

GENTRY COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
GENT01	F 324R	Middle Fork Bridge	1-100' riveted Pratt through truss 1923 Illinois Steel Bridge Company
GENT02	F 331R	East Fork Bridge	1-110' riveted Pratt through truss 1937 C.H. Atkinson Paving Co.
*GENT03	026000.5	West Fork Bridge	1-140' riveted Pratt through truss c1920
GENT04	061000.5	Middle Fork Bridge	1-120' pinned Pratt through truss c1910
*GENT05	066000.5	Middle Fork Bridge	1-100' 2-angle Camelback pony truss c1930
GENT06	105000.3	Martin Branch Bridge	1- 60' pinned Pratt pony truss c1910
*GENT07	123000.2	Big Muddy Creek Bridge	1-100' pinned Pratt through truss c1905
*GENT08	182R01.5	Grand River Bridge	1-160' riveted Camelback through truss c1950
*GENT09	220000.6	East Fork Bridge	(replaced)
*GENT10	283000.3	Wildcat Creek Bridge	(replaced)
*GENT11	308000.3	Wildcat Creek Bridge	(replaced)
GENT12	337000.3	Island City Bridge	(replaced)
GENT13	412004.2	Lost Creek Bridge	1- 40' pinned Pratt pony truss 1895 Dildine Bridge Co. (prob.)
GENT14	465001.0	Bridge	1- 50' pinned Pratt pony truss c1915
*GENT15	469001.0	Elam Bend Bridge	1-160' pinned Camelback through truss 1895 St. Joseph Bridge and Iron Co.

EXCLUDED:

Pratt pony truss

003000.3 016002.4 046000.8 050000.6 129001.5 155000.3

Warren pony truss

H 551 201000.4

Bailey truss

003001.0

Steel stringer / girder

S 95	S 385	S 386	T 195	T 332	X 725	X 848
003000.1	003000.2	003000.4	007R00.4	008000.9	017001.7	022000.2
031000.2	031001.6	034000.0	038R01.1	047000.6	057000.1	057002.2
059001.0	070000.8	071000.8	073001.7	075R00.5	078R01.3	081002.5
081002.8	106000.2	106001.1	108000.2	109000.0	113R00.2	114001.4

GENTRY COUNTY

EXCLUDED (cont.):

Steel stringer / girder

115000.3	117000.4	123000.7	126000.4	133000.2	133000.3	135R01.1
135R03.0	135000.4	135002.3	144000.4	144000.7	144001.7	152000.0
153000.6	165002.5	170002.5	185000.3	193000.1	204000.6	210000.1
215000.4	216R00.1	224000.8	226000.0	239002.2	243000.1	251000.8
254000.2	258000.7	265000.4	266000.1	275000.2	275000.7	278R00.7
288000.7	288002.0	289000.9	289002.0	308000.8	308001.5	310000.4
316001.4	322R01.3	322000.3	324000.5	324001.0	326001.0	327001.3
334R00.3	347000.4	347000.6	349001.0	355R01.0	355001.8	355002.4
358001.3	369000.0	372000.4	373000.8	374000.3	377000.7	378001.2
383000.2	386001.1	387000.2	389000.3	396000.9	406000.4	409000.2
413000.2	417001.5	422000.2	422001.0	423000.6	425000.1	430001.1
446R00.6	448000.5	450R00.9	450000.6	458R00.7	471000.2	474000.4
486000.2	488001.3	489R02.5	489001.5	493002.8	509000.7	517000.5

Concrete girder

H 223	H 248	J 83	J 84	J 203
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Concrete slab

F 302R	F 327R1	F 336R1	J 204
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Concrete box culvert

H 618R	H 642	K 138	K 612	K 731	P 34	S 387
T 178	T 194	T 197	X 136	X 726	X 969	

Timber stringer

K 150	290000.1	291000.1
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SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	9	0	0	11
Excluded	31	129	0	0	160
	33	138	0	0	174 structures

