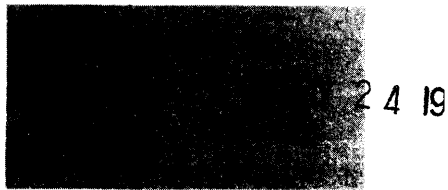


**United States Department of the Interior  
Heritage Conservation and Recreation Service**

**National Register of Historic Places  
Inventory—Nomination Form**

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



**1. Name**

historic Tower Bridge RECEIVED  
and/or common Tower Bridge / M Street Bridge / Capitol Avenue Bridge MAR 15 1982

**2. Location**

street & number State <sup>CA</sup> Highway 275 across the Sacramento River not for publication  
city, town Sacramento vicinity of congressional district 3 and 4  
state California code county Yolo/Sacramento <sup>(also in</sup> County) code 113/067

**3. Classification**

<b>Category</b>	<b>Ownership</b>	<b>Status</b>	<b>Present Use</b>
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture <span style="margin-left: 100px;"><input type="checkbox"/> museum</span>
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial <span style="margin-left: 100px;"><input type="checkbox"/> park</span>
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational <span style="margin-left: 100px;"><input type="checkbox"/> private residence</span>
<input type="checkbox"/> site	<b>Public Acquisition</b>	<b>Accessible</b>	<input type="checkbox"/> entertainment <span style="margin-left: 100px;"><input type="checkbox"/> religious</span>
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input checked="" type="checkbox"/> yes: restricted	<input type="checkbox"/> government <span style="margin-left: 100px;"><input type="checkbox"/> scientific</span>
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial <span style="margin-left: 100px;"><input checked="" type="checkbox"/> transportation</span>
	<input checked="" type="checkbox"/> n/a	<input type="checkbox"/> no	<input type="checkbox"/> military <span style="margin-left: 100px;"><input type="checkbox"/> other:</span>

**4. Owner of Property**

name California Department of Transportation (CALTRANS)  
street & number 1120 N Street  
city, town Sacramento vicinity of state California

**5. Location of Legal Description**

courthouse, registry of deeds, etc. CALTRANS Office of Structures Maintenance  
street & number 1120 N Street, Room 3303  
city, town Sacramento vicinity of state California

**6. Representation in Existing Surveys**

title Caltrans/Office of Historic Preservation Survey of Pre-1935 State Highway Bridge, 1978-80 has this property been determined eligible?  yes  no  
date 1978-80 federal  state county  local  
depository for survey records Caltrans Headquarters Environmental Planning/  
California Office of Historic Preservation  
city, town Sacramento vicinity of state California

# 7. Description

<b>Condition</b>		<b>Check one</b>	<b>Check one</b>
<input checked="" type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		date _____

### Describe the present and original (if known) physical appearance

The Tower Bridge consists of a steel through truss vertical lift span, and steel through truss and reinforced concrete and steel plate deck girder approach spans. The bridge rests on reinforced concrete piers, reinforced concrete seat abutment, and reinforced concrete cantilever and gravity wall abutments. The piers and abutments are founded on reinforced concrete piles, untreated Douglas fir piles, and treated Douglas fir piles. Piers 6 and 7 are founded on concrete footing blocks in addition to piles. The bridge's eight spans total 738 feet in length, 54 feet in width, and carry four traffic lanes between steel channel railings, crossing the Sacramento River with no skew.

As built, the bridge carried the single track main line of the Sacramento Northern Railway on its centerline, flanked by single traffic lanes, and sidewalks. In mid-1963 the railroad tracks, median, and railroad switching and locking mechanisms were removed as the Sacramento Northern railway had obtained trackage rights to use the Southern Pacific Railroad's nearby tracks over the I Street Bridge. Earlier alterations had consisted of removal of the Sacramento Northern's overhead trolley wire and supporting span wires when the railroad switched from electric locomotives to Diesel locomotives. These alterations, however, caused little change in the physical appearance of the bridge. The bridge was repainted in the mid-1970s, as a local Bicentennial project and its current color is an inappropriate (architecturally) ochre. The concrete pylons long ago lost their blue color, and are now simply the weathered gray of exposed concrete.

