

### Highlights from FHWA's 2020 National Bridge Inventory Data

- Of the 1,645 bridges in the state, 141, or 8.6 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is from 141 bridges classified as structurally deficient in 2016.
- The deck area of structurally deficient bridges accounts for 7.3 percent of total deck area on all structures.
- 9 of the structurally deficient bridges are on the Interstate Highway System. A total of 85.8 percent of the structurally deficient bridges are not on the National Highway System, which includes the Interstate and other key roads linking major airports, ports, rail and truck terminals.
- 150 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 301 bridges at an estimated cost of \$272.1 million.

### Bridge Inventory

Type of Bridge <sup>4</sup>	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
<b>Rural Bridges</b>						
Interstate	161	159,309	821,134	9	10,104	25,874
Other principal arterial	104	60,895	131,078	5	3,563	8,612
Minor arterial	71	31,064	78,835	3	919	796
Major collector	216	118,566	120,574	18	9,491	9,941
Minor collector	108	34,299	30,058	11	2,352	4,004
Local	718	99,371	32,616	71	12,603	2,275
<b>Urban Bridges</b>						
Interstate	40	34,567	860,643	0	0	0
Freeway/expressway	1	3,708	15,907	0	0	0
Other principal arterial	64	98,538	1,192,411	0	0	0
Minor arterial	45	66,313	370,762	5	10,494	49,998
Collector	47	26,868	101,004	6	1,840	5,189
Local	70	21,191	36,069	13	3,029	2,711
<b>Total</b>	<b>1,645</b>	<b>754,690</b>	<b>3,791,091</b>	<b>141</b>	<b>54,395</b>	<b>109,400</b>

### Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	63	\$82,128.0	32,784	20,569
Widening & rehabilitation	1	\$255.3	10,249	120
Rehabilitation	115	\$127,248.7	105,729	48,463
Deck rehabilitation/replacement				
Other work	122	\$62,447.6	10,332	20,273
<b>Total</b>	<b>301</b>	<b>\$272,079.7</b>	<b>159,094</b>	<b>89,425</b>

### Top Most Traveled Structurally Deficient Bridges in Alaska

County	Year Built	Daily Crossings	Type of Bridge	Location
Ketchikan Gateway	1957	17,165	Urban minor arterial	South Tongass Hwy over Hoadley Creek
Ketchikan Gateway	1955	14,046	Urban minor arterial	South Tongass Hwy over Water St Viaduct
Fairbanks North Star	1953	7,264	Urban minor arterial	Wendell Avenue over Chena River (Wendell)
Ketchikan Gateway	1975	6,725	Urban minor arterial	North Tongass Hwy over Ward Creek
Anchorage	1966	5,535	Rural Interstate	Seward Highway over Portage Creek No 1
Fairbanks North Star	1953	4,798	Urban minor arterial	Minnie Street over Noyes Slough (Minnie St)
Anchorage	1967	4,276	Rural Interstate	Seward Highway over Twenty mile River
Anchorage	1967	4,226	Rural Interstate	Seward Highway over Placer River overflow
Anchorage	1966	4,226	Rural Interstate	Seward Highway over Placer River Main Cross
Kenai Peninsula	1959	3,396	Rural arterial	Sterling Highway over South Fork Anchor River

**About the data:** Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on March 11, 2021. 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 2019 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.

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