Middle Fork Bridge

GENT01

GENERAL DATA

structure no.: F 324R	city/town: 3.8 miles southwest of Albany
county: Gentry	feature inters.: Middle Fork of Grand River
	cadastral grid: S21/28, T63N, R31W
	highway route: U.S. Highway 136
	highway distr.: 1
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt through truss; 3-panel, rigid-connected Warren pony truss approaches	
substructure: concrete abutments, wingwalls and piers	
span number: 1	condition: good
span length: 100.0'	alterations: none
total length: 208.0'	floor/decking : concrete deck over steel stringers
roadway width: 20.0'	other features: steel pipe guardrails

HISTORICAL DATA

erection date: 1923
erection cost: \$23,882.10
designer: Missouri State Highway Department
fabricator : unknown
contractor: Illinois Steel Bridge Company, Jacksonville IL
references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number F 324R; Files on primary system bridges, located at Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating: 34
evaluation: NRHP non-eligible (typically configured example of MSHD truss design, lacking technological or historical importance)

Inventoried by: Clayton B. Fraser 10 March 1994

East Fork Bridge

GENT02

GENERAL DATA

structure no.: F 331R	city/town: 1.4 miles west of Albany
county: Gentry	feature inters.: East Fork of Grand River
	cadastral grid: S23, T63N, R31W
	highway route: U.S. Highway 136
	highway distr.: 1
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 6-panel, rigid-connected Pratt through truss; steel plate through girder approaches	
substructure: concrete abutments, wingwalls and piers	
span number: 1	condition: good
span length: 110.0'	alterations: salvaged truss moved to this location, 1922; truss replaced with new span, 1937
total length: 237.0'	
roadway width: 22.0'	floor/decking : concrete deck over steel stringers
	other features: steel guardrails

HISTORICAL DATA

erection date: 1922; 1937	
erection cost: \$37,140.34	
designer: Missouri State highway Department	
fabricator : unknown	
contractor: C.H. Atkinson Paving Company	
references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number F331R; Files on primary system bridges, located at Missouri Highway and Transportation Department, Jefferson City MO.	
sign. rating: 36	
evaluation: NRHP non-eligible (typically configured example of MSHD truss design, lacking technological or historical importance)	

inventoried by: Clayton B. Fraser 10 March 1994

West Fork Bridge

GENT03

GENERAL DATA

structure no.:	026000.5	city/town:	6.1 miles north of Stanberry
county:	Gentry	feature inters.:	West Fork of Grand River
		cadastral grid:	S32, T64N, R32W
		highway route:	County Road 26
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 8-panel, rigid-connected Pratt through truss; two, 2-angle, rigid-connected Camelback pony truss approaches		
substructure:	steel pile bent piers and abutments, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	140.0'	alterations:	none
total length:	365.0'	floor/decking :	timber deck over steel stringers
roadway width:	15.1'	other features:	main span: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plate; vertical: 4 angles with batten plate; diagonal: 2 angles with batten plate; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	unknown
fabricator :	Inland Steel Company, East Chicago IN
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 026000.5; field inspection by Mitzi Rossillon, 15 September 1990.
sign. rating:	23
evaluation:	NRHP non-eligible (undistinguished, undocumented example of common structural type)

inventoried by: Clayton B. Fraser 10 March 1994

Middle Fork Bridge

GENT04

GENERAL DATA

structure no.:	061000.5	city/town:	9.8 miles northwest of Albany
county:	Gentry	feature inters.:	Middle Fork of Grand River
		cadastral grid:	S6/7, T64N, R31W
		highway route:	County Road 61
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 6-panel, pin-connected Pratt through truss		
substructure:	steel pile bent piers and abutments, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	120.0'	alterations:	none
total length:	179.0'	floor/decking :	timber deck over steel stringers
roadway width:	12.5'	other features:	steel angle guardrails

HISTORICAL DATA

erection date:	c1910
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 061000.5.
sign. rating:	26
evaluation:	NRHP non-eligible (undistinguished, undocumented example of common structural type)

inventoried by: Clayton B. Fraser 10 March 1994

Middle Fork Bridge

GENT05

GENERAL DATA

structure no.: 066000.5 city/town: 9.0 miles northwest of Albany
county: Gentry feature inters.: Middle Fork of Grand River
cadastral grid: S8/17, T64N, R31W
highway route: County Road 66
highway distr.: 1
current owner: Gentry County

