

**Saluda 1 Bridge**

Spanning the Saluda River on South Carolina  
Route 39 at the Newberry (and Saluda County) Line  
Chappells ~~Ferry~~ Vicinity  
South Carolina

HAER No. SC-21

HAER  
SC,  
36-CHAP. V,  
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
Southeast Regional Office  
National Park service  
U. S. Department of the Interior  
Atlanta, Georgia 30303

HISTORIC AMERICAN ENGINEERING RECORD

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Location: Spanning the Saluda River on South Carolina Route 39 at the Newberry and Saluda County Line, Chappells ~~Ferry~~ Vicinity, South Carolina

UTM: 17.420350.3781630  
Quad: Chappells

Builder/Designer: Roanoke Iron and Bridge Works, Roanoke, Virginia

Date of Construction: 1930

Present Owner: South Carolina Department of Highways and Public Transportation  
Drawer 191  
Columbia, South Carolina 29202

Present Use: Vehicular Bridge

Significance: The bridge on South Carolina Route 39, identified as Saluda 1 in the South Carolina Department of Highways and Public Transportation's Metal Truss Highway Bridge Inventory, is one of 148 metal truss bridges remaining in South Carolina. It is one of seven structures having a Warren through truss design with polygonal upper chord. Its significance is derived from the architectural design and integrity of the structure, in addition to being situated near Chappells ferry, an important ferry crossing in the early 1800s. It was determined eligible for listing in the National Register on November 26, 1982.

Project Information: This documentation was undertaken in November 1987, in accordance with the Memorandum of Agreement with the South Carolina Department of Highways and Public Transportation as a means to mitigate the replacement of this metal truss bridge.

Compiler: Paul F. Embler  
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Drawer 191  
Columbia, South Carolina 29202

The Saluda 1 metal truss bridge is a Warren through truss with polygonal upper chord and rigid joints. The length of the main span metal truss structure is 200 feet, while the concrete approach spans total 945 feet. The width of the main span is 20.2 feet. The bridge was constructed in 1930 by the Roanoke Iron and Bridge Works, Roanoke, Virginia. It is one of seven Warren through trusses originally constructed in the State having polygonal upper chords and one of only a few metal truss bridges having a bridge plate.

The structure is also one of 170 metal truss bridges identified in the S. C. Department of Highways and Public Transportation's Metal Truss Highway Bridge Inventory, compiled by Clemson University in December 1981. Approximately 149 of these structures currently remain in use.

Figure 1 on page 3, shows the location of the bridge in relation to other metal truss bridges originally identified in the statewide inventory. The bridge is identified as Saluda 1 in the inventory and is one of four metal truss bridges located in Saluda County and represents one of the less common structural designs identified in the inventory. Figure 2, on page 4, displays a bar chart which reflects the distribution of various metal truss designs within the State. A listing of the various type structures identified in the State inventory can be found on pages 5 through 7 with builders listed on pages 8 through 10.

Saluda 1 bridge is located near Chappell's Ferry, which is documented in the 1826 Mills' Atlas. The Upper Savannah Historical Survey also shows the existence of Chappell's Ferry (Saluda County Historical Site No. 1) and describes it as follows:

"Chappell's Ferry was established before the Revolutionary War. It is said to have been operated by Kit Carson's grandfather. The Ferry is located at Chappells-Saluda Crossing, not far from where the earlier Cherokee Trail is crossed by the later roads from Charles Towne, Orangeburg, Batesburg, Mt. Willing, Chappells and Ninety Six."

