

### TENNESSEE'S TOLL BRIDGES, 1927-1947: A CONTEXT STUDY

Tennessee Department of Transportation • 2014



# TENNESSEE'S TOLL BRIDGES 1927–1947 a context study

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### LIST OF ACRONYMS

- AASHO American Association of State Highway Officials
- AASHTO American Association of State Highway and Transportation Officials
  - ACHP Advisory Council on Historic Preservation
    - ACI American Concrete Institute
  - ASCE American Society of Civil Engineers
  - BPR Bureau of Public Roads
  - FB&D Ford, Bacon & Davis
  - FHWA Federal Highway Administration
  - HAER Historic American Engineering Record
    - NHL National Historic Landmark
  - NHPA National Historic Preservation Act
    - NPS National Park Service
  - NRHP National Register of Historic Places
    - NSA New South Associates
  - SHPO State Historic Preservation Office
    - SBP Special Bridge Program
  - TDH Tennessee Department of Highways
- TDHPW Tennessee Department of Highways and Public Works
  - TDOT Tennessee Department of Transportation and Public Works
  - USDA United States Department of Agriculture

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### I. INTRODUCTION

In 2012, the Tennessee Department of Transportation (TDOT) commissioned New South Associates (NSA) to complete a context study of Tennessee's public toll bridges built between 1927 and 1947. Funded by a "Special Bridge Program" created by the Tennessee Legislature in January 1927, the Tennessee Department of Highways and Public Works (TDHPW) proposed to construct or purchase 21 state-operated toll bridges with matching federal funds made available through the 1926 Federal-Aid Highway Act. Seventeen toll bridges were eventually constructed and one existing toll bridge was purchased (Table 1, Figure 1). The Special Bridge Program (SBP) was the first and only time the State of Tennessee Legislature passed the Tollway Act of 2007 that authorized tolling as a possible method to fund new highway and bridge projects. Eight potential toll projects were proposed and two recommended, but to date none have been implemented.

SBP #	Name	County	City/Town	River	Route	Built
1	J. Carmichael Greer	Loudon	Loudon	Tennessee	SR-2 (U.S. 11)	1927-1930
2	Hickman Lockhart Memorial	Benton-Humphreys	New Johnsonville	Tennessee	SR-1 (U.S. 70)	1927-1931
3	Milo Lemert Memorial	Hardin	Savannah	Tennessee	SR-15 (U.S. 64)	1927-1931
4	Alvin C. York	Decatur-Perry	Perryville	Tennessee	SR-20/SR-100 (U.S. 412)	1927-1931
5	Joseph B. Adkinson	Obion	Obion	Obion	SR-3 (U.S. 51)	1927-1931
6	Edward R. Talley	Hancock	Kyles Ford	Clinch	SR-70	1927-1928
7	Williams-Myer	Smith	Carthage	Cumberland	SR-25	1906-1908
8	Niles Ferry	Monroe	Vonore	Little Tennessee	SR-33 (U.S. 411)	1927-1930
9	Sidney C. Lewis	Stewart	Dover	Cumberland	SR-76	1928-1930
10	Russell's Ferry	Meigs	Decatur vic.	Hiwassee	SR-58 (U.S. 411)	1928-1930
11	Charles Love	Hancock	Sneedville	Clinch	SR-66	1928-1930
12	Henry Horton	Clay	Celina	Cumberland	SR-52	1928-1931
13	Scott Fitzhugh	Henry-Stewart	Paris Landing	Tennessee	SR-76 (U.S. 79)	1928-1930
14	Calvin John Ward	Roane	Kingston	Tennessee	SR-58	1928-1931
15	Nathan J. Harsh	Wilson-Trousdale	Lebanon vic.	Cumberland	SR-10 (U.S. 231)	1928-1930
16	James E. "Buck" Karnes	Knox	Knoxville/UT Farm	Tennessee	SR-73 (U.S. 129)	1928-1932
17	Marion Memorial	Marion	Haletown/Jasper	Tennessee	SR-2 (U.S. 41)	1928-1930
18	N/A	Rhea-Meigs	Decatur vic.	Tennessee	SR-30	N/A
19	Montgomery Bell	Cheatham	Ashland City	Cumberland	SR-49	1930-1931
20	N/A	Sumner-Wilson	Gallatin	Cumberland	SR-109	N/A
21	N/A	Jackson	Fort Blount	Cumberland	SR-53	N/A

#### Table 1. List of Tennessee's Toll Bridges

Figure 1. Location Map for Tennessee's Toll Bridges



Source: ESRI Resource Data, Streets Layer

This context establishes that Tennessee was the first in the nation to take advantage of matching federal funds for a statewide public toll bridge program and built more toll bridges than any other state. Constructed between 1927 and 1931, the bridges spanned major rivers and primarily replaced existing private toll ferries. The toll bridges (Figure 2) and accompanying toll houses were based on standardized designs created by engineers at the TDHPW. Their design featured center steel truss spans and concrete approaches supported by concrete bents, piers, and abutments. Three types of small frame toll collector's houses and offices were located at ends of the bridges to accommodate locally-hired toll collectors who were employed by the State of Tennessee (Figure 3).

With one exception, Tennessee freed its toll bridges between 1939 and 1947. The exception was the toll bridge at Carthage in Smith County, which was an existing private toll bridge the state purchased and freed in 1936. Only two of the 18 bridges are extant; the toll bridge in Obion County is abandoned while the one at Kyles Ford in Hancock County is still in use. The remainder have been demolished and replaced. In some cases private individuals purchased the toll houses and offices, relocating and renovating them for residential or commercial use. Thus the physical record of this important era in bridge building for Tennessee is no longer evident, warranting the need for a context study to provide documentation of the important role they played in the state's transportation history.

#### RESEARCH METHODOLOGY

TDOT provided the author with extensive documentation of the toll bridges, which Martha Carver and staff historians at the agency had collected over the past 30 years. This research included Tennessee Legislative Acts, local histories, photographs, TDOT preservation planning reports, and original engineering drawings for the majority of the bridges. Carver's *Tennessee's Survey Report for Historic Highway Bridges*, published in 2008, provided valuable information.

Vanderbilt University provided period issues of *Engineering News-Record*, U.S. Congressional records, and other documents that were valuable to the research effort. Period newspaper articles, community histories, and historic photographs were found at the Tennessee State Library and Archives. Existing survey files, National Register of Historic Places nominations, and maps were copied at the Tennessee State Historic Preservation Office. Research was also conducted at online repositories, including the Federal Highway Administration, Historic American Engineering Record, National Register of Historic Places, the Library of Congress, Tennessee Valley Authority, and the *Tennessee Encyclopedia of History and Culture*.





















#### Figure 3. Images of Tennessee's Toll Houses. Source: TDOT.



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Historians and staff members at State Historic Preservation Offices, Departments of Transportation, universities, and historic preservation organizations were contacted throughout the country in an attempt to track down similar toll bridges and programs. Genealogical information about bridge engineers, elected officials, community leaders, and toll collectors was gathered from ancestry.com. Local libraries and historians were also consulted.

TDOT historians are responsible for the documentation of the majority of the bridges. New South Associates completed documentation of the toll bridge still in use at Kyles Ford in Hancock County and former toll houses now located in Kingston, Roane County, and Lebanon, Wilson Country, in June and November of 2012, respectively. The toll bridge at Obion was documented by private video that had been uploaded to the Internet.

#### DOCUMENT ORGANIZATION

This chapter provides an introduction to the study. Chapter II provides a national context, including information on other states that adopted comparable toll bridge programs. Chapter III focuses on Tennessee's toll bridge program with information on the people who played a role in creating and implementing the program as well as information on locating, funding, designing, building, naming, using, and freeing the toll bridges. Chapter IV contains a resource inventory of Tennessee's 21 proposed toll bridges with individual histories, historic images, original engineering drawings, newspaper accounts, photographs, and information about toll collectors, if available, as well as documentation of the two extant toll houses. Chapter V contains the report's conclusion. The bibliography contains the primary and secondary sources consulted for this study.

### II. NATIONAL CONTEXT

#### BACKGROUND OF TOLLS

The practice of collecting tolls, or user fees, in America dates from the Colonial period. The first toll bridge opened in 1654 in Massachusetts and Virginia was the first state to charter toll roads in 1785. These transportation facilities were owned and operated by private business corporations that maintained the bridges and roads for the right to collect fees from travelers. Private toll roads were commonly known as turnpikes with the first opening in Pennsylvania in 1794. Unlike British turnpike companies, which were operated as nonprofit organizations financed by bonds, American turnpike companies were stock-financed corporations structured to pay dividends. In the nineteenth century, between 2,500 and 3,200 private turnpike companies financed, constructed, and operated toll roads across the country. In fact, so many turnpikes were constructed in the early nineteenth century that the period became known as the "Turnpike Era."<sup>1</sup>

By the mid-nineteenth century, turnpikes faced stiff competition from new forms of transportation such as railroads and canals, constructed by private corporations often with state subsidies. Many turnpike companies went bankrupt and the toll roads reverted to free public use. Without regular maintenance, the dirt turnpikes quickly degenerated into muddy pits and were nearly impassable. For a brief period in the 1840s and 1850s, privately constructed toll roads constructed of wooden planks were popular, since they were less expensive to construct than macadam roads made of compacted crushed stone. The plank roads lasted only four or five years until the wood deteriorated, however, and most were not replaced.<sup>2</sup>

Toll bridges operated without as many regulations as toll roads, such as mandatory toll exemptions for local travelers and controversies over how far apart to locate toll gates. And it was more difficult for travelers to evade paying tolls at bridges, unlike toll roads where toll evasion was a serious problem. Toll bridges were especially common in the Northeast where 59 where chartered between 1786 and 1798.<sup>3</sup>

2 Klein and Majewski, 2010.

M. Earl Campbell, "Toll Bridge Influence on Highway Traffic Operation." Master's Thesis, Yale University, 1946: 7-10; U.S. Federal Highway Administration. *America's Highways, 1776-1976:* A History of the Federal-Aid Program. Washington, DC, 1976: 8-11; Daniel B. Klein and John Majewski, "Turnpikes and Toll Roads in Nineteenth-Century America," 2010, accessed April 10, 2012: <u>http://eh.net/encyclopedia/article/klein.majewski.turnpikes</u>.

<sup>3</sup> Klein and Majewski, 2010.

#### GOOD ROADS MOVEMENT

By the late nineteenth century, the number of toll road companies in the U.S. had declined to roughly 400 to 600 companies. At the time, roads were mainly made of dirt, which turned into frozen mud in winter and potholed washouts in summer. Bridges were rare. Instead, motorists relied on privately-operated toll ferries, which were often slow and dangerous, in order to cross rivers and streams. Further worsening driving conditions, these roads were poorly marked and extremely difficult to maneuver. Around 1880, an American movement led by bicyclists demanded smooth and reliable roads that were toll-free. The movement gained strength from farmers' granges advocating improved farm-to-market roads and the U.S. Post Office, which lobbied for rural free mail delivery. Many progressive leaders were inspired by Europe where private ownership of roads was considered antiquated and where national and local governments maintained public roads.<sup>4</sup>

The rise of automobiles fueled the anti-toll road sentiment that swept the country by 1900. State governments began passing laws that enabled county governments to acquire and free private toll roads. More importantly, the Federal-Aid Highway Act of 1916 prohibited the use of federal matching funds on toll roads, which led state government officials to authorize county courts to free private toll roads, through condemnation and imminent domain if necessary. Within a few years, virtually all remaining toll roads had been freed across the country.<sup>5</sup>

A result of the nation's poor roads was the rise of what became known as the "Good Roads Movement," a prime component of the American Progressive Era, an era of wide-ranging reform between 1900 and 1920. Across the country, progressive reformers reacted to uncontrolled urbanization, corporate domination, political corruption, and industrialization and attempted to change society, from politics and economics to culture and religion. Progressivism nourished many crusades, including temperance, women's suffrage, Americanization, education, civics, and transportation.

Civic reform groups, often led by women, focused their energies on increasing the quality of life by lobbying for civic amenities such as schools, libraries, playgrounds, sidewalks, and parks. The women also sponsored civic beautification projects, preserved historic landmarks, and erected patriotic monuments at historic battlefields. In the 1920s and 1930s World War I memorials were erected on a large scale around the world and included civic landmarks such as monuments, sculptures, parks, auditoriums, and bridges.

<sup>4</sup> Klein and Majewski, 2010.

<sup>5</sup> Carver, 2008: 28; Klein and Majewski, 2010.



Good Roads advocates spread across the country, from big cities to small towns and rural farming communities. Advocates and lobbyists became involved in politics and influenced public policy, which resulted in government-funded road-building projects. Technological advances led to improved road-building techniques such as concrete and less expensive macadam. By the 1910s, cities and towns across America featured paved streets and were soon connected by smooth and hard-surfaced roads (Figure 4). The Good Roads Movement had a tremendous impact on the national economy, allowing commercial trucks to more efficiently distribute products from factories to customers as well as tourists to travel across the country on intrastate highways that connected major cities.<sup>6</sup>

The Good Roads Movement was especially needed in the South, where road conditions were dismal and one of the region's most criticized deficiencies. Overland travel in the South was difficult most of the time and practically impossible during winter months, especially in mountainous areas. In 1904, only four percent of the roads in the South were classified as "improved" and most of those were located in urban areas. Improved rural roads were nearly nonexistent. During the Progressive Era, the tenets of building a better and "New" South was often based on the trinity of good schools, good libraries, and good roads. Indeed, many progressive leaders in the New South argued that good roads were the key to the Progressive Movement.<sup>7</sup>

Figure 4. Portion of the Dixie Highway through Campbell County that was widened and surfaced with asphalt. The improvments were funded through a Federal Aid Project.

Source: *Dixie Highway Magazine*, April 1920.

<sup>6</sup> Dan Pierce, "Good Roads Movement," *Tennessee Encyclopedia of History and Culture*, 2010; accessed May 10, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=554</u>.

<sup>7</sup> Preston, Howard Lawrence. Dirt Roads to Dixie: Accessibility and Modernization in the South, 1885-1934. Knoxville: University of Tennessee Press, 1991: 11-13, 17; Jones, Robbie D. "'What's in a Name?' Tennessee's Carnegie Libraries & Civic Reform in the New South, 1889-1919." Unpublished master's thesis, Middle Tennessee State University, 2002: 52-53.

#### FEDERAL LEGISLATION AND FUNDING

The Good Roads Movement encouraged the development of Federal legislation and funding to address transportation problems across the nation. Bridges along these new roads were expensive to build, particularly those that crossed major waterways that often served as political dividing lines for adjoining cities, counties, and states. The involvement of multiple government agencies in constructing public infrastructure complicated the funding and planning processes and bridges required approval and permits from the federal government, including the U.S. War Department, U.S. Agricultural Department, and U.S. Congress. Even in the 1910s and 1920s building a bridge often required the coordination of several city, county, state, and federal agencies as well as many elected officials, no easy task in the best of circumstances. In many cases, local and state governments simply could not afford to construct expensive infrastructure projects such as large bridges that the public demanded.

Relief came in February of 1927 when Federal funds for the construction of toll bridges across the nation were made available through the Federal-Aid Highway Act, a bill passed by Congress that included a special provision allowing federal funding for state or locally-owned and operated public toll bridges and approaches located on Federal-Aid highways. The revival of public toll bridges was a response to the rapid expansion of the state and interstate highways during this period. This decision favoring state or locally owned toll bridges reflected the opinion of transportation leaders that it was contrary to good public policy for private individuals to profit from users of public roads through privately-owned ferries and toll bridges. In fact, in 1928 the chief of the federal highway department stated at a national meeting of transportation officials that: "There is no place on the public highway today for the privately owned toll bridge."8

The 1927 Federal Highway Act also stated that federal funds were not to be used on the construction of Federal-Aid highways that led to private toll bridges or toll ferries, whether previously in existence or planned for future construction. This was contrary to the system of Federal-Aid highways that many states had already created. The legislation also declared that most states were expending all available funds for improvement of roads, resulting in insufficient funding for bridges, and leaving it up to private individuals to construct toll bridges or toll ferries. The legislation was created to remedy the situation so that the federal government could assist state and local governments fund much needed public bridges, which were often costly. Some states, such as Tennessee, were able to obtain special exemptions that allowed construction of federally-funded public toll bridges on non-Federal Aid highways by lobbying their representatives in the U.S. Congress.<sup>9</sup>

America's Highways, 1976: 116; "The Federal Highway Act," House of Representatives Report No. 8 2109, H.R. 16551, February 16, 1927: 1. "The Federal Highway Act," February 16, 1927: 2-3.

<sup>9</sup> 

#### STATEWIDE TOLL BRIDGE PROGRAMS

When federal matching funds became available for the first time in 1927 to assist in building state-owned toll bridges, several states took advantage of the opportunity. Most of the state-operated toll bridges were intended to replace privately-operated toll ferries, which were reviled by the traveling public as being too slow, unreliable, and dangerous. States that took advantage of the new Congressional provision included Alabama, Arkansas, California, Kentucky, New York, and Tennessee. By 1929, the federal government had approved funding for the construction of approximately 60 toll bridges operated by state governments or state-designated agencies. Of these, the vast majority was located in the South, where transportation infrastructure was greatly needed, and included nine in Arkansas, 15 in Alabama, 12 in Kentucky, and 21 in Tennessee.<sup>10</sup>

Notable examples of monumental federally-funded toll bridges in large cities include the George Washington Bridge (1927-1931) spanning the Hudson River between Manhattan and New Jersey, the Triborough/Robert F. Kennedy Bridge (1929-1936) in New York City, and the San Francisco-Oakland Bay Bridge (1933-1936) in California.<sup>11</sup>

Toll bridges were also constructed in other states during this period; however, they were either privately-owned and operated or constructed by local and state governments without matching federal funds. Between 1927 and 1929 alone, the U.S. Congress approved more than 80 privately-owned toll bridges. During this period, non-federally funded toll bridges were built in Colorado, Missouri, Florida, Indiana, Illinois, Iowa, Louisiana, Michigan, New Jersey, North Carolina, Pennsylvania, Washington, and West Virginia.<sup>12</sup>

Several states hired professional engineering consultants to prepare analyses reports and feasibility studies for determining the best locations and operations of proposed toll bridges. One such engineering firm was Ford, Bacon & Davis based in New York City. The firm had been founded in 1894-1895 in Philadelphia by partners Frank R. Ford (1871-1930), George W. Bacon (1869-1953), and George H. Davis (1863-1957). Relocating to New York City by 1900, the firm specialized in improving operations of public transportation systems, initially electric streetcars in major cities such as Chicago, New Orleans, Detroit, Cleveland, and New York.

<sup>10</sup> America's Highways, 1976: 116; Schuyler, P.K. "Toll Bridges in Operation Total 296," Engineering News-Record, Vol. 105, No. 23, December 4, 1930: 880; Webbink, P. (1929). "Toll bridges and toll roads." Editorial research reports 1929 (Vol. I). Washington, DC: CQ Press. Retrieved from http:// library.cqpress.com/cqresearcher/cqresrre1929021400, November 11, 2011; Robert W. Scoggin (2012). "Bridges." Arkansas Encyclopedia of History & Culture. Retrieved from http://www. encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=4208, November 11, 2011; Ford, Bacon & Davis, Inc. "Report [to Alabama State Bridge Corporation] Prospective Traffic and Revenue Fifteen Proposed Highway Toll Bridges In State of Alabama." Volume 1, September 15, 1928.

<sup>11</sup> America's Highways, 1976: 116.

<sup>12</sup> Schuyler, P.K. "Toll Bridges in Operation Total 296," *Engineering News-Record*, Vol. 105, No. 23, December 4, 1930: 880.

This specialty grew to include other types of engineering infrastructure such as public utilities and transportation facilities, including ferries and toll bridges. The firm also played an important role in reconstructing San Francisco after the 1906 earthquake.<sup>13</sup>

Tennessee became the first state in the nation to pursue the matching federal funds at a statewide level when Governor Austin Peay and the Tennessee Legislature created a "Special Bridge Program" on January 19, 1927. This enabling legislature allowed the TDHPW to take advantage of the federal provision that provided matching funds for construction of state-owned and operated toll bridges along Federal-Aid routes. By 1929, Tennessee had approved construction or acquisition of twenty-one toll bridges with a total cost of \$13,250,000; eighteen would eventually become operational. Over half were not located along Federal-Aid routes; however, Tennessee officials obtained special exemptions from the U.S. Congress. This effort is more fully discussed in the following chapter. Three neighboring states – Alabama, Arkansas, and Kentucky - soon followed Tennessee's lead.

#### COMPARABLE STATE PROGRAMS

Three states operated comparable federally-funded toll bridge programs. This included Arkansas, Alabama, and Kentucky. The following is a brief overview of each state's toll bridge program.

#### Arkansas

Following Tennessee's lead, in March 1927 the Arkansas Legislature passed enabling legislation allowing the Arkansas State Highway Commission to replace privately operated ferries with toll bridges constructed with state and federal funds. This state legislation was part of a significant \$52,000,000 bill to improve the state highway system over a four-year span. The bill, however, resulted in lawsuits contesting the State Highway Commission's authority to construct toll bridges. On January 31, 1928, the Arkansas Supreme Court decided in favor of the State Highway Commission. Between 1929 and 1931, Arkansas constructed nine toll bridges, including the Augusta Bridge, Red River Bridge at Garland City, Clarendon Bridge (Figure 5A), Newport Bridge, Calion Bridge, Garland City Bridge, Ozark Bridge, Quachita Bridge, and Cotter Bridge.<sup>14</sup>

<sup>13 &</sup>quot;Frank R. Ford," Electrical World, Volume 55 (January 20, 1910): 154-155.

<sup>14</sup> Robert Scoggins, Historic Resources Coordinator at Arkansas State Highway & Transportation Department, email communication to Tammy Sellers, Historian at TDOT, February 14, 2007; O.L. Hemphill, "What About Toll Bridges? A Question of Interest," Arkansas Highways, February 1927 (Vol. 4, No. 2): 9-10; "The Toll Bridge Menace," Arkansas Highways, May 1927 (Vol. 4, No. 5): 8-10.



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### Figure 5. Toll Bridges in Other States

(A) Clarendon Bridge Spanning White River, U.S. 79, Arkansas, 1988. Source: HAER.

(B) J. Lee Long Bridge Spanning the Alabama River, SR 28, Camden, Alabama, 1995. Source: University of Alabama.

(C) Jo Blackburn Bridge Spanning Kentucky River, Tyrone, Kentucky, 1933: Source: Frank M. Hohenberger Photograph Collection, Indiana University.

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The bridges and their accompanying toll houses were designed by Ira Grant Hedrick (1868-1937), a noted civil engineer from Hot Springs hired by the Arkansas State Highway Department. In 1928, the State Highway Department hired the engineering firm Ford, Bacon & Davis, Inc. of New York City to complete independent feasibility studies estimating traffic and revenues for the proposed toll bridges at Newport and Clarendon. Arkansas also purchased some private ferries in order to eliminate competition with toll bridges. Although state legislation required tolls to be collected by state-funded toll collectors until the cost of construction had been met, Arkansas freed all its toll bridges in 1938 as a condition of receiving a \$4,300,000 federal allocation.<sup>15</sup>

#### Alabama

On August 31, 1927, Alabama created the Alabama State Bridge Corporation (ASBC); a quasi-governmental authority headquartered at the capitol city of Montgomery, with the mission of issuing toll revenue bonds for replacing private ferries with new federally-funded toll bridges. Like Arkansas, the corporation hired Ford, Bacon & Davis, Inc. to prepare an independent 105-page feasibility study documenting the best locations for the toll bridges in Alabama. Completed in 1928, the report estimated toll bridge traffic and income for 15 proposed toll bridges at ferry sites along Alabama's State Highway System. Containing detailed descriptions, maps, tables, and charts, the report estimated net revenues for these toll bridges to vary from \$762,000 to \$928,000 per year. The corporation collected toll revenues for operating the bridges and retiring the bonds, with the intention of freeing the bridges no later than 18 years after opening. The bridges were intended to be memorials to "eminent deceased Alabamians."<sup>16</sup>

The ASBC issued a request for bids for construction of all 15 bridges on November 27, 1928. Within a month, the ASBC selected contractors from Indiana, Mississippi, Kansas, Alabama, Georgia, and Missouri. The steel truss bridges ranged in length from 840 to 15,000 feet, including approaches. Constructed simultaneously from 1929-1931, the bridges spanned the Alabama River at Camden (Figure 5B) and Claiborne; the Coosa River at Cedar Bluff, Riverside, and Childersburg; the Tombigbee River at Gainesville, Eps, Butler, Jackson, and Cochrane; the Warrior River at Eutaw and Demopolis; and the Tennessee River at Scottsboro, Guntersville,

Scoggins, 2007; "Newport Bridge, Newport, Jackson County," Arkansas Historic Preservation Program, <u>http://www.arkansaspreservation.com/historic-properties/\_search\_nomination\_popup.aspx?id=1133</u>, accessed January 15, 2013; NPS, "Clarendon Bridge," HAER No. AR-49, 1988. Several of Arkansas's toll bridges were documented in 1988 by the Arkansas-SHPO and HAER through the "Arkansas Historic Bridge Recording Project" and "Historic Bridges of Arkansas" Multiple Property Nomination to the NRHP. The Cotter Bridge, a noted concrete arch bridge, was designated a National Historic Civil Engineering Landmark in 1986 and listed in the NRHP in 1990. Four bridges are still in use although two are scheduled to be replaced with new bridges.

<sup>16</sup> Ford, Bacon & Davis. "Report [to Alabama State Bridge Corporation]: prospective traffic and revenue; fifteen proposed highway toll bridges in state of Alabama," Birmingham, Alabama, 1928; NPS, "Keller Memorial Bridge," HAER No. ALA-139, 1991; Earl Gardner, "Cobia Bridge gone; new structure under way," Cherokee County Herald, July 6, 1994.

and Whitesburg Ferry. In 1937, the ASBC turned the "Memorial Bridges" over to the Alabama State Highway Commission to operate. The bonds were paid off and the bridges were freed in 1938.<sup>17</sup>

#### Kentucky

Following the lead of its southern neighbors in May 1929, the Kentucky Legislature approved the sale of approximately \$10,767,000 in bridge bonds for implementing a statewide "Toll Bridge Program" for building 12 new toll bridges to replace privately-operated toll ferries. The year before, Governor Flem D. Sampson had signed the enabling legislation, sponsored by House Representative L.P. Murphy of Georgetown. Known as the "Murphy Toll Bridge Act of 1928," this legislation gave the state government authority to condemn or purchase privately-owned toll bridges and issue bonds for construction of new toll bridges as part of the state's primary highway system. The federal government provided half the funds. The Murphy Toll Bridge Act was controversial, but withstood several lawsuits and attempts to amend or repeal it. Once the U.S. Congress approved the Kentucky Toll Bridge Program in August 1930, the Kentucky Highway Commission quickly went to work constructing the new toll bridges, which opened between 1931 and 1932.<sup>18</sup>

The Kentucky Toll Bridge Program included construction of four bridges spanning the Cumberland River at Burnside, Canton, and Smithland; two bridges spanning the Kentucky River at Tyrone (Figure 5C) and Boonesboro; three bridges spanning the Ohio River at Carrollton, Henderson, and Maysville; a bridge spanning the Green River at Spottsville; and two bridges spanning the Tennessee River at Clark's River near Paducah and Eggner's Ferry. The three largest bridges were intrastate bridges spanning the Ohio River and also located in adjoining Indiana and Ohio; both states assisted with construction costs and maintenance.<sup>19</sup>

Nationally prominent bridge engineering firms designed the largest of these bridges. The J.E. Greiner Company of Baltimore, Maryland, designed and supervised construction of the bridge spanning the Ohio River at Ashland, Kentucky, and Coal

<sup>17</sup> Gene A. Ford, "Alabama Statewide Bridge Survey and Historical Contexts," draft report submitted to the FHWA, Washington, by the Office of Archaeological Research, University of Alabama Museums, Tuscaloosa, 2012: 89-95. In 1983, HAER documented the John T. Milner Bridge (1929) in Cochran as part of an effort to document thirty bridges impacted by a U. S. Army Corps of Engineers flooding project along the Upper Tombigbee River Valley in Mississippi and Alabama. During a 1996-1998 Historic Bridge Study by the University of Alabama for the Alabama DOT, several were determined "possibly eligible" for listing in the NRHP. Twelve of Alabama's 15 toll bridges have been demolished and replaced with new bridges.

<sup>&</sup>quot;Sale of Kentucky Bond Assures Toll Bridge Construction," *Engineering News-Record*, Vol. 102, No. 20, May 16, 1929: 805; John E. Kleber, ed. "Murphy Toll Bridge Act," *The Kentucky Encyclopedia*. Lexington, KY: University of Kentucky Press, 1992: 663; U.S. Congressional Act, "Authorizing State Highway Commission of Kentucky to Acquire, Construct, Maintain, and Operate Certain Bridges," Senate Report No. 623, May 7, 1930; U.S. Congressional Act, "Bridges in Kentucky," House of Representatives Report No. 1739, May 29, 1930.

<sup>19 &</sup>quot;Sale of Kentucky Bond Assures Toll Bridge Construction," *Engineering News-Record*, Vol. 102, No. 20, May 16, 1929: 805.

Grove, Ohio. The bridge spanning the Ohio River at Maysville, Kentucky, and Aberdeen, Ohio, was designed by bridge engineers Ralph Modjeski (1861-1940) and Frank M. Masters of Harrisburg, Pennsylvania. Modeski and Masters also designed the nearly 6,000-foot long bridge spanning the Ohio River at Henderson, Kentucky, and Evansville, Indiana. The bridge spanning the Ohio River at Milton, Kentucky, and Madison, Indiana, was designed by J.G. White Engineering Company of New York and constructed by the Mount Vernon Bridge Company of Mount Vernon, Ohio. The bridge spanning the Cumberland River at Smithland was constructed by the Nashville Bridge Company, of Nashville, Tennessee, and the bridge spanning the Kentucky River at Tyrone was constructed by the Virginia Bridge Company.<sup>20</sup>

Kentucky's Toll Bridge Program included the acquisition of existing bridges, including the bridge spanning the Kentucky River at Clays Ferry. Built in 1869, the state paid \$200,000 for the iron toll bridge in 1929 and freed it in 1930; the state built a replacement bridge in 1946. In December 1937, Kentucky purchased a private toll bridge spanning the Ohio River. Constructed from 1928-1929, this nearly \$1,400,000 bridge connected Madison, Kentucky, with Milton, Indiana.<sup>21</sup>

Unlike other states, Kentucky maintained and repaired its toll bridges with highway funds, rather than bridge tolls. This enabled the bridges to increase collected toll revenues. In the late 1930s, Governor Keen Johnson initiated plans to amortize the bonds so the tolls could be lifted. For example, in December 1939, he implemented a temporary 22-day trial period of discounted half-price fares, which resulted in increased traffic. Kentucky freed its toll bridges between 1941 and 1947.<sup>22</sup>

#### Comparison of State Programs

Each of the four Southern states – Tennessee, Arkansas, Alabama, and Kentucky - implemented their statewide toll bridge programs differently. No other states established large-scale statewide toll bridge programs using federal funds. California

<sup>20 &</sup>quot;Kentucky Completes First Unit of Toll Bridge Program, *Engineering News-Record*, Vol. 107, No. 8, August 20, 1931: 315; "New Toll Bridges Opened in Kentucky and West Virginia," *Engineering News-Record*, Vol. 107, No. 20, November 12, 1931: 788; Doug Loescher, "Maysville-Aberdeen Bridge," NRHP Nomination, 1983.

Kentucky Department of Highways, "The Story of the Splendid Milton-Madison Bridge," Event Program, November 1, 1947; John E. Kleber, ed. "Clay's Ferry Bridge," *The Kentucky Encyclopedia*, Lexington, KY: University of Kentucky Press, 1992: 205-206.
Ogden, Frederic D., ed. "Governor Keen Johnson to Kentucky Free Bridge Association," July 1939.

<sup>22</sup> Ogden, Frederic D., ed. "Governor Keen Johnson to Kentucky Free Bridge Association," July 1939. *The Public Papers of Governor Keen Johnson, 1939-1943.* Lexington, KY: University of Kentucky Press, 1982: 254-255; Melissa C. Jurgensen. *Images of America: River Towns of Central Kentucky.* Charleston, SC: Arcadia Publishing, 2008: 9; "Bridge Building Boom Brings Three New Steel Ones Here in Year's Time," *The Gleaner*, Henderson, Kentucky, March 30, 1996. Currently, several of Kentucky's toll bridges are extant, including the bridge spanning the Ohio River at Maysville, Kentucky, and Aberdeen, Ohio (NRHP-listed, 1983); the bridge spanning the Cumberland River at Canton; the bridge spanning the Cumberland River at Smithland; the bridge spanning the Kentucky River at Tyrone, a unique S-shaped deck truss bridge; the bridge spanning the Green River at Spottsville; and the bridge spanning the Ohio River at Henderson, Kentucky, and Evansville, Indiana. The bridge spanning the Ohio River at Milton, Kentucky, and Madison, Indiana, was replaced from 2011-2013.

and New York used matching federal funds, but only for monumental bridges in large cities. The citizens of some states such as Missouri were adamantly opposed to paying tolls for publically-funded infrastructure. These four Southern states saw the tolls as a short-term solution to a long-term problem of lack of funding for expensive bridges, particularly those crossing major rivers and spanning multiple counties and states.

Alabama created an independent government authority to oversee its toll bridge program, which allowed decisions about where to locate bridges to be based more on need, traffic counts, and costs. By limiting political influence, Alabama was able to free its 15 toll bridges in only eight years. By funding maintenance with highway funds, Kentucky was also able to free its 12 toll bridges with tolls collected, but took 15 years to do so.

Arkansas and Tennessee were unable to free their toll bridges with toll revenues collected. Arkansas absorbed the operating losses and freed its nine toll bridges in 1938. Unlike the other states, Tennessee never completed any feasibility studies or involved professional engineering consultants. Tennessee relied primarily on political influence for locating its 21 toll bridges, many of which were in sparsely populated rural areas and could barely collect sufficient tolls to pay the salaries of the toll collectors. Tolls were never collected on at least two toll bridges and three bridges were never constructed.

Tennessee leaders, however, were innovative and were able to take advantage of a federal program to build more toll bridges than any other state. Elected officials were able to convince federal agencies to make exemptions for Tennessee that enabled the state to build toll bridges on non-federal routes and to group toll revenues collectively in an attempt to have the more successful bridges cover expenses for less successful bridges. Many of these bridges were located in isolated rural areas that may not have received bridges otherwise. Indeed, one of the unbuilt locations did not get a bridge until 1994 and another never got a bridge. Tennessee leaders had hoped to free all the toll bridges after eight years of collecting tolls; however, the program lasted twice as long. After sixteen years, longer than any other, Tennessee leaders decided to pay off the construction bonds with general operating funds and free the bridges. This was the first and last time that the State of Tennessee has implemented a toll program for transportation projects.



# III. TENNESSEE'S TOLL BRIDGES, 1927-1947

In Tennessee, collecting tolls had been customary since the late eighteenth century for privately-owned and operated river ferries and bridges, with toll roads arriving in the 1830s. In the nineteenth century, the number of private ferries operating in Tennessee numbered from 800 to 1,000. The first bridge spanning the Cumberland River at Nashville was a toll bridge constructed in 1823. In 1836, the Tennessee Legislature approved a law that subsidized transportation improvements by allowing the state to purchase one-third of the stock in private companies building railroads and turnpikes. Soon, the state had purchased stock in 24 turnpike companies, mostly based in Middle Tennessee. The turnpike companies constructed toll houses at toll gates where toll collectors lived.<sup>23</sup>

As in other parts of the country, by the turn-of-the-twentieth century Tennesseans had grown tired of paying tolls and were eager to rid the state of private turnpikes and toll roads. The Tennessee Legislature passed a law in 1911 that authorized county governments to purchase private toll roads and make them free to the public. By 1912, the Davidson County government had purchased its section of the Gallatin Turnpike, a private toll road constructed in the late 1830s between Gallatin and Nashville. Other state-subsidized turnpikes had connected Nashville with nearby Franklin and Lebanon as well as Louisville, Kentucky.<sup>24</sup>

The Federal-Aid Act of 1916 prohibited the use of federal matching funds on toll roads, which led to state government officials to authorize county courts to free private toll roads, through condemnation and imminent domain if necessary. By 1926, all toll roads in Tennessee had been freed although privately-operated toll bridges and ferries continued to operate, primarily in rural areas.<sup>25</sup>

#### THE GOOD ROADS ERA

At the turn-of-the-twentieth century, improved roads in Tennessee were few and far between and many rural roads were nearly impassable. In June 1906, the renowned inventor and businessman Thomas A. Edison (1847-1931) paid a visit to Nashville. He had traveled with his son Charles by automobile from New Jersey to Charlotte, North Carolina, and then on to Hickman County in Middle Tennessee

<sup>23</sup> Carver, Martha. Tennessee's Survey Report for Historic Highway Bridges: Pre-1946 Masonry Arch, Timber Truss, Metal Truss, Concrete Arch, Metal Arch and Suspension Bridges. Nashville: Tennessee Department of Transportation, 2008: 25-27.