STRUCTURAL DATA

superstructure: steel, 6-panel, 2-angle Camelback pony truss, with steel stringer approach spans
substructure: steel pile bent piers and abutments, with timber back- and wingwalls

span number: 1 condition: fair
span length: 100.0' alterations: none
total length: 134.0' floor/decking : timber deck over steel stringers
roadway width: 13.3' other features: upper chord, inclined end post, lower chord and vertical: 2 angles; diagonal: 1 angle; lateral bracing: round rods with threaded ends; floor beam: I-beam, field-bolted to verticals; guardrail: 2 angles on right-angle posts

HISTORICAL DATA

erection date: c1930
erection cost: unknown
designer: unknown
fabricator : Inland Steel Company, East Chicago IN
contractor : unknown

references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 066000.5; field inspection by Mitzi Rossillon, 15 September 1990.

sign. rating: 37
evaluation: NRHP non-eligible (example of uncommon structural type, undocumented)

inventoried by: Clayton B. Fraser 10 March 1994

Martin Branch Bridge

GENT06

GENERAL DATA

structure no.:	105000.3	city/town:	9.2 miles northeast of Albany
county:	Gentry	feature inters.:	Martin Branch
		cadastral grid:	S6, T64N, R30W
		highway route:	County Road 105
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt pony truss		
substructure:	steel pile bent piers and abutments, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	60.0'	alterations:	none
total length:	88.0'	floor/decking :	timber deck over steel stringers
roadway width:	12.8'	other features:	steel angle guardrails

HISTORICAL DATA

erection date:	c1910
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 105000.3.

sign. rating:	28
evaluation:	NRHP non-eligible (typically configured, technologically undistinguished example of common structural type, largely undocumented)

inventoried by: Clayton B. Fraser 10 March 1994

Big Muddy Creek Bridge

GENT07

GENERAL DATA

structure no.:	123000.2	city/town:	6.8 miles north of Albany
county:	Gentry	feature inters.:	Big Muddy Creek
		cadastral grid:	S13, T64N, R31W
		highway route:	County Road 123
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 6-panel, pin-connected Pratt through truss		
substructure:	concrete-filled steel cylinder piers, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	100.0'	alterations:	none
total length:	100.0'	floor/decking :	timber deck over steel stringers
roadway width:	12.6'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to verticals; guardrail: none

HISTORICAL DATA

erection date:	c1905
erection cost:	unknown
designer:	unknown
fabricator :	Lackawanna Steel Company, Pittsburgh PA
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 123000.2; field inspection by Mitzi Rossillon, 15 September 1990.
sign. rating:	28
evaluation:	NRHP non-eligible (typically configured, technologically undistinguished example of common structural type, largely undocumented)

inventoried by: Clayton B. Fraser 10 March 1994

Grand River Bridge

GENT08

GENERAL DATA

structure no.:	182R01.5	city/town:	3.2 miles southwest of Albany
county:	Gentry	feature inters.:	Grand River
		cadastral grid:	S34/33, T63N, R31W
		highway route:	County Road 182
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 9-panel, rigid-connected Camelback through truss, with steel stringer approach span		
substructure:	steel pile bent piers and abutments, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	160.0'	alterations:	south approach span added, 1979
total length:	200.0'	floor/decking :	timber deck over steel stringers
roadway width:	16.0'	other features:	upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to verticals; guardrail: 2 angles

HISTORICAL DATA

erection date:	c1950
erection cost:	unknown
designer:	unknown
fabricator :	Skullen Steel Company
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 182001.5; field inspection by Mitzi Rossillon, 16 September 1990.
sign. rating:	44
evaluation:	NRHP non-eligible (uncommon structural type, poorly documented)

inventoried by: Clayton Fraser and Michelle Crow-Dolby 10 March 1994

Lost Creek Bridge

GENT13

GENERAL DATA

structure no.:	412004.2	city/town:	4.2 miles southeast of King City
county:	Gentry	feature inters.:	Lost Creek
		cadastral grid:	S36, T61N, R32W
		highway route:	County Road 412
		highway distr.:	1
		current owner:	Gentry County / DeKalb County