# 8. Significance

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

**Specific dates** 1934-1936 **Builder/ARCHITECT** A. Teichert & Son, Inc.

**Statement of Significance (In one paragraph)**

The Tower Bridge was constructed between 1934 and 1936 to replace the Sacramento Northern's M Street Bridge. This earlier span, constructed in 1911-12, consisted of a 400-foot center bearing swing through truss span, with 125-foot through truss approach spans. When open, the bridges provided a 162-foot clear opening for navigation. It carried the railway's main line through the center of the truss, while a single traffic lane was cantilevered from each side of the bridge. Serving its purpose well for twenty years, increasing traffic made it apparent that a new bridge was necessary. For while the old bridge was structurally sound, it was slow to open and close, and the traffic lanes were too narrow. With recent legislation enabling the State to enter into agreements with railroad companies, on March 8, 1934 the State, the two affected counties, and the railroad completed an agreement whereby the railroad relinquished all rights to the old bridge, in return for a franchise to operate over the new bridge until the expiration of its old franchise on March 21, 1960.

On July 20, 1934, work started with completion of the new main piers the first effort. With this portion of the work completed, work started in September for the construction of a detour bridge to carry the railroad across the river during the period between the removal of the old bridge and the completion of the Tower Bridge. The detour bridge (highway traffic was detoured over the I Street Bridge) consisted of steel plate deck girder spans, with a wooden Howe truss lift span supported by wooden towers, all on wooden piles. This was completed and opened to railroad traffic on February 4, 1935. Work to remove the old bridge began that same day and was completed by March 11, 1935. On March 15 work began on the erection of structural steel for the new bridge. Work on the lift span began on June 25, and by September 17, 1935 it was lowered to its normal position (in order to keep the navigation channel open, it was necessary to construct the lift span in the raised position). Work began on the decks, and the first train rolled across the bridge on November 7, 1935. Shortly thereafter, the contractor finished the railings and the concrete pylons at the end of the bridge which carried the span wires to support the railroad's trolley wire. On December 15, 1935, a grand dedication was held, and the bridge was formally completed and accepted on January 11, 1936.

At the time of its completion, the Tower Bridge carried transcontinental traffic as well as traffic between San Francisco and Portland. It also served as the gateway to the State capitol, with the west front of the capitol building directly east of the bridge down M Street (today Capitol Mall). With such an important site, an aesthetically pleasing design for the new bridge was clearly in order, and the Bridge Department of the Division of Highways found a suitable answer. This was accomplished mainly by sheathing the trussed lift span towers in bolted and riveted quarter-inch plate steel, creating a streamlined effect. Even the cross-bracing of the towers was

# 9. Major Bibliographical References

Panhorst, F.W., Supplemental Final Construction Report of a Steel Truss and Lift Span Bridge Constructed Across the Sacramento River in the Counties of Sacramento and Yolo near Sacramento on road III-Yol-Sac-6-C-Sac, Contract 614TC10 & 614MC1, NRH&M 158 A&D (unpublished report), dated April 26, 1937.

# 10. Geographical Data

Acreeage of nominated property less than 1

Quadrangle name Sacramento West

Quadrangle scale 1:24,000

### UMT References

A 

1	0	6	3	0	0	6	0	4	2	7	0	1	0	0
Zone			Easting				Northing							

B 

Zone			Easting				Northing						

C 

Zone			Easting				Northing						

D 

Zone			Easting				Northing						

E 

Zone			Easting				Northing						

F 

Zone			Easting				Northing						

G 

Zone			Easting				Northing						

H 

Zone			Easting				Northing						

### Verbal boundary description and justification

The property consists of 738 linear feet of State Highway 275 crossing the Sacramento River between Yolo County (on the west) and Sacramento County (on the east), with the width of the property defined by the physical width of the bridge and its piers.

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

state California code 06 county Yolo code 113

state California code 06 county Sacramento code 067

# 11. Form Prepared By

name/title John W. Snyder, M.A., Architectural Historian

organization N/A

date January 22, 1981

street & number 3429 Wemberley Drive

telephone 916/487-6472

city or town Sacramento

state California

# 12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national  state  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 Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature *W. M. Egan*

title State Historic Preservation Officer

date 12/7/81

### For HCRS use only

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

William H. Aramian

date 6-24-82

Keeper of the National Register

Attest: *Patricia A. ...*

date 6/23/82

Chief of the National Register

for/

**NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY -- NOMINATION FORM**

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so treated, a feature which would appear later on the towers of the suspension spans of the San Francisco-Oakland Bay Bridge. The streamlined verticality of the towers, from which the bridge naturally took its name, was echoed in the concrete pylons which supported the railroad's trolley wire system. It was this striking architectural treatment that allowed the bridge to receive both local and international recognition almost immediately; and for years the crossing of the Tower Bridge, indeed even the sight of it in approaching, told millions of travellers that they were entering the State capitol. Architecturally, the design team of the Bridge Department, with the aid of the State Architect, selected what is best described as restrained Streamlined Moderne, as seen in the sheathed towers and concrete pylons. And in a period when most bridges were painted black, a special work order was written, with consent of the U.S. Bureau of Public Roads, to allow the bridge to be painted with aluminum paint, which silver color was entirely in keeping with the architectural style of the bridge--a style which bespeaks of modernity, speed, smoothness, and chrome (or, in this case, a silver color akin to chrome or stainless steel). Even the concrete pylons were originally finished in a cement paint called "Bondex". This paint was light blue in color and, when dry, was very much like the aluminum color of the bridge proper.