<sup>24</sup> Carver, 2008: 27.

<sup>25</sup> Carver, 2008: 28; Nathan W. Dougherty, "Historical Sketch of the Tennessee Highway Department," *The Tennessee Road Builder*, August 1932: 7.

Figure 6. Thomas Edison, Nashville, 1906



"What the people of this State most need is good roads. The roads down where I have been are simply frightful...There is no better investment than good roads."

-Thomas Edison

Source: *Nashville American*, June 14, 1906. in search of cobalt ores. In an interview with a local Nashville newspaper, Edison spoke about agriculture, timber, and roads. Edison declared, "What the people of this State most need is good roads. The roads down where I have been are simply frightful...There is no better investment than good roads." (Figure 6). In the article, the newspaper editor opined that readers should not "let the remarks of a sage like Mr. Edison pass by unheeded."<sup>26</sup>

The following year, 1907, the Tennessee Legislature created the Tennessee Highway Commission (THC), a three-member commission charged with creating a comprehensive system of state roads. The legislation at that time, however, provided no funding and no staff, so the commission soon disbanded.<sup>27</sup>

In 1915, the Tennessee Legislature and Governor Tom Clarke Rye (1863-1953), an attorney from Paris, established the Tennessee Department of Highways (TDH). The action was taken primarily in anticipation of matching federal funds that would become available for highway construction as part of the Federal-Aid Act of 1916. Beginning with New Jersey in 1891, most states had already created state highway departments. Tennessee was one of the last five states in the country to follow suit; the others were Florida, Indiana, South Carolina, and Texas. The TDH was directed by the Tennessee Highway Commission (THC), which included six non-compensated commissioners, including the governor; state geologist; and dean of engineering at the University of Tennessee. In 1917, a State Highway Plan was created, but again with no funding.<sup>28</sup>

Governor Rye, a Democrat, signed legislation requiring registration of automobiles and trucks as well as the creation of a special state highway tax to match federal funding. In April 1915, he attended the organizational meeting of the Dixie Highway Association in Chattanooga and helped set the route of the Dixie Highway, an early intrastate route connecting Chicago and Miami, and elect the organization's board of directors.<sup>29</sup>

The Tennessee Legislature established a State Highway Commission in 1915 in anticipation of the Federal-Aid Act of 1916, which would provide federal matching funds for road construction. The commission was charged with creating and implementing a statewide plan for highway construction, establishing uniform

<sup>26 &</sup>quot;Words of a Sage," Nashville American, June 15, 1906; "Thos. A. Edison in Nashville," Nashville American, June 14, 1906; "Finds Cobalt in Tennessee," Nashville Banner, June 14, 1906; The Thomas Edison Papers, accessed May 20, 2013: http://edison.rutgers.edu. Edison discovered cobalt at Coble, Tennessee, and was said to have had a wagonload delivered to his laboratories in Orange, New Jersey.

<sup>27</sup> Carver, 2008: 95

<sup>28</sup> Carver, 2008: 95-96.

<sup>29</sup> Carver, 2008: 95; Anne-Leslie Owens, "Thomas Clarke Rye," Tennessee Encyclopedia of History & Culture, 2013; accessed May 8, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=1166;</u> Leslie N. Sharp. Tennessee's Dixie Highway: Springfield to Chattanooga. Charleston, SC: Arcadia Publishing, 2011: 19; Tennessee State Highway Department, History of the Tennessee Highway Department, Nashville, 1959: 36.
standards of road construction and maintenance, advising local governments, and executing contracts with the federal government. Until 1915, the planning, construction, and maintenance of roads and bridges in Tennessee were under local authority, primarily county governments. During World War I, little work was completed. In 1919, however, the Legislature began to receive Federal Aid and provided the first substantial funding for implementing the State Highway Plan.<sup>30</sup>

In 1919, the TDH was reorganized by Governor Albert H. Roberts (1868-1946), an attorney and educator from Alpine, under a three-member salaried commissioner structure. The first three members of the THC, each representing one of the state's three Grand Divisions, were William W. House (1871-1932), a gravel and sand dealer from Dresden who served as the THC Assistant Secretary; William Porter Moore (1869-1931), a highway engineer and road contractor from Columbia who served as the THC Engineer; and William Tecumseh Testerman (1862-1940), an internal revenue collector from Rogersville who served as the THC Secretary. Testerman was originally from Sneedville and Kyles Ford, the locations of two of Tennessee's toll bridges. In 1920, all three resided together part-time in a Nashville lodging house on 8<sup>th</sup> Avenue.<sup>31</sup>

The reorganized TDH created the State Highway System with some 4,000 miles of roads designated as State Routes, which were funded by county, state, and federal governments. Due to limited funding, only 244 miles of the 4,000 miles of State Routes had been completed between 1919 and 1922. During this period state expenditures for roads ranked fourth in state spending behind education, Confederate pensions, and charitable institutions. Indeed, Tennessee became known as a "detour state" to out-of-state travelers and tourists due to the deplorable condition of its roads and lack of bridges.<sup>32</sup>

In 1923, the commission designated the State Highway System, which was a system of primary and secondary roads that the state intended to expend Federal-Aid funding. That year, the commission also designated the Federal Aid System along with additional highways as the State Highway System. In 1925, the state issued its first bonds, which enabled it to borrow money in order to fund highway construction. These actions ushered in a new era of Tennessee's infrastructure improvements, including intrastate and interstate highways, bridges, urban viaducts, and parkways.

<sup>30</sup> Carver, 2008: 118-119.

<sup>31</sup> Carver, 2008: 98; U.S. Population Census, 1910, 1920, 1930, 1940

<sup>32</sup> Carver: 2008: 98, 118-199.

#### EARLY TWENTIETH-CENTURY TRANSPORTATION LEADERSHIP

The following section provides background information on the elected officials and highway department officials that played pivotal roles in creating and implementing Tennessee's toll bridge program. Two governors and three commissioners of TDH served during the initial creation and implementation of the special toll bridge program from 1927-1931. The governors were: Austin Peay and Henry Hollis Horton. The TDH commissioners were Clark Neil Bass, Colonel Harry S. Berry, and Robert H. Baker.

#### Governor Austin Peay (1923-1927)

It was during the administration of Governor Austin Peay (1876-1927) that Tennessee's special toll bridge program was created. A native of Kentucky and attorney from Clarksville, Peay (Figure 7) had attended Washington and Lee University in Lexington, Virginia, and Centre College in Danville, Kentucky. He served two terms from 1901-1905 as a Democrat representing Clarksville in the Tennessee House of Representatives and in 1908 he managed the successful campaign of Governor Malcolm R. Patterson. Peay lost his first bid for Governor in 1918, refused to run in 1920, but he won on his second attempt as a progressive Democrat in 1922.

When Peay took office, the state was mired in debt, had underperforming schools, and could count only 244 miles of paved roads with few bridges spanning major rivers. During his three terms as governor, Peay completely reorganized the inefficient state government by consolidating 64 bureaus into eight state departments and overhauling the tax code, which resulted in a \$1,200,000 budget surplus and erased the massive \$3,000,000 debt. He reformed education, increased funding for the University of Tennessee, established new colleges at Martin and Clarksville, created the first state park at Reelfoot Lake, revived agriculture, and assured the establishment of the Great Smoky Mountains National Park by passing a \$2,000,000 bond bill for the purchase of parkland from private lumber companies.<sup>33</sup>

Governor Peay also dramatically expanded the state's transportation system by building new highways and bridges. Following up on his "politics and roads don't mix" campaign slogan, in 1923 he restructured the TDH once again, this time under a single commissioner structure, and renamed it the TDHPW, the name it held until 1972 when the agency was renamed the Tennessee Department of Transportation (TDOT).<sup>34</sup>



Figure 7. Governor Austin Peay

Source: Library of Congress.

<sup>33</sup> Dan Pierce, "Austin Peay," Tennessee Encyclopedia of History & Culture, 2013; accessed May 8, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=1047</u>; Carver, 2008: 99-100.

<sup>34</sup> Carver, 2008: 99-100.

Governor Peay appointed James Gorman Creveling, Jr. (1871-1939) as the first Commissioner of the TDHPW. A native of St. Louis, Missouri, Creveling held engineering degrees from universities in both the U.S. and Germany and had chaired the Davidson County Road Commission from 1917-1923. Charged with eliminating politics from the TDHPW, Creveling served as commissioner until October 21, 1925. Creveling hired C. Neil Bass as his first assistant and Robert H. Baker as second assistant; both Bass and Baker would later become TDHPW Commissioners. Creveling also hired Leonard W. Erickson to oversee bridge engineering and design.<sup>35</sup>

In November 1923, the U.S. Bureau of Public Roads, forerunner of the FHWA, approved Creveling's recommendation that the 4,000-mile Tennessee State Highway System also serve as the Federal Aid System routes in Tennessee. Routing for bridges and highway in Tennessee ran from west to east (e.g., Memphis to Nashville) and south to north (e.g., Chattanooga to Knoxville). Creveling served as Commissioner of TDHPW until October 1925 when he resigned over a politically charged and multi-state controversy regarding funding the Harahan Bridge spanning the Mississippi River in Memphis; Creveling claimed it was illegal for Tennessee to be required to fund the section of the bridge approach in Arkansas although high-ranking politicians felt otherwise.<sup>36</sup>

On May 12, 1924, the TDHPW unveiled the "Zero Milestone of Tennessee" at the southeast corner of Memorial Park at Union Street and Sixth Avenue in downtown Nashville (Figure 8). This zero mile marker monument emulated the Zero Milestone dedicated by President Warren G. Harding on June 4, 1923, at the White House in Washington, DC, which denoted the starting point of the National Highway System. Likewise, the Zero Milestone in Nashville marked the starting point of the Tennessee State Highway System, which the State assumed full control of in 1925. Up until then, the county governments were responsible for construction and maintenance of the highways included in the State Highway System. In 1925, the TDHPW began collecting county funds to be expended by the TDHPW on county roads. That year, the Tennessee Legislature increased funding for highways, which were becoming bottlenecked by lack of bridges spanning major rivers.<sup>37</sup>

During his term as the "Good Roads Governor," more than half of the state's total expenditures went to transportation projects. In order to finance new road construction, he implemented a two percent tax on gasoline, automobile and truck registration fees, and short-term bonds. Between 1923 and 1927, Governor Peay spent over \$75,000,000 in new road and bridge construction, increasing the State



Figure 8. The Zero Milestone of Tennessee, Nashville, 1924

Source: FHWA.

<sup>35</sup> Carver, 2008: 99-100, 105.

<sup>36</sup> Carver, 2008: 105, 109.

<sup>37</sup> Tennessee State Highway Department, 1959: 36-37; Carver, 2008: 100-101; Richard F. Weingroff, "Zero Milestone-Washington, DC," FHWA, 2012, accessed May 14, 2013; <u>http://www.fhwa.dot.gov/infrastructure/zero.cfm</u>.

Highway System from 244 paved miles to over 4,000 miles, connecting every county. During this period, the state spent more on roads than all other programs combined. This effort included four highways that crossed the state south-to-north and the notable 575-mile Memphis-to-Bristol Highway. The "Road-Building Governor" also constructed 17 new free highway bridges spanning major rivers, prior to the toll bridge program.<sup>38</sup>

Governor Peay had suffered for years with high blood pressure and a heart ailment. Shortly after the beginning of his third term in 1927, his health deteriorated badly although he continued to work. Peay died at the Governor's Mansion on October 2, 1927, from a cerebral hemorrhage, becoming the state's first and only governor to die in office. Peay is buried in Greenwood Cemetery in Clarksville. The state named the university in Clarksville, a state highway bridge in Gainesboro, an education building at the University of Tennessee, and a state highway in West Tennessee in his honor.<sup>39</sup>

#### Governor Henry Hollis Horton



Figure 9. Governor Henry Horton

Source: TSLA.

Governor Austin Peay was succeeded by Henry Hollis Horton (1866-1934), the recently appointed Speaker of the Tennessee Senate, whose constitutional duty was to serve out Peay's term as governor. A native of Alabama and attorney from Marshall County, Tennessee, Horton (Figure 9) had graduated from Winchester College in Winchester, Tennessee, and attended the University of the South at Sewanee. He represented Franklin County from 1907-1909 as a Democrat in the Tennessee House of Representatives and was elected to the Tennessee Senate in 1926 as a representative for Marshall and Lincoln Counties. He was elected Speaker of the Senate in 1927. Horton was a novice political leader and closely advised by Luke Lea (1879-1945), a former U.S. Senator and founder of the *Tennessean* newspaper in Nashville. A progressive Democrat, Lea was an attorney who attended Columbia and hailed from a powerful Nashville political family. Horton was elected governor in his own right in 1928 and reelected in 1930. During his administration, Lea remained his closest advisor and became known as the "de facto governor."<sup>40</sup>

Governor Horton continued most of Austin Peay's reform initiatives, raising taxes on tobacco to fund education and abolishing the 20 percent state property tax. Regarding transportation, Horton created a state division of aeronautics and a secondary state highway system. Road construction and maintenance was funded by an increase in the gasoline tax and \$28,800,000 in bonds. By 1928, the State

<sup>38</sup> Dan Pierce, "Good Roads Movement," Tennessee Encyclopedia, 2009, updated 2010. Website http://tennesseeencyclopedia.net/entry.php?rec=554, accessed March 6, 2013; Carver, 2008: 118.

<sup>39</sup> Pierce, "Austin Peay," 2013.

<sup>40</sup> Jeanette Keith, "Henry Horton," Tennessee Encyclopedia of History & Culture, 2013; accessed May 8, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=654</u>.

Highway System included over 6,500 miles of roads. Luke Lea's involvement in operations of the TDHPW led to manipulating jobs within the department, trading "roads for votes," and influencing decisions that benefited his friends and business associates. His impact on engineering and materials specifications and road locations resulted in the resignations of two Commissioners of the TDHPW. After completing his final term as governor in 1933, Horton retired to his farm in Marshall County where he died from an apparent stroke on July 2, 1934. He is buried in the Wilhoite Cemetery in Chapel Hill. In 1961, the State purchased his farm and redeveloped it as the 1,140-acre Henry Horton State Park.<sup>41</sup>

#### Clark Neil Bass (1925-1928)

On October 21, 1925, Governor Austin Peay replaced James G. Creveling as Commissioner of the TDHPW with Clark Neil Bass (1895-1984), a position he held until January 1928, when he was forced to resign by Governor Henry Horton. Bass had served as Creveling's first assistant when Creveling resigned in October 1925 over a politically charged bridge project in Memphis. According to the *Lebanon Democrat*, Governor Horton dismissed Bass in 1928 "because of his refusal to agree to certain of the governor's demands in regards to road building in the state." Bass had reportedly refused to require the TDHPW use only Kyrock, a rock asphalt material produced by a business associate of Luke Lea, Governor Horton's advisor.<sup>42</sup>

Bass was born in the Grant community of rural Smith County and later lived near Lebanon in Wilson County. He was a veteran of World War I and in 1919 he earned a degree in engineering from the University of Tennessee at Knoxville. UT's engineering dean, Nathan Dougherty, recommended Bass for a job with the TDHPW in Nashville, where he worked from 1919-1928. Bass held various positions, including surveyor, resident engineer, construction projects supervisor, assistant chief engineer, and chief engineer. After leaving state government in 1928, Bass moved to Knoxville where he worked as a consulting engineer. During an interview in 1969, Bass stated that he was "privileged to serve during that transition from muddy roads, or no roads, to roads." He also mentioned that the most significant policy implemented during his tenure at the TDHPW was to put highway maintenance first and construction second so that roads could be traveled year round. This decision made the state "Highway Department very, very popular and Governor Peay a very popular governor."<sup>43</sup>

In January 1929, Bass was hired as Knoxville's City Manager, a position he held until resigning in August 1933. Bass had been hired to help lead the newly created Tennessee Valley Authority (TVA), which was headquartered in Knoxville, as

<sup>41</sup> Carver, 2008: 119.

<sup>42 &</sup>quot;C. Neil Bass Named Manager of Knoxville," *The Lebanon Democrat*, January 3, 1929; Carver, 2008: 119.

<sup>43 &</sup>quot;C. Neil Bass Named Manager of Knoxville," *The Lebanon Democrat*, January 3, 1929; U.S. Population Census, 1900, 1910, 1920, 1930, 1940; U.S. World War I Draft Registration Cards, 1917-1918 Record for Neil Bass; Charles W. Crawford. "Oral History of the Tennessee Valley Authority: Interview with C. Neil Bass." Memphis State University, 1969: 1-4, 37-40.

the personal assistant of Dr. Harcourt A. Morgan, vice chairman of TVA's threemember board of directors and former UT president. Bass assisted in recruiting staff members for TVA and by 1940 he was the agency's chief conservation engineer. In 1952, Bass retired from TVA and relocated to Washington, DC, where he was employed by the World Bank, working with engineers in India and Pakistan with development of rivers and water resources. He retired from the World Bank in 1965 and worked for the Agency of International Development until 1969. He died in Washington, DC, in 1984. His son, Robinson Neil Bass (b.1928), was an architect in Nashville from 1960 through the 1990s.<sup>44</sup>

#### Colonel Harry S. Berry (1928-1929)

On October 16, 1928, Governor Horton appointed Colonel Harry S. Berry (1882-1967) as Commissioner of the TDHPW, a position he held only for a few months until February 27, 1929 (Figure 10). A longtime friend of Luke Lea, Berry specified that the TDHPW use Kyrock on all road projects, which benefited Lea's business associates. Berry, however, refused Governor Horton's request to reroute a new road through the West Tennessee town of Henderson as part of a political deal promised to the president of Freed-Hardeman College. The rerouting would increase the cost of the project by some \$60,000. Berry refused and was forced to resign. During his tenure, it was Colonel Berry's idea to name the toll bridges after "some of the state's outstanding war heroes," beginning with Tennessee's six Medal of Honor winners during World War I.<sup>45</sup>

A native of Sumner County, Harry Berry attended the U.S. Military Academy at West Point from 1900-1904 and served in the Philippines and United States until 1909, when he resigned from the military in order to manage the Rock Castle family estate, now a state-owned historic site museum, after his father's death. He soon joined the 1<sup>st</sup> Tennessee Infantry as a captain, rising to the rank of colonel by 1916 when his regiment was sworn into federal service and sent to the Mexican border. Colonel Berry served during World War I, receiving the Distinguished Service Medal for his action in the St. Mihiel and Meusc-Argonne offenses. After his term as Commissioner of the TDHPW, Colonel Berry served various appointed positions with the State of Tennessee during the 1930s, including longtime commissioner of the State Works Progress Administration (WPA), Engineer with the State Public Works Administration (PWA), and Deputy Administrator of the National Recovery Administration (NRA). In 1939, he was appointed a colonel with the Tennessee National Guard. During World War II, he served as Commander of Camp Luna in New Mexico; he received the Legion of Merit for his services.<sup>46</sup>



Figure 10. Colonel Harry S. Berry

Source: West Point Association of Graduates.

<sup>44 &</sup>quot;C. Neil Bass Named Manager of Knoxville," *The Lebanon Democrat*, January 3, 1929; U.S. Population Census, 1930, 1940; Charles W. Crawford. "Oral History of the Tennessee Valley Authority: Interview with C. Neil Bass." Memphis State University, 1969: 1-4, 37-40.

<sup>45 &</sup>quot;Bridge Game Leaves Problem of Discard," *Knoxville News-Sentinel*, May 21, 1930; Carver, 2008: 119.

<sup>46</sup> Nancy Berry Davy, "Harry S. Berry," accessed May 1, 2013; <u>http://apps.westpointaog.org/Memorials/</u> <u>Article/4263/.</u>

Colonel Berry died in 1967 in Nashville and is buried at Mt. Olivet Cemetery. The Nashville airport, one of several municipal airports funded by the WPA in Tennessee during Berry's tenure, was named Berry Field in his honor; today, the airport is known as BNA, which is an acronym for Berry Field-Nashville.

#### Robert H. Baker (1929-1933)

On February 27, 1929, Governor Horton appointed Robert Howell "Bob" Baker Sr. (1894-1981) to replace Col. Harry Berry as Commissioner of the TDHPW, a position he served for nearly four years until January 17, 1933. As assistant commissioner under C. Neil Bass, Baker was known as a "buffer" between the state highway department engineers and private contractors during the attempts to revise state highway specifications to meet federal requirements.<sup>47</sup>

Baker was born and raised in Watertown in Wilson County. His grandfather was Wilson L. Waters, who founded Watertown in the mid-nineteenth century. Baker earned a degree in civil engineering from the University of Tennessee at Knoxville. When he registered for the World War I draft in 1917, he was employed by the U.S. Army at Fort Oglethorpe, Georgia as an architect and builder. Soon after the war ended, he gained employment as an engineer with the TDHPW, working his way up to assistant engineer under Commissioner C. Neil Bass. As a result of Governor Horton firing Bass in January 1928, Baker resigned from the TDHPW on February 1, 1928. Baker then went to work as an engineer and manager of the Tennessee Roadbuilders' Association, which had been recently organized by John L. Humbard of Knoxville. By 1940, Baker had relocated to Chattanooga where he worked as a sales manager at a cement company. He died in Chattanooga in 1981.<sup>48</sup>

#### TENNESSEE'S "SPECIAL BRIDGE PROGRAM"

On January 19, 1927, Governor Austin Peay and the Tennessee Legislature created a "Special Bridge Program," for constructing toll bridges with matching federal funds, making Tennessee the first in the nation to do so. This enabling legislature allowed the TDHPW to take advantage of the federal provision that provided matching funds for construction of state-owned and operated toll bridges along Federal-Aid routes. The legislation and funding also included construction of bridge approaches, toll booths, and toll houses. As noted earlier only three states – Alabama, Arkansas, and Kentucky - followed Tennessee's lead.

The legislature initially approved eight toll bridges in order of priority. These were located at Loudon (#1), New Johnsonville (#2), Savannah (#3), Perryville (#4), Obion (#5), Kyles Ford (#6), Carthage (#7), and Vonore (#8). Two days later, the

<sup>47 &</sup>quot;State Highway Engineer Quits," Knoxville News-Sentinel, February 1, 1928.

<sup>48</sup> U.S. Population Census, 1900, 1910, 1920, 1930, 1940; U.S. World War I Draft Registration Cards, 1917-1918 Record for Robert H. Baker, Jr.; "Robert Baker Commissioner," *Lebanon Democrat*, March 7, 1929.

legislation was amended to include six additional bridges, for a total of 14 toll bridges. Also ranked in order of priority, these six bridges were located at Dover (#9), Russell's Ferry (#10), Sneedville (#11), Celina (#12), Paris Landing (#13), and Kingston (#14). On April 21, 1927, three more bridges were added to the program, including Lebanon (#15), Knoxville (#16), and Haletown/Jasper (#17). The total cost for the 17 special toll bridges was \$11,500,000, paid for with bonds serviced by tolls. All the bridges were completed. Sixteen were brand new and one was an existing private toll bridge at Carthage purchased by the state highway department (Figure 11).

The enabling legislation for Tennessee's Special Bridge Program provided for all the bridges to be made free collectively once sufficient tolls had been collected to retire the short-term notes used to build them. In March 1928, the U.S. Congress belatedly determined this provision was "not in harmony with the policy" for "granting franchises for the construction of toll bridges." Previously, Congress's policy was to "provide that when sufficient tolls have been collected from a bridge to pay for its cost of construction it should thereafter be made free." Tennessee's legislation grouping the toll bridges collectively instead of individually was contrary to federal policy. In a Conference Report, the U.S. Congress, however, agreed to

#### Figure 11. Examples of Toll Bridge Coupons

Source: *Loudon News-Herald*, November 5-6, 2003.

A.Toll Bridge Coupon, Loudon

B. Toll Bridge Coupon Book, Loudon





make an exemption for Tennessee "in order not to prevent the construction of the bridges." The agreement for this one-time exemption was reached "upon the understanding that the action in these cases is not to be taken as a precedent and that similar action will not be agreed to in other cases."<sup>49</sup>

In February 1929, the legislature added an additional bridge in East Tennessee near Decatur (#18). And, in April 1929, three more bridges were approved, located at Ashland City (#19), Gallatin (#20), and Fort Blount (#21). Of these four, only the bridge at Ashland City was completed. Construction was suspended on the other three due to the financial collapse with the onset of the Great Depression.

Public Acts of U.S. Congress, March 29, 1928, House of Representatives Report Nos. 1087-1091, Conference Report to accompany H.R. 9137, 9147, 9197, 9198, 9199.

Altogether, the Legislature appropriated \$13,250,000 in short-term notes for construction or acquisition of toll bridges, with the intention that the bridges would be made free as soon as the tolls collected retired the notes. Tennessee's toll bridges were located primarily along routes that crossed major rivers previously serviced by privately-owned and operated ferries. An exception was the existing private toll bridge at Carthage, which the state purchased, freed, and later replaced. The toll bridge at Knoxville replaced an existing single-lane free bridge, which had been condemned.

Although required by the federal government for federal funding, only half of the toll bridges were actually located on the state's system of Federal-Aid routes. This included the bridges at Loudon, New Johnsonville, Savannah, Perryville, Obion, Vonore, Decatur, Knoxville, and Haletown/Jasper. State leaders convinced representatives in the U.S. Congress to provide special exemptions for the other half, including those bridges located at Kyles Ford, Carthage, Dover, Sneedville, Celina, Paris Landing, Kingston, Lebanon, and Ashland City. In addition, the three toll bridges that were never completed were not located on Federal-Aid routes. The exempted bridges at Paris Landing and Lebanon were originally located on state routes that were later added to the state's Federal Aid System.

### LOCATING AND FUNDING THE BRIDGES

Like surrounding Southern states, nearly all of Tennessee's toll bridges were located along state highway routes and Federal-Aid routes that crossed major rivers previously serviced by privately-owned and operated ferries. Between passage of the "Bridge Act of 1906" and 1947, construction of bridges spanning navigable waters required authorization from the Board of Engineers of the U.S. War Department and the U.S. Congress. All such bridges fell under federal jurisdiction since they transported postal mail routes, interstate and foreign commerce, military troops, and munitions of war as well as telephone and telegraph lines. A handful of the toll bridges in Tennessee had been proposed and previously authorized by the federal government as non-toll bridges in 1926. All were required to go through the federal authorization process as toll bridges from 1927-1930 with special exemptions from the U.S. Congress included for all toll bridges that were not located along the state's system of Federal-Aid routes. Construction of authorized bridges had to commence within one year of Congressional authorization and completed within three years. As such, several of Tennessee's toll bridges had to be re-authorized multiple times due to construction delays caused by high water and bad weather.<sup>50</sup>

<sup>50</sup> Carver, 2008: 109-118; "Bridge Act of 1906," USC 33, Section 491, Chapter 11, March 23, 1906. In 1947, the responsibility of approving bridges spanning navigable waters was transferred from the U.S. War Department to the newly formed Secretary of the Army; the U.S. War Department dissolved in 1949. In 1966, the process was transferred from the Secretary of the Army to the Secretary of Transportation.

Several factors impacted the selection of locations for Tennessee's special toll bridges. First, there was need. Due to pressure from local residents and elected officials, several locations had been in the pipeline for bridges for years and by 1926 already had the necessary approval and river crossing permits from the U.S. War Department, U.S. Department of Agriculture, and the U.S. Congress. These high-priority locations were shovel-ready and included Loudon, Savannah, Perryville, Gainesboro, and New Johnsonville. Besides Gainesboro, these locations were the first four on the list. Using only state funding, construction on the bridge at Gainesboro had already been initiated by the time the federally-funded toll bridge program was implemented so it was pulled from the list.

Conversely, the remaining locations were selected primarily on political connections and the ability of local residents and elected officials to convince Governors Austin Peay and Henry Horton to add their location to the list.

On January 19, 1927, the Tennessee Legislature approved the first eight toll bridges, which would be built at a cost not to exceed \$5,000,000. These bridges were located at Loudon (#1), New Johnsonville (#2), Savannah (#3), Perryville (#4), Obion (#5), Kyles Ford (#6), Carthage (#7), and Vonore (#8). Construction contracts were let within twelve months of the bill's passage. The location at Carthage included the option of purchasing an existing privately-owned and operated toll bridge for a cost not to exceed \$60,000 in lieu of building a new toll bridge, if the Commissioner of the TDHPW and Governor Peay agreed the existing bridge was adequate. Other options at Carthage included cost-sharing with the county government, which would immediately free the existing toll bridge or to construct a completely new toll bridge, which would potentially be in competition with the existing toll bridge. The state decided to purchase the existing private toll bridge, which it immediately freed, and later replaced.<sup>51</sup>

In the fall of 1929, former Tennessee Representative Sidney C. Lewis, a Democrat from Dover, published a six-part series on the front page of the *Stewart County Times* about his successful efforts securing two toll bridges in Stewart County. According to Representative Lewis, immediately after Governor Peay approved the initial eight bridges on January 20, 1927, he met with Tennessee Senator Scott Fitzhugh, a Democrat from Memphis, about amending the legislation to include a toll bridge in Stewart County. A native of Stewart County, Fitzhugh preferred a bridge across the Tennessee River at Paris Landing, also known as Mouth Sandy. Lewis, however, preferred a bridge across the Cumberland River at Dover. Lewis met with Governor Peay and suggested amending the legislation to include toll bridges at both locations in Stewart County. The governor was amenable to building a toll bridge at Dover (#9), especially since his grandfather had been

<sup>51</sup> Public Acts of Tennessee, January 19, 1927; Chapter No. 1, Senate Bill No. 1: 1-8.

injured there during the Civil War at the Battle of Fort Donelson. Governor Peay, however, did not feel that traffic warranted a bridge at Paris Landing and refused to add that location to the list.<sup>52</sup>

Before filing the amended legislation, Governor Peay asked Representative Lewis to add three more bridges. These bridges were located at Russell's Ferry (#10), Sneedville (#11), and Celina (#12). Before Representative Lewis filed the amended legislation, a group of citizens from Paris, called the Committee of One Hundred, asked him to hold off until they had time travel to Nashville. Upon their arrival, the Committee of One Hundred called a meeting with the governor and argued the merits of building a new toll bridge at Paris Landing. The Committee of One Hundred successfully convinced the governor to change his mind, who then asked Representative Lewis to add Paris Landing (#13) to the list, bringing the total to 13 toll bridges.<sup>53</sup>

Representative Lewis was once again stopped from filing the amended legislation, this time by Tennessee Senator William French Grubb (1880-1944), a Democrat from Chattanooga. Senator Grubb approached Representative Lewis and suggested that a toll bridge at Kingston in East Tennessee's Roane County should be added to the list. When Lewis hesitated, Senator Grubb subtly suggested that his legislation would undoubtedly not pass without the support of legislative members from East Tennessee. Subsequently, Lewis got permission from the governor and highway commissioner to add Kingston (#14) to the list. The cost of the additional six toll bridges was not to exceed \$4,500,000. The amended legislation passed on January 21, 1927, and was signed into law by Governor Peay on February 4, 1927. Construction of all 14 toll bridges was to be initiated before January 1, 1929.<sup>54</sup>

On April 21, 1927, the Tennessee Legislature approved the addition of three more toll bridges, located at Knoxville (#15), Lebanon (#16), and Haletown/Jasper (#17). The legislation required the three bridges to be of standardized design and be constructed within two years at a cost not to exceed \$2,000,000. Governor Austin Peay approved and signed the legislation on April 22, 1927. This brought the total to 17 toll bridges approved during the 1927 legislative session with a total cost not to exceed \$9,500,000.<sup>55</sup>

The decision to construct two bridges along non-Federal Aid routes at Kyles Ford (#6) and Sneedville (#11) in Hancock County, an isolated and sparsely populated county in East Tennessee along the Virginia border, was likely influenced by

<sup>52</sup> Sidney C. Lewis. "Stewart County's Bridges." Stewart County Times, September 27, 1929; October 4, 1929; October 11, 1929; October 18, 1929; October 25, 1929; November 1, 1929; Public Acts of Tennessee, January 19, 1927; Chapter No. 1, Senate Bill No. 1: 1-8.

<sup>53</sup> Sidney C. Lewis. "Stewart County's Bridges." *Stewart County Times*, October 4, 1929; October 11, 1929.

<sup>54</sup> Sidney C. Lewis. "Stewart County's Bridges." *Stewart County Times*, October 18, 1929; Public Acts of Tennessee, January 21, 1927; Chapter No. 5, House Bill No. 83: 17-23.

<sup>55</sup> Public Acts of Tennessee, April 11, 1927; Chapter No. 37, Senate Bill No. 634: 97-102.

William Tecumseh Testerman (1862-1940), the Secretary of the Tennessee Highway Commission from 1919 through the 1930s. Testerman was originally from Sneedville and Kyles Ford before moving to nearby Rogersville in the 1910s.

In April of 1927, Highway Commissioner C. Neil Bass published an article in *Tennessee Highways and Public Works*, the highway department's newsletter. Bass wrote that the department would be "privileged to build, under the provisions made by the Legislature now in session, three great bridges over the Tennessee River, uniting forever Middle and West Tennessee; another over the same river at Loudon [along the Lee Highway], on one of the most important highways in the state, and still others to be built or begun that will eliminate barriers and round out the Highway System so that the maximum of service may be rendered."<sup>56</sup>

In a separate article about the toll bridges, the *Tennessee Highways and Public Works* also explained that the toll rates would for the most part be less than the current ferry rates and that the department expected the bridges to pay for themselves within eight years. The article claimed, "This plan is unique and is planned after no other piece of legislation in other states." The article also noted that the toll bridges would assist farmers and merchants with better farm-to-market access and travelers would have safer and more reliable transportation since ferries were often closed during the flood seasons. The toll bridge would also increase out-of-state tourism and "will alleviate many of the criticisms directed toward the State by its visitors," referring to Tennessee's then reputation for poor roads and lack of bridges. Finally, the toll bridges would result in communities being "drawn closer together and divisional lines of the State will be shoved into obscurity with the unifying effect of these great connections."<sup>57</sup>

During the 1929 legislative session, the Tennessee Legislature added four more toll bridges. This included a \$600,000 bridge near Decatur (#18), which passed on February 1 and was approved by Governor Henry Horton on February 11; a \$400,000 bridge at Ashland City (#19), which passed on February 15 and was approved by Governor Horton on February 19; a \$500,000 bridge at Gallatin (#20), which passed on April 11 and was approved by Governor Horton on April 13; and a \$250,000 bridge at Fort Blount (#21), which passed on April 13 and was approved by Governor Horton on the same day. This action increased the total to 21 toll bridges with a combined cost not to exceed \$13,250,000.<sup>58</sup>

Of the 18 toll bridges eventually constructed, 17 were located in the mountainous and hilly regions of East and Middle Tennessee. Since rivers often define county

<sup>56</sup> C.N. Bass, "Needed Highway Legislation," *Tennessee Highways and Public Works: Official Publication of the Tennessee Department of Highways and Public Works*, April 1927, Volume VI, No. 1: 3.

<sup>57 &</sup>quot;Important Bridges To Be Built," *Tennessee Highways and Public Works: Official Publication of the Tennessee Department of Highways and Public Works*, April 1927, Volume VI, No. 1: 18.

<sup>58</sup> Public Acts of Tennessee, February 1, 1929, Chapter 5, Senate Bill No. 12: 7-13; Public Acts of Tennessee, February 15, 1929, Chapter 16, Senate Bill No. 274: 29-30; Public Acts of Tennessee, April 11, 1929, Chapter 104, Senate Bill No. 471: 323-328; Public Acts of Tennessee, April 13, 1929, Chapter 112, Senate Bill No. 486: 372-377.

lines, five bridges spanned two counties. Twelve bridges spanned the meandering Tennessee River or its tributaries; five spanned the Cumberland River in Middle Tennessee; and one spanned the Obion River in West Tennessee. Nearly all the two-lane bridges were located in isolated, rural areas or near small towns and county seats. An exception was the four-lane bridge with pedestrian sidewalks at the UT Cherokee Farm, which was designed as part of a new four-lane highway connecting Knoxville with Maryville.

