

Highlights from FHWA's 2020 National Bridge Inventory Data

- Of the 8,214 bridges in the state, 395, or 4.8 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 398 bridges classified as structurally deficient in 2016.
- The deck area of structurally deficient bridges accounts for 3.5 percent of total deck area on all structures.
- 6 of the structurally deficient bridges are on the Interstate Highway System. A total of 93.2 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.
- 545 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 1,999 bridges at an estimated cost of \$2.7 billion.

Bridge Inventory

Type of Bridge ⁴	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	363	441,646	6,099,590	2	10,720	24,150
Other principal arterial	711	634,384	4,288,469	9	6,496	70,937
Minor arterial	502	316,891	2,012,208	9	5,951	45,544
Major collector	1,379	546,276	2,461,768	58	18,352	216,508
Minor collector	932	233,310	551,367	52	10,062	17,613
Local	2,598	447,181	560,563	196	30,252	33,439
Urban Bridges						
Interstate	307	934,320	14,209,922	4	10,231	151,900
Freeway/expressway	74	150,537	3,208,850	0	0	0
Other principal arterial	352	591,337	6,965,317	14	36,674	211,067
Minor arterial	437	489,709	6,218,395	26	26,047	222,223
Collector	352	211,758	2,075,974	18	10,631	66,033
Local	207	102,042	725,914	7	11,043	8,935
Total	8,214	5,099,391	49,378,336	395	176,460	1,068,349

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	299	\$504,718.4	1,427,499	208,697
Widening & rehabilitation	1,120	\$1,921,320.9	12,873,049	1,221,729
Rehabilitation	215	\$123,097.3	361,785	70,115
Deck rehabilitation/replacement	4	\$1,721.5	1,510	941
Other work	361	\$123,377.7	19,140	67,506
Total	1,999	\$2,674,235.8	14,682,983	1,568,988

Top Most Traveled Structurally Deficient Bridges in Oregon

County	Year Built	Daily Crossings	Type of Bridge	Location
Clackamas	1926	152,800	Rural major collector	Bull Run Rd over Bull Run River
Lane	1967	59,900	Urban Interstate	1-105 (Hwy 227) over Willamette River
Lane	1967	59,900	Urban Interstate	I-105 (Hwy 227) over Future Hwy 62
Multnomah	1958	55,335	Urban minor arterial	Morrison St over Willamette River
Multnomah	1913	30,388	Urban other principal arterial	NW Broadway Ramp over Broadway St Conn
Lincoln	1949	24,900	Urban other principal arterial	US101 (Hwy 9) over Devils Lake Outlet
Yamhill	1963	22,900	Urban other principal arterial	Or 18 (Hwy 39) over Yamhill River overflow
Washington	1981	21,400	Urban minor arterial	Allen Blvd over Hwy 144
Clackamas	1940	21,200	Urban other principal arterial	OR 99E(Hwy 1E) over Partial Viaduct
Multnomah	1968	19,379	Urban other principal arterial	Columbia Blvd over B-79 X N. Columbia Way

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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