In terms of engineering, the Tower Bridge was not unique in general overall terms. The vertical lift bridge as a type dates to the nineteenth century, with a few examples dating as early as the 1870s. However, the first large modern vertical lift bridge was built in Chicago in 1893-94. The Tower Bridge is a span drive type bridge, a type developed by the early years of the 20th century. In this type bridge, the operating machinery is located in the operator's house on the lift span (the other type of vertical lift bridge is the tower drive, requiring two sets of operating machinery located in the supporting towers). In engineering detail, however, the Tower Bridge offers some significant developments. Unlike most lift bridges, the front and back legs of the towers are parallel (rather than having the outside legs angled, or "battered"). This allowed the unique Streamlined Moderne verticality of the design, achieved through the sheathing of the towers. In addition, the deck of the bridge was formed of a special lightweight concrete developed for the San Francisco Bay Bridge. This lightweight deck utilized steel reinforcement welded to form Warren trusses. This was a special steel supplied by the Columbia Steel Company, and fabricated by the Western Pipe and Steel Company of San Francisco, which company was also fabricating deck units for the Bay Bridge. These units were electrically welded prior to shipment, and this prefabrication allowed rapid and easy placement on the job site. Other noteworthy engineering features included such purely aesthetic design features as the sheathing of the bracing in the towers to screen the counterweights when the bridge is closed, and the necessity of hinging the overhead trolley wire, since the counterweights descended to a position below the wire level when the lift span was opened.

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The Tower Bridge possesses integrity of location, setting, materials, workmanship, feeling, and association. Integrity of design has been only slightly compromised by the removal of the railway and its associated elements from the bridge, and by its repainting in the mid 1970s. The current color of the bridge is an inappropriate (architecturally) ochre, while the concrete pylons are now simply the weathered gray of exposed concrete.

At the time of its completion, the Tower Bridge was the first and only vertical lift span bridge on the California Highway System.

In 1936, the Tower Bridge was awarded national recognition when it took second place in Group B (bridges costing between \$250,000 and \$1,000,000) in the annual national competition held in New York by the American Institute of Steel Construction, Inc. The bridge was so selected from among 31 entries. The Tower Bridge was the only bridge in the West to win an award in 1936, and was the first lift span bridge so honored.

STATEMENT OF EXCEPTIONAL SIGNIFICANCE

The Tower Bridge is an outstanding example of the Moderne styling of the 1930's applied to a utilitarian structure. The monumental, twin-towered structure is strongly reminiscent of contemporary Wellsian images of the gleaming, streamlined, towered city of the future. The application of the futuristic image which pervaded design during the 1930's transformed an otherwise utilitarian structure into an outstanding expression of the social and architectural climate of the period.

The Tower Bridge opened as a major transportation link in US Highway 40 with considerable fanfare in 1935. Governor Merriam drove the first automobile across the bridge, which also carried the Sacramento Northern interurban electric rail- way lines into the city from the San Francisco Bay Area. Shortly after its completion the Tower Bridge was judged the nation's "most beautiful lift bridge". For thirty years the bridge served as the main gateway to the Capital City. It remains a key element in the urban landscape, forming the western visual terminus of the Capitol Mall, balancing the State Capitol building on the east.

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Hovey, Otis Ellis, B.S., C.E., Movable Bridges, New York, John Wiley & Sons, Inc., 1926.

Knight, A.W., M.E., B.Sc, A.M.I.E. (Aust.), An Investigation of the Design, Construction and Operation of Lift Bridges in the United States of America and Canada in 1937, Tasmania, Public Works Department, 1937.

\_\_\_\_\_, Bridge Inspector's Manual for Movable Bridges, Washington, D.C., U.S. Department of Transportation, 1977.

Johnson, H.C., Revised Original Report, Sacramento River (Tower Bridge) (unpublished report), dated March 30, 1976.

Panhorst, F.W., "New 'M' Street Bridge at Sacramento to be Under Construction in Spring," California Highways And Public Works, August 1934.

Douglas, W.A., "Progress on M Street Bridge at Sacramento Promises Opening in Fall," California Highways And Public Works, May 1935.

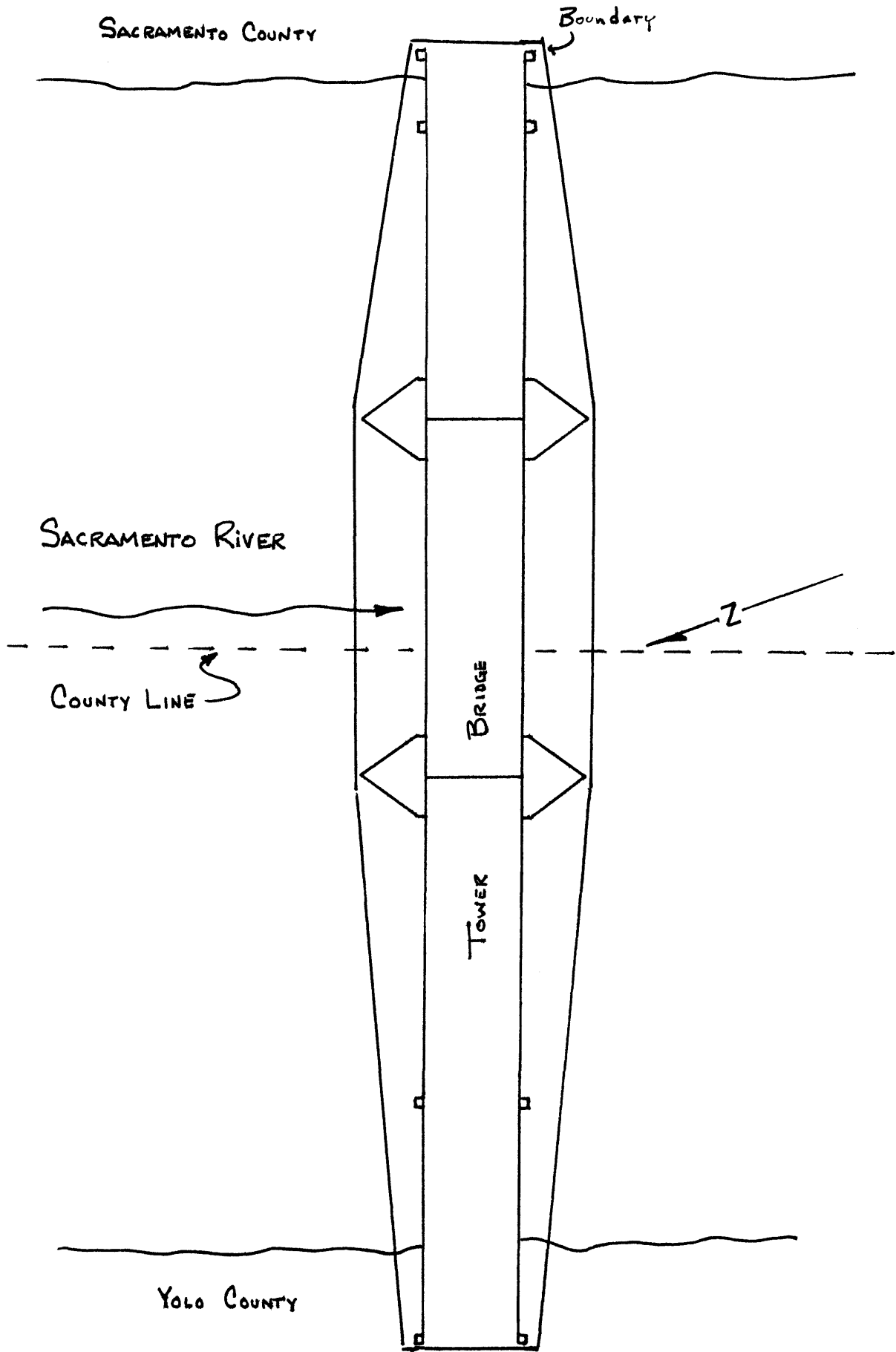
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\_\_\_\_\_, "Governor Merriam Opens \$994,000 Tower Bridge at M Street, Sacramento," California Highways And Public Works, January 1936.

Walsh, Everett L., "Tower Bridge Wins National Award," California Highways And Public Works, July 1936.

Watson, Wilbur J., A Decade of Bridges, 1926-1936, Cleveland, Ohio, J. H. Jansen, 1937.

Zucker, Paul, American Bridges and Dams, New York, The Greystone Press, 1941.



TOWER BRIDGE  
YOLO/SACRAMENTO COUNTIES

SCALE: 1" = 82'