#### DESIGNING AND BUILDING THE BRIDGES

Due to its topography and large number of rivers, Tennessee's roads and highways require a large number of elevated bridges. In fact, with over 1,062 miles of navigable waterways, Tennessee has the fifth largest navigable inland waterway system in the U.S. Its five largest cities – Memphis, Nashville, Knoxville, Chattanooga, and Clarksville – are inland ports founded on the banks of rivers. More than one third of Tennessee's 95 counties have navigable waterways that either border or flow through their areas. Over 80 percent of these navigable waterways are comprised of three rivers - the Mississippi River, Cumberland River, and Tennessee River along with its tributaries: the Hiwassee, Clinch, Emory, Holston, French Broad, and Little Pigeon.<sup>59</sup>

Tennessee's waterways are an integral component of the state's transportation system and economic development. Beginning in the frontier era, however, crossing these waterways was a daunting and treacherous impediment for overland travelers. Until the early twentieth century, travelers relied heavily on privately owned and operated ferries, especially in rural areas, to traverse the rivers. Most river bridges were constructed by local governments or private entities that charged tolls. Well into the twentieth century, bridges spanning the three major navigable rivers were virtually non-existent outside the largest cities.

The state's toll bridges were primarily intended to replace privately-operated ferries. The Tennessee Legislature required the toll bridges to be of "standard design" and that they "shall be in conformity with the laws of the United States and the requirements of the War Department" (Figure 12). All of Tennessee's toll bridges were designed by engineers employed by the TDHPW. With few exceptions, the bridge designs were uniform and standardized with the only variations being the number of steel trusses and length of the concrete girder-type approaches. The overall lengths varied from 420-feet to 4,734-feet and the construction costs ranged from \$110,000 to \$1,300,000. Every bridge, but one, was two lanes wide with a standard curb-to-curb width of 20 feet. The only exception was a four-lane, 40-foot wide bridge at Knoxville, with flanking six-foot

<sup>59</sup> Tennessee Navigable Waterways Infrastructure Analysis. Tennessee Infrastructure Alliance. Nashville, 2008: 2-3.



wide pedestrian sidewalks to accommodate UT agricultural students who used the bridge to access the university-owned Cherokee Farm.<sup>60</sup> Tennessee's toll houses were also designed with standardized plans (Figures 13-19). Construction of the bridges and toll houses was competitively bid to private contractors (Figure 20) located throughout the country, although some minor work was completed by the TDHPW. Contractors specializing in bridge construction hailed from Tennessee, Pennsylvania, Maryland, Illinois, Ohio, West Virginia, New York, Alabama, Texas, Georgia, Missouri, Indiana, North Carolina, and Louisiana.<sup>61</sup>

The engineer-of-record for the bridges and toll houses was Leonard W. Erickson (b.1886), a civil engineer who specialized in bridge design. The son of Swedish immigrants, Erickson was a native of Lincoln, Nebraska. In 1911, he graduated from the University of Nebraska with a degree in Civil Engineering. From 1915-1917, he worked as a highway bridge engineer for the U.S. Department of Agriculture within the Office of Public Roads and Rural Engineering, which oversaw design and maintenance of roads and bridges within National Parks and Forests as well as with State Agricultural Colleges, Experiment Stations, and State Highway offices. Established by the U.S. Congress in 1893 as the Office of Road Inquiry within the Department of Agriculture, this agency eventually evolved into the Federal Highway Administration (FHWA). Erickson worked under chief bridge engineer Oscar L. Grover (b.1874) in the Road Building and Maintenance Investigations department on object-lesson bridges; making inspections and giving expert advice on bridge construction; preparation of typical plans for highway bridges and culverts; and experiments with bridge materials. Grover was previously the chief bridge engineer of the Chesapeake and Ohio Railroad and of the Virginia State Highway Department in Richmond.<sup>62</sup>

61 Public Acts of Tennessee, January 19, 1927, Chapter No. 1, Senate Bill No. 1.

Figure 12. Map of East Tennessee Toll Bridges, 1937. This map directed travelers to U.S. 27, which did not require payment of tolls.

Source: TDOT.

<sup>60</sup> Carver, 2008: 107.

<sup>62</sup> The Nebraska Blue Print, American Association of Engineers, University of Nebraska, Vol. 21, No. 1, October 1921: 15; U.S. Population Census, 1910, 1920, 1930, 1940; Lincoln, Nebraska, City

Directory, 1908, 1911, 1912, 1913; "List of Workers in Subjects Pertaining to Agriculture and



By 1920, Erickson was employed as a bridge engineer with the TDHPW where he worked through the mid-1950s. In 1958, he was working as a bridge engineer for Beiswenger and Hoch Associates, a consulting engineering company founded in 1958 and now based in Miami, Florida, with a focus on transportation projects.<sup>63</sup> Erickson and his wife Esther Harroun (b.1888), a native of Illinois, lived in a boarding house on Demonbreun Street in 1920. In the late 1920s, they lived in an apartment at 1203 17<sup>th</sup> Avenue South. From 1930 through the late 1950s, Erickson and his wife lived in apartment A-3 in the Jefferson-Washington Apartment building at 2115 Portland Avenue in Hillsboro Village; this apartment building is remains.<sup>64</sup>

#### NAMING THE BRIDGES

The majority of Tennessee's toll bridges were named in honor of individual World War I veterans, including two killed in action and the state's six Medal of Honor winners. According to the *Knoxville News-Sentinel*, TDHPW Commissioner Col. Harry Berry suggested naming the toll bridges "for some of the state's outstanding war heroes." A veteran of several wars, Col. Berry served as commissioner for only a few months, from October 1928 to February 1929.<sup>65</sup>

64 Ibid.

#### Figure 13. Typical Truss, 1928

Source: TDOT.

Home Economics in the U.S. Department of Agriculture and the State Agricultural Colleges and Experiment Stations," Washington: Government Printing Office, U.S. Department of Agriculture, August 1915: 30-31; January 1917: 37; "FHWA By Day," May 1, 1914, <u>http://www.fhwa.dot.gov/byday/fhbd0501.htm</u>, accessed March 22, 2013; FHWA, *America's Highways*, 1976: 44-52.

<sup>63</sup> U.S. Population Census, 1920; Nashville City Directory, 1926, 1928, 1929, 1931, 1935, 1937, 1938, 1939, 1947, 1955, 1958.

<sup>65 &</sup>quot;Bridge Game Leaves Problem of Discard," Knoxville News-Sentinel, May 21, 1930.



Figure 14. Typical Pier, Niles Ferry, Monroe County, 1927



Figure 15. Typical Pier, Russell's Ferry, Meigs County, 1928



Figure 16. Typical Bent, Dover, Stewart County, 1928

Figure 17. Typical Bent, Celina, Clay County, 1928

NUCLINES NUCLINES



Source: TDOT.

### Figure 18. Typical Foundation Details, Trotters Landing, New Johnsonville, Benton and Humphreys Counties, 1928



#### Figure 19. Typical Concrete Spindle Handrail, 1925



Source: TDOT.

#### Figure 20. Photographs, Bridges Under Construction

A. Sneedville, Hancock County, Looking Northwest. Source: TDOT.

B. Kyles Ford, Hancock County, Looking Southeast. Courtesy Charlotte Harris, ed. *Hancock County, Tennessee: Pictorial History*, 2001: 148.





This was in keeping with the international movement in the 1920s and 1930s to erect World War I memorials commemorating those lost in the conflict. During this period, large numbers of World War I memorials were constructed around the world. Memorials included civic landmarks such as monuments, sculptures, parks, auditoriums, and highways. Local communities named streets, plazas, buildings, and bridges in honor of individual war heroes or those killed in action. Examples of World War I memorials in Tennessee include the 1925 War Memorial Auditorium and Plaza in Nashville, the 1924 Soldiers and Sailors Memorial Auditorium in Chattanooga, the 1933 War Memorial Building in Dickson, the 1922 World War I Memorial in Etowah, and the 1926 World War Memorial "Doughboy" statue at Overton Park in Memphis.

Four of Tennessee's toll bridges were named after government and elected officials involved with the toll bridge program, including Governor Henry Horton, Tennessee Representative Sidney C. Lewis, Tennessee Senator Scott Fitzhugh, and Tennessee Representative Charles Love. Two bridges were named after the ferries they replaced, including Niles Ferry and Russell's Ferry. And, two bridges were named after community leaders, including Montgomery Bell and Nathan J. Harsh. Brief overviews of each person or place from which the Tennessee bridges took their names are included in the individual bridge descriptions in the following chapter.

#### USING THE BRIDGES: TOLLS AND TOLL HOUSES

In order to collect tolls, the State Highway Department engineers designed collection points, typically in the form of a small toll booth or toll house, to be located at the bridge approaches (Table 2, Figures 21-22). The engineer-of-record for these buildings is also Leonard W. Erickson. The toll booths and toll houses were constructed once the bridges were completed. Similar to toll booths constructed in surrounding states, the toll booths were located in the center of the road. The toll offices and toll houses, however, were located along the edge of the road. The toll collector's house featured a small office with a separate entrance leading from the front porch with a window facing the road for collecting tolls.

SBP No.	Name	County	City/Town	Toll House	Toll Hs Extant
1	J. Carmichael Greer	Loudon	Loudon	2 Collector's Offices	No
6	Edward R. Talley	Hancock	Kyles Ford	Collector's House West	No
7	Williams-Myer	Smith	Carthage	Toll House North	No
11	Charles Love	Hancock	Sneedville	Toll House North	No
12	Henry Horton	Clay	Celina	Toll House East	No
14	Calvin John Ward	Roane	Kingston	Toll House, 210 S. KY St	Yes (RE.801)
15	Nathan J. Harsh	Wilson-Trousdale	Lebanon vic.	Toll House, Wilson Co.	Yes
17	Marion Memorial	Marion	Haletown/Jasper	Toll House	No

Table 2. List of Known Toll Houses

The bridges were divided into two toll classes, A and B, with various toll rates (Figure 23). The Tennessee Legislature determined the toll rates, which ranged from \$0.02 to \$1.00 and instructed that "toll rates shall be posted in a conspicuous place at each end of the bridge or its approaches and at the places of collecting the tolls." The legislation also provided for discounted passes for frequent users of the bridges. Eight bridges were Class "A" bridges with tolls ranging from \$0.02-1.00. At the time, the toll rates were considered rather hefty. In 1927, the rate for a single automobile and driver ranged from \$0.25 to \$0.50, equivalent to \$3.35 to \$6.70 in 2013 dollars when adjusted for inflation. During the height of the Great Depression in the mid-1930s, the same toll rates were equivalent to \$4.25 to \$8.50 in today's dollars. Each person had to pay a toll of \$0.05 to walk across the bridge, which was equivalent to about \$0.70 today.

The Tennessee Department of Finance and Taxation employed toll collectors who worked around the clock throughout the year. Collectors worked eight-hour shifts, five to seven days a week. In order to keep the toll booths open twenty-four hours a day, the State employed at least three full-time toll collectors at most bridges. Some collectors worked part-time, likely to cover weekend shifts and to be on-call. The larger bridges featured two toll booths; therefore, the State employed at least six toll collectors at those facilities. Toll collectors were expected to be bonded and kept accounting records, which were reported on the tenth of each month to the State Treasury. All tolls collected were to be deposited into the State's "Toll Bridge Account."<sup>66</sup> Of the known toll collectors, the majority were veterans of World War I, which may indicate the State gave preferential treatment toward hiring military veterans to work at the toll bridges. One female toll collector was documented.

### FREEING THE BRIDGES

The first toll bridge was freed in May 1927 when the State of Tennessee purchased the existing Williams-Myer Bridge at Carthage (#7). The State paid \$60,000 for

<sup>66</sup> Public Acts of Tennessee, January 19, 1927, Chapter No. 1, Senate Bill No. 1: 4-6.



# Figure 21. Architectural Plans, Toll House, Sneedville, Hancock County, 1930 with Comparitive Photograph of the Lebanon Toll House Front Elevation

Source: TDOT.





#### Figure 22. Standardized Plans, Toll Office Types

A. Toll Collector's House [Office], "Type A," 1929

B. Architectural Plans, Toll Collector's Office, Type "B," 1929



#### Figure 23. Toll Rates, 1927

#### FEES FOR TOLL BRIDGES

TRAFFIC	CLASS A BRIDGES	CLASS B BRIDGES
Automobile and Driver	\$0.25	\$0.50
Person, each	0.05	0.05
Motor truck or motor bus (one ton capacity or under) and driver	0.25	0.50
Motor truck or motor bus (over one ton capacity) and driver	0.50	1.00
Automobile trailer	0.15	0.25
Motor truck trailer or motor bus trailer	0.25	0.50
Motorcycle and driver	0.15	0.25
One-horse vehicle with draft animal, and driver	0.10	0.15
Two-horse vehicle and two draft animals and driver	0.15	0.25
Extra draft animals or horses or mules, each	0.05	0.05
Cattle, sheep, hogs or other domestic animals other than horses or mules, on foot, each	0.02	0.02
Circus animals, other than those specifically mentioned above, on foot, each	0.25	0.25
Class A Bridges: Numbers 1, 5, 6, 7, 8, 10, 11, 14, 20, 21		

Class B Bridges: Numbers 2, 3, 4, 9, 12, 13, 15, 16, 17, 18, 19

Source: TDOT.

the steel truss bridge, which had been constructed as a toll bridge from 1906-1908, with \$20,000 donated toward the cost from the Smith County government. The TDHPW then took over maintenance, repairs, and operation of the bridge, which was immediately freed. Although the state never collected tolls at Carthage, the bridge was funded by the Special Bridge Program so it remained on the list of Tennessee toll bridges. The Williams-Myer Bridge was demolished in 1936 and replaced with the current Cordell Hull Bridge.

According to a Tennessee State Planning Report published in December 1946, prior to 1936-1937 toll collections for all the bridges "were inadequate to meet interest payments alone." In 1937, Governor Gordon Browning's administration passed a refinancing act that allowed all net tolls, except administrative and maintenance costs, be paid into a sinking fund for retirement of the state toll bridge debt. New bonds with lower interest rates were issued and all original bridge bonds were paid off.<sup>67</sup>

On March 9, 1939, the Tennessee Legislature passed an act authorizing the Tennessee Highway Department to free "each of the State-owned bridges now operated as toll bridges," which for the preceding three years had failed to collect sufficient tolls to pay maintenance costs and the salaries of the toll collectors. The legislature felt that "it is economically desirable that such bridges shall no longer be operated as toll bridges." This allowed eight toll bridges to be freed, including those at Kyles Ford (#6), Russell's Ferry (#10), Sneedville (#11), Celina (#12), Paris Landing (#13), Kingston (#14), Lebanon (#15), and Ashland City (#19). Governor Prentice Cooper (1895-1969), a Democrat from Shelbyville, approved the bill on March 10, 1939.<sup>68</sup>

<sup>67</sup> Eleanor Keeble. "Toll Bridges in Tennessee." Tennessee State Planning Commission, Publication #173, December 1946: 4.

<sup>68</sup> Keeble, 1946: 2-3; Public Acts of Tennessee, March 9, 1939, Chapter No. 118, House Bill No. 454: 447-448.

The following day, the Tennessee Legislature officially freed the toll bridge at Knoxville (#16), although no tolls were ever collected. This was for several reasons. First, the four-lane state highway connecting to Maryville had not yet been completed or paved by 1939. Second, state officials felt that two nearby free bridges in downtown Knoxville at Gay Street and Henley Street made the "collection of tolls on this bridge financially impractical." Third, state officials were also concerned about increasing the cost of operation of the University of Tennessee, since the bridge was located primarily on university property. And fourth, state officials were concerned about the "additional burden on University of Tennessee agricultural students who use this bridge to reach classes, some of which are conducted on one side of the Tennessee River and some on the other." Governor Cooper approved the bill on March 10, 1939.<sup>69</sup>

According to an article published in February 1947 by the Chattanooga Times, on June 30, 1946, the eight toll bridges still in operation had produced \$10,769,565, which was barely enough to pay the actual capital investment for construction. When interest, maintenance costs, and operational costs were factored in, the total liability for the bridges was \$23,451,494. This meant in 1946 the eight toll bridges had an annual net loss of \$12,681,928, which did not include debt service charges that were difficult to calculate due to the refinancing in 1937.<sup>70</sup>

The Tennessee State Planning Commission Report claimed that at least some of the toll bridges were quite profitable. For instance, from 1931-1946 the toll bridge at Obion had collected approximately \$871,000, which was nearly \$419,000 more than it had cost to build. During the same time span, the toll bridge at Loudon had a gross of over \$592,000 and the bridge at Camden had a gross of nearly \$500,000. The most profitable toll bridge was the Marion Memorial Bridge on the Dixie Highway near Jasper. From 1931-1946, this bridge collected approximately \$2,375,000, which was some \$1,886,000 more than it had cost to build.<sup>71</sup> These gross figures, however, did not take into account operational and maintenance costs, which varied from \$96,635 to \$139,579 per year in 1945. When taking the operational and maintenance costs into account, the critics contended that even the most "profitable" toll bridges were actually operating at a loss.<sup>72</sup>

On February 4, 1947, the Tennessee Legislature passed an act that suspended "toll bridge collections until March 1, 1951." Tennessee Representative William Morgan "Morg" Conder co-sponsored the legislation in order to free the toll bridge at his hometown of Perryville. Governor Jim Nance McCord (1879-1968), a Democrat from Lewisburg, signed the legislation at 9:30 am on February 6, 1947,

<sup>69</sup> Public Acts of Tennessee, March 10, 1939, Chapter No. 123, House Bill No. 351: 462-463.

<sup>70</sup> Keeble, 1946: 4-6.

<sup>&</sup>quot;Bridges Fail to Pay Costs," *Chattanooga Times*, February 5, 1947. "Bridges Fail to Pay Costs," *Chattanooga Times*, February 5, 1947. 71

<sup>72</sup> 

and the remaining eight toll bridges were immediately freed between 10:00 am and 11:00 am. These bridges included those located at Loudon (#1), New Johnsonville (#2), Savannah (#3), Perryville (#4), Obion (#5), Vonore (#8), Dover (#9), and Jasper (#17). State officials then gathered the toll collecting equipment (Table 3).<sup>73</sup>

The Tennessee Legislature did not revisit the topic of toll collection for public transportation projects until passage of the Tollway Act of 2007. This legislation authorizes tolling as a possible method to fund new highway and bridge projects. Eight potential toll projects were proposed and two recommended, but to date none have been implemented.

SBP No.	Name	County	City/Town	Freed
1	J. Carmichael Greer	Loudon	Loudon	2/4/1947
2	Hickman Lockhart Memorial	Benton-Humphreys	New Johnsonville	2/4/1947
3	Milo Lemert Memorial	Hardin	Savannah	2/4/1947
4	Alvin C. York	Decatur-Perry	Perryville	2/4/1947
5	Joseph B. Adkinson	Obion	Obion	2/4/1947
6	Edward R. Talley	Hancock	Kyles Ford	3/9/1939
7	Williams-Myer	Smith	Carthage	5/1927
8	Niles Ferry	Monroe	Vonore	2/4/1947
9	Sidney C. Lewis	Stewart	Dover	2/4/1947
10	Russell's Ferry	Meigs	Decatur vic.	3/9/1939
11	Charles Love	Hancock	Sneedville	3/9/1939
12	Henry Horton	Clay	Celina	3/9/1939
13	Scott Fitzhugh	Henry-Stewart	Paris Landing	3/9/1939
14	Calvin John Ward	Roane	Kingston	3/9/1939
15	Nathan J. Harsh	Wilson-Trousdale	Lebanon vic.	3/9/1939
16	James E. "Buck" Karnes	Knox	Knoxville/UT Farm	3/10/1939
17	Marion Memorial	Marion	Haletown/Jasper	2/4/1947
18	N/A	Rhea-Meigs	Decatur vic.	N/A
19	Montgomery Bell	Cheatham	Ashland City	3/9/1939
20	N/A	Sumner-Wilson	Gallatin	N/A
21	N/A	Jackson	Fort Blount	N/A

#### Table 3. List of Bridges and Date Freed

<sup>73</sup> Public Acts of Tennessee, February 4, 1947, Chapter No. 7, House Bill No. 336: 61-62; Fred Travis, "Tolls Removed at Eight Spans; Roads Cleared," *Chattanooga Times*, February 7, 1947.



# IV. RESOURCE INVENTORY

This chapter contains a resource inventory of Tennessee's 21 toll bridges with individual histories, historic images, original engineering drawings, newspaper accounts, photographs, and information about toll collectors, if available, as well as documentation of the two extant toll houses. Seventeen bridges were newly constructed; one existing bridge was acquired; and three did not go beyond design and initial planning. Figure 24 shows their locations and proposed locations on a statewide location map.

#### COMPLETED BRIDGES

The 18 toll bridges that were completed or acquired share many commonalities. They were 20-foot wide, two-lane bridges located in rural areas or small towns. The one exception was a 40-foot wide, four-lane bridge in Knoxville. They all featured standardized engineering design with riveted through steel trusses, concrete deck girders, and concrete spindle handrails. The bridges were supported by a concrete substructure consisting of piers, bents, and abutments. The trusses were common types, including Warren, Pratt, Camelback, and Parker. The bridges were designed by state highway department engineers and constructed by private contractors from throughout the country.

The majority of the bridges were named in honor of local veterans of World War I, including two killed in action and the state's six Medal of Honor winners. The majority of documented toll collectors employed by the State of Tennessee were also veterans of World War I.

The toll collectors worked in toll houses, which doubled as residences, or small toll booths located at the ends of the bridges. Built of frame, the simple toll houses and booths were built on standardized plans designed by state highway engineers. Toll collectors worked around the clock, every day of the year. Two toll houses remain standing; both have been relocated from their original locations and altered for use as private residences (Figure 24).

Between the 1940s and 1960s, several bridges were elevated and lengthened by the Tennessee Valley Authority (TVA) as part of the damming of rivers that created reservoirs beneath the bridges. These included the bridges at Loudon, New Johnsonville, Paris Landing, Kingston, and Jasper. Other bridges span reservoirs created by the TVA or U.S. Army Corps of Engineers but were not required to be elevated; these include Savannah, Perryville, Dover, Russell's Ferry, Knoxville, and Ashland City.<sup>74</sup>

<sup>74 &</sup>quot;Report of the State Highway Commissioner," 1943: 118-120.





Source: ESRI Resource Data, Streets Layer

Beginning in the late 1970s, the Tennessee Department of Transportation (TDOT) replaced numerous bridges with federal funding, which required compliance with the Historic Preservation Act of 1966 as well as Section 4(f) of the Department of Transportation Act of 1966. Both acts provide some protection for historic bridges that have been listed in or determined eligible for listing in the National Register of Historic Places (NRHP). In 1981, TDOT implemented a statewide historic bridge survey to determine which of the state's nearly 20,000 bridges were potentially eligible for listing in the NRHP. TDOT developed the survey's planning and methodology jointly with the TN-SHPO.<sup>75</sup>

TDOT historians conducted research for general context at the national, state, and local levels. TDOT reviewed bridge inspection reports, filled out survey forms, and completed research for every bridge inventoried in the survey. It is important to note that bridges are generally designed with a life expectancy of 50-75 years and the vast majority of bridges are constructed with standardized engineering designs. Due to the large number of truss bridges, TDOT developed a grading point system for evaluating the NRHP eligibility for this particular bridge type. The grading system focused on the engineering and technological aspects of each individual bridge as well as its historical context. The survey determined a total of 156 bridges were eligible for listing in the NRHP, most as representative examples of certain bridge types, construction features, or the work of certain companies.<sup>76</sup>

As a result of the statewide survey, TDOT and the TN-SHPO determined that four toll bridges were eligible for listing in the NRHP as representative bridges of their type and for their historical significance. These four bridges were located at Kyles Ford, Paris Landing, Kingston, and Jasper. As part of the federal Section 106 review process, these four bridges were documented by TDOT for the Historic American Engineering Record (HAER). TDOT also offered the bridges to local government agencies and nonprofit groups to relocate or adaptively reuse as pedestrian bridges. At Paris Landing, a single truss was relocated and preserved as a picnic pavilion at a nearby state park.

Today, only the bridge at Kyles Ford is still in use. All others have been demolished, abandoned, or are in the process of being demolished. The amount of information on each varies somewhat. From 1983-1991, the Tennessee State Historic Preservation Office (SHPO) documented four of the toll bridges located at Loudon, Perryville, Dover, and Haletown/Jasper. In addition, the TN-SHPO documented the toll house at Kingston.

In 2007, the bridge at Jasper was formally listed on the NRHP. A single steel truss from the bridge at Paris Landing in Henry and Stewart Counties has been preserved in a nearby state park.

<sup>75</sup> Carver, 2008: 2-4.

<sup>76</sup> Carver, 2008: 10-16.

The Kyles Ford bridge was repaired in 2012 and is currently in the process of being replaced. As the result of efforts by TDOT to save the toll bridge, the original structure will be preserved in place as a ruin adjacent to the new bridge. The former toll bridge will feature a viewing platform and interpretive signage with historic photos and a history of the bridge.

## SPECIAL BRIDGE PROJECT NO. 1 J. CARMICHAEL GREER BRIDGE LOUDON, LOUDON COUNTY



The J. Carmichael Greer Bridge (53-SR002-06.76) spanned the Tennessee River at Loudon along State Route 2 (U.S. 11/Mulberry Street), an east-west highway that connects Murfreesboro with Knoxville via Chattanooga (Figure 25). Settled in the 1790s, Loudon is the seat of Loudon County, both of which were named in honor of Fort Loudoun (NHL, 1965), a nearby British colonial fort built in 1756 and named for Major-General John Campbell, 4<sup>th</sup> Earl of Loudoun (1705-1782). The town was originally known simply as Blair's Ferry, which was established in 1817 by James Blair (1777-1826) before being renamed Blairsville in 1852 and then Loudon in 1858. By the late-nineteenth century, Loudon had become an important commercial and transportation center for railroad, wagon, and steamboat traffic. With the opening of this bridge in 1929, the city became a vital link along the Lee Highway, an early intrastate route connecting New York City with San Francisco. In 1930, the city counted nearly 2,600 residents; today it has around 5,300 residents and is included within the Knoxville metropolitan area.<sup>77</sup>

In 1926, the Loudon County government requested approval from the U.S. Congress to build the bridge. A source of funding for the bridge was undetermined so it was undecided at that time if the bridge would be free or toll. On February 17, 1926, U.S. Congressman Alben William Barkley (1877-1956), a Democrat from Kentucky who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 310 and Bill H.R. 8462 in the 69th Congress requesting consent from the U.S. Congress to construct this bridge on the "Lenoir City-Sweetwater Road." On March 15, 1926, U.S. Senator Hiram Bingham III (1875-1956), a Republican from Connecticut and member of the Committee on Commerce, introduced companion Report No. 382 and Senate Bill 3195. On May 12, 1926, U.S. Congressmen Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, introduced Report No. 1170 and Bill 3195 for building the bridge on the "Lee Highway." The U.S. War Department and the U.S. Department of Agriculture had previously reviewed and approved the request on February 2, 1926. The bridge was located on the system of Federal-Aid highways as required. The U.S. Department of Agriculture stated, "There is a great need for a bridge across the Tennessee River at the point indicated [between Knoxville and Chattanooga], as this highway accommodates very heavy traffic and the crossing of the river by the existing ferry is not only slow

<sup>77</sup> Robbie D. Jones, "Historic Architecture Assessment and Documentation of Effect Pursuant to 36 CFR 800 For the Proposed Bridge Replacement Project Loudon Bridge and Approaches over the Tennessee River (Watts Bar Lake) on U.S. Hwy 11 (SR-2, Mulberry Street) in Loudon, Loudon County, Tennessee." TDOT, 1998: 18-24.



Figure 25. Location Map, J. Carmichael Greer Bridge, Loudon, Loudon County

Source: ESRI Resource Data, Imagery Layer

but dangerous." Although approval was granted, no action had taken place so in January 1927, the Tennessee Legislature included Loudon on the list of 14 new toll bridges to be constructed with federal funds. The Loudon location was number one on the list.<sup>78</sup>

Completed between September 1927 and December 1929, the Class A toll bridge cost \$1,139,475.28. Measuring 2,707.2-feet long, the bridge featured six riveted steel Parker through truss spans (Figure 26). Two trusses were 182-feet long; two were 222-feet long; and one was 323-feet long. The concrete approaches contained 35 girders and were supported by seven concrete piers, 35 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. A four-foot wide cantilevered pedestrian sidewalk was added outside the trusses and bridge railing along the north side. Small Toll Collector's Offices, or booths, were located at the center of both approaches. All engineering features were based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On September 16, 1927, the State let the primary \$1,128,426.99 bridge construction contract to Whiting-Turner Construction Company of Baltimore, Maryland. The core drilling contract was let on July 20, 1927, for \$7,859.81 to Pennsylvania Drilling Company of Pittsburgh. A repair contract for \$3,188.58 was let on July 30, 1930, to George H. Fisher.<sup>79</sup>

In September 1928, the *Loudon County Herald* reported that three shifts of ten men each were working seven days a week and holidays at the bridge site. The east approach, on the Lenoir City side, was complete except for installation of the concrete hand railing, and the first concrete pier for the center truss spans had been constructed and sealed. Contractors estimated the west approach, on the Loudon side, would be completed in about two more months. At that time, the estimated completion time for the bridge was January of 1930, depending on weather and river conditions (Figure 27).<sup>80</sup>

Legendary World War I veteran Sergeant Alvin C. York attended the dedication ceremony. According to the *Knoxville News-Sentinel*, Commissioner Harry Berry originally intended for this bridge to be named for James "Buck" Karnes, a World War I veteran from Knoxville. Instead, at the ceremony Governor Henry Horton dubbed it the "Loudon County Memorial Bridge." Soon thereafter, however, the bridge was formally named for James Carmichael Greer (1894-1954), a native of Loudon who served in the U.S. Army during World War I. In 1920, Greer married

<sup>78 &</sup>quot;Bridge Across the Tennessee River near Loudon, Tenn.," House of Representatives Report No. 310, February 17, 1926; "Bridge Across the Tennessee River at Loudon, Tenn.," Senate Report No. 1170, May 12, 1926; "Bridge Across the Tennessee River, Loudon County, Tenn." U.S. Senate Report No. 382, March 15, 1926.

<sup>79</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>80 &</sup>quot;One Pier on Loudon Bridge Completed: Work Progressing Fast," Loudon County Herald, September 27, 1928; no other issues of the Loudon County Herald from 1927-1936 were available.

Figure 26. Drawing, Elevation, J. Carmichael Greer Bridge, 1927



Source: TDOT.

Figure 27. Aerial Photograph, J. Carmichael Greer Bridge, Looking Northeast showing Loudon Ferry, c.1930

Source: TDOT.


Bess Williams (1897-1973), a city schoolteacher. Greer was a longtime employee of the Loudon Hosiery Mills, becoming a Vice President and General Manager. Established by Charles H. Bacon in 1906, Loudon Hosiery Mills operated plants throughout East Tennessee, including Loudon, Newport, and Sevierville. Greer is buried at the Steekee Cemetery in Loudon. The bridge has also been known as the Loudon County Memorial Bridge, so named for all World War I veterans, and the Loudon Steel Bridge.<sup>81</sup>

Between 1939 and 1942, the TVA completed the Watts Bar Dam and Steam Plant on the Tennessee River in Meigs and Rhea counties, downstream from the bridge. The hydroelectric dam created the Watts Bar Reservoir, which impounded the navigable waterway beneath the bridge. In 1941, the TVA raised the bridge and reinforced the bridge piers in order to accommodate the Watts Bar Reservoir (Figures 28-29).

Although the bridge was intended to replace the privately-owned Loudon Ferry, the ferry continued to operate alongside the new bridge until 1948 (Figure 30). While the bridge offered much faster access across the river, ferry tolls were five cents less expensive than the bridge tolls. In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the bridge was open 24 hours a day with a toll of \$0.25. In 1947, the TDHPW freed the bridge and the ferry service soon ceased. Around 1949, the Toll Collector's Offices were sold to private owners and relocated (Figure 32). Neither is thought to be extant.<sup>82</sup>

In 1940, the State employed at least four toll collectors for this bridge, who worked three shifts around-the-clock. From 1938 to 1947, one of the toll collectors was Eddie Stiles "Ed" Summitt (1902-1980) of Lenoir City. In 1938, Summitt lost an arm in a shooting accident and could no longer work in the local hosiery mills. In 1939, Summitt worked 40 hours a week, 52 weeks out of the year as a "Toll Collector" for the "State Toll Bridge" while his wife Vena Mae Jones (1907-1971) worked part-time at the Loudon Hosiery Mills. That year, Summitt's annual salary was \$1,100. From 1947-1972, Summitt was employed by the Tennessee Department of Motor Vehicles at the weigh station at Dixie-Lee Junction. Summitt also served as Lenoir City Fire Chief from 1965 until his retirement in 1975.<sup>83</sup>

Joseph Gallaher Browder (1895-1970), who lived on West Broadway in Lenoir City with his wife Lou T. (1899-1987) and stepson James Smith, also served as

<sup>81</sup> U.S. Population Census, 1900, 1910, 1920, 1930, 1940; U.S. Draft Registration Card 1917-1918 for James Carmichael Greer; Robbie D. Jones, "Loudon Bridge Report," 1998: 75-82; "Bridge Game Leaves Problem of Discard," *Knoxville News-Sentinel*, May 21, 1930.

<sup>82</sup> Linda Brewer, "Local residents share bridge memories," Loudon News-Herald, November 5-6, 2003: 5; Tammy Cheek, "Saving 'old' Loudon Bridge becomes crusade," Loudon News-Herald, November 5-6, 2003: 14; American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 127.

<sup>83</sup> Tammy Cheek, "Saving 'old' Loudon Bridge becomes crusade," Loudon News-Herald, November 5-6, 2003: 14; U.S. Population Census, 1930, 1940; "Summitt, long-time city fireman, dies," obituary, December 1980.

008 130 WATTS BAR PROLICT WATTS BAR PROLICT TURNESSEC NULLY ATTORNY CONTREMENTING Second Providence Contrological (Saladat Providence Contrological (Saladat Providence) 810 180 ALTERATIONS TO PIERS GENERAL DRAWING TENNESSEE RIVER BRIDGE AT LOUDON Scale 1"- 100" Exceptes anical PROJECT 9-2082 to Levilon 95 #21 13 2000 01 STRUT & PIECG TO ED 14 05208 13 00\*19 00 11 319 530+2815 THH H \$70 5.0 43.0-2050 Concrete Fill on prese wells 052181 2/85+993 4251 5 2010 1881 • 832 WKNN 2 0521817 200-0 mg WINNI 592 32040" CASC 800 52 200 CASC BEARINGS WANN 22 PROFILE Scale Norrendal P-100 ELEVATIO HINIU HINIU WANN PLAN 3355 JNN 31 Gret Sar Q 032 ñ 222124100 WANN prox Rock Surf-Pic the Bearing 0521817 30815 (m) 8258+952 115 Ja WINNA 80.02460 3 \$52 inter . 0521813 84591852 915 Id Π 055081340909 003 8658+252 415 3a 1. 43.0° Concrete, Onch Surder Spons . 74.0° On 0 T 052 1 2 3 4 5 T 100V 42192 17 2000 14 14 2591 20 2000 1000 1000 1010 StowerCity\_ 502 061 810 800 180

Source: TDOT.

