

**PECAN CREEK, GAINESVILLE, TEXAS  
DETAILED PROJECT REPORT  
AND INTEGRATED ENVIRONMENTAL ASSESSMENT**

**APPENDIX E  
CULTURAL RESOURCES**

**PECAN CREEK FLOOD REDUCTION PLAN FORMATION AND POTENTIAL IMPACTS TO  
ARCHITECTURAL AND ENGINEERING CULTURAL RESOURCES WITHIN THE AREA OF  
POTENTIAL EFFECT**

**Project:** Pecan Creek, Gainesville, Texas (PWI No. 176240)

**Authority:** The authority for the study is Section 205 of the 1948 Flood Control Act. This authority permits the USACE to undertake the investigation, design, and construction of projects for local protection from flooding by the construction or improvement of flood control works.

**Location:** Gainesville is located approximately 30 miles north of Denton Texas, with the downtown area less than 1 mile east of Interstate 35. The problem site is located within the city limits of Gainesville, with Pecan Creek running through the downtown area. Pecan Creek rises three miles northwest of Gainesville in north central Cooke County (at 33°41' N, 97°10' W) and runs southeast for eight miles to its mouth on the Elm Fork of the Trinity River, three miles south of Gainesville (at 33°35' N, 97°07' W). It traverses variable terrain, surfaced by shallow, stony, clay loams that support juniper, oak, and grasses. Historically the Pecan Creek area has been used as range and crop land.

**Problem:** In the early 1980s, the city of Gainesville experienced heavy storms and flooding and requested the USACE, Fort Worth District to perform a feasibility study under Section 205 authority. The feasibility study was completed in 1987 and recommended a \$6.9M project with a BCR of 1.7:1.0. At that time, the city was unable to obtain the level of funding required to continue with the project. The city experienced additional flooding in 1989, 1990 and 1993. The new city management has requested the Corps perform a new feasibility study for current conditions.

**Flood History.** In the past, Gainesville has experienced serious flooding from the three watercourses that traverse through the city, those being Pecan Creek, Wheeler Creek, and the Elm Fork of the Trinity River. Flood improvements on Wheeler Creek were constructed in 1984 under the Section 205 Program.

Pecan Creek has flooded the city of Gainesville on numerous occasions. The October 1981 event was the most catastrophic flood recorded. Gainesville reached a total rainfall of 23.55 inches for the period of October 6-14, 1981 with 6.9 and 7.25 inches falling on October 12th and 13th respectively. Resultant flood depths ranged from three to five feet in the Pecan Creek watershed just west of the city and two to four feet within the city limits.

As a result of this widespread flooding, Cooke County was one of four counties in North Central Texas declared a national disaster area and received assistance under the Disaster Relief Act of 1970. The Corps conducted reconnaissance surveys of the flood-stricken area shortly after floodwater receded. Overall, 271 residential, commercial, and industrial structures throughout the city were found to have sustained damages from the storm. In addition, the Gainesville City Park, Frank Buck Zoo, and various public properties, streets, and bridges were inundated. No estimate on the losses to these public facilities is available.

**Gainesville, Texas.** In the 1840s, the first settlers arrived in what became the Gainesville, attracted by the promises of the newly created Peters colony, which offered 640 acres to each head of family and 320 to each single man, plus land for a church in each settlement. In 1850 Gainesville was established on a 40-acre tract donated by Mary E. Clark. At the suggestion of Col. William F. Fitzhugh, commander of a stockade 3½ miles southeast, the town was named in honor of Gen. Edmund Pendleton Gaines. Gaines, a United States general under whom Fitzhugh had served, had been sympathetic with the Texas Revolution. Gainesville originally consisted of three families who lived in log houses near the banks of Elm Creek. During the Civil War a controversial trial and hanging of suspected Union loyalists brought the new town to the attention of the state (*see* GREAT HANGING AT GAINESVILLE at <http://www.tsha.utexas.edu/handbook/online/articles/view/GG/jig1.html>).

In the decade after the war the county seat had its first period of extended growth, catalyzed by the expansion of the cattle industry in Texas. Gainesville, only seven miles from the Oklahoma border, became a supply point for cowboys driving herds north to Kansas. Within twenty years the population increased from a few hundred to more than 2,000. To the post office, opened in 1851, and the general store were added a number of churches, two banks, a public school, and a weekly newspaper. Gainesville was incorporated on February 17, 1873, and by 1890 was established as a commercial and shipping point for area ranchers and farmers, partly as a result of the arrival in 1886 of the Santa Fe line and the construction in 1887 of the Gainesville, Henrietta and Western Railway. During the 1890s Gainesville College operated for a time, but it was eventually closed, a victim of the depression of 1893 and the consequent rapid decline of the cattle industry.

Unlike some other cattle centers in North Texas, however, Gainesville survived the disappearance of the cattle drives. Its economy continued to grow because of the high price of cotton during the next twenty years. By World War I the county seat had more than 200 businesses and a population of 7,500; in the mid-1930s just under 9,275 people lived in Gainesville. Because oil was discovered nearby in the mid-1920s, the town survived the Great Depression better than similar communities. In addition, Camp Howze, an infantry-training center established in the county in 1942, more than doubled the local population and provided much-needed jobs.

After World War II Gainesville's population grew steadily, surpassing 10,000 in the mid-1950s and 14,000 by the late 1980s, when the community reported more than 300 rated businesses. BIBLIOGRAPHY: Handbook of Texas Online  
<http://www.tsha.utexas.edu/handbook/online/articles/view/GG/heg1.html>

**Pecan Creek.** Pecan Creek runs north/south through the center of the city, parallel to the frequently used railroad track (Figure 1). Together, these two elements divide the city into two parts, with the downtown business area and the historically upscale residential homes to the west of the creek; the more working class neighborhoods are located to the east of creek.

Urban development of the city did not embrace the waterway and initially appears to be an obstacle to development rather than an asset. This is probably due to the frequent flooding of the area and is probably responsible for the lack of development immediately adjacent to the creek. The main section of the waterway was channelized in the 1930s by the Civilian Conservation Corps as Pecan creek runs through the center of town. Commercial buildings that line the creek turn their back to the waterway, with no access or development made to enhance this natural feature (Figure 18). Photographs illustrate that essential feeling of Pecan Creek has remained unchanged since the Corps took pictures as part of its study in May of 1948 (Figures 16, 17, 24 & 25).

**Cultural Resources.** Cultural resources are defined as the broad pattern of events, real properties, and cultural lifeways or practices that have significance to humans. Buildings and places where significant events occurred, archeological sites containing significant information about human activities, traditional places or activities that hold special significance, and folkways which are practiced as either cultural or life sustaining, are all part of the broad category features of groups of people that combine to form the cultural resource landscape. For the purpose of this study, a cultural resource is further defined as a historic property listed on, or eligible to be listed on, the National Register of Historic Places (NRHP). NRHP properties that can be affected by a federal undertaking must undergo compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (Section 106). Under Section 106, Historic properties impacted by this undertaking must undergo consultation with the Texas Historical Commission (THC) and interested parties to seek ways to avoid, lessen or mitigate adverse impacts to these historic properties. The Area of Potential Effect (APE) as defined by 36 CFR Part 800 as the creek channel from US Highway 82 to Anthony Street (50 feet to each side of the centerline of the creek) and properties affected physically and visually.

**Previous Cultural Resources Studies/Surveys.** The general Gainesville area has been extensively surveyed and has numerous listings in the Texas Historic Sites Atlas (<http://atlas.thc.state.tx.us>). However, no bridges along the affected section of Pecan Creek are included in the database as part of the neighborhood survey and was probably an oversight by cultural resource surveyors focused on residential and commercial buildings. Two archaeological sites are recorded in the database in the general vicinity of the project area, but not within the project's area of potential effect. Both of these sites consist of historic homesteads dating to the 1930s.

**Study Area and Area of Potential Effect.** The study area is located in the city of Gainesville, Cooke County Texas. Pecan Creek originates approximately six miles north of the city and flows south through the central portion of the city to its confluence with Wheeler Creek, Redmond Branch, and the Elm Fork of the Trinity River. The study area is broken

down into three reaches: the Upper, the Middle, and the Lower reaches. Table 1 displays a summary of the reaches with upstream and downstream limits.

**Table 1**  
**Reach Descriptions**

<u>Reach Name</u>	<u>Upstream Limit</u>	<u>Downstream Limit</u>
Upper	US Hwy 82	Belcher Street
Middle	Belcher Street	Pecan Street
Lower	Pecan Street	Anthony Street

The Area of Potential Effect as defined by 36 CFR Part 800 would be the creek channel 50 feet to each side of the centerline of the creek and properties affected physically and visually by the Corps flood control efforts.

**Solutions Under Consideration:** *The Corps is currently in a plan formation stage and is considering a wide variety of options.* The options can be divided into structural and non-structural options. Structural options involve altering the physical infrastructure to accommodate the expected flooding and the non-structural involves removing structures that could potentially be damaged by flooding.

- **Structural alternatives.** For structural alternatives, the Corps originally looked at detention, channelization and a combination of the two. Detention and the combined-alternative were eliminated due to economic factors. The Corps is proceeding to define what type of channel will be the alternative with the highest net benefits. For example, engineers are currently modeling different channel widths, materials (u-frame concrete vs. earth-lined trapezoidal), and replacing (and not replacing) the bridges. Any of these alternatives, or combinations thereof, could have adverse impacts on historic properties within the Area of Potential Effect.
- **Non-structural Alternatives.** The one non-structural alternative being formulated is a buyout. At this time, the variables prohibit the identification of specific structures to be included. As the study progresses and individual or groups of buildings are identified, they will be evaluated against National Register criteria to determine eligibility and findings coordinated with the Texas Historical Commission.
- **Combinations structural and non-structural alternative.** This alternative uses non-structural measures as part of the structural alternative. For example, the initial formulation shows that a buyout of the mobile homes south of Moss is a more cost-effective way to prevent damages to those structures than widening the channel south of the mobile homes and replacing the Anthony Street Bridge.

**Assessment of Properties Within the Area of Potential Effect.** The area of potential effect for the current project includes potentially undisturbed, deeply buried archaeological sites along the creek bank. As such, under 36 CFR part 800, these areas will require intensive archaeological investigation prior to any groundbreaking activities associated with the current project. To meet this obligation, the Corps has begun the consultation process with

the THC to design a plan to locate and investigate any such cultural resources based upon the selected solution. This plan will be executed and the findings concurred upon by the THC prior to any ground breaking activities related to the project and/or project construction. An assessment of architectural properties within the project area of potential effect has been conducted. The THC has been consulted regarding this initial assessment and the Corps has determined that the following properties lie within the area of potential effect and could be affected by the proposed undertaking involving structural alternatives:

## LOWER REACH

- **Anthony Street Bridge.** (Figures 2 and 3) The bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP.
- **Moss Street Bridge.** (Figures 4 and 5) The bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP.
- **Gordon Street Water Crossing.** (Figures 6 and 7) The water crossing has been demolished and is no longer extant. It is **not eligible** for the NRHP.
- **Garnett Street Bridge.** (Figures 8 and 9) The bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP.
- **Rock Lined Drainage Channel.** (Figures 10, 11, 24, 25) Pecan Creek has been channelized on its course through the downtown section Gainesville since the early part of the twentieth century. During the 1930s, the Civilian Conservation Corps completed a lining of the channel with flagstone that. The flagstone channel is approximately 26 feet wide at the top, 14 feet wide at the bottom and 3.5 feet deep. The rock lining has been removed in several stretches and replaced by concrete. An estimated 50% of the channel is original construction. The remaining original construction retains a high degree of integrity as evidenced by comparison with the 1948 photographs. As a true representative example as a depression era public works project, the rock lined channel is **eligible** for the NRHP for its design and construction values and its association with the event of the Great Depression and its related large public works projects designed to provide work for unemployed Americans.
- **MKT Railroad Trestle.** (Figures 12 and 13) Constructed 1937. The right of way has been abandoned by the railroad and has been transformed into a pedestrian trail. The tracks and the roadbed leading to trestle have been removed and only the concrete abutments remain. The integrity of materials has been reduced to a point to which the trestle no longer conveys its significance as a local example of early-to-mid twentieth century Texas railroad construction. It is **not eligible** for the NRHP.

## MIDDLE REACH

- **Main Street Bridge.** (Figures 14 and 15) The bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP.
- **Georgia Davis Bass Park.** Located between California and Main Streets, the park is located on the east bank of Pecan Creek. The park contains the site where forty suspected Unionists in Confederate Texas were hanged at Gainesville in October 1862. The park is unimproved with only a granite historical marker in the center of the space. The site is not included in the Texas Historic Sites Atlas <http://atlas.thc.state.tx.us> database, but is probably an oversight. The site is **eligible** for its association with significant events in Texas history; although no material culture is extant that illustrates the site's significance.
- **California Street Bridge.** (Figures 16, 17, 18 and 19) The bridge, built in 1935, is a primary crossing point for vehicular traffic in and out of downtown Gainesville. The structure is built of reinforced concrete. It retains a very high degree of integrity in both materials and workmanship. Only the original lampposts have been removed. While the concrete has spalled in several areas due to water penetration of the steel reinforcement, the bridge is structurally sound and viable for continued use. It is **eligible** for the NRHP on a local level for its construction values as a true representative example of early twentieth-century vehicular bridge.
- **Broadway Street Bridge.** (Figures 20 and 21) Three span reinforced concrete flat plate construction with steel guardrails. Exact date of construction has not been determined, but the bridge was probably constructed post WWII (46-48) and is clearly over fifty years of age by its presence in the 1948 photograph. Steel shortages during the war make pre-1946 construction unlikely. The bridge matches the design of the Belcher Street Bridge and both were probably constructed concurrently. The bridge retains a high degree of integrity in both materials and workmanship. However, the bridge is not a distinctive example of a particular type, period or style of construction and is **not eligible** for the National Register under Criterion C for its design and construction values.
- **Whaley Mill & Grain Elevator.** (Seen in Figures 18 and 20) Texas Historic Sites Atlas # NRS79-0758. Located immediately adjacent to Pecan Creek on the west bank between Broadway and Scott streets, the structure is a 6 story brick commercial building and grain elevator; metal industrial type windows with recessed panels in spandrels; rectangular plan; flat roof; extended brick parapet with pediment projections rising from parapet; tallest building in the city. It is **eligible** for the National Register on a local level for its association with the economic growth of Gainesville.
- **Scott Street Bridge.** (Figures 22 and 23). The bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP

## UPPER REACH

- **Belcher Street Bridge.** (Figures 26 and 27) Three span reinforced concrete flat plate construction with steel guardrails. Exact date of construction has not been determined, but the bridge was probably constructed post WWII (46-48) and is clearly over fifty years of age by its presence in the 1948 photograph. Steel shortages during the war make pre-1946 construction unlikely. The bridge matches the design of the Broadway Street Bridge and both were probably constructed concurrently. The bridge retains a high degree of integrity in both materials and workmanship. However, the bridge is not a distinctive example of a particular type, period or style of construction and is **not eligible** for the National Register under Criterion C for its design and construction values.
- **US HWY 82 Bridge.** (Figure 28) Built in 1990, the bridge is less than fifty years of age, and does not meet Criterion G for exceptional significance for properties less than fifty years of age. It is **not eligible** for the NRHP.

Despite best efforts to locate and evaluate all the cultural resources within the project area of potential effect, unanticipated subsurface deposits are possible at any ground-breaking undertaking. If previously unknown cultural materials are exposed by construction activities related to the undertaking, work will stop in the immediate vicinity, the resource will be protected, and the THC will be notified within 24 hours of discovery. If, in consultation with the THC, it is determined that the resource is significant, and cannot be avoided by construction, then a mitigation plan will be prepared in consultation with the THC and implemented before construction is allowed to continue in that vicinity.

If unmarked human burials are discovered during construction, work will stop in the immediate vicinity, the remains will be protected, and the local law enforcement agency and THC will be notified as soon as possible. The location of the unmarked human burial or burials will be documented and the provisions of the Native American Graves Protection and Repatriation Act will be implemented.

**MAPS AND PHOTOGRAPHS  
PECAN CREEK, GAINESVILLE, TEXAS**

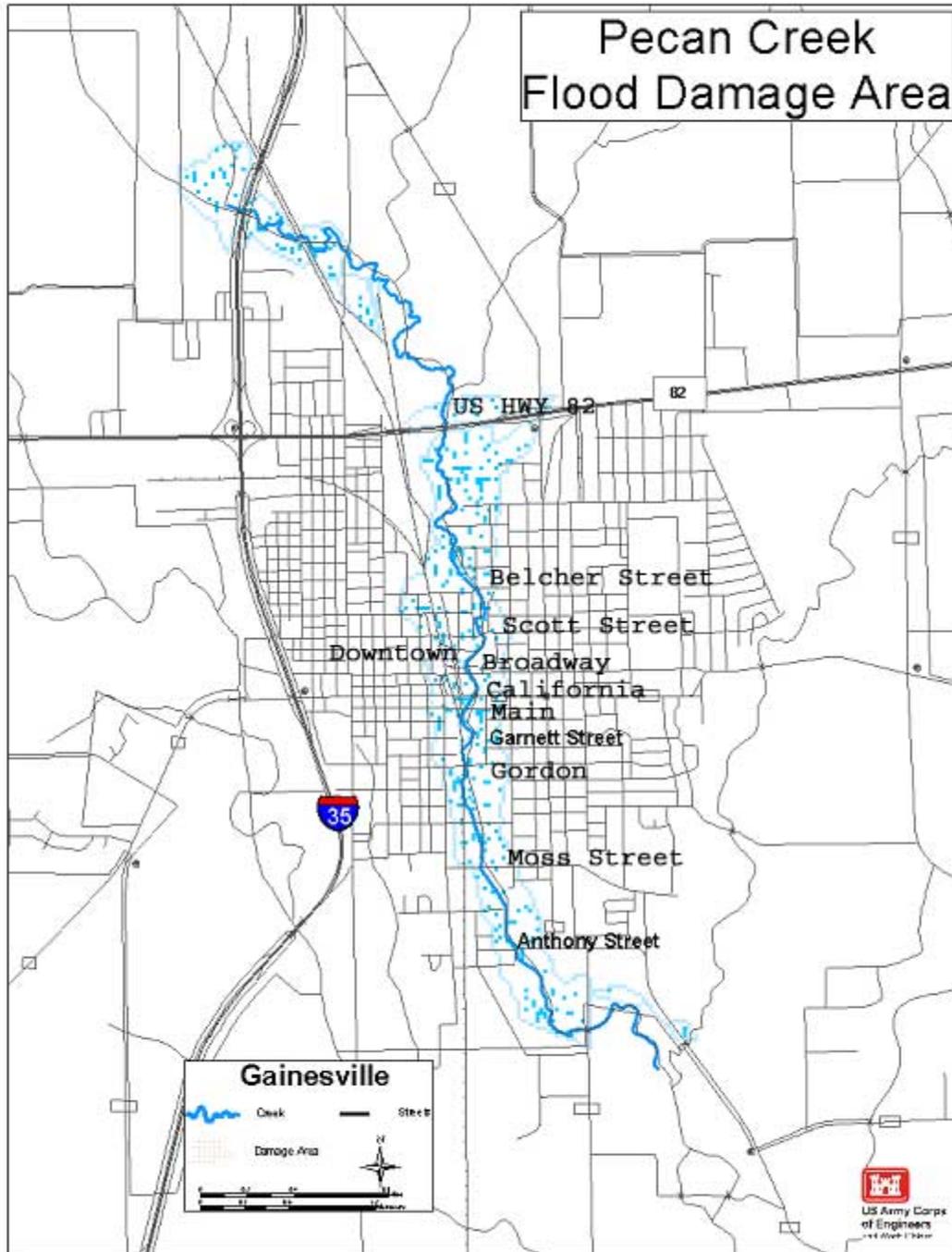


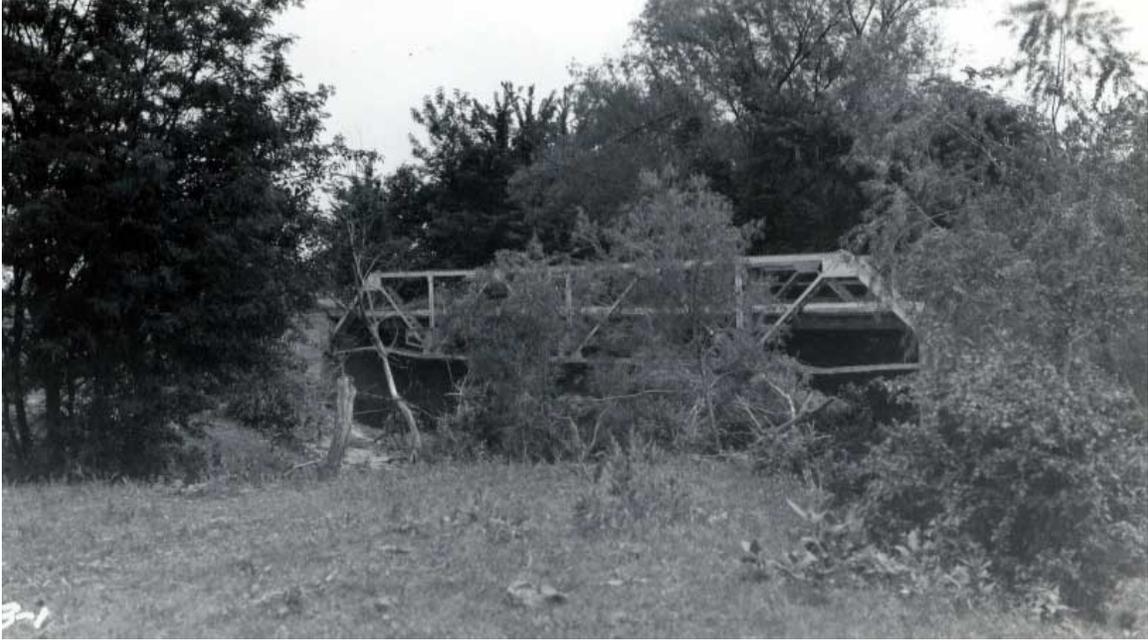
Figure 1. General Map of Pecan Creek Study Area



**Figure 2. Anthony Street Bridge (1948).**



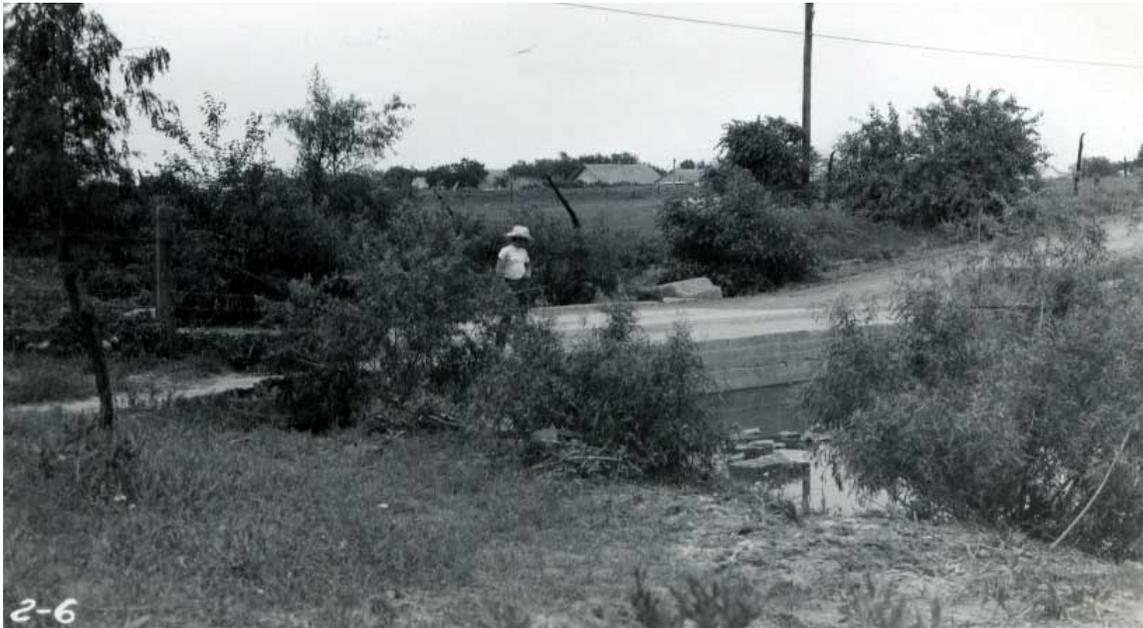
**Figure 3. Anthony Street Bridge Looking North, Beginning of Lower Reach (2003).**



**Figure 4. Moss Street Bridge (1948).**



**Figure 5. Moss Street Bridge Looking South (2003).**



**Figure 6. Gordon Street Water Crossing (1948).**



**Figure 7. Former Gordon Street Water Crossing (2003).**



**Figure 8. Garnett Street Bridge (1948).**



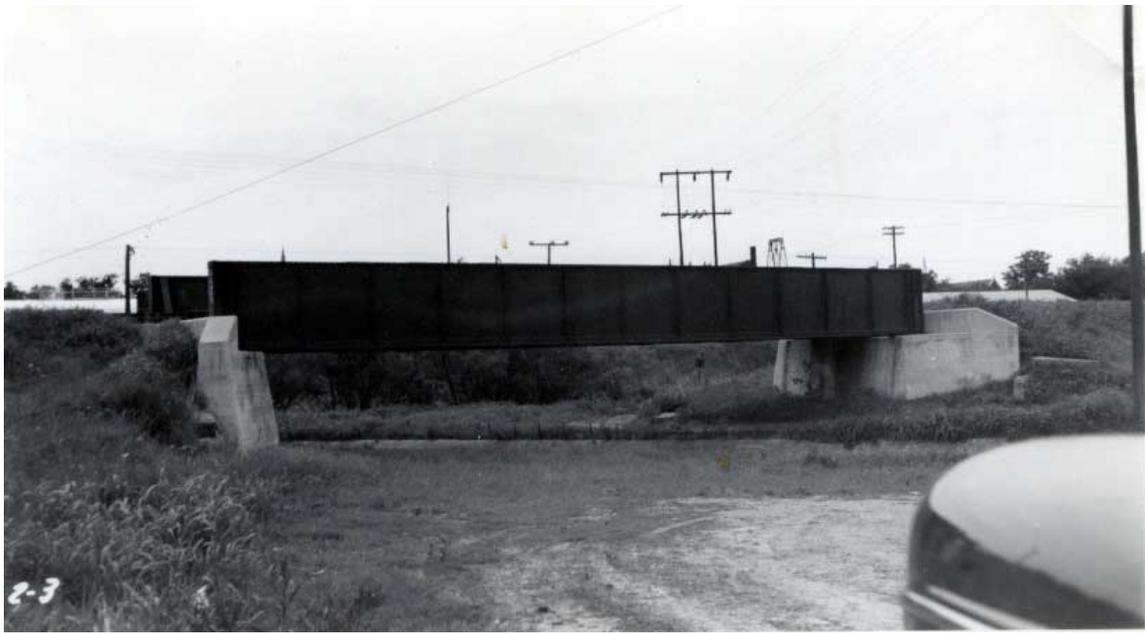
**Figure 9. Garnett Street Bridge Looking North (2003).**



**Figure 10. Beginning of Rock Lined Channel at Garnett Street Bridge (2003).**



**Figure 11. Rock Lined Channel (2003).**



**Figure 12. MKT Railroad Trestle (1948).**



**Figure 13. 1937 Railroad Abutment (2003).**



**Figure 14. Main Street Bridge (1948).**



**Figure 15. Main Street Bridge (2003).**



**Figure 16. California Street Bridge (1948).**



**Figure 17. California Street Bridge (2003).**



**Figure 18. View to North From California Street Bridge (2003).**



**Figure 19. California Street Bridge Looking West Toward Downtown (2003).**



**Figure 20. Broadway Street Bridge (1948).**



**Figure 21. Broadway Street Bridge (2003).**



**Figure 22. Scott Street Bridge (1948).**



**Figure 23. Scott Street Bridge Looking South at the End of the Rock Lined Channel (2003).**



**Figure 24. Rock Lined Channel South of Scott Street (1948).**



**Figure 25. Rock Lined Channel South of Scott Street (2003).**



**Figure 26. Belcher Street Bridge (1948).**



**Figure 27. Belcher Street Bridge Looking North, Beginning of Upper Reach (2003).**



**Figure 28. US HWY 82 Bridge, Limit of Upper Reach (2003).**

**Report Preparation.** Joseph S. Murphey, historic architect of the Environmental Division of the Fort Worth Corps of Engineers, prepared this report. Mr. Murphey exceeds the Secretary of the Interiors minimum qualifications for personnel evaluating federal undertakings as defined by 36 CFR Part 800.

**END OF REPORT**