United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

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NAT. REGISTER OF HISTORIC PLACES

This form is for use in nominating or requesting determination for individual properties and districts See this fellow in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items

1. Name of Proper	ty				
historic name <u>Gur</u>	nison River Brid	dge II			
other names/site n	umber <u>CDOT N</u>	lo. J-09-D;	5GN3322		
2. Location					
street & number <u>l</u>	JS Highway 50 S	Service Roa	ad at milepost	155.59	[N/A] not for publication
city or town <u>Gunn</u>	[N/A] vicinity				
state <u>Colorado</u>	code <u>CO</u>	county	Gunnison	code <u>051</u>	zip code
3. State/Federal A	gency Certifica	ition			
National Register of H	istoric Places and merty [X] meets [ ] c [ ] nationally [ ] state official/Title	neets the proceedoes not meet tewide [X] loca	edural and profess the National Re illy. ([] See conti	sional requirements s gister criteria. I reco nuation sheet for add ervation Officer	or registering properties in the set forth in 36 CFR Part 60. In ammend that this property be ditional comments.)  WAT J J OOL Date
In my opinion, the prop			ne National Regist	er criteria.	
Signature of certifying	official/Title				Date
State or Federal agen	y and bureau				
4. Natioņal Park S	Service Certifica	ation	Inu /	1	11
I hereby certify that the property in the National Regist [ ] See continu. [ ] determined eligible National Regist [ ] See continu. [ ] determined not eligible National Regist [ ] removed from the National Regist [ ] other, explain [ ] See continu	onal Register ation sheet. for the er ation sheet. gible for the er.	<u> </u>	Angnature of the	e Keeper Sear (	Date of Action

Gunnison River Bridge II Name of Property	Gunnison County, Colorado County/State				
5. Classification					
Ownership of Property Check as many boxes as apply)	Category of Property (Check only one box)	Number of F (Do not count previous Contributing		thin Property	
[ ] private [ ] public-local	[ ] building(s) [ ] district	0	0	buildings	
X] public-State  ] public-Federal	[ ] site [X] structure [ ] object	0	0	sites	
	[ ] 02,000	1	0	structures	
		0	0	objects	
		1	0	Total	
Name of related multiple property listing. (Enter "N/A" if property is not part of a multiple property listing.)		Number of contributing resources previously listed in the National Register.			
Highway Bridges in Colora	do	J			
		_0			
6. Function or Use				···	
Historic Function (Enter categories from instructions)		Current Funct (Enter categories from inst			
Road-related		Road-related			
7. Description					
		Materials (Enter categories from ins	tructions)		
Other: Steel, rigid-connect	foundation				
truss		walls			
		roof			
		other Steel Concret	Ά		
	A	Asphalt			

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Gunnison River Bridge II	Gunnison County, Colorado		
Name of Property	County/State		
8. Statement of Significance			
Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)	Areas of Significance (Enter categories from instructions)		
	<u>Transportation</u>		
[X] A Property is associated with events that have made a significant contribution to the broad patterns of our	Engineering		
history.			
[ ] B Property is associated with the lives of persons			
significant in our past.	Periods of Significance		
[X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack	1927-1952		
individual distinction.	Significant Dates		
[ ] D Property has yielded, or is likely to yield, information important in prehistory or history.	N/A		
Criteria Considerations (Mark ``x" in all the boxes that apply.)	Significant Person(s) (Complete if Criterion B is marked above).		
Property is:	N/A		
[ ] A owned by a religious institution or used for religious purposes.	Cultural Affication		
[ ] B removed from its original location.	Cultural Affiliation N/A		
[ ] C a birthplace or grave.			
[ ] D a cemetery.			
[ ] E a reconstructed building, object, or structure.	Architect/Builder		
[ ] F a commemorative property.	Colorado Department of Highways  American Bridge Company		
G less than 50 years of age or achieved significance	Lambie-Bate Construction Company		
within the past 50 years.			
Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)			
9. Major Bibliographical References			
Bibliography (Cite the books, articles and other sources used in preparing this form on one or more of	continuation sheets.)		
Previous documentation on file (NPS):	Primary location of additional data:		
[ ] preliminary determination of individual listing (36 CFR 67) has been requested	[X] State Historic Preservation Office [X] Other State Agency		
[ ] previously listed in the National Register	[ ] Federal Agency		
[ ] previously determined eligible by the National Register	[ ] Local Government		
[ ] designated a National Historic Landmark	[ ] University		
[ ] recorded by Historic American Buildings Survey	[ ] Other		
#	Name of repository: Colorado Historical Society Colorado Dept. of Transportation		

