the passage of the Centennial Road Law and the Federal Aid Highway Act, the creation of a separate bridge bureau strengthened the Missouri State Highway Department's efforts to expand and standardize highway bridge design. Many of these standard designs are still in use today.

Eads Bridge
St. Louis

A Survey of Missouri Bridges

Fraser's statewide historic bridge inventory study encompassed about 11,000 bridges and grade separations, which included several bridge types erected before 1951: concrete slabs, concrete girders, concrete arches, timber stringers, timber trusses, metal stringers, metal girders, metal trusses, metal arches, suspensions and masonry arches. Of these, approximately 400 bridges are on the Missouri Historic Bridge List and are eligible for inclusion to the National Register of Historic Places (NRHP). Copies of Fraser's 1996 draft *Missouri Historic Bridge Inventory* can be consulted at three locations in Jefferson City: MoDOT's Cultural Resources Unit at 601 West Main Street, the State Historic Preservation Office (SHPO) at 115 East High Street, and the Federal Highway Administration (FHWA) regional office at 206 Adams Street.

ome Bridge History

toric bridges in Missouri, the term ively refers to both public and highway, railroad and pedestrian , and culverts. The study of bridges gy. Though architects have aluable input into the design of ally bridge building has been the d craftsmen as well as academically s. The Romans organized bridge loyed skilled workers to perfect the rch to support roads and developed the first concrete and erdams to form bridge footings ater levels. In 1779, the first all- bridge was constructed at England, spanning 100 feet across . In 1816 the world's first wire e was built over the Schuylkill River In 1839 the oldest existing all-metal , was built on the Cumberland Road ennsylvania.

of railroad technology to the United evolutionized transportation, it also idge design. The first railway bridge by the Baltimore and Ohio (B&O) , was a wooden arch design. Most p to 1840 were carpenters who e construction as a trade. But wood In 1845, the first iron railway bridge uilt by the Philadelphia and Reading

ed the nation's first steel bridges. built from 1867 to 1874 spanning iver at St. Louis features tubular granite faced limestone piers. Also, eel bridge in Missouri and the United lasgow Bridge, built in 1879 by the n Railroad across the Missouri arried over to highway bridges as ame more prevalent. In 1921, after

Since the mid-1800s a host of innovative designs were applied to bridge construction on railroad lines. Many of these designs, along with some newer designs, were carried over to highway bridges as automobiles became more prevalent.

Some Br

Some Bridge History

In addressing historic bri "bridges" collectively refe privately owned highway bridges, viaducts, and cu is called Pontology. Tho provided much valuable bridges, traditionally brid business of skilled craft trained engineers. The building and employed s structural stone arch to s aqueducts. They develo poured it into cofferdams below existing water leve metal (cast iron) bridge w Coalbrookdale, England, the River Severn. In 181 suspension bridge was b in Philadelphia. In 1839 bridge in the U.S. was bu in Brownsville, Pennsylva

The introduction of railro States not only revolution revolutionized bridge des in the U.S., built by the E Railroad in 1830, was a bridge builders up to 184 considered bridge constr was flammable. In 1845, in the U.S. was built by t Railroad.

Missouri produced the na The Eads Bridge built fro the Mississippi River at S steel arches and granite the earliest all-steel bridg States was the Glasgow Chicago and Alton Railro River. Approximately 80 used in the structure. It

Since the mid-1800s a h were applied to bridge co Many of these designs, a designs, were carried ov automobiles became mo

Bridge at Coalbrookdale, England

Historic Bridge Reuse

The Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) encourages all states to rehabilitate, reuse and preserve historic bridges to be affected by highway projects. Historic bridges must be made available to state and local governments, and to private groups and individuals.

MoDOT, the Missouri counties, and some Missouri cities advertise the availability of historic bridges in magazines, newspapers and on the Internet. They are advertised for reuse in place, or at a new location.

In most cases, recipients must agree to maintain the features that make a bridge historic, and assume all future legal and financial responsibility.

Historic bridges are not "sold" to recipients; they are given away. However, potential recipients must show that they are capable of maintaining an historic bridge in accordance with established standards for historic bridges.

Money in amounts up to 80 percent of the estimated cost of standard demolition may be available for preservation of an historic bridge in place, or at a new location. Enhancement funds may also be available.

Interested parties must submit an acceptable proposal within a designated time frame. All proposals are reviewed by MoDOT, the Federal Highway Administration (FHWA), and the State Historic Preservation Office (SHPO).

MoDOT's Historic Preservation Unit maintains a list of available historic bridges in Missouri. The list is updated at least once a year.

Need a Bridge? Contact MoDOT.