STRUCTURAL DATA

superstructure:	steel, 3-panel, pin-connected Pratt pony truss		
substructure:	steel pile bent abutments, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	40.0'	alterations:	none
total length:	43.0'	floor/decking :	timber deck over steel stringers
roadway width:	15.0'	other features:	steel angle guardrails

HISTORICAL DATA

erection date:	1895
erection cost:	\$300.00
designer:	Dildine Bridge Company, Cameron MO (probable)
fabricator :	Dildine Bridge Company, Cameron MO (probable)
contractor :	Dildine Bridge Company, Cameron MO (probable)
references:	Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 412004.2; Gentry County Court Record, Book I, page 233 (3 September 1895) - located at the Gentry County Courthouse, Albany MO.
sign. rating:	48
evaluation:	NRHP possibly eligible (relatively early example of mainstay structural type)

inventoried by: Clayton B. Fraser 10 March 1994

Bridge

GENT14

GENERAL DATA

structure no.:	465001.0	city/town:	1.6 miles southwest of McFall
county:	Gentry	feature inters.:	Branch of Grand River
		cadastral grid:	S11, T61N, R30W
		highway route:	County Road 465
		highway distr.:	1
		current owner:	Gentry County

STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt pony truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	50.0'	alterations:	none
total length:	50.0'	floor/decking :	timber deck over steel stringers
roadway width:	15.6'	other features:	steel angle guardrails

HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 465001.0.

sign. rating:	23
evaluation:	NRHP non-eligible (typical, small-scale example of common structural type, largely undocumented)

inventoried by: Clayton B. Fraser 10 March 1994

Elam Bend Bridge

GENT15

GENERAL DATA

structure no.: 469001.0	city/town: 3.1 miles southwest of McFall
county: Gentry	feature inters.: Grand River
	cadastral grid: S22/23, T61N, R30W
	highway route: County Road 469
	highway distr.: 1
	current owner: Gentry County

STRUCTURAL DATA

superstructure: steel, 11-panel, pin-connected Camelback through truss, with steel stringer approach spans at either end	
substructure: concrete-filled steel cylinder piers, timber pile bent abutments with timber back- and wingwalls	
span number: 1	condition: fair
span length: 160.0'	alterations: modified, 1982; non-original approaches
total length: 231.0'	floor/decking : timber deck over steel stringers
roadway width: 14.9'	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; hip vertical: 2 looped square eyebars; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to verticals; guardrail: 2 angles

HISTORICAL DATA

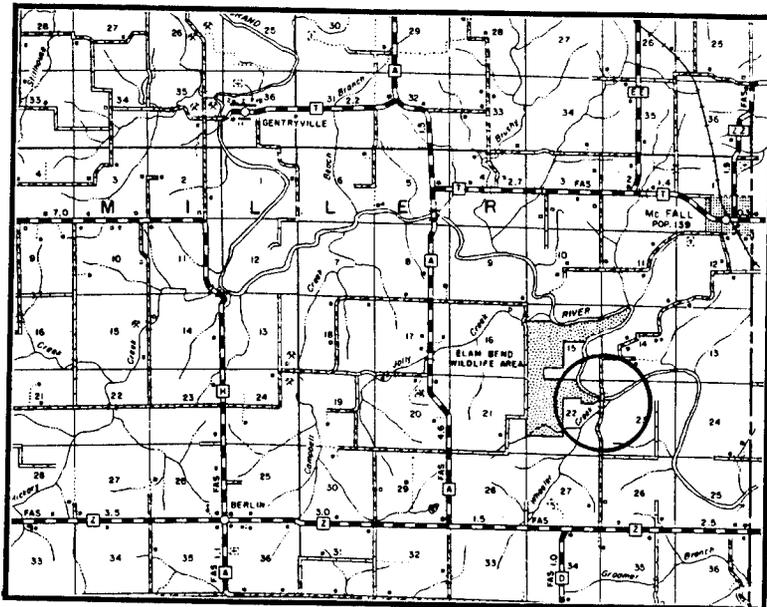
erection date: 1895	
erection cost: \$2800.00	
designer: St. Joseph Bridge and Iron Company, St. Joseph MO	
fabricator : Jones and Laughlin Steel Company, Pittsburgh PA	
contractor : St. Joseph Bridge and Iron Company, St. Joseph MO	
references: Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 469001.0; Gentry County Court Record, Book H: page 465 (7 August 1893); Book I: page 60 (7 January 1895) - located at the Gentry County Courthouse, Albany MO; Fraser-design, "Elam Bend Bridge: Preliminary Determination of NRHP Eligibility for the Missouri Historic Bridge Inventory," 8 February 1994; field inspection by Mitzi Rossillon, 15 September 1990.	
sign. rating: 68	
evaluation: NRHP determined eligible (well-preserved, early example of uncommon structural type)	

