

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

- Of the 5,271 bridges in the state, 377, or 7.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 369 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.
- 28 of the structurally deficient bridges are on the Interstate Highway System. A total of 87.5 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.
- 511 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 987 bridges at an estimated cost of \$765.3 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	742	600,805	3,013,658	26	45,064	117,336
Other principal arterial	478	271,015	1,625,977	16	9,222	36,079
Minor arterial	501	223,498	530,212	41	28,884	47,891
Major collector	583	213,220	495,586	25	11,509	50,001
Minor collector	504	112,689	132,126	35	5,428	11,502
Local	2,171	362,263	262,599	224	29,606	17,644
<b>Urban Bridges</b>						
Interstate	87	83,991	860,280	2	1,177	13,172
Freeway/expressway	0	0	0	0	0	0
Other principal arterial	57	113,805	854,233	3	11,453	43,696
Minor arterial	45	48,667	332,031	2	7,334	17,277
Collector	34	17,881	82,901	1	288	1,307
Local	69	15,055	110,125	2	213	200
<b>Total</b>	<b>5,271</b>	<b>2,062,890</b>	<b>8,299,728</b>	<b>377</b>	<b>150,178</b>	<b>356,105</b>

### Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	559	\$536,747.9	1,032,169	272,826
Widening & rehabilitation	4	\$713.0	205	475
Rehabilitation	362	\$202,032.3	358,891	145,686
Deck rehabilitation/replacement	6	\$494.8	314	330
Other work	56	\$25,327.9	22,216	17,125
<b>Total</b>	<b>987</b>	<b>\$765,316.0</b>	<b>1,413,795</b>	<b>436,442</b>

### Top Most Traveled Structurally Deficient Bridges in Montana

County	Year Built	Daily Crossings	Type of Bridge	Location
Missoula	1957	21,372	Urban other principal arterial	N Russell St over Clark Fork River
Missoula	1962	15,220	Urban minor arterial	S Higgins Ave over Clark Fork R-Ped Paths
Yellowstone	1960	11,162	Urban other principal arterial	Montana Ave over U1024-25-RR
Yellowstone	1960	11,162	Urban other principal arterial	Montana Ave over U1025-RR
Hill	1976	10,796	Rural major collector	S 234 over Scotts Coulee
Missoula	1966	10,155	Urban Interstate	I 90 over Int Reserve Street
Granite	1970	9,578	Rural Interstate	I 90 over Clark Fork River
Granite	1970	9,578	Rural Interstate	I 90 over Sep Bearmouth Road
Gallatin	1979	8,521	Rural major collector	Lone Mountain Trl over Middle Fk W Gallatin 4
Gallatin	1972	8,521	Rural major collector	Lone Mountain Trl over W Fork W Gallatin 1

**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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