

Highlights from FHWA’s 2023 National Bridge Inventory Data

- Of the 3,956 bridges in the counties of this district, 20, or 0.5 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 35 bridges classified as structurally deficient in 2019.
- Repairs are needed on 1,334 bridges in the district, which will cost an estimated \$1.2 billion.
- This compares to 1,387 bridges that needed work in 2019.
- The state has committed \$2.8 million in IJA bