United States Department of the Interior - 9 1990 National Park Service NATIONAL REGISTER OF HISTORIC PLACES OF REGISTER NAT **REGISTRATION FORM** 1. NAME OF PROPERTY HISTORIC NAME: State Highway 71 Bridge at the Colorado River OTHER NAMES/SITE NUMBER: State Highway 71 Bridge at the Colorado River (business loop); FY0265-14-038 2. LOCATION STREET & NUMBER: SH 71, 0.8 miles east of junction with FM 609 NOT FOR PUBLICATION: N/A CITY OR TOWN: La Grange VICINITY: **STATE:** Texas CODE: TX **COUNTY:** Fayette **ZIP CODE: 78945 CODE: 149 3. STATE/FEDERAL AGENCY CERTIFICATION** As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this x nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property <u>x</u> meets _____does not meet the National Register criteria. I recommend that this property be considered significant ______nationally <u>x</u> statewide _locally. (_See continuation sheet for additional comments.) 9-6-96 Signature of certifying official Date State Historic Preservation Officer, Texas Historical Commission State o. Federal agency and bureau In my opinion, the property <u>x</u> meets <u>does not meet the National Register criteria</u>. (_See continuation sheet for additional comments.) Signature of commenting or other official Date State or Federal agency and bureau 4. NATIONAL PARK SERVICE CERTIFICATION I hereby certify that this property is: ature of the Keepe Date of Action 0 entered in the National Register ___ See continuation sheet. determined eligible for the National Register See continuation sheet. determined not eligible for the National Register removed from the National Register

____ other (explain):

NPS Form 10-900

(Oct. 1990)

OMB No. 10024-0018

RECEIVED 2280

120

5. CLASSIFICATION

OWNERSHIP OF PROPERTY: public-State

CATEGORY OF PROPERTY: structure

NUMBER OF RESOURCES WITHIN PROPERTY:	CONTRIBUTING	NONCONTRIBUTING
	0	0 BUILDINGS
	0	0 SITES
	1	0 STRUCTURES
	0	0 objects
	1	0 Total

NUMBER OF CONTRIBUTING RESOURCES PREVIOUSLY LISTED IN THE NATIONAL REGISTER: 0

NAME OF RELATED MULTIPLE PROPERTY LISTING: Historic Bridges of Texas, 1866-1945

6. FUNCTION OR USE

HISTORIC FUNCTIONS: TRANSPORTATION/road-related (vehicular)

CURRENT FUNCTIONS: TRANSPORTATION/road-related (vehicular)

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: Other: Parker through truss bridge

MATERIALS: FOUNDATION substructure: concrete piers, bents and abutments WALLS N/A ROOF N/A OTHER superstructure: steel truss

NARRATIVE DESCRIPTION (see continuation sheets 7-1 through 7-4)

National Register of Historic Places Continuation Sheet

Section number <u>7</u> Page <u>1</u>

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Description:

The State Highway 71 Bridge at the Colorado River consists of five Parker through truss spans and eight steel I-beam approach spans (see Photograph 2). The bridge serves traffic on the business loop of State Highway (SH) 71 in La Grange, the Fayette County seat (see Figure 1). Fayette County is in Central Texas on the border of the Post Oak Savannah and the Blackland Prairie regions of Texas. The area's economy is based primarily on agriculture and oil production.

Texas Highway Department (THD) engineers developed a special design for the bridge's 200-foot riveted Parker through truss spans. These spans rests on reinforced concrete piers consisting of battered cylindrical columns in a dumbbell configuration. The bridge's eight steel I-beam approach spans are supported on aesthetically pleasing arched concrete bents (see Figure 2). Along its north side, the bridge features a 3½-foot wide pedestrian walkway with decorative steel railing. A single row of 6-inch steel H-beams is used for truss railing. At each end of the bridge, a bronze plaque affixed to a concrete monument identifies the bridge contractor, as well as the governmental agencies responsible for the project (see Photograph 1). The plaque reads:

COLORADO RIVER BRIDGE BUILT IN 1941 BY THE TEXAS HIGHWAY DEPARTMENT __ * __ FEDERAL WORKS AGENCY PUBLIC ROADS ADMINISTRATION __ * __ STATE HIGHWAY COMMISSION BRADY GENTRY CHAIRMAN HARRY HINES MEMBER ROBERT LEE BOBBITT MEMBER D.C. GREER HIGHWAY ENGINEER

AUSTIN BRIDGE CO. CONTRACTORS

In 1940 and 1941, the Austin Bridge Company built the Colorado River bridge under contract to THD. No major alterations have been performed on the bridge. As such, it retains integrity of design, materials and workmanship, as well as location and association. Although the bridge's surroundings have changed somewhat with the development of La Grange, the bridge retains substantial integrity of setting and feeling. Although no projects are currently planned for the Colorado River bridge, its BRINSAP sufficiency rating as of June 1995 is 62.6, making it eligible for rehabilitation, but not replacement, under the federal Highway Bridge Replacement and Rehabilitation Program (HBRRP).

National Register of Historic Places Continuation Sheet

Section number ____ Page ____

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

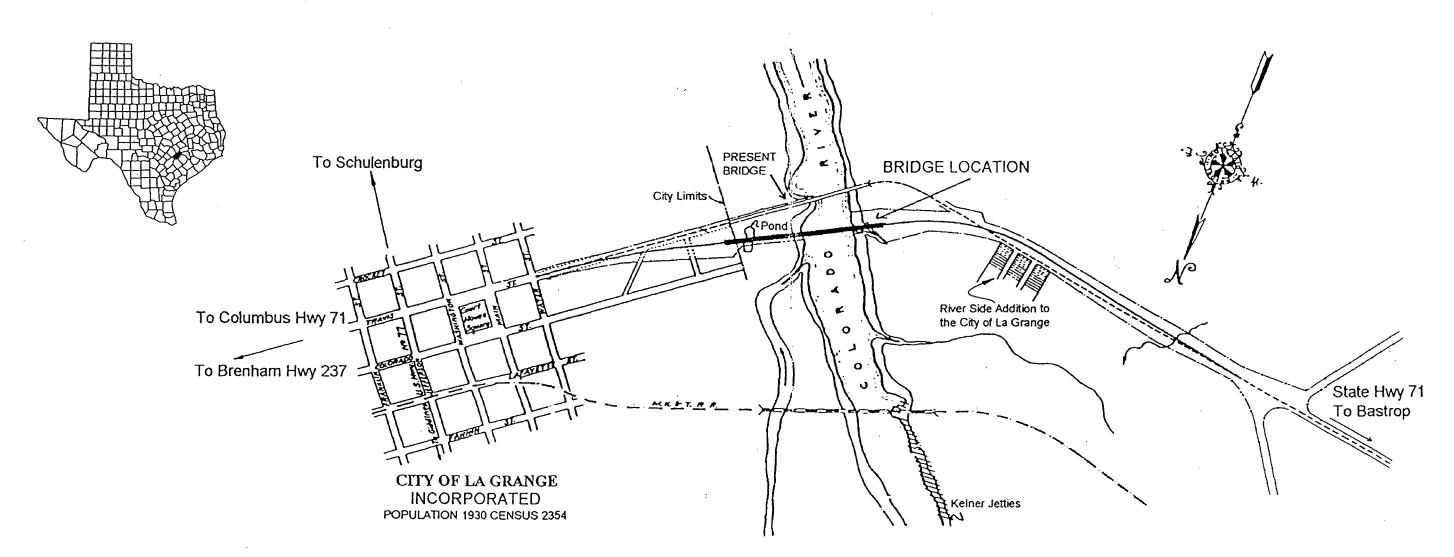
GENERAL SPECS		SUPERSTRUCTURE	
TRUSS TYPE:	Parker through	TRUSS DEPTH:	38'0"
THD STD. DESIGN:	n/a	TRUSS PANELS:	8 - 25'0" panels
NO. TRUSS SPANS:	5	TOP CHORD & END POSTS:	
TRUSS SPAN LENGTH:	200'	BOTTOM CHORD:	2 channels w/ batten plates
ROADWAY WIDTH:	26'	VERTICAL POSTS:	2 channels w/ lacing or I-beam
DECK WIDTH:	28'	DIAGONAL MEMBERS:	2 angles w/ batten plates or I-beam
APPROACH SPANS:	8 - 50'0" steel I-beam spans	DECK TYPE:	concrete
OVERALL LENGTH:	1414'		
		SUBSTRUCTURE	
SPECIAL FEATURES		PIERS/INTERIOR BENTS:	concrete piers and bents
BRIDGE PLAQUE:	yes	THD STD. DESIGN:	n/a
APPROACH RAILING:	steel railing	ABUTMENTS/END BENTS:	concrete abutments
OTHER:	pedestrian walkway with	THD STD. DESIGN:	n/a
	decorative steel railing		

