



United States Department of the Interior
National Park Service

252

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

1. NAME OF PROPERTY

HISTORIC NAME: Cow Bayou Swing Bridge
OTHER NAME/SITE NUMBER: SH 73/87 Bridge at Cow Bayou

2. LOCATION

STREET & NUMBER: SH 73/87, 1.13 mi. NE of jct. with FM 1442
CITY OR TOWN: Bridge City VICINITY: N/A NOT FOR PUBLICATION: N/A
STATE: Texas CODE: TX COUNTY: Orange CODE: 361 ZIP CODE: 77611

3. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this (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 (meets) (does not meet) the National Register criteria. I recommend that this property be considered significant (nationally) (statewide) (locally). (See continuation sheet for additional comments.)

Mark Wolfe
Signature of certifying official Date 1/12/10
State Historic Preservation Officer, Texas Historical Commission
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (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:

- 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): _____

Edson H. Beall
Signature of the Keeper Date of Action 5-10-10

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 MPS

6. FUNCTION OR USE

HISTORIC FUNCTIONS: TRANSPORTATION/road-related (vehicular)

CURRENT FUNCTIONS: TRANSPORTATION/road-related (vehicular)

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: OTHER/steel I-beam and steel girder swing bridge

MATERIALS: FOUNDATION CONCRETE (piers); WOOD: Log (piles)
WALLS N/A
ROOF N/A
OTHER CONCRETE (deck, railing); METAL: Steel (center girder, I- beam, railing)

NARRATIVE DESCRIPTION (see continuation sheets 7-5 through 7-6).

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Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Narrative Description: Summary

The 1940 Cow Bayou Swing Bridge is an 806' long steel I-beam and steel deck plate girder swing span bridge with a 26'-0" roadway width that carries two lanes of northbound State Highway 87 traffic across Cow Bayou in Bridge City, Texas. The bridge has a central plate that pivots or "swings" on a center-bearing concrete pier founded on timber piles. The bridge is located in Orange County on the southeast Texas Coastal Plain between the Sabine and Neches Rivers. The bridge is approximately 1.13 miles northeast of the SH 87 junction with FM 1442 and is on the eastern side of Bridge City between Port Arthur and Orange, Texas.

For the bridge design, the Texas Highway Department (THD) engineers reviewed plans of the recently-completed Deweyville Bridge that crosses the Sabine River in neighboring Newton County to the north.¹ The Deweyville Bridge, now called the "Texas 12 Sabine River Bridge," predates Cow Bayou by two years and serves as a boundary crossing between Texas and Louisiana. The bridges are unmistakably similar in regards to design, materials and construction methods. The Deweyville and Cow Bayou Bridges are the oldest two extant center-bearing swing bridges in the state.²

The Cow Bayou Swing Bridge is 806 feet in total length and composed of a 154-foot long cantilevered span with a continuous, movable plate girder unit with thirteen 50-foot steel I-beam approach spans (two from the south, eleven from the north) and a concrete deck. The main span is steel with exposed vertical seams and a central concrete pivot point. The foundation of the movable span is a cylindrical pier supported by 61 timber piles. On top, the roadway width is 25.6 feet on a 31.6 foot cast-in-place concrete deck. There is a 4-foot cantilevered metal pedestrian walkway on the south side of the bridge with a simple metal railing that was installed in 1972. The abutments are concrete. A bronze plaque on the northwest corner of the structure reads:

COW BAYOU BRIDGE
BUILT IN 1940 BY THE
TEXAS HIGHWAY DEPARTMENT
STATE HIGHWAY COMMISSION
BRADY GENTRY CHAIRMAN
HARRY HINES MEMBER
ROBERT LEE BOBBITT MEMBER
JULIAN MONTGOMERY
HIGHWAY ENGINEER
JENSEN CONSTRUCTION CO., INC
CONTRACTORS

The contract for the bridge was let on 25 July 1939 and the work was completed in the summer of 1940. The construction was performed by Jensen Construction Co., Inc.³ TxDOT files state that Jensen was a Dyersburg, Tennessee company, yet *The Port Arthur News* mentions them as an Austin company. This discrepancy could follow the tradition of bridge agents popular in the 19th century where Texas-based agents sold the bridge designs of northern fabricators. The design of the bridge is by Texas State Highway Department, Bridge

¹ TxDOT files, Cow Bayou Bridge, Orange County, 20 Beaumont 20180030601017, page 1.

² TxDOT files

³ TxDOT files and *The Port Arthur News*, Sunday, August 6, 1939, p. 2 and April 1, 1941, p. 10.

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Department. Julian Montgomery was the State Highway Engineer and his name is on the bridge plaque, yet Resident Engineer Charles Davidson and the Project Engineer L.V. Norris were in charge of design.⁴ The original drawings exist and the title plate credits only the Texas State Highway Department.

In 1972 a high rise concrete bridge with a 55.1 foot vertical clearance was constructed parallel to and directly to the west as SH 87 became a four lane road. The newer bridge continues to carry south bound traffic across Cow Bayou. At the time of the construction of the second bridge, a metal pedestrian walkway was added to the Cow Bayou Swing Bridge. Originally the bridge tenders booth was located on the south side of the swing bridge. In order to accommodate the new cantilevered metal sidewalk, the entire bridge was rotated 180 degrees so that the tenders booth is now located on the north side and the sidewalk on the south.

With the exception of on-going wear and deterioration of the motorized components of the bridge and the failing of the joints, no other major alterations have been undertaken. The bridge retains its integrity of design, materials, workmanship, location, feeling and association. The 1972 concrete high rise bridge towers over the swing bridge to the west and does somewhat compromise its integrity of setting. The swing bridge continues to serve north bound vehicular traffic on SH 87. A TxDOT proposal to replace the swing bridge resulted in the bridge being determined *eligible* for listing on the National Register of Historic Places in 1999 following a Section 106 review.

Cow Bayou Swing Bridge, General Specs

Main Span type	7156 (from BRINSAP)	Substructure	651 (from BRINSAP)
Bridge Type	Swing Span	Total Structure Length	806 ft.
Number of Spans	1	Max Span Length	154
Main Substructure	651	Major Span Approach	1111
Roadway Width	25.6 ft	Deck Width	31.6 ft

Cow Bayou Swing Bridge, Special Features

Railing Type	Standard Type P	Special Features	Swing Span
Standard Plan	No	Deck	Concrete, cast-in-place
Main Roadway	Deck	Main Member	Moveable, horizontal swing
Main Member Material	Steel I-beam	Current Owner	State Highway Agency (TxDOT)
Designer	Texas State Highway Department, Bridge Dept.	Resident Engineer	Charles Davidson
Project Engineer	L.V. Norris	Contract let	25 July 1939
Work completed	Fall 1940	bridge plaque	yes

Cow Bayou Swing Bridge, Substructure

piers/interior bents	concrete piers and bents	abutments/end bents	concrete abutments
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⁴ TxDOT files

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.
- 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 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

SIGNIFICANT DATES: 1940

SIGNIFICANT PERSON: N/A

CULTURAL AFFILIATION: N/A

ARCHITECT/BUILDER: Texas State Highway Department, Bridge Department; Resident Engineer: Charles Davidson; Project Engineer: L.V. Norris; Contractor: Jensen Construction Co. Inc.

NARRATIVE STATEMENT OF SIGNIFICANCE (see continuation sheets 8-7 through 8-13).

9. MAJOR BIBLIOGRAPHIC REFERENCES

BIBLIOGRAPHY (see continuation sheets 9-14).

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:

- State historic preservation office (*Texas Historical Commission*)
- Other state agency (*Texas Department of Transportation*)
- Federal agency
- Local government
- University
- Other -- Specify Repository:

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Statement of Significance

The 1940 Cow Bayou Swing Bridge is significant as one of two remaining center-bearing highway swing bridges in the State of Texas. The bridge is nominated to the National Register of Historic Places under Criterion C in the area of Engineering at the state level of significance.

State Highway 87 runs north to south through East Texas and is the primary road linking the cities of Orange and Port Arthur. It is the easternmost north-to-south highway in Texas and begins in Center (Shelby County) and travels south along the Sabine River to Orange. From Orange it heads southwest to Port Arthur and High Island and on to Galveston. Its nickname is "Hug-the-Coast Highway."⁵ Historically SH 87 "was a narrow, windy road prone to traffic accidents."⁶

The development of a good road system was long a priority for Orange County ever since its creation out of Jefferson County in 1852. Early roads included one from Madison (now Orange) to Burkesville in Newton County. Another county road slated for improvement as early as 1852 ran from the Sabine westward "by the Cow Bayou Bridge" to the ferry at the Neches River and indicates an early bridge over the bayou. The bridge was later replaced by a ferry, known as Black's Ferry, licensed and operated by Asa Day.⁷ It is unclear if the 1852 bridge remained until it was replaced by the Cow Bayou Swing Bridge or there was a second bridge at the crossing.

A delegation of citizens from Orange County appeared before the State Highway Commission in the spring of 1931 to request improvements to Highway 87. The request totaled \$184,250.00 and included \$40,000 for a bridge over Cow Bayou.⁸ A formal request to improve the road was submitted by D. E. Roach, President of the Orange Chamber of Commerce in November 1936 to the Texas Highway Commission in Austin. Roach was a member of the Highway 87 Association, a group of over 75 of the most influential citizens from Jasper, Orange, Newton, Sabine and Jefferson Counties. The president of the organization was Judge Buranman of Newton County and the secretary, Judge R. Lee Davis of Orange County. Their membership included attorneys, Chamber of Commerce, former judges, and Rotarians and their primary purpose was to lobby for improvements to the highway which they called the "outstanding needs of East Texas and Western Louisiana."⁹ Their efforts in tandem with the 1938 completion of the cantilever through truss Port Arthur-Orange Bridge (NR 1996) ensured continued road improvements along the route. As late as September 1940, just after the completion of the Cow Bayou Swing Bridge, there was an announcement for the construction of a new six mile segment of "new reinforced concrete pavement, 22 feet in width, and will extend from the intersection of the old and new roads at the end of the Neches river bridge approach to the concrete pavement in West Orange. For many years

⁵ National Register of Historic Places, Port Arthur-Orange Bridge, 1996.

⁶ TxDOT files, page 1.

⁷ Williams, p. 53.

⁸ Memo from Mr. Harvey E. Deen to Mr. Gib Gilchrist, April 29, 1931.

⁹ Minutes of the Meeting of the Highway 87 Association, 25 June 1936, State Archives.

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impeded in their relationship as close neighbors by a bad road, Orange and Port Arthur now see a straight new highway which will bring them five miles closer to each other."¹⁰

Prior to discussions of road improvement along SH 87, the road between Orange and Port Arthur was known as the Orangefield Road. In the first decades of the twentieth century, travel between the two cities was only possible by boat, a 40 mile trip. In May of 1926, Dryden's Ferry provided a crossing at the Neches River and cut 27 miles off of the Port Arthur-to-Orange trip that included a visit to Beaumont in order to cross the river. While the ferry greatly shortened the distance between the two cities, "it wasn't so convenient and sometimes on Sunday afternoons you'd wait for hours to cross the river, but Port Arthur and Orange welcomed even such an improvement [the ferry], and that, and steadily they [the two cities] began to see more and more of each other."¹¹ The 1938 Port Arthur-Orange Bridge over the Neches greatly increased traffic between the two cities and only made more obvious the need for improved road conditions between the two cities.

The Cow Bayou Swing Bridge carries northbound SH 87 traffic across Cow Bayou in Bridge City, Texas. The structure is a modest companion to the monumental cantilevered truss Port Arthur-Orange Bridge, now called the Rainbow Bridge, over the Neches River approximately six miles to the southwest. Cow Bayou begins in Jasper County at the junction of Gum Slough and Dognash Gully. Its mouth is on the Sabine River in Bridge City. The bayou supplied fresh water via irrigation canals to Orange County rice farms and transported oil and gas supply barges in the early twentieth century. The bayou historically and presently is recreational in use with fishing camps and boat ramps and wharfs along its banks. There was a well known fishing camp, Bailey's, on the southwest bank of the bridge.