This brochure was prepared to fos understanding of historic bridges i recognize MoDOT's attention to h involved in highway projects. For on historic bridges consult the follo

Condit, Carl W. *American Buildin Techniques from the First Colo the Present.* Chicago, IL: Uni Press, 1982.

Delony, Eric. *Landmark America* York, NY: American Society o 1993.

Fraser, Clayton B. *Missouri Histo* Loveland, CO: FraserDesign,

Hayden, Robert. *Suspension Brid Osage River.* U.S. Army Corp Kansas City, MO: 1980.

National Cooperative Highway Research Program *A Context for Common Historic Bridge Types,* 2005.

Acknowledgements:
MoDOT Historic Bridge Coordinator Randy Dawdy developed this brochure. MoDOT Senior Cartographer Sue Olson, and MoDOT Architectural Historians Karen Daniels, Sandy Marshall, and Toni Prawl provided assistance.

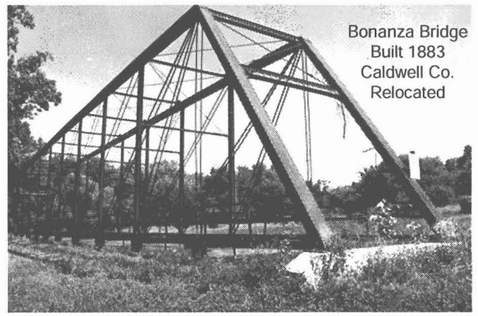
For Additional Information Contact:
Missouri Department of Transportation,
Historic Preservation Unit,
573/526-3597 or
toll free 1-888-ASK-MODOT (275-6636)
www.modot.org

HISTORIC BRIDGES AND TRANSPORTATION PROJECTS IN MISSOURI

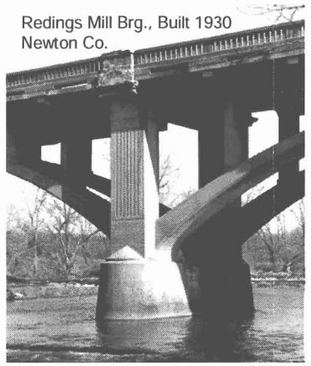
Swan Creek Bridge, Built 1952, Taney County

Swan Creek Bridge, Built 1932, Taney County

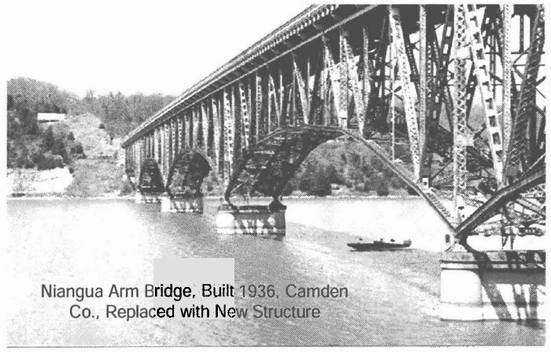
MISSOURI HISTORIC BRIDGE MOSAIC

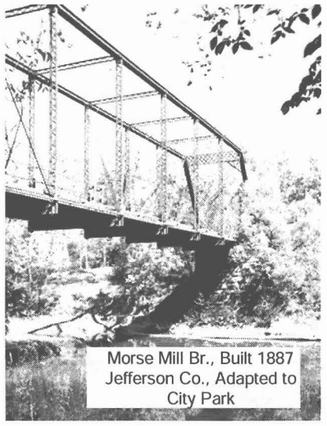

Bonanza Bridge
Built 1883
Caldwell Co.
Relocated

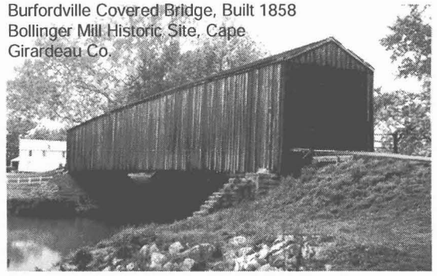
Relocated Riverfront Park Bridge, Built 1879, Buchanan Co.

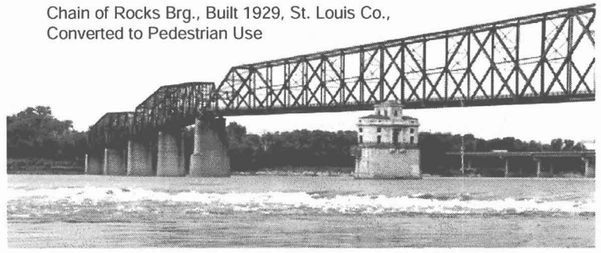

Redings Mill Brg., Built 1930
Newton Co.