inventoried by: Clayton B. Fraser 10 March 1994

NAME(S) OF STRUCTURE

Elam Bend 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 and Inventory Appraisal: Structure Number 469001.0; Gentry County Court Record, Book H: page 465 (7 August 1893); Book I: page 60 (7 January 1895) - located at the Gentry County Courthouse, Albany MO; Fraserdesign, "Elam Bend Bridge: Preliminary Determination of NRHP Eligibility for the Missouri Historic Bridge Inventory," 8 February 1994; field inspection by Mitzi Rossillon, 15 September 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

10 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Elam Bend Bridge
MHTD: 469001.0

GENT15

DATE(S) OF CONSTRUCTION

1895

LOCATION

County Road 469 over Grand River; S22/23, T61N, R30W
3.1 miles southwest of McFall; Gentry County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP determined eligible (score: 68)

CONDITION

fair

OWNER

Gentry County

span number: 1
span length: 160.0'
total length: 231.0'
roadway wdt.: 14.9'

superstructure: steel, 11-panel, pin-connected Camelback through truss, with steel stringer approach spans at either end
substructure: concrete-filled steel cylinder piers, timber pile bent abutments with timber back- and wingwalls
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; hip vertical: 2 looped square eyebars; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to verticals; guardrail: 2 angles

Located in rural Gentry County, some three miles southwest of McFall, this long-span truss carries a secondary county road over the Grand River. The bridge consists of a single, pin-connected Camelback through truss, supported by concrete-filled, steel cylinder piers and approached by steel stringer approach spans on both ends. Known locally as the Elam Bend Bridge, the structure dates to 1895. In January of that year the Gentry Country Court contracted with the St. Joseph Bridge and Iron Company to rebuild the existing Elam Bend span over the Grand River. The St. Joseph, Missouri, firm was to be paid \$2,800.00 to supply and erect a new truss at the crossing. (It is not known whether this included replacement of the substructure as well.) Gentry County records are inconclusive, but the bridge was probably completed later that year. The Elam Bend Bridge has functioned in place since that time. Its approach spans, stringers and deck have been replaced over time, and a steel pile fender has been added to the upstream side of one pier, but the truss itself appears unaltered.

