American Road & Transportation Builders Association

Tennessee Congressional District 8

- Of the 4,652 bridges in the counties of this district, 204, or 4.4 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 193 bridges classified as structurally deficient in 2020.
- Repairs are needed on 1,553 bridges in the district, which will cost an estimated $1.7 billion.
- This compares to 1,596 bridges that needed work in 2020.
- The state has committed $482.8 thousand in IIJA bridge formula funds to support 3 projects in the District.

41

Compared to 40 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	19.0%
40. Minnesota	4.0%
41. Tennessee	4.0%
42. Virginia	3.0%

20

Compared to 20 in 2023

in the nation in # of structurally deficient bridges

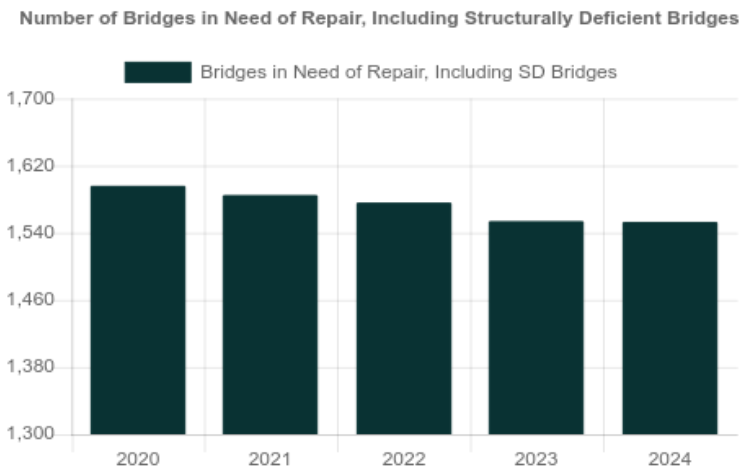
1. Iowa	4,544
19. Wisconsin	942
20. Tennessee	898
21. Arkansas	704

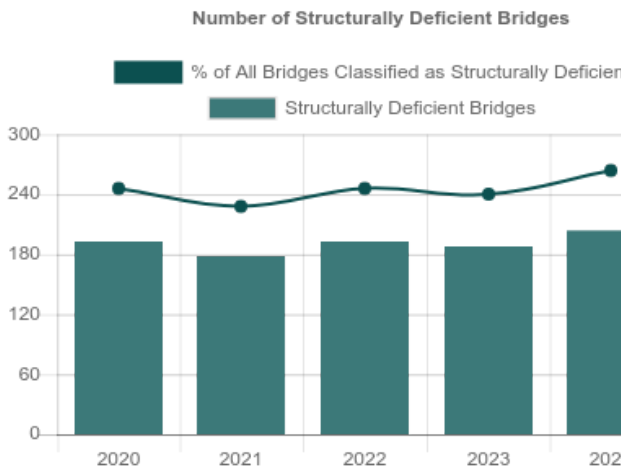
28

Compared to 28 in 2023

in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
27. Minnesota	5.0%
28. Tennessee	5.0%
29. Arkansas	5.0%





Top Most Traveled Structurally Deficient Bridges in Tennessee

County	Year Built	Daily Crossings	Type of Bridge	Location
Shelby	1958	59,405	Urban other principal arterial	Fas 177 over Wolf River
Shelby	1968	53,975	Urban freeway/expressway	Fau 4032 over Waring Rd
Shelby	1973	53,211	Urban Interstate	I40-Ll-Exit-Ramp over I40-WB-Ex Rp / N 3rd St.
Shelby	1929	48,162	Urban other principal arterial	Fap 14 297767K over IC RR & Nonconnah Creek
Shelby	1958	44,832	Urban minor arterial	Fau 2825 over Cherry Creek
Shelby	1970	36,821	Urban other principal arterial	Fau 2830 over Johns Creek
Shelby	1978	36,663	Urban freeway/expressway	Fau 2810 over Winchester Rd
Shelby	1928	33,396	Urban other principal arterial	Fau 57 299598G over SR 23 CSX & Cnic RR
Shelby	1979	31,787	Urban other principal arterial	Fas 175 over Branch of Johns Creek
Shelby	1965	30,230	Urban other principal arterial	Fau 2803 over I-240 & I-40 Ramps
Shelby	2003	29,627	Urban minor arterial	Fau 4032 over Cnic E419 Iccn & 5250
Shelby	1954	25,855	Urban other principal arterial	Fau 2810 663402M over Airways Blvd/Yale Yards
Shelby	1963	25,735	Urban minor arterial	Fau 2878 over Branch
Shelby	1964	25,215	Urban other principal arterial	Fap 14 over SR-14 / I-55
Shelby	1962	23,199	Urban minor arterial	Fau 5012 over Johns Creek
Shelby	1978	22,230	Urban other principal arterial	Fau 2813 over Plough Blvd. SB. Lanes
Shelby	1965	22,230	Urban other principal arterial	Fau 2813 over Days Creek
Shelby	1978	22,230	Urban other principal arterial	Fau 2810 over Plough Blvd. NB. Lanes
Fayette	1992	21,609	Rural arterial	Fap 15 over Branch
Shelby	1970	21,303	Urban minor arterial	Fau 2814 348583D over pedestrian walkway
Shelby	1968	21,303	Urban minor arterial	Fau 2814 over Sam Cooper Blvd.
Shelby	1963	20,846	Urban minor arterial	Fau 4189 over Johns Creek
Shelby	1968	20,398	Urban minor arterial	Fau 5156 over Sam Cooper Blvd.
Shelby	1968	19,431	Urban other principal arterial	Fau 4191 over Days Creek
Shelby	1970	18,304	Urban minor arterial	Fau 2863 over Days Creek

Bridge Inventory: Tennessee

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	91	151,077	2,100,147	0	0	0
Rural arterial	322	306,984	2,745,052	5	12,414	62,024
Rural minor arterial	224	164,322	856,846	6	4,760	25,327
Rural major collector	646	235,430	914,412	19	11,683	26,604
Rural minor collector	628	150,942	416,658	30	8,249	29,709
Rural local road	1,251	196,195	247,161	76	11,619	14,188
Urban Interstate	197	459,596	16,291,747	1	628	53,211
Urban freeway/expressway	89	156,201	3,813,966	3	2,874	102,384
Urban other principal arterial	335	426,166	7,628,515	12	39,688	376,992
Urban minor arterial	322	311,823	4,356,874	22	29,055	323,052
Urban collector	202	76,174	879,538	10	4,510	33,216
Urban local road	345	111,759	519,144	20	11,016	33,368
Total	4,652	2,746,670	40,770,060	204	136,496	1,080,075

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	190	$204	1,061,683	92,106
Widening & rehabilitation	581	$444	4,927,572	306,866
Rehabilitation	712	$856	10,781,019	526,881
Deck rehabilitation/replacement	15	$175	221,057	103,476
Other structural work	55	$14	171,334	10,743
Total	1,553	$1,693	17,162,665	1,040,071

About the data:

Data includes information for the following area(s): Benton County, Carroll County, Crockett County, Dyer County, Fayette County, Gibson County, Haywood County, Henry County, Lake County, Lauderdale County, Madison County, Obion County, Shelby County, Tipton County, Weakley County

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.