Otter Cr. Br., Built 1875, Caldwell Co.

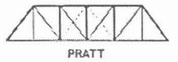

Niangua Arm Bridge, Built 1936, Camden Co., Replaced with New Structure

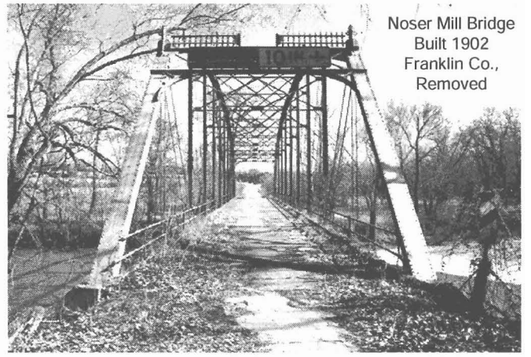

Morse Mill Br., Built 1887
Jefferson Co., Adapted to City Park

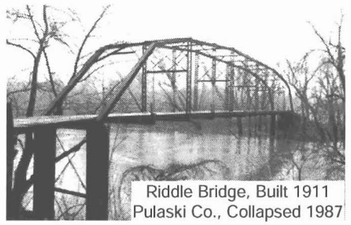

Burfordville Covered Bridge, Built 1858
Bollinger Mill Historic Site, Cape Girardeau Co.


Chain of Rocks Brg., Built 1929, St. Louis Co.,
Converted to Pedestrian Use

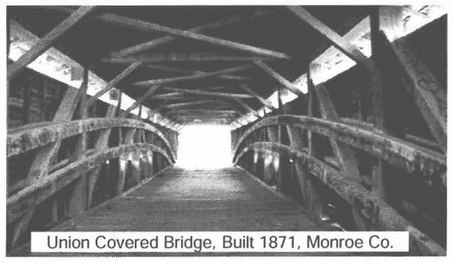
Ramp F Overpass, Built 1949, Kansas City
Rare Concrete Rigid Frame

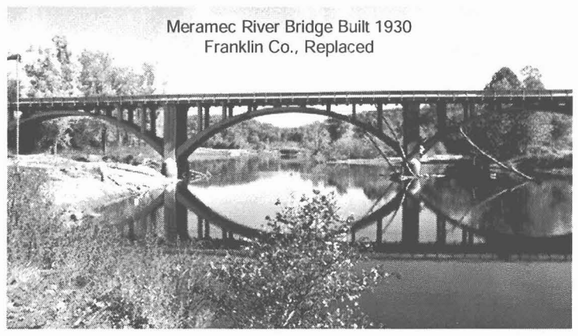

PRATT

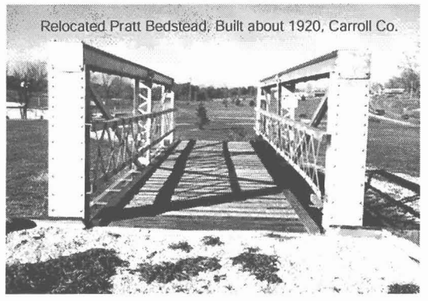

Noser Mill Bridge
Built 1902
Franklin Co.,
Removed

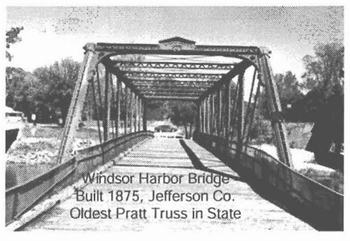

Riddle Bridge, Built 1911
Pulaski Co., Collapsed 1987

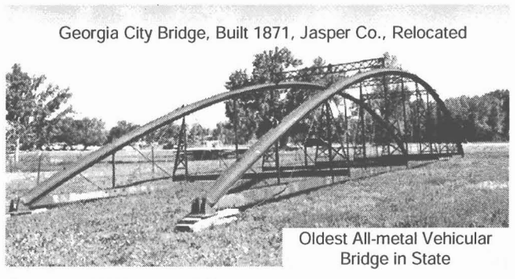
BURR ARCH TRUSS


Union Covered Bridge, Built 1871, Monroe Co.

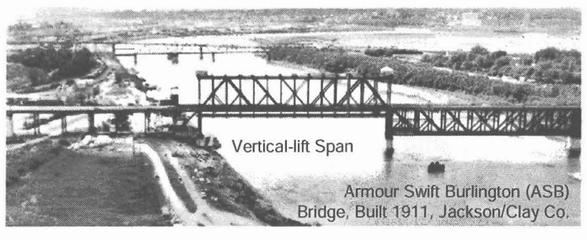

Meramec River Bridge Built 1930
Franklin Co., Replaced


Relocated Pratt Bedstead, Built about 1920, Carroll Co.