When plans were first discussed for a new bridge over Cow Bayou, State Highway engineers requested the plans of the newly completed State Highway 12 swing bridge over the Sabine in neighboring Newton County. Because Cow Bayou is a navigable waterway, any bridge crossing required a permit from the US War Department. The early design ideas for a swing bridge design were abandoned and the State Highway Department submitted a permit application in September of 1938 "to dredge a cutoff channel across a bend in Cow Bayou, place a dam across the old channel for a highway fill, and construct a bridge over the new channel."¹² A proposal was for a fixed span concrete bridge with 25 ½ -foot vertical clearance was submitted. The concrete bridge permit request was denied by the War Department citing it unsuitable for oil machinery barges. The debate continued and by March 1939 the Highway Department submitted plans for a hand-operated swing span bridge.¹³

There was a thorough study and debate as to whether the Cow Bayou Swing Bridge should be hand or electrically operated. State engineers studied the man power and time delays of both bridge and vehicular traffic of the Deweyville Bridge.¹⁴ The report, authored by H. E. Tobey, one of the project design engineers, stated that

¹⁰ *The Port Arthur News*, Monday, September 16, 1940.

¹¹ *The Port Arthur News*, Wednesday, April 2, 1941.

¹² *The Port Arthur News*, Wednesday, September 21, 1938.

¹³ TxDOT files, page 2.

¹⁴ TxDOT historic bridge file.

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the Cow Bayou traffic includes mostly “tug boats, shell barges, barges loaded with heavy oil field equipment and pile driver barges.”¹⁵ It was expected that water traffic would increase and that a bridge opening would take 26 minutes based on the operation of the Deweyville Bridge. This included the time to open and close the vehicular traffic gates, open the wedges, open the span and pass the barge and close the span and reset the wedges. Toby also mentioned the difficulty for a bridge tender to open and close the span and ensure that the proper warning signs and signal arms were in place and he thus recommended a bridge operator's house (or bridge tender's house) on the bridge for a full-time attendant.¹⁶

Ultimately, the Cow Bayou Swing Bridge was built with an electric motor that operated the swing span, the traffic gates and navigation lights and cut the bridge opening to ten minutes. “Although the exact time and reasons for choosing an electrically operated swing span are unclear . . . by June 6, 1939, Julian Montgomery, the State Highway Engineer, informed the War Department that although the original application for work on March 15 showed the bridge as hand-operated, we have since decided to use electrical power for operation. This will require the installation of submarine cables across the channel.”¹⁷ The hand operation system was installed as a back up to possible power failure.¹⁸

The Cow Bayou Swing Bridge was permitted in April 1939. The construction company was Jensen Construction, Co., Inc. TxDOT file notes state that the Jensen Company was from Dyersburg, TN. A 1941 *Port Arthur News* article of the bridge construction stated that the construction company was Jensen Construction Co., Inc. of Austin. The 1941 Austin City Directory lists Jensen Construction Co., Inc. with Arthur Simonson as president and Margaret T. Simonson, his wife, as secretary. The company's Austin address was in the rear of the Simonson house at 2525 Harris Blvd. Also at this same address was a listing for Southern Contracting Co. The 1940 City Directory lists Arthur Simonson as a bridge contractor with no listing for Jensen. There are no listings for Jensen prior to 1940 or after 1941. Design Engineers of the Cow Bayou Swing Bridge were Charles L. Davidson and L. V. Norris, of Beaumont with the State Highway Department.

During construction of the Cow Bayou Swing Bridge, three Orange county workers complained to county commissioners that Jensen Construction favored workers from outside the county. An investigation followed and found no impropriety on the part of the Jensen Company and their hiring practices were found to be typical of construction projects of this nature and their need for especially skilled workers.¹⁹

With almost continuous construction on SH 87 for just over ten years, *The Port Arthur News* announced on August 6, 1939 that when finished, the Cow Bayou Bridge will “span the last remaining gap on the highway between Orange and Port Arthur. Work of hard-surfacing the road will probably be begun about the same time as the bridge and motorists should be traveling over the new highway within a year.”²⁰ The bridge was

¹⁵ TxDOT historic bridge file.

¹⁶ TxDOT historic bridge file.

¹⁷ TxDOT historic bridge file.

¹⁸ TxDOT historic bridge files.

¹⁹ TxDOT historic bridge files.

²⁰ The Port Arthur News, August 6, 1939, p. 2.

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completed in November of 1940 and it was officially accepted by the state on January 23, 1941.²¹ The grand opening and ribbon cutting for the new sector of Highway 87 between Orange and Port Arthur including the Cow Bayou Swing Bridge was held on April 2, 1941 and the ribbon was cut by Miriam David, the young daughter of the president of the Orange Chamber of Commerce. The Master of Ceremonies was County Commissioner H. O. Mills of Port Arthur and the principal speaker was Brady Gentry, Chairman of the State Highway Commission. County Judges of Beaumont and Orange, Charles Howell and F. W. Hustmyre respectively, also spoke. The Bengal Guards of Orange and the Red Hussars of Port Arthur, musical marching bands from the two high schools, marched towards the Cow Bayou Bridge from opposite directions and met in the center of the span for the ribbon cutting.²²

A recap of this section of SH 87 improvements appeared in *The Port Arthur News* the day before the ribbon cutting:

The new highway in brief:

Entire project, including grading and drainage structure, Cow bayou bridge and new 6-mile sector cost \$379,999:

- Grading and drainage structures, \$65,000
- Cow bayou bridge, \$200,000
- New road, \$114,000

Grading and drainage structures:

- Work began: Summer of 1938
- Work completed: Spring of 1939
- Contractor: Brown and Root, Inc. of Houston
- Supervisor: Forney W. Fleming, resident state highway engineer, Orange

Cow Bayou Bridge:

- Work began: Fall of 1939
- Contractor: Jensen Construction company of Austin
- Supervisors: Charles L. Davidson and L. V. Norris, of Beaumont, state highway department

Paving of new sector:

- Work began: Middle of November, 1940
- Work completed: Middle of March, 1941
- Contractor: Austin road company
- Supervisor: Forney W. Fleming, resident state highway engineer, Orange

²¹ Bridges over the Navigable Waters of the United States, ref. U. S. Coast Guard, COMDTPUB 16590.1.2.3A & 4; circa 1984 and TxDOT files.

²² *The Port Arthur News*, Tuesday, March 20, 1941, pp. 1 and 11.

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New Highway 87 shorten distance between Orange and Port Arthur by approximately 4 miles. Width: Concrete strip: 22 feet. Shoulders, 7 feet, each side. Right-of-way: varies from 120 to 160 feet. Points connected: New sector begins at end of old concrete pavement in West Orange and extends to the intersection of the old and new roads at the end of the Neches river bridge approach.²³

Bridge City was originally known as Prairie View after its Gulf Prairie location. After the construction of the bridge in 1940, Prairie View County School District consolidated with nearby Winfree School County District, and the name Bridge City was suggested by Mr. O. Eudale Granger, since the community was between two bridges: the Orange-Port Arthur Bridge and the Cow Bayou Bridge.²⁴

The War Department announced new bridge regulations in June of 1941 that applied to the newly opened Cow Bayou Bridge. The new regulations lifted the requirement for a full time bridge tender on site and that a six hour notice was sufficient to open the swing span for the passage of a vessel. The regulations included that the bridge machinery be kept in operable condition and tested every four months to ensure its serviceability.²⁵

Threat of Replacement of the Cow Bayou Bridge

The earliest correspondence regarding the planned replacement of the Cow Bayou Bridge is a February 11, 1999 letter from Steve Sadowsky, Historic Structures Specialist, Environmental Affairs Division of TxDOT to Jamie Wise of the Texas Historical Commission. The letter also serves as a Section 106 Determination of Effect for the bridge in accordance with the Statewide Programmatic Agreement for Cultural Resources as the proposed replacement would be federally funded. Included in the letter is a list of five other Texas bridges with movable spans. The letter incorrectly lists the Cow Bayou Bridge as one of six center-bearing swing bridges in the state. Two of the identified bridges are side arm pivot (FM 2031 and FM 457 in Matagorda County); a third has since been demolished (Garcia Street, Cameron County). This leaves the Cow Bayou Swing Bridge as one of only two remaining center-bearing swing bridges in the state.²⁶

Bridge Name	Water Crossing	Date	County	Status
Texas 12; Deweyville	Sabine River	1936- 1938	Newton (border of TX & LA)	Extant
Garcia St.	Port Isabel Ship Channel	1952	Cameron (Port Isabel)	Demolished
FM 1495	Gulf Intracoastal Waterway	1958	Brazoria (Quintana Beach)	Demolished (was actually a pontoon bridge)
FM 2031	Intracoastal Waterway	1969	Matagorda	Extant; side arm pivot. Held in a permanent open position; new bridge opened in July 2009.
FM 457	Intracoastal Waterway	1969	Matagorda	Extant, side arm pivot

²³ *The Port Arthur News*, Tuesday, April 1, 1941, p. 10.

²⁴ Chiasson, Charlotte Schexnider, p. 8.

²⁵ *The Port Arthur News*, Thursday, June 19, 1941, p 11.

²⁶ TxDOT files, February 11, 1999 letter from Steve Sadowsky to Jamie Wise.

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The February 1999 letter recognizes that the Cow Bayou Swing Bridge is eligible for listing on the National Register of Historic Places and the proposed replacement with a high-rise concrete structure would have an adverse effect on the 1941 swing bridge. The replacement was based on an October 31, 1996 inspection that revealed cracking, spalling, failing armor and expansion joints, surface and pack rust and that the "swing span is currently inoperable, having been wedged at the joints after being turned 180 degrees. As a result, vessels taller than the 13-foot vertical clearance allowed by the swing bridge cannot access the upper reaches of Cow Bayou, a navigable waterway."²⁷

The following month, staff of the Texas Historical Commission conducted a project review regarding the Cow Bayou Bridge. The reviewer, Ms. Jamie Wise, responded to TxDOT that "the Cow Bayou Bridge is one of two rare types of swing bridge remaining in Texas, it appears particularly important that we consider all options for its preservation. The mechanical sophistication of the bridge adds to its significance."²⁸ Ms. Wise sent a similar letter to TxDOT on January 2000.

In 2000, the Texas Historical Commission identified the bridge as eligible for the National Register of Historic Places and that its removal would be an adverse effect under the National Historic Preservation Act of 1966. THC also stated that every effort should be made to preserve the mechanically sophisticated Cow Bayou Bridge, which was identified as one of two rare highway swing bridges fifty years of age or older remaining in Texas.

In December of 2006, TxDOT wrote a letter to Mayor Bobbie Burgess of Bridge City acknowledging plans to replace the Cow Bayou Swing Bridge. In this letter, the design engineer mentioned the bridge was eligible for listing on the National Register of Historic Places. The letter stated that TxDOT was ready to move forward with bridge replacement plans with a high-rise concrete bridge similar to the existing southbound bridge. In the letter, the design engineer asked if there was any interest in Bridge City for the preservation and use or removal of the existing bridge.²⁹

On March 1, 2007, a small group of Bridge City citizens met to become a collective public voice for the Cow Bayou swing Bridge and to initiate the process for nominating it to the National Register of Historic Places.

In February of 2007, the Historic Bridge Foundation, a national advocate for the preservation of historic bridges, wrote a letter to the Bridge City Citizens for Historic Preservation in support of the bridge's preservation. Historic Bridge Foundation requested consulting party status as part of the Section 106 process. In August of 2007, Bridge City Citizens for Historic Preservation were granted Consulting Party status for all proposed projects involving the Cow Bayou Swing Bridge.

²⁷ February 11, 1999 letter from TxDOT to THC.

²⁸ Bridge City Citizens for Historic Preservation, information flyer, n.d.

²⁹ Letter to Mayor Bobbie Burgess of Bridge City from Texas Department of Transportation, 27 December 2006.

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With local support for the preservation of the Cow Bayou Swing Bridge, TxDOT revised their plans for replacement and in May of 2008 let a contract for adjustments and repairs to the bridge. Specifically, repairs were needed to address the shift and sticking of the south end of the bridge joint. Over the years, the metal had either expanded slightly or the ground had shifted. This meant in warm weather, due to expansion, the south end of the bridge joint would rub and bind. The electric motor was designed to power the opening and closing of the movable span and did not have the horse power to tug or force the span to move. The first phase of the rehabilitation was to reestablish a 2 inch opening on each end of the swing span to keep the span moveable. Prior to this alteration, the bridge could only be opened in the early morning in summer when it was cool.

Storm surge from Hurricane Ike in September of 2008 completely flooded Bridge City and only a handful of houses were spared. The surge also covered the Cow Bayou Swing Bridge and fortunately water did not reach the bottom of the turntable or the electric motors. The rehabilitation work started prior to the hurricane continues on the bridge.

