NPS Form 10-900
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United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only

received OCT 14 1986

date entered NOV 20 1986

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Sparkman Street Bridge

and/or common Shelby Street Bridge (Preferred)

2. Location

street & number over Cumberland River at Shelby Street N/A **not for publication**

city, town Nashville N/A **vicinity of**

state Tennessee **code** 047 **county** Davidson **code** 037

3. Classification

Category	Ownership	Status	Present Use	
___ district	X public	X occupied	___ agriculture	___ museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
X structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	N/A being considered	X yes: unrestricted	___ industrial	X transportation
		___ no	___ military	___ other:

4. Owner of Property

name Richard Fulton, Metropolitan Mayor
Metropolitan Government of Nashville and Davidson County

street & number 107 Metropolitan Courthouse

city, town Nashville N/A **vicinity of** **state** Tennessee 37201

5. Location of Legal Description

courthouse, registry of deeds, etc. Davidson County Courthouse

street & number Public Square

city, town Nashville **state** Tennessee

6. Representation in Existing Surveys

title Tennessee Department of Transportation Bridge Survey **has this property been determined eligible?** ___ yes X ___ no

date 1986 ___ **federal** X ___ **state** ___ **county** ___ **local**

depository for survey records Department of Transportation - Polk Building

city, town Nashville **state** Tennessee

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	___ unaltered	___X original site
___ good	___ ruins	X altered	___ moved date _____
X fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Sparkman or Shelby Street Bridge is located over the Cumberland River in downtown Nashville in Davidson County. The bridge is comprised of 48 spans, which include three through pin connected Pratt trusses, one deck Pratt truss, and two reinforced concrete truss spans. It is one of four downtown highway bridges (not including two interstate bridges) over the Cumberland River connecting the downtown business area on the west side of the river with the later residential and commercial developments which occurred on the east side. The bridge was designed by Howard M. Jones and erected in 1907-09 by the Foster-Creighton-Gould Company for Davidson County. The Shelby Street Bridge is currently owned by the Metropolitan-Davidson County government and is located on the Federal-Aid Urban System. The bridge maintains its basic integrity and is open for vehicular traffic.

The Shelby Street Bridge is a substantial bridge 3,150feet in length. The primary spans of the Shelby Street Bridge are three through (high) trusses over the Cumberland River. Each of these spans is a steel pin-connected truss, all defined in 1909 by the project's engineer Howard Jones as being the "pin-connected Pratt truss type, with inclined top chords." Each of these truss spans is a variation of the basic Pratt design: span 23 is a through 321-foot Parker and is flanked by spans 22 and 24 each of which is a 178-foot through Camelback truss. Span 30 is an inverted deck 100-foot Pratt which is now enclosed within one of the buildings owned by the Nashville Bridge Company. The Nashville Bridge Company, a privately owned company, was founded in 1902 on the east bank of the Cumberland River. In 1907 when the Shelby Street Bridge was erected, the Nashville Bridge Company was situated near enough to the river so that the new bridge could be built above the manufacturing complex. Over time the Nashville Bridge Company has grown and expanded under and around the structural supports of the bridge. The Nashville Bridge Company is an interesting example of an early twentieth century manufacturing complex and its physical proximity and relationship to the Shelby Street Bridge is unique. However, the Nashville Bridge Company did not play a role in the development or design of the Shelby Street Bridge and for that reason the Nashville Bridge Company complex was not included in this nomination.

Perhaps the most unique feature of the bridge is the two reinforced concrete truss spans (spans 20 and 21) on the west end. The overall length of these spans are 97 and 92 feet; each contains three identical trusses lying parallel to each other. These "six" trusses are on a skew and thus vary in length. An article in a 1909 issue of Engineering Record described the two spans as the "most interesting feature" of the bridge. From a structural standpoint, the article stated that the "bottom chords act as ties to take the horizontal components of the end thrusts of the arched top chords." This article further stated that one-tenth of the arch area was steel rods with the concrete acting as a stiffener and as a protective covering for the steel. Thus, these two spans are technically trusses and partially function as trusses, but they also distribute the forces within the span as an arch does.

As for the approach spans, spans 1 (beginning on the west end) through nineteen, spans 25 through 29, and spans 31 through 48 are concrete deck girders. All of the girder spans rest on concrete bents with the exception of span 10 (over Third Avenue South), span 31, and span 47 (over South First Street) which rest on concrete piers. All of the remaining spans rest on concrete piers.