Gunnison River Bridge II Name of Property	Gunnison County, Colorado County/State	Colorado			
10. Geographical Data					
To. Geographical Data					
Acreage of Property less than one					
UTM References (Place additional UTM references on a continuation sheet.)					
1. 13 330160 4266655  Zone Easting Northing	<ol><li>Zone Easting Northing</li></ol>				
2.	4.				
Zone Easting Northing	Zone Easting Northing				
	[] See continuation sheet				
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)					
Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)					
11. Form Prepared By					
name/title Office of Archaeology and Historic Pre	eservation and Clay Fraser, principal				
organization Colorado Historical Society and Fra-	ser Design date May 21, 2002				
street & number_1300 Broadway	telephone 303-866-4681				
city or town Denver	state_CO zip code_80203				
Additional Documentation					
Submit the following items with the completed for	rm:				
Continuation Sheets					
Maps					
A <b>USGS map</b> (7.5 or 15 minute series) indicating the pro A <b>Sketch map</b> for historic districts and properties having					
Photographs Representative black and white photographs of the pro-	operty.				
Additional Items (Check with the SHPO or FPO for any additional items)					
Property Owner					
(Complete this item at the request of SHPO or FPO.)					
name Colorado Department of Transportation					
street & number 4201 E. Arkansas Avenue	telephone				
city or town Denver	state CO zip code 80222				

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.

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# National Register of Historic Places Continuation Sheet

Section number 7 Page 1

Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

#### **DESCRIPTION**

Location: US Highway 50 Service Road at milepost 155.59, west side of Gunnison

Setting: Over Gunnison River

Structure length: 129 feet Structure width: 21 feet Roadway width: 20 feet

Main span number: 1

Main span length: 125 feet

Superstructure: Steel, rigid-connected Pratt through truss

Substructure: Concrete abutments and wingwalls Floor/decking: Concrete deck with asphalt overlay

Other features: Upper chord – 2 channels with cover plate and lacing

Lower chord – 4 angles with batten plates

Vertical – 2 channels with lacing Diagonal – 4 angles with batten plates Floor beams and stringers – steel I beam

Steel lattice guardrails

Colorado Highway Department endpost plates

Erected: 1927

Designer: Colorado Department of Highways

Fabricator: American Bridge Company

Contractor: Lambie-Bate Construction Company

Alterations: None

NPS Form 10-900a (Rev. 8/86) OMB No. 1024-0018

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## National Register of Historic Places Continuation Sheet

Section number 8 Page 2

Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

#### **SIGNIFICANCE**

The 1927 Gunnison River Bridge II on US Highway 50 Service Road, west side of Gunnison, meets the registration requirements under Criterion A in the area of Transportation and under Criterion C in the area of Engineering as set forth in the *Highway Bridges in Colorado*, Multiple Property Documentation Form. The period of significance begins in 1927 with the completion of the bridge and extends through its historic use to 1952, a date fifty-years-of-age in keeping with National Register criteria.

One of the first roads established by the Highway Commission in 1910 ran from Gunnison to Montrose and westward to the Utah state line. Designated State Primary Road No. 20, its 140 mile length was then exceeded by only one other state road. With the designation of a state highway system in 1922, Primary Road 20 was incorporated into State Highway 6, which extended across the state from Holly to Grand Junction. In 1925, it became part of US Highway 50, and the Colorado Highway Department (CHD) finished several miles of road construction between Gunnison and Sapinero under Federal Aid Project 258-A.