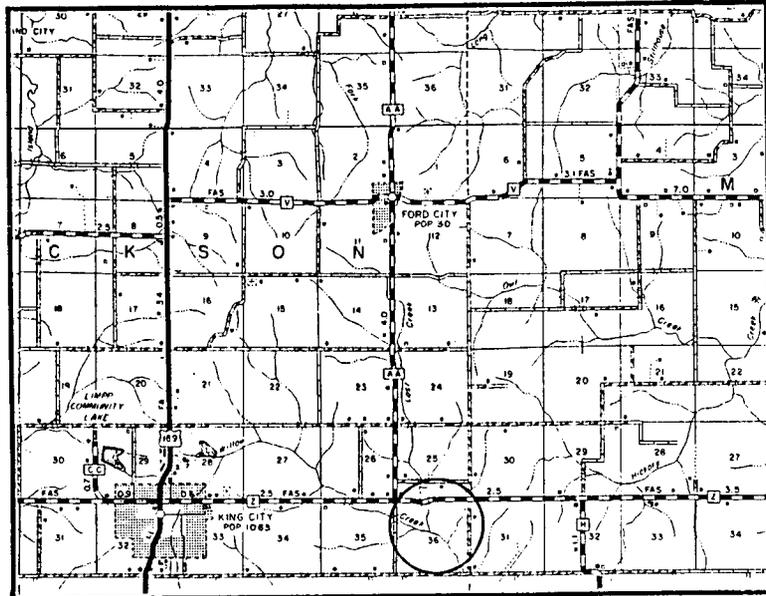
Through the 19th century, the pin-connected Pratt truss was the bridge of choice for medium- and long-span roadway crossings in Missouri. Late in the century, polygonal-chorded truss types began to replace the straight-chorded Pratts, however. The inclined upper chords of these structures afforded a degree of efficiency in long span trusses, where bending moment stresses at mid-span greatly exceed the sheer stresses at the ends. Their drawback was that, unlike the straight-chorded Pratt truss, the polygonal chords necessitated different-length verticals and diagonals at each panel, increasing their fabrication costs somewhat. Because trusses were generally priced on the basis of their superstructural steel weight, the lighter overall weight of a polygonal-chord truss more than offset the slight increase in fabricating costs in spans greater than 160 feet. In the highly competitive bridge industry, this economy equated directly with profit.

These bridges generally employed Pratt-type web configurations, with upper chords and verticals in compression and lower chords and diagonals in tension. The most common of these Pratt variants was the Parker truss. Another was the Camelback truss, a Parker with five upper-chord facets. With its distinctive profile, the Camelback configuration was disdained by many engineers (including the redoubtable J.A.L. Waddell, who called it "uncompromisingly ugly") for its tendency under certain conditions to reverse compressive and tensile forces acting on the individual members. As a result, Camelback trusses never received widespread acceptance. Relatively few were ever built on Missouri's roads, and fewer than ten remain in place today. The Elam Bend Bridge in Gentry County is distinguished among these as the oldest Camelback truss: a relatively well-preserved, early example of an uncommon early structural type.

NAME(S) OF STRUCTURE

Lost Creek Bridge

PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP

SOURCES

Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 412004.2; Genrty County Court Record, Book I, page 233 (3 September 1895) - located at the Genrty County Courthouse, Albany MO.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

10 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Lost Creek Bridge
MHTD: 412004.2

GENT13

DATE(S) OF CONSTRUCTION

1895

LOCATION

County Road 412 over Lost Creek; S36, T61N, R32W
4.2 miles southeast of King City; Gentry County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 48)

CONDITION

fair

OWNER

Gentry County / DeKalb County

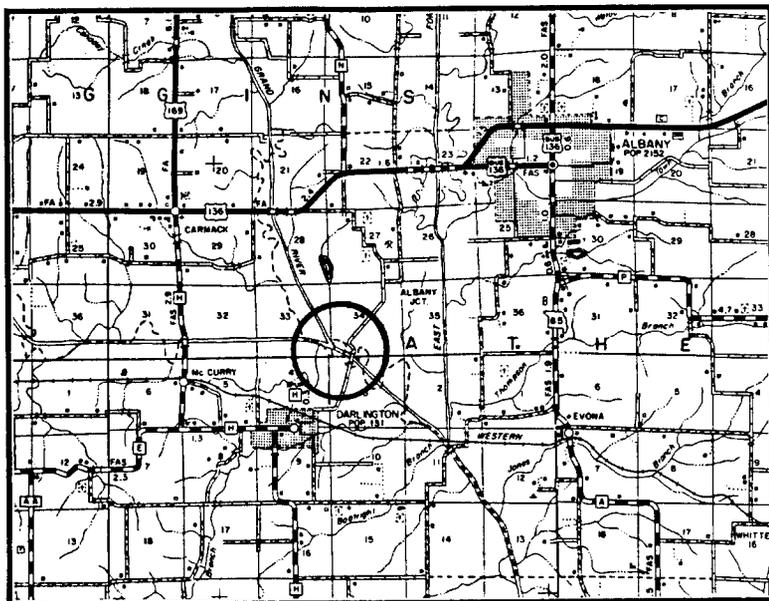
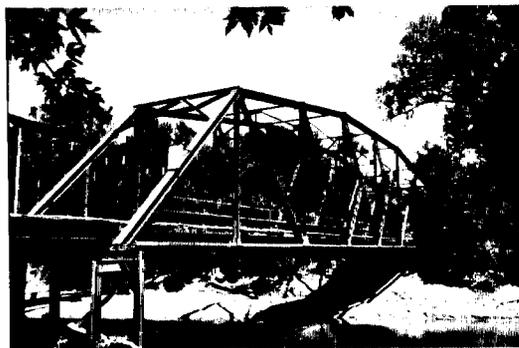
span number: 1
span length: 40.0'
total length: 43.0'
roadway wdt.: 15.0'