Figure 28. Drawing, Elevation, J. Carmichael Greer Bridge, 1941



Figure 29. Drawing, Piers, J. Carmichael Greer Bridge, 1941



#### Figure 30. Historic Photographs, J. Carmichael Greer Bridge

A. Loudon Ferry, Looking East From West Bank, c.1940. Source: TSLA.

B. Toll Office Looking Southeast from West Approach, c.1945. Source: *Loudon News-Herald*, November 5-6, 2003.





a toll for the "State Highway Bridge." A native of Loudon County, Browder had attended Emory & Henry College in Virginia and was a veteran of World War I. The previous year he had worked 16 weeks, presumably as a toll collector, and earned \$380. In 1930, Browder lived at his family farm on the Dixie Highway and worked as a salesman.<sup>84</sup>

Harry Murphy (b.1880) was a third toll collector for the "State Toll Bridge" who in 1940 lived in a rented house on West Broadway in Lenoir City with his wife of 27 years, Paralee Weovin, and a lodger. The previous year he had worked 39 weeks, presumably as a toll collector, and earned \$950. An immigrant from Ireland, Murphy and his wife had previously lived in Toledo, Ohio, where he worked as a crane operator at a foundry.<sup>85</sup>

Murlin Eugene Wilkerson (b.1896), a fourth, lived near Bucktown with his mother-in-law. The previous year he had worked for 52 weeks, presumably as a toll collector, and earned \$400. A native of Knox County, Wilkerson was a veteran of World War I.<sup>86</sup>

The bridge was rehabilitated in 1957. The TN-SHPO documented the bridge in 1991 as "LD.2081." In 1986 and again in 1997, TDOT recommended it not eligible for the NRHP. The TN-SHPO concurred with both recommendations. The bridge was demolished in 2004 and replaced with the current two-lane, 2,596.8-foot long, standardized steel girder bridge (Figure 31).

Over the years, the bridge became an iconic symbol connecting the neighboring communities of Lenoir City on the north side of the river and Loudon on the south side. For decades, the bridge served as the symbol of the "Battle of the Bridge" rivalry between local high school football teams at Loudon and Lenoir City. Although the toll bridge is gone, this local tradition continues today.<sup>87</sup>

On November 8, 2003, the City and elected officials hosted the "Loudon Bridge Day" as a farewell celebration of the historic toll bridge. The event featured art and photograph contests, a vintage car show, an exhibit on the bridge's history, and a parade across the bridge. Mock toll bridge tickets were sold for rides in antique cars. TDOT historian Martha Carver and TDOT Commissioner Gerald Nicely were guests of honor and presented with framed prints of the bridge. Figures 31B-D were taken on Loudon Bridge Day.

<sup>84</sup> U.S. Population Census, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for Joseph Gallaher Browder.

<sup>85</sup> U.S. Population Census, 1930, 1940; Tennessee State Marriages, 1780-2002 Record for Harry Murphy.

<sup>86</sup> U.S. Population Census, 1900, 1910, 1910, 1920, 1940; U.S. World War I Draft Registration Car, 1917-1918 Record for Murlin Eugene Wilkerson.

<sup>87</sup> Robbie D. Jones, "Loudon Bridge Report," 1998: 83-89; Linda Brewer, "Bridge Day events slated Saturday," Loudon News-Herald, November 5-6, 2003: 1-2.









### Figure 31. Photographs, J. Carmichael Greer Bridge

Source: TDOT.

- A. Looking Northwest, 2003
- B. Looking West, 2003
- C. Looking Northeast, 2003
- D. Looking East, 2003



5,000 Feet

Ν

1,250 2,500

0

Figure 32. Location Map, Hickman-Lockhart Memorial Bridge, New Johnsonville, Benton and Humphries Counties

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 2 HICKMAN-LOCKHART MEMORIAL BRIDGE New Johnsonville, Benton and Humphries Counties

Spanning the Tennessee River at Trotters Landing, the Hickman-Lockhart Memorial Bridge (03-SR001-13.53) was located on State Route 1 (U.S. 70/Broadway Street), an east-west highway connecting Bristol to Memphis (Figure 32). The river serves as the county line. Therefore, the bridge's east approach is located in Humphries County and the west approach is in Benton County. Established in the mid-nineteenth century on the west bank of the river, Trotters Landing was named for the steamboat landing located here. This landing served nearby Johnsonville, founded in 1864 on the east bank of the river in Humphreys County, and its railroad connecting to Nashville. The town is named for Andrew Johnson (1808-1875), Union military governor of Tennessee and seventeenth U.S. President. The surrounding area is rich in Civil War history and was the location of the Battle of Johnsonville on November 4, 1864. When the TVA constructed the Kentucky Dam from 1938-1944 along the Tennessee River in western Kentucky, the navigable waterway beneath the bridge became part of the Kentucky Reservoir, the largest artificial lake in the Eastern United States. Located about three miles to the north of the bridge, Johnsonville was inundated beneath the reservoir, requiring the TVA to relocate the town, including homes, stores, churches, and cemeteries in 1944. Located at the bridge's east approach, the new town, called "New Johnsonville," is home to the TVA New Johnsonville Steam Plant, constructed from 1949-1951, and the 2,000-acre Johnsonville State Historic Park. Established in 1929, across the river in Benton County is the 2,587-acre Nathan Bedford Forrest State Park. Today, New Johnsonville has a population of nearly 2,000 people.<sup>88</sup>

On March 15, 1926, U.S. Senator Hiram Bingham III (1875-1956), a Republican from Connecticut on the Committee on Commerce, introduced Report No. 380 and Senate Bill 3193 in the 69<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Waverly-Camden Road. The U.S. War Department had reviewed and approved the request on February 25, 1926, as had the U.S. Department of Agriculture on March 6, 1926. In January 1927, the Tennessee Legislature included Trotters Landing on the list of 14 new toll bridges to be constructed with federal funds. The Trotters Landing location was number two on the list. The bridge was located on the system of Federal-Aid highways as required. On January 6, 1930, U.S. Senator Porter H. Dale (1867-

<sup>88</sup> Trina L. Binkley, "Humphreys County," Tennessee Encyclopedia of History and Culture, 2013; accessed April 10, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=670</u>; Johnathan K.T. Smith, "Benton County," Tennessee Encyclopedia of History and Culture, 2013; accessed April 10, 2013: <u>http://tennesseeeencyclopedia.net/entry.php?rec=81</u>.

1933), a Republican from Vermont, of the U.S. Senate Committee on Commerce submitted U.S. Senate Report No. 122 to accompany Senate Bill 1744 requesting a one-year extension in order to finish construction of the bridge. This request for an extension was duplicated in the U.S. House of Representatives on January 16, 1930, by U.S. Congressman George Huddleston (1869-1960), a Democrat from Alabama and native of Middle Tennessee.<sup>89</sup>

The bridge was intended to replace the Trotter's Landing Ferry, which crossed the Tennessee River alongside a railroad draw bridge constructed in the 1860s (Figure 33). The ferry was operated by John Wyly Lashlee and the towboat was named *Minnie* after his wife. Mr. Lashlee sold colas on the towboat.<sup>90</sup>

Completed between 1927 and 1931, the Class B toll bridge cost \$1,256,409.46. Measuring 3,610-feet long, the two-lane bridge featured five steel riveted through truss spans, including two 220-foot long Pratt trusses, two 320-foot long Pratt trusses, and a 365-foot long Parker through truss (Figure 34). The concrete approaches contained 50 girders, 25 on the east approach and 25 on the west approach. The bridge and approaches were supported by six concrete piers, 48 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails along the approaches and metal lattice handrails along the trusses. All engineering features are based on standardized plans created by engineer-of-record Leonard R. Erickson.

On September 23, 1927, the State let the primary \$227,050.04 bridge construction contract to Ferguson Construction Company, owned by Donald B. Ferguson of Rockford, Illinois. Ferguson also constructed the Joseph B. Adkinson Bridge at Obion. Between April 8, 1927, and November 12, 1930, additional contracts were let to Gifford-Hill & Company, Inc. of Dallas, Texas, for \$52,644.35, Peterson & Earnhart of Montgomery, Alabama, for \$116,189.29, A.A. Davis & Company of Kansas City, Missouri, for \$9,656.14, and State Forces for \$46,952.38.<sup>91</sup>

The Hickman-Lockhart Bridge was dedicated in May 1928 and named "in honor of the first heroes of Humphreys and Benton Counties to fall in the World War," Claude McDougal Granville "Dude" Hickman (1900-1918) of Waverly in Humphreys County and Edward Hulan Lockhart (1895-1918) of Benton County. Hickman was a Corporal in the U.S. Army and died on July 15, 1918; he is buried in the Oise-Aisne American Cemetery in Fere-en-Tardenois, France. Lockhart was a Private in the U.S. Army and died on October 14, 1918; he was the first Benton

<sup>89 &</sup>quot;Bridge Across the Tennessee River, Between Humphreys and Benton Counties, Tenn.," U.S. Senate Report No. 380, March 15, 1926; "Bridge Across the Tennessee River on the Waverly-Camden Road," U.S. Senate Report No. 122, January 6, 1930; "Bridge Across Tennessee River on the Waverly-Camden Road," U.S. House of Representatives Report No. 211, January 16, 1930.

<sup>90</sup> Benton County Genealogical Society. *Images of America: Benton County, Tennessee*. Charleston, SC: Arcadis Publishing, 2005: 124.

<sup>91</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.







Figure 33. Historic Images, Hickman-Lockhart Memorial Bridge

A. Postcard, Trotters Landing Ferry, c.1925. Source: TDOT.

B. Photograph, Trotters Landing Ferry, c.1925. Source: TSLA.

C. Postcard, Looking Northeast, c.1935. Source: TDOT.

**Figure 34. Drawing, Elevation, Hickman-Lockhart Memorial Bridge, 1927** Source: TDOT.



County resident killed in World War I. Lockhart is buried at the Meuse-Argonne American Cemetery in Romagne-sous-Montfaucon, France. The dedication ceremony was attended by Governor Henry Horton, U.S. Congressman Gordon Browning, and other local officials.<sup>92</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Camden-Trotters Landing Bridge" was open 24 hours a day with a toll of \$0.50. In 1940, the State employed six toll collectors, who worked three shifts around-the-clock. One toll collector for the "Toll Bridge" was Clarence Charlie Cowell (1893-1943), who lived in Camden in Benton County with his wife Queen Latimer (1893-1983). The previous year, Cowell had worked 29 weeks, presumably as a toll collector, and earned \$665. Cowell was a veteran of World War I serving from October 3, 1917, to April 13, 1919. In 1930, he was employed as a moving van operator in Camden. Cowell was employed as the toll collector when he died of a heart attack on April 28, 1943. He is buried at Cowell's Chapel Cemetery at Camden.<sup>93</sup>

A second toll collector for the "State Toll Bridge" was Robert Taylor "Bob" Choate (1888-1956), who lived in a rented house on Main Street in Waverly with his wife Lovie S. Exum (1889-1962) and their daughter. The previous year he had worked 52 weeks, earning \$1,140. A Tennessee native, Choate was a veteran of World War I who served for 17 years in the U.S. Army. In 1930, Choate lived in St. Louis, Missouri, where he owned a restaurant. He worked as the toll collector for a number of years and also operated a service station in Waverly until his retirement in the early 1950s. He died in 1956 at the Veterans Administration Hospital in Nashville and is buried in Humphreys County.<sup>94</sup>

Herschel Hargrave Hedge (1893-1894) also served as a toll collector. He lived on Trotter Road in rural Humphreys County with his wife Cleona Faye Jones (1911-1995) and three sons. The previous year he had worked 52 weeks, presumably as a toll collector, and earned \$1,100. A native of Cuba Landing in Humphreys County, Hedge was a veteran of World War I serving in the U.S. Army from September 18, 1917, to April 19, 1919. From 1924-1929, he served as the U.S. Postmaster at Cuba Landing and in 1930 he was employed at a general merchandise store. Hedge is buried in Caruthersville, Missouri.<sup>95</sup>

<sup>92</sup> WWI, WWII, and Korean War Casualty Listings Record for Claude D. Hickman and Edward H. Lockhart; "Tennessee World War I Veterans," Tennessee State Library and Archives; accessed April 10, 2013: <u>http://www.tennessee.gov/tsla/history/military/ww1intro.htm#b;</u> U.S. Population Census, 1910; "Bridge dedicated Last Saturday," *Democrat-Sentinel*, May 28, 1931.

<sup>93</sup> American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 127; U.S. Population Census, 1930, 1940; Tennessee Death Records, 1908-1958 Record for Clarence Charlie Cowell; U.S. Headstone Applications for Military Veterans, 1925-1963 Record for Clarence C. Cowell.

<sup>94</sup> U.S. Population Census, 1930, 1940; Tennessee Death Records, 1908-1958 Record for Bob Taylor Choate; U.S. Headstone Applications for Military Veterans, 1925-1963 Record for Bob T. Choate; "Funeral Services Held Saturday for Robert T. Choate," unnamed newspaper, 1956, accessed April 5, 2013: <u>http://www.findagrave.com</u>.

<sup>95</sup> U.S. Population Census, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record

James Thomas Lehman (1892-1943) lived in McEwen in Humphreys County with his wife of 16 years Mary McNamara, daughter, and brother. The previous year he worked for 36 weeks, presumably as a toll collector, and earned \$850. A native of McEwen, Lehman was a veteran of World War I. In the 1920s and 1930s, Lehman and his family lived in Nashville and St. Louis, Missouri, where he worked as a railroad machinist.<sup>96</sup>

Eugene William Nowell (1897-1951) lived on Road No. 69 near Camden in rural Benton County with his wife Gladys Leda Hatley, (1911-2000) and their daughter. The previous year he had worked 39 weeks, presumably as a toll collector, and earned \$1,268. Nowell was a veteran of World War I serving in the U.S. Army from July, 24, 1918, to November 23, 1918. He is buried in the Cowell's Chapel Cemetery in Benton County. <sup>97</sup>



Finally, Fred Harris Saunders (1895-1971) lived in Camden with his wife, Maude Lee Utley, (1898-1977) and their two children. The previous year, he worked 36 weeks, presumably as a toll collector, and earned \$900 (Figure 35). Saunders was a veteran of World War I serving with the Military Police. He is buried in Camden.<sup>98</sup>

In 1940, the creation of Kentucky Lake required the TVA to raise and lengthen the toll bridge (Figure 36). Simultaneously, the TVA dismantled the adjacent 1860s Nashville, Chattanooga & St. Louis Railroad drawbridge and replaced it Figure 35. Photograph, Fred H. Saunders, Toll Collector

Source: Ancestry.com.

for Herschel Hargrave Hedge; U.S. Appointments of U.S. Postmasters, 1832-1971 Record for Herschel H. Hodge; U.S. Department of Veterans Affairs BIRLS Death File, 1850-2010 Record for Herschel Hodge.

<sup>96</sup> U.S. Population Census, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for James Thomas Lehman; U.S. City Directory, Nashville, 1928, 1931; Missouri Marriage Records, 1805-2002 Record for James T. Lehman.

<sup>97</sup> U.S. Population Census, 1940; U.S. Headstone Application for Military Veterans, 1925-1963 Record for Eugene W. Nowell.

<sup>98</sup> U.S. Population Census, 1930, 1940; Tennessee State Marriages, 1780-2002 Record for Fred H. Saunders.

Figure 36. Hickman-Lockhart Memorial Bridge. TVA Gantry Raising Bridge Approaches, 1940

Source: TVA.

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with the 1905 Illinois Central Railroad Lift Bridge relocated from Gilbertsville, Kentucky. The Hickman-Lockhart Memorial Bridge was freed in February 1947. The Toll Collector's Houses were sold and relocated. It is unknown if the Toll Collector's Houses are extant.

TDOT documented the bridge between 1980 and 1982 and recommended it not eligible for the NRHP. Additional photographs were taken by TDOT in 1985 prior to its demolition (Figure 37). From 1984-1985, TDOT replaced the toll bridge with the current four-lane, 2,206.5-foot long, steel girder bridge, which retains the name of Hickman-Lockhart Bridge.<sup>99</sup>

<sup>99</sup> TVA. "The Kentucky Project: A Comprehensive Report on Planning, Design, Construction, and Initial Operations of the Kentucky Project: Technical Report No. 13." Washington, DC: U.S. Government Printing Office, 1951: 588, 592-593, 597; Glyn D. DuVall and Martha Carver. "An Archaeological and Historical Assessment of the State Route 1 Bridge and Approaches over the Tennessee River, Benton County, Tennessee." Unpublished report prepared by TDOT, 1982; Richard McCoy, "New Bridge Planned for U.S. 70 at J'ville," Waverly News-Union, January, 1983.



### Figure 37. Photographs, Hickman-Lockhart Memorial Bridge

Source: TDOT.

A. Looking Northeast, c.1985

B. Looking East, c.1985





Figure 38. Location Map, Milo Lemert Memorial Bridge, Savannah, Hardin County

Source: ESRI Resource Data, Imagery Layer

# SPECIAL BRIDGE PROJECT NO. 3 MILO LEMERT MEMORIAL BRIDGE SAVANNAH, HARDIN COUNTY



Spanning the Tennessee River at Savannah, the county seat of Hardin County, the Milo Lemert Memorial Bridge (36-SR015-06.29) is located along State Route 15 (U.S. 64), an east-west highway connecting Memphis with Monteagle (Figure 38). Located on the east bank of the river, Savannah was settled in the early 1820s at the site of Rudd's Ferry, operated by James Rudd (b.1788) of Virginia. In 1829, the river town was chosen as the new county seat and renamed Savannah after Savannah, Georgia, the hometown of Elizabeth Hooper Robinson (1784-1863), wife of subsequent ferry owner and cotton planter David Robinson (1778-1847). The Robinson family lived in the c.1830 Cherry Mansion (NRHP, 1977) located at the eastern approach of the bridge on a bluff overlooking the Tennessee River. During the Civil War, the Battle of Shiloh took place just south of Savannah; in 1894, the battlefield became part of the 4,000-acre Shiloh National Military Park that stretches to Corinth, Mississippi. In 1930, Savannah's population was 1,129 and today numbers over 7,200.100

For nearly a century, the Tennessee River had divided the county into East Hardin and West Hardin. Traveling across the river was dangerous and often deadly, especially during high water weather. Savannah leaders had pursued a bridge crossing for years and launched a formal effort in 1921 when a committee was appointed to "look into the matter." In 1923, the city hired surveyors to locate the best site for a bridge crossing, from one mile upstream to Pittsburg to downstream "just below Cerro Gordo store." By the mid-1920s, town leaders had convinced state and federal leaders that a bridge was necessary. In 1926, Governor Austin Peav and Tennessee Senator John A. Shelton (1881-1965) agreed to find a way to fund the long-awaited bridge at Savannah.<sup>101</sup>

On March 15, 1926, U.S. Senator Hiram Bingham III (1875-1956), a Republican from Connecticut and member of the Committee on Commerce, introduced Report No. 383 and Senate Bill 3196 in the 69th Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Savannah-Selmer Road. Selmer is the county seat of adjacent McNairy County. In January 1927, the Tennessee Legislature included Savannah on the list of 14 new toll bridges to be constructed with federal funds. Savannah was number three on the list. In 1927, the U.S. War Department, U.S. Department of Agriculture, and the U.S. Senate reviewed and approved construction of this bridge along the

<sup>100</sup> James B. Phillips. "Hardin County," Tennessee Encyclopedia of History and Culture, 2013; accessed online April 1, 2013 at http://tennesseeencyclopedia.net/entry.php?rec=599 ; WPA Guide to

*Tennessee*. Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 487-488. 101 "A.A. Watson, "Bridges in Hardin County," *Savannah Courier*, September 5, 1930.

Savannah-Selmer Road. The bridge was located on the system of Federal-aid highways as required.<sup>102</sup>

In February and March 1927, the U.S. Army Corps of Engineers held public hearings in Savannah regarding the bridge location and engineering plans. The bridge would be constructed at downtown Savannah with the east approach landing on the bluff alongside the Cherry Mansion and at the foot of Water Street. The original bridge plans included three spans of 320-foot long trusses supported by concrete piers and a vertical clearance of 100-feet above lower water mark. Local residents had approved the location, but several "rivermen" requested that the river channel be completely free of piers and a vertical clearance of at least 110-feet above the low water mark. The Savannah Courier reported that both requests were "out of reason."103

In March, Savannah leaders decided to extend Water Street from the courthouse square west to the bridge in a manner that would not require relocating any private homes. That April, local officials held a ceremonial bridge groundbreaking ceremony, attended by Mayor William Oscar Thomas (1884-1939) and former Tennessee Governor Tom Clarke Rye (1863-1953) of Paris.<sup>104</sup>

On May 28, 1927, the TDHPW let a \$2,846.51 contract to Mott Core Drilling of Huntingdon, West Virginia. On September 16, 1927, the State awarded the primary bridge construction contract for \$788,525.27 to C.G. Kershaw Company of Birmingham, Alabama. Between 1927 and 1931, other contracts were let to State Forces for \$20,765.33 and Gifford-Hill & Company, Inc. of Dallas, Texas, for \$128,924.00. TDOT records indicate the Nashville Bridge Company was awarded a \$150,862.31 subcontract for fabricating the steel trusses; however, the local newspaper listed the subcontract going to the International Bridge Company.<sup>105</sup>

Completed between May 1927 and October 1930, the Class B toll bridge cost \$941,061.18. Measuring 2,305.4-feet long, the two-lane bridge featured three steel riveted through truss spans at the center (Figure 39). Two 320-foot long Warren trusses with polygonal top chords flanked a 365-foot long Warren truss at the center. The concrete approaches contained 30 girders on 40-foot centers, five on the east approach and 25 on the west approach. The bridge and approaches were supported

<sup>102 &</sup>quot;Bridge Across the Tennessee River, Hardin County, Tenn.," U.S. Senate Report No. 383, March 15, 1926.

<sup>103 &</sup>quot;Bridge Plans," Savannah Courier, February 11, 1927; "Bridge Meeting March 10," Savannah

Courier, March 4, 1927; "Construction of Bridge," Savannah Courier, March 18, 1927.
 104 "Town to River Bridge," Savannah Courier, March 25, 1927; "Bridge Construction On," Savannah Courier, May 6, 1927.

<sup>105</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; "Big Bridge Project at Savannah Contracted," Savannah Courier, September 23, 1927; "Steel Being Put on River Bridge," Savannah Courier, May 9, 1930; "Steel Spans Built," Savannah Courier, July 25, 1930.



by four concrete piers, 28 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

In November 1927, the *Savannah Courier* reported that the "big million-dollar bridge project goes merrily on" and town leaders were expecting to celebrate its completion in late 1929 with a "home-coming and road warming and bridge opening jubilee. Rah for the bridge!"<sup>106</sup> Much to the chagrin of local residents, however, bridge construction was suspended during the winter months of 1929 due to extremely high water. Practically all the workers were laid off, with many moving elsewhere. The *Savannah Courier* reported, "We have waited a hundred years for that bridge, and some of us are nervously anxious for the finish." Work on the bridge piers resumed in June 1929, continuing through the fall. The *Savannah Courier* summed up the community sentiments when it reported, "Here's wishing them all the fast luck there is in getting on with the construction."<sup>107</sup>

Work was once again suspended during the winter of 1930 due to extremely high waters and flooding. On January 6, 1930, the U.S. Senate approved a one-year extension for construction of the bridge. This request for an extension was duplicated in the U.S. House of Representatives on January 16, 1930, by U.S. Congressman George Huddleston (1869-1960), a Democrat from Alabama and native of Middle Tennessee.<sup>108</sup>

#### Figure 39. Drawing, Layout of Milo Lemert Memorial Bridge, 1927

Source: TDOT.

<sup>106 &</sup>quot;Build the Bridge & Road," Savannah Courier, November 11, 1927.

<sup>107 &</sup>quot;Bridge Work Here Suspended Till Next Spring," Savannah Courier, January 18, 1929; "Work on Bridge Resumed," Savannah Courier, June 26, 1929; "Base of Bridge Pier Poured," Savannah Courier, July 19, 1929; "River Pier Being Built," Savannah Courier, September 20, 1929.
108 "Bridge Work Will Be Suspended," Savannah Courier, November 15, 1929; "Bridge Across the

<sup>108 &</sup>quot;Bridge Work Will Be Suspended," Savannah Courier, November 15, 1929; "Bridge Across the Tennessee River at Savannah, Tenn.," U.S. Senate Report No. 121, January 6, 1930; "Bridge Across Tennessee River at Savannah, Tenn.," U.S. House of Representatives Report No. 212, January 16, 1930.

Figure 40. Photograph, Jim Franks, Construction Worker

Source: Ancestry.com.



On January 10, 1930, James Newton "Jim" Franks (1886-1930) was killed during construction of the final concrete pier (Figure 40). Franks fell 70 feet from the top of the pier to a steel barge below and died instantly. Franks was a house carpenter from Lawrenceburg and left behind a widow, Bella, and two children. He is buried in the Mimosa Cemetery in Lawrenceburg. The foreman in charge of building the concrete piers, known only as Mr. Sloat, also drowned during construction, which resulted in suspension of the pier work until a replacement could be hired. Work resumed in April 1930.<sup>109</sup>

In June 1930, work on the adjoining roads leading to the bridge was initiated, with paving of a half-mile of roadway on the east bank through Savannah and paving of over two miles on the west bank over the hills to the Gum Springs community. The roadwork was set to be completed simultaneously with the bridge in September 1930. In July, the local newspaper reported that the steel work was nearly done and, "Yes, it's looking surprisingly fine."<sup>110</sup>

On September 17, 1930, a grand dedication ceremony was held in conjunction with a week-long celebration of the 100<sup>th</sup> anniversary of the town's founding in 1830. The dedication was held on the opening of the four-day Hardin County Fair and a week-long Homecoming for former residents of the county. The week-long party was planned by some 17 committees with over 120 members from the community. The *Savannah Courier* published a "Special Bridge Opening Edition" with three photographs of the bridge, special articles, poetry, and congratulatory advertisements from businesses in Savannah, Lawrenceburg, and Memphis as well as Corinth, Birmingham, and Florence, Alabama (Figure 41). The American Legion and Savannah Chamber of Commerce sent invitations to what billed as the "Greatest Event in the History of a Great Section" and an "opportunity of a whole life time" to former county residents; a copy was published in the newspaper. A program with live music promoting the ceremony and county fair was broadcast prior to the event on WMC Radio.<sup>111</sup>

<sup>109 &</sup>quot;Jim N. Franks Falls to His Death," Savannah Courier, January 17, 1930; U.S. Population Census, 1930; Tennessee Death Records, 1908-1958 Record for James Newton Franks; "Bridge Work to be Going Soon," Savannah Courier, March 14, 1930; "Steel Work to Start Immediately," Savannah Courier, March 4, 1930; "Steel Being Put on River Bridge," Savannah Courier, May 9, 1930; "Opening Savannah Bridge Sept. 17," Savannah Courier, September 5, 1930.

<sup>&</sup>quot;Opening Savannah Bridge Sept. 17," Savannah Courier, September 5, 1930. 110 "Bridge Spans Jumping Across," Savannah Courier, June 20, 1930; "Steel Girding River Spans," Savannah Courier, July 25, 1930.

<sup>111 &</sup>quot;Bridge Opening Sept. 17 Committees," *Savannah Courier*, August 15, 1930; "Opening Savannah Bridge Sept. 17: Special Bridge Opening Edition," *Savannah Courier*, September 5, 1930.

Speakers at the bridge dedication ceremony included U.S. Senator Kenneth D. McKellar (1869-1957) of Memphis, U.S. Senator William K. Abernathy (1870-1940), U.S. Senator Andrew H. Wiggs (1877-1956) of Linden, U.S. Congressman Gordon Browning (1889-1976) of Huntingdon, Tennessee Highway Commissioner Robert H. Baker, and Governor Henry Horton. Live music was performed by a band from Florence, Alabama, and the local high school band. That night, a special "Bridge Opening Dance" was held at The Club Room in Savannah with music provided by Johnnie Brown and his Playtone Orchestra, a popular African-American jazz band out of Jackson, Tennessee. The county fair featured airplanes and parachute jumping. In what was billed as one of the biggest days in county history, attendance at the bridge ceremony was estimated at three to five thousand people; another five to six thousand attended the county fair. All told, around 10,000 people attended the week-long celebration.<sup>112</sup>

The Tennessee Legislature named the bridge in honor of Milo L. Lemert (1890-1918), a U.S. Army veteran who was one of six Tennesseans to win a Congressional Medal of Honor while serving in World War I. A native of Marshalltown, Iowa, Lemert attended Kansas State University from 1906-1910 where he was class president. He worked as a sheep farmer in Oklahoma, Kansas, and Wyoming before moving in 1912 with his family to a farm near Crossville in East Tennessee. Lemert was a First Sergeant in Company G, 119th Infantry, 30th "Old Hickory" Division, where he served alongside his younger brother Nathan Lemert (1891-1987). Sgt. Lemert was honored for "extraordinary heroism" in action taking place on September 29, 1918, at the Hindenburg Line near Bellicourt, France. The U.S. Army presented his widow, Nellie V. Snodgrass Lemert, his Medal of Honor posthumously at the Crossville Christian Church on October 19, 1919. They had married on September 29, 1917, not long before he was sent overseas in March 1918. He was killed on his first wedding anniversary and is buried in the Crossville City Cemetery. In 1991, the WPA Post Office in Crossville was renamed the Milo Lemert Memorial Building. In 2000, the new Crossville bypass from Peavine Road to U.S. 127 was named the Milo Lemert Parkway.<sup>113</sup>

At the bridge dedication, Nona Lowson Robinson (1887-1931), a widow from Selmer, was introduced as the chief toll collector with Oakley Orville Thomas (b.1895) of Savannah as the assistant toll collector. The newspaper reported that another toll collector would be appointed as soon as traffic warranted it. Robinson

<sup>112 &</sup>quot;Opening Savannah Bridge Sept. 17: Special Bridge Opening Edition," Savannah Courier, September 5, 1930; "Bridge Opening and Home Coming a Mighty Big Event," Savannah Courier, September 19, 1930; "Interview with Gus Perryman" by Irene Cortinovis, Jazzman Project, State Historical Society of Missouri Research Center, St. Louis, April 27, 1972; accessed May 2, 2013: http://www.umsl.edu/~whmc/guides/t106.htm.

<sup>113</sup> Heather Mullinix, "Medal of Honor gravesite gets a facelift," Crossville Chronicle, December 27, 2011; Dorothy Brush, "Random Thoughts: A Hero Not Forgotten," Crossville Chronicle, November 3, 2009; Mike Moser, "The Memory of Milo Lemert is alive and well today," Op-ed, Crossville Chronicle, June 4 2004; U.S., World War I Draft Registration Cards, 1917-1918 Record for Milo Lemert; U.S. Population Census, 1900, 1910.

#### Figure 41. Historic Images, Milo Lemert Memorial Bridge

Source: Savannah Courier, September 5, 1930.

A. Photograph, Looking Northwest from East Approach

B. Coca-Cola Bottling Works Advertisement, Corinth, Mississippi

C. The Club Room Advertisement, Savannah

D. J.W. DeBerry Advertisement, Savannah

E. Churchwell's Stores Advertisement, Savannah











Pierce Winningham (1890-1972) published the following poem in the Savannah Courier on September 19, 1930. According to U.S. Census records, Winningham was a merchant from nearby Henderson in Chester County and later worked in Jackson and Cookeville.

### "The New Bridge"

What fee shall press upon you and from whence? What hearts shall beat above you? What strange wheel Shall spin in crossing? Shall you, biding there, Outlast our builders, concrete thing of steel? Might you, beset by stormy enemies, Scatter to sleep beneath the stream you span Or slowly, as if by treacherous disease, Fall as a falling man? Against the sky we've watched your crawling length A growing train across the Tennessee All summer in a glare of driving heat Men come afar to see The shop is brother to the field and tree Hail to the bridge that binds them hand to hand Our new necessity! September moon looks down, the same that saw Wagon and oxen steered by hardened hands And weather-wrinkled brows expectantly Raised to virgin lands. The lowly ferry boat has passed to be One with the steam-boat of long ago Cars flood the highways; in the autumn night An airplane flying low. Oh there are bridges reaching nearer heaven, And there are bridges lovelier to behold Swinging their shining structure toward a city Where lights bloom gold. There is the London bridge forever falling And there's an ancient bridge that brings to Rome But you are the civic candle in the window Of a place called home.

died of paralysis on May 3, 1931, while employed as the toll collector. In 1940, one of the toll collectors was Robert Hardin "Bob" Morrow (1904-1964) who lived with his brother on White Street in Savannah. The previous year he had worked 50 weeks, presumably as a toll collector, and earned \$1,058 dollars.<sup>114</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Savannah Bridge" was open 24 hours with a toll of \$0.25. The bridge was freed in February of 1947 (Figure 42). The portals were damaged and repaired in 1956 as the result of a vehicle collision. In 1966, the structure was cleaned, painted, sections of handrails were replaced, and minor repairs were





<sup>114</sup> U.S. Population Census, 1930, 1940; Social Security Death Index for Robert Morrow; "Bridge Opening and Home Coming a Mighty Big Event," *Savannah Courier*, September 19, 1930; Tennessee Death Records, 1908-1958 Record for Nona Lowson Robinson.

#### Figure 42. Postcards, Milo Lemert Memorial Bridge

Source: TDOT.

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A. Looking Northwest, c.1946

B.Looking Southwest with Ferry, c.1940

made to expansion joints. In 1971, the trusses were sandblasted and repainted and repairs made to joints, curbs, piers, and navigation lighting. TDOT replaced the bridge in 1980 with the current 2,309.5-foot long, four-lane steel girder bridge (Figure 43).<sup>115</sup>





Source: TDOT.

A. Looking East

B. Looking West



115 American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 127.



Figure 44. Location Map, Alvin C. York Bridge, Perryville, Decatur and Perry Counties

Source: ESRI Resource Data, Imagery Layer

# SPECIAL BRIDGE PROJECT NO. 4 ALVIN C. YORK BRIDGE PERRYVILLE, DECATUR AND PERRY COUNTIES



The Alvin C. York Bridge (40-SR076-30.34) spanned the Tennessee River at Perryville along State Route 20/State Route 100 (U.S. 412) (Figure 44). The river serves as the county line. Therefore, the bridge's east approach is located in Perry County and the west approach is in Decatur County. Founded in 1821 on the west bank of the river, Perryville was named for Oliver H. Perry (1785-1819), a native of Rhode Island and chief naval officer during the War of 1812. Perryville was the original seat of Perry County until 1845 when the lands on the west side of the river were carved out to form Decatur County. The seat was then relocated to Decaturville. By the late-nineteenth century, Perryville was a thriving river town served by a railroad connecting to Memphis. In 1944, however, much of the town was flooded beneath the Kentucky Reservoir when the TVA constructed the Kentucky Dam on the Tennessee River in western Kentucky. Many businesses relocated to nearby Parsons and the former community of Perryville became a marina and recreational area.<sup>116</sup>

On March 15, 1926, U.S. Senator Hiram Bingham III (1875-1956), a Republican from Connecticut and member of the Committee on Commerce, introduced Report No. 384 and Senate Bill 3197 in the 69<sup>th</sup> Congress requesting consent to build this bridge on the Linden-Lexington Road. In January 1927, the Tennessee Legislature included Perryville on the list of 14 new toll bridges to be constructed with federal funds. The Perryville location was number four on the list. On December 14, 1927, U.S. Congressman George Campbell Peery (1873-1952), a Democrat from southwest Virginia, from the Committee on Interstate and Foreign Commerce, introduced Report No. 8 and Bill H.R. 6053 in the 70<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Linden-Lexington road. U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, introduced accompanying Report No. 101 and Senate Bill 1090 on January 17, 1928. The U.S. War Department had reviewed and approved the request on January 19, 1928, as had the U.S. Department of Agriculture on January 12, 1928. The location was on a Federal-aid highway as required.<sup>117</sup>

Completed between January 1928 and November 1931, the Class B toll bridge cost \$767,337.97. Measuring 4,018.3-feet long, the two-lane bridge featured six steel riveted through truss spans at the center, including a 322-foot long Parker truss, a

<sup>116</sup> Lillye Younger. "Tennessee County History Series: Decatur County," 1979, republished by Decatur County Historical Society. <u>http://www.dchs-tn.org/municipalities/perryville.asp</u>, accessed March 28, 2013.

<sup>117 &</sup>quot;Bridge Across Tennessee River, Decatur County, Tenn.," U.S. Senate Report No. 384, March 15, 1926; "Bridge Across Tennessee River on Linden-Lexington Road, Tennessee," House of Representatives Report No. 8, December 14, 1927; "Bridge Across the Tennessee River in Perry and Decatur Counties, Tenn.," Senate Report No. 101, January 17, 1928.



#### Figure 45. Drawing, Elevation, Alvin C. York Bridge, 1927

Source: TDOT.

368-foot long Parker truss, and four 122-foot long through Pratt trusses (Figure 45). The concrete approaches contained 91 girders, 89 on the east approach and two on the west approach, measuring 40-feet each. The bridge and approaches were supported by seven concrete piers, 89 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. All engineering features are based on standardized plans created by engineer-of-record Leonard R. Erickson.

