Missouri

American Road & Transportation Builders Association

State Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 4,506 bridges.
- Over the life of the IIJA, Missouri will receive a total of $523.4 million in bridge formula funds, which will help make needed repairs.
- Missouri currently has access to $209.4 million of that total, and has committed $3.2 million towards 112 projects as of June 2023.
- Of the 24,617 bridges in the state, 2,213, or 9.0 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 2,147 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	481	569,373	7,125,569	24	49,451	383,521
Other principal arterial	1,187	1,147,442	7,852,751	57	78,789	352,102
Minor arterial	1,104	680,860	2,884,342	88	60,455	162,948
Major collector	3,882	1,383,400	3,712,858	413	178,185	360,339
Minor collector	1,011	223,892	366,201	102	25,941	32,358
Local	12,230	1,754,145	1,027,885	1,264	135,586	93,407
Urban Bridges						
Interstate	905	1,903,779	35,116,956	29	136,907	1,279,019
Freeway/expressway	638	988,881	12,887,981	17	49,537	275,793
Other principal arterial	483	649,831	7,601,857	23	27,248	358,445
Minor arterial	873	837,429	7,626,902	50	57,142	500,374
Collector	814	465,460	3,203,913	51	39,484	185,124
Local	1,009	287,412	1,336,998	95	25,396	159,577
Total	**24,617**	**10,891,903**	**90,744,208**	**2,213**	**864,120**	**4,143,007**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,467	$1,443.5	3,032,367	756,819
Widening & rehabilitation				
Rehabilitation	1,997	$1,390.7	9,638,943	1,078,002
Deck rehabilitation/replacement				
Other work	42	$12.0	11,453	9,154
Total	**4,506**	**$2,846.2**	**12,682,763**	**1,843,975**

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Top Most Traveled Structurally Deficient Bridges in Missouri

County	Year Built	Daily Crossings	Type of Bridge	Location
St. Louis	1964	189,502	Urban Interstate	IS 270 E over CST Conway Rd
St. Louis	1965	133,270	Urban Interstate	IS 270 E over CST West Port Plaza Dr
St. Louis	1931	110,731	Urban Interstate	IS 270 E over Maline Cr
Jackson	1964	94,950	Urban Interstate	IS 435 S over Grave Cr
St. Louis	1968	94,494	Urban Interstate	IS 170 E over Rvr Des Peres
Jackson	1969	86,364	Urban minor arterial	Rt W E over Br Blue Rvr
Clay	1967	69,128	Urban Interstate	IS 435 S over Drain Dtch
Clay	1972	69,128	Urban Interstate	IS 435 S over Missouri Rvr, CST NE Bir
St. Louis	1985	67,832	Urban Interstate	IS 64 E over Co North Forty Dr to Sor
Jackson	1959	56,351	Urban Interstate	IS 70 W over Kct RR

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.