#### References cited

Mills, Robert

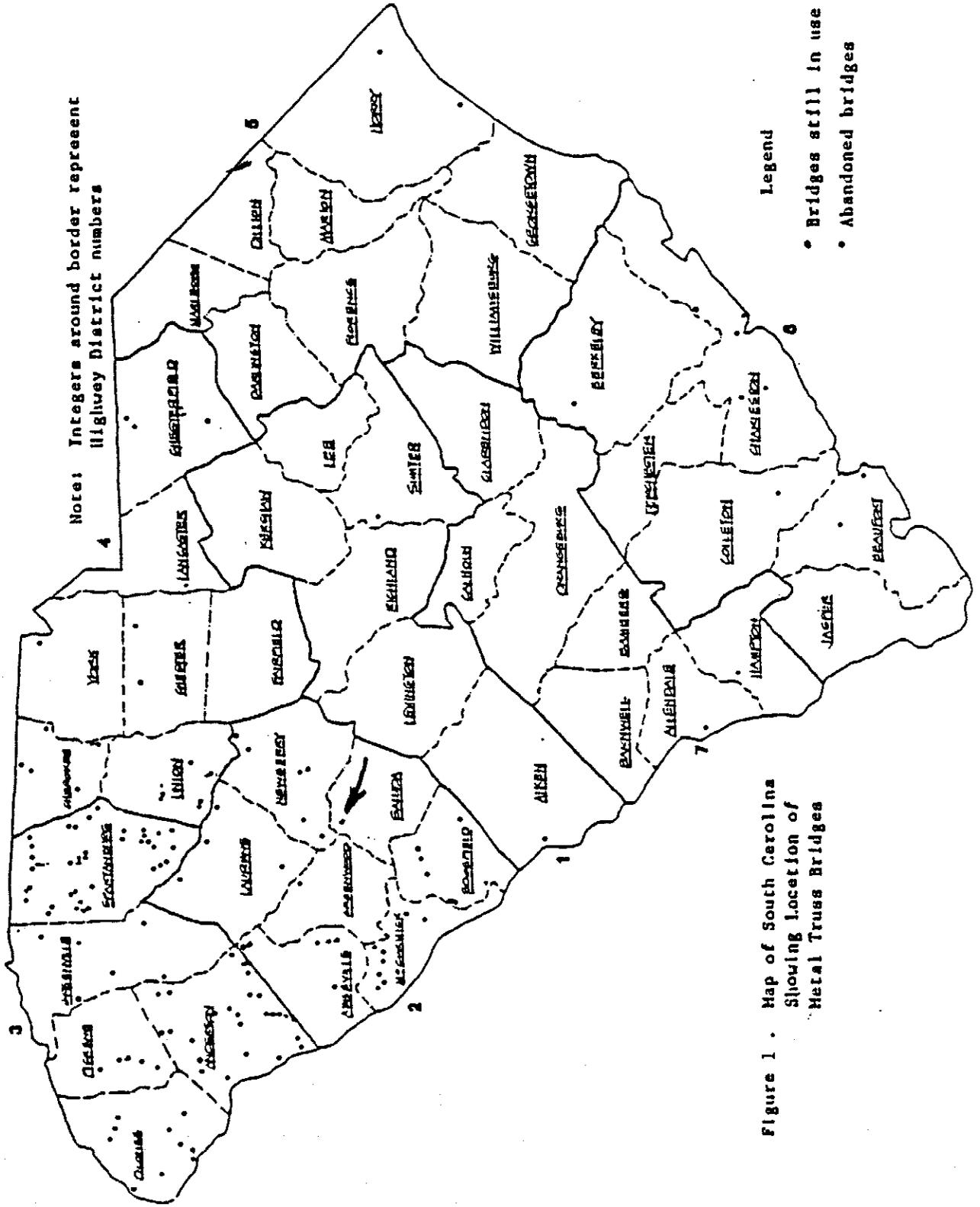
1965 Mills' Atlas of the State of South Carolina. Reprinted, Robert Pearce Wilkens and John D. Keels, Jr., Columbia, S.C., originally published, 1825.

Patterson, Leon, Chairman, Upper Savannah Regional Planning and Development Council

1972 Upper savannah Historical Program, prepared for the South Carolina Department of Archives and History, Columbia.

Clemson University

1981 Metal Truss Highway Bridge Inventory, prepared for the S. C. Department of Highways and Public Transportation, Columbia, S.C.



