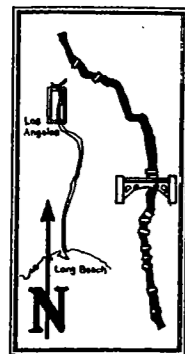
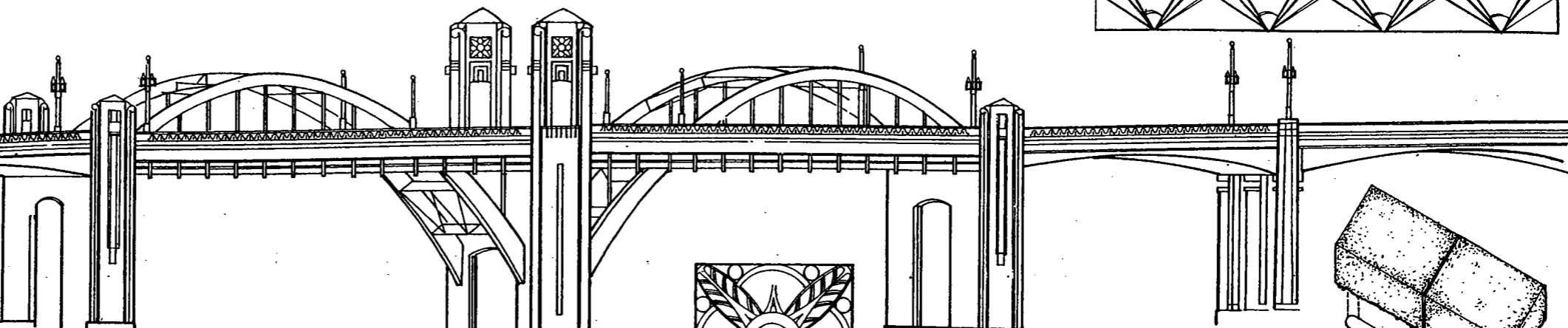


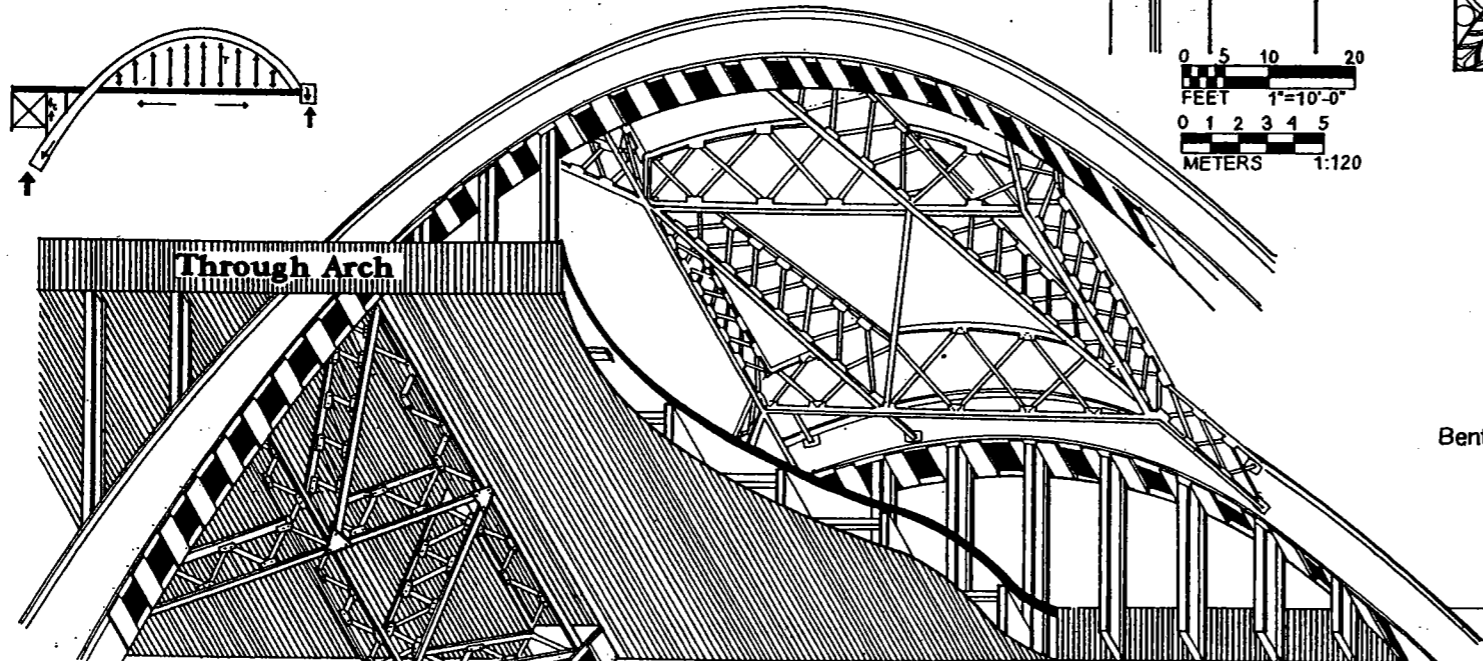
SIXTH STREET VIADUCT



The Sixth Street Viaduct was aligned to provide a smooth transition from Whittier Boulevard to East Sixth Street. Monumental pylons on the approach announce the beginning of the bridge to the driver. The nearly mile-long bridge spans the Los Angeles River, multiple railroad tracks, and many streets.

