Washington

State Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 7,273 bridges.
- Over the life of the IIJA, Washington will receive a total of $653.4 million in bridge formula funds, which will help make needed repairs.
- Washington currently has access to $261.4 million of that total, and has committed $28.4 million towards 19 projects as of June 2023.
- Of the 8,421 bridges in the state, 456, or 5.4 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 384 bridges classified as structurally deficient in 2019.

Bridge Inventory

Type of Bridge	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	285	348,777	5,289,375	37	50,364	620,331
Other principal arterial	537	498,809	3,410,139	43	63,139	233,397
Minor arterial	331	226,066	1,393,333	31	23,970	114,748
Major collector	1,330	538,284	2,303,932	86	35,019	118,652
Minor collector	767	197,866	442,272	28	6,663	20,588
Local	2,353	426,159	510,539	110	15,699	16,114
Urban Bridges						
Interstate	665	1,778,911	29,214,666	17	153,794	590,043
Freeway/expressway	506	1,303,709	14,234,461	15	54,646	296,019
Other principal arterial	505	852,118	9,541,889	30	85,391	514,586
Minor arterial	556	616,437	5,369,886	29	41,331	232,569
Collector	299	216,476	1,441,213	18	11,933	78,360
Local	287	120,874	402,967	12	6,611	12,912
Total	**8,421**	**7,124,486**	**73,554,672**	**456**	**548,559**	**2,848,319**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,545	$3,217.8	6,741,820	1,047,579
Widening & rehabilitation	185	$290.4	948,718	135,229
Rehabilitation	3,548	$11,519.3	63,124,014	5,243,471
Deck rehabilitation/replacement	276	$364.9	893,626	176,141
Other work	719	$553.9	1,247,088	267,292
Total	**7,273**	**$15,946.4**	**72,955,266**	**6,869,712**

Top Most Traveled Structurally Deficient Bridges in Washington

County	Year Built	Daily Crossings	Type of Bridge	Location
King	1970	83,051	Urban Interstate	I-90 over Mercer Sl
King	1940	83,051	Urban Interstate	I-90 over Mercer Slough
King	1940	73,775	Urban Interstate	Lacey V. Murrow Memorial Bridge
King	1989	73,775	Urban Interstate	Homer M. Hadley Memorial Bridge
King	1967	60,643	Urban freeway/expressway	SR 167 over Cmstpp RR
Spokane	1958	45,696	Urban other principal arterial	Maple Street over Spokane River
Spokane	1963	43,937	Urban Interstate	I-90 over Hangman Creek
Spokane	1963	43,937	Urban Interstate	I-90 over Hangman Creek
Lewis	1953	43,712	Rural Interstate	I-5 over Lacamas Cr, Drews Pr Rd
Clark	1939	41,714	Rural Interstate	I-5 over E Fork Lewis River

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.

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.

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, 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.