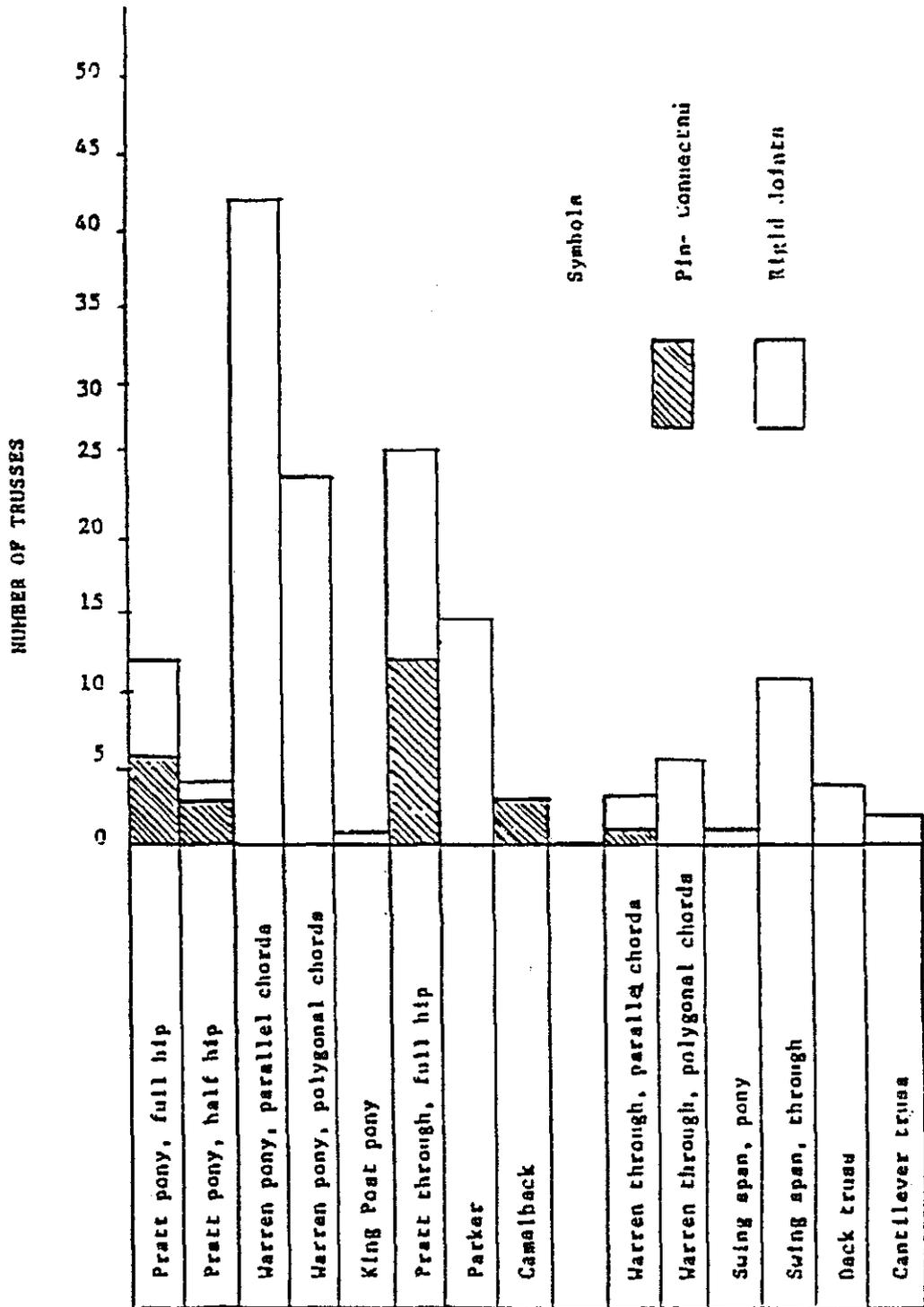


Fig. 2 Bar Chart Showing Truss Distribution in South Carolina





Table 3 Identification of Swing Spans, Deck Trusses, and Cantilever Spans

<u>Swing Spans</u>		<u>Deck Trusses</u>		<u>Cantilever Spans</u>	
<u>Pratt or Warren truss, Feet through</u>	<u>Length Feet</u>	<u>Pratt, Rigid</u>	<u>Length, Feet</u>	<u>Warren, Rigid</u>	<u>Length Feet</u>
		Aiken 1	180	Charleston 1-A	1050
				Charleston 1-B	760
		Total = (1)		Total = (2)	
		<u>Parker, Rigid</u>			
		Berkeley 1	171		
		Total = (1)			
		<u>Warren, Rigid</u>			
		Aiken 1	180		
		Charleston 1-A	90		
		Total = (2)			
Allendale 3	248				
Beaufort 2	248				
Charleston 4	248				
Charleston 5	248				
Horry 1	217				
Horry 2	217				
McCormick 4	200				
Anderson 6	194				
Union 3	182				
Beaufort 1	172				
Charleston 6	172				
Total = (11)					
<u>Warren, Pony</u>					
Charleston 3	156				
Total = (1)					

Table 5 Bridge Builders in South Carolina (as determined from bridge plates)

Company Name	Bridge Identification	Date	Bridge Description
Austin Brothers Atlanta, Georgia	McCormick 6	1909	141' pin-connected Pratt through truss
"	McCormick 2	1927	200' Warren through truss
"	McCormick 3	?	152' Parker through truss
"	Saluda 4	1930	61' Warren pony truss
Atlantic Bridge Co. Charlotte, NC	McCormick 5	1920	137' Pratt through truss
"	Spartanburg 1	1922	120' Pratt through truss
"	Georgetown 1	1925	187' Parker through truss
Atlantic Bridge Co. Greensboro, NC	Newberry 2	1928	121' Pratt through truss
"	Chesterfield 2	1928	77' Pratt pony truss
Atlantic Bridge Co. Roanoke, Virginia	Spartanburg 2	1924	204' Warren through truss
"	Spartanburg 12	1924	63' Pratt pony truss
Greenville Steel and Foundry Company Greenville, SC	Spartanburg 17	1928	61' Warren pony truss