Early in 1926, CHD engineers produced drawings for additional road construction on the highway at the western edge of Gunnison. Funded as Federal Aid Project 258-B, the new project included gravel surfacing of 2 3/4 miles of road and the construction of two steel bridges over the Gunnison River. In February, CHD solicited competitive bids and in March awarded the contract to the Lambie-Bate Construction Company of Denver, the low bidder at \$65,374. Later that spring, the contractors began excavating for the substructure of the two bridges. They drove the timber piles, built the reinforced concrete abutments and erected trusses that had been fabricated by the American Bridge Company. By August, the project was listed as 60 percent complete. For some reason Lambie-Bate was delayed in finishing the work, and CHD did not list the project as complete until July 1927. Since their completion, Gunnison River Bridges I & II have carried traffic on US Highway 50 in essentially unaltered condition. The bridges are important as integral and well preserved parts of one of the state's most important early highways.

### **Engineering**

Gunnison River Bridge II is technologically significant as one of the last remaining examples of what was once a mainstay structural type. The earliest Pratts featured pinned connections in what was known as the "American style" of truss assembly. Concurrent with the development of more portable riveting equipment, the switch from pinned connections to the inherently stronger riveted connections for vehicular trusses occurred after 1910 in Colorado. CHD relied heavily on rigid-connected Pratt trusses in both through and pony form for its medium and long span bridges. CHD erected dozens of Pratts throughout the state in the 1921s and 1930s. Subsequent attrition has devastated their numbers, however, until today only the two

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Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

Gunnison River Bridges, the Timpas Bridge in Otero County, and the Hardwick Bridge in Garfield County remain from the CHD roster of Pratt through trusses.

Thomas and Caleb Pratt patented their truss design in 1844, and it ultimately become the most popular truss configuration in 19th century America. Its design was characterized by upper chords and vertical members acting in compression and lower chords and diagonals that acted in tension. The Pratt's parallel chords and equal panel lengths resulted in standardized sizes for the verticals, diagonals, and chord members, making fabrication and assembly relatively easy. In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. "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." Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Colorado's counties in the late 19th and early 20th centuries.

At the time Gunnison River Bridges I & II were designed CHD had just updated its standards for long span steel bridges to conform with requirements established by the US Bureau of Public Roads. For the twin spans at Gunnison, CHD employed its new standard 125 foot through truss. The structures featured eight panel rigid connected Pratt configurations with 20 foot wide roadways, supported by concrete abutments with angled wingwalls. The inclined endposts and upper chords of each truss consisted of two back-to-back channels, covered by a continuous plate on top and joined by strap lacing beneath. The verticals were similarly configured, with two back-to-back channels laced together by metal straps. The lower chords consisted of back-to-back channels with batten plates. The diagonals were made up of two angles with batten plates. Field bolted to the verticals were I-beam floor beams, which carried smaller I-beam stringers, which in turn carried the concrete deck. The portal and interior struts were A-frames made up of paired single members. Each truss was supported on all four comers by built-up steel bearing shoes, with fixed bearings on one end and rocking bearings on the other.

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## National Register of Historic Places Continuation Sheet

Section number 9 Page 4

Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

#### **BIBLIOGRAPHY**

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- Third Biennial Report of the State Highway Commission. Denver: Smith-Brooks Printing Company, 1915.
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## National Register of Historic Places Continuation Sheet

Section number 10 Page 5

Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

#### **GEOGRAPHICAL DATA**

#### **VERBAL BOUNDARY DESCRIPTION**

The bridge is located on US Highway 50 Service Road at milepost 155.59. The boundaries of this nomination consist of a rectangle of land 10 feet out in each direction from the footprint of the bridge.

#### **BOUNDARY JUSTIFICATION**

The nomination includes all the land directly and historically associated with the bridge.

#### PHOTOGRAPH LOG

The following information pertains to photograph numbers 1-2:

Name of Property: Gunnison River Bridge II

Location: Gunnison County, Colorado

Photographer: Clayton Fraser

Date of Photographs: September 1998

Negatives: Colorado Department of Transportation

## Photo No. Photographic Information

- 1 View to southwest of roadway
- 2 View to northeast through bridge

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Gunnison River Bridge II Gunnison County, Colorado Highway Bridges in Colorado, MPS

#### **USGS TOPOGRAPHIC MAP**

Gunnison Quadrangle, Colorado 7.5 Minute Series