National Register of Historic Places Continuation Sheet

Section number <u>7</u> Page <u>3</u>

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Figure 1. Map of SH 71 west of La Grange with the location of the Colorado River bridge as shown in the 1940 plans.



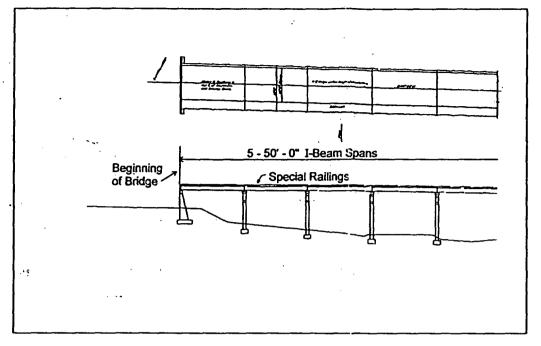
National Register of Historic Places Continuation Sheet

Section number 7 Page 4

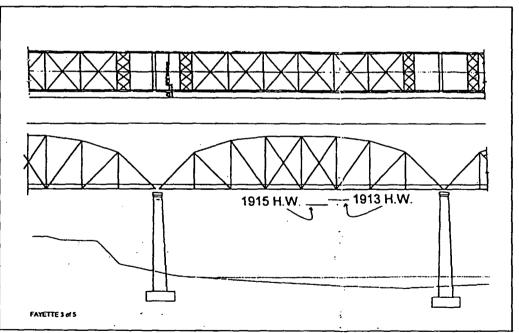
Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

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Figure 2. Elevation of the Colorado River bridge as shown in the 1940 plans.

