

State Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 4,933 bridges.
- Over the life of the IIJA, Kansas will receive a total of \$225.0 million in bridge formula funds, which will help make needed repairs.
- Kansas currently has access to \$90.0 million of that total, and has committed \$4.5 million towards 3 projects as of June 2023.
- Of the 24,907 bridges in the state, 1,305, 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 1,280 bridges classified as structurally deficient in 2019.

Bridge Inventory

	All Bridges			Structurally Deficient Bridges		
Type of Bridge	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	520	370,489	4,054,696	3	2,658	18,491
Other principal arterial	1,320	976,755	5,012,552	11	6,691	61,075
Minor arterial	1,321	679,278	2,161,269	23	10,270	23,853
Major collector	6,143	1,734,986	2,391,409	251	71,106	221,612
Minor collector	2,033	400,238	236,492	120	18,357	18,178
Local	10,397	1,566,696	498,167	826	77,014	28,510
Urban Bridges						
Interstate	554	1,093,958	10,797,269	4	44,266	41,271
Freeway/expressway	370	556,845	5,838,269	4	21,712	35,398
Other principal arterial	238	403,886	1,715,321	3	13,074	27,519
Minor arterial	655	640,674	6,371,037	10	13,161	82,326
Collector	719	423,833	2,600,220	21	7,051	26,982
Local	637	167,667	737,785	29	6,303	23,243
Total	24,907	9,015,305	42,414,484	1,305	291,662	608,458

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,953	\$882.7	965,463	466,882
Widening & rehabilitation	28	\$52.5	149,642	41,371
Rehabilitation	1,681	\$605.4	1,049,392	422,634
Deck rehabilitation/replacement	65	\$61.7	230,930	47,817
Other work	206	\$70.2	358,187	56,434
Total	4,933	\$1,672.6	2,753,614	1,035,139

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Top Most Traveled Structurally Deficient Bridges in Kansas

County	Year Built	Daily Crossings	Type of Bridge	Location	
Chase	1955	120,128	Rural major collector	Rs 92 over Collet Creek	
Johnson	1976	24,000	Urban minor arterial	College Blvd over Indian Ck	
Johnson	1975	18,082	Rural arterial	K10 Hwy, WB over Kill Creek	
Shawnee	1963	17,722	Urban Interstate	I70 Hwy, NI-SI over 8 Streets, 3 RR	
Wyandotte	1959	15,153	Urban freeway/expressway	69 Hwy (18th St) over Ks Riv, RR, Levee Rds	
Douglas	1977	14,092	Rural arterial	K-10 Hwy Eastbound over Wakarusa Riv & Loc Rd	
Geary	1985	13,800	Urban local road	Washington Street over Republican River	
Wyandotte	1959	12,930	Urban freeway/expressway	US69, 18th St Expy over Merriam Ln,Turkey Creek	
Wyandotte	1933	12,526	Urban other principal arterial	US-169 Highway NB over Ks River,RR Yard,3 Str	
Shawnee	1964	11,209	Urban minor arterial	Urb5561, Calif over I70 Hwy, NI-SI	

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.

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, <u>published</u> <u>by FHWA</u>. 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.

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.