

Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 1,595 bridges in the state, 145, or 9.1 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 146 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 7.7 percent of total deck area on all structures.
- 12 of the structurally deficient bridges are on the Interstate Highway System.
- 145 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 299 bridges at an estimated cost of \$344.3 million.
- This compares to 304 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	156	147,331	839,435	12	11,389	41,643
Other principal arterial	103	58,069	140,450	6	4,375	9,447
Minor arterial	67	29,220	76,601	3	919	1,117
Major collector	226	127,253	120,413	21	10,430	13,637
Minor collector	76	22,914	24,595	7	1,380	2,211
Local	714	106,531	45,462	75	13,217	2,116
Urban Bridges						
Interstate	45	40,183	954,316	0	0	0
Freeway/expressway	0	0	0	0	0	0
Other principal arterial	59	87,201	1,127,136	0	0	0
Minor arterial	52	77,252	431,828	5	10,494	44,084
Collector	46	26,435	107,010	5	1,533	5,043
Local	51	17,904	29,452	11	3,601	2,887
Total	1,595	740,293	3,896,698	145	57,339	122,185

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	67	\$103	31,914	20,945
Widening & rehabilitation	1	\$0	6,115	120
Rehabilitation	115	\$161	118,990	50,915
Deck rehabilitation/replacement	0	\$0	0	0
Other work	116	\$80	11,717	20,203
Total	299	\$344	168,736	92,183

Top Most Traveled Structurally Deficient Bridges in Alaska

County	Year Built	Daily Crossings	Type of Bridge	Location
Ketchikan Gateway	1957	14,676	Urban minor arterial	South Tongass Hwy over Hoadley Creek
Ketchikan Gateway	1955	12,009	Urban minor arterial	South Tongass Hwy over Water St Viaduct
Fairbanks North Star	1953	6,398	Urban minor arterial	Wendell Avenue over Chena River (Wendell)
Anchorage	1966	6,293	Rural Interstate	Seward Highway over Portage Creek No 1
Ketchikan Gateway	1975	5,750	Urban minor arterial	North Tongass Hwy over Ward Creek
Fairbanks North Star	1953	5,251	Urban minor arterial	Minnie Street over Noyes Slough (Minnie St)
Anchorage	1966	4,840	Rural Interstate	Seward Highway over Peterson Creek
Anchorage	1967	4,840	Rural Interstate	Seward Highway over Twenty mile River
Anchorage	1966	4,840	Rural Interstate	Seward Highway over Virgin Creek
Anchorage	1966	4,840	Rural Interstate	Seward Highway over Glacier Creek

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.