

State Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 284 bridges.
- Over the life of the IIJA, Alaska will receive a total of \$225.0 million in bridge formula funds, which will help make needed repairs.
- Alaska currently has access to \$90.0 million of that total, and has committed \$26.5 million towards 6 projects as of June 2023.
- Of the 1,675 bridges in the state, 136, or 8.1 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 145 bridges classified as structurally deficient in 2019.

Bridge Inventory

	All Bridges			Structurally Deficient Bridges		
Type of Bridge	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	167	165,025	516,968	10	15,172	20,576
Other principal arterial	104	60,663	106,921	5	3,566	7,947
Minor arterial	72	31,638	65,790	5	1,172	1,160
Major collector	218	117,660	106,715	15	9,215	8,609
Minor collector	117	37,287	35,208	10	1,519	747
Local	740	105,995	34,061	74	13,305	2,299
Urban Bridges						
Interstate	39	35,063	642,907	0	0	0
Freeway/expressway	0	0	0	0	0	0
Other principal arterial	66	103,920	833,626	0	0	0
Minor arterial	46	67,053	331,803	4	9,317	35,326
Collector	45	26,208	91,867	2	450	2,610
Local	61	22,270	32,970	11	4,160	3,892
Total	1,675	772,782	2,798,836	136	57,876	83,166

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	28	\$25.3	355	5,568
Widening & rehabilitation				
Rehabilitation	116	\$147.3	82,952	53,251
Deck rehabilitation/replacement	1	\$0.2	10	69
Other work	139	\$79.7	22,679	25,815
Total	284	\$252.5	105,996	84,702

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Top Most Traveled Structurally Deficient Bridges in Alaska

County	Year Built	Daily Crossings	Type of Bridge	Location	
Ketchikan Gateway	1955	14,046	Urban minor arterial	South Tongass Hwy over Water St Viaduct	
Ketchikan Gateway	1957	11,900	Urban minor arterial	South Tongass Hwy over Hoadley Creek	
Ketchikan Gateway	1975	5,250	Urban minor arterial	North Tongass Hwy over Ward Creek	
Anchorage	1966	5,080	Rural Interstate	Seward Highway over Portage Creek No 1	
Anchorage	1967	4,276	Rural Interstate	Seward Highway over Twenty mile River	
Fairbanks North Star	1953	4,130	Urban minor arterial	Minnie Street over Noyes Slough (Minnie St)	
Anchorage	1966	3,900	Rural Interstate	Seward Highway over Placer River Main Cross	
Kenai Peninsula	1959	3,490	Rural arterial	Sterling Highway over South Fork Anchor River	
Kodiak Island	1980	2,790	Rural major collector	Rezanof Drive over Sargent Creek	
Matanuska- Susitna	1962	2,650	Rural Interstate	Parks Highway over Sheep Creek	

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on February 1, 2023. Note that specific conditions on bridges may have changed because of recent work or updated inspections.

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 2020 and average bridge replacement costs for structures on and off the National Highway System, <u>published</u> <u>by FHWA</u>. 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.

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.