

National Bridge Inventory: California

- The state has identified needed repairs on 1,714 bridges.
- This compares to 1,741 bridges that needed work in 2020.
- Over the life of the IIJA, California will receive a total of \$2.9 billion in bridge formula funds, which will help make needed repairs.
- California currently has access to \$1.7 billion of that total, and has committed \$730.9 million towards 91 projects as of June 2024.
- Of the 25,848 bridges in the state, 1,527, or 5.9 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,536 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 6.7 percent of total deck area on all structures.

28					
Compared to 27 in 2023					
in the nation in % of					
structurally deficient					
bridges					
1. Iowa	19.0%				
27. New Jersey	6.0%				
28. California	6.0%				
29. Washington	6.0%				

Compared to 6 in 2023 in the nation in # of structurally deficient bridges

1. Iowa	4,544
6. New York	1,664
7. California	1,527
8 Louisiana	1 458

15 Compared to 16 in 2023 in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
14. Pennsylvania	7.0%
15. California	7.0%
16. New Hampshire	6.0%

Number of Bridges in Need of Repair, Including Structurally Deficient Bridges



Number of Structurally Deficient Bridges



Top Most Traveled Structurally Deficient Bridges in California

County	Year Built	Daily Crossings	Type of Bridge	Location
Los Angeles	1996	300,000	Urban Interstate	Interstate 110 over Slauson Ave & BNSF Ry
Los Angeles	1959	293,000	Urban freeway/expressway	U.S. Highway 101 over Kester Ave
Los Angeles	1962	269,000	Urban Interstate	Interstate 405 over Vermont Ave, 190th St
San Diego	1971	250,000	Urban Interstate	Interstate 805 over Telegraph Canyon Drain
Los Angeles	1967	240,000	Urban freeway/expressway	State Route 134 over Pacific Ave
Contra Costa	1998	235,000	Urban Interstate	Interstate 680 over Monument Boulevard
Orange	1976	229,000	Urban freeway/expressway	State Route 57 over BNSF Ry,Amtrak,Metrolink
Orange	1961	227,000	Urban freeway/expressway	State Route 55 over Lincoln Ave
Alameda	1958	225,000	Urban Interstate	Interstate 880 over Crandall Creek
Los Angeles	1955	220,000	Urban Interstate	Interstate 710 over Los Angeles River
Los Angeles	1962	218,000	Urban Interstate	Rte 110 over Torrance Blvd
Los Angeles	1993	217,000	Urban Interstate	Route 105 & Lrt over Wright Road
Solano	1951	202,000	Urban Interstate	Interstate 80 over Dan Wilson Creek
Solano	1932	202,000	Urban Interstate	Interstate 80 over Suisun Creek
Alameda	1961	201,000	Urban Interstate	Route 580 over Piedmont, Broadway, Rich
San Diego	1961	199,000	Urban Interstate	Interstate 5 over Rte 163, Connectors
Alameda	1957	198,000	Urban Interstate	Interstate 880 over Patterson Slough
Alameda	1961	198,000	Urban Interstate	Route 580 over Martin Luther King Jr Wy
Contra Costa	1964	197,400	Urban Interstate	Interstate 680 over Rudgear Road
Contra Costa	1960	195,300	Urban Interstate	Interstate 680 over Las Trampas Creek
Contra Costa	1994	195,300	Urban Interstate	Interstate 680 over Olympic Boulevard
Contra Costa	1960	195,300	Urban Interstate	Interstate 680 over Lilac Drive
San Mateo	1930	195,000	Urban freeway/expressway	U.S. Highway 101 over Cordilleras Creek
Contra Costa	1964	194,300	Urban Interstate	Interstate 680 over El Pintado Road
Ventura	1966	193,000	Urban freeway/expressway	U.S. Highway 101 over Hampshire Rd

Bridge Inventory: California

Type of Bridge	Number of Bridges	Area of All Bridges (sq. meters)	Daily Crossings on All Bridges	Number of Structurally Deficient Bridges	Area of Structurally Deficient Bridges (sq. meters)	Daily Crossings on Structurally Deficient Bridges
Rural Interstate	1,208	1,330,436	29,257,699	85	96,986	1,687,350
Rural arterial	1,420	1,340,982	22,294,285	67	76,415	771,601
Rural minor arterial	1,486	1,049,094	7,576,949	62	75,595	405,653
Rural major collector	2,185	1,056,764	5,812,649	162	107,684	387,235
Rural minor collector	1,224	423,627	1,390,250	110	34,140	152,222
Rural local road	4,119	1,093,214	3,008,480	348	75,574	165,706
Urban Interstate	2,617	7,899,842	274,691,231	106	381,509	11,264,405
Urban freeway/expressway	3,108	7,196,011	217,697,725	115	595,087	7,060,330
Urban other principal arterial	2,557	3,870,816	62,253,367	141	288,693	3,538,118
Urban minor arterial	2,611	3,116,147	37,965,843	171	220,288	2,527,039
Urban collector	1,433	976,631	9,004,902	72	37,013	454,780
Urban local road	1,880	1,137,982	9,111,453	88	48,358	309,028
Total	25,848	30,491,546	680,064,833	1,527	2,037,342	28,723,467

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	484	\$1,519	2,983,612	296,427
Widening & rehabilitation	3	\$1	3,600	341
Rehabilitation	1,055	\$6,184	25,744,987	1,746,325
Deck rehabilitation/replacement	7	\$3	265	881
Other structural work	165	\$208	277,694	60,969
Total	1,714	\$7,916	29,010,158	2,104,944

About the data:

Data and cost estimates are from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on August 20, 2024. Note that specific conditions on bridges may have changed as a result of recent work or updated inspections.

Effective January 1, 2018, FHWA changed the definition of structurally deficient as part of the final rule on highway and bridge performance measures, published May 20, 2017 pursuant to the 2012 federal aid highway bill Moving Ahead for Progress in the 21st Century Act (MAP-21). Two measures that were previously used to classify bridges as structurally deficient are no longer used. This includes bridges where the overall structural evaluation was rated in poor or worse condition, or where the adequacy of waterway openings was insufficient.

The new definition limits the classification to bridges where one of the key structural elements—the deck, superstructure, substructure or culverts, are rated in poor or worse condition. During inspection, the conditions of a variety of bridge elements are rated on a scale of 0 (failed condition) to 9 (excellent condition). A rating of 4 is considered "poor" condition.

Cost estimates have been derived by ARTBA, based on 2023 average bridge replacement costs for structures on and off the National Highway System, published by FHWA. Bridge rehabilitation costs are estimated to be 68 percent of replacement costs. A bridge is considered to need repair if the structure has identified repairs as part of the NBI, a repair cost estimate is supplied by the bridge owner or the bridge is classified as structurally deficient. Please note that for a few states, the number of bridges needing to be repaired can vary significantly from year to year, and reflects the data entered by the state.

Bridges are classified by FHWA into types based on the functional classification of the roadway on the bridge. Interstates comprise routes officially designated by the Secretary of Transportation. Other principal arterials serve major centers of urban areas or provide mobility through rural areas. Freeways and expressways have directional lanes generally separated by a physical barrier, and access/egress points generally limited to on- and off-ramps. Minor arterials serve smaller areas and are used for trips of moderate length. Collectors funnel traffic from local roads to the arterial network; major collectors have higher speed limits and traffic volumes and are longer in length and spaced at greater intervals, while minor collectors are shorter and provide service to smaller communities. Local roads do not carry through traffic and are intended for short distance travel.