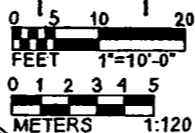


River Span Elevation



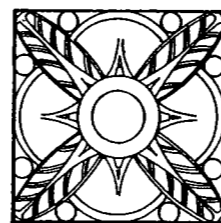
Through Arch

Main Span Steel Arch



Restoration

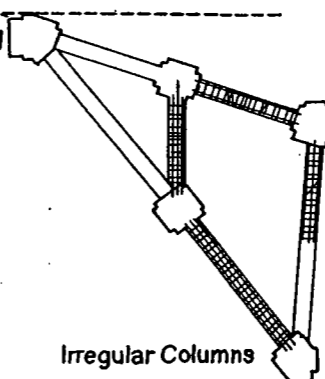
Efforts to reconstruct the removed pylons include reproducing the floral details using extant photographs and computer technology to ascertain the three-dimensional relief.



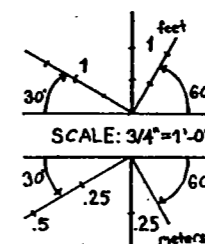
Seismic Retrofit

Repairs after the Whittier Narrows Earthquake were the first phase of the retrofit. The unique new shear key assembly resists forces parallel and perpendicular to the skewed roadbed. In the second phase the variable triangular bents proved advantageous as the new shear walls provided resistance in multiple directions.

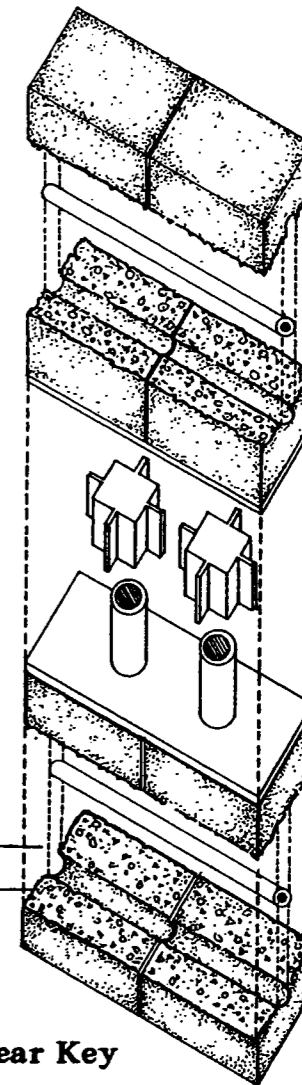
Bent Skewed From Normal



Irregular Columns
Triangular Bent

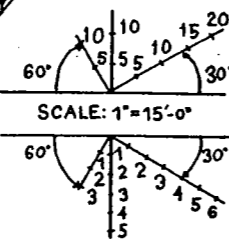


Shear Key

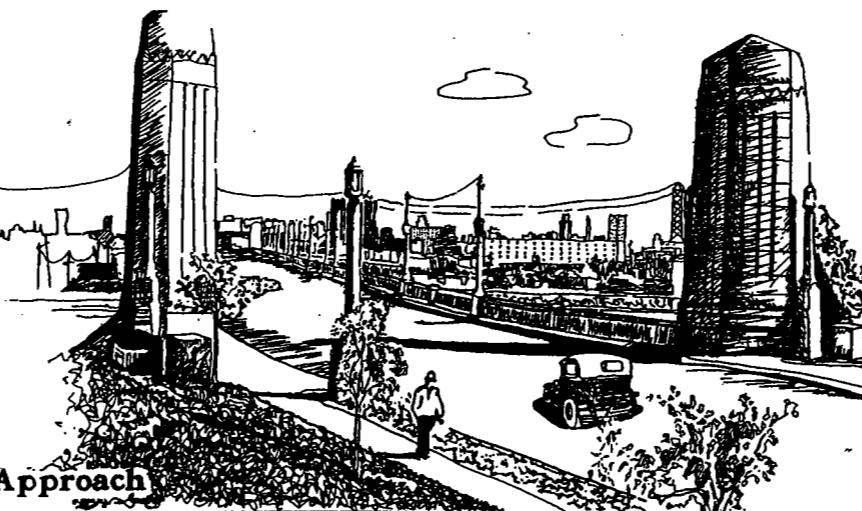


Structure

Unlike contemporaneous river bridges, the Sixth Street Viaduct spans the river with two steel arches. Riveted steel forms the arch truss design. This design allowed for clearances demanded by private railroad companies for future construction. The lightness of this economic design proved beneficial in the subsequent seismic analysis of the bridge.



View From East Approach



Seismic Retrofit Legend	
	Restrainers
	Pier Strengthening
	Grade Beam
	Rocker Bearing Replacement
	Shear Wall - Bent Columns
	Footing Enlargement

Sixth Street Viaduct

1932

MERRILL BUTLER
J.F. KNAPP
3546 FT. LONG RETROFIT

HISTORIC AMERICAN ENGINEERING RECORD
 CALIFORNIA
 LOS ANGELES COUNTY
 LOS ANGELES
 6th STREET VIADUCT 1939
 DELINEATED BY: HEATHER LARSON, 2000
 LOS ANGELES RIVER BRIDGES RECORDING PROJECT
 UNITED BY: NATIONAL PARK SERVICE, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING
 SHEET 1 of 1
 H. # 20