Conclusion

The Cow Bayou Swing Bridge is one of only two remaining center-bearing swing bridges in Texas. Its design was modeled after the Deweyville Bridge (Highway 12) that crosses the Sabine River at the border between Texas and Louisiana in neighboring Newton County. Completed in 1940, the bridge was also the last major construction project along State Highway 87, the "Hug-the-Coast-Highway," Texas' easternmost north-to-south highway and concluded ten years of effort by local citizens to improve the road. The bridge is eligible for listing on the National Register of Historic Places under Criterion C in the area of engineering with significance at the state level. The bridge retains its integrity of design, materials, location, feeling and association. Its setting has been compromised slightly by the 1972 high-rise concrete bridge that now carries south bound SH 87 traffic. As evidenced by the Section 106 process that effectively saved the bridge from replacement, listing the Cow Bayou Swing Bridge on the National Register of Historic Places will further its preservation.

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Historic American Engineering Record (HAER), West Lancaster Street Bridge (Trinity River Bridge), HAER TX-48.

National Register of Historic Places nomination, Port Arthur-Orange Bridge, 1996.

Port Arthur News, The., various dates: September 21, 1938; December 15, 1918; August 6, 1939; August 30, 1940; September 16, 1940; March 20, 1941; April 1 and 2, 1941; June 19, 1941.

State Highway Department of Texas, Twelfth Biennial Report: September 1, 1938 to August 31, 1940.

Texas Department of Transportation (TxDOT) files. 20 Beaumont 181 Orange 201810030601017. Located at TxDOT headquarters in Austin, Texas.

----- Original bridge drawings, Beaumont, Texas.

----- Project Correspondence between Bridge City and Texas Historical Commission, various dates 1999-2008.

----- Photo archives, Austin, Texas.

Texas Historical Commission Historic Sites Atlas, <http://atlas.thc.state.tx.us/>. Nominations reviewed: Port Arthur-Orange Bridge; Trinity River Bridge. (accessed August 2008).

USGS Topographic map, Orangefield, 1982

Williams, Howard. C., Dr., ed. Gateway to Texas: The History of Orange and Orange County. Orange: The Heritage Museum of Orange, 1986.

10. GEOGRAPHICAL DATA

ACREAGE OF PROPERTY: less than one acre

UTM REFERENCES	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>
1.	15	420770.5	3324005 (south end)
2.	15	420950.5	3324192.5 (north end)

VERBAL BOUNDARY DESCRIPTION: The SH 73/87 swing bridge over Cow Bayou, located 1.13 mi. northeast of the junction with FM 1442 in Bridge City, Orange County, Texas. The nomination encompasses the structure, from the extreme edges on the south side of Cow Bayou to the extreme edges on the north side of Cow Bayou; to include the mechanical equipment to operate the bridge; the superstructure, including the center steel girder, the steel I-beam approach spans, the railing, and the concrete deck facilitating the road way from east to west; and the concrete substructure, including abutments and piers, constructed in 1940.

BOUNDARY JUSTIFICATION: The boundary includes all components historically associated with the bridge.

11. FORM PREPARED BY

NAME/TITLE: Anna Mod, Historic Preservation Specialist

ORGANIZATION: SWCA Environmental Consultants

DATE: 16 July 2009

STREET & NUMBER: 7255 Langtry, Suite 100

TELEPHONE: 713-934-9900

CITY OR TOWN: Houston

STATE: Texas

ZIP CODE: 77040

ADDITIONAL DOCUMENTATION

CONTINUATION SHEETS

MAPS (see continuation sheet Map-15 through Map-19)

PHOTOGRAPHS (see continuation sheet Photo-20 through Photo-28)

ADDITIONAL ITEMS (see continuation sheets Photo log-29; Figure-30 through Figure-39)

PROPERTY OWNER

NAME: State of Texas, Texas Department of Transportation (Amadeo Saenz, Executive Director)

STREET & NUMBER: 125 E. 11th Street

TELEPHONE: 512-416-2628

CITY OR TOWN: Austin

STATE: Texas

ZIP CODE: 78701-2483

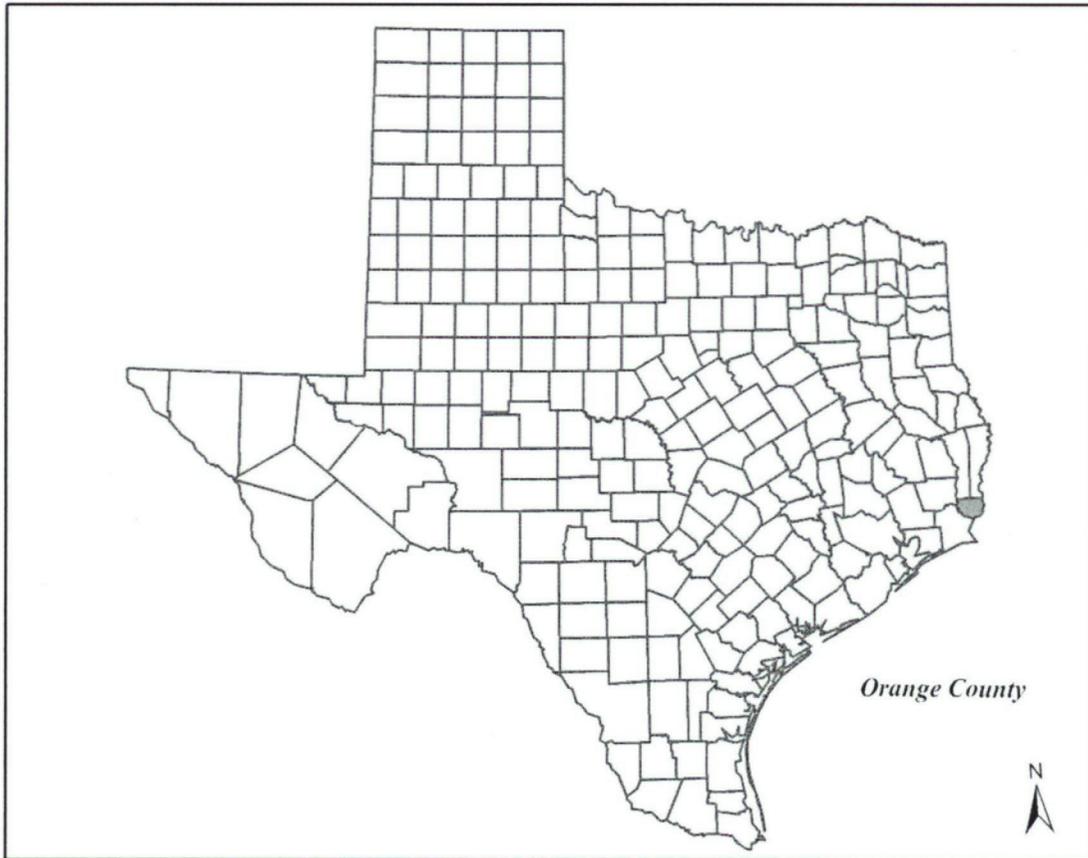
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section Map Page 15

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Orange County, Texas



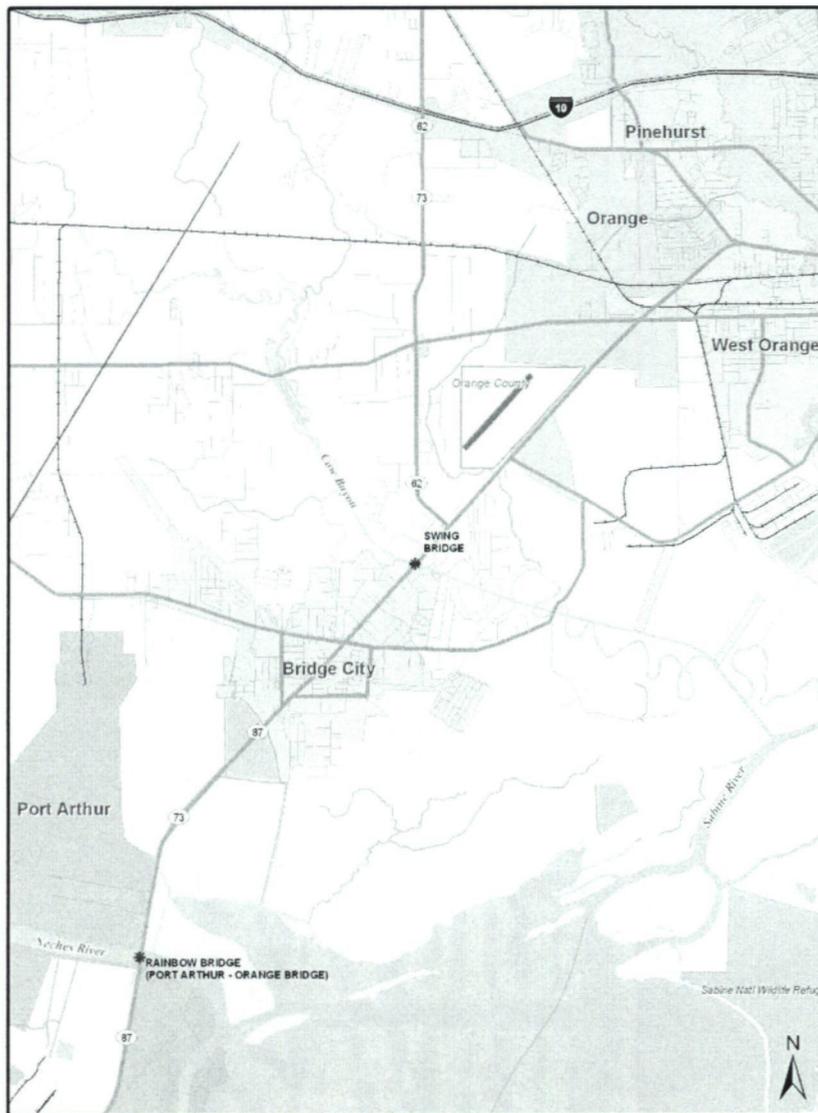
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section Map Page 16

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Port Arthur – Orange Map



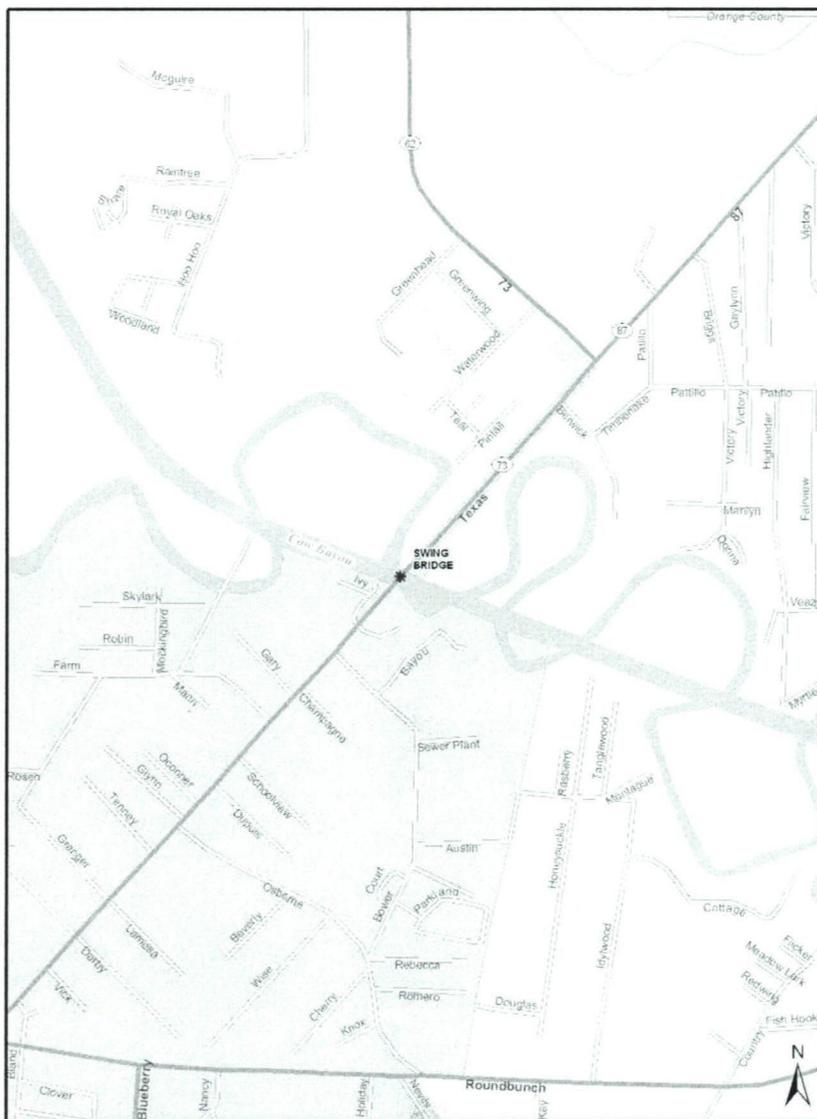
United States Department of the Interior
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National Register of Historic Places Continuation Sheet

