CALIFORNIA

American Road & Transportation Builders Association

2020 Bridge Profile

Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 25,771 bridges in the state, 1,797, or 7.0 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,857 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 7.2 percent of total deck area on all structures.
- 168 of the structurally deficient bridges are on the Interstate Highway System.
- 548 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,006 bridges at an estimated cost of $8.8 billion.
- This compares to 5,071 bridges that needed work in 2015.

Bridge Inventory

Type of Bridge	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	1,204	1,273,037	30,915,878	60	52,180	1,240,175
Other principal arterial	1,395	1,243,700	22,535,718	62	55,834	733,602
Minor arterial	1,468	1,009,226	7,438,705	72	41,152	316,791
Major collector	2,195	1,019,839	5,708,600	240	133,657	591,848
Minor collector	1,220	410,658	1,416,351	123	35,753	108,485
Local	4,166	1,074,171	3,091,468	443	89,564	178,301
Urban Bridges						
Interstate	2,634	7,974,870	270,457,963	108	461,053	9,498,165
Freeway/expressway	3,103	6,870,572	209,408,729	97	510,812	4,557,270
Other principal arterial	2,532	3,778,276	61,197,649	187	392,138	4,934,782
Minor arterial	2,591	3,079,767	36,913,894	189	278,384	2,967,251
Collector	1,421	961,025	8,703,256	104	60,585	644,334
Local	1,842	1,083,492	8,371,975	112	44,227	321,077
Total	**25,771**	**29,778,634**	**666,160,192**	**1,797**	**2,155,339**	**26,092,080**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	555	$1,898	3,030,753	237,490
Widening & rehabilitation	3	$2	3,600	341
Rehabilitation	1,282	$6,609	23,154,472	1,947,509
Deck rehabilitation/replacement	9	$14	490	1,996
Other work	157	$298	222,666	44,926
Total	**2,006**	**$8,820**	**26,411,981**	**2,232,261**

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Top Most Traveled Structurally Deficient Bridges in California

County	Year Built	Daily Crossings	Type of Bridge	Location
Los Angeles	1959	289,000	Urban freeway/expressway	US Route 101 over Kester Ave
Orange	1992	279,000	Urban Interstate	Interstate 5 over State Route 261
Orange	1979	279,000	Urban Interstate	Interstate 5 over Culver Dr
Los Angeles	1963	272,600	Urban Interstate	Interstate 405 over Imperial Highway
Los Angeles	1948	258,000	Urban Interstate	Interstate 5 over Marietta Street
Orange	2000	241,000	Urban Interstate	Interstate 5 over Orangewood Ave
Orange	2000	241,000	Urban Interstate	Interstate 5 over Anaheim Blvd
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
Los Angeles	1954	220,000	Urban Interstate	Interstate 710 over UP RR & Noakes Street

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About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released April 2, 2020. 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 surface transportation law 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 2018 and 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.