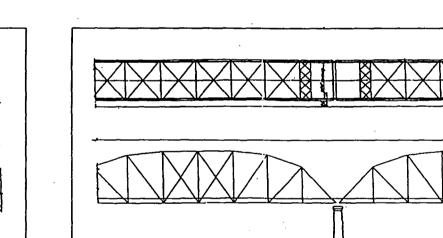


PLAN SHEET 1 OF 5

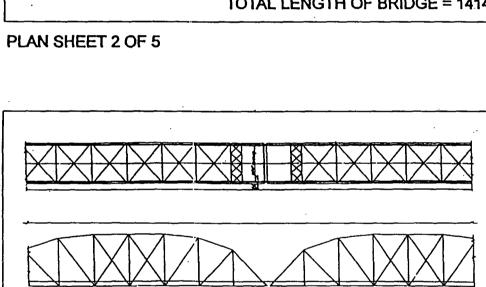


PLAN SHEET 3 OF 5

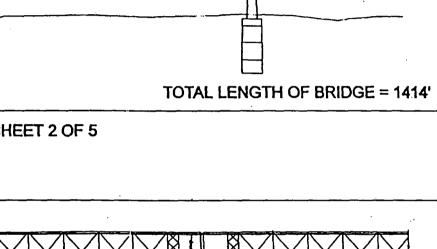


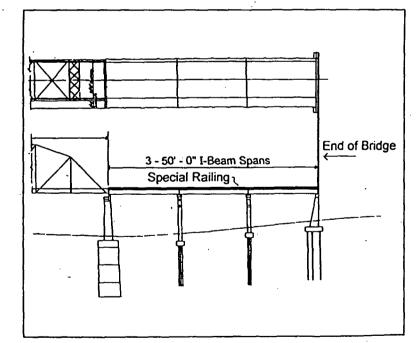


✓ Water Elevation Dec. 16, 1938



5 - 200' - 0" Spans





PLAN SHEET 4 OF 5

PLAN SHEET 5 OF 5

8. STATEMENT OF SIGNIFICANCE

APPLICABLE NATIONAL REGISTER CRITERIA

- A PROPERTY IS ASSOCIATED WITH EVENTS THAT HAVE MADE A SIGNIFICANT CONTRIBUTION TO THE BROAD PATTERNS OF OUR HISTORY.
- **B** PROPERTY IS ASSOCIATED WITH THE LIVES OF PERSONS SIGNIFICANT IN OUR PAST.
- <u>x</u> 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 VALUE, OR REPRESENTS A SIGNIFICANT AND DISTINGUISHABLE ENTITY WHOSE COMPONENTS LACK INDIVIDUAL DISTINCTION.
- **D PROPERTY HAS YIELDED, OR IS LIKELY TO YIELD, INFORMATION IMPORTANT IN PREHISTORY OR HISTORY.**

CRITERIA CONSIDERATIONS: N/A

AREAS OF SIGNIFICANCE: Engineering

PERIOD OF SIGNIFICANCE: 1940-1941

SIGNIFICANT DATES: 1940-1941

SIGNIFICANT PERSON: N/A

CULTURAL AFFILIATION: N/A

ARCHITECT/BUILDER: Bridge Designer: Texas Highway Department Truss Fabricator: Illinois Steel Bridge Company of Jacksonville, Illinois Bridge Builder: Austin Bridge Company of Dallas, Texas

NARRATIVE STATEMENT OF SIGNIFICANCE (see continuation sheets 8-5 through 8-8)

9. MAJOR BIBLIOGRAPHIC REFERENCES

BIBLIOGRAPHY (see continuation sheet 9-9)

PREVIOUS DOCUMENTATION ON FILE (NPS): N/A

- ____ preliminary determination of individual listing (36 CFR 67) has been requested.
- ____ previously listed in the National Register
- ____ previously determined eligible by the National Register
- ____ designated a National Historic Landmark
- ____ recorded by Historic American Buildings Survey #
- ____ recorded by Historic American Engineering Record #

PRIMARY LOCATION OF ADDITIONAL DATA:

- <u>x</u> State historic preservation office (*Texas Historical Commission*)
- <u>x</u> Other state agency (Texas Department of Transportation)
- ____ Federal agency
- ___ Local government
- ____ University
- ___ Other -- Specify Repository:

National Register of Historic Places Continuation Sheet

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Section number <u>8</u> Page <u>5</u>

Statement of Significance:

The State Highway 71 Bridge at the Colorado River was built from 1940 to 1941. This custom-designed Parker through truss bridge with five spans and special decorative features is significant for embodying the defining characteristics of a THD truss bridge. As such, the bridge meets National Register Criterion C in the area of Engineering at a state level of significance.

The Colorado River bridge in Fayette County was built on SH 71, which originated in Austin and extended southeastward towards the Gulf Coast through Bastrop, La Grange, Columbus and El Campo. THD constructed the Colorado River bridge to replace the previous bridge damaged by heavy floods on July 27, 1938. THD inherited the old bridge, built by the county in 1884, when it designated the route a state highway in 1917. The old bridge accommodated a 17-foot roadway and consisted of the following spans:

- 4 75-foot pony truss spans
- 1 19-foot I-beam span
- 1 253-foot double-intersection Pratt through truss span
- 1 72-foot pony truss span
- 2 18-foot I-beam spans
- 2 80-foot truss spans
- 10 48-foot concrete girder spans, continuous over two spans

A caption in the September 1938 *Texas Parade* showing the damaged bridge reported: "Within ten days after the water receded, Texas Highway Department maintenance workmen had this bridge again opened to traffic." In the location report dated February 1, 1940, the assistant resident engineer assigned to the replacement project described the state of the old bridge:

The existing Colorado River Bridge was constructed by Fayette County in 1884, and has received numerous repairs by the Highway Department since that date. On July 27, 1938, during high water, an 80' section of this structure collapsed. This section was temporarily repaired by the maintenance forces, and consisted of 2-40' I-Beam spans on treated timber pile bents.