On January 18, 1928, the State let the primary \$631,966.13 bridge construction contract to National Construction Company of New York (Figure 46). The \$3,447.08 core drilling contract was let on September 22, 1927, to Mott Core Drilling Company of Huntington, West Virginia. Between June 1928 and April 1929, additional contracts were let to Gunter Construction Company of Knoxville for \$93,986.02, \$4,654.79 to State Forces, \$17,653.01 to R.E. Martin, and \$15,830.94 to J.B. McCrary Engineering Corporation of Atlanta, Georgia.<sup>118</sup>

During a dedication ceremony on July 4, 1930, this bridge was named in honor of Alvin Cullum York (1887-1964), a U.S. Army veteran who was one of six Tennesseans to win a Congressional Medal of Honor while serving in World War I. A native of Pall Mall in Fentress County, York worked as a logger and blacksmith. Sgt. York was honored for "extraordinary heroism" in action taking place on October 8, 1918, at the Meuse-Argonne Offensive in France. Although he was a onetime conscientious objector to the war, Sgt. York received nine military awards, dozens of honors, and became one of American's most famous WWI soldiers. His actions were widely publicized in the *Saturday Evening Post* in April 1919, leading to celebrations in New York City, Washington, D.C., Nashville, and elsewhere. Upon his return home to Pall Mall, he married Gracie Loretta Williams (1900-1984) and Rotary Clubs across the country bought him a 400-acre farm. After the war, York used his fame to improve Tennessee's Cumberland Plateau region with better highways and schools, including the state-operated Alvin C.

<sup>118</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.





York Institute in Jamestown, and raised funds for war-related charities such as the Red Cross. In 1941, Howard Hawks directed the Oscar-winning movie *Sergeant York* about his life, with actor Gary Cooper portraying him. York died at a Veterans hospital in Nashville in 1964 and is buried at the Wolf Creek Cemetery in Pall Mall. Numerous public buildings, schools, streets, foundations, and memorials have been named in his honor and his statue stands on the grounds of the Tennessee State Capitol. His farm and grist mill at Pall Mall is a state-owned historic park and museum. The 1940 truss bridge spanning the Wolf River along U.S. 127 at Pall Mall is also named for York.

#### Figure 46. Historic Photographs, Alvin C. York Bridge

Source: TSLA.

A. Looking Northeast, Under Construction, c.1927

B. Looking Southwest, 1953



#### Figure 47. Postcards, Alvin C. York Bridge

Source: TDOT.

A. Looking Northeast

B. Looking North



In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Perryville-Linden Bridge" was open twenty-four hours with a toll of \$0.50. In 1940, the toll collector at the "Pay Bridge" was Jesse Duck Austin (1893-1943), who lived in Decaturville where he lived with his wife Mary Tucker. He worked 16 weeks in 1939 and earned \$400, presumably as a toll collector. A native of Lexington in Henderson County, Austin had previously lived in Memphis and was a veteran of World War I, serving from May 31, 1917, through April 7, 1919. In the 1930s, Austin had worked as a blacksmith and carpenter at Decaturville. On January 14, 1943, he died of a self-inflicted gunshot wound at the Veterans Administration Hospital in Memphis.<sup>119</sup>

A second toll collector in 1940 at the "Pay Bridge" was Tommie E. Wheat (1915-1990) who lived in Decaturville with his parents, William and Sallie Wheat, and two brothers. The previous year he worked 39 weeks, presumably as a toll collector, and earned \$900. In October 1941, Wheat enlisted in the U.S. Army, where he listed his civil occupation as "crossing watchman and bridge tenders." He is buried in Columbus, Ohio.<sup>120</sup>

When the TVA constructed the Kentucky Dam from 1938-1944 along the Tennessee River in western Kentucky, the navigable waterway beneath the bridge became part of the Kentucky Reservoir. Significant repairs were undertaken in 1967, 1969, 1971, and 1974. In 1986, the TN-SHPO surveyed the bridge, which is designated "DE.50." A historic roadside marker remains standing. The marker was dedicated to William Morgan "Morg" Conder (1897-1947), a member of the Tennessee House of Representatives who helped pass legislation to free the toll bridge. A native of Perryville, Mr. Conder passed away unexpectedly two days after the bridge was

<sup>119</sup> American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 127. U.S. Population Census, 1910, 1920, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 for Jesse D. Austin; Tennessee, Death Records, 1908-1958 Record for Jesse D. Austin; U.S. Headstone Applications for Military Veterans, 1925-1963 Record for Jesse D. Austin.

<sup>120</sup> U.S. Population Census, 1940; U.S. World War II Army Enlistment Records, 1938-1946 Record for Tommie E. Wheat; Ohio Deaths, 1908-1932, 1938-2007 Record for Tom E. Wheat.

freed on February 6, 1947. In the early 1980s, TDOT determined the bridge was in poor condition and recommended it not NRHP-eligible. From 1985-1987, the bridge was demolished and replaced with the current, 2,935.8-foot long, two-lane steel girder bridge (Figures 47-48).



#### Figure 48. Photographs, Alvin C. York Bridge, 1980

Source: TDOT.

A. Looking East

B. Looking Northeast

C. Looking North









Figure 49. Location Map, Joseph B. Adkinson Bridge, Obion, Obion County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 5 JOSEPH B. ADKINSON MEMORIAL BRIDGE OBION, OBION COUNTY



Spanning the Obion River at Obion, a small railroad town in Obion County in West Tennessee, the Joseph B. Adkinson Bridge (66-SR211-02.82) is located along an abandoned section of State Route 3 (U.S. 51) at Obion in the rolling hills of northwest Tennessee (Figure 49). Established in 1872, Obion is a rural community located on the north bank of the Obion River, which is thought to have been named for an Indian word meaning "many forks." A levee protects the town from the annual overflow from the Mississippi River. U.S. 51 is a north-south federal highway connecting New Orleans with Hurley, Wisconsin, and runs from Mississippi to Kentucky. In the 1930s, U.S. 51 was also known as the Jefferson Davis Highway. The toll bridge was built alongside the Illinois Central Railroad Bridge. In 1930, Obion counted 1,200 residents; today it has approximately 1,100 residents.<sup>121</sup>

In January 1927, the Tennessee Legislature included Obion on the list of 14 new toll bridges to be constructed with federal funds. The Obion location was number five on the list. In 1927, the U.S. War Department, U.S. Department of Agriculture, and the U.S. Congress reviewed and approved construction of this bridge. The bridge was located on the system of Federal-Aid highways as required. Individual Congressional records for this bridge were not located.

Completed between April 1927 and July 1931, the Class A toll bridge cost \$452,492.20. Measuring 2,998-feet long, the two-lane bridge features a single 102-foot long steel truss at the north end (Figures 50-51). The concrete approaches contain a total of 45 girders and are supported by four concrete piers, 97 concrete bent piers, and two concrete abutments. The bridge features concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On September 23, 1927, the State let the primary \$227,050.04 bridge construction contract to Ferguson Construction Company, owned by Donald B. Ferguson of Rockford, Illinois. Ferguson also constructed the Hickman-Lockhart Bridge at New Johnsonville. Between April 8, 1927, and November 12, 1930, additional contracts were let to Gifford-Hill & Company, Inc. of Dallas, Texas, for \$52,644.35, Peterson & Earnhart of Montgomery, Alabama, for \$116,189.29, A.A. Davis & Company of Kansas City, Missouri, for \$9,656.14, and State Forces for \$46,952.38.<sup>122</sup>

<sup>121</sup> WPA Guide to Tennessee. Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 420.

<sup>122</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.



Source: TDOT.

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Figure 51. Drawings, Bridge Details, Joseph B. Adkinson Bridge, 1927

The bridge was named in honor of Joseph Bernard Adkinson (1892-1965), a U.S. Army soldier who received the Congressional Medal of Honor on December 31, 1919, for his "extraordinary heroism" in action on September 29, 1918, near Bellicourt, France, during World War I. One of six WWI Medal of Honor recipients from Tennessee, he was a Sergeant in Company C, 119<sup>th</sup> Infantry, 30<sup>th</sup> "Old Hickory" Division. Born in Egypt in Shelby County, Adkinson later hailed from Atoka in Tipton County in West Tennessee. Raised by a single mother, he was employed as a clerk with a carriage and wagon supplier when he entered the Army in 1917 at Memphis. After the war, he lived at home with his family. He is buried in Salem Associated Reformed Presbyterian Church in Atoka. Adkinson Park in Memphis is also named in his honor.<sup>123</sup>

The Joseph B. Adkinson Memorial Bridge was freed in February 1947 and abandoned in 1990 when the State Route-3 (U.S. 51) bypass was completed. The bridge is preserved as a ruin and today is used as a fishing bridge by local residents (Figures 52-53). The town has incorporated the center truss into a logo for town signage (Figure 54).



# 123 U.S. Population Census, 1900, 1910, 1920, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 for Joseph B. Adkinson.

Figure 52. Aerial Photograph of Joseph B. Adkinson Bridge, Looking Northwest, c.1930

Source: "Report of the State Highway Commissioner," June 30, 1930: 90.








### Figure 53. Photographs, Joseph B. Adkinson Bridge, 2011

Source: TDOT.

A. Looking South at Truss

B. Looking South at Approach

C. Looking Southeast at Approach and adjacent Illinois Central Railroad, 2011

Figure 54. Town Sign, SR-183/Palestine Avenue, Looking East, 2006







Figure 55. Location Map, Edward R. Talley Bridge, Kyles Ford, Hancock County

Source: ESRI Resource Data, Imagery Layer

# SPECIAL BRIDGE PROJECT NO. 6 EDWARD R. TALLEY BRIDGE KYLES FORD, HANCOCK COUNTY



Spanning the Clinch River at Kyles Ford, a rural community in Hancock County, the Edward R. Talley Bridge (34-SR070-01.65) is located at the northern terminus of State Route 70 just south of the Virginia state line (Figures 55-56). Kyles Ford is an unincorporated community named for Robert Kyle, Jr. (1805-1887), a farmer who operated a toll ferry here in the mid-nineteenth century. The remote community is located at the terminus of State Route 70, an approximately 65-mile long highway connecting Greeneville with Kyles Ford, and State Route 33, a north-south highway extending from Georgia to Virginia. Locally, the route connected the Hawkins County seat of Rogersville with the Hancock County seat of Sneedville and was known as the Rogersville-Sneedville Road. By the mid-twentieth century, Kyles Ford featured several roadside businesses such as service stations and country stores catering to travelers.

In January 1927, the Tennessee Legislature included Kyles Ford on the list of 14 new toll bridges to be constructed with federal funds. Kyles Ford was number six on the list. William Tecumseh Testerman (1862-1940), the Secretary of the Tennessee Highway Commission from 1919 through the 1930s, lived in Rogersville but was originally from Sneedville and Kyles Ford. As the East Tennessee representative on the THC, it was most likely due to Testerman's efforts that toll bridges were constructed at Kyles Ford and Sneedville in remote and sparsely populated Hancock County.<sup>124</sup>

On February 16, 1927, U.S. Congressman Alben William Barkley (1877-1956), a Democrat from Kentucky who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 2118 and Bill H.R. 16950 in the 69<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Rogersville-Sneedville Road. U.S. Senator David Wallace Stewart (1887-1974), a Republican from Iowa, introduced accompanying Report No. 1499 and Senate Bill 5603 on February 17, 1927. The U.S. War Department had previously reviewed and approved the request on February 11, 1927, as had the U.S. Department of Agriculture on February 10, 1927. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 532 and Bill H.R. 9193 to the U.S. House of Representatives. The location was not on a Federal-Aid highway as required; however, the U.S. Congress made a

<sup>124</sup> U.S. Population Census, 1870, 1880, 1900, 1910, 1920, 1930, 1940.



Figure 56. Photographs, Edward R. Talley Bridge, 2003

Source: TDOT.

A. Aerial, Looking North

B. Aerial, Looking South







### Figure 57. Historic Images, Edward R. Talley Bridge

A. Plan and Elevation, Looking South, 1927. Source: TDOT.

B. Photograph, Under Construction, July 1928, Looking Southeast. Source: Hancock County, Tennessee & Its People, 1995: 148.



special exemption and approved the bridge request on March 2, 1927. In February 1928, the U.S. Senate granted a one-year extension of time needed to construct the bridge.<sup>125</sup>

Completed between December 1927 and October 1928, the Class A toll bridge cost \$110,308.54 and measured 420-feet long, making it the least costly and shortest of all the toll bridges (Figure 57). The two-lane bridge features a single 160-foot steel truss span at the center. The equal size concrete approaches contain three 40-foot girders each and are supported by four concrete piers, two concrete bent piers, and two concrete abutments. The bridge is elevated approximately 30-feet above the waterway with concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On December 16, 1927, the State let the primary \$71,150.98 bridge construction contract to W.H. Shons of Freeport, Illinois (Figure 57). This was the only toll bridge constructed by W.H. Shons in Tennessee. The \$1,123.95 core drilling contract was let on January 5, 1928, to Standard Drilling and the \$38,033.61 grading and digging contract was let on December 20, 1927 to Mack Construction Company, Inc.<sup>126</sup>

The bridge was named in honor of Edward Robert "Ed" Talley (1890-1950), a U.S. Army soldier from nearby Russellville in Hamblen County who received the Congressional Medal of Honor on April 12, 1919, for his "extraordinary heroism" in action near Ponchaux, France, during World War I. One of six WWI Medal of Honor recipients from Tennessee, he was a Sergeant in Company L, 117<sup>th</sup> Infantry, 30<sup>th</sup> "Old Hickory" Division. Talley also received WWI military service awards from France, Belgium, Portugal, Britain, Italy, France, and Montenegro. After returning home, he married Mattie Moore (1893-1980) and settled in Appalachia in Wise County, Virginia, where he operated a general merchandise store. He died at the Mountain Home Veterans Administration Medical Center (NHL, 2011) at Johnson City and is buried at Bent Creek Cemetery in Whitesburg in Hamblen County.<sup>127</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Kyles Ford Bridge" was open 24 hours with a toll of \$0.25 (Figure 58). The bridge was freed in March 1939. At that time, the original toll booth,

<sup>125 &</sup>quot;Bridge Across Clinch River in Hancock County, Tennessee," House of Representatives Report No. 2118, February 16, 1927; "Bridge Across the Clinch River, Tenn.," Senate Report No. 1499, February17, 1927; "Bridge Across the Clinch River in Tennessee," Senate Report No. 1595, February 24, 1927; "Bridge Across Clinch River in Tennessee," Senate Report No. 221, February 2, 1928; "Bridge Across Clinch River on Sneedville-Rogersville Road, Tennessee," U.S. House of Representatives Report No. 532, February 1, 1928.

<sup>126</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>127</sup> Hancock County Historical & Geneaological Society, Inc. "Hancock County's Green Bridge." Hancock County, Tennessee & Its People: 1844-1994, Volume II. Waynesville, NC: Don Mills, Inc., 1995: 61; "Edward R. Talley," Medal of Honor Recipients: World War I. <u>http://www.history.army.</u> <u>mil/html/moh/worldwari.html</u>, accessed March 25, 2013; U.S. World War I Draft Registration Card, 1917-1918 for Edward Robert Talley; U.S. Population Census, 1900, 1910, 1920, 1930.





#### Figure 58. Historic Photographs, Edward R. Talley Bridge

A. Aerial, Looking Southwest, 1930s. Source: Lindey Turner, Kyles Ford.

B. Enlarged Aerial, Looking Southwest, Toll Collector's Office, Type "B." Source: Lindey Turner, Kyles Ford.

C. Photograph, Looking East, With Sign Showing Toll Rates, c.1935. Courtesy Lindey Turner, Kyles Ford.



located at the center of the west approach, was relocated a few hundred feet to the west and repurposed as a roadside stand (Figure 59). It is no longer extant.<sup>128</sup>

Around 1940, a three-story commercial building was constructed at the north end of the bridge. Built of rusticated concrete block, the building was originally owned by Elmer Ewing Wallen (1910-1964), and his wife Jewell (1910-1988), who operated a country store from the ground level. The second floor housed Dr. Pierce's office and a Fern Snodgrass's Beauty Shop. Later, the second floor was converted into a residence for subsequent store owners Walter C. (b.1939) and Alice Willis. The building stood vacant from 1980 until 2007 when it was renovated for use as the "River Place on the Clinch" tourism development complex, featuring a country store, restaurant, bait and tackle shop, meeting space, and hub of the surrounding outdoor campground, canoe and raft rental, cabin rental, and live music venue.

128 American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 118.



#### Figure 59. Historic Photographs, Kyles Ford, Hancock County

A. Wolfe's Grocery & Garage, Looking Southwest from intersection of SR-70 and SR-33 with former toll office on the left, c.1960. Source: Lindey Turner.

B. Walter Willis and Exxon Service Station, Looking Northeast from River Place Store with former toll office on the left, c.1975. Source: Lindey Turner.





Two other mid-twentieth century service stations at the west end of the bridge, one of which contained the post office, have been demolished (Figure 60).<sup>129</sup>

The Edward R. Talley Bridge is the last remaining toll bridge in Tennessee that is still open for traffic (Figures 60-61) and has been determined eligible for listing in the National Register of Historic Places under Criterion A as a toll bridge and Criterion C as a representative Warren through truss bridge designed by the TDHPW. The Kyles Ford bridge was repaired in 2012 and is currently in the process of being replaced. The original toll bridge will be preserved in place as a ruin adjacent to the new bridge. The historic toll bridge will feature a viewing platform and interpretive signage.<sup>130</sup>

<sup>130</sup> Carver, 2008: 525.







#### Figure 60. Photographs, Edward R. Talley Bridge and River Place Store

A. Aerial, looking Southeast, c.2000. Source: Lindey Turner.

B. Looking Southeast at bridge and River Place Store, 2012

C. Looking Southwest at River Place Store, undated. Source: Lindey Turner.

<sup>129</sup> U.S. Population Census, 1910, 1920, 1930, 1940; Lindey Turner, interview with author, June 30, 2012; <u>http://www.clinchriverecotourism.com</u>, accessed March 26, 2013.

### Figure 61. Photographs, Edward R. Talley Bridge, 2012

A. Looking Northeast from river

B. Looking Northeast from road

C. Looking West from bridge

D. Looking South at west approach and piers

E. Looking Southeast at east approach and piers

F. Looking North at west approach and pier

G. Detail of U.S.G.S. bench marker on top of west abutment



















Figure 62. Location Map, Williams-Myer Bridge, Carthage, Smith County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 7 WILLIAMS-MYER BRIDGE CARTHAGE, SMITH COUNTY



Spanning the Cumberland River at Carthage, the county seat of Smith County, the Williams-Myer Bridge (80-SR025-11.32) was located at the eastern terminus of State Route 25, an east-west highway connecting to State Route 161 near Springfield, Tennessee (Figure 62). Settled in 1789 on the north bank of the Cumberland River at the confluence with the Caney Fork River, Carthage was founded by William Walton (1760-1815), who operated a ferry and tavern here. Originally known as Walton's Ferry, the village was located along the Walton Road, an early stagecoach route connecting Knoxville and Nashville. In 1804, Walton's Ferry was chosen as the seat of Smith County and renamed Carthage after the ancient seaport of Carthage in North Africa. During the steamboat era of the nineteenth century, the town was an important port and center of transportation featuring three ferries. In 1930, the town counted 1,068 people. Today, Carthage has over 2,300 people and is included in the Nashville metropolitan area.<sup>131</sup>

In January 1927, the Tennessee Legislature included Carthage on the list of 14 new toll bridges to be constructed with federal funds. The Carthage location was number seven on the list. The location was not on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request. Instead of building a new bridge at Carthage, the State purchased an existing privately-owned toll bridge that had been constructed from 1906-1908. This was the only pre-existing private toll bridge that the State purchased as part of its toll bridge program.

The Williams-Myer toll bridge was originally constructed as the result of a unique public-private partnership between the City of Carthage and local investors. Under the leadership of Mayor Letcher Alexander Ligon (1861-1947), the City provided \$10,000 and the Tennessee Central Railroad provided \$2,000 toward the construction cost of \$64,000. The remaining \$52,000 was provided by local businessmen who operated a private toll bridge company. The City requested the necessary river crossing permits from the U.S. War Department and the U.S. Congress.<sup>132</sup>

The City hired the Young Bridge Company of Nashville to build the bridge and let the \$64,000 contract on February 16, 1906. Construction commenced in earnest during the summer of 1906, but was delayed for a year due to heavy rains and

<sup>131</sup> Sue W. Maggart, "Smith County." *Tennessee Encyclopedia of History and Culture*, 2013, accessed April 9, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=1213;</u> *WPA Guide to Tennessee*. Nashville: Viking Press, 1939; republished, University of Tennessee Press, Knoxville: 445.

<sup>132</sup> L.A. Ligon, "Bits of Interesting History of the Construction and Operation of This Bridge," Carthage Courier, May 5, 1927.

high waters. Construction resumed in the summer of 1907 and the bridge was dedicated on February 1, 1908. William T. Young (1866-1952), president of Young Bridge Company, oversaw construction. A native of Texas, Young operated his own bridge company from 1906-1922 before merging with the Nashville Bridge Company; he later moved to Mississippi and designed bridges for the Vicksburg National Military Park. In 1907, the Young Bridge Company also constructed the Buena Vista Ford Road Bridge, spanning the Round Lick Creek at the rural Grant community near Carthage. That single-lane, 125-foot long bridge featured an atypical 85-foot long Pony Pratt Truss with a "fish-bellied" bottom chord.<sup>133</sup>

There are no engineering drawings or technical specifications available for the Williams-Myer Bridge, which has been described as being 1,260-feet long. Historic photographs document that the narrow bridge featured a central steel Camelback-type truss connected by steel approaches. Both approaches were angled so that the bridge had an S-shaped layout. The southern approach was supported by a modified Camelback-type steel truss with a sloping "fish-bellied" bottom chord. The bridge was supported by a central stone pier and several steel bents. It featured wooden planks and steel tube railings. A two-story frame residential toll house was located along the edge of the east side of the northern approach (Figures 63-64).<sup>134</sup>





Once completed in 1908, the bridge was owned and operated by the Williams-Myer Bridge Company, which was co-owned by Joseph Winton "Wint" Williams (1860-1911)and William Edward Myer (1862-1923). Williams was prominent businessman, banker, and farmer who had moved to Carthage in 1899 when he purchased a large farm on a river island from former Governor Benton McMillin (1845-1933). Myer was a Carthage merchant and banker who was a leader in the

#### Figure 63. Historic Photographs, Williams-Myer Bridge

Source: TDOT.

A. Looking Southeast, c.1910

B. Looking Northwest, c.1908



Ligon, 1927; Martha Carver. "Buena Vista Ford Road Bridge, Spanning Round Lick Creek, Carthage Vicinity, Smith County, Tennessee." HAER No. TN-18. Washington, DC: National Park Service, 1985.
 Maggart, 2013.

development of transportation infrastructure in Middle Tennessee. A graduate of Vanderbilt University in 1883, Myer was instrumental in improving local roads and he owned a fleet of steamships that carried goods in and out of Smith County. The Williams-Myer Bridge Company also operated a toll bridge spanning

the Caney Fork River at Stonewall in Smith County. After retiring in 1915, Myer became a professional archaeologist who worked for the Smithsonian Institution in Washington, D.C. Myer was also a veteran of World War I, serving as a U.S. Fuel Administrator.<sup>135</sup>

In 1910, the "Toll Keeper" was James Henry Highers (1876-1940) who lived in the toll house on Bridge Avenue with his wife Martha Elizabeth Burnett (1880-1967) and son James. Highers later worked as a night watchman and fireman.<sup>136</sup>



In 1927, Mayor Letcher A. Ligon and Governor Austin Peay negotiated a deal where the State would acquire the Williams-Myer Toll Bridge as part of the state's toll bridge program. Three options were developed. In the first option, the State would purchase the existing toll bridge for \$60,000 and continue to operate it as a toll bridge until the costs were recuperated. If the State could not acquire the bridge for that amount, the second option would result in the State building a new toll bridge. In the third option, the State and County governments would purchase the existing toll bridge together and immediately free it. In the third option, the State would contribute two-thirds or \$40,000 and the County would contribute one-third or \$20,000. In all three options, the State would take over all maintenance and operational costs. The local newspaper and community leaders argued for the third option. After deliberating, the Smith County Court voted 24-22 in favor of the third option and to contribute the necessary \$20,000 toward its purchase

#### Figure 64. Historic Photographs, Williams-Myer Bridge

Source: TDOT.

A. Looking North from bridge towards Toll House (right)

B. Looking Northeast from bridge towards Toll House (right)

<sup>135</sup> Kevin E. Smith, "William Edward Myer," Tennessee Encyclopedia of History and Culture, 2013; accessed April 9, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=959</u>; Donald B. Ball, "William Edward Myer (1862-1923): A Significant Early Tennessee Archaeologist," HAIG: Newsletter of the History of Archaeology Interest Group, Society of American Archaeology. Volume 1: Number 2, February 2011: 2-5; Ligon, 1927.

<sup>136</sup> U.S. Population Census, 1910, 1920, 1930.

price, which the bridge owners agreed to. The County had previously purchased local toll roads and another toll bridge in order to free them. Only one toll bridge remained, located at Stonewall; however, the county voted down a proposal to purchase it for \$12,000.137

The Williams-Myer Toll Bridge was unceremoniously freed in May 1927. The State designated it a Class A toll bridge; however, the State never collected tolls. In June, 1927, the State Highway Commission made improvements to the bridge, including installation of new wooden planks along the approaches and asphalt with limestone chips along the center spans. This work made "traffic much smoother" and "noiseless." In addition, the original toll house was moved several feet away from the bridge. Located on the edge of the approach, the toll house had "cut off the view of traffic on the bridge, making it very dangerous." This repair work was supervised by Ovid Neal, supervisor of road maintenance for the TDHPW, in that region.138

On July 9, 1927, a grand dedication ceremony was held at the Smith County Courthouse Square in Carthage. Attended by an estimated 3,000 people from throughout the region, the event celebrated the freeing of the Williams-Myer Bridge, known locally as simply the "Big Bridge," as well as the start of construction on a much-anticipated section of State Route 70 connecting Carthage to Elmwood in the eastern section of the county. The ceremony featured the 25-member boy's brass band from the Tennessee Industrial School in Nashville and a picnic lunch on the courthouse lawn. Speakers included U.S. Congressman Cordell Hull; Mayor Letcher A. Ligon; Tennessee State Highway Commissioner Clark Neil Bass, who was from the Grant community of Smith County; Speaker of the Tennessee Senate Henry Horton; promoters of the dairy business; and a representative for Governor Austin Peay, who could not attend due to ill health.<sup>139</sup>

In May 1936, the State demolished the Williams-Myer Bridge, then 28-years old, and replaced it with a new steel truss bridge. This free bridge was named in honor of U.S. Secretary of State Cordell Hull (1871-1955), a resident of Carthage who served as a U.S. Congressman from 1923-1931, U.S. Senator from 1931-1933, Secretary of State under President Franklin D. Roosevelt from 1933-1944, and received the Nobel Peace Prize in 1945 for his role in establishing the United Nations. The Cordell Hull Bridge remains standing and TDOT is currently rehabilitating the NRHP-eligible structure (Figure 65).

<sup>&</sup>quot;Bill Enacted Affecting The Bridge at Carthage," Carthage Courier, January 20, 1927; "The Law 137 Dealing With The Carthage Bridge," Carthage Courier, January 27, 1927; "Bridge To Be Made Free Across Cumberland River at Carthage," Carthage Courier, February 3, 1927; "Terms and Conditions Completed For Purchase of Carthage Bridge," Carthage Courier, February 10, 1927; "Smith County Court Completes Arrangement for Opening Bridge," Carthage Courier, April 7, 1927; "Big Bridge Across Cumberland at Carthage Now Free," Carthage Courier, May 5, 1927.

<sup>138 &</sup>quot;Needed Improvements Being Made on Carthage Bridge," Carthage Courier, June 16, 1927.
139 "Next Saturday Will Be A Big Day For Smith Countians in Carthage," Carthage Courier, July 7, 1927; "Thousands Attend the Big Celebration," Carthage Courier, July 14, 1927.



## Figure 65. Historic Photographs, Cordell Hull Bridge, 1941

Source: TSLA.

- A. Looking Northeast
- B. Looking East





Figure 66. Location Map, Niles Ferry Bridge, Monroe County

Source: ESRI Resource Data, Imagery Layer

## SPECIAL BRIDGE PROJECT NO. 8 NILES FERRY BRIDGE, VONORE, MONROE COUNTY



Spanning the Little Tennessee River, the Niles Ferry Bridge (61-SR058-0.22) is located at Vonore in Monroe County along State Route 33 (U.S. 411), a northsouth highway in East Tennessee connecting Georgia and Virginia (Figure 66). This bridge replaced Niles Ferry, a privately-owned toll ferry that crossed the Little Tennessee River just upstream from its confluence with the Tellico River. Founded in 1893 by Dr. Walter Brownlow Kennedy (1860-1912) as a stop along the Atlanta, Knoxville and Northern Railroad, Vonore is best known as the location of Fort Loudoun (NHL, 1966), a British colonial fort built in 1756-1757, and the riverside Tellico Blockhouse, a federal garrison that operated from 1794-1807 (NRHP, 1975). The unique name of Vonore was created by Dr. Kennedy as a combination of the German word *von*, meaning "of," and the English word "ore," since it was believed the village would become a mining town; gold had been found in the area in the past. Vonore was incorporated in 1964 and today counts about 1,500 residents.<sup>140</sup>

In January 1927, the Tennessee Legislature included Niles Ferry on the original list of 14 new toll bridges to be constructed with federal funds. Located on Madisonville-to-Maryville Road, the Niles Ferry toll bridge was number eight on the list. In 1927, the U.S. War Department, U.S. Department of Agriculture, and the U.S. Senate reviewed and approved construction of this bridge. The bridge was located on the system of Federal-aid highways as required.<sup>141</sup>

On June 17, 1927, the U.S. Army Corps of Engineers held a public hearing at the county courthouse in Madisonville. Led by Major Lewis H. Watkins, the district engineer, the meeting focused on the location and size of the bridge. The *Madisonville Democrat* reported that the bridge was to be a "fixed, three-span through truss bridge, pier supported, with concrete viaduct approaches." The bridge would feature a horizontal clearance of 150-feet and a vertical clearance of 61.9-feet above extreme low water and 25-feet above extreme high water. The bridge was to be located approximately 2,200-feet southeast of the current Atlanta, Knoxville, and Northern Railroad Bridge.<sup>142</sup>

<sup>140 &</sup>quot;Origin of Vonore, Tennessee," 2013; accessed April 8, 2013: http://www.vonore.com/; Carroll Van West, "Monroe County," *Tennessee Encyclopedia of History and Culture*, 2013; accessed April 8, 2013: http://tennesseeencyclopedia.net/entry.php?rec=930.

<sup>141</sup> Public Acts of Tennessee, Chapter No. 1, Senate Bill No. 1, January 19, 1927.

<sup>142 &</sup>quot;Notice of Public Hearing," Madisonville Democrat, May 18, 1927.

Completed between August 1928 and January 1930, the Class A toll bridge cost \$203,691.00. Measuring approximately 1,381-feet long, the bridge featured three steel truss spans, including two 140-foot long Camelbacks flanking a 180-foot long Parker through truss (Figure 67). The concrete approaches contained 15 girders. The bridge was supported by four concrete piers, 13 concrete bent piers, and two concrete abutments. The bridge featured concrete handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

The TDHPW advertised the primary bridge contract in December 1927; however, the contract was not let until late summer of the following year. On August 10, 1928, the State let the primary \$182,340.51 bridge construction contract to Southern Construction Company of Birmingham, Alabama. The \$3,126.23 core drilling contract was let on September 15, 1927, to Pennsylvania Drilling Company of Pittsburgh. The \$18,001.76 grading and digging contract was let on October 26, 1928, to Henry Brothers and the \$222.50 surfacing contract was let on January 13, 1930, to State Forces.<sup>143</sup>

The *Madisonville Democrat* reported in September 1928 that "good progress is being made on the Niles Ferry Bridge across the Little Tennessee River. This span is an integral part of Route 33 connecting Knoxville and Maryville with Madisonville and Etowah." The bridge was completed in the winter of 1930 (Figure 68). It is unknown if the community held a dedication ceremony. This was one of the few toll bridges in Tennessee not named in honor of a World War I veteran. It was named Niles Ferry for the ferry that it replaced.<sup>144</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Madisonville-Maryville Bridge" was open 24 hours with a toll of \$0.25 (Figure 74). In 1940, the State employed at least three toll collectors, apparently for three shifts, at Niles Ferry. One toll collector for the "State Toll Bridge" was Samuel B. Borin (b.1872) who lived on College Street in Madisonville with his wife, Lou E. Hunt, and their four children. The year before, he had worked 40 hours per week for 52 weeks, presumably as a toll collector, and earned a salary of \$1,200. In 1935, the family had lived in Tellico Plains.<sup>145</sup>

Another toll collector was George L. Henderson (b.1870) who lived in Vonore with his wife, Carrie Kitaray Woods (1872-1946), son, daughter-in-law, and two grandsons. The previous year he had worked 52 weeks, presumably as a toll collector, and earned \$1,140. In 1930, he worked as a farmer in Monroe County.<sup>146</sup>

<sup>143</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>144 &</sup>quot;East Tennessee Road Development Showing Progress," *Madisonville Democrat*, September 5, 1928.

<sup>145</sup> American Automobile Association. *Southeastern Tour Book*. Washington, DC, 1934: 120; U.S. Population Census, 1940.

<sup>146</sup> U.S. Population Census, 1930, 1940.



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### Figure 68. Historic Images, Niles Ferry Bridge

A. Postcard, Looking North, With Fort Loudoun in Foreground, c.1965. Source: TDOT.

B. Photograph, Aerial, c.1930. Source: Report of the State Highway Commission," June 30, 1930: 90.



Detail





Thomas Henry King (1879-1969) also served as a toll collector. King lived with his wife Regina H. Bacon (1888-1970) and son James Bacon King (1920-2008). The previous year he had worked 52 weeks, presumably as a toll collector, and earned \$1,140. King was a veteran of World War I. A native of Ohio, in 1930, he worked as a farmer in Monroe County. King is buried at the Bacon-Henley Cemetery in Monroe County.<sup>147</sup>

The bridge was freed in February 1947 and demolished in 1971, prior to construction of the Tellico Reservoir by the TVA from 1973-1979. The reservoir was created by the TVA's Tellico Dam downstream from the bridge at Lenoir City in Loudon County. The reservoir impounded the navigable waters beneath the new bridge.

<sup>147</sup> U.S. Population Census, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for Thomas Henry King.

Figure 69. Location Map, Sidney C. Lewis Bridge, Dover, Stewart County.



Source: ESRI Resource Data, Imagery Layer

# SPECIAL BRIDGE PROJECT NO. 9 SIDNEY C. LEWIS BRIDGE DOVER, STEWART COUNTY



Spanning the Cumberland River at Dover in Stewart County, the Sidney C. Lewis Bridge (81-SR076-10.31) was located along State Route 76, a north-south highway connecting Moscow in West Tennessee with Portland in Middle Tennessee (Figure 69). Founded in 1805 on the south bank of the Cumberland River, Dover was designated the county seat and apparently named for Dover, England, due to the similar white cliffs along the Cumberland River. The first license to operate a ferry at Dover was issued in 1804 to Mason Bennett (b.1775), a Virginia native who had migrated to Clarksville by 1800. By the mid-nineteenth century, Dover was a flourishing river port when it was all but destroyed during the Civil War. In the late nineteenth century, the town became home to the Fort Donelson National Battlefield and Cemetery. From 1913-1916, the U.S. Army Corps of Engineers constructed Lock D and Dam near Dover on the Cumberland River. In 1930, the town counted 763 people. Today, it has approximately 2,000 residents and is part of the Clarksville metropolitan area.<sup>148</sup>

In January 1927, the Tennessee Legislature included Dover on the list of 14 new toll bridges to be constructed with federal funds. The Dover location was number nine on the list. The bridge was to replace a private ferry on the Dover-Clarksville Road. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 530 and Bill H.R. 9199 to the U.S. House of Representatives. The U.S. War Department had previously reviewed and approved the request on January 30, 1928, as had the U.S. Department of Agriculture on January 25, 1928. U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, introduced accompanying Report No. 485 and Senate Bill 9198 on March 6, 1928. The bridge was not located on the system of Federal-aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>149</sup>

Completed between December 1928 and July 1930, the Class B toll bridge cost \$542,848.58. Measuring 1,898.7-feet long, the two-lane bridge featured three steel riveted truss spans (Figure 70). At the southern end were two 320-foot long Camelback trusses. A 120-foot long Pratt through truss was located midway

<sup>148</sup> Jane Bagwell. "Stewart County." Tennessee Encyclopedia of History and Culture, 2013, accessed April 1, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=1266</u>; WPA Guide to Tennessee. Nashville: Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 409-410; Stewart County Historical Society. Stewart County Heritage, Dover, Tennessee: Volume One, 1980: 15-16.