The bridge was designed with a forty-foot paved roadway within the trusses to be flanked by a ten-foot sidewalk on the outside of each truss. This still holds true with the bridge containing three traffic lanes (the middle lane reversible at peak traffic hours). Between spans 21 and 22 (the western-most steel truss) there is a $76^{o}/14^{o}$ skew as the bridge realigns to tie into the existing street pattern. There are concrete steps from the bridge down to the ground level west of Third Avenue South, east of Second Avenue South, and east of First Avenue South.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian	
___ 1700–1799	___ art	X engineering	___ music	___ theater	
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	X transportation	
X 1900–	___ communications	___ industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates 1907-1936 **Builder/Architect** Howard Jones - chief engineer and Foster-Creighton-Gould - Contractors

Statement of Significance (in one paragraph)

The Shelby Street Bridge, historically known as the Sparkman Street Bridge is one of Nashville's best examples of modern technology and engineering at the turn of the century. The enterprising project by the Foster-Creighton-Gould Company of Nashville, and led by Chief Engineer Howard Jones, included innovative engineering techniques and use of materials in previously untested ways. The unusual bridge trusses made of reinforced concrete gave the bridge engineering prominence both statewide and nationally. Upon completion in 1909, the Shelby Street Bridge provided a new means of crossing the Cumberland River and accelerated Nashville's transition from a town to a large city with satellite suburbs, most notably in East Nashville. The fact that the bridge is still in full service today carrying rush hour traffic, with no weight limitations for trucks, is testimony to the success of the design and method of construction. The bridge is,therefore,nominated to the National Register under criteria A and C for its significance in the development of Nashville's transportation routes and for its engineering design.

At the turn of the century Nashville was experiencing rapid growth. In the thirty years between 1880 and 1910 the population of Nashville expanded from 40,000 to 110,000, making Nashville one of the fastest growing cities in the South. During the same period, the way in which Nashvillians moved about their city was also going through a period of transition. The first automobile appeared on the streets of Nashville in 1897 and by 1910 over 1000 automobiles were registered. Along with the electric street car lines, downtown Nashville was reaching out to the suburbs. At the time only one bridge, the Woodland Street bridge, connected downtown with East Nashville. Constructed of iron in 1886, it had been built as a gift to the City of Edgefield when they agreed to be annexed by Nashville in 1879. By 1905,the Woodland Street Bridge had become so congested that the Davidson County Government passed a resolution to investigate the idea of a second bridge to connect downtown with East Nashville. A debate quickly ensued as to where the second bridge should be located. Downtown merchants lobbied for a new bridge at the foot of Broadway, while residents of North Edgefield insisted that a location north of the Woodland Street Bridge was the only logical choice. In the end both factions got their wish; the Shelby Street Bridge was built to the south of Woodland Street, and the Jefferson Bridge was built to the north one year later.

In 1907, the Foster-Creighton Company was awarded the commission to build the Shelby Street Bridge. Until that point, the Foster-Creighton Company had only built a few railroad bridges on a much smaller scale. The company gained later notoriety and fame by rebuilding the Parthenon from Nashville's Centennial celebration in 1931. In an effort to gain bridge building experience and expertise, the firm sold one third of their contract to Gould Construction Company of Louisville, Kentucky, and in the process gained an accomplished partner. Thus formed, the Foster-Creighton-Gould Company commenced work on the Shelby Street Bridge in 1907.

9. Major Bibliographical References

See attached continuation sheets.

10. Geographical Data

Acreage of nominated property 4.3 acres

Quadrangle name Nashville West, Tennessee **Quadrangle scale** 1:24000

UTM References

	Zone	Easting	Northing
A	16	520500	4001740
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

The boundaries for the Shelby Street Bridge include the bridge's substructure, superstructure, and abutments. The bridge's dimensions are 3150 ft. 4in. by 60 ft. Not included within the boundaries of the Shelby Street Bridge is the Nashville Bridge Company building which,

List all states and counties for properties overlapping state or county boundaries

state	N/A	**code**	N/A	**county**	N/A	**code**	N/A
state	N/A	**code**	N/A	**county**	N/A	**code**	N/A

11. Form Prepared By

name/title Mark A. Sturtevant, Historic Preservationist I

organization Metropolitan Historical Commission **date** July, 1986

street & number 701 Broadway, Customs House, Rm. B-20 **telephone** (615) 259-5027

city or town Nashville **state** Tennessee 37203

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___ state X local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

