

COMPARATIVE BRIDGE COSTS

JANUARY 2019

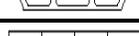
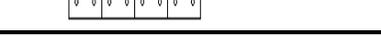
The following tabular data provides some **general guidelines** for structure type selection and its relative cost. These costs should be used only for **preliminary estimates** until more detailed information is developed. The following factors must be taken into account when determining a price within the cost range:

Factors for Lower End of Cost Range

Factors for Higher End of Cost Range

Short Spans, Low Structure Height, No Environmental Constraints, Large Project, No Aesthetic Issues, Dry Conditions, No Bridge Skew	Long Spans, High Structure Height, Environmental Constraints, Small Project, Aesthetic Issues, Wet Conditions (cofferdams required), Skewed Bridges
Urban Location	Remote Location
Seat Abutment	Cantilever Abutment
Spread Footing	Pile Footing (Large Diameter Piling)
No Stage Construction	2-Stage Construction

Factors that will increase the price from 25% - 150% over the high end of the cost range

Structures with more than 2 construction stages	Unique substructure construction		
Widenings less than 15 Ft.			
STRUCTURAL SECTION	COMMON SPAN RANGE (feet)	* COST RANGE (price/sqft)	REMARKS
RC SLAB 	16 - 44	150-450	CAST-IN -PLACE CONCRETE BRIDGES ACCOUNT FOR APPROXIMATELY 65% OF BRIDGES BUILT ON CALIFORNIA STATE HIGHWAYS
RC T-BEAM GIRDER 	40 - 60	175-500	
RC BOX GIRDER 	50 - 120	150-400	
CIP/PS SLAB 	40 - 65	No Current Cost Data	
CIP/PS BOX GIRDER 	100 - 250	150-400	
PC/PS SLAB 	20 - 50	200-550	NO FALSE WORK REQUIRED
PC/PS T GIRDER 	30 - 120	No Current Cost Data	
BULB TEE GIRDER 	90 - 145	150-375	
WIDE FLANGE GIRDER 	90 - 180	300-450	
PC/PS I GIRDER 	50 - 120	210-475	
ADJACENT PC/PS GIRDER 	50 - 110	400-500	
PC/PS BOX GIRDER 	120 - 200	No Current Cost Data	
STRUCTURAL STEEL I GIRDER 	60 - 300	325 - 700	

NOTE: Removal of a box girder structure costs from \$10 - \$20 per square foot.

* "Price/SQFT" is calculated using "Bridge Costs Only" as defined by the Federal Highway Administration. The "Bridge Cost Only" is the sum of the "Superstructure" and "Substructure" bridge items, listed in Chapter 11 of the Bridge Design Aids Manual, multiplied by the bid item price. The "Superstructure" and "Substructure" bridge items do not include items such as: time related overhead, mobilization, bridge removal, approach slabs, slope paving, soundwalls, or retaining walls.