It was realized that this was only a temporary repair and that the service of this structure was limited. A request was made to the Public Roads Administration for a Federal Aid Project, covering the construction of a new bridge, to cover the construction of a new bridge, using emergency relief funds. This project was approved and has been placed on the [Emergency Relief] Program.

Before recommending a location for the replacement bridge and submitting it on a route sketch to the Bureau of Public Roads (BPR), THD engineers conducted a comprehensive survey of roads in the region. The route sketch map produced as a result included "the entire distance from Bastrop to La Grange . . . including the present and proposed routing of all Highways through and adjacent to the towns of Bastrop, Smithville, and La Grange . . . " Three routes were considered for SH 71 through La

National Register of Historic Places Continuation Sheet

Section number <u>8</u> Page <u>6</u>

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Grange. The citizens of La Grange wanted to keep the previous route that ran east-to-west along Travis Street passing just southeast of the Courthouse Square. THD agreed to retain this route under the following conditions, as outlined in a June 23, 1939 letter from Julian Montgomery, State Highway Engineer, to Texas Senator L.J. Sulak of La Grange:

(1) The Highway Engineer would recommend to the Commission the approval of the route crossing the Colorado River near the present bridge and intersecting Travis Street west of Water Street and proceeding thence along Travis Street to the crossing of the T&NO Railway. The probable future route from this point would be down the south side of the MK&T Railway to a point southeast of the present underpass. The Highway Department would construct the River Bridge and other necessary construction to connect with the present highway on either side of the River.

(2) The City of La Grange would agree to construct pavement not less than forty feet in width at their entire expense extending from the intersection of the relocation with Travis Street and thence along Travis Street to Lester Street.

(3) The City of La Grange would agree to take proper steps to accomplish the removal of the T&NO Railway tracks now crossing State Highway No. 71 at or near Lester Street.

(4) The City of La Grange would agree to pass necessary ordinances and to enforce such ordinances requiring parallel parking along Travis Street throughout its length.

(5) The City of La Grange, the County of Fayette and other interested parties should signify their understanding that if this route is constructed at the present time, it does not mean a commitment by the Highway Department as to the permanency of such route. Present indications point to the possible development of a complete route around the town of La Grange at such date as traffic may require same. This should be understood definitely by all parties concerned.

On September 13, 1939, the La Grange City Council unanimously passed a resolution agreeing to the points outlined above, indicating the importance of keeping the route through the heart of downtown. Planning for the replacement bridge proceeded, with its location set at the end of Travis Street, but slightly shifted to the north of the existing bridge in order to keep it open to traffic during construction.

Although the bridge itself was to be built above the 1913 high water elevation, the highest on record for that site, the approach roadway on the La Grange side of the river was well below this level. As stated in the location report: "It is not considered practical at this time to construct this east approach grade above high water, due to existing improvements and to the fact that the recently constructed dams on the upper Colorado River may prevent recurrence of damaging high water." The report went on to recommend a 26-foot roadway and a pedestrian walkway:

National Register of Historic Places Continuation Sheet

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Section number <u>8</u> Page <u>7</u>

Due to the large volume of present traffic and the possibilities of increased traffic, it is recommended that the roadway width of the structure be 26'... and, due to the possible increase in pedestrian traffic as a result of the suburban improvements, west of the river, and due to the fact that the structure is near the urban area where sightseers might congregate on the structure during overflow periods to watch the water, it is recommended that a sidewalk of sufficient width be constructed on the outside of the bridge proper; that this sidewalk be constructed on the upstream side of the bridge in such a manner that pedestrians will not cross from the sidewalk to the roadway.