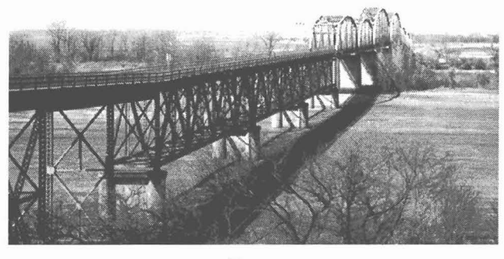

Windsor Harbor Bridge
Built 1875, Jefferson Co.
Oldest Pratt Truss in State

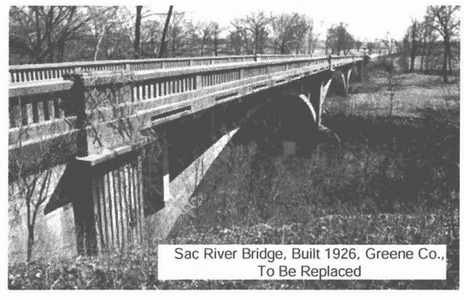

Georgia City Bridge, Built 1871, Jasper Co., Relocated

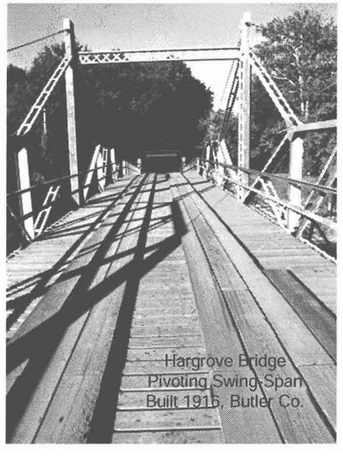
Oldest All-metal Vehicular Bridge in State

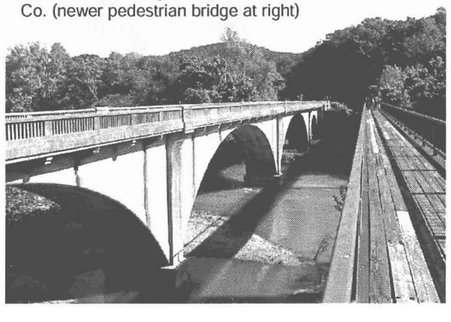

Vertical-lift Span

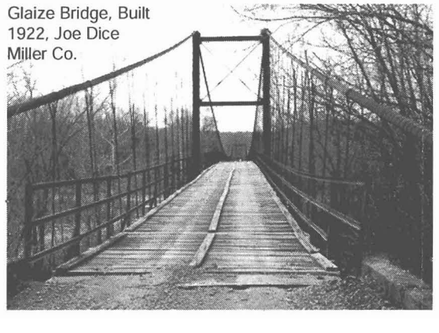
Armour Swift Burlington (ASB) Bridge, Built 1911, Jackson/Clay Co.

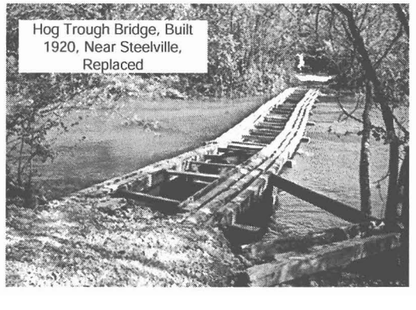

Lexington Bridge, Built 1925, Ray/Lafayette Co., To Be Replaced

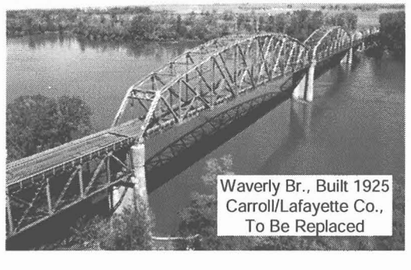

Sac River Bridge, Built 1926, Greene Co.,
To Be Replaced


Hargrove Bridge
Pivoting Swing Span
Built 1915, Butler Co.


Current River Bridge, Built 1924, Shannon Co. (newer pedestrian bridge at right)


Glaize Bridge, Built
1922, Joe Dice
Miller Co.


Hog Trough Bridge, Built
1920, Near Steelville,
Replaced


Waverly Br., Built 1925
Carroll/Lafayette Co.,
To Be Replaced

KING POST

Upper Bridge, Built
1928, Joe Dice
Benton Co.