<sup>149 &</sup>quot;Bridge Across Cumberland River on Dover-Clarksville Road, Tennessee," U.S. House of Representatives Report No. 530, February 1, 1928; "Bridge Across Cumberland River on Dover-Clarksville Road, Tennessee," U.S. Senate Report No. 486, March 6, 1928.







along the northern approach. The concrete approaches contained thirty girders, twenty-eight on the north approach and two on the south approach. The bridge and approaches were supported by five concrete piers, 27 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On October 26, 1928, the State let the primary \$468,419.32 bridge construction contracts to the Gould Construction Company of Nashville. The \$9,000.76 core drilling contract was let on June 14, 1928, to Mott Core Drilling Company of Huntington, West Virginia, and a \$65,428.50 grading and digging contract was let on January 31, 1930, to Gregory-Chandler & Co., Inc. In early December, two to three barge loads of materials arrived in Dover from Nashville and began on December 15. Contractors originally predicted the bridge would be completed within 250 working days, but soon revised that figure to 300 working days. The north abutment was constructed at the confluence of Dyers Creek with the Cumberland River; the south abutment was constructed on a lot next to the Standard Oil Company.<sup>150</sup>

The *Stewart County Times*, the local weekly newspaper, published regular front page reports about progress on construction of the bridge. In January 1929, the paper described the construction site, which featured a temporary 4,000-foot long railroad, two stationary derricks, one moveable derrick, and two steam engines for powering the derricks as well as smaller machinery. This equipment was used for unloading bridge materials from river barges and carrying it to the construction site. Engineers reported that the bridge would contain 1,494,547 pounds of steel and 6,233 cubic yards of concrete. At that time, the construction crew consisted of around 20 men but would eventually consist of about 75 men. Construction was stalled in November and December 1929 when rising waters washed away steel truss falsework and caused \$1,000 in damage, resulting in temporary layoffs of construction workers.<sup>151</sup>

In July 1929, a group of state dignitaries toured the bridge construction site during an impromptu visit to Dover. The group included Governor Henry Horton, Tennessee Highway Department Commissioner Robert H. Baker, E.N. Turner of the Tennessee Highway Department, and Nathan W. Dougherty, an engineer at the University of Tennessee who served on the Tennessee Highway Commission.

<sup>150</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; "Dover Bridge: Gould Construction Gets Contract; Work to Begin Immediately," *Stewart County Times*, November 2, 1928; "Work to Begin on Dover Bridge," *Stewart County Times*, December 7, 1928; "Bridge Work Starts," Stewart County Times, December 14, 1928; "Bridge Work is Still Progressing," *Stewart County Times*, January 19, 1929.

<sup>151 &</sup>quot;Bridge Work is Still Progressing," *Stewart County Times*, January 18, 1929; "Work on Bridge Resumed," *Stewart County Times*, November 29, 1929; "Dover Bridge: Donelson House," *Stewart County Times*, December 13, 1929.

The group also inspected progress of State Route 76, the Austin Peay Highway, connecting Clarksville with Paris Landing via Dover. While in town, they had lunch at the Hotel Bedford Forrest where the governor declared that he was "well pleased with what they had seen here as well as what they were doing on bridges in other parts of the state." While in Dover, the entourage toured the Fort Donelson National Military Park and Cemetery.<sup>152</sup>

The bridge was named in honor of Sidney Clinton Lewis (1860-1930), a prominent community leader in Dover who was employed as an attorney, bank president, and clerk and master of the county's chancery court. In 1900, he married Mignonette "Minnie" McHarris. Lewis served in the Tennessee House of Representatives and single-handedly convinced Governor Peay to have the toll bridge built at Dover. When the Tennessee Legislature introduced the bill to name the bridge after Lewis, he voted against the bill and argued the bridge should be named after the late Governor Austin Peay, although a bridge at Gainesboro was already named for Austin Peay. The mild controversy resulted in Governor Peay's widow penning a letter in support of the bridge being named for Representative Lewis and the bridge at Paris Landing being named for Tennessee Senator Scott Fitzhugh. Lewis passed away on November 15, 1930, of multiple sclerosis and is buried in Dover.<sup>153</sup>

This toll bridge was dedicated during a morning Labor Day ceremony in 1930 and the Scott Fitzhugh Bridge at Paris Landing was dedicated that afternoon. During the dedication ceremony, Jimmie Sanders of Carmi, Illinois, reportedly flew an airplane beneath the bridge. Construction of the bridge was completed prior to the dedication ceremony and although it was closed, several local residents sneaked across the bridge illegally, including a man on a mule and a risky nighttime run in a car.<sup>154</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Clarksville-Paris-Dover Bridge" was open 24 hours with a toll of \$0.50. The bridge was freed in February 1947. From 1964-1966, the TVA constructed the Barkley Dam along the Cumberland River downstream near Grand Rivers, Kentucky. The hydroelectric dam created the Barkley Dam Reservoir, which impounded the navigable waterway beneath the bridge. Records do not

<sup>152 &</sup>quot;Gov. Horton, Commissioner Baker, E.M. Turner, N.W. Dougherty Inspect Austin Peay Highway and Work on Bridge at Dover, This Week," Stewart County News, July 12, 1929.
153 Stewart County Historical Society, 1980: 16; Will T. Hale, "Sydney Clinton Lewis," A History

<sup>153</sup> Stewart County Historical Society, 1980: 16; Will T. Hale, "Sydney Clinton Lewis," A History of Tennessee and Tennesseans: The Leaders and Representative Men in Commerce, Industry and Modern Activities. Chicago: Lewis Publishing Co., 1913, as republished at Stewart County Tennessee Archives Biographies, 2005; accessed April 9, 2013: <u>http://www.rootsweb.com/~usgenweb/tn/tnfiles.htm;</u> U.S. Population Census, 1930; Tennessee Death Records, 1908-1958 Record for S.C. Lewis; "Dover Bridge Named for S.C. Lewis," Stewart County Times, January 10, 1930.
154 "Gala Day for Dedicating Bridges at Dover, Mouth Sandy Set for Labor Day," Stewart County News,

<sup>154 &</sup>quot;Gala Day for Dedicating Bridges at Dover, Mouth Sandy Set for Labor Day," Stewart County News, July 25, 1930; "Traffic on Bridge," Stewart County News, August 8, 1930. Issues of the Stewart County News covering the Labor Day dedication ceremony were unavailable.

indicate that it was necessary for the TVA to raise the bridge in order to span the Barkley Reservoir (Figure 71).<sup>155</sup>

A TN-SHPO survey of Stewart County in 1983 included the bridge as "ST.833." In 1985, TDOT and the TN-SHPO recommended the bridge as not NRHP-eligible. TDOT demolished and replaced the original toll bridge in 1986 with the current 1,716-foot long, four-lane, steel girder bridge, which opened in 1987 (Figure 72).<sup>156</sup>





Figure 71. Postcard, Looking South, Sidney C. Lewis Bridge, c.1966

Source: TDOT.

Figure 72. Photograph, Looking Northeast, Sidney C. Lewis Bridge, 1985 Source: TDOT.

155 American Automobile Association. *Southeastern Tour Book*. Washington, DC, 1934: 118. 156 David Ross, "New Bridge Finally Opens in Dover," *Clarksville Leaf-Chronicle*, 1987.



Figure 73. Location Map, Russell's Ferry Bridge, Meigs County





# SPECIAL BRIDGE PROJECT NO. 10 RUSSELL'S FERRY BRIDGE MEIGS COUNTY



The Russell's Ferry Bridge (61-SR058-0.22) was located along State Route 58 (U.S. 411) in rural Meigs County and spanned the Hiwassee River a few miles upstream from the confluence with the Tennessee River (Figure 73). State Route 58 is a north-south highway in East Tennessee, connecting Lookout Mountain with Oak Ridge. This bridge replaced Russell's Ferry, a privately-owned toll ferry located just north of the bridge. From 1842-1868, the Kincannons Ferry Post Office operated on the river's north bank and from 1872-1905, the Brittsville Post Office operated on the river's south bank.<sup>157</sup>

In January 1927, the Tennessee Legislature included Russell's Ferry on the list of 14 new toll bridges to be constructed with federal funds. The Russell's Ferry location was number ten on the list. In 1927, the U.S. War Department, U.S. Department of Agriculture, and the U.S. Senate reviewed and approved construction of this bridge. The bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request. Individual Congressional records for this bridge were not located.

Completed between August 1928 and October 1929, the Class A toll bridge cost \$251,582.01. Measuring 1,068-feet long, the bridge featured a three steel truss spans, including two 120-foot long Camelbacks flanking a 220-foot long Thru Parker (Figure 74). The concrete approaches contain seven girders each. The bridge was supported by four concrete piers, twelve concrete bent piers, and two concrete abutments. The bridge featured concrete handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On August 10, 1928, the State let the primary \$176,812.01 bridge construction contract as well as the \$43,787.61 asphalt contract to the R.H.H. Blackwell Company of East Aurora, New York. The \$4,534.00 core drilling contract was let on May 25 1928, to Pennsylvania Drilling Company of Pittsburgh. The grading and digging contract was let on October 26, 1928, for \$63,189.45 to R.E. Martin and the \$5,258.94 crushed stone surfacing contract was let on November 11, 1929, to State Forces (Figure 75).<sup>158</sup>

<sup>157</sup> Ann Toplovich, "Meigs County," *Tennessee Encyclopedia of History and Culture*, 2013; accessed April 8, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=886</u>.

<sup>158</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.



Source: TDOT.

Figure 74. Drawing, Elevation, Russell's Ferry Bridge, 1928

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Figure 75. Historic Photograph, Russell's Ferry Bridge, Meigs County, Looking West, c. 1930

Source: "Report of the State Highway Commissioner," June 30, 1930: 92.

Not named in honor of a World War I veteran, the structure was named Russell's Ferry for the ferry that it replaced, although local residents referred to it as the "Hiwassee River Bridge." The dedication ceremony was attended by local and state officials, including Governor Henry Horton, as well as local schoolchildren.<sup>159</sup>

Longtime resident Willie Ashley (b.1918) recalled that the toll collectors included Adolphus Scruggs and her uncle William Clay McKenzie (1890-1938), a veteran of World War I. A native of Athens in McMinn County, McKenzie had previously worked as a newspaper printer in Maryville. He is buried in Athens. No information on Adolphus Scruggs could be located. Ashley noted that the toll collectors occupied a Toll Collector's House alongside the road where "people could drive right up to the window of their house to pay the toll." The toll collector's house is no longer extant.<sup>160</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Decatur-Georgetown Bridge" was open 24 hours with a toll of \$0.50. The bridge was freed in March 1939. From 1936-1940, the Tennessee Valley Authority constructed the Chickamauga Dam and Lock downstream from the bridge near Chattanooga in Hamilton County. Once the hydroelectric dam was completed, the impounded navigable waterway beneath the bridge became part of the Chickamauga Reservoir. It was unnecessary for the TVA to raise the bridge.<sup>161</sup>

<sup>159</sup> Ron Clayton, "Meigs County bridge blown up in the fog," *Knoxville News-Sentinel*, November 1, 2007.

<sup>160</sup> Clayton, 2007; U.S. Population Census, 1930, 1940; U.S. World War Draft Registration Cards, 1917-1918 Record for Wm Clay McKenzie.

<sup>161</sup> American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 118.

## Figure 76. Photographs, Russell's Ferry, Meigs County

Source: TDOT.

- A. Looking Northeast, 2001
- B. Looking Northwest, 2003
- C. During Demolition, 2007









TDOT installed new navigational lights in 1979 and repaired the bridge in 1984 and 1992. In 1997, the community expressed concerns about the safety of the bridge. Two years later, TDOT initiated plans to replace the bridge, which had been determined not NRHP-eligible during TDOT's 1986 statewide historic bridge survey. Between 2005 and 2007, TDOT constructed a \$9.9 million replacement two-lane steel girder bridge along the north side of the truss bridge, which was demolished in November 2007 (Figure 76).<sup>162</sup>

<sup>162</sup> Clayton, 2007.



Figure 77. Location Map, Charles Love Bridge, Sneedville, Hancock County

Source: ESRI Resource Data, Imagery Layer


# SPECIAL BRIDGE PROJECT NO. 11 CHARLES LOVE BRIDGE SNEEDVILLE, HANCOCK COUNTY



Spanning the Clinch River at Sneedville, a rural community in Hancock County, the Charles Love Bridge (34-SR066-06.48) is located at that northern terminus of State Route 66, an approximately 60-mile long north-south highway that connects to Sevierville (Figure 77). The bridge was constructed between Seal's and Harrison's Ferries. Settled in the 1790s, Sneedville was chosen as the seat of Hancock County when it was formed in the mid-1840s. Originally known as Greasy Rock, the town was renamed Sneedville in honor of William Henry Sneed (1812-1869), an attorney in Knoxville who successfully represented the newly-formed county in a lawsuit that attempted to undo the county's creation. The community's economy is traditionally based on agriculture and small businesses. Currently, the town has about 1,400 people.<sup>163</sup>

In January 1927, the Tennessee Legislature included Sneedville on the list of 14 new toll bridges to be constructed with federal funds. Sneedville was number 11 on the list. William Tecumseh Testerman (1862-1940), the Secretary of the Tennessee Highway Commission from 1919 through the 1930s lived in Rogersville but was originally from Sneedville and Kyles Ford. As the East Tennessee representative on the THC, it was most likely due to Testerman's efforts that toll bridges were constructed at Kyles Ford and Sneedville in remote and sparsely populated Hancock County.<sup>164</sup>

On March 6, 1928, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, of the U.S. Senate Committee on Commerce introduced accompanying Report No. 493 and H.R. Bill 9293 during the 70<sup>th</sup> Congress. The U.S. War Department had reviewed and approved the request on February 24, 1928, as had the U.S. Department of Agriculture on February 20, 1928. The bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>165</sup>

Completed between October 1928 and November 1930, the Class A toll bridge cost \$114,244.22. Measuring 572.2-feet long, the two-lane bridge featured a single 160-foot steel truss span at the center (Figure 78). The concrete approaches contained ten 40-foot girders. The bridge was supported by two concrete piers,

<sup>163 &</sup>quot;William G. Cook, "Hancock County," *Tennessee Encyclopedia of History and Culture*, 2013, accessed April 1, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=593</u>.

<sup>164</sup> U.S. Population Census, 1870, 1880, 1900, 1910, 1920, 1930, 1940.

<sup>165 &</sup>quot;Bridge Across Clinch River on Sneedville-Rogersville Road, Tennessee," U.S. Senate Report 493, March 6, 1928.



Source: TDOT.

Figure 78. Drawing, Layout, Charles Love Bridge, 1928

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## Figure 79. Photographs, Charles Love Bridge, 1993

Source: TDOT.

- A. Looking Northeast
- B. Looking Northwest
- C. Looking North



eight concrete bent piers, and two concrete abutments. The bridge featured concrete handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On October 26, 1928, the State let the primary \$79,619.72 bridge construction contract to Bateman Construction Company of Nashville. The \$3,279.10 core drilling contract was let on May 15, 1930, to Pennsylvania Drilling Company of Pittsburgh. An \$11,906.21 grading contract was let on June 7, 1929, to M.T. McArthur. A \$2,686.30 asphalt contract was let on October 26, 1928, to Bateman Construction Company, and a \$14,568.17 superstructure contract was let on October 26, 1928, to Vincennes Bridge Company of Vincennes, Indiana. The State awarded a \$2,184.72 contract to State Forces on September 22, 1930, for construction of "Toll Houses." It is likely that this contract included construction of the toll house at Kyles Ferry.<sup>166</sup>

The bridge was dedicated in 1930 and was named in honor of Charles H. Love (1874-1950), Speaker of the Tennessee House of Representatives from 1929-1931 and an important supporter of the special toll bridge program. Representative Love was a Democrat from Springfield in Robertson County.<sup>167</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Sneedville-Rodgersville Bridge" was open 24 hours with a toll of \$0.25. The bridge was freed in March 1939. The original toll collector's house located on the west side of the north approach may have been relocated to Sneedville and repurposed for use as a private residence. It is unknown if the former toll collector's house remains extant. TDOT demolished and replaced the bridge in 1999 with the current two-lane steel girder bridge (Figures 79-80).<sup>168</sup>

<sup>166</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>167</sup> U.S. World War I Draft Registration Card, 1917-1918 for Vivian Charles Love; U.S. Population Census, 1900, 1910, 1920; 1930, 1940.

<sup>168</sup> American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 118.



Figure 81. Location Map, Henry Horton Bridge, Celina, Clay County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 12 HENRY HORTON BRIDGE CELINA, CLAY COUNTY



Spanning the Cumberland River at Celina in Clay County, the Henry Horton Bridge (14SR052-19.32) was located along State Route 52 (Dow Avenue), an east-west highway connecting Orlinda in Middle Tennessee with Morristown in East Tennessee (Figures 81-82). Founded in 1832 on the east bank of the Cumberland River at the confluence with the Obey River, Celina was named for Celina Fiske Christian (1814-1884), daughter of local settler and educator Dr. Moses Fisk (1760-1840). From the mid- nineteenth through the early twentieth centuries, Celina was a major inland port for steamboat traffic and the logging industry. During that span, ferries were operated here by Charles Moore, B. Peterman, and the Kyle Brothers. Celina was chosen as the seat of Clay County when it was formed in 1870 from Overton and Jackson counties. In 1930, the town counted 756 people. Today, it has nearly 1,500 people.<sup>169</sup>

In January 1927, the Tennessee Legislature included Celina on the list of 14 new toll bridges to be constructed with federal funds. The Celina location was number 12 on the list and was to replace a private river ferry on the Lafayette-Celina Road. On February 1, 1928, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 208 and Bill S. 2476 in the 70th Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge. The U.S. War Department had reviewed and approved the request on January 24, 1928, and the U.S. Department of Agriculture had approved the request on January 18, 1928. On March 2, 1928, U.S. Senator Dale introduced amended legislation. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 527 and Bill H.R. 9147 to the U.S. House of Representatives. The bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made an exemption and approved the request.<sup>170</sup>

Completed between October 1928 and March 1930, the Class B toll bridge cost \$552,290.91. Measuring 3,001-feet long, the two-lane bridge featured five steel riveted truss spans at the center (Figure 83). A 280-foot long and 320-foot long

<sup>169</sup> Michael E. Birdwell, "Overton County." Tennessee Encyclopedia of History and Culture, 2013, accessed April 8, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=1028</u>; WPA Guide to Tennessee. Nashville: Viking Press, 1939; republished, University of Tennessee Press, Knoxville: 508.

<sup>170 &</sup>quot;Bridge Across Cumberland River on the Lafayette-Celina Road, Tennessee," U.S. Senate Report No. 208, February 1, 1928; "Bridge Across Cumberland River on the Lafayette-Celina Road, Tennessee," U.S. Senate Report No. 453, March 2, 1928; "Bridge Across Cumberland River on Lafayette-Celina Road, Tenn.," U.S. House of Representatives Report No. 526, February 1, 1929.

Figure 82. Historic Map, Celina, Clay County, 1929

Courtesy: TN-SHPO.

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Parker trusses were flanked by two 120-foot long Pratt trusses. The concrete approaches contained 24 girders, 21 on the north approach and three on the south approach, measuring 40-feet in length. The bridge and approaches were supported by five concrete piers, 22 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.



Source: TDOT.



On October 26, 1928, the State let the primary \$467,865.45 bridge construction contract to Nashville Bridge Company. The \$6,760.81 core drilling contract was let on July 7, 1929, to Pennsylvania Drilling Company of Pittsburgh. From August 2, 1929, to March 28, 1930, R.E. Martin received two construction contracts, totaling \$77,664.65.<sup>171</sup>

When dedicated on November 29, 1930, the bridge was named in honor of Henry Hollis Horton (1866-1934), who served as Democratic governor of Tennessee from 1927 to 1933. A native of Jackson County, Alabama, Horton attended Winchester College in Winchester, Tennessee, and the University of the South at Sewanee. Horton practiced law in Franklin County and operated a farm and mill in Marshall County. During his term as governor, Horton developed a secondary state highway system and carried out the federally-funded toll bridge program. In 1961, the State purchased his Marshall County farm and redeveloped the land as the Henry Horton State Park.<sup>172</sup>

The Toll Collector's House was located on the east approach in Celina. Toll collectors included Walter Lee Roberts (1882-1944), Forrest Elwood Rich (1906-1951), Cordell Clark Donaldson (1902-1956), Hugh Mabry Kyle (1900-1989), and Jim Mitchell Hamilton (1898-1988). Roberts, Kyle, and Hamilton were local veterans of World War I. Donaldson was a local farmer. A native of New Mexico, Rich was automobile mechanic and service station operator.<sup>173</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Celina Bridge" was open 24 hours with a toll of \$0.50. The bridge was freed in March 1939. The Toll Collector's House is no longer extant. Celina had two private toll ferries, one of which was replaced by this bridge. The other continued to operate after the toll bridge opened. Once the bridge was freed in March 1939; however, the second ferry went out of business.<sup>174</sup>

A TN-SHPO survey of Clay County did not include the bridge. In 1985, TDOT and the TN-SHPO determined that the bridge was not NRHP-eligible. TDOT demolished and replaced the original toll bridge in 1987-1988 with a two-lane steel girder bridge (Figure 84).

<sup>171</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>172</sup> Jeanette Keith, "Henry Horton, "*Tennessee Encyclopedia of History & Culture*, 2013, accessed April 8, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=654</u>.

<sup>173 &</sup>quot;A look at the history of the City of Celina from the early 1800's," Dale Hollow Horizon, July 28, 2009; accessed April 8, 2013: http://dalehollowhorizon.com/a-look-at-the-history-of-the-city-of-celina-from-the-early-1800s/; "New Bridge Work Set for Milan Area," Celina Citizen-Statesman, March 6, 1985; U.S. World War I Draft Registration Cards, 1917-1918 Records for Walter Lee Roberts, Hugh Mabry Kyle and Jim Mitchell Hamilton; U.S. Population Census, 1930, 1940.

<sup>174</sup> Landon Anderson, interview with Martha Carver, January 15, 1980, Source: TDOT; American Automobile Association. *Southeastern Tour Book*. Washington, DC, 1934: 118.





#### Source: TDOT.

- A, Looking Northeast, c. 1985
- B. Looking East, c. 1985
- C. Looking North, c. 1985
- D. Demolition, 1987











Figure 85. Location Map, Scott Fitzhugh Bridge, Paris Landing, Henry and Stewart Counties

Source: ESRI Resource Data, Imagery Layer



## SPECIAL BRIDGE PROJECT NO. 13 SCOTT FITZHUGH BRIDGE PARIS LANDING, HENRY AND STEWART COUNTIES

The Scott Fitzhugh Bridge (40-SR076-30.34) spanned the Tennessee River at Paris Landing along State Route 76 (U.S. 79), an east-west highway connecting Moscow in West Tennessee with Portland in Middle Tennessee via Paris and Dover (Figure 85). The river serves as the county line. Therefore, the bridge's east approach is located in Stewart County and the west approach is in Henry County. Established by 1853 on the west bank of the river, Paris Landing was named for the steamboat landing located here. This landing served the Henry County seat of Paris, founded in 1823 and named for Paris, France. The surrounding area is rich in Civil War history as Confederate General Nathan Bedford Forrest launched his Johnsonville Campaign in 1864 at Paris Landing. In 1928, the federal government created the 2,000-acre Fort Donelson National Battlefield (NRHP, 1966) on the east bank in Stewart County. When the TVA constructed the Kentucky Dam from 1938-1944 along the Tennessee River in western Kentucky, the navigable waterway beneath the bridge became part of the Kentucky Reservoir, the largest artificial lake in the Eastern United States. Paris Landing was inundated beneath the reservoir, requiring the TVA to relocate nearby homes, stores, churches, and cemeteries. In 1945 the State of Tennessee created the 841-acre Paris Landing State Park on the west bank in Henry County. Today, Paris Landing is a popular recreational area and features a U.S. Coast Guard Base.<sup>175</sup>

In January 1927, the Tennessee Legislature included Paris Landing on the list of 14 new toll bridges to be constructed with federal funds. The Paris Landing location was number 13 on the list. At that time, the location was known as "Mouth Sandy," referring to the confluence of Sandy Creek and the Tennessee River, and the bridge was originally referred to as the "Mouth Sandy Bridge." On January 31, 1928, U.S. Congressman George Huddleston (1869-1960), a Democrat from Alabama and native of Middle Tennessee, from the Committee on Interstate and Foreign Commerce, introduced Report No. 510 and Bill H.R. 9198 in the 70<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Paris-Dover Road. U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, introduced accompanying Report No. 485 and Senate Bill 9198 on March 6, 1928. The U.S. War Department had reviewed and approved the request on January 30, 1928, as had the U.S. Department of



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<sup>175</sup> David W. Webb, "Henry County," Tennessee Encyclopedia of History and Culture, 2013; accessed April 10, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=621</u>; Tammy S. South-Price, "An Archaeological and Historical Study of the Paris Landing State Park Bradford Cemetery," Unpublished Report, Murray State University, Kentucky, 2006: 1-2.

Agriculture on January 25, 1928. At that time, the bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>176</sup>

Completed between June 1928 and October 1930, the Class B toll bridge cost \$1,029,390.66. Measuring 4,734-feet long, the two-lane bridge featured eleven steel riveted through truss spans, including eight 120-foot long Pratt trusses, two 320-foot long Parker through trusses, and one 365-foot long Parker through truss (Figure 86). Nearly one mile long, this bridge contained more trusses than any other bridge in Tennessee. The concrete approaches contained 69 girders, 56 on the east approach and 13 on the west approach. The bridge and approaches were supported by 12 concrete piers, 67 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails along the approaches and metal lattice handrails along the trusses. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On June 13, 1928, the State awarded a contract for core drilling for \$12,424.80 to Mott Core Drilling Company of Huntington, West Virginia. The primary bridge construction contract was let on October 28, 1928, to Whiting-Turner Construction Company of Baltimore, Maryland. On October 26, 1928, a grading contract for \$42,101.83 was let to R.E. Martin and a bridge construction contract for \$25,818.85 was let to Forcum-James Company. On February 27, 1931, a \$2,757.35 contract for guardrails was let to State Forces.<sup>177</sup>

In July 1930, bridge worker B.C. Steppe, a 42-year old carpenter with the Whiting-Turner Construction Company, was killed when he fell 65-feet from the top of pier number ten on the east side of the river. Steppe was living in Paris with his wife and several children. According to the *Stewart County Times*, this was the first fatality during construction of this toll bridge or the toll bridge at Dover.<sup>178</sup>

Commonly known as the Paris Landing Bridge, this bridge was originally named in honor of Scott Preston Fitzhugh (1888-1956), an attorney and State Senator from Memphis. The son of a prominent family in Dover, Fitzhugh received his law degree in 1910 from Cumberland University in Lebanon. That year, he married Gertrude Riggins (1888-1977); they had one daughter. At Dover, he formed a law partnership with Porter Dunlap and was a stockholder in a bank. He was working in Paris in 1917 when he was drafted to serve in World War I; however, Fitzhugh was exempted from service. In 1920, he moved to Memphis where he continued to work as an attorney. In 1927, Fitzhugh was elected as a Democrat

<sup>176 &</sup>quot;Bridge Across Tennessee River, Henry and Stewart Counties, Tenn.," House of Representatives Report No. 510, January 31, 1928; "Bridge Across Tennessee River, Henry and Stewart Counties, Tenn.," Senate Report No. 485, March 6, 1928.

<sup>177</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>178 &</sup>quot;Bridgeman Killed," Stewart County Times, July 18, 1930.

Figure 86. Drawing, Elevation, Scott Fitzhugh Bridge, 1928

Source: TDOT.



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to the Tennessee State Senate and re-elected in 1931, serving a term as Speaker of the Senate and Lieutenant Governor. While representing Shelby County in the Tennessee Legislature, Fitzhugh assisted Tennessee State Senator Sidney C. Lewis of Dover in passing legislation to build the toll bridge at Paris Landing. Fitzhugh was said to have pushed for this bridge since it would make the trip from his home in Memphis to his father-in-law's home in Stewart County much quicker, enabling him to "take breakfast in Memphis and dinner at the home of my wife's father [at Bear Creek] on the same day." Fitzhugh is buried at Elmwood Cemetery in Memphis.<sup>179</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Dover-Paris Bridge" was open 24 hours with a toll of \$0.50. The Scott Fitzhugh Bridge was freed in March 1939. The toll collector's house was sold and relocated; it is unknown if the house is extant. The creation of Kentucky Lake required the TVA to raise and lengthen the bridge in the 1940s (Figures 87-89). Over the years, several piers were damaged by barges and repaired.<sup>180</sup>

In 1986, TDOT recommended the bridge as NRHP-eligible under Criterion A as a toll bridge and Criterion C as a representative Parker and Pratt truss bridge designed by the TDHPW. The following year, TDOT documented the bridge for the HAER with historic research and 18 photographs, which are on file at the Library of Congress. The bridge was demolished from 1991-1993 and replaced it with the current steel girder bridge, named for former Governor Ned Ray McWherter (1930-2011). One of the 120-foot long Pratt through trusses of this bridge was salvaged and repurposed as the Scott Fitzhugh Bridge Pavilion in Paris Landing State Park Marina (Figure 90).<sup>181</sup>

<sup>179</sup> U.S. World War I Draft Registration Card, 1917-1918 Record for Scott Preston Fitzhugh; U.S. Population Census, 1900, 1910, 1920, 1930; Will Thomas Hale and Dixon Lanier Merritt. A History of Tennessee and Tennesseans: The Leaders and Representative Men in Commerce, Industry and Modern Activities, Volume 5. Chicago and New York: Lewis Publishing Co., 1913: 1429-1430; "Scott Preston Fitzhugh," Stewart County Biographies; accessed April 10, 2013: <u>http://www.tngenweb.org/stewart/bios.htm</u>; Sidney C. Lewis, Sr. "Stewart County's Bridges." Stewart County Times, September 27, 1929.

<sup>180</sup> Martha Carver, "Scott Fitzhugh Bridge (Paris Landing)," HAER No. TN-39, 1987, Library of Congress: 4; American Automobile Association, *Southeastern Tour Book*. Washington, DC, 1934: 127.
181 Martha Carver, "Scott Fitzhugh Bridge (Paris Landing)," HAER No. TN-39, 1987, Library of Congress:

<sup>181</sup> Martha Carver, "Scott Fitzhugh Bridge (Paris Landing)," HAER No. TN-39, 1987, Library of Congress: 2-3; Carver, 2008: 527-528.





#### Figure 87. Postcards, Scott Fitzhugh Bridge

Source: TDOT.

A. Looking Northwest

B. Looking Southeast

Figure 88. Aerial Photographs, Scott Fitzhugh Bridge, 1946 Source: TSLA.

A. Looking SoutheastB. Looking East





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## Figure 89. Photographs, Scott Fitzhugh Bridge

Source: TDOT.

A. Looking Southeast, 1981

B. Looking Southwest, circa 1980

C. Looking East, 1980











#### Figure 90. Photographs, Scott Fitzhugh Bridge, Truss at Park

Source: TDOT.

A. Looking Northeast, 2007

B. Looking Northwest, 2007

C. Looking North, 2011





Figure 91. Location Map, Calvin J. Ward Bridge, Roane County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 14 CALVIN JOHN WARD BRIDGE KINGSTON, ROANE COUNTY



Spanning the Tennessee River at Kingston, a small town in Roane County, the Calvin John Ward Bridge (73-SR058-11.92) is located along State Route 58, a north-south highway in East Tennessee connecting Lookout Mountain with Oak Ridge (Figure 91). Founded in 1799 at the confluence of the Clinch and Tennessee rivers, Kingston is the county seat and named for Major Robert King (1749-1806), an officer at nearby Fort Southwest Point in the 1790s. In 1807, Kingston served as the state capitol for one day as part of a treaty with the Cherokee Indians. Kingston is located at the junction of State Route 1 (U.S. 70) and State Route 58. From 1951 to 1955, the TVA constructed the Kingston Steam Plant, which at the time was the world's largest coal-burning power plant. Interstate-40 opened through Kingston in the 1960s. In 1930, Kingston counted 827 people; today it has approximately 6,000 residents and is included in the Knoxville metropolitan area.<sup>182</sup>

In January 1927, the Tennessee Legislature included Kingston on the list of 14 new toll bridges to be constructed with federal funds. The Kingston location was number 14 on the list and the result of efforts by Tennessee Senator William French Grubb (1880-1944) of Chattanooga who convinced the bill's sponsor Tennessee Representative Sidney Lewis of Dover and Governor Peay to include Kingston. This bridge was to replace the private river ferry on the Decatur-Kingston Road. On February 1, 1928, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 209 and Bill S. 2478 in the 70th Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge. The U.S. War Department had reviewed and approved the request on January 24, 1928, and the U.S. Department of Agriculture had approved the request on January 18, 1928. On March 2, 1928, U.S. Senator Dale introduced amended legislation. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 528 and Bill H.R. 9196 to the U.S. House of Representatives. The location was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>183</sup>

<sup>182</sup> WPA Guide to Tennessee. Nashville: Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 437-438; Jere Hall and Rachel Parker, "Roane County," Tennessee Encyclopedia of History & Culture, 2010, accessed May 25, 2013: http://tennesseeencyclopedia.net/entry. php?rec=1133.

<sup>php?rec=1133.
"Bridge Across Tennessee River on the Decatur-Kingston Road, Tennessee," U.S. Senate Report No. 209, February 1, 1928; "Bridge Across Tennessee River on the Decatur-Kingston Road, Tennessee," U.S. Senate Report No. 456, March 2, 1928; "Bridge Across Tennessee River on Decatur-Kingston Road, Tenn.," U.S. House of Representatives Report No. 528, February 1, 1928.</sup> 

Completed between July 1928 and January 1931, the Class A toll bridge cost \$306,683.96. Measuring 1,170-feet long, the two-lane bridge featured three steel riveted through truss spans at the center (Figure 92). Two 160-foot long Warren trusses with polygonal top chords flanked a 365-foot long Parker truss at the center. The concrete approaches contained 12 girders, eight on the south approach and four on the north approach; each measuring 40-feet in length. The bridge and approaches were supported by four concrete piers, 10 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On July 28, 1928, the State let the primary \$295,923.30 bridge construction contract to Whiting-Turner Construction Company of Baltimore, Maryland. The \$7,754.06 core drilling contract was let on July 20, 1928, to Pennsylvania Drilling Company of Pittsburgh and the \$\$1,417.18 grading contract was let on April 19, 1929, to Kirkman Brothers, Inc. A \$2,865.52 contract for crushed stone was let to State Forces on September 16, 1930.<sup>184</sup>

In 1933, the bridge was named in honor of Calvin John Ward (1899-1967), a U.S. Army veteran from Morristown who was one of six Tennesseans to win a Congressional Medal of Honor while serving in World War I. A native of Greene and Hawkins Counties in East Tennessee, Ward was a Private in Company D, 117<sup>th</sup> Infantry, 30<sup>th</sup> "Old Hickory" Division. Ward was honored for "extraordinary heroism" in action taking place on October 8, 1918, during the Meuse-Argonne Offensive near Estrées, France. Ward also received the Silver Star, two Purple Hearts, and six foreign awards, including the Distinguished Service Cross from England, the War Cross from Belgium, the Silver Star from Italy, a Medal of Exceptional Bravery from Montenegro, and the Croix de Guerre with palm from France. In fact, Ward was the most decorated WWI veteran in the U.S. with twelve awards, four more than Alvin C. York. He kept no records, however, and refused to attend any ceremonies. In 1920, Ward re-enlisted and served with the 6<sup>th</sup> Calvary at Fort Oglethorpe, Georgia. Ward eventually returned to Morristown and worked in a mill at Bristol. He suffered from combat-related mental health conditions and never married. He is buried in Glenwood Cemetery at Bristol.<sup>185</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Decatur-Kingston Bridge" was open 24 hours with a toll of \$0.50. In 1939, the TDHPW freed the bridge. Soon thereafter, from 1939 to 1942, the

<sup>184</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.

<sup>185</sup> Cynthia Tinker, "James E. Karnes," Center for the Study of War and Society, University of Tennessee at Knoxville, East Tennessee Veterans Memorial Association. <u>http://etvma.org/web/index.php?guestaction=displayveteran&uid=12221&displaytype=web</u>, accessed March 25, 2013; Kristen Buckles, "World War I Hero John Calvin Ward to be Honored," *Greeneville Sun*, February 21, 2012, and "Memory of John Calvin Ward Honored in Hawk's Resolution," *Greeneville Sun*, February 25, 2012; <u>http://www.johncalvinwardproject.org</u>, accessed March 25, 2013.



Figure 92. Drawing, Layout, Calvin J. Ward Bridge, 1928

TVA completed the Watts Bar Dam on the Tennessee River in Meigs and Rhea counties, downstream from the bridge. The hydroelectric dam created the Watts Bar Reservoir, which impounded the navigable waterway beneath the bridge. This required the TVA to raise and lengthen the bridge in order to span the Watts Bar Reservoir. After the project's completion, the bridge was 1,246.7 feet in length (Figures 93-96). An earthen dike was constructed to protect Kingston from the reservoir's backwaters.<sup>186</sup>

As a result of the impoundment of the Watts Bar Reservoir and raising the bridge by the TVA, the original Toll Collector's House was relocated approximately one mile north to 210 South Kentucky Street in Kingston (Figures 97-98). Designed with a square floor plan with a hipped roof, the frame dwelling originally featured inset front and rear porches, interior brick chimneys, six-over-six pane double-sash windows, and cypress weatherboard siding. The interior featured a living room, bedroom, kitchen, dining room, and small office adjacent to the front porch. After it was relocated, the house was significantly altered for use as a private residence and enlarged with rear and side wings as well as a new front porch. In the 1980s, the building was documented by the Tennessee State Historic Preservation Office as "RE.801." This building is one of only two known Toll Collector's Houses to remain standing in Tennessee.

In 2000, TDOT in cooperation with the FHWA proposed to replace the bridge with a new bridge. TDOT historians surveyed the bridge and recommended it eligible for listing in the National Register of Historic Places under Criterion A as a toll bridge and under Criterion C as representative of Parker and Warren trusses designed by the TDHPW. As part of plans to demolish the historic bridge, TDOT offered it to local organizations and government agencies for reuse at its existing location or on new location. No entities accepted the offer. In 2001, TDOT completed HAER-level photography of the bridge as mitigation for its demolition. TDOT demolished the bridge in 2004 and replaced it with the current two-lane steel girder bridge, which opened in 2005 (Figures 99-100).<sup>187</sup>

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<sup>186</sup> American Automobile Association. *Southeastern Tour Book*. Washington, DC, 1934: 127. 187 Carver, 2008: 535.

Source: TDOT.

Figure 93. Drawing, Elevation and Plan, Calvin J. Ward Bridge, 1942



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Figure 94. Drawing, West Approach, Calvin J. Ward Bridge, 1942

Source: TDOT.



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Source: TDOT.



#### Figure 96. Historic Photographs, Calvin J. Ward Bridge

A. Looking South, 1949 Source: TSLA.

B. Looking Northwest, undated Source: TDOT



Bridge on Route 58 over Watts Bar Lake, Kingston, Tenn. Z.

#### Figure 97. Map, Calvin J. Ward Bridge, Toll Collector's House, Kingston, 2012

Source: Roane County Tax Assessor.









### Figure 98. Photographs, Calvin J. Ward Bridge, Toll Collector's House

A. Looking East, circa 1985 Source: TDOT

B. Looking Southeast, 2012

C. Looking West, circa 2000 Source: TDOT

## Figure 99. Photographs, Calvin J. Ward Bridge

Source: TDOT.

A. Looking Northeast, 1981

B. Looking North, circa 2001







### Figure 100. Photographs, Calvin J. Ward Bridge

Source: TDOT.

A. Looking North at Trusses, circa 2001

B. Looking East at Trusses, circa 2001

C. Aerial, Looking North, 2001







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Figure 101. Location Map, Nathan J. Harsh Bridge, Wilson and Trousdale Counties

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 15 NATHAN J. HARSH BRIDGE WILSON AND TROUSDALE COUNTIES



Spanning the Cumberland River, the Nathan J. Harsh Bridge (95-SR010-20.91) was located near Lebanon in rural Wilson and Trousdale counties along State Route 10 (U.S. 231), a north-south highway in Middle Tennessee connecting Alabama and Kentucky (Figure 101). This highway was part of a "Gulf-to-Lakes" intrastate highway connecting the Gulf of Mexico in Florida to the Great Lakes of the Midwest. The bridge replaced the private ferry at Hunter's Point along the Hunter's Point Pike connecting Lebanon with Hartsville. The river serves as the county line so the north approach is in Trousdale County while the south approach is in Wilson County. Established in 1801, Lebanon is the seat of Wilson County and named for the biblical Cedars of Lebanon that grow in the Mediterranean. Hunter's Point was downstream from the Lock 5 Dam constructed by the U.S. Army Corp of Engineers at the turn-of-the-twentieth century. In 1930, the city had 4,658 residents. Today, it counts nearly 27,000 residents and is part of the Nashville metropolitan area.<sup>188</sup>

In April 1927, the Tennessee Legislature included Hunter's Point on the amended list of 17 new toll bridges to be constructed with federal funds. This location was number 15 on the list and was to replace a private ferry on the Lebanon-Hartsville Road, which was to be improved. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 525 and Bill H.R. 9137 in the 70<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge. The U.S. War Department had reviewed and approved the request on January 30, 1928, as had the U.S. Department of Agriculture on January 25, 1928. U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, introduced accompanying Report No. 492 and H.R. Bill 9137 on March 6, 1928. The U.S. Congress formally approved the request on April 28, 1928. At that time, the bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>189</sup>

On November 26, 1928, Mayor Lewis H. Watkins, district engineer with the U.S. Army Corps of Engineers' office in Nashville, hosted a public meeting at the Wilson County Courthouse in Lebanon. Interested parties such as local officials

<sup>188</sup> Frank Burns. "Wilson County," Tennessee Encyclopedia of History and Culture, 2013; accessed online April 1, 2013 at <u>http://tennesseeencyclopedia.net/entry.php?rec=1518</u>; WPA Guide to Tennessee. Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 446-447.

<sup>189 &</sup>quot;Bridge Across Cumberland River on Lebanon-Hartsville Road, Tenn.," House of Representatives Report No. 525, February 1, 1928; "Bridge Across the Cumberland River, on Lebanon-Hartsville Road, Tennessee" Senate Report No. 492, March 6, 1928.

or those with "navigation interests" were "given an opportunity to express their views upon the suitability of the location and adequacy of the plans in reference to navigation, and to suggest changes considered desirable in the interest of navigation." The *Lebanon Democrat* promoted the public meeting on the front page and described the proposed bridge as having a "clear opening of 40 feet vertical clearance between extreme high water and the clearance line of the bridge, and about 355 feet horizontal clearance between the channel piers, which are located approximately at the low water lines. This gives one opening which practically spans the entire river." The *Lebanon Democrat* reported that a "number of citizens from Trousdale, Sumner, and Wilson counties gathered at the county courthouse" and that "No protests were gathered." The Corps presented an aerial photograph of the proposed bridge site, a geological survey, and a "rough sketch of the bridge as it will appear when completed."<sup>190</sup>

Not long after contractors started preparing the site for construction, however, a group of citizens in neighboring Sumner County initiated a movement to have the bridge constructed at Wood's Ferry, which would better serve Gallatin. In January 1929, the group convinced their elected officials to introduce a bill in the Tennessee Legislature that would stop construction and have the bridge relocated. A large delegation of residents of Lebanon and Wilson County, however, filed a petition and hand-delivered it to the legislature in Nashville. On January 30, 1929, a meeting between the factions and state officials was planned for the Andrew Jackson Hotel in downtown Nashville; however, due to the large number of attendees, it was relocated to the hall of representatives in the State Capitol building. After a long heated debate, the Lebanon delegation successfully argued that the bridge should remain at its current location and the motion to relocate the bridge to Sumner County was denied. Commissioner Harry Berry had been in support of relocating the bridge to Sumner County since he felt tolls collected at that location would be more profitable, but insisted that construction at Hunter's Point would move fullspeed ahead now that the matter was settled. Berry promised a contract would be let in March 1929.191

On April 5, 1929, the State awarded the primary bridge construction contract for \$321,963.22 to Montgomery & Parker of Rockport, Indiana. The \$5,327.70 core drilling contract had been let on November 15, 1928, to Mott Core Drilling Company of Huntington, West Virginia. From 1926-1928, Montgomery & Parker had previously constructed the Austin Peay Bridge, a unique K-truss bridge spanning the Cumberland River along State Route 56 at Gainesboro in Jackson

<sup>190 &</sup>quot;Public Meeting on Bridge Plans November 26<sup>th</sup> Will be Held by District Engineer," *The Lebanon Democrat*, November 15, 1928; "Citizens Attend Bridge Meeting: No Objections are Lodged Against the Proposed Hunter's Point Site," *The Lebanon Democrat*, November 29, 1928.

<sup>191 &</sup>quot;Bridge Backers Go To Nashville," The Lebanon Democrat, February 7, 1929; Gene H. Sloan, "Hunter's Point Finally Established as Bridge Site After Long Battle," The Lebanon Democrat, February 14, 1929: "Hunter's Point Bridge Certain," The Lebanon Democrat, February 28, 1929.

County, Tennessee. At Hunter's Point, Montgomery & Parker estimated they would employ from 100-150 men to build the toll bridge. About one-third were permanent employees from Indiana, the rest would be hired locally. By May 1929, temporary houses for the approximately 30 workmen had been built as well as foundation pilings across river. At that time, the bridge construction site was the "busiest place in the county" with two river barges of bridge materials having been delivered. The Lebanon Democrat reported that the common laborers made \$2 per day, experienced construction labor received \$0.35-50 an hour, and bridge carpenters made from \$0.50-60 an hour. Work on the bridge was delayed in the winter season due to high waters. When the steelwork was initially finished in the summer of 1930, it was a "brilliant orange" color before being painted with three coats of white paint and a top coat of gray paint, to "harmonize with the concrete abutments."192

Meanwhile, bridge backers in Sumner and Trousdale counties successfully lobbied elected officials in Nashville and Washington, DC, to build free bridges over the Cumberland River at Wood's Ferry, connecting Gallatin and LaGuardo, and Hart's Ferry, connecting Lebanon and Hartsville. Trousdale County pitching in \$40,000 toward the \$200,000 cost of the Hart's Ferry Bridge. Both sites had been previously considered as possibilities for a toll bridge.<sup>193</sup>

Completed from November 1928 to October 1930, the Class B toll bridge cost \$327,290.92. Measuring 1,783.5-feet long, the two-lane bridge featured four steel riveted through truss spans, including a 366-foot long Pratt truss, a 180-foot long Pratt truss, and two 120-foot long Parker through trusses (Figure 102). The 366foot long center truss was subcontracted to the Nashville Bridge Company. The concrete approaches contained 23 girders, 19 on the north approach and four on the south approach. The bridge and approaches were supported by five concrete piers, 21 concrete bent piers, and two concrete abutments. The bridge featured concrete handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

In October 1930, resolutions were passed by the county courts of both Wilson and Trousdale County recommending that the bridge be named the Nathan Green Memorial Bridge in honor of Nathan Green, Jr. (1827-1919). Green was a founder and first dean of the Cumberland School of Law in Lebanon as well as the son of former Tennessee Supreme Court Justice Nathan Green (1792-1866) and the father of then Tennessee Chief Supreme Court Justice Grafton Green (1872-1947). All were from Lebanon in Wilson County.<sup>194</sup>

<sup>192</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; Jeffrey L. Durbin. "Austin Peay Bridge," HAER No. TN-28, 1991; "Hunter's Point Contract Let," The Lebanon Democrat, April 11, 1929; "Rapid Progress Made at Point," The Lebanon Democrat, May 23, 1929; "Wilson Makes Good Progress in 1929," The Lebanon Democrat, December 26, 1929; "Work to Start on Big Center Span of Hunter's Point Bridge," The Lebanon Democrat, June 19, 1930; Carver, 2008: 518-519.

<sup>193 &</sup>quot;Bridge for Dixie Highway Passed," The Lebanon Democrat, June 27, 1929; "Trousdale Aid for new Bridge at Hart's Ferry," The Lebanon Democrat, August 1, 1929. 194 "Hunter's Point Road Cinched," The Lebanon Democrat, October 30, 1930.



Figure 102. Drawing, Elevation, Nathan J. Harsh Bridge, 1928

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Instead, the Tennessee Legislature named the bridge in honor of Nathan James Harsh (1860-1934) a local farmer. A native of Nashville, Harsh married Louise Bell Martin (1866-1935) in 1888 and raised five children on farms in Sumner and Trousdale Counties. Harsh apparently owned the farmland at Hunter's Point where the bridge was located. According to local tradition, Governor Austin Peay had visited the site early in the planning process and specifically chose this location for the toll bridge, after a "great deal of controversy had arisen over the location of a bridge over the Cumberland River." Governor Peay visited the site in person with Harsh and "talked the matter over." They then decided, Hunter's Point "is the best place." Harsh died in Lebanon and is buried in Gallatin.<sup>195</sup>

As part of the project, the Lebanon-Hartsville Road was greatly improved by grading, eliminating several dangerous curves, and installing new culverts, bridges, and asphalt (Figure 103). A grand dedication ceremony was planned for the opening of the "magnificent bridge" with a homecoming and "old time barbecue." However, the bridge opened on November 1, 1930, ahead of schedule and Governor Horton was unavailable to preside on short notice so the dedication ceremony was canceled with intentions of possibly holding it at a future date.<sup>196</sup>

A Toll Collector's House was constructed on the east edge of the south approach in Wilson County. Designed with a square floor plan with a hipped roof, the frame dwelling originally featured inset front and rear porches, interior brick chimneys, six-over-six pane double-sash windows, and cypress weatherboard siding. The interior featured a living room, bedroom, kitchen, dining room, and small office with a separate entrance off the front porch. After the bridge was freed in March 1939, the toll house was moved to the west side of the approach and converted into a private residence. Today, the dwelling is used as a rental home and is one of only two known Toll Collector's Houses remaining in Tennessee. The dwelling has been altered with vinyl siding and brick veneer, replacement doors, a metal roof, and a rear shed wing; however, the house retains the original inset front porch with flanking office with the original window for collecting tolls (Figure 104).

Wiseman Neal Barbee (b. 1890) of Watertown was appointed the first toll collector. In November 1930, Barbee moved into the house with his wife Lillie May Smith (b.1891) and daughter Florence (b.1910). Barbee was a veteran of World War I. The *Lebanon Democrat* reported that the machine for receiving tolls weighed 500 lbs. and "contrary to general opinion, there will be no toll bar across the bridge." Tolls were first collected on November 20, 1930.<sup>197</sup>

<sup>195</sup> U.S. Population Census, 1880, 1910, 1920, 1930; Tennessee Deaths and Burial Index, 1874-1955 Record for Nathan Harsh; Dixon Merritt, editor. *The History of Wilson County: Its Land and Its Life*. Nashville: Benson Printing Company, 1961: 89.

<sup>196 &</sup>quot;Hunter's Point Road Cinched," The Lebanon Democrat, October 30, 1930.

<sup>197 &</sup>quot;Neil Barbee Named Toll Collector at Hunter's Point," *The Lebanon Democrat*, November 20, 1930; U.S. Population Census, 1900, 1910, 1920, 1930, 1940; U.S. World War I Draft Registration Cards, 1917-1918 Record for Wiseman Neal Barbee.

### Figure 103. Photographs, Nathan J. Harsh Bridge

Source: TDOT.

A. Aerial Looking East, 1930

B. Looking Northeast, circa 1990

C. Looking North with Toll House, circa 1990













In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Lebanon-Gallatin Bridge" was open 24 hours with a toll of \$0.25. In the 1950s, the Lebanon Waterworks facility (WL.818) was constructed on the south bank of the river along the east side of the south approach. The TN-SHPO survey of Wilson County in 1984 did not include the bridge or the Toll Collector's House. TDOT replaced the bridge in 1991 with the current four-lane steel girder bridge.<sup>198</sup>

#### Figure 104. Photographs, Toll House, Nathan J. Harsh Bridge, 2012

A. Looking North with Bridge

B. Looking West at the Front Façade with Original Toll Collecting Window on the Left

C. Looking Southeast with Lebanon Waterworks in Background

198 American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 118.





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Figure 105. Location Map, James E. Karnes Bridge, Knoxville, Knox County

Source: ESRI Resource Data, Imagery Layer

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# SPECIAL BRIDGE PROJECT NO. 16 JAMES E. "BUCK" KARNES BRIDGE KNOXVILLE, KNOX COUNTY



The James E. "Buck" Karnes Bridge (47-SR073-01.12) spanned the Tennessee River at Knoxville along State Route 73 (U.S. 129/Alcoa Highway) at the University of Tennessee's Agricultural Campus and Cherokee Farm (Figure 105). This bridge replaced the Cherokee Bridge, an 1892 single-lane, truss bridge located slightly downstream. Founded in 1791, Knoxville was the first capital of Tennessee and grew to become the commercial hub for East Tennessee. In the 1920s, the city was a gateway to the Great Smoky Mountains, which became a national park in 1940. The city is named for Henry Knox (1750-1806), the U.S. Secretary of War (1789-1794) under President George Washington. State Route 73 is an east-west highway connecting Knoxville with Newport via Maryville. The bridge was also expected to open along a new highway route from Knoxville to Atlanta via the Niles Ferry Toll Bridge, then under construction, in Monroe County. In 1930, the city counted nearly 106,000 residents; today the Knoxville metropolitan area has over 1,000,000 people.<sup>199</sup>

In April 1927, the Tennessee Legislature included Knoxville on the amended list of 17 new toll bridges to be constructed with federal funds. The Knoxville location was number 16 on the list. On February 1, 1928, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 211 and Bill S. 2478 in the 70<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Knoxville-Maryville Road. The U.S. War Department had reviewed and approved the request on January 24, 1928, as had the U.S. Department of Agriculture on January 18, 1928. On March 2, 1928, U.S. Senator Dale introduced amended legislation. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 529 and Bill H.R. 9137 to the U.S. House of Representatives. The bridge was located on the system of Federal-aid highways as required.<sup>200</sup>

Completed between January 1928 and July 1930, the Class B toll bridge cost \$460,632.15. Measuring 1,239-feet long, the bridge featured five steel truss spans, including four Camelbacks and one Parker through truss (Figures 106-107). The trusses ranged from 160 to 326-feet in length. The concrete approaches contained

<sup>199</sup> WPA Guide to Tennessee. Viking Press, 1939; republished, University of Tennessee Press, Knoxville, 1986: 232.

<sup>200 &</sup>quot;Bridge Across Tennessee River on the Knoxville-Maryville Road, Tennessee," U.S. Senate Report No. 211, February 1, 1928; "Bridge Across Tennessee River on the Knoxville-Maryville Road, Tennessee," U.S. Senate Report No. 455, March 2, 1928; "Bridge Across Tennessee River on Knoxville-Maryville Road, Tenn.," U.S. House of Representatives Report No. 529, February 1, 1928.



tuon, James E. Names Blidge, 1929

Figure 106. Drawing, Elevation, James E. Karnes Bridge, 1929

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eight girders and were supported by six concrete piers, six concrete bent piers, and two concrete abutments. The four-lane bridge featured concrete spindle handrails, flanking six-foot wide pedestrian sidewalks, and navigation lights. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

This was Tennessee's only four-lane toll bridge; all others were two lanes. The TDHPW designed it to be four-lanes wide at the request of the Enka Corporation, an international company based in Holland. City and state officials were in negotiations with Enka for constructing a 2,000-acre synthetic rayon manufacturing facility south of the river near the suburb of Alcoa, established in the 1910s by the Aluminum Company of America. In September 1928, the Enka Corporation chose to build the rayon plant near Asheville, North Carolina, instead of Knoxville. The State of Tennessee, however, maintained the four-lane design for the toll bridge, which would connect Knoxville with Maryville via Alcoa along a proposed new four-lane highway.<sup>201</sup>

On April 19, 1929, the State let the primary \$439,028.28 bridge construction contract to Southern Construction Company of Birmingham, Alabama. This company was led by Jake Moose (1888-1974), a former Knoxville resident. The core drilling contract was let on January 19, 1928, for \$5,895.83 to Pennsylvania Drilling Company of Pittsburgh. The grading and digging contract was let on April 25, 1930, for \$15,708.04 to K.V. Johnson and the gravel contract was let on May 23, 1930, for \$1,025.46 to State Forces. The core drilling had shown the bridge foundations would rest on solid marble. Engineers estimated the bridge would contain approximately 2,600 lbs. of steel and 8,600 cubic yards of concrete.<sup>202</sup>

On May 20, 1930, the bridge was dedicated by Governor Henry Horton to the "service of the people of the whole country" during the East Tennessee Farmer's Convention being held at the U.T. Agricultural campus. The topic of the convention was "Relation of Highways to Agricultural Improvement." The bridge was not quite finished at the time or ready for automobile traffic, since the approach roadways had not been completed, so the governor led a walking procession comprised of local officials, farmers, and their families across the bridge for a tour of the university farm on the south side of the river. At the time, the northern approach connecting to the UT campus was expected to be ready by July, but the southern connection, known then as the Knoxville-Maryville "airline highway," would not be ready for another year. (Figures 108-110).<sup>203</sup>

<sup>201 &</sup>quot;New Bridge to Have Roadway 40 Feet Wide," Knoxville News-Sentinel, April 20, 1929.

Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; "New Bridge to Have Roadway 40 Feet Wide," *Knoxville News-Sentinel*, April 20, 1929.
 "Will Dedicate Bridge Tuesday," *Knoxville News-Sentinel*," May 18, 1930; "To be Dedicated

<sup>203 &</sup>quot;Will Dedicate Bridge Tuesday," Knoxville News-Sentinel," May 18, 1930; "To be Dedicated Tuesday," Knoxville News-Sentinel, May 19, 1930; "Governor Delayed: Dedication of New U-T Bridge Held up for Time," Knoxville News-Sentinel, May 20, 1930; "State Bridge Dedicated to Whole Nation," Knoxville News-Sentinel, May 21, 1930; "Bridge Game Leaves Problems of Discard," Knoxville News-Sentinel, May 21, 1930; "State to Aid in New Viaduct: Maryville Project to Connect with Cherokee Bridge Route," Knoxville News-Sentinel, May 23, 1930.



In Governor Horton's dedication speech, he stated that the state's highway and toll bridge programs were not only beneficial to farmers but to all Tennesseans, mainly because the roads and bridges opened up new commercial markets and provided safer means for crossing the state's many rivers. He also explained that the new transportation infrastructure brought in additional tax revenues from out-of-state tourists visiting cities such as Nashville and Knoxville. "Tourists will pay for the improvements by bringing their money here," stated Horton. "There are over 1,000 tourists a day in Nashville. I guess you have as many in Knoxville. Each tourist leaves an average of \$10 a day in Nashville." Horton reminded the audience that Knoxville would soon serve as a gateway city to the Great Smoky Mountains National Park, which was expected to draw 50,000 visitors a day. "Think of what that will mean," he exclaimed. "This bridge is not built [just] for the University of Tennessee Farm."<sup>204</sup>

204 "State Bridge Dedicated to Whole Nation: Horton Tells About His Road Building In Ceremony at U-T Farm," *Knoxville News-Sentinel*, May 21, 1930.

Figure 108. Historic Image, James E. Karnes Bridge, Knoxville

A. Aerial Photograph, Looking Northwest, c.1930. Source: "Report of the State Highway Commissioner," June 30, 1930: 94.

B. Original Cherokee Bridge, c.1930. Source: *Knoxville News-Sentinel*, May 21, 1930.

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Figure 109. Historic Images, James E. Karnes Bridge, Knoxville

A. Postcard, Looking North, c.1960. Source: TDOT.

B. Photograph, Looking Southwest, 1930. Source: *Knoxville News-Sentinel*, May 21, 1930.

C. Photograph, Looking Southwest, 1930. Source: *Knoxville News-Sentinel*, May 21, 1930.





# DEDICATING KNOXVILLE'S NEW BRIDGE



-News-Sential Photographs Here are scenes snapped at dedication services for the new state bridge at U-F farm yesterday afternoon. Above, Governor Horton is speaking on the bridge to a group, mostly farm ers from the East -Frencesee convention, Below, left to richt, are Charles H. Bacon, ef Loudon, A. D. Huddleston of Alcon, Governor, Horton and R. J. Love, highway- division engineer.

# O GET COMMISSIONS

-T Will Have Annual Competitive Drill Tomorrow.

Twenty-one officers of the U-T . O. T. C. regiment will be warded commissions and sworn i as members of the Reserve rmy at the annual competitive rill tomorrow at 1:00 at Shields.







#### Figure 110. Historic Photographs, James E. Karnes Bridge, Knoxville

Dedication Ceremony with Governor Henry Horton Speaking to the Crowd, Mainly Farmers from the East Tennessee Farmer's Convention at UT. Bottom Right, left to right, are Charles H. Bacon of Loudon, A.D. Huddleston of Alcoa, Governor Horton, and R.J. Love, an engineer with the Tennessee Department of Highways and Public Works. Source: *Knoxville News-Sentinel*, May 21, 1930.

#### Figure 111. Photographs, James E. Karnes Bridge

Source: TDOT.

A. Looking South, 1987

B. Looking Southeast During Demolition, 1990



As noted, this toll bridge replaced the Cherokee Bridge, an older single-lane truss bridge located downstream. The bridge connected the UT Agricultural Campus on the north side of the Tennessee River to the UT Farm on the south side of the river. The Cherokee Bridge derived its name from a Cherokee Indian Mound located on the UT Agricultural Campus; later the UT Farm became known as the UT Cherokee Farm. Originally, the new toll bridge was also referred to as the Cherokee Bridge. During the dedication of the new bridge, UT President Harcourt Morgan (1867-1950) explained that the UT Farm would have no use for the older Cherokee Bridge, which had been condemned in 1922. Morgan explained that the old bridge "probably will stay there and rot" and that the county "didn't want the old one [since] it isn't worth moving." Once the new bridge opened for the traffic in 1932, the original Cherokee Bridge was demolished in the late 1930s.<sup>205</sup>

According to the Knoxville News-Sentinel, Commissioner Harry Berry intended for this bridge to be named in honor of Calvin Ward, a World War I veteran from Morristown, and the toll bridge at Loudon to be named for Buck Karnes, a World War I veteran from Knoxville. However, for reasons unknown this did not come to pass and in 1933 the toll bridge at Kingston was named for Calvin Ward and this bridge was named in honor of James Ernest "Buck" Karnes (1889-1966), a U.S. Army veteran who was one of six Tennesseans to win a Congressional Medal of Honor while serving in World War I. A native of Arlington in West Tennessee, Karnes grew up in Knoxville where he entered the service. He was a Sergeant in Company D, 117<sup>th</sup> Infantry, 30<sup>th</sup> "Old Hickory" Division. Sgt. Karnes was honored for "extraordinary heroism" alongside Private Calvin John Ward in action taking place on October 8, 1918, during the Meuse-Argonne Offensive near Estrées, France. At the time he entered the Army, he was working as a painter at the American Rolling Mill in Middletown, Ohio. In 1920, he married Clora B. Repass (1896-1940); they had a daughter May Bess (b.1921). Karnes worked as a salesman for a dry goods store and a police officer in Knoxville before physical disabilities forced an early retirement and move to Sacramento, California. In 1940, he resided at the U.S. Veterans Hospital in Murfreesboro. In 1962, Karnes was honored at a reception at the White House where he met President John F. Kennedy. He died in Sacramento, California, and is buried in the Greenwood Cemetery in Knoxville.206

The Tennessee Legislature officially freed this bridge in March 1939, although no tolls were ever collected for several reasons. First, the four-lane state highway connecting to Maryville had not yet been completed or paved by 1939. Second,

<sup>205 &</sup>quot;Bridge Game Leaves Problem of Discard," Knoxville News-Sentinel, May 21, 1930.

<sup>206</sup> Cynthia Tinker, "James E. Karnes," Center for the Study of War and Society, University of Tennessee at Knoxville, East Tennessee Veterans Memorial Association. <u>http://etvma.org/web/index.php?guestaction=displayveteran&uid=12221&displaytype=web</u>, accessed March 25, 2013; U.S., World War I Draft Registration Cards, 1917-1918 Record for Ernest Karnes; U.S. Population Census, 1900, 1910, 1920, 1930, 1940; "Bridge Game Leaves Problem of Discard," *Knoxville News-Sentinel*, May 21, 1930.

state officials felt that two nearby free bridges in downtown Knoxville at Gay Street and Henley Street made the "collection of tolls on this bridge financially impractical." Third, state officials were also concerned about increasing the cost of operation of UT, since the bridge was located primarily on university property. And fourth, state officials were concerned about the "additional burden on University of Tennessee agricultural students who use this bridge to reach classes, some of which are conducted on one side of the Tennessee River and some on the other." Governor Prentice Cooper approved the bill on March 10, 1939.<sup>207</sup>

From 1940-1943, the Tennessee Valley Authority constructed the Fort Loudoun Dam downstream from the bridge at Lenoir City in Loudon County. Once the hydroelectric dam was completed, the impounded navigable waterway beneath the bridge became part of the Fort Loudoun Reservoir. Since the bridge spanned the headwaters of the reservoir, it was unnecessary to raise the bridge.

In 1987, TDOT approved a \$13.7 million project to replace the former four-lane toll bridge. The bridge was demolished in 1990 and replaced with the current six-lane bridge, which was constructed from 1988-1990 along the east side (Figure 111).



<sup>207</sup> Public Acts of Tennessee, March 10, 1939, Chapter No. 123, House Bill No. 351: 462-463.



Figure 112. Location Map, Marion Memorial Bridge, Haletown, Marion County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 17 MARION MEMORIAL BRIDGE HALETOWN, MARION COUNTY



The Marion Memorial Bridge (58-SR002-21.14) spanned the Tennessee River at Haletown along State Route 2 (U.S. 41/U.S. 64), east-west highway connecting Murfreesboro with Farragut via Chattanooga (Figure 112). Replacing Kelly's Ferry, this bridge is located at the south end of the Sequatchie Valley in the mountainous Tennessee River Gorge in southeast Tennessee. Haletown is an unincorporated community located on the east bank of the Tennessee River at the intersection of U.S. 41 and U.S. 64 and approximately six miles southeast of the county seat of Jasper. Originally known as "Guild," Haletown was created by the Chattanooga and Tennessee River Power Company, later acquired by Tennessee Electric Power Company (TEPCO), from 1905-1913 for housing the workers that constructed the Hales Bar Dam, Lock and Powerhouse. One of the first and largest hydroelectric dams in the country at the time, this facility was located approximately one mile north of the bridge and below a formidable river pass, known as the "Suck." Guild was named after Josephus "Jo" Conn Guild, Sr. (1862-1907), a businessman and engineer from Chattanooga who co-founded the Chattanooga and Tennessee River Power Company. Haletown featured stores, bakery, ice plant, school, boxing club, vaudeville hall, hotel, and poolrooms. With the opening of this bridge in 1931, this community soon became a link along the Wauhatchie Route of the Dixie Highway, an early intrastate route connecting Chicago with Miami. Today, Haletown still maintains a U.S. Post Office under the name "Guild." Original government documents located this toll bridge at either Haletown or Jasper; both are included within the Chattanooga metropolitan area.<sup>208</sup>

In April 1927, the Tennessee Legislature included Haletown/Jasper on the amended list of 17 new toll bridges to be constructed with federal funds. The Haletown/Jasper location was number 17 on the list. The bridge would link Jasper and Chattanooga via a locally-funded twelve-mile extension of the Wauhatchie Pike, also known as Kelly's Ferry Pike, from the Hamilton County line to Jasper. On February 1, 1928, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 210 and Bill S. 2478 in the 70<sup>th</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge. The U.S. War Department had reviewed and approved the request on January 24, 1928, and the U.S. Department

<sup>208</sup> Patsy B. Beene, "Marion County," Tennessee Encyclopedia of History and Culture, 2013, accessed April 4, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=835</u>; Paul Archabault, "Marion Memorial Bridge," NRHP Nomination, 2007: Section 8, Page 5; Timothy P. Ezzell, "Jo Conn Guild," Tennessee Encyclopedia of History and Culture, 2013, accessed April 4, 2013: <u>http:// tennesseeencyclopedia.net/entry.php?rec=579</u>; TVA, "The Nickajack Project: Technical Report No 16, 1972: 18-19; Leland R. Johnson. Engineers on the Twin Rivers: A History of the Nashville District Corps of Engineers United States Army. Nashville: U.S. Army Engineer District, 1978: 163-168.

of Agriculture had approved the request on January 18, 1928. On March 2, 1928, U.S. Senator Dale introduced amended legislation. On February 1, 1928, U.S. Congressman Tilman Bacon Parks (1872-1950), a Democrat from Arkansas, from the Committee on Interstate and Foreign Commerce, introduced Report No. 526 and Bill H.R. 9139 to the U.S. House of Representatives. The bridge was located along the system of Federal-Aid highways as required.<sup>209</sup>

During the planning process, some local residents attempted to have the bridge located several miles south at South Pittsburg near the Alabama state line, but state officials decided to stay with the Kelly's Ferry site. During the initial survey in the fall of 1928, engineers determined the Kelly's Ferry site was unsuitable for bridge construction due to unstable pier footings so the location was moved downstream slightly to its current location. This site also required a much shorter span and was thus much less expensive than the original Kelly's Ferry site, which was estimated to cost around \$1,000,000.<sup>210</sup>

Completed between May 1929 and December 1930, the Class B toll bridge cost \$488,848.68. Measuring 1,870-feet long, the bridge featured four riveted steel truss spans. Two 142-foot long Parker Camelback trusses flanked two 368-foot long Warren through trusses with Polygonal top chords (Figure 113). The concrete approaches contained 20 girders and the bridge was supported by five concrete piers, 26 concrete bent piers, and two concrete abutments. The bridge featured concrete spindle handrails. Constructed in 1931, a Toll Collector's House was located at the end of the east approach. All engineering features were based on standardized plans created by the engineer-of-record Leonard R. Erickson.<sup>211</sup>

On April 5, 1929, the State let the primary \$442,287.93 bridge construction contract to Grier-Lowrence Construction Company of Statesville, North Carolina. The core drilling contract was let on August 16, 1928, for \$9,967.98 to Pennsylvania Drilling Company of Pittsburgh. Grading and surfacing contracts were let to John Oman, Jr. for \$27, 328.85 on April 12, 1929; \$2,357.41 to State Forces on November 1, 1930; and Dicus Brothers of Waynesville, North Carolina, for \$6,254.34 on October 25, 1929. On July 31, 1931, the State let a \$652.17 contract to State Forces for constructing the "Toll House." Located on the bridge's east approach, the Toll Collector's House was completed by November 16, 1931.<sup>212</sup>

<sup>209 &</sup>quot;Bridge Across Tennessee River on the Jasper-Chattanooga Road, Tennessee," U.S. Senate Report No. 210, February 1, 1928; "Bridge Across Tennessee River on the Jasper-Chattanooga Road, Tennessee," U.S. Senate Report No. 454, March 2, 1928; "Bridge Across Tennessee River on Jasper-Chattanooga Road, Tenn.," U.S. House of Representatives Report No. 527, February 1, 1928.

<sup>210</sup> Paul Archabault, 2007: Section 8, pages 6-7.

<sup>211</sup> Tammy Allison. "Documentation of Effect Pursuant to 36 CFR 800, and Programmatic Section 4(f) Documentation for the Proposed Replacement of Bridge and Approaches over the Tennessee River, State Route 2, Log Mile 21.14, Marion County." TDOT, November 2000: 5.

<sup>212</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; Paul Archabault, 2007: Section 8, page 7.



Source: TDOT.



The bridge was dedicated in May 1931 as the "Marion Memorial Bridge" in honor of the Marion County sailors and soldiers who died during World War I (Figure 114). Governor Henry Horton attended and spoke at the dedication ceremony. In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Chattanooga-Jasper Bridge" was open 24 hours with a toll of \$0.50. The bridge was freed in February 1947. In the 1950s, the Toll Collector's House was relocated and is no longer extant. The Marion Memorial Bridge was one of the most traveled toll bridges in Tennessee due to its location along U.S. 41 and the Dixie Highway





#### Figure 114. Aerial Photographs, Marion Memorial Bridge

Source: TDOT. Looking Northwest, 1930 Looking Southwest, 1956

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between Chattanooga and Jasper. The bridge was also known as the "Marion County Memorial Bridge" and "Veterans Memorial Bridge." A section of the old Kelly's Ferry Road at Guild/Haletown was NRHP-listed in 2007.<sup>213</sup>

In 1940, the State employed at least five toll collectors, who worked three shifts around the clock. One "Toll Keeper" for the "State Highway Toll Bridge" was Charlie Lubert Condra (1890-1962) who lived near Whitwell with his second wife Marie N. The previous year he had worked 40 hours per week for 52 weeks, presumably as the toll collector, and earned \$1,140. A native of Whitwell and World War I veteran, Condra had worked as a blacksmith at the Dixie Portland Cement Company in Richard City. In 1935, Condra had been wounded during a pistol battle in Whitwell between the Condra and Rankin families during a lengthy and deadly labor feud involving the local mining industry.<sup>214</sup>

A second "Toll Bridge Collector" was Walter N. "Willie" Hackworth (1895-1975) who lived in Jasper with his wife Fannie Mae Cooper (1906-1991). The previous year, he had worked 52 weeks, presumably as a toll collector, and earned \$950. Hackworth was a veteran of World War I. He had previously worked as a pug mill operator at the Dixie Portland Cement Company in Richard City as well as a dry goods salesman and a bank cashier in Jasper. He is buried in Jasper.<sup>215</sup>

That same year, John Henry Lawson (1882-1949), who lived in Jasper with his wife Adelia Chadwick (b.1890), two daughters, and a son-in-law, collected tolls. The previous year, he had worked 52 weeks, presumably as a toll collector, and earned \$1,200 (Figure 115). A native of Sequatchie in Marion County, Lawson was a veteran of World War I. He had previously worked for many years as a handle maker and foreman at the Sequatchie Handle Works. On February 7, 1947, he was the chief toll collector, when he reportedly received a telephone call from Governor Jim Nance McCord's administration instructing him to cease collecting tolls. He died in 1949 as a "Retired Toll Collector" with the State of Tennessee and is buried at the Hoge Cemetery in Marion County.<sup>216</sup>

Francis Washington Pryor (1902-1966), who lived with mother and brother in Jasper, also served as toll collector. The previous year, he had worked 52 weeks, and earned \$900. He is buried in Jasper.<sup>217</sup>

214 U.S. Population Census, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for Charlie Condra; "Slashed, Dies on Street: Estill Rankin, Victim of Assault by Half Brothers," *Sequatchie Valley News*, December 14, 1936; W.H. White, Op-ed, *Sequatchie Valley News*, December 1936.



Figure 115. Photograph, John Henry Lawson, Toll Collector

Source: Ancestry.com.

<sup>213</sup> Paul Archabault, 2007: Section 8, pages 8-9; Tammy Allison, 2001: 5; American Automobile Association. *Southeastern Tour Book*. Washington, DC, 1934: 127.

<sup>215</sup> U.S. Population Census, 1920, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for Walter Hackworth.

<sup>216</sup> U.S. Population Census, 1920, 1930, 1940; U.S. World War I Draft Registration Card, 1917-1918 Record for Henry Lawson; Tennessee Death Records, 1908-1958 Record for John Henry Lawson; Harmon Jolley, "Marion Memorial Bridge Connected Chattanooga to Points West," 2006; <u>http://</u> <u>www.rootsweb.ancestry.com</u>, accessed by TDOT on February 4, 2010.

<sup>217</sup> U.S. Population Census, 1940; Society Security Death Index Record for Francis Pryor.

In 1940, the "Extra Toll Collector" was Ed Holder (1889-1978), who lived in a rented house in Sequatchie with his wife Mary Etta Raulston (1892-1982), daughter, son-in-law, and granddaughter. The previous year he had worked 24 hours per week for 26 weeks, presumably as a toll collector, and earned \$270. In 1930, he worked as a farmer. Holder is buried in Jasper.<sup>218</sup>

In 1939, the TVA acquired the Hales Bar Dam from TEPCO. From 1964 to 1967, the TVA replaced the Hales Bar Dam, which consistently experienced foundation problems and leaks, located one mile upstream from the bridge with the Nickajack Lock and Dam located about five miles downstream from the bridge. This hydroelectric dam created the Nickajack Reservoir, which impounded the navigable waterway beneath the bridge, and resulted in the demolition of the Hale's Bar Dam and Lock. The original 1910s Hale's Bar Dam Powerhouse remains standing (NRHP, 2008). Simultaneously, the TVA constructed the new I-24 bridge spanning the Nickajack Reservoir approximately one-quarter mile south. Finally, between August 1966 and December 1968, the TVA raised the Marion Memorial Bridge 21 feet, reinforced and altered the original bridge piers, constructed new concrete bents, and replaced the original concrete abutments, bridge approaches, and all handrails. As part of the Nickajack project, the TVA also relocated and raised a nearly two-mile section of U.S. 41 connecting to the renovated bridge, which reopened on December 13, 1968.<sup>219</sup>



In 1987, the TN-SHPO surveyed the bridge and recorded it as "ME.380." In 1982 and 2000, TDOT documented the bridge and in consultation with the TN-SHPO recommended it NRHP-eligible under Criterion A as a toll bridge and Criterion C as a representative Park and Warren truss bridge designed by the TDHPW. From

Figure 116. Postcard, Looking Southeast, Marion Memorial Bridge

Source: TDOT.



<sup>218</sup> U.S. Population Census, 1930, 1940.

<sup>219</sup> Tammy Allison, TDOT Report, 2001: 5-6; TVA, "Nickajack Project," 1972: 140-142, 290-292.





### Figure 117. Photographs, Marion Memorial Bridge

Source: TDOT.

A. Aerial Looking North, 2009

B. Looking Northwest, 2000

C. Looking East from approach, 2002





2000-2001, TDOT studied alternatives to demolishing the bridge and offered it to local organizations and government agencies to relocate or preserve in-place; however, no organizations accepted the offer. As mitigation for its demolition, TDOT recommended documentation of the bridge with historic research and HAER documentation. The TN-SHPO concurred and the ACHP declined to participate in the consultation process. In 2003, TDOT once again offered the bridge to local organizations accepted the offer. In 2007, the bridge was nominated to the NRHP by Paul Archambault, a historic preservation planner with the Southeast Tennessee Development District in Chattanooga. In January 2012, TDOT closed the bridge to vehicular traffic and it is currently in the process of being demolished. A new two-lane steel girder bridge is scheduled to open February 2014; in the meantime, traffic is detoured to I-24 (Figures 116-118).<sup>220</sup>

<sup>220</sup> Martha Carver, Survey Report, 2008: 533-534; Tammy Sellers, 2000: 1-5; Ben Benton, "Last vehicle crosses Marion Memorial Bridge before closure," Chattanooga Times Free Press, January 10, 2012; Dick Cook, "Saving Marion County bridge: Some residents hope to preserve Highway 41 span," Chattanooga Times Free Press, December 8, 2006; Carver, 2008: 533-534.







### Figure 118. Photographs, Marion Memorial Bridge, 2011

Source: TDOT.

A. Looking Southeast

B. Looking Northeast From Water

C. Looking Northeast at East Approach From Water



Figure 119. Location Map, Montgomery Bell Bridge, Ashland City, Cheatham County

Source: ESRI Resource Data, Imagery Layer



# SPECIAL BRIDGE PROJECT NO. 19 MONTGOMERY BELL BRIDGE ASHLAND CITY, CHEATHAM COUNTY



Spanning the Cumberland River at Ashland City in Cheatham County, the Montgomery Bell Bridge (11-SR049-05.05) was located along State Route 49 (Cumberland Street), an east-west highway in Middle Tennessee connecting Dover with Orlinda (Figure 119). Founded in 1856 on the north bank of the Cumberland River, Ashland City is the county seat. Originally known simply as "Ashland," the name could have originated from the "Ashland" estate of Henry Clay (1777-1852), a well-known politician from Kentucky, or due to the number of ash trees in the area. The name was changed to Ashland City when the town was incorporated in 1859. Ashland City is located at the intersection of State Route 12, a north-south highway connecting Nashville and Clarksville, and State Route 49. In 1930, the town counted 712 people. Today, Ashland City has approximately 3,650 residents and is part of the Nashville metropolitan area.<sup>221</sup>

In February 1929, the Tennessee Legislature included Ashland City on the list of four additional new toll bridges to be constructed with federal funds. The Ashland City location was number 19 on the list and the only one of the four to be constructed. This bridge was to replace an old private river ferry and connect to the proposed Charlotte-Ashland City Road, which ran along the south side of the river and was to be constructed simultaneously with the bridge. On January 6, 1930, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 118 and Bill S. 1189 in the 71<sup>st</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge. The U.S. War Department had reviewed and approved the request on June 14, 1929. The bridge was not located on the system of Federal-Aid highways as required; however, the U.S. Congress made a special exemption and approved the request.<sup>222</sup>

Completed between April 1930 and May 1931, the Class B toll bridge cost \$327,825.25. Measuring 1,931.70-feet long, the two-lane bridge featured four steel riveted truss spans at the center. A 280-foot long and 320-foot long Parker trusses were flanked by two 120-foot long Pratt trusses. The concrete approaches contained 24 girders, 21 on the north approach and three on the south approach; each measuring 40-feet The bridge and approaches were supported by five

<sup>221</sup> James B. Hallums. "Cheatham County." *Tennessee Encyclopedia of History and Culture*, 2013, accessed April 1, 2013; <u>http://tennesseeencyclopedia.net/entry.php?rec=235</u>.

<sup>222 &</sup>quot;Bridge Across Tennessee River on Linden-Lexington Road, Tennessee," House of Representatives Report No. 8, December 14, 1927; "Bridge Across the Tennessee River in Perry and Decatur Counties, Tenn.," Senate Report No. 101, January 17, 1928.

concrete piers, 22 concrete bent piers, and two concrete abutments. The bridge featured concrete handrails. All engineering features are based on standardized plans created by the engineer-of-record Leonard R. Erickson.

On April 25, 1930, the State let the primary \$306,805.60 bridge construction contract to the Nashville Bridge Company. The \$5,783.92 core drilling contract was let on December 6, 1929, to Pennsylvania Drilling Company of Pittsburgh and a \$15,235.73 grading contract was let on September 5, 1930, to McQuary Brothers, operated by G.W. McQuary, which was likely George Washington McQuary (1872-1955) of Nashville. Additional contracts were let between June 1930 and October 1932 to John Oman, Jr. of Nashville for \$37,387.89 and State Forces for \$1,009.38. Excavating and concrete work was subcontracted to Doullet & Ewin of New Orleans. The State also let the \$64,828.23 contract to Discus Brothers of Waynesville, North Carolina, to construct State Route 49 from Ashland City to the Robertson County line via Pleasant View.<sup>223</sup>

Construction of the bridge and highway began simultaneously in May 1930 with materials arriving via the Tennessee Central Railroad from Nashville. The contractors worked on both around the clock with day and night shifts. McQuary Brothers hired twenty-five to thirty men to work on the highway and Nashville Bridge Company hired sixty-five to seventy men to work around-the-clock on the bridge, which it predicted would be completed in eight months. Work on the bridge was very dangerous, resulting in the death of at least one worker and serious injuries to another. During a night shift in June, Benton Work of Ashland City broke his back when he fell into a 12-foot foundation hole for a bent; he was paralyzed from the waist down. On September 30, 1930, Alfred H. Spears, 29, a steelworker from Chattanooga working for Doullet & Ewin, died when his skull was fractured by a falling timber when an embankment gave way at a cofferdam at the base of a pier in the river.<sup>224</sup>

Due to dry weather during the summer and fall seasons, work on the bridge was completed in record time. The first steel truss was installed by October 1930 and concrete work, including railings, had been completed by February 1931. By late March, the bridge was done and waiting for the connecting highway to be blacktopped. The bridge opened without ceremony in May 1931. No tolls were to be collected until the Harpeth River Bridge was completed and State Route 49

<sup>223</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942; "Two Highway Contracts Let," *Ashland City Times*, June 1, 1930; "New Bridge Opened to the Public," *Ashland City Times*, May 14, 1931.

<sup>224 &</sup>quot;Bridge Materials Arriving," Ashland City Times, June 15, 1930; "Work on Highway and Bridge Started," Ashland City Times, June 22, 1930; "Benton Work Seriously Injured," Ashland City Times, June 19, 1930; "Bridge and Road Work Progressing," Ashland City Times, July 3, 1930; "Bridge Workman Dies of Injuries," Ashland City Times," October 2, 1930; Tennessee Death Records, 1908-1958 Record for Alfred H. Spears.

opened to Charlotte. According to the local paper, this was the only bridge between Clarksville and Nashville and would serve as an important link for Ashland City to cities and towns throughout Middle and West Tennessee.<sup>225</sup>

This was one of the few toll bridges in Tennessee not named in honor of veterans of World War I. Instead, the Tennessee Legislature named it in honor of Montgomery Bell (1769-1855), an early industrialist and civic leader from Cheatham County. A native of Pennsylvania, in 1802 Bell migrated to Middle Tennessee where he became a noted ironmaster. Using slave labor, Bell operated some of the largest iron furnaces in the South. Late in life, he freed most of his slaves and willed funds for creating the Montgomery Bell Academy in Nashville. He is buried in a private cemetery near the banks of the Harpeth River in Cheatham County. A state park in Dickson County is also named in his honor.<sup>226</sup>

In 1934, the American Automobile Association reported in the *Southeastern Tour Book* that the "Ashland City-Charlotte Bridge" was open 24 hours with a toll of \$0.50. The bridge was freed in March 1939. A TN-SHPO survey of Cheatham County in 1983 did not include the bridge. In 1985, TDOT and the TN-SHPO recommended the bridge as not NRHP-eligible. In 1993, TDOT cultural resource staff prepared a survey report that concurred with the original recommendation; the TN-SHPO agreed in 1994. TDOT demolished and replaced the original toll bridge in 1997 with the current four-lane, 1,671.5-foot long steel girder bridge, called the Veteran's Memorial Bridge.<sup>227</sup> Original copies of the engineering drawings for this bridge were not available and very few photographs have been discovered (Figure 120).

#### Figure 120. Historic Photographs, Montgomery Bell Bridge

A. Aerial, Looking Northwest, 1930

B. Looking Southwest, 1945



- 225 "Bridge Work is Progressing," Ashland City Times, October 16, 1930; "New Bridge Near Completion," Ashland City Times, February 5, 1931, and March 26, 1931; "New Bridge Opened to the Public," Ashland City Times, May 14, 1931.
- the Public," Ashland City Times, May 14, 1931.
  Robert E. Corlew, "Montgomery Bell," Tennessee Encyclopedia of History & Culture, 2013, accessed March 28, 2013: <u>http://www.tennesseeencyclopedia.net/entry.php?rec=74</u>; "New Bridge Opened to the Public," Ashland City Times, May 14, 1931.
- 227 American Automobile Association. Southeastern Tour Book. Washington, DC, 1934: 118.



# UNBUILT BRIDGES

Three toll bridges approved in February and April 1929 were never completed due to the financial collapse of the Bank of Tennessee during the Great Depression. The U.S. Congress had approved their construction as part of Tennessee's Special Bridge Program for constructing toll bridges with matching federal funds. The TDHPW had initiated engineering drawings and had hired private contractors for grading and core drilling at the proposed river crossings. In July 1931, however, the State of Tennessee ceased funding of the TDHPW and all construction work came to a halt.

Under the leadership of Governor Henry Horton and his close political advisor Luke Lea, a former U.S. Senator known to many as the "de facto governor," the Bank of Tennessee had been heavily funded by Nashville banker Roger Caldwell, Lea's close friend and business associate. When the Caldwell and Company banking empire collapsed on November 7, 1930, the Bank of Tennessee went under. The ripple effect led to the collapse of several other major banks. By November 14, the Caldwell financial empire was in receivership. And within days, the State of Tennessee had lost \$6,659,000, leaving it in financial shambles.<sup>228</sup>

In response, Memphis political "boss" leader Edward H. Crump led the charge for investigations of Governor Horton and Luke Lea for political corruption. Crump and the anti-Horton group wanted to impeach Horton for numerous charges, including trading pardons and road projects for political favors. Lea along with many others, including his eldest son, was indicted in Asheville, North Carolina, for bank fraud. Crump nominated State Senator Scott Fitzhugh of Memphis as the new Speaker of the Senate (a toll bridge at Paris Landing was named for Fitzhugh). <sup>229</sup>

Governor Horton used public appearances, including dedication ceremonies at the new toll bridges, across the state to respond to Edward Crump and the political charges. At the dedication ceremony for the Marion Memorial Bridge at Haletown on May 16, 1931, Horton lambasted his accusers for nearly two hours. After a bitter fight, the impeachment charges were defeated. Governor Horton reputedly avoided impeachment by arranging sufficient votes in the legislature through pardons, political appointments, and prized road projects. As a result, Fitzhugh resigned as Speaker of the Senate. The Tennessee Legislature then turned its attention to guiding state government through the financial crisis. Gasoline taxes were increased in order to fund a \$5,000,000 bond issue and \$1,200,000 was diverted from the highway department into the general operating fund. Luke Lea

<sup>228</sup> David D. Lee. *Tennessee In Turmoil: Politics in the Volunteer State, 1920-1932.* Memphis: Memphis State University Press, 1979: 105-110, 115-116; Carver, 2008: 120.

<sup>229</sup> Lee, 1979: 105-110, 115-116; Carver, 2008: 120.

was eventually convicted on three of seven counts of bank fraud and sentenced to the North Carolina State Prison in Raleigh in May 1934. An independent audit proved his innocence; he was paroled in April 1936 and pardoned in 1937.<sup>230</sup>

In November 1930, the *Engineering News-Record* reported that the banking failure of Caldwell & Company in Tennessee would delay construction of three bridges, two "minor structures" in Middle Tennessee and a "proposed bridge over the Tennessee River near Dayton. At that time, the Highway Department Commissioner R.H. Banker reported that the "general road program of the state will not be interrupted."<sup>231</sup>

*Engineering News-Record* reported in July of 1931, however, that the failure to provide Highway Department funding would result in the "complete stoppage of new work by the middle or latter part of September, unless emergency measures can be taken in the meantime." According to the Highway Department Commissioner R.H. Baker, only current contracts would be fulfilled and thereafter income from the gasoline tax would and motor license fees would be "sufficient only for debt service and maintenance during 1931." The lack of funding would throw "from 4,000 to 5,000 men out of work in Tennessee this fall." The writers at the *Engineering News-Record* direly predicted that a "complete disorganization of the state highway engineering staff and field forces will be inevitable."<sup>232</sup>

The *Engineering News-Record* also stated, under the headline "Tennessee Stops Roadbuilding," that:

Threatened complete stoppage of state highway construction in Tennessee, due to the failure of the recently adjourned legislature to provide funds for continuing the program for the orderly completion of the state system, as is summarized in the news section of this issue, is of more serious import than the people of that state probably appreciate....This grave situation has arisen from a political fight in which the state highway department was the main point of attack. Whatever the merits of the two sides of this fight, or its causes, the fact remains that no evidence was brought out in the legislative investigation to warrant a conclusion that the highway affairs of the state had been conducted either dishonestly or inefficiently. Indeed, R.H. Baker, commissioner of highways and public works, conducted himself with such patience and ability under exceedingly harassing circumstances during the investigation as to convince many of the opposition that they were following the wrong leadership.

<sup>230</sup> Lee, 1979: 122-129; Carver, 2008: 120; Mary Louise Tidwell, "Luke Lea," *Tennessee Encyclopedia* of History & Culture, 2013, accessed May 15, 2013: <u>http://tennesseeencyclopedia.net/entry.php?rec=773</u>.

<sup>231 &</sup>quot;Bank Failure to Delay Bridge Construction in Tennessee," *Engineering News-Record*, November 20, 1930: 823.

<sup>232 &</sup>quot;Tennessee Faces Halt of Highway Construction in September," *Engineering News-Record*, July 16, 1931: 111-112.

In spite of this a minority in the legislature was able, in a jam at the end of the session, to prevent the passage of a bill that would have made available additional funds for construction. Since then there has rapidly developed a statewide sentiment for a special session of the legislature to correct the mistake that was made.

Whether any action will be taken in time to avoid the disastrous results of the cessation of all highway construction in the state remains to be seen. If not, traffic will not be long in finding it will be most seriously handicapped by the inability of the highway department to maintain the recently graded projects in even reasonable condition. Other results will probably be less evident to so large a percentage of the population, but in some ways they will be as vital. Hence it is to be hoped that the people of the state will demand promptly that the two political factions recognize how greatly Tennessee will be damaged by the stoppage of highway construction at this time and that they set aside their differences long enough to provide the funds necessary to continue the state's highway program at least until the partly finished links in the system are completed.<sup>233</sup>

The Tennessee Legislature did not reconvene and all new highway and bridge construction came to a halt. Work on the final three toll bridges ceased and did not resume. These toll bridges were located in rural areas of East and Middle Tennessee and are described more fully on the following pages of this report.



<sup>233 &</sup>quot;Tennessee Stops Roadbuilding," Engineering News-Record, July 16, 1931: 83.



Figure 121. Location Map, Washington Ferry, Rhea and Meigs Counties





## SPECIAL BRIDGE PROJECT NO. 18 SR-30 BRIDGE WASHINGTON FERRY, RHEA AND MEIGS COUNTIES



Intended to span the Tennessee River between the Rhea and Meigs county seats of Dayton and Decatur, this was designed as a Class B toll bridge in rural East Tennessee. The river serves as the county line. The bridge would have replaced the Washington Ferry, also known as the Hastings-Locke Ferry (NRHP, 1983), along State Route 30, an east-west highway connecting McMinnville with Etowah (Figure 121). State Route 30 was known locally as the Dayton-Decatur Road. Established in 1807, the ferry remained in operation until 1994 when TDOT constructed a steel girder bridge at this location.

In February 1929, the Tennessee Legislature included Washington Ferry on the list of four new toll bridges to be constructed with federal funds. The Washington Ferry location was number 18 on the list. On December 16, 1929, U.S. Congressman George Huddleston (1869-1960), a Democrat from Alabama and native of Middle Tennessee, who sat on the Committee on Interstate and Foreign Commerce, introduced Report No. 46 and Bill H.R. 3392 in the 71st Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the Dayton-Decatur Road. The U.S. War Department had previously reviewed and approved the request on August 19, 1929, as had the U.S. Department of Agriculture on November 1, 1929. An accompanying request was introduced on January 6, 1930, by U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, of the U.S. Senate Committee on Commerce. The location was not on a Federal-Aid highway as required; however, the U.S. Congress made an exemption and approved the request. On December 20, 1930, U.S. Congressman Huddleston introduced Report No. 2161 and Bill H.R. 14276 requesting a one-year extension to construct the bridge.234

On February 25, 1930, the State let a \$4,947.41 engineering contract to State Forces; work was completed September 20, 1930. On December 6, 1930, the State let a \$4,402.24 core drilling contract to Pennsylvania Drilling Company of Pittsburgh of Pittsburgh; work was completed on January 16, 1931. No additional construction work was completed for this toll bridge.<sup>235</sup>

<sup>234 &</sup>quot;Bridge Across Tennessee River on Dayton-Decatur Road, Tennessee," U.S. House of Representatives Report No. 46, December 16, 1929; "Bridge Across the Tennessee River on the Dayton-Decatur Road," U.S. Senate Report No. 115, January 6, 1930; "Bridge Across Tennessee River on the Dayton-Decatur Road Between Rhea and Meigs Counties, Tenn.," U.S. House of Representatives Report No. 2161, December 20, 1930.

<sup>235</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.



Figure 122. Location Map, Gallatin, Sumner and Wilson Counties





## SPECIAL BRIDGE PROJECT NO. 20 SR-109 BRIDGE GALLATIN, SUMNER AND WILSON COUNTIES



Intended to span the Cumberland River near Gallatin, this was designed as a Class A toll bridge in rural Middle Tennessee. The river serves as the dividing line between Sumner and Wilson Counties. Gallatin was founded in 1802 as the seat of Sumner County. The bridge would have replaced Woods Ferry, connected to Gallatin via South Waters Street, and served the proposed Gallatin-Martha Road, a north-south highway that became State Route 109 connecting Lebanon and Portland (Figure 122). Woods Ferry was just upstream from the Lock 4 Dam constructed by the U.S. Army Corp of Engineers at the turn-of-the-twentieth century. TDOT replaced Woods Ferry with a two-lane steel truss bridge in 1954; that bridge will soon be replaced with a new four-lane bridge currently under construction. In 1930, Gallatin had 3,050 people; today it counts over 31,000 and is part of the Nashville metropolitan area.<sup>236</sup>

In April 1929, the Tennessee Legislature included this location on the list of four new toll bridges to be constructed with federal funds. The Gallatin location was number 20 on the list. On January 6, 1930, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, of the U.S. Senate Committee on Commerce, introduced Report No. 106 and Bill H.R. 1188 in the 71<sup>st</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along the "projected Gallatin-Martha Road." The U.S. War Department had previously reviewed and approved the request on June 14, 1929, as had the U.S. Department of Agriculture on June 17, 1929. The location was not on the system of Federal-Aid highways as required, but the U.S. Congress made an exemption and approved the request. On April 2, 1930, U.S. Senator Dale requested a one-year extension.<sup>237</sup>

On January 16, 1930, the State let a \$4,322.59 core drilling contract to Mott Core Drilling Company of Huntington, West Virginia; work was completed February 18, 1930. No additional construction work was completed for this proposed toll bridge. TDOT constructed a bridge at this location in 1954. <sup>238</sup>

<sup>236</sup> WPA Guide to Tennessee. Nashville: Viking Press, 1939; republished by University of Tennessee Press, Knoxville, 1986: 368.

<sup>237 &</sup>quot;Bridge Across the Cumberland River," U.S. Senate Report No. 106, January 6, 1930; "Extending the Times for Constructing Certain Bridges in the State of Tennessee," U.S. Senate Report No. 291, April 2, 1930.

<sup>238</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.



Figure 123. Location Map, Fort Blount, Jackson County




# SPECIAL BRIDGE PROJECT NO. 21 SR-53 BRIDGE FORT BLOUNT, JACKSON COUNTY



Intended to span the Cumberland River at or near Fort Blount, this was designed as a Class A toll bridge in Jackson County in rural Middle Tennessee. The bridge would have served the Gainesboro-Granville Road, a north-south highway that became State Route 53 connecting Manchester with Kentucky (Figure 123). Dating from the 1790s, Fort Blount (NRHP, 1974) was a frontier fort and federal outpost located at the ferry where the Nashville-to-Knoxville road crossed the Cumberland River. The Fort Blount Ferry operated from 1791 until 1974. No bridges were ever constructed at this ferry site.<sup>239</sup>

In April 1929, the Tennessee Legislature included the Cumberland River crossing at Fort Blount in Jackson County on the list of four new toll bridges to be constructed with federal funds. The Fort Blount location was number 21 on the list, the very last toll bridge to be approved. On January 6, 1930, U.S. Senator Porter H. Dale (1867-1933), a Republican from Vermont, of the U.S. Senate Committee on Commerce, introduced Report No. 106 and Bill H.R. 1188 in the 71<sup>st</sup> Congress requesting consent from the U.S. Congress for the State of Tennessee to construct this bridge along "State Highway No. 53, at or near Fort Blount." The U.S. War Department had previously reviewed and approved the request on June 14, 1929, as had the U.S. Department of Agriculture on June 17, 1929. The location was not on the system of Federal-Aid highways as required, but the U.S. Congress made an exemption and approved the request. On April 2, 1930, U.S. Senator Dale requested a one-year extension.<sup>240</sup>

On May 21, 1930, the State let a \$116.00 engineering contract to State Forces; work was completed on August 20, 1930. On June 13, 1930, the State let a \$2,749.32 core drilling contract to Mott Core Drilling Company of Huntington, West Virginia; work was completed on July 22, 1930. No additional construction work was completed for this proposed toll bridge.<sup>241</sup>

<sup>239</sup> Benjamin C. Nance. "Fort Blount," *Tennessee Encyclopedia of History and Culture*. Nashville: Tennessee Historical Society, 1998: 323.

<sup>240 &</sup>quot;Bridge Across the Cumberland River," U.S. Senate Report No. 106, January 6, 1930; "Extending the Times for Constructing Certain Bridges in the State of Tennessee," U.S. Senate Report No. 291, April 2, 1930.

<sup>241</sup> Tennessee Department of Highways and Public Works, "Special Bridge Projects Completed," June 30, 1942.



# V. CONCLUSION

In February 1927, the federal government made available funds for constructing public toll bridges as part of the Federal-Aid Highway Act. In anticipation, in January 1927 the Tennessee Legislature created a Special Bridge Program for building 14 public toll bridges spanning major rivers across the state. The Special Bridge Program included legislation that enabled the TDHPW and Public Works to accept federal matching funds for building and operating the toll bridges. In April, the Legislature increased the number to 17 bridges. The majority of the bridges replaced existing privately-owned toll ferries.

In doing so, Tennessee became the first state in the country to take advantage of the available federal funds in establishing a statewide toll bridge program. Neighboring southern states soon followed Tennessee's lead, including Alabama and Arkansas in 1927 and Kentucky in 1929. Other states passed enabling legislation, but on a much smaller scale. California and New York used federal matching funds to construct monumental and expensive landmark toll bridges such as the George Washington Bridge in Manhattan.

Each of the Southern states implemented their toll bridge programs differently. Arkansas followed Tennessee's lead and passed enabling legislation in March 1927 for replacing privately-operated toll ferries with nine toll bridges. The authority of the Arkansas State Highway Commission to build public toll bridges was contested by lawsuits, but the Arkansas Supreme Court ruled in the state's favor. The highway commission hired Ford, Bacon & Davis to prepare feasibility studies for at least two individual locations. The remaining locations appear to have been selected based on need and decisions made by elected officials. Arkansas also purchased competing toll ferries to eliminate competition. Although tolls collected were insufficient to retire the original construction cost debt, Arkansas freed its toll bridges in 1938.

In August 1927, Alabama established a quasi-governmental authority to implement and oversee their statewide toll bridge program. The authority hired Ford, Bacon & Davis - a professional consulting firm from New York City - to prepare feasibility studies that recommended the best locations for toll bridges based on need, traffic counts, and costs. In 1928, the corporation hired private contractors from around the country to construct the 15 toll bridges simultaneously from 1929-1931. The tolls collected were sufficient to free the 15 toll bridges in 1938. Historical accounts indicate that Alabama operated the most professional and successful statewide toll bridge program. In 1928, the Kentucky Legislature passed enabling legislation for implementing a statewide toll bridge program for building 12 new bridges, including several intrastate bridges designed by nationally-prominent engineering firms. After withstanding several lawsuits, the federal government approved the program in August 1930. The toll bridges were constructed simultaneously from 1931-1932. Kentucky also acquired existing private toll bridges and freed them. Kentucky maintained its toll bridges with highway funds, increasing toll revenues. Kentucky was able to free its 12 toll bridges from 1941-1947 with toll revenues.

Unlike other states, the locations for Tennessee's toll bridge were based on need and decisions made by elected officials and highway commissioners. There is no evidence that professional consultants were hired to produce feasibility studies or recommendations based on traffic and cost analysis. One existing private toll bridge was purchased and immediately freed. The federal government required that federally-funded toll bridges be located on the system of Federal-Aid routes; however, approximately half of the toll bridges in Tennessee did not comply due to special exemptions granted by the U.S. Congress. The new bridges and accompanying toll houses were based on standardized designs created by engineers with the TDHPW and Public Works.

Set by the Tennessee Legislature, the toll rates were considered very hefty for travelers in rural areas where traffic was light. And, tolls were never collected tolls at two bridges. As a result, approximately half of Tennessee's toll bridges were unable to collect sufficient tolls to pay for annual maintenance and the salaries of toll collectors, much less pay down the original construction costs. In 1939, the Tennessee Legislature freed eight such bridges. Although several toll bridges located on heavily traveled intrastate highways were profitable, by 1946, the Special Bridge Program was over \$12,000,000 in the red. In 1947, the Tennessee Legislature decided to pay off the original construction bonds with monies from the general fund and free the remaining bridges.

The majority of Tennessee's toll bridges were treated as World War I memorials and named in honor veterans or those killed in action during World War I. Others were named after state employees and elected officials who were instrumental in creating the toll bridge program, private toll ferries that were replaced, or locally significant community leaders. In addition, the vast majority of documented stateemployed toll collectors were World War I veterans.

The federally-funded toll bridge programs in the South were short-lived. Based on research uncovered in this study, the most successful toll bridge program was located in Alabama, which was able to free the toll bridges after only eight years of operation. The last of Kentucky's toll bridges were freed after 15 years of

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operation. The toll bridge programs in Arkansas and Tennessee were the least successful in raising revenues, with their legislatures forced to free the toll bridges with monies shifted from general operating funds.

Today, most of the former toll bridges built in the South from 1927-1932 have been demolished and replaced. Only one remains in operation in Tennessee and it will soon be replaced with a modern bridge and preserved as a ruin. When built, the toll bridges were considered progressive and celebrated by local communities. The engineering designs were standardized so the bridges could be constructed efficiently and quickly. Dedication ceremonies were attended by elected officials, civic leaders, and thousands of local residents. The bridges replaced slow, unreliable, and often dangerous private toll ferries, which were reviled by the public. While the tolls were hefty, most small towns saw the toll bridges as vital for increasing tourism and tax revenues as well as industrial and commercial growth. When the bridges were eventually freed, local residents were equally as jubilant.

In many small towns, Tennessee's toll bridges were viewed as significant civic landmarks and icons. Local football teams in Loudon still fight the "Battle of the Bridge" each fall on the gridiron. Obion welcomes visitors to town with roadside signs incorporating a steel bridge truss symbolizing the abandoned toll bridge there, which is still used by local fishermen. An original steel truss from the toll bridge at Paris Landing is preserved as a picnic pavilion at a nearby state park. And, TDOT is in the processing of preserving the historic toll bridge at Kyles Ford as a ruin with a pedestrian viewing overlook and interpretive signage.

The 1927 federally-funded toll bridge program was controversial and short-lived. By the 1920s, tolls of any kind had dropped out of public favor. Many people did not feel that tolls should be charged for publically-funded infrastructure and threatened court battles. As a result, only a handful of states took advantage of the program and most were on a limited scale. Led by Tennessee, four adjoining Southern states implemented federally-funded toll bridge programs on a large scale. The need for new highway bridges in these states was great, particularly in rural communities along major rivers that spanned multiple counties and states. Bridges in these locations were expensive and local governments simply could not afford them. Meanwhile, state governments were spending vast sums of money on improving state highways.

While residents were reluctant to pay tolls, they realized that the federal toll bridge program may be the only way their communities would be able to obtain muchneeded bridges. Tennessee constructed 18 toll bridges, more than any other state. These 18 bridges provided safe, reliable, and speedy river crossings in rural areas and small towns with few transportation options. Their design, construction, maintenance, and operation provided jobs for local residents. The bridges opened up communities for commercial and industrial development as well as tourism. Made of concrete and steel, the bridges became beloved community icons. For many in Tennessee, achieving these goals indicated the federal toll bridge program was a success.

SBP No.	Name	County	City/Town	Status
5	Joseph B. Adkinson	Obion	Obion	Bridge, abandoned
6	Edward R. Talley	Hancock	Kyles Ford	Bridge, in use
13	Scott Fitzhugh	Henry	Paris Landing	Truss, preserved in park
14	Calvin John Ward	Roane	Kingston	Toll House, private residence
15	Nathan J. Harsh	Wilson	Lebanon vic.	Toll House, private residence
17	Marion Memorial	Marion	Haletown/Jasper	Bridge, dismantling process

Table 4. List of Tennessee's Remaining Toll Bridges and Toll Houses in 2014



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