"	Saluda 2	1930	202' Warren through truss
"	Laurens 5	1930	71' Warren pony truss
"	Anderson 16	1936	61' Warren pony truss
"	Anderson 2	1938	45' Warren pony truss
"	Anderson 5	?	81' Warren pony truss

Company Name	Bridge Identification	Date	Bridge Description
Roanoke Iron and Bridge Works, Roanoke, VA " " " " "	Union 1	1925	143' Parker through truss
	Edgefield 4	1925	150' Parker through truss
	Greenwood 1	1926	168' Parker through truss
	Edgefield 5	1927	150' Parker through truss
	Saluda 1	1930	200' Warren through truss
	Laurens 2	1930	106' Warren pony truss
"	Spartanburg 3	1932	100' Pratt through truss
Virginia Bridge and Iron Co., Roanoke, VA. " " " Virginia Bridge Co. Roanoke, VA "	Spartanburg 28	1913	102' Pratt through truss
	Aiken 1	1922	178' Parker through truss
	Charleston 2	1924	150' Swing span
	Horry 1	1935	217' Swing span
	Beaufort 1	1938	172' Swing span
	Charleston 6	1939	172' Swing span
Vincennes Steel Corp. Vincennes, Indiana "	Allendale 3	1938	248' Swing span
	Beaufort 3	1938	274' Swing span
Southern Engineering Co., Charlotte, NC	Spartanburg 33	1924	100' Warren through truss
Bethlehem Fabricators, Inc., Bethlehem, PA	Horry 2	1935	217' Swing span
Georgia Bridge and Iron Co. Atlanta, Ga.	Spartanburg 11	1947	101' Warren pony truss
	Spartanburg 26	1954	108' Warren pony truss
Carolina Steel and Iron Co., Greensboro, N.C.	Edgefield 1	1936	106' Warren pony truss

Company Name	Bridge Identification	Date	Bridge Description
Converse Bridge and Steel Co., Chattanooga, Tenn.	Cherokee A-1	1916	80' Pratt pony truss
McClintic-Marshall Co. Pittsburgh, PA	Charleston 1-A	1928	1050' cantilever through truss
No Company Name on Bridge Plate	Edgefield 3	1912	122' pin-connected Pratt through truss
"	Greenville 7	1924	43' Warren pony truss