NPS Form 10-900 OMB No. 1024-0018

United States Department of the Interior
National Park Service
National Register of Historic Places Registration Form

1. Name of Property

Historic Name: Lower Elgin Road Bridge at Wilbarger Creek
Other name/site number: NA
Name of related multiple property listing: *Historic Road Infrastructure of Texas MPS*

2. Location

Street & number: Former Lower Elgin Road/County Road 55 at Wilbarger Creek
City or town: Utley State: Texas County: Bastrop
Not for publication: ☐ Vicinity: ☑

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 at the following levels of significance:
☐ national ☑ statewide ☑ local

Applicable National Register Criteria: ☑ A ☐ B ☑ C ☐ D

Mark Wolfe State Historic Preservation Officer 2/6/17
Signature of certifying official / Title **Date**

Texas Historical Commission
State or Federal agency / bureau or Tribal Government

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

Signature of commenting or other official **Date**

State or Federal agency / bureau or Tribal Government

4. National Park Service Certification

I hereby certify that the property is:

___ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register.
___ removed from the National Register
___ other, explain: _____

Signature of the Keeper **Date of Action**

5. Classification

Ownership of Property

	Private
x	Public - Local
	Public - State
	Public - Federal

Category of Property

	building(s)
	district
	site
x	structure
	object

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: N/A

6. Function or Use

Historic Functions: TRANSPORTATION/ Road-related - bridge

Current Functions: TRANSPORTATION/ Road-related - bridge

7. Description

Architectural Classification: OTHER: Pratt through-truss bridge

Principal Exterior Materials: METAL/iron;

Narrative Description (see continuation sheets 6 through 7)

8. Statement of Significance

Applicable National Register Criteria

x	**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.
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 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, Transportation

Period of Significance: 1888

Significant Dates: 1888

Significant Person (only if criterion b is marked): N/A

Cultural Affiliation (only if criterion d is marked): N/A

Architect/Builder: Kansas City Bridge and Iron Company of Kansas City, Missouri

Narrative Statement of Significance (see continuation sheets 8 through 13)

9. Major Bibliographic References

Bibliography (see continuation sheet 14-15)

Previous documentation on file (NPS):
- _ 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:
- **x** State historic preservation office (*Texas Historical Commission*, Austin)
- _ Other state agency
- _ Federal agency
- _ Local government
- _ University
- _ Other -- Specify Repository:

Historic Resources Survey Number (if assigned): NA

10. Geographical Data

Acreage of Property: Less than one acre

Coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: N/A

1. Latitude: 30.222572° Longitude: -97.409364°

Verbal Boundary Description: The nominated parcel includes the entire bridge at the Lower Elgin Road Bridge in Bastrop County, Texas. The bridge is 12'-7" wide and 249 feet long

Boundary Justification: The boundary includes all components historically associated with the structure.

11. Form Prepared By

Name/title: Debra Ferguson with THC Historian Stephen F. Austin
Organization: N/A
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Date: June 2, 2016

Additional Documentation

Maps (see continuation sheet 16)

Additional items (see continuation sheets 17-18)

Photographs (see continuation sheets 5; 19-24)

Photographs

Lower Elgin Road Bridge
Utley vicinity, Bastrop County, Texas
Photographed by Gregory Smith
January 2017

Photo1
South approach and main span, from Lower Elgin Road
Camera facing northeast

Photo 2
South approach and main span, from deck
Camera facing northeast

Photo 3
Main span, from southeast bank
Camera facing north-northwest

Photo 4
Main span, from deck
Camera facing northeast

Photo 5
North approach and main span, from deck
Camera facing southwest

Photo 6
Main span, from northeast bank
Camera facing west

Photo 7
West panel, from Lower Elgin Road
Camera facing southeast

Photo 8
Main span, from Lower Elgin Road
Camera facing south

Photo 9
Main span, from Lower Elgin Road
Camera facing south

Photo 10
Substructure and piers, from south bank
Camera facing northeast

Photo 11
Bottom chord connection
Camera facing southeast

Photo 12
Connection atop northwest pier
Camera facing southeast

Narrative Description

The Lower Elgin Road Bridge is a pin-connected Pratt through truss located on Wilbarger Creek, a tributary of the Colorado River, in northwest Bastrop County, Texas. The bridge stands approximately 3.5 miles northeast of Utley, Texas and 10.5 miles south of Elgin, Texas. Erected in 1888, the bridge measures approximately 249 feet in total length and consists of a 130-foot truss span with six panels, and two timber approach spans. The one-lane deck is comprised of transverse timber beams spanning 12.2 feet with an 11.7-foot-wide roadway. The decking and superstructure are supported by two sets of poured concrete piers within iron sheathing and a pile cap, sited on the east and west banks. The bridge retains its original truss configuration and iron superstructure components including its upper and lower chords, portal bracing, pin-connections, and diagonal posts. The bridge functioned continuously until it was removed from service in 1997 and bypassed by a modern bridge located to the east, after which it was repurposed for pedestrian use. The bridge is a rare surviving example of a nineteenth century pin-connected Pratt through-truss (one of approximately nineteen remaining in Texas), and retains a high degree of integrity.

The Lower Elgin Road Bridge is in Bastrop County in central Texas. The region is sited within the Upper Gulf Coastal Plain, below the Balcones Escarpment. Blackland Prairie soils and tall grasses cover much of Bastrop County from the northwest and central southeast, presumably in part to the Colorado River which divides the county northwest to southeast.[1] The bridge spans northwest-southeast over Wilbarger Creek, a tributary of the Colorado River located approx. 3.5 miles northwest of its confluence. The structure once served Lower Elgin Road/County Road 55, but it now stands approximately 20 feet east to its modern replacement bridge. The immediate topography is flat with forest stands to its east, west, and along the floodplain of the creek to its southwest. The area is sparsely populated, with only two single-family residences located within a quarter mile of the bridge. Constructed and owned by Bastrop County since 1888, the bridge has accommodated significant traffic, functioning as a major connection between several rural communities in northwest Bastrop County. The route was realigned in 1997, causing the bridge to be taken off-system and converted to pedestrian use. In 2015, the bridge's deck was significantly damaged by record flooding, and it currently remains closed pending repairs.

Each truss consists of six panels, with inclined end posts that extend the length of a full panel at its hip vertical on its north and south elevations. The intersection of diagonals and counter bracing creates a web configuration in the center panel of each span. The bridge retains its original lower and upper top chords, inclined end posts, vertical and diagonal members, top lateral bracing, two portal struts and bracing, sway bracing, and railings. Poured concrete piles within a steel sheath with a cap support each end of the bridge, with piles stationed on each side.

The bridge's parallel horizontal top chords are connected by three struts, two portal struts, eight top lateral braces, and two portal struts. The span is pin-connected throughout the structure, most notably at each joint on the top and bottom chords. Each vertical member is comprised of two individual iron members connected by lacing. The top chord is composed of an iron I-beam with horizontal lacing along its underside. The deck is comprised entirely of transverse wooden timber beams topped by two longitudinal planks, designed to carry vehicles, attached to the bottom chord. Additional components include a single iron bottom chord, six iron stringers, iron floor beams, and iron bottom lateral bracing. The bottom chord is connected to two poured concrete piles, two at each end of the bridge. The bridge's metal components were likely shop-riveted and shipped by railroad to the site, a common practice for early truss bridge construction in Texas.[2] The bridge's pin-connections were likely joined during field assembly, a method which typifies pre-1915 truss bridges as later designs relied primarily on rivet and bolt connections.[3] All visible elements of the

[1] Paula Mitchell Marks, "Bastrop County," *Handbook of Texas Online*, June 12, 2010, accessed June 03, 2016, modified on February 17, 2016. http://www.tshaonline.org/handbook/online/articles/hcb03.

[2] Bastrop County Commissioner's Court Minutes. "May 31, 1887; acceptance of bid to build bridge," Vol D, 1886, 279.

[3] Barbra Stocklin, "1904 Leon River Bridge in Coryell County," *TXDOT*, August 26, 1996.; Barbra Stocklin, "1904 Leon River Bridge in Coryell County: Additional Information for THC RTHL Application," *TXDOT*, August 26, 1996.

bridge's sub- and superstructure are significantly rusted but retain their integrity of materials, design, and workmanship. The two adjoining approach spans are characterized by iron I-beam portals at the entrance of each approach span. Additionally, double rung iron railings, beginning at each portal entrance, border the decking throughout the entire bridge. No known modification or restoration efforts have taken place since 1888.[4]

[4] Ferguson, Debra and Ernie Nance, "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History," April 2016.

Statement of Significance

The Lower Elgin Road Bridge is a pin-connected Pratt through truss that served an important water crossing in Bastrop County from 1888 to 1997. The structure carries Lower Elgin Road (County Road 55) over Wilbarger Creek. The bridge is one of the first metal truss bridges contracted by Bastrop County and is credited with linking the rural communities of Cedar Valley, Union Hill, and Utley to expanding markets near Elgin.[5] Purchased as part of a package of four bridges for a total cost of $12,829.00, the structure was erected by the Kansas City Bridge and Iron Company of Kansas City, Missouri. The structure represents early attempts to modernize Bastrop County's transportation system by replacing antiquated conveyances with permanent bridges. Equally, the structure is indicative of the increasing focus on providing "safe, efficient, free, and continuous passage" to agricultural markets in and outside of the county. The Lower Elgin Road Bridge is nominated under Criterion A at the local level in the area of Transportation, for its association with local transportation and county infrastructure development prior to the creation of Texas Highway Department. It is also significant under Criterion C, at the state level, for its engineering significance as a rare intact example of a pin-connected Pratt through truss in Texas. Its period of significance is the bridge's date of construction (1888). In 2015, two successive flood events damaged the structures decking; the bridge maintains a high degree of integrity and remains unaltered since its original construction.

Texas Road and Bridge Development[6]

By the 1850s, the desire for professionally-designed bridges was growing in many Texas communities, particularly those with major crossings where ferries and fording were impractical. Given the prohibitive cost of many metal bridges and the lack of available local funding, many counties relied on privately constructed and owned bridges to span important crossings. Business and community leaders often created private corporations responsible for bridge construction in an effort to promote and increase regional commerce. Texas Legislators granted charters to over 100 toll-bridge corporations between 1850 and 1870. After the Civil War, advancement of roads and bridges in Texas was spurred by the increased primacy of railroad commerce to local economies. Metal truss bridge technology was revolutionized as the demand for strong, reliable bridges drove innovation. For Texas counties, the easiest way to reduce costs of bridge construction was to purchase a metal truss bridges from Eastern manufacturing companies and have it transported by rail as close to the required location as possible. The 1876 Texas Constitution placed responsibility for the development and improvement of all road and bridges on local governments.[7] Several amendments allowed cash strapped counties to levy road taxes and issue limited bonds for construction of transportation infrastructure.[8] Despite this, metal truss bridges remained rare features on Texas roads until the last two decades of the nineteenth century.

By the late 1880s, establishment of a robust railroad network across Texas helped counties to afford the formerly prohibitive cost of purchasing a metal truss bridge. In addition, the state's population swelled, with demand for transportation access and public services coming from cities, rural communities, and farmers alike. The bridge-bonding acts of 1884 and 1887 facilitated the acquisition of the first metal truss span in many counties. Local

[5] Ferguson, Debra and Ernie Nance, "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History," April 2016, 19, 21.

[6] Partially adapted from Bruce Jensen, et al, *Historic Road Infrastructure of Texas, 1866-1965,* Multiple Property Documentation Form, 2015, pp. 5-58; and Lila Knight, "A Guide to Research and Documentation of Local Texas Bridges," *Texas Department of Transportation, Environmental Affairs Division, Historical Studies Branch,* Historical Studies Report No. 2004-01, p. 3.

[7] Ericson, Joe E., and Ernest Wallace, "Constitution of 1876," *Handbook of Texas Online*, June 12, 2010, modified September 16, 2015. Accessed April 14, 2016,

[8] Lila Knight, "A Guide to Research and Documentation of Local Texas Bridges," *Texas Department of Transportation, Environmental Affairs Division, Historical Studies Branch*, Historical Studies Report No. 2004-01, January 2004, 3.

governments often utilized the bonds to span important crossings first, usually on stagecoach and postal routes, and on important roads linking farms with county seats and other regional centers. Steel replaced wrought iron as the universal material for truss construction by the turn of the century. But steel truss bridges and I-beams were slow to catch-on in Texas as cost of shipping from Eastern and Midwestern producers continued to prohibit many counties from commissioning bridges. It was not until the 1910s that fabricators began operating in the state, resulting in extensive use of steel I-beams in Texas bridge construction.

By the early 1900s, even as the automobile was growing in popularity, state law makers were reluctant to centralize road authorities at the state level. The state road and bridge-bonding system heavily favored counties with high populations and property values, leaving a disproportionate number of Texas counties without infrastructure advancements. In 1904, a constitutional amendment allowed "any county or political subdivisions of the county" (e.g. municipalities, commissioners' precinct) to vote on road bonds to further expand road and bridge construction. Still, rural areas lagged behind urban centers in road improvements, as the state legislature opted to broaden local funding mechanisms for road and bridge projects.

Transportation Development in Bastrop County

Following the Civil War, Bastrop County experienced economic and social disruption similar to a majority of Texas counties, but in January 1866, the county commissioners court pushed forward with plans to improve the county's road system by designating thirteen roadways. Like many early road networks in Texas, limited funding was available for the creation of these early roads. In the case of Bastrop County, no money was allotted at all. Construction and maintenance of roads was mandated to be the responsibility of property owners whose land adjoined the designated roads.[28] Simultaneously, the Houston and Texas Central Railway was in the process of constructing a line through the north portion of the county. Towns began to develop along the line, the most significant being the City of Elgin, which soon became a regional shipping hub for local farmers.[29] Rail development in Bastrop County continued into the late-nineteenth century with efforts to connect the county seat of Bastrop with Taylor, Texas and bring rail service to the town of Smithville.[30] As a result of major flooding in July 1869, the Houston and Texas Central Railroad revised its planned route through Bastrop County, realigning it through present-day Elgin.[31] Founded as a flag stop in 1871, the depot quickly became a platted town, receiving the name Elgin in 1872.[32] The Missouri, Kansas and Texas Railroad (MKT) added Elgin to its route in 1886, further increase the town's status as a regional shipping hub. Expanded rail service directly correlated with access to new markets. After introduction of the MKT, Bastrop farmers could transport their goods to Galveston, the second largest port in the United States prior to a major hurricane in 1900.[33]

Direct and unencumbered travel to Elgin was unattainable for many of the county's agricultural producers. To address this need, the county built permanent bridges beginning in the early 1880s. [34] Bastrop County Commissioners Court Minutes report that four truss bridges were authorized for construction c.1887 at locations throughout the county to

[28] Kenneth Kesselus, *Bastrop County During Reconstruction*, Bastrop, Texas, Wash Jones Press, 2011; Ferguson, Debra and Ernie Nance, "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History," April 2016, 10.
[29] Paula Mitchell Marks, "Bastrop, Texas," *Handbook of Texas Online*, June 12, 2010, accessed June 03, 2016, http://www.tshaonline.org/handbook/online/articles/hgb04.
[30] Ferguson, Debra and Ernie Nance, "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History," April 2016, 15.
[31] Ibid, 11-12.
[32] Paula Mitchell Marks, "Elgin, TX," *Handbook of Texas Online*, uploaded on June 12, 2010, accessed July 05, 2016, http://www.tshaonline.org/handbook/online/articles/hge06..
[33] Ferguson, Debra and Ernie Nance "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History," April 2016, 12.
[34] Bill Moore, *Bastrop County: 1691-1900*, Wichita Falls, Texas, Nortex Press, 1977, 93.

replace existing bridges.[35] While no specific design type is provided in the records, the site of each bridge is presented as follows:

> Be it ordered that the new bridges to be built be located at the following points in the following streams to wit: 1. On Cedar Creek near RJ Price on or near the site of the old Bridge; 2. On Cedar Creek at the crossing of Austin at Port Lavaca Road; 3. On Sandy Creek at the old Bridge site; 4. On Willbarger Creek at the Old Bridge site. It is further ordered by the court that the County Judge enter into contract with J.M. Bassett in the terms proposed by him to propose plans and specification and superintend the construction of the bridges."[36]

Bids to erect the four specified bridges were made by several different bridge companies.[37] The contract to construct the Lower Elgin Road Bridge was awarded to the Kansas City Bridge and Iron Company of Kansas City, Missouri. Completed in 1888, the advent of the truss bridge over Wilbarger Creek made it possible for rural farming communities on the eastern side of the Colorado River to reliably and safely transport their crops to Elgin via the Coats Road, one of the original thirteen roads established in 1866.[38]

Regional Benefits to the Communities of Utley, Union Hill, and Cedar Valley

By the late 1880s, wagon trains carried cotton and other crops such as corn and sweet potatoes over the bridge en route to the railroad in Elgin. The erection of the Lower Elgin Road Bridge was especially significant to the rural farmers south of Elgin, namely in the communities of Cedar Valley, Union Hill, and Utley. Historically, these communities relied on local ferries to traverse the Colorado in order to access markets. County records do not explain why the location at Wilbarger Creek was chosen but do state that the Pratt truss was to be stationed "…on Wilbarger Creek at the old bridge site."[39] Existence of a preceding structure suggests that the crossing was already recognized as both an important and strategic crossing to area residents. The erection of a permanent truss bridge solidified the Lower Elgin/Coats Road as a trade route, providing the nearby communities of Utley, Cedar Valley, and Union Hill with access to new economic markets via Elgin.[40]

The farmers of these communities were likely the largest beneficiaries of the Lower Elgin Road Bridge as reliable transportation of their goods to markets meant an increase in sales and potential value of their crops. Similarly, Elgin benefitted from the influx of farmers, who desired both supplies and readily accessible processing of their raw agricultural goods; cotton gins, stores, and other businesses quickly developed in Elgin to meet the growing demand. An investigation into the location of these early settlements verifies their close proximity and accessibility of the bridge to these communities. Though little data pertaining to Cedar Valley was uncovered, Bastrop County maps dated 1847 show that Cedar Valley was located near the present-day junction of FM 969 and County Road 1704, approximately 3 miles north of Utley. Union Hill was historically located in the vicinity of the present-day unincorporated community of Utley, seven miles north of the City of Bastrop. Research conducted for a Texas State Historical Marker ca. 1993 suggests the community of Union Hill was mainly populated and utilized by area slaves, and later freedmen, as a gathering place and location of the Missionary Baptist Church.[41] These small communities likely depended on the settlement of Utley for general goods and supplies. As the largest of the three communities,

[35] Bastrop County Commissioner's Court Minutes. "May 31, 1887; acceptance of bid to build bridge," Vol D, 1887, 279.
[36] Ibid.
[37] Ibid.
[38] Ferguson, Debra and Ernie Nance, 15.
[39] Ibid.
[40] Ibid.
[41] Ibid, 18.; Texas Historical Commission, "Union Hill Baptist Church," *Texas State Historical Marker Program*, date created.

Utley possessed a post office (ca. 1892) and a general store (1914).[42] The area was first established as a trading post in the early-1850s by James Harvey Wilbarger, son of Republican of Texas Veteran and Wilbarger Creek namesake, Josiah Wilbarger.[43] Despite increased access to transportation, the communities of Cedar Valley and Union Hill eventually end and presently no longer exist as standalone communities.

Coats Road and the William Coats Property

One of the original designated roads in the county was the Bastrop to Austin Road. While no county road maps illustrating the original thirteen roads could be found, written descriptions indicate the roadway sat on the east side of the Colorado River and included two branches specified in BCCC Minutes as "Hagy's" and "via the William Coats farm," also known as Coats Road.[44] The location of the road and bridge was original known as Coats Crossing, as its crossed Wilbarger Creek on property owned by William Coats. Additional description states that Coats Road, later designated Lower Elgin Road/County Road 55, bisected or directly abutted property owned by William Coats. Events leading to the designation of Coats Road are unclear but regional economic forces were likely the impetus for the construction of both the road and Lower Elgin Road Bridge.

One possible reason for the establishment of Coats Road may be due to the size and production capabilities of William Coats' property. Contemporary descriptions indicated that Coats' property was approximately 900 acres in size, making it one of only two large farms in Utley.[45] Additionally, it bordered Wilbarger Creek and Coats Road. While other farms existed near Utley, it is likely that Coats benefitted greatly from access to the Lower Elgin Road Bridge based on the proximity of his property to the bridge; however, no information detailing the Coats farm's production numbers was located. Bastrop County records corroborate William Coats' ownership of the property.[46] Coats passed away in January of 1888, his land was managed by several executors including S. A. Sandifer, A. E. Blair, C.C. Highsmith, W. H. Rivers and J. C. Sandifer before selling in 1903.[47] Additional investigations into the Coats family and slave cemeteries clearly describe the location of the slave plots, approx. 25 feet off the Lower Elgin Road.[48] In 1869, county records detail flood damage to the Coats farm, describing the location of his land as "…12 miles North of Bastrop…"[49]

Engineering: Pratt Truss[50]

The Pratt truss form was created by Massachusetts engineer Thomas Pratt ca. 1842; he and his father Caleb, patented the design in 1844 for use by the railroads who sought a solution to expensive stone and temporary wood bridges. The design was prototyped using wood and iron rods, eventually leading to the construction of a completely iron bridge.[51] The Pratt became popular among railroad companies and county governments as it was a strong design and relatively cheap to erect. By the 1880s, the Pratt truss design had largely replaced the Bowstring truss and quickly became the

[42] Ferguson, Debra and Ernie Nance, 18.; Paula Mitchell Marks, "Utley, TX," *Handbook of Texas Online*, accessed July 05, 2016, Uploaded on June 15, 2010, http://www.tshaonline.org/handbook/online/articles/hnu06.
[43] Marks, "Utley, TX," *Handbook of Texas Online*, http://www.tshaonline.org/handbook/online/articles/hnu06.
[44] Ferguson, Debra and Ernie Nance,11.
[45] Ibid, 15.
[46] Duncan Charlton, email correspondence with Stephen Austin, July 5, 2016.
[47] Bastrop County Commissioners' Court Minutes.
[48] "Coat Family Cemetery," *Find A Cemetery*, accessed June 10, 2016 http://www.findagrave.com/cgi-bin/fg.cgi?page=cr&CRid=428774&CScnty=2530&CSsr=41&.
[49] Ibid, 12.
[50] Jensen et al, 228.
[51] F. Robby, "The Pratt Through-Truss: Patuxent Branch Trail," *The Historical Marker Database, Columbia in Howard County, Maryland*, July 3, 2009, accessed April 19, 2016. http://www.hmdb.org/Marker.asp?Marker=20498.

bridge of choice for short to intermediate spans lengths of 30 to 150 feet. Material efficiency was a vital component to the success of the Pratt design as it reduced weight and costs. Based on geometric principles, compression members must use significantly more metal per linear foot to resist buckling than required by tension members to resist tensile forces. With the Pratt, shorter members functioned in compression with longer members in tension, making for increased strength and prolonged durability while achieving a reduction in materials. Additionally, pinned connections simplified certain aspects of the engineering calculations and facilitated erection. Riveted connection eventually superseded the pin, giving the Warren truss an advantage over the Pratt design.

The Pratt truss became the most popular type of bridge structure in Texas between 1895 and 1910, as it was versatile in length, highly durable, and easy to erect with semi-skilled labor. All of the Pratt's components were manufactured in a shop and easily shipped for assembly in the field. The design became so popular that it quickly became the standard American truss design for intermediate spans and gave rise to several other designs based on its configuration including the Whipple, Truss Leg Bedstead, and Parker. According to the *Historic Road Infrastructure of Texas, 1866-1965* multiple property documentation form :

> Surviving examples of pin-connected wrought iron Pratt trusses in Texas are particularly significant for their association with the rise of the Post Bellum American Standard truss. That most Pratt trusses will be significant under several areas (uncommon type, pin-connections, early date, and use of wrought iron) is a reflection of the subtype's overall importance in Texas and American bridge history.[52]

The Pratt truss is an iconic and important design in the history of bridge engineering and particularly important to transportation infrastructure development in Texas. With the advent of bridge-bonding and other funding mechanisms, many counties gravitate to the design. Early examples of the Pratt truss in the state can be found in Central and North Texas, including the 1884 Hickory Creek Bridge near Denton (NRHP 1988) and the 1885 Fort Griffin Iron Truss in Shackelford County (NRHP 1979). Few examples of Pratt through truss bridges remain in Texas. While some are on-system bridges known to the Texas Department of Transportation (TXDOT), others may be off-system, or county owned. For this reason, it is difficult to generate an accurate count of Pratt through-truss bridges still extant in the state.

Conclusion

The Lower Elgin Road Bridge carried traffic continuously from 1888 until it was bypassed and decommissioned in 1997. The bridge served as an important connection point between rural communities near the Colorado River and the regional shipping hub of Elgin. Upon its decommissioning, the Pratt truss was restricted to sole pedestrian use and remained open to the public until severe flooding damaged the structure's deck system in 2015. The Lower Elgin Road Bridge is one of a few Pratt through truss bridges remaining in Texas, a once common type, popular in the state from the 1880s to the 1910s. The bridge is nominated under Criterion A in the area of Transportation at the local level for association with local transportation infrastructure development and service as an important local thoroughfare in Bastrop County. It is also nominated under Criterion C, in the area of Engineering, at the state level of significance as an excellent and rare nineteenth century example of a pin-connected Pratt type bridge. The bridge retains a high level of all seven aspects of integrity.

[52] Bruce Jensen et al, 228.

Pratt through trusses in Texas, June, 2016
Via: Warran Gannis, Texas Department of Transportation

Bridge ID	Facility Carried	Feature Crossed	Year Built
230250AA0114002	CR 114	TURKEY CREEK	1936
230420AA0294001	CR 220	COLORADO RIVER	1900
230420AA0498001	CR 139	PECAN BAYOU	1922
090500C00175001	LEON ST	LEON RI #1 GAT	1904
020730AA0270001	CR 270 - PCT 1	GREEN CREEK	1906
130760AA0189001	PIANO BRIDGE RD	EAST NAVIDAD RIVER	1900
130760AA0398005	WILLOW SPRINGS RD	CUMMINS CREEK	1910
130900AA0232002	CO RD 232	SAN MARCOS RIVER	1915
130900AA0353003	CO RD 353	PEACH CREEK	1910
010920AA0474001	ABANDONED KO&G RR	RED RIVER	1910
090980AA0296001	CR 103	WARREN CREEK # 205	1900
131430AA0102004	CR 183	SMOTHERS CREEK	1930
171660AA0355001	CR 428	SAN GABRIEL RIVER	1911
171980AA0120002	WILDCAT BRIDGE RD	LITTLE BRAZOS RIVER	1920
171980AA0125001	PROVIDENCE RD	LITTLE BRAZOS RIVER	1940
232060AA0262001	CR 204	SAN SABA RIVER	1910
082090010703012	FM 601	HUBBARD CREEK	1930
082090AA0188001	CO RD 188	CLEAR FORK BRAZOS RIVER	1900
142460AA0351003	CR 434	BRUSHY CREEK	1930

Bibliography

Bastrop County Commissioner's Court Minutes.
"May 31, 1887: acceptance of bid to build bridge," Vol D, 1886, 279.

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Cox, Mike. "Rafting Cotton from Bastrop to Matagorda." *Texas Escape*, April 25, 2013, accessed June 6, 2016. http://www.texasescapes.com/MikeCoxTexasTales/Rafting-Cotton-from-Bastrop-to-Matagorda.htm.

Ericson, Joe E., and Ernest Wallace. "Constitution of 1876." *Handbook of Texas Online*, June 12, 2010, modified September 16, 2015, accessed April 14, 2016, http://www.tshaonline.org/handbook/online/articles/mhc07.

Ferguson, Debra and Ernie Nance. "Lower Elgin Road Bridge on Wilbarger Creek, Bastrop County, TX: A History." April 2016.

Huddleston, John D. "Texas Department of Transportation," *Handbook of Texas Online*, June 15, 2010, accessed April 14, 2016. http://www.tshaonline.org/handbook/online/articles/mctgn.

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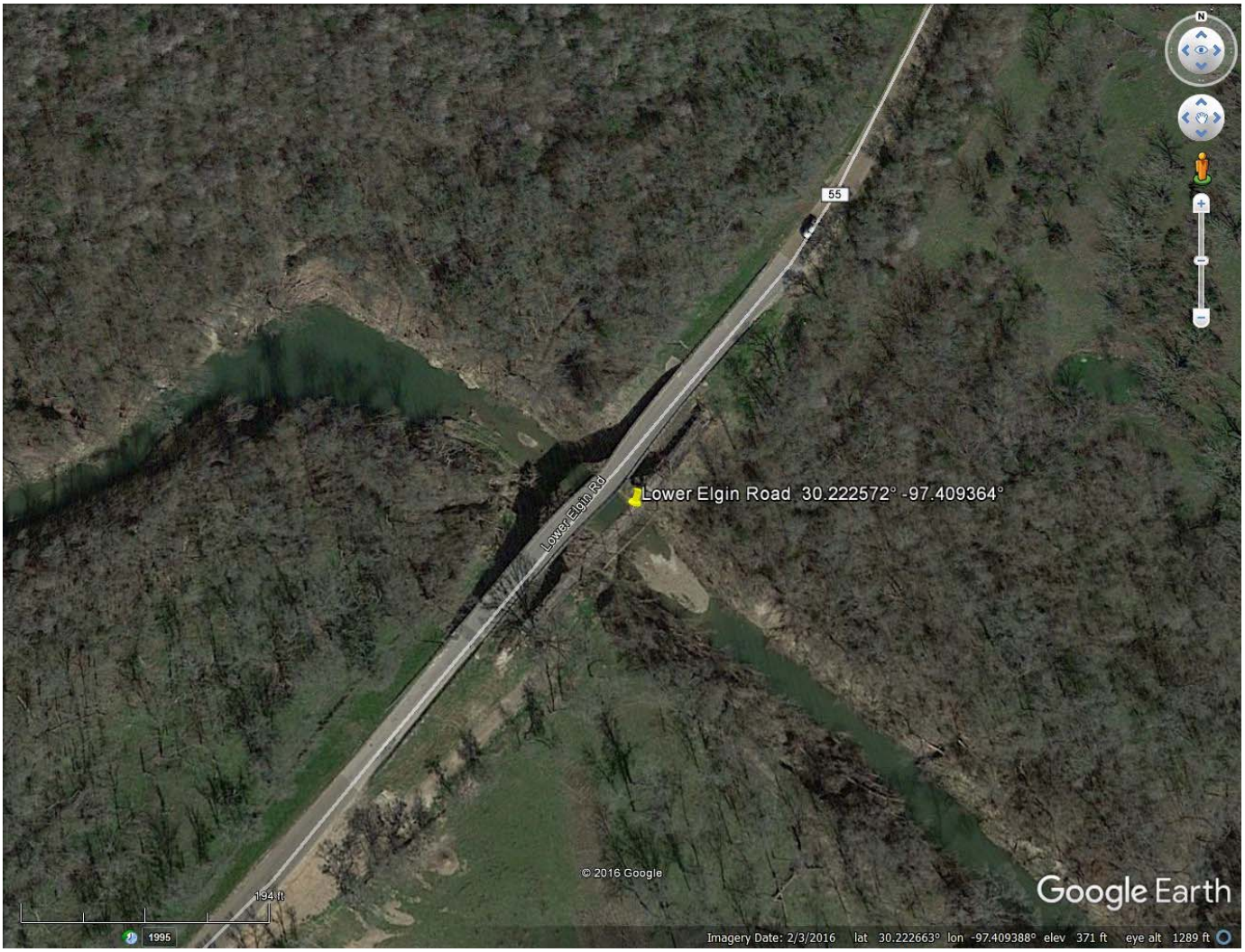
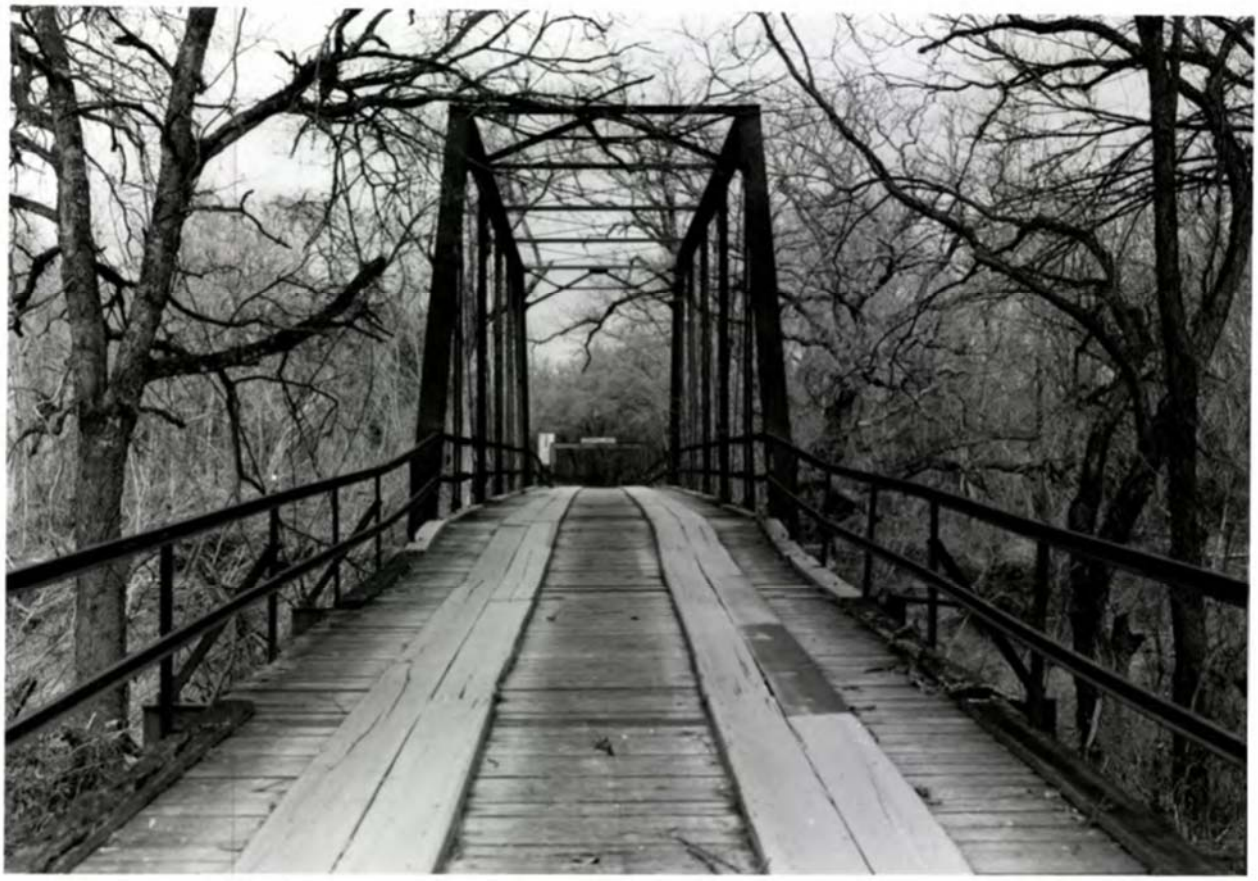
Bastrop County, Texas

Source: Google Earth, accessed February 1, 2017
Lat: 30.222572 ° Lon:-97.409364 °



Lower Elgin Road Bridge, view northeast, ca. 1987
Photo courtesy Texas Department of Transportation



Lower Elgin Road Bridge, view east, ca. 1987
Photo courtesy Texas Department of Transportation

Photo1
South approach and main span, from Lower Elgin Road

Photo 2
South approach and main span, from deck

Photo 3
Main span, from southeast bank

Photo 4
Main span, from deck

Photo 5
North approach and main span, from deck

Photo 6
Main span, from northeast bank

Photo 7
West panel, from Lower Elgin Road

Photo 8
Main span, from Lower Elgin Road

Photo 9
Main span, from Lower Elgin Road

Photo 10
Substructure and piers, from south bank

Photo 11
Bottom chord connection

Photo 12
Connection atop northwest pier

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