Deputy
State Historic Preservation Officer signature Herbert L. Harper

title Executive Director, Tennessee Historical Commission **date** 10/1/86

For NPS use only

I hereby certify that this property is included in the National Register

for Nelson Bryer Entered in the National Register **date** 11-20-86

Keeper of the National Register

Attest: **date**

Chief of Registration

GPO 911-399

The commission for chief engineer went to Howard Jones, a native of Murfreesboro, Tennessee, who studied engineering at Vanderbilt University, Nashville, Tennessee, and at Union College in Schnectady, New York. Jones had gained experience designing railroad bridges primiarly for the Nashville Chattanooga and St. Louis Railroad. Later accomplishments include one other bridge in Nashville which carries White Bridge Road across the Louisville and Nashville Railroad tracks and a large reinforced concrete chemical plant for the Niagara Alkali Company at Niagara Falls, New York. Jones died in 1924.

The unique feature and source of attention in the design, by Jones, were the six reinforced concrete trusses. In his memoirs Wilbur Creighton, Sr., credits them as an "original design." The bridge called for a design of extreme strength for it had been decided that the bridge would carry street car lines as well as automobiles. At the outset there was considerable skepticism whether the unusual trusses could withstand the weight. To prove his point, Jones had a eleven foot model built, one tenth the size of the longest truss. The model was then loaded with bricks intending to test the model to its destruction. When the load reached 17,000 pounds it became topheavy and it was decided that the test had been satisfactory.

The Shelby Street Bridge took nearly two years to complete. The bridge, 3150 feet in length, was built by inexperienced laborers, many of which were ex-convicts or parolees. Inmates from the state pententiary were paroled to form one hundred-man gangs, each gang with a foreman. The work was strenuous and dangerous, four men died during construction and countless other suffered injuries. The bridge was officially opened July 5, 1909; on that day Robert Creighton and his wife were the first to cross the bridge in an automobile.

Since 1909 the Shelby Street Bridge has served as one of four bridges linking downtown with East Nashville. Except for paving and routine maintanance, the bridge has withstood the years unaltered. Much of the credit for its longevity can be attributed to the innovative design by Jones and its construction to withstand the weight of street cars, although none ever crossed the bridge. The bridge also established the Foster Creighton Company as accomplished builders and engineers, a reputation they still enjoy. Today the bridge stands as a reminder of highly innovative engineers and builders, and as a point of significant development and growth in Nashville's history.

The Tennessee Department of Transporation is currently conducting a state-wide inventory of pre-1940 metal truss bridges. This survey is broken down into multi-county units known as development districts. The Mid-Cumberland District, in which the Shelby Street Bridge is located, is composed of thirteen counties. The Mid-Cumberland district contains 106 metal truss bridges of which thirteen have Parker trusses as their main spans. Staff members from the Tennessee Department of Transportation and the State Historic Preservation Office met Decmeber 3, 1985 and tentatively identified fifteen of these bridges as potentially eligible for the National Register primarily due to their engineering significance as representative bridge types.

Included on this list of fifteen bridges were two Parker truss bridges, one of which was the Shelby Street Bridge. The Shelby Street Bridge is significant due to its representative nature as a Parker truss bridge, a once common but increasingly rare bridge type in the area. During the survey, no concrete trusses, such as those used on this bridge as secondary spans, have been identified in the state. Archival research indicates that this truss type was rarely built. Thus, the Shelby Street Bridge is also significant as a rare survivor of a seldom used truss design.

Government Records

Davidson County, Tennessee. Quarterly Court Minutes. Books F, G. and H.

Tennessee. Acts of the State of Tennessee Passed by the Fifty-Fourth General Assembly 1905. Chapter 526.

_____. Acts of the State of Tennessee Passed by the Fifty-Fifth General Assembly 1907. Chapter 95.

_____. Acts of the State of Tennessee Passed by the Fifty-Sixth General Assembly 1909. Chapter 80.

Tennessee Department of Transportation. "Bridge Inspection Report for Bridge #19-3245-1.47 (Shelby Street Bridge)."

_____. "Bridge Inspection Report for Bridge #19-3258-0.40 (Jefferson Street Bridge)." 1981

_____. "Bridge Inspection Report for Bridge #19-457-1.80 (Shelby Street Bridge)." 1981.

Periodicals

"Construction Methods on Two Highways Bridges, Nashville, Tenn." Engineering Record 59 (February 13, 1909): 181-185.

Creighton, W. F. "Concrete Work on Sparkman St. Bridge, Nashville, Tenn." Engineering News 61 (February 25, 1909): 199-201.

"The Sparkman and Jefferson Street Bridges, Nashville, Tennessee." Engineering Record 59 (February 6, 1898): 144-145.

