rectangular eyebars; vertical: 2 angles with batten plates; diagonal: 2 looped rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

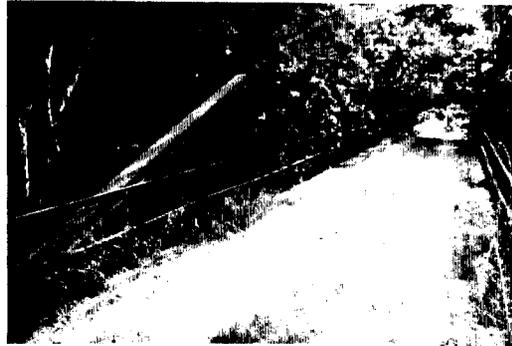
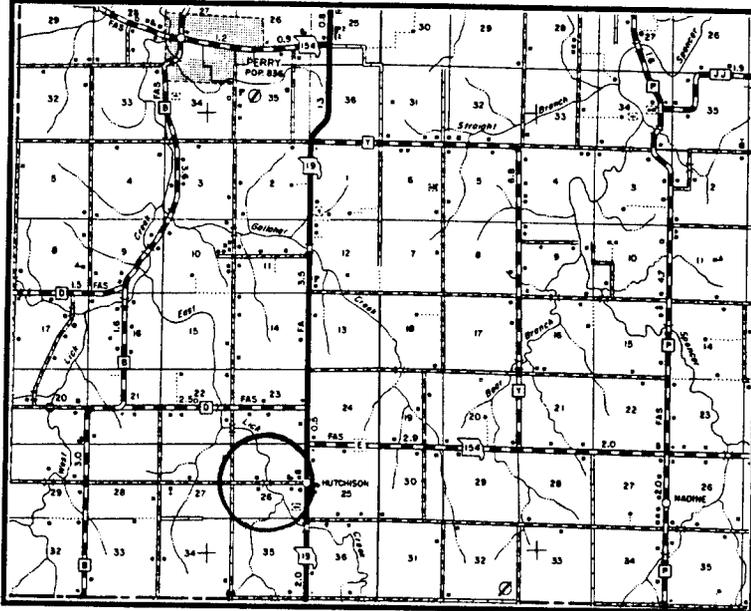
The Hutchison Bridge crosses over East Lick Creek six miles south of Perry, about 1½ miles north of the Audrain County line. Built as a pin-connected Pratt pony truss, the modest span carries a gravel-surfaced county road and is supported by a concrete substructure. The abutment at the structure's west end has collapsed, precipitating the crossing's closure. The bridge's history dates to 1913. On April 13th of that year contracts to build four bridges were awarded to Miller and Borcharding, contractors from Saint Louis. Included among the four spans was the Hutchison Bridge across Lick Creek, for a contract price of \$1550.00. Miller and Borcharding erected the bridge as contracted, and it subsequently served to carry vehicular traffic for many years until its recent closure. With modest dimensions and standard detailing, the Hutchison Bridge typifies the thousands of small-scale pinned pony trusses built in the early 20th century throughout Missouri.

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**NAME(S) OF STRUCTURE**

Hutchison Bridge (East Lick Creek Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 241002.3; Ralls County Court Record G: page 481 (7 April 1913), located at Ralls County Courthouse, New London MO; field inspection by Clayton Fraser and Carl McWilliams, 14 September 1990.

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**INVENTORIED BY**

Clayton Fraser and Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

27 March 1991

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