Section Map Page 17

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Bridge City, Texas



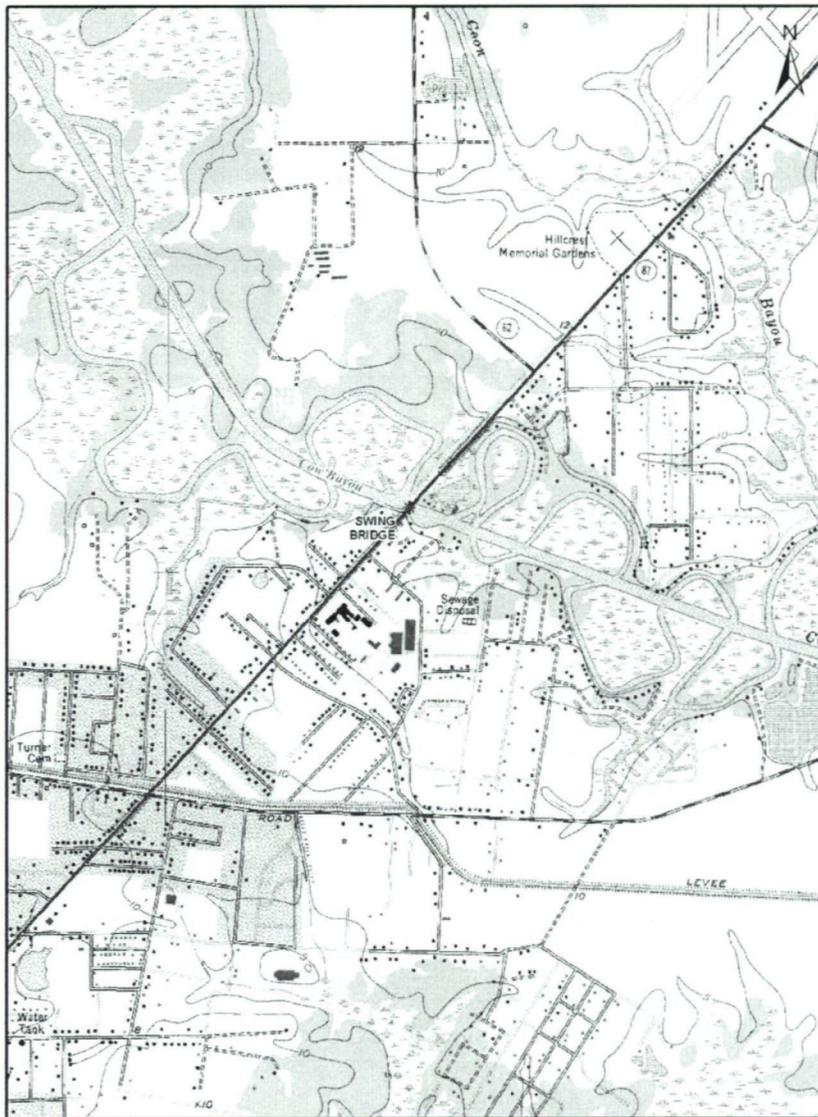
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National Park Service

National Register of Historic Places
Continuation Sheet

Section Map Page 18

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

USGS Topographic Map, Orangefield Quad, 1982



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National Park Service

National Register of Historic Places Continuation Sheet

Section Map Page 19

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Aerial photo of site location



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 20

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge, opening day celebration

Date: April 2, 1941

View north

Photo courtesy: Bridge City Citizens for Historic Preservation, Bridge City, Texas



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 21

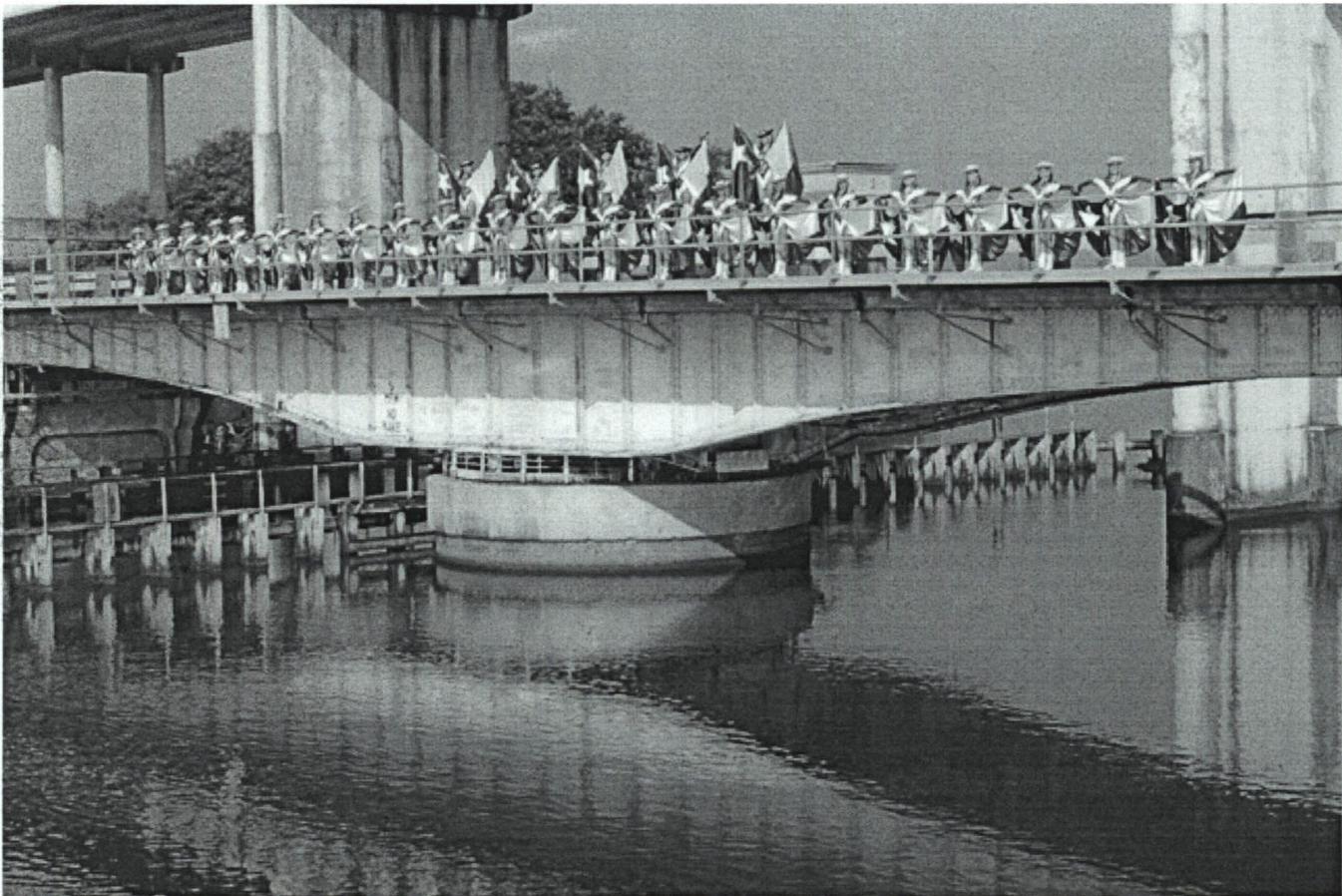
Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

East elevation of bridge with Bridge City High School Strutters Drill Team, view west

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 22

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

East elevation of Cow Bayou Swing Bridge, view west-northwest

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 23

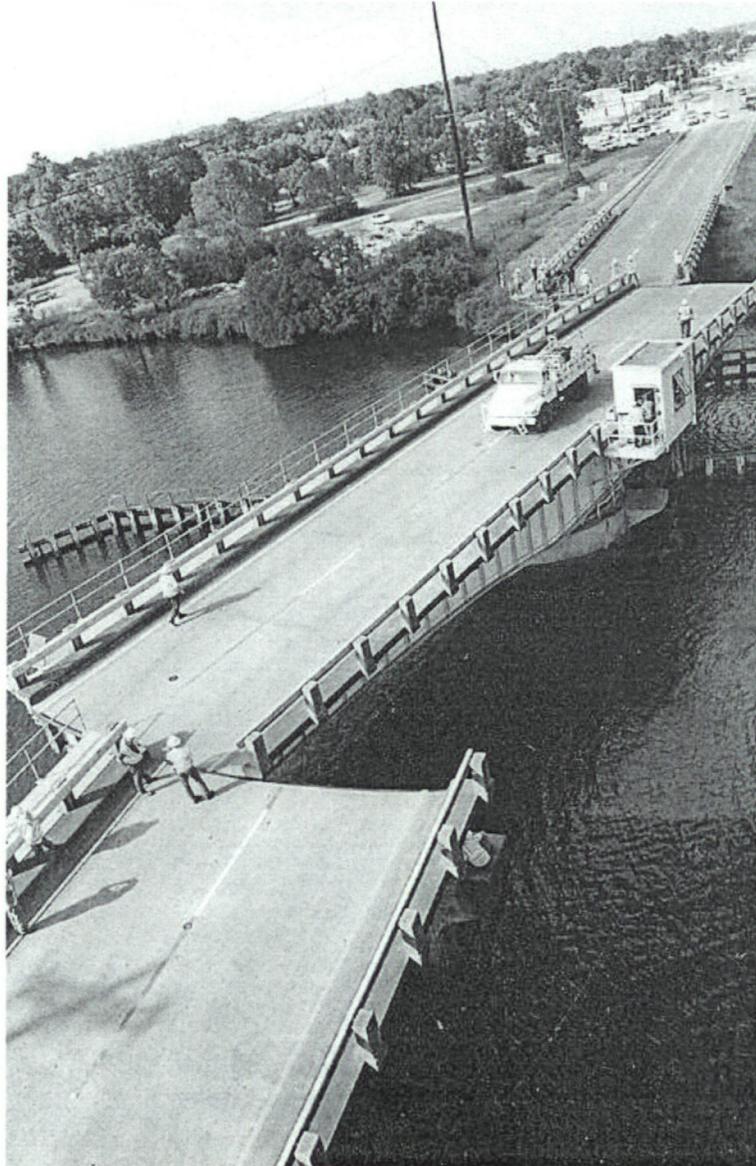
Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View north with central "swing" span

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 24

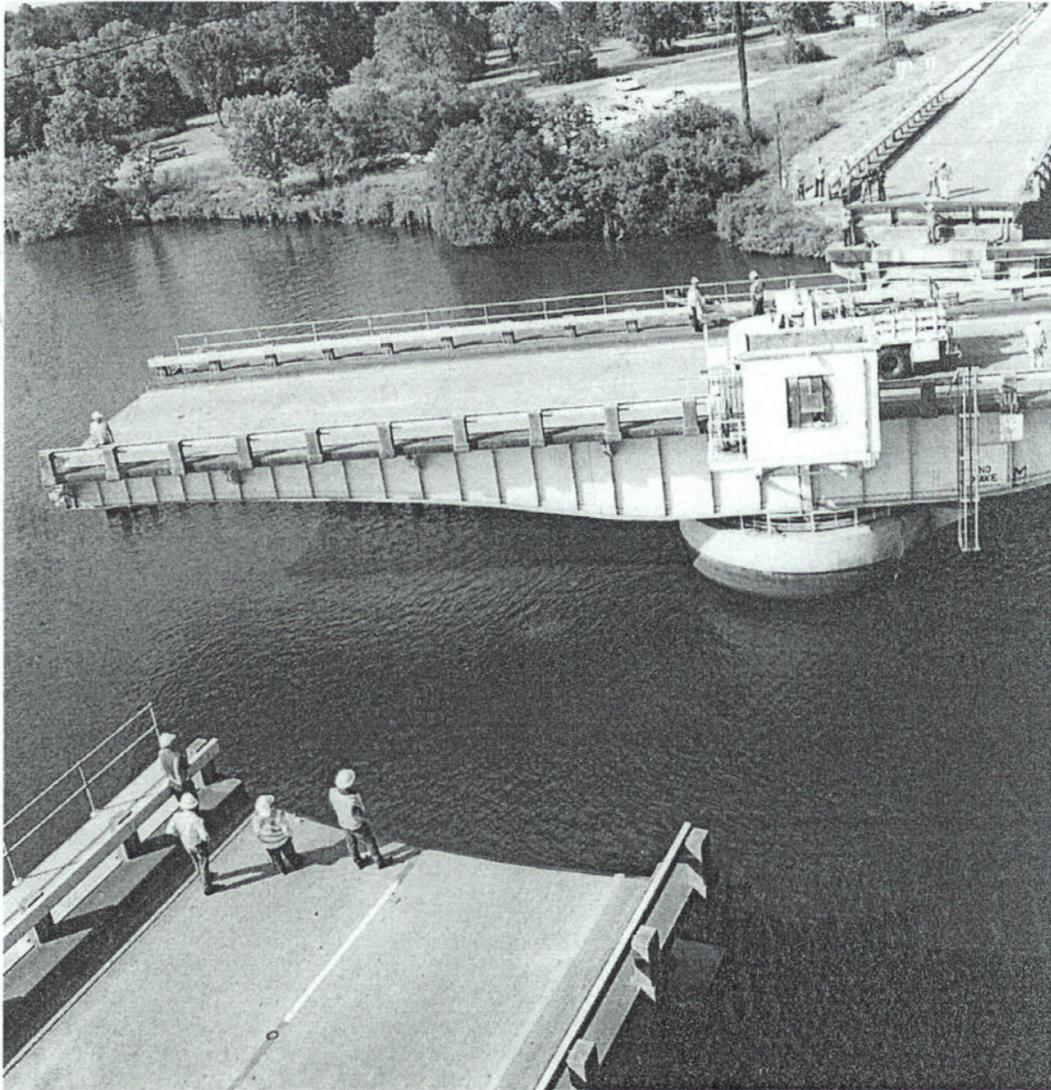
Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View north with central "swing" span

Photo: Mark Dunn



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 25

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View north with central "swing" span open

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 26

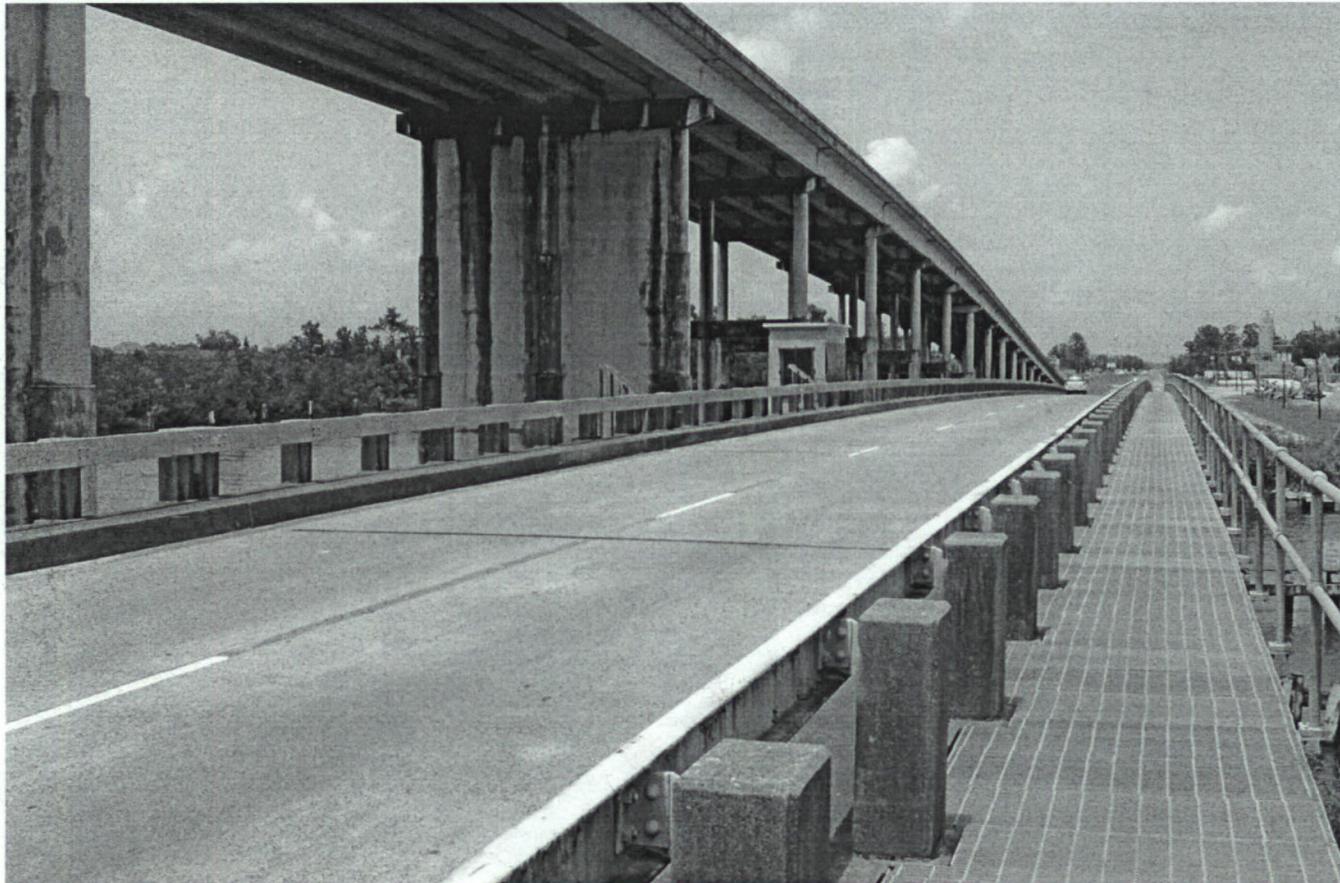
Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View north

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 27

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View south, Bridge Tender's house

Photo: Mark Dunn



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National Park Service

National Register of Historic Places Continuation Sheet

Section Photo Page 28

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Cow Bayou Swing Bridge

Date: 2008

View south, metal cantilevered walkway

Photo: Mark Dunn



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National Park Service

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Continuation Sheet

Section Photo log Page 29

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Photo Log

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas
Photographer: Mark Dunn
7-16-2008
Negatives on file with: Texas Historical Commission

Photo 1 of 3

Description: oblique of swing span, with 1972 high bridge for southbound lanes in background
Facing West

Photo 2 of 3

Description: swing span of bridge with bridge tender's booth
View: Northeast

Photo 3 of 3

Description: deck of bridge and pedestrian walkway
View: North

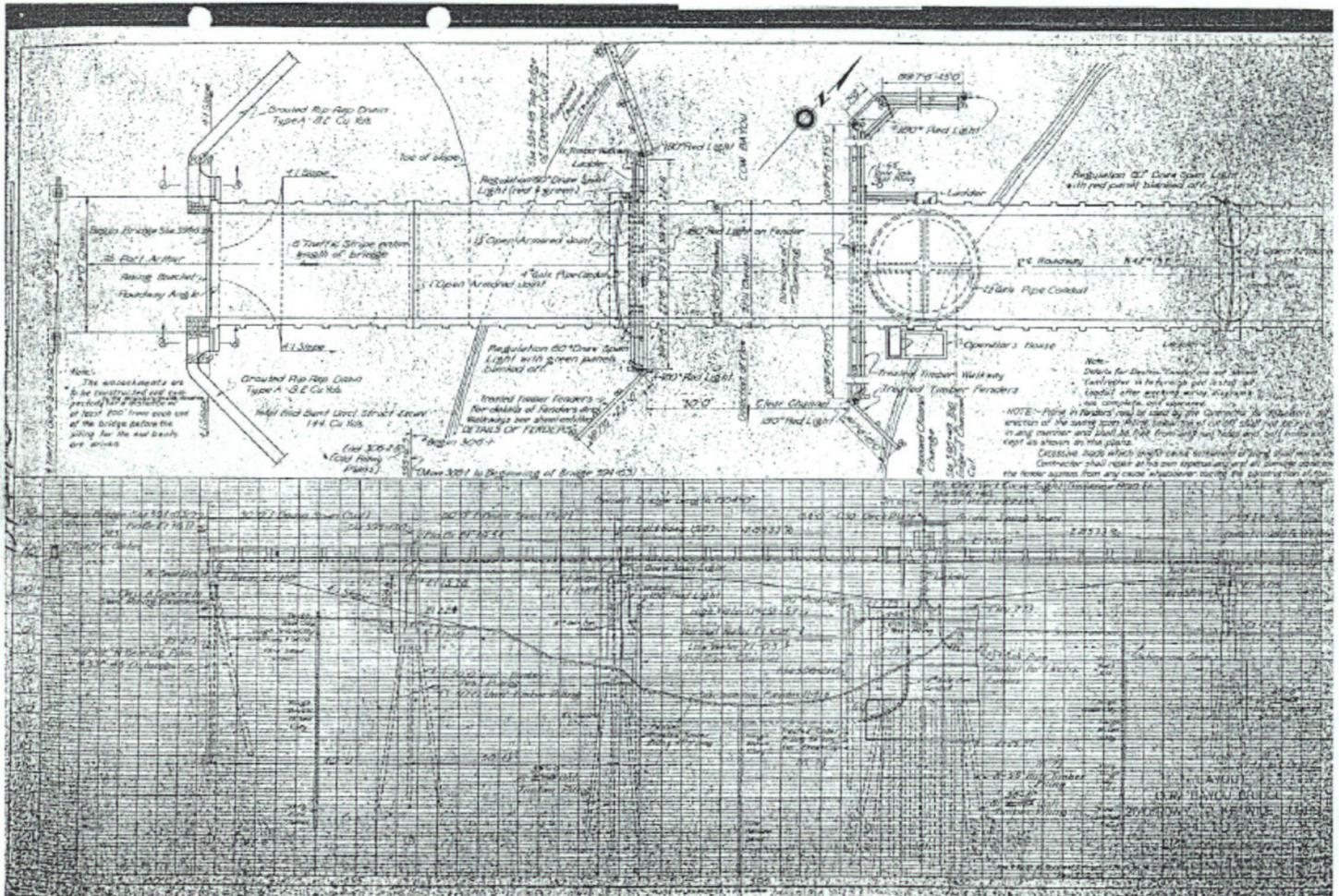
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National Register of Historic Places
Continuation Sheet

Section Figure Page 30

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 1: plan and elevation, sheet 1 of 3



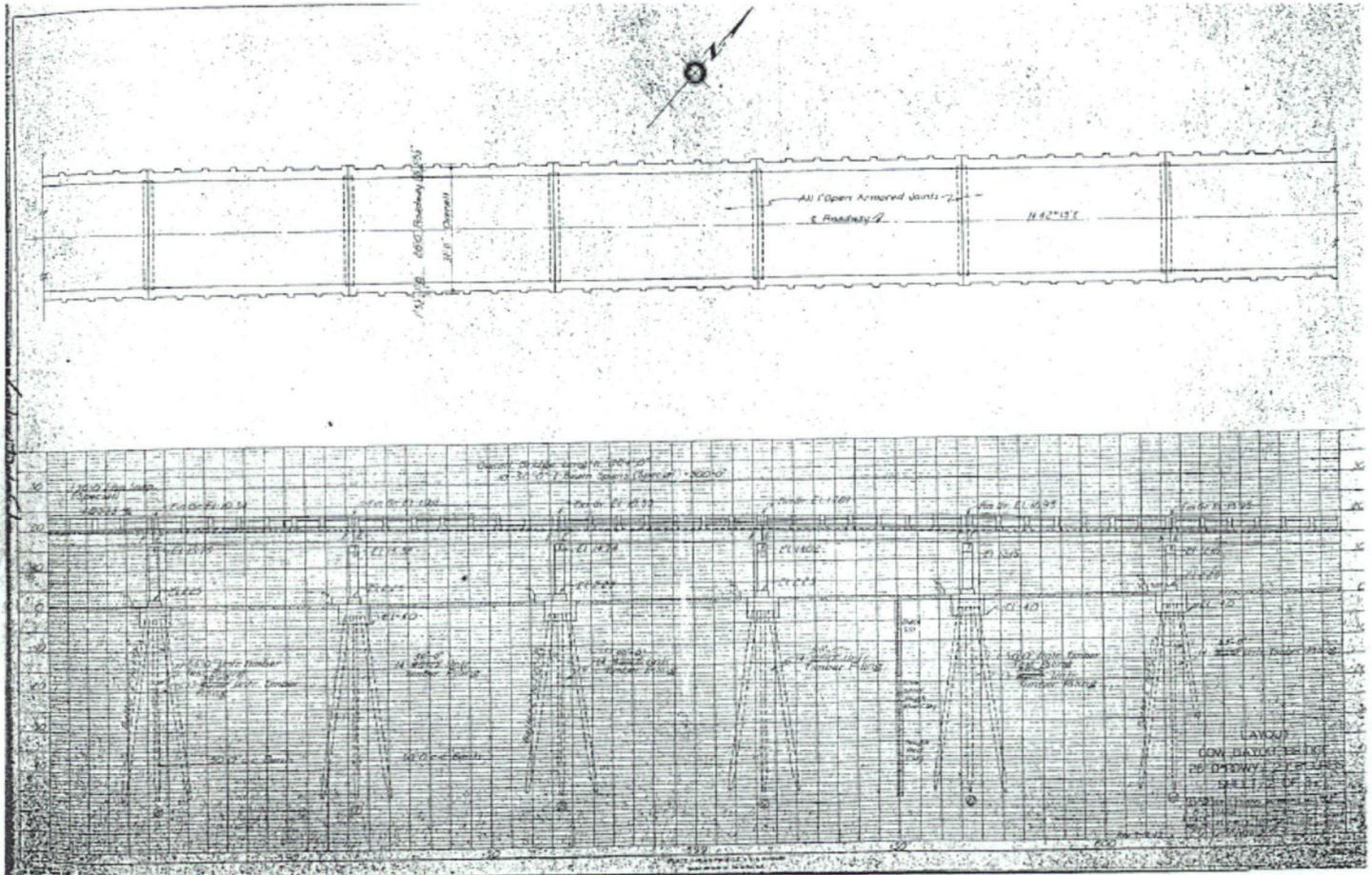
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National Park Service

National Register of Historic Places Continuation Sheet

Section Figure Page 31

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 2: plan and elevation, sheet 2 of 3



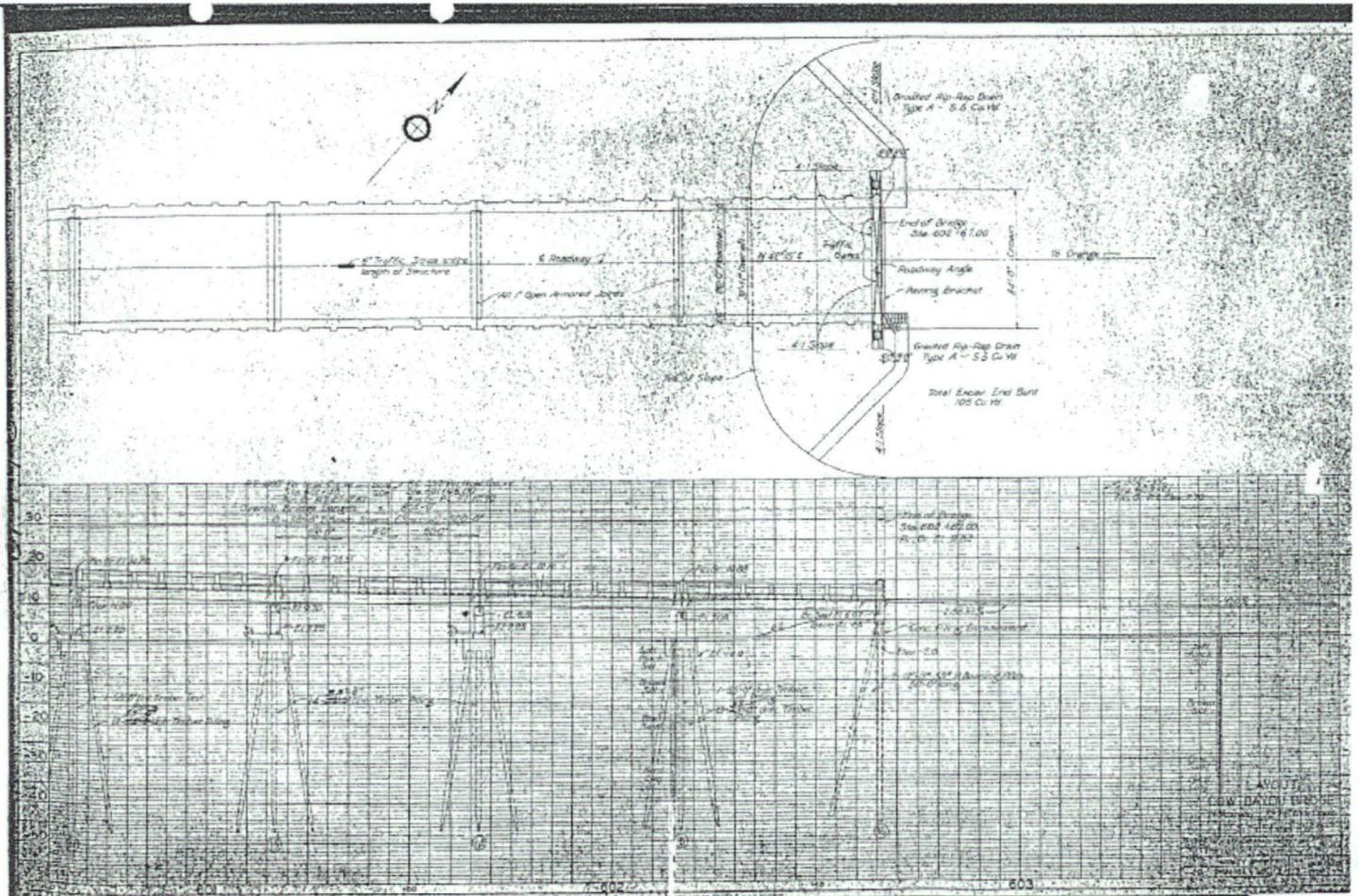
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National Register of Historic Places
Continuation Sheet

Section Figure Page 32

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 3: plan and elevation, sheet 3 of 3



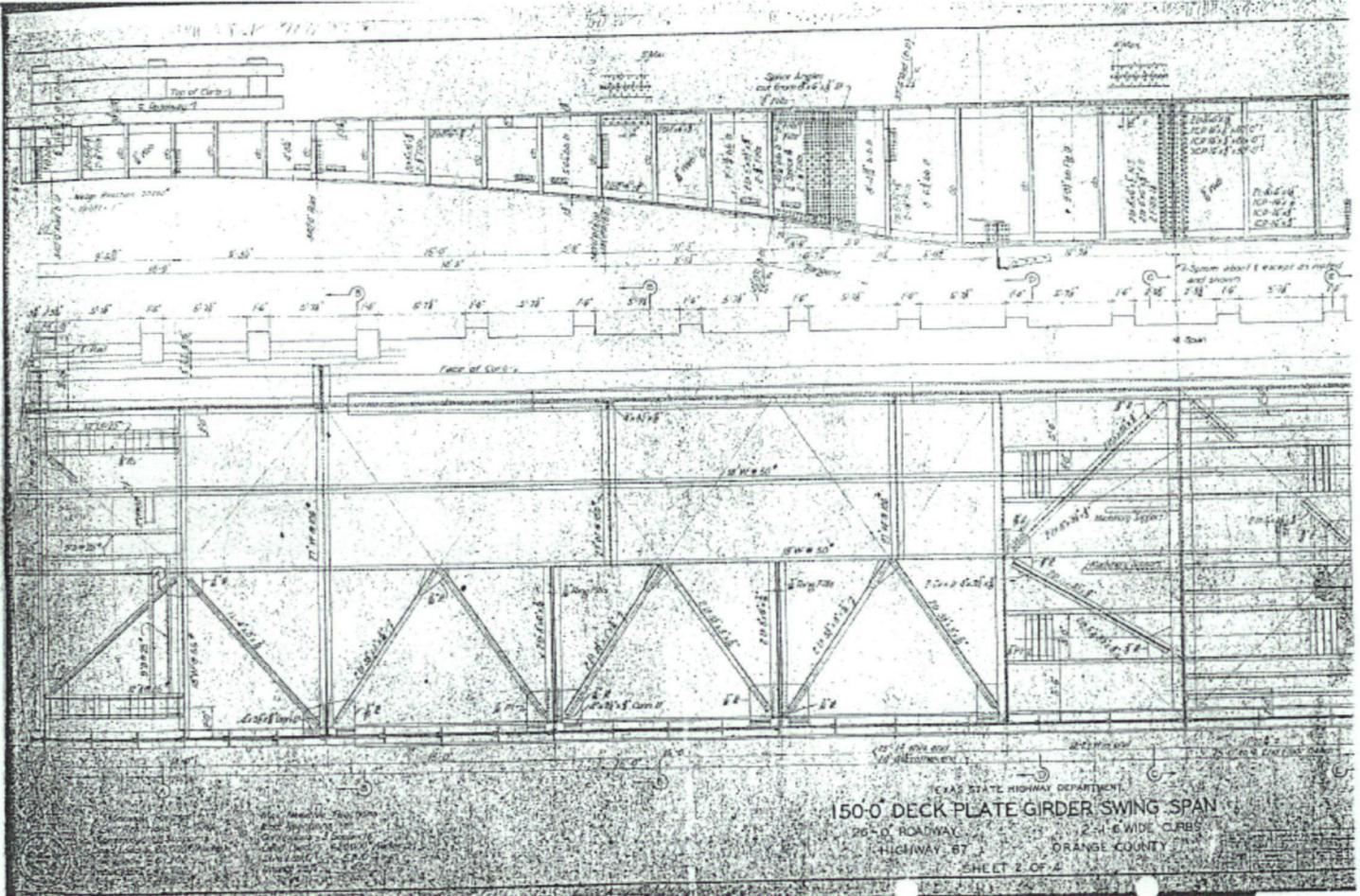
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National Park Service

National Register of Historic Places Continuation Sheet

Section Figure Page 34

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 5: elevation and plan of swing span



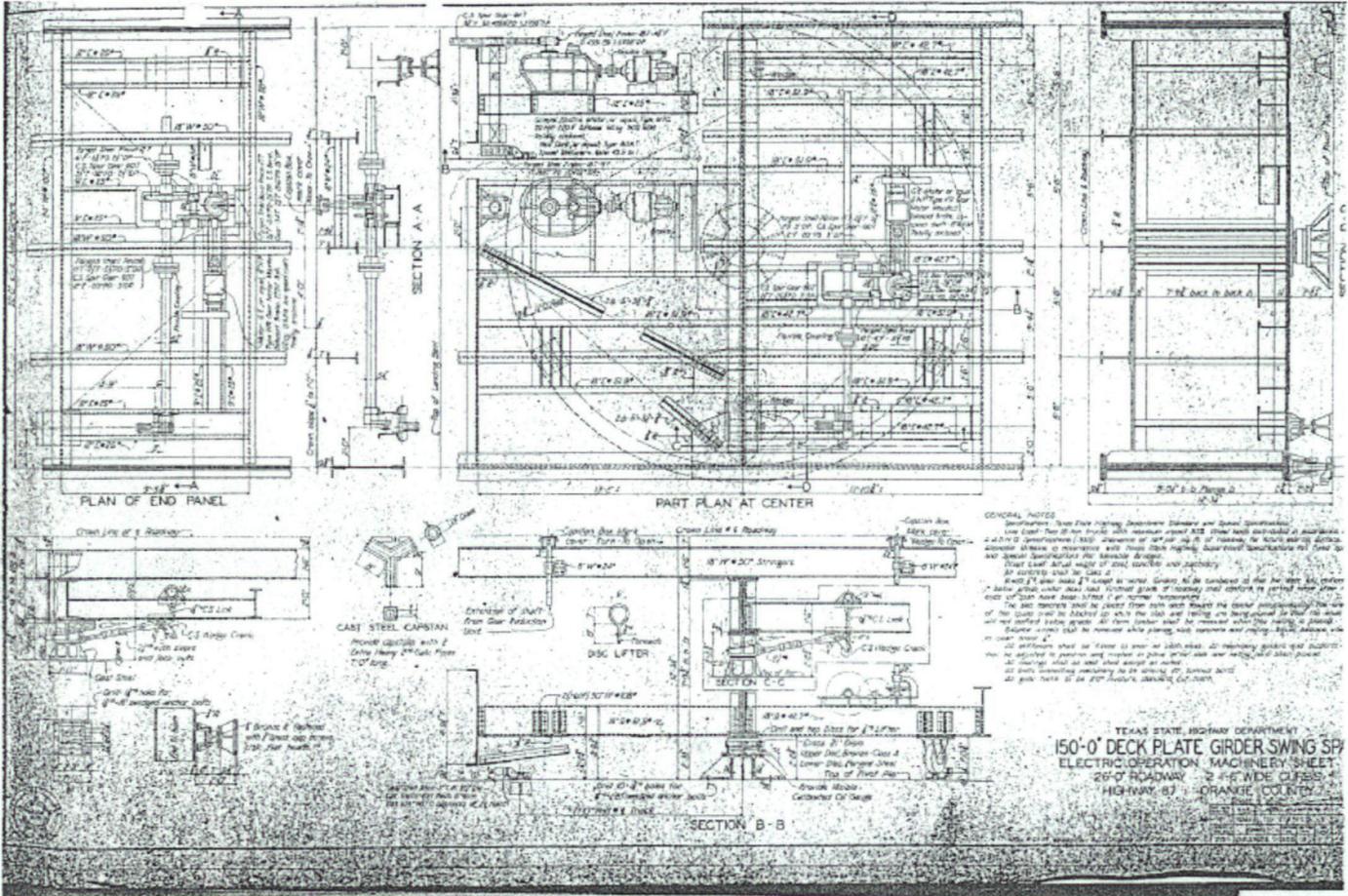
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Section Figure Page 35

Figure 6: plan and part plan of swing span machinery



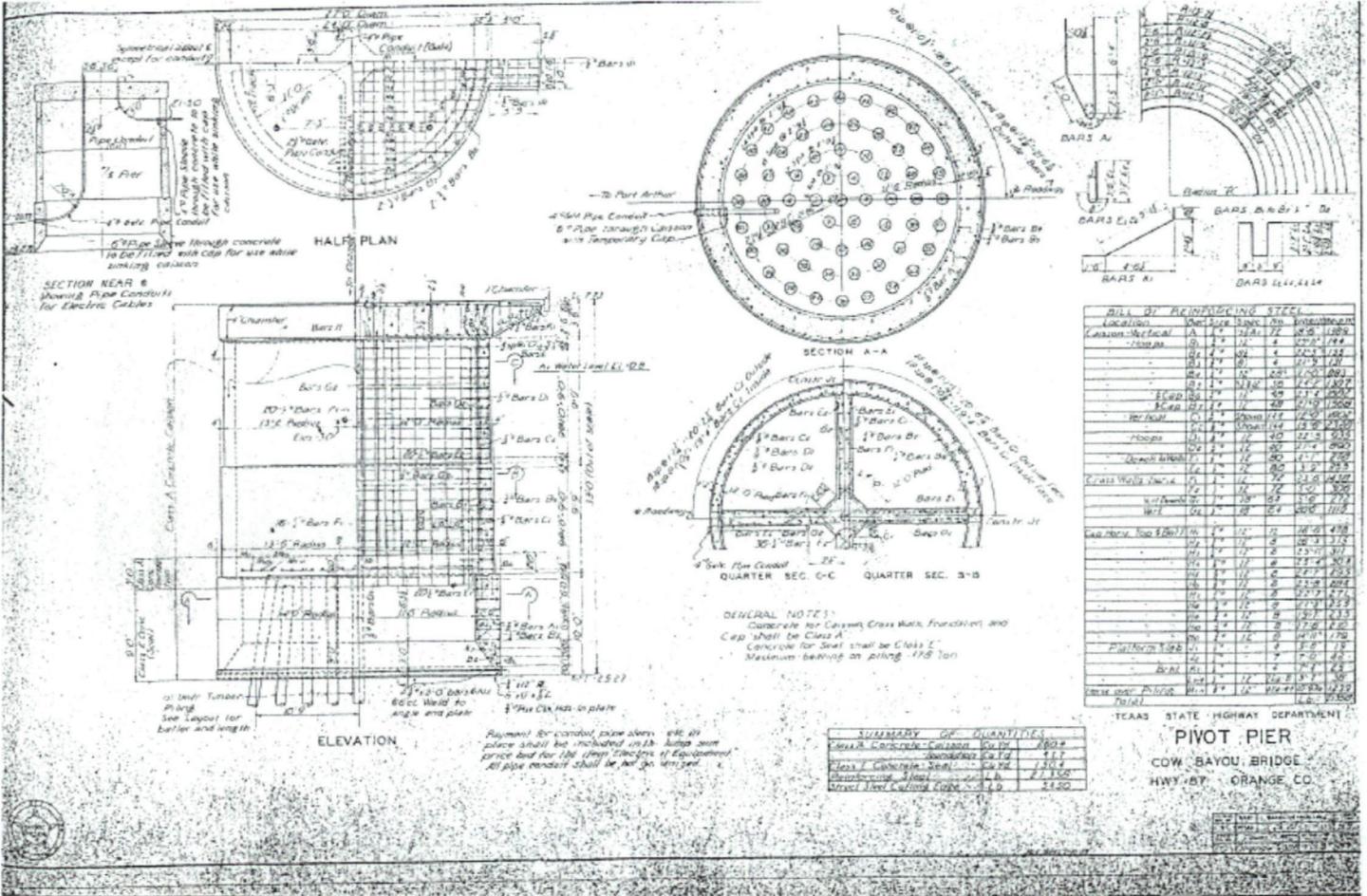
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National Park Service

National Register of Historic Places
Continuation Sheet

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Section Figure Page 36

Figure 7: Details of Pivot Pier



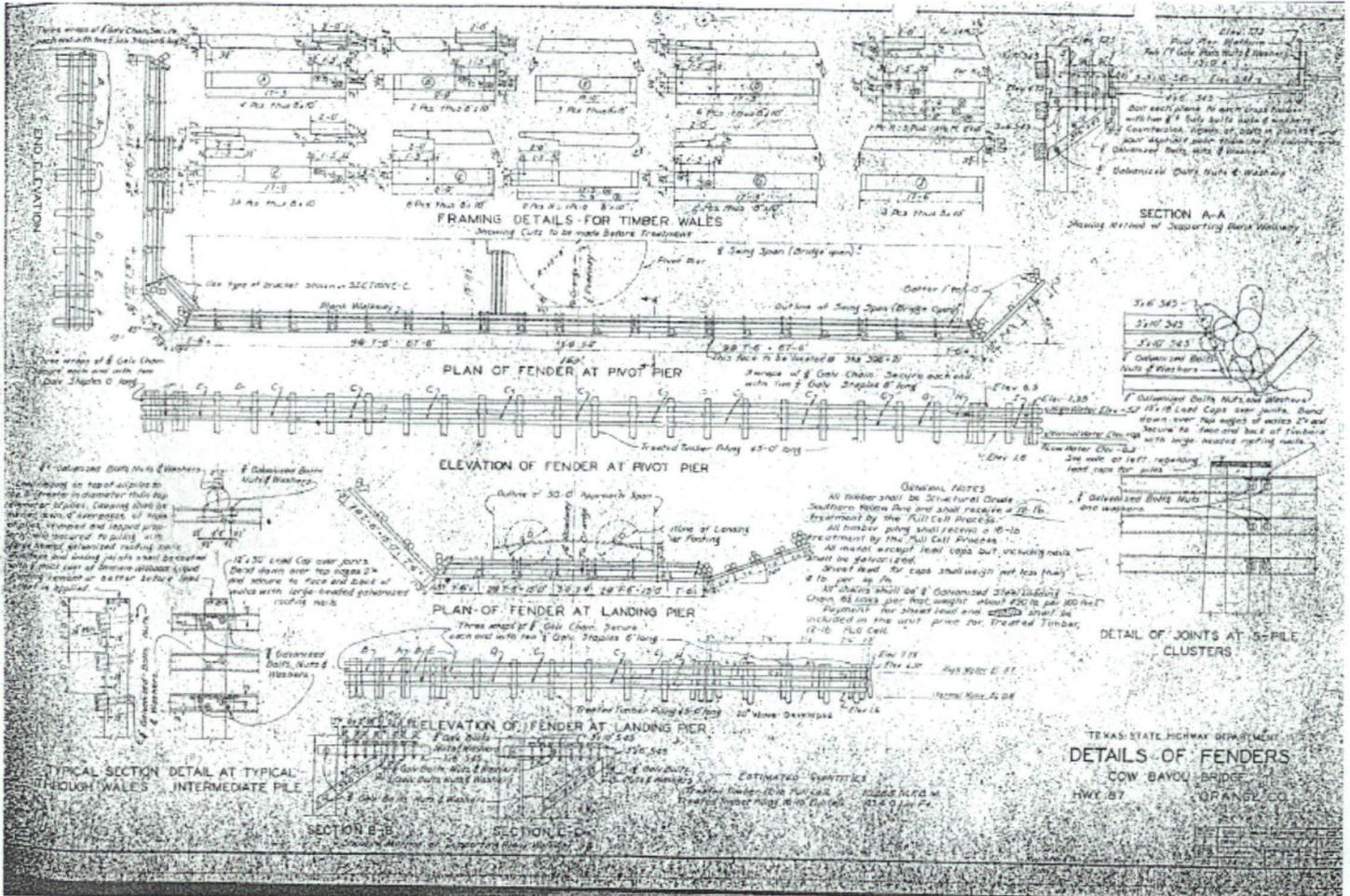
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Section Figure Page 37

Figure 8: details of fenders



TEXAS STATE HIGHWAY DEPARTMENT
DETAILS OF FENDERS
COW BAYOU BRIDGE
HWY. 87
ORANGE CO.

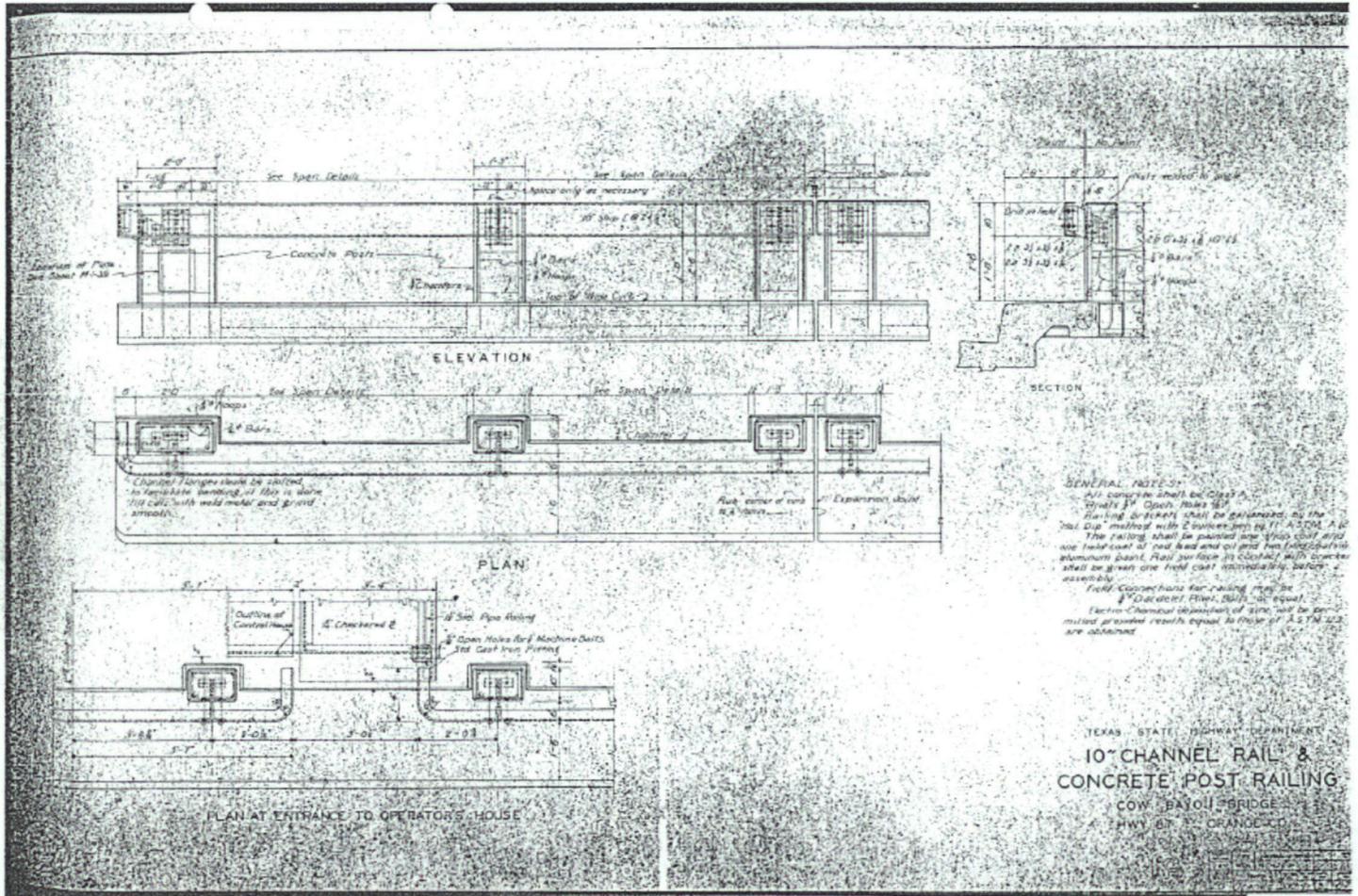
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National Park Service

National Register of Historic Places
Continuation Sheet

Section Figure Page 38

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 9: elevation and plan of channel rail and concrete post railing



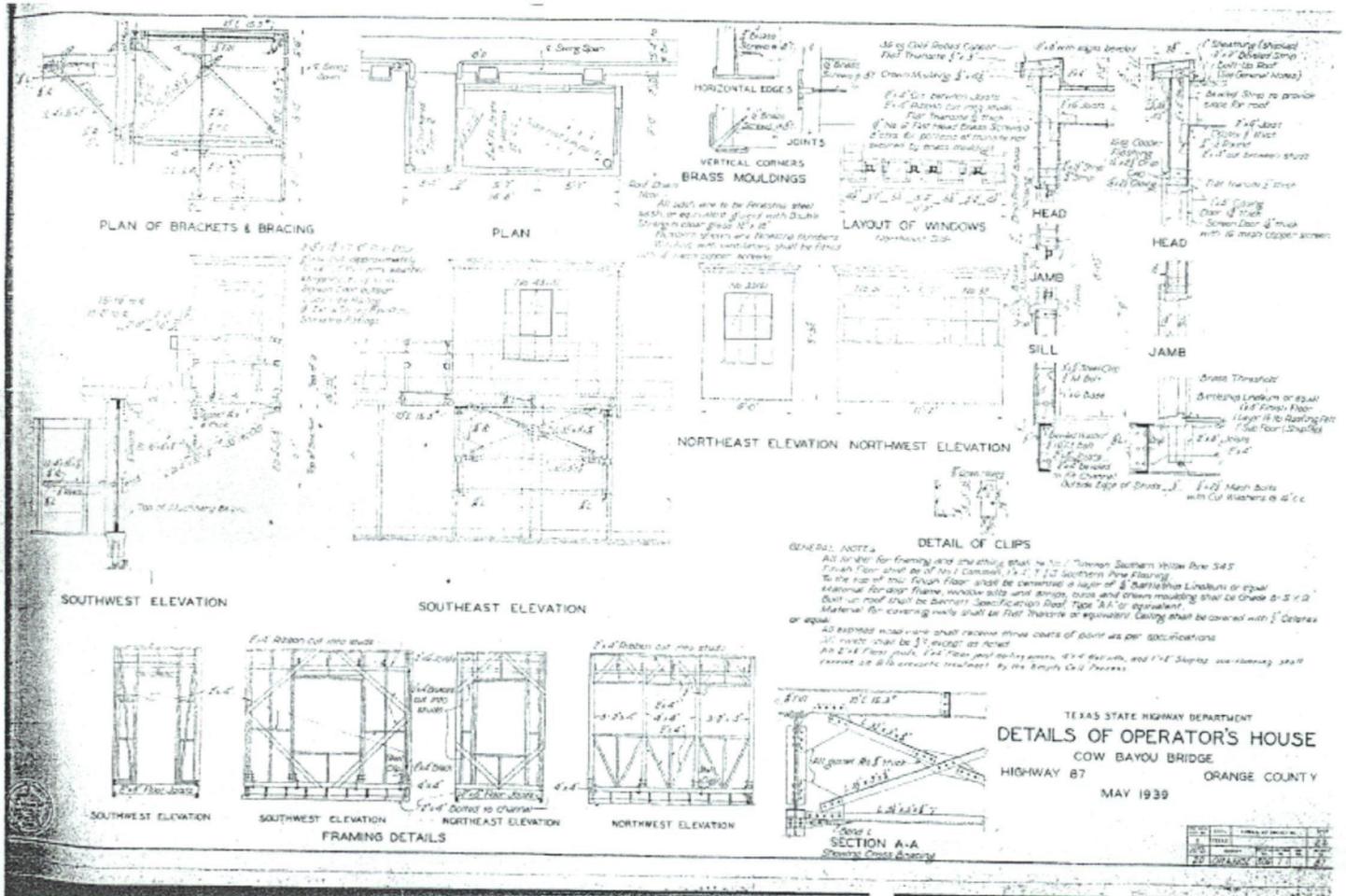
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section Figure Page 39

Cow Bayou Swing Bridge
Bridge City, Orange County, Texas

Figure 10: details of operator's house



TEXAS STATE HIGHWAY DEPARTMENT
DETAILS OF OPERATOR'S HOUSE
COW BAYOU BRIDGE
HIGHWAY 87 ORANGE COUNTY
MAY 1939

SECTION A-A
Showing Cross Bracing

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Cow Bayou Swing Bridge

MULTIPLE NAME: Historic Bridges of Texas MPS

STATE & COUNTY: TEXAS, Orange

DATE RECEIVED: 3/26/10 DATE OF PENDING LIST: 4/26/10
DATE OF 16TH DAY: 5/11/10 DATE OF 45TH DAY: 5/10/10
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 10000252

REASONS FOR REVIEW:

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

COMMENT WAIVER: N

ACCEPT RETURN REJECT 5-10-10 DATE

ABSTRACT/SUMMARY COMMENTS:

**Entered in
The National Register
of
Historic Places**

RECOM./CRITERIA _____

REVIEWER _____ DISCIPLINE _____

TELEPHONE _____ DATE _____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



3 of 4

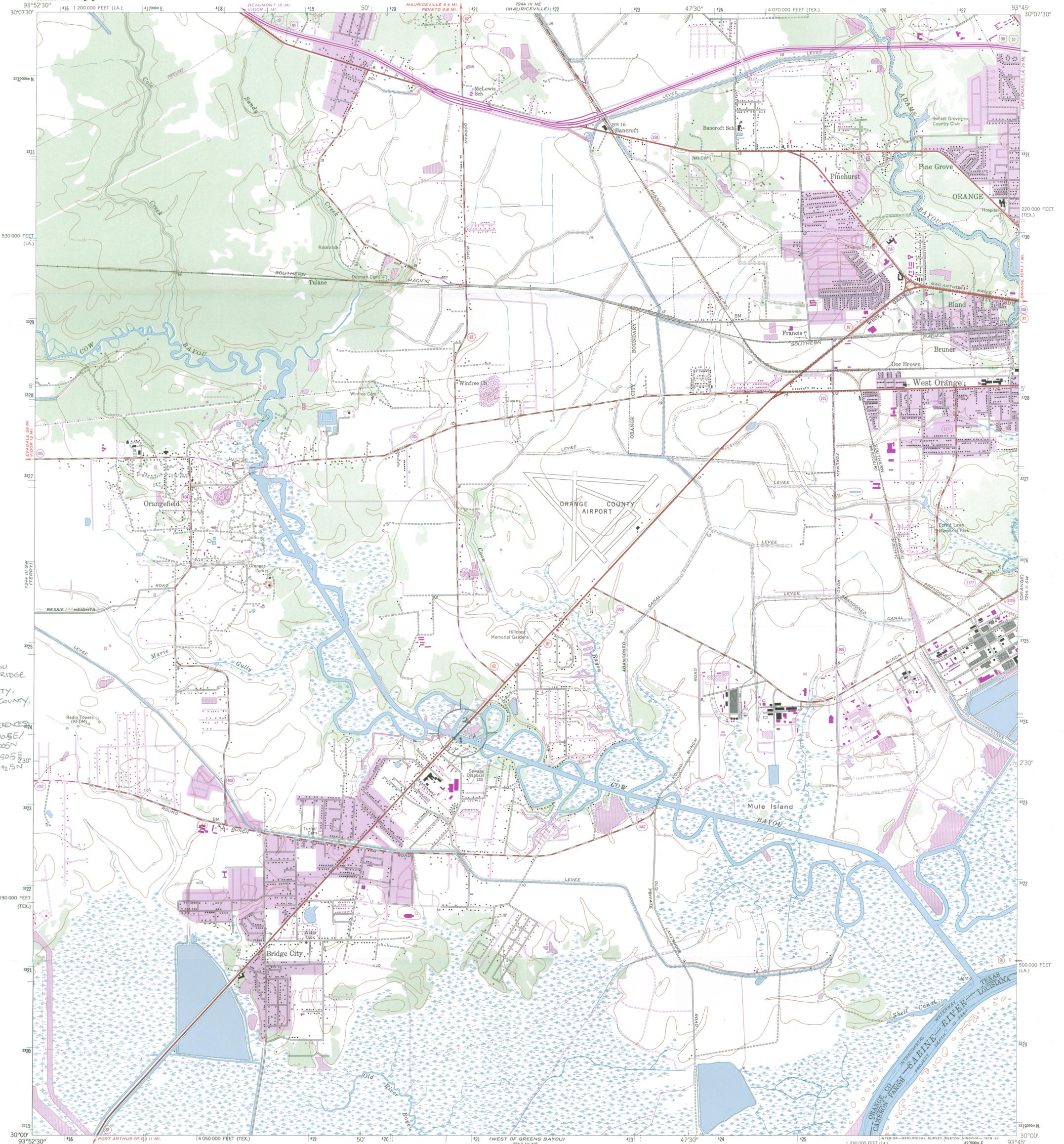
Cow Bayou Swing Bridge
Orange County, Texas
Photographer: Mark Dunn
Date of photograph: 7.16.2008
Negative on file with:
Texas Historical Commission
Facing West
Photo 1 of 3



Cow Bayou Swing Bridge
Orange County, Texas
Photo 2 of 3



Cow Bayou Swing Bridge
Orange County, Texas
Photo 3 of 3



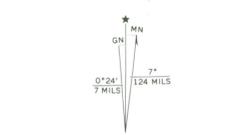
Cow Bayou SWING BRIDGE
BRIDGE CITY,
ORANGE COUNTY,
TEXAS
UTM REFERENCES
1. 15/420705E/
3324005N
2. 15/420950E/
3324192.5N

Mapped by the Army Map Service
Revised, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA

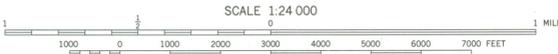
Culture and drainage in part compiled from aerial photographs taken 1942. Topography by planetable surveys by the Geological Survey 1926. Contour revision 1943. Culture revised by the Geological Survey from aerial photographs taken 1956. Field check 1957. Hydrography compiled from USC&GS charts 533 (1955) and 884 (1955)

Polyconic projection. 1927 North American datum
10,000-foot grids based on Texas coordinate system,
central zone, and Louisiana coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks,
zone 15, shown in blue

Revisions shown in purple compiled from aerial photographs taken 1970 and 1974. This information not field checked



Purple tint indicates extension of urban areas



CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS LESS THAN 1/4 FOOT

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty	Light-duty
Medium-duty	Unimproved dirt
Interstate Route	U.S. Route
	State Route

ORANGEFIELD, TEX.—LA.
N3000—W9345/7.5

1957
PHOTOREVISED 1970 AND 1974
DMA 7244 III SE—SERIES V882

3093-221



TEXAS HISTORICAL COMMISSION
real places telling real stories



TO: Linda McClelland
National Register of Historic Places

FROM: Adrienne Campbell, National Register staff
Texas Historical Commission

RE: Cow Bayou Swing Bridge, Bridge City, Orange County, Texas

DATE: February 26, 2010

- The following materials are submitted regarding the Cow Bayou Swing Bridge:

<input checked="" type="checkbox"/>	Original National Register of Historic Places form
<input type="checkbox"/>	Resubmitted nomination
<input type="checkbox"/>	Multiple Property nomination form
<input checked="" type="checkbox"/>	Photographs
<input checked="" type="checkbox"/>	USGS map
<input type="checkbox"/>	Correspondence
<input type="checkbox"/>	Other:

COMMENTS:

SHPO requests substantive review

The enclosed owner objections (do) (do not) constitute a majority of property owners

Other:





Edson Beall/WASO/NPS

04/26/2010 10:44 AM

To Leslie Barras <lebarras@usa.com>

cc

bcc

Subject Re: Cow Bayou NR Listing

Dear Leslie Barras,

Thank you for your comments. They have been reviewed and a copy placed in the nomination file.

Thank you for your interest in the preservation programs of the National Park Service.

Sincerely,

Edson H. Beall

Historian

National Register of Historic Places

Washington, D.C.

Phone: 202-354-2255

Fax: 202-371-2229

Web: <http://www.nps.gov/history/nr/>

E-mail: Edson_Beall@nps.gov

EXPERIENCE YOUR AMERICA

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Leslie Barras <lebarras@usa.com>



Leslie Barras

<lebarras@usa.com>

Sent by: lebarras@gmail.com

04/25/2010 09:30 AM

To Edson_Beall@nps.gov

cc

Subject Cow Bayou NR Listing

Dear Mr. Beall:

I am writing in support of the proposed National Register listing of the Cow Bayou Swing Bridge in Orange County, Texas. It is a rare example, at least in our part of the world, of a pivot bridge. It is a highly used crossing that survived both Hurricanes Rita and Ike, reflecting the fine materials and work that originally went into the structure.

Thank you,

Ms. Leslie Barras
Orange, TX 77630