superstructure: steel, 3-panel, pin-connected Pratt pony truss
substructure: steel pile bent abutments, with timber back- and wingwalls
floor/decking: timber deck over steel stringers
other features: steel angle guardrails

This short-span truss spans Lost Creek on an unsurfaced county road southeast of King City. The structure is comprised of a single pin-connected Pratt pony truss that rests on steel pile bent abutments with timber backwalls. The Lost Creek Bridge was erected in 1895, probably by the Dildine Bridge Company of Cameron, Missouri, for \$300.00. The structure is today distinguished by its relatively early construction date and its well-preserved condition. It typifies pinned truss construction in Missouri from the late 19th century.

NAME(S) OF STRUCTURE
Grand River Bridge

PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
GENERAL HIGHWAY MAP

SOURCES

Missouri Highway and Transportation Department, Structure and Inventory Appraisal: Structure Number 182001.5; field inspection by Mitzi Rossillon, 16 September 1990.

INVENTORIED BY
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HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Grand River Bridge
MHTD: 182R01.5

GENT08

DATE(S) OF CONSTRUCTION

c1950

LOCATION

County Road 182 over Grand River; S34/33, T63N, R31W
3.2 miles southwest of Albany; Gentry County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 44)

CONDITION

fair

OWNER

Gentry County

span number: 1

span length: 160.0'

total length: 200.0'

roadway wdt.: 16.0'

superstructure: steel, 9-panel, rigid-connected Camelback through truss, with steel stringer approach span

substructure: steel pile bent piers and abutments, with timber back- and wingwalls

floor/decking: timber deck over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to verticals; guardrail: 2 angles

Carrying County Road 182 southwest of Albany, this large-scale truss spans the Grand River in central Gentry County. The structure is comprised of a riveted Camelback through truss, supported by steel pile bent piers and approached on the south by a steel stringer. County records are unclear regarding the bridge's origins, but physical attributes of the truss itself suggest that it was fabricated around 1930. The pile bent substructure may indicate that the bridge has been moved subsequently to this site, perhaps in 1979, when the south approach span was added.

Straight-chorded Pratt through trusses were used extensively throughout Missouri for medium-span crossings in the late 19th and 20th centuries. For longer crossings after the turn of the century, however, bridge companies could develop greater efficiency with polygonal-chorded Pratt variants - primarily Parker, Pennsylvania, and Camelback trusses. With its distinctive five-faceted upper chords, the Camelback configuration was disdained by some engineers (including the redoubtable J.A.L. Waddell, who called it "uncompromisingly ugly") for its tendency under certain conditions to reverse compressive and tensile forces acting on their individual members. As a result, Camelback trusses never received widespread acceptance. Relatively few were ever built on Missouri's roads, and only three rigid-connected examples have been identified as extant by the bridge inventory. The Grand River Bridge is thus distinguished as an intact example of this uncommon structural type. Its lack of documentation and uncertain structural history diminish its interpretive value substantially, however.