BPR engineers inspected the site and pointed out that if a sidewalk was provided on only one side of the bridge, some pedestrians would be forced to cross the road, producing a hazard at each end of the bridge. After much discussion between THD and BPR engineers, they agreed "that provision be made in the design for the installation of a similar sidewalk on the downstream side of the structure when pedestrian traffic warranted." To date this bridge remains with only its original walkway on the upstream (north) side.

Rather than use a standard design, THD bridge engineers specially designed the 200-foot riveted Parker through truss spans for use on the replacement bridge. Nine other Parker truss bridges that THD specially designed survive today. The State Highway 71 Bridge at the Colorado River is one of only two bridges with five truss spans surviving on a Texas state highway. As part of an effort to improve the aesthetics of bridge design, particularly for structures in or near urban areas, several decorative elements were incorporated into the design of the Colorado River bridge. The bridge substructure exhibits arched concrete bents and concrete piers with beveled copings. In addition, decorative steel railing flanks the 3½-foot wide pedestrian walkway. The posts are made up of H-beams placed vertically, then cut, bent and welded to form the curved top end of the post. The top handrail consists of 3-inch piping. Below, two rows of channels between the posts face down. Small square steel pickets hang from the pipe handrail to fill out the railing. These pickets run through holes in the three rows of steel channels and are welded in place. The result is an elaborate and labor-intensive decorative steel railing. This is the most decorative type of steel railing used on THD bridges. The Colorado River bridge is one of only three surviving THD truss bridges exhibiting a pedestrian walkway with this type of decorative steel picket railing.

In the meantime, THD engineers had applied for federal emergency relief funds from BPR to cover the cost of constructing a new bridge. The application covered two additional bridges destroyed by the July 1938 flood, including the Colorado River Bridge in Lampasas County (refer to nomination of US 190 Bridge at the Colorado River, LM0272-05-023, NRHP 1995). On November 28, 1938, BPR approved the use of emergency relief highway funds provided for under Section 3 of the Hayden-Cartwright Act of 1934. In addition to extending federal relief funding established under the National Industrial Recovery Act, the Hayden-Cartwright Act provided emergency funds for the repair or reconstruction of highways and bridges on the federal aid system "which have been damaged or destroyed by floods, hurricanes, earthquakes or landslides. . . ." The approval granted \$367,500 to cover 50 percent of the estimated construction cost for these three bridges. The cost of constructing the new bridge over the Colorado in La Grange was estimated at \$370,000, with \$185,000 to be covered by the federal funds.

The Texas Highway Commission held bidding for the Colorado River bridge in June 1940. After reviewing the six bids received, the commission awarded the contract to the Austin Bridge Company of

National Register of Historic Places Continuation Sheet

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Section number <u>8</u> Page <u>8</u>

Dallas. The company's low bid of just over \$269,000 was substantially lower than THD's estimate. The Illinois Steel Bridge Company of Jacksonville, Illinois, fabricated the steel truss span; the Mosher Steel Company of Houston manufactured the pedestrian railing.

Construction of the bridge began on July 20, 1940, and was supervised by the THD resident engineer in Yoakum. Engineers from BPR (which had recently changed to the Public Roads Administration of the Federal Works Agency) and THD performed periodic inspections. During construction of the bridge, an unusual field change was implemented, as described in the August 12, 1940, inspection report:

At pier No. 3 consideration was given during this inspection to the desirability of lowering the footing grade some 2' or 3' below plan grade in order to place this pier deeper into shale and avoid possibilities of future scour. The construction methods used, however, were such that the proposed lowering would endanger the entire cofferdam due to the fact that the cofferdam had "blown in" and was in danger of additional "blow ins" if the footing was deepened. It was therefore concluded that the best procedure would probably be to place the pier at plan grade and provide rip-rap around same to prevent scour. It is contemplated that a large quantity of rip-rap material can be produced on removing the concrete girder spans of the old bridge and also that rip-rap material may be obtained from the present rip-rapped bar under the old bridge. The use of the available rip-rap material around the piers of the new bridge is recommended.

