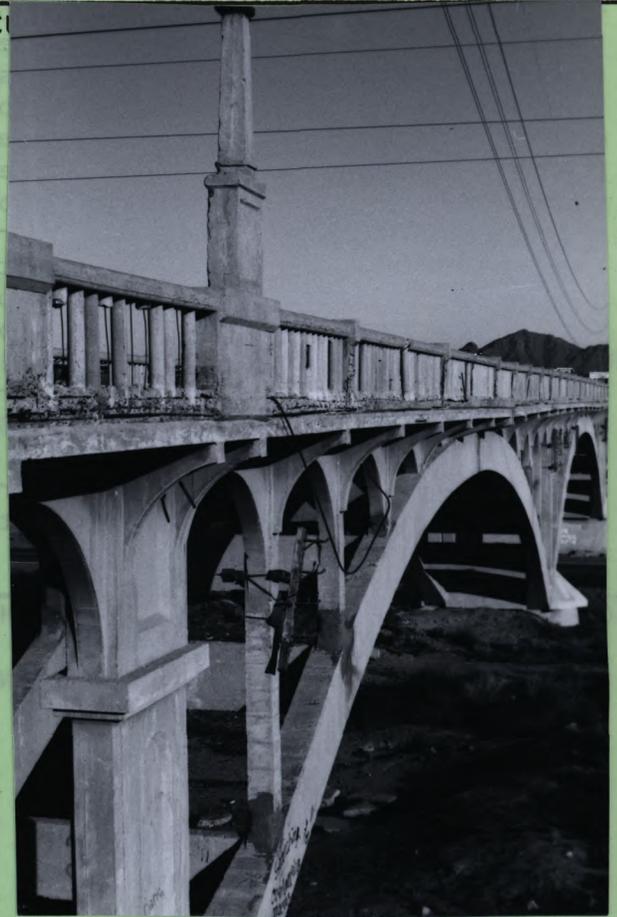


ARIZONA STATE HISTORIC PROPERTY INVENTORY

HISTORIC PROPERTY NAME Tempe Concrete Arch Highway Bridge		COUNTY Maricopa	INVENTORY NO. 227
COMMON PROPERTY NAME		QUAD/COUNTY MAP	
PROPERTY LOCATION-STREET & NO. Intersec: Mill Avenue & Salt River			
CITY, TOWN/VICINITY OF Tempe		ASSESSOR'S PARCEL NO. NA	
OWNER OF PROPERTY S. P. Railroad/City of Tempe		PHONE	
STREET & NO./P.O. BOX One Market Place			
CITY, TOWN San Francisco		STATE California	ZIP
FORM PREPARED BY Janus Associates, Inc.		DATE 12/82	
STREET & NO./P.O. BOX 2121 South Priest Suite 127		PHONE 967-7117	
CITY, TOWN Tempe		STATE Arizona	ZIP 85282
PHOTO BY Tempe Historical Society		DATE 1983	
VIEW looking west			
HISTORIC USE transportation			
PRESENT USE abandoned		ACREAGE 1.5 A	
ARCHITECT/BUILDER			
CONSTRUCTION/MODIFICATION DATES Built 1911			



PHYSICAL DESCRIPTION

The Tempe concrete arch highway bridge is an 11-span reinforced concrete open spandrel rib arch bridge that crosses the Salt River at Tempe. The design for the Tempe bridge employs ten piers anchored to the bedrock below the streambed. Every third pier was constructed on a solid bottom concrete abutment type. The intermediate piers were anchored on two concrete filled steel cylinders six feet in diameter driven into the bedrock. There are ten 125' long open spandrel rib arches and each consists of two three-hinged segmented arch ribs placed 13' on center. The reinforced concrete deck is carried by 12" x 12" concrete spandrel columns placed 11' on center and connected at the top by semicircular spandrel arches. On the exterior side of the spandrel columns are semi-spandrel arch brackets cantilevered out from the columns to carry the curb and deck ballustrades. It was designed to carry a 15-ton tractor engine and a live load of 100 pounds per square foot.

STATEMENT OF SIGNIFICANCE/HISTORY

The Tempe Concrete Arch Bridge, built 1911-1913, is the oldest surviving multiple arch concrete bridge in Arizona. It is also significant as one of the first major bridges built by the Territory of Arizona and as the first large highway bridge across the Salt River. As the first automobile bridge between Phoenix and Tempe, this structure provided a vital link between Phoenix and communities to the south. It has also been significant in the development of Tempe during its two decades of service as a major highway route across the river.

In 1909, the State of Arizona began to develop a north-south highway system, and the need for a bridge at the Salt River became apparent. That year, the Territorial Legislature appropriated funds for the construction of a highway bridge at Tempe. Preliminary work began in the spring of 1911 on an alignment approximately 500 feet east of the 1905 Arizona Eastern Railroad bridge. When construction began in 1911, labor was provided by prisoners from the Arizona Territorial Prison at Florence. Although convict labor had been used on earlier projects, this bridge is one of the last remaining examples of construction accomplished under that system. Although Roosevelt Dam was completed in 1911, flooding of the Salt River was still a fairly common experience, and periodic repairs (1916, 1920, 1925) were necessary, to maintain safe conditions on the bridge. By the late 1920s, automobiles became wider, heavier, and more numerous, stressing the structure beyond its design limits. In 1928, the Arizona Highway Department recommended the construction of a new river crossing, and in 1931, when the new structure was complete, the 1911 bridge was closed to all but pedestrian traffic.

SOURCES OF ABOVE INFORMATION/BIBLIOGRAPHY

National Register of Historic Places Nomination

GEOGRAPHICAL DATA/LEGAL DESCRIPTION/VERBAL BOUNDARY DESCRIPTION

"Nominated boundaries shall consist of a line, and all the area 20' either side of a line, between Points A & B. This will create a rectangle 1,508' long and 40' wide. The structure lies within this rectangle."

Tempe Quad

North End Point B Z-12,E-412420, N-3699720

South End Point ~~BA~~ Z-12,E-412460, N-3699280

GENERAL COMMENTS/FUTURE PLANS FOR PROPERTY

The bridge is presently being nominated to the National Register.