American Road & Transportation Builders Association

National Bridge Inventory: Kansas

- The state has identified needed repairs on 4,650 bridges.
- This compares to 10,505 bridges that needed work in 2020.
- 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 $135.0 million of that total, and has committed $48.1 million towards 20 projects as of June 2024.
- Of the 24,894 bridges in the state, 1,310, or 5.3 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,321 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 3.2 percent of total deck area on all structures.

31

Compared to 32 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	**19.0%**
30. Arkansas	5.0%
31. Kansas	5.0%
32. Indiana	5.0%

10

Compared to 11 in 2023

in the nation in # of structurally deficient bridges

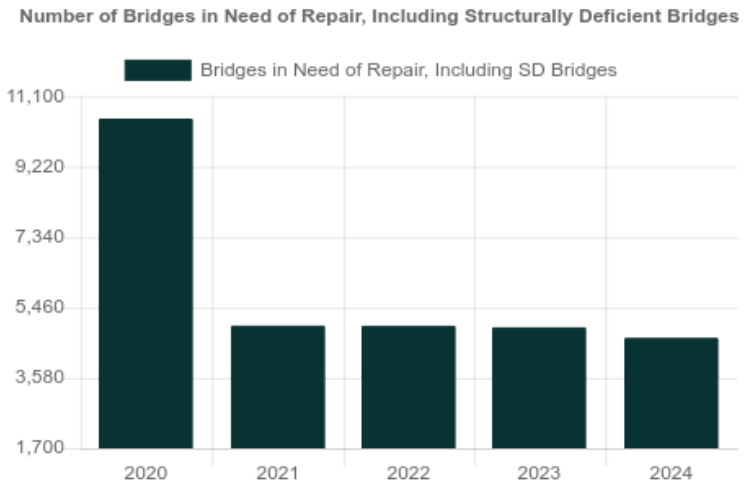
1. Iowa	**4,544**
9. West Virginia	1,370
10. Kansas	1,310
11. North Carolina	1,298

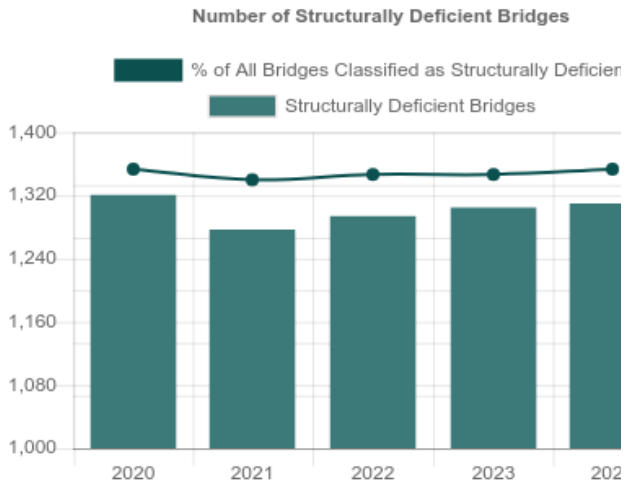
39

Compared to 39 in 2023

in the nation in % of structurally deficient bridge deck area

1. Rhode Island	**14.0%**
38. Idaho	3.0%
39. Kansas	3.0%
40. Mississippi	3.0%





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
Wyandotte	1907	20,800	Urban Interstate	I-70 EB Highway over Kansas River,3 RR,5 St
Shawnee	1963	18,550	Urban Interstate	I70 Hwy, NI-SI over 8 Streets, 3 RR
Johnson	1975	15,050	Rural arterial	K10 Hwy, WB over Kill Creek
Wyandotte	1959	14,800	Urban freeway/expressway	69 Hwy (18th St) over Ks Riv, RR, Levee Rds
Douglas	1977	14,300	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	12,600	Urban freeway/expressway	US69, 18th St Expy over Merriam Ln,Turkey Creek
Shawnee	1964	12,505	Urban minor arterial	Urb5561, Calif over I70 Hwy, NI-SI
Wyandotte	1933	12,150	Urban other principal arterial	US-169 Highway NB over Ks River,RR Yard,3 Str
Sedgwick	2013	10,826	Urban collector	South Broadway over Rock Island Railroad
Sedgwick	1964	10,200	Urban minor arterial	Oliver over Gypsum Creek Trib.
Reno	1959	10,180	Urban minor arterial	Woodie Seat Fwy over Avenue B
Wyandotte	1974	9,715	Urban Interstate	I70 WB to I635 SB over I-635 NB,& I-70 Highways
Sumner	1956	9,350	Rural Interstate	I-35 Hwy NB (Kta) over Local Road
Harvey	1975	8,850	Urban other principal arterial	US 50 Hwy over Meridan Ave., BNSF RR
Johnson	1975	8,342	Urban minor arterial	103rd. Street over Trib. to Indian Creek
Johnson	1910	7,700	Urban minor arterial	Kenneth Rd over Negro Ck
McPherson	1969	7,271	Urban Interstate	I135 US81 NB over Up Railroad
Wyandotte	1971	7,200	Urban other principal arterial	K-32 Highway over Betts Creek Drainage
Thomas	1966	6,550	Rural Interstate	I70 Hwy, WI-EI over S Fork Solomon River
Shawnee	1962	6,245	Urban minor arterial	Sw 57th St. over S. Shunganunga Cr.
Sedgwick	1967	6,032	Urban collector	N Oliver St over Trib E Fork Chisholm Crk
Osage	1956	5,650	Rural Interstate	I-335 Hwy (Kta) SB over Soldier Creek

Bridge Inventory: Kansas

Type of Bridge	Number of Bridges	Area of All Bridges (sq. meters)	Daily Crossings on All Bridges	Number of Structurally Deficient Bridges	Area of Structurally Deficient Bridges (sq. meters)	Daily Crossings on Structurally Deficient Bridges
Rural Interstate	519	369,248	4,343,427	3	2,658	21,550
Rural arterial	1,330	995,782	5,023,071	12	7,578	58,590
Rural minor arterial	1,319	682,839	2,043,116	26	11,818	27,050
Rural major collector	6,150	1,741,701	2,384,978	251	65,579	214,356
Rural minor collector	2,025	401,030	236,563	119	18,141	19,098
Rural local road	10,378	1,570,806	506,524	825	79,505	27,229
Urban Interstate	555	1,102,008	11,081,299	4	44,266	56,336
Urban freeway/expressway	370	556,845	6,036,846	4	21,712	32,685
Urban other principal arterial	235	400,772	1,832,770	3	13,074	28,200
Urban minor arterial	656	629,716	6,585,196	9	8,739	86,287
Urban collector	720	424,233	2,668,226	24	12,035	45,239
Urban local road	637	170,023	757,058	30	7,275	25,015
Total	24,894	9,045,003	43,499,074	1,310	292,380	641,635

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	2,771	$848	939,675	436,688
Widening & rehabilitation	28	$54	150,425	41,368
Rehabilitation	1,588	$586	1,092,292	409,826
Deck rehabilitation/replacement	63	$62	232,545	47,187
Other structural work	200	$69	354,872	53,880
Total	4,650	$1,619	2,769,809	988,949

About the data:

Data and cost estimates are from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on August 20, 2024. 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 2023 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.