Newspaper Articles

"A New Bridge." Nashville Banner, July 5, 1905, p. 4.

"April Term County Court." Nashville Banner, April 1, 1907, p. 7.

"Bridge Committee of the Council." Nashville Banner, June 6, 1907.

"Bridge Opens for Traffic." Nashville American, July 6, 1909, p. 6.

"Bridges." Nashville Banner, June 15, 1907. p. 7.

"Bridges Across the Cumberland." Nashville Banner, May 22, 1909, Part II, p. 7.

"Bridges Approved by Two Committees." Nashville Banner, June 7, 1907, p. 2.

"Bridges Will Cost Million: Squires Vote to Build Them Anyway." Nashville Banner, April 2, 1907, p. 10.

"Broadway Bridge Opens Monday." Nashville Banner, July 3, 1909, p. 8.

"Broadway Bridge Thrown Open to Public Travel." Nashville Tennessean, July 6, 1909, p. 1.

"Condemnation Bridge Property." Nashville Banner, July 11, 1907, p. 9.

"County Bridge Bonds are Sold." Nashville Banner, July 29, 1907, p. 5.

"County Court Extra Session?" Nashville Banner, July 24, 1907, p. 9.

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"Criminal Court and Jail Bonds." Nashville Banner, August 5, 1907, p. 10.

"Details of the New Bridges." Nashville Banner, April 2, 1907, p. 9.

"Fatal Accident on New Bridge." Nashville Banner, September 2, 1908, p. 3.

"Formal Opening of New Bridge." Nashville Banner, April 4, 1910, p. 9.

"Greater Bridge Facilities." Nashville Banner, November 5, 1906, p. 4.

"Hustling on New Bridges." Nashville Banner, July 12, 1907, p. 1.

Letter to the Editor, Nashville Banner, October 1, 1905, p. 4.

"Magnificent Equipment of Public Utility Enterprise." Nashville Banner, May 22, 1909, Part II, p. 5.

"McGavock Street Bridge Will Be Opened Today." Nashville Tennessean, July 5, 1909, p. 1.

"New Bridge Will Last Forever." Nashville American, July 5, 1909, p. 1.

"No Increase in Taxation for Davidson County." Nashville Tennessean, July 7, 1909, p. 1.

Nolen, Janice E. " ' Home-Made Goods' Built to Last Forever: The Shelby Street and the Jefferson Street Bridges in Nashville, Tennessee." Middle Tennessee State University, Murfreesboro, Tennessee, 1983.

Norman, Jack, Sr. "Remember the Hay Market." Nashville Banner, December 16, 1982, p. A-19.

"Old Davidson Democratic." Nashville Banner, November 7, 1906, p.1.

Pettus, Allen. "Bridge Troubles Traced Back to Faulty Limestone." Nashville Tennessean, April 17, 1949, p. 14-A

"Preliminary Bridge Drawings." Nashville Banner, April 13, 1908, p. 6.

"Sparkman Street Bridge More Than Half Done." Nashville Banner, September 5, 1908, Part II. p. 10.

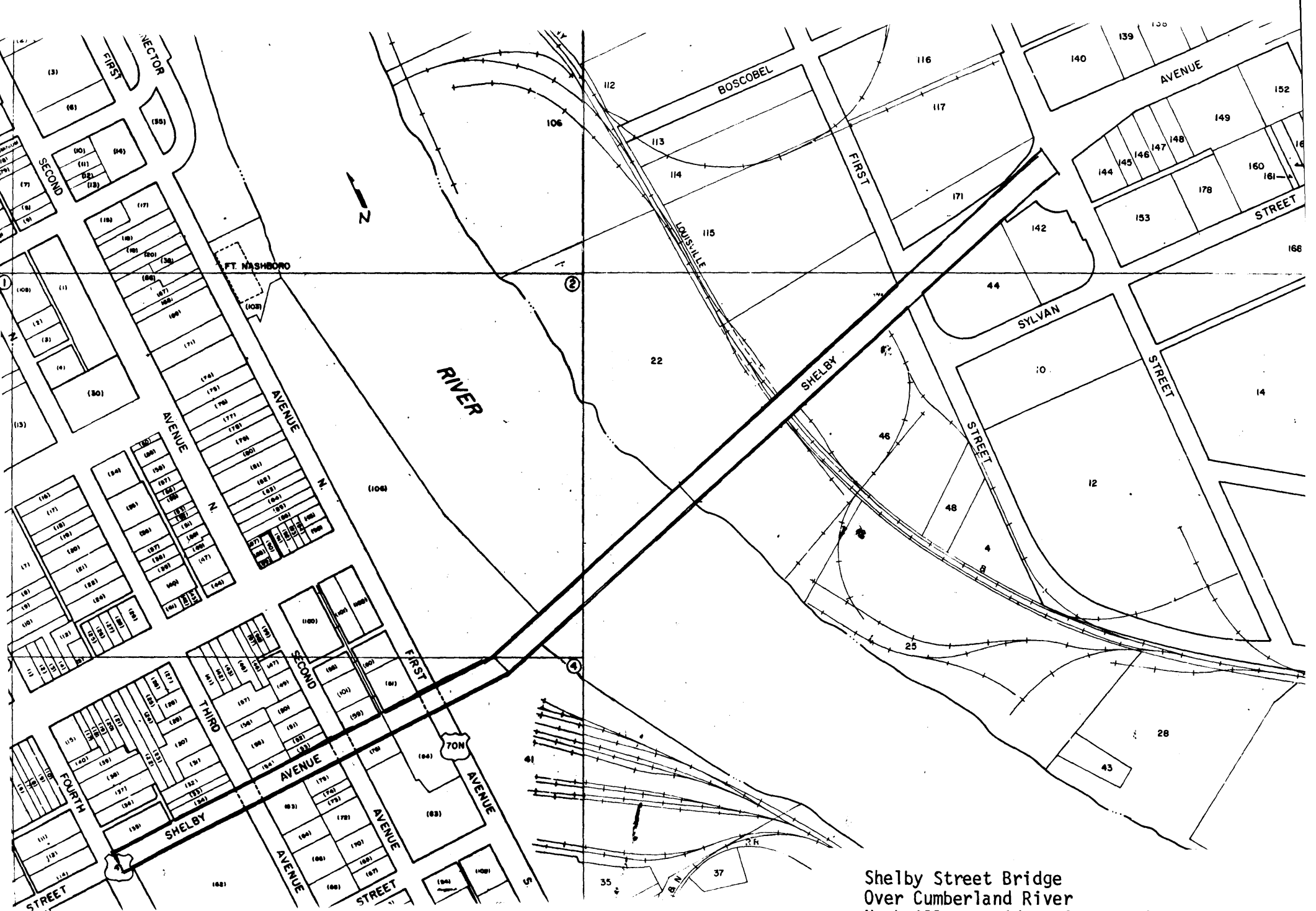
"Splendid New Bridge Thrown Open Across the Cumberland River." Nashville Banner, July 5, 1909, p. 1.

"The Proposed New Bridge.." Nashville Banner, October 2, 1905, p. 6.

"Will Ask For Enabling Act." Nashville Banner, January 28, 1905, p. 6.

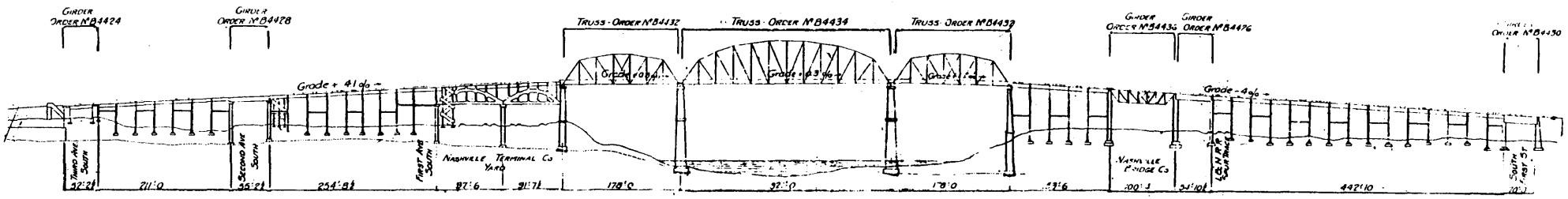
"Working for Two Bridges." Nashville Banner, November 5, 1906, p. 1.

over time.has expanded under and around the structural supports of the bridge. Although the physical proximity and relationship of the Nashville Bridge Company building to the Shelby Street Bridge is unique, it is not structurally attached nor did the Nashville Bridge Company play a role in the development or design of the bridge and for that reason is not included within the boundaries.



Shelby Street Bridge
Over Cumberland River
Nashville, Davidson County, Tennessee

Tax Map



SPARKMAN STREET BRIDGE

Shelby Street Bridge
Over Cumberland River
Nashville, Davidson County, Tennessee

Sectional Drawing of Bridge