

District Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- Of the 1,077 bridges in the counties of this district, 48, or 4.5 percent, are classified as structurally deficient.
 This means one of the key elements is in poor or worse condition.
- This is up from 45 bridges classified as structurally deficient in 2019.
- Repairs are needed on 381 bridges in the district, which will cost an estimated \$786.0 million.
- This compares to 397 bridges that needed work in 2019.
- There currently are now projects in the District that use IIJA formula bridge funds.

	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	14	10,557	287,466	0	0	0
Other principal arterial	22	16,966	289,734	0	0	0
Minor arterial	9	12,377	84,121	1	630	8,449
Major collector	5	3,063	18,931	0	0	0
Minor collector	29	10,649	72,861	1	272	7,982
Local	55	13,742	19,344	2	590	1,488
Urban Bridges						
Interstate	163	419,019	15,393,865	2	3,218	158,592
Freeway/expressway	76	142,152	3,644,509	2	1,924	90,638
Other principal arterial	174	299,283	5,393,936	10	36,856	324,532
Minor arterial	236	275,303	3,800,654	22	21,350	469,495
Collector	95	41,229	559,296	4	2,219	11,719
Local	199	77,382	318,184	4	6,930	14,572
Total	1,077	1,321,722	29,882,901	48	73,988	1,087,467

Bridge Inventory

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	32	\$126.5	874,590	56,424
Widening & rehabilitation	133	\$191.0	3,570,348	139,212
Rehabilitation	206	\$329.9	7,842,994	218,056
Deck rehabilitation/replacement	5	\$135.0	198,542	82,795
Other work	5	\$3.6	110,167	2,288
Total	381	\$786.0	12,596,641	498,774

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Top Most Traveled Structurally Deficient Bridges in this District

County	Year Built	Daily Crossings	Type of Bridge	Location	
Shelby	1966	105,381	Urban Interstate	I-240SB 348605B over I-240 EB / Agnes PI & RR	
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-LI-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	1968	47,158	Urban minor arterial	Fau 4032 over Holmes St	
Shelby	1968	47,158	Urban minor arterial	Fau 4032 over Holmes St	
Shelby	1969	47,158	Urban minor arterial	Fau 4032 over N Highland St	
Shelby	1969	47,158	Urban minor arterial	Fau 4032 over N. Highland St.	
Shelby	1958	44,832	Urban minor arterial	Fau 2825 over Cherry Creek	

Data includes information for the following area(s): Shelby County

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.

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on July 3, 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.