The bridge was completed on August 15, 1941, at a cost of just over \$279,000. In 1991, THD completed the outer loop of SH 71 that circumvented La Grange to the north. The original roadway was retained as the business loop of SH 71. This configuration lightened the traffic burden on the bridge, allowing for its preservation in place.

10. GEOGRAPHICAL DATA ACREAGE OF PROPERTY: 1.1 acre Zone Easting Northing Zone Easting Northing **UTM REFERENCES** 704280 3309590 1 14 3 2 14 703860 3309410 4 see continuation sheet) VERBAL BOUNDARY DESCRIPTION (see continuation sheet 10-9) **BOUNDARY JUSTIFICATION** (see continuation sheet 10-9) **11. FORM PREPARED BY** NAME/TITLE: text by Regina A. Lauderdale graphics by Pat St.George Texas Historical Commission/ **ORGANIZATION: DATE:** September 1996 Texas Department of Transportation STREET & NUMBER: **Texas Historical Commission TELEPHONE:** 512/463-6094 P.O. Box 12276 CITY OR TOWN: Austin STATE: TX **ZIP CODE:** 78711 ADDITIONAL DOCUMENTATION **CONTINUATION SHEETS** MAPS **PHOTOGRAPHS**

ADDITIONAL ITEMS

PROPERTY OWNER

NAME Texas Department of Transportation

STREET & NUMBER 125 East 11th StreetTELEPHONE 512/416-2606CITY OR TOWN AustinSTATE TXZIP CODE 78701

National Register of Historic Places Continuation Sheet

Section number <u>9, 10</u> Page <u>9</u>

Historic Bridges of Texas State Highway 71 Bridge at the Colorado River Fayette County, Texas

Bibliography:

Texas Highway Department. General Information on Texas Highways. Austin: Von Boeckmann-Jones, 1919.

Texas Highway Department. Plans of Proposed State Highway Improvement. Control-Section-Job No. 0265-08-006, located at TxDOT headquarters in Austin.

Texas Highway Department. Project Correspondence Files. Control-Section-Job No. 0265-08-006, located at TxDOT headquarters in Austin.

"On Texas Highways." Texas Parade, August 1938.

"On Texas Highways." Texas Parade, September 1938.

Verbal Boundary Description:

The nomination boundaries encompass the complete structure, State Highway 71 Bridge at the Colorado River, including the approach spans and pedestrian walkway with decorative steel railing, as well as the ground upon which the structure stands.

Boundary Justification:

The boundary includes all components historically associated with the property.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY State Highway 71 Bridge at the Colorado River NAME:

MULTIPLE Historic Bridges of Texas MPS NAME:

STATE & COUNTY: TEXAS, Fayette

DATE RECEIVED: 9/09/96 DATE OF PENDING LIST: 9/24/96 DATE OF 16TH DAY: 10/10/96 DATE OF 45TH DAY: 10/24/96 DATE OF WEEKLY LIST:

REFERENCE NUMBER: 96001120

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	Ν	LANDSCAPE:	Ν	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	Ν	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	Ν	SAMPLE:	Ν	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

VACCEPT	RETURN	REJECT	10.10.96	DATE
			l	

ABSTRACT/SUMMARY COMMENTS:

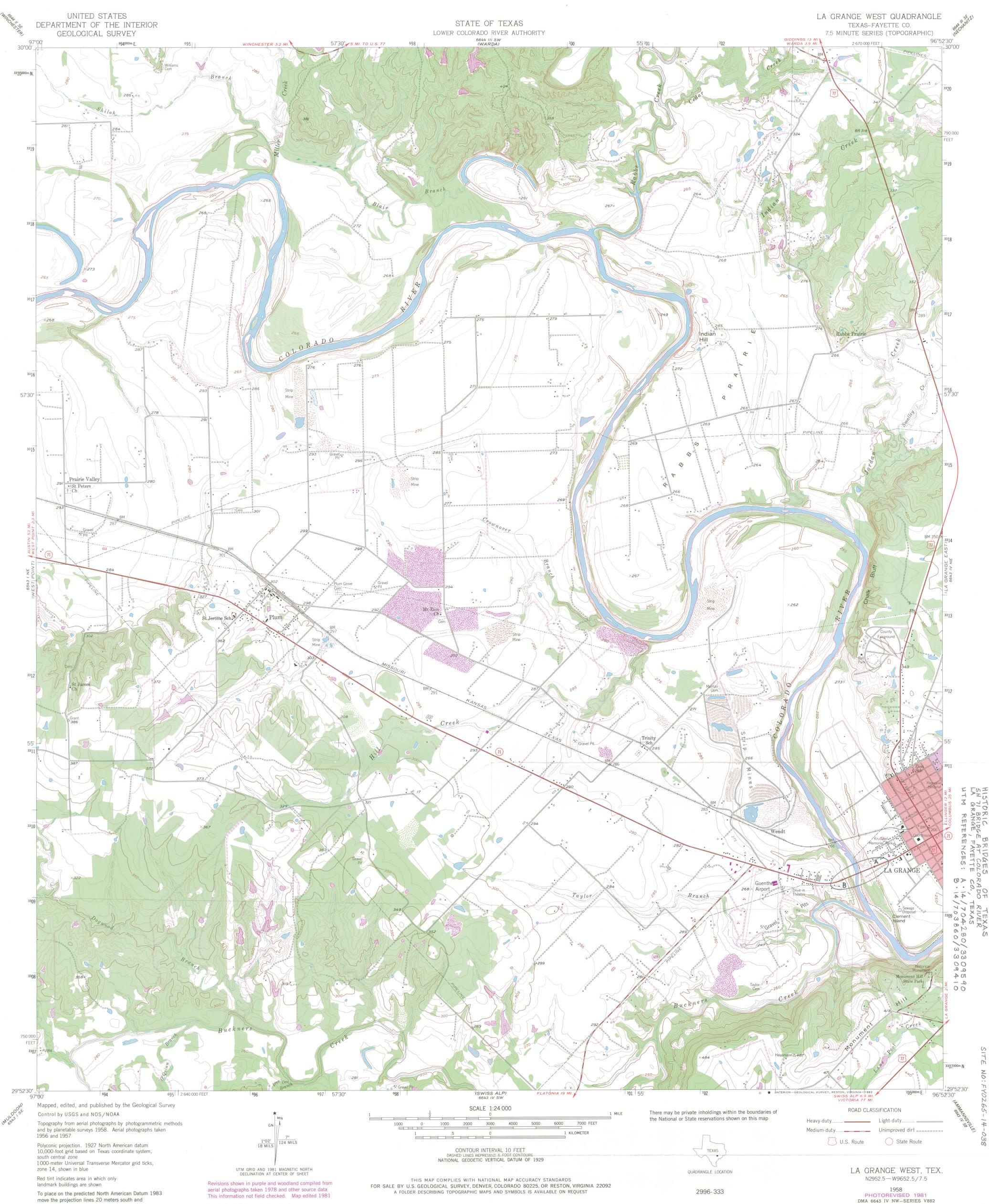
RECOM./CRITERIA	
REVIEWER	DISCIPLINE
TELEPHONE	DATE
DOCUMENTATION see attach	ed comments Y/N see attached SLR Y/N



SITE NO. FY0265-14-038 SH 71 BRIDGE AT COLORADO RIVER HISTORIC BRIDGES OF TEXAS FAYETTE CO., TEXAS PHOTOGRAPH I OF 2



SITE NO. FY0265-14-038 SH 71 BRIDGE AT COLORADO RIVER HISTORIC BRIDGES OF TEXAS FAYETTE CO., TEXAS PHOTOGRAPH 2 OF 2



To place on the predicted North American Datum 1983 move the projection lines 20 meters south and 26 meters east as shown by dashed corner ticks

Purple tint indicates extension of urban areas