American Road & Transportation Builders Association

Oregon 2019 Bridge Profile

Highlights from FHWA's 2018 National Bridge Inventory Data

- Of the 8,161 bridges in the state, 422, or 5.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 403 bridges classified as structurally deficient in 2014.
- 6 of the structurally deficient bridges are on the Interstate Highway System.
- 432 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,007 bridges at an estimated cost of $1.8 billion.
- This compares to 1,941 bridges that needed work in 2014.

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	441,550	10,380,850	2	10,720	43,600
Other principal arterial	701	629,763	4,716,869	10	6,491	72,537
Minor arterial	503	316,350	1,954,976	9	5,622	38,156
Major collector	1,375	542,617	2,246,621	69	25,388	242,294
Minor collector	930	232,634	480,199	55	10,285	21,176
Local	2,575	444,421	487,790	200	28,288	27,436
Urban Bridges						
Interstate	307	941,916	20,518,672	4	10,231	178,900
Freeway/expressway	74	150,506	3,763,700	0	0	0
Other principal arterial	336	560,191	6,983,627	14	35,738	355,750
Minor arterial	436	490,988	6,056,588	26	35,430	316,970
Collector	353	211,127	2,004,809	20	7,501	56,849
Local	208	98,268	737,520	13	11,959	6,724
Total	**8,161**	**5,060,330**	**60,332,224**	**422**	**187,653**	**1,360,392**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	323	$430,186	1,675,117	208,046
Widening & rehabilitation	1,128	$1,338,354	15,778,610	1,226,811
Rehabilitation	222	$27,552	523,022	70,773
Deck rehabilitation/replacement	3	$41	510	345
Other work	331	$7,960	17,779	63,835
Total	**2,007**	**$1,804,093**	**17,995,038**	**1,569,810**

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Top Most Traveled Structurally Deficient Bridges in Oregon

County	Year Built	Daily Crossings	Type of Bridge	Location
Clackamas	1926	156,100	Rural major collector	Bull Run Rd over Bull Run River
Multnomah	1959	118,000	Urban minor arterial	Multnomah Blvd over Hwy 1 I-5
Multnomah	1916	70,600	Urban other principal arterial	OR 99E(Hwy 1E) over Uprr
Multnomah	1908	70,600	Urban other principal arterial	OR 99E (Hwy1E)Co over Hwy 2 & Uprr
Lane	1967	59,500	Urban Interstate	I-105 (Hwy 227) over Future Hwy 62
Lane	1967	59,500	Urban Interstate	1-105 (Hwy 227) over Willamette River
Multnomah	1958	53,835	Urban minor arterial	Morrison St over Willamette River
Washington	1983	40,600	Urban other principal arterial	Hwy 29 over Johnson Creek
Multnomah	1958	35,300	Urban Interstate	I-84 (Hwy 2) WB over NW Graham Rd
Josephine	1931	30,900	Urban other principal arterial	US 199 (Hwy 025)SB over Rogue River

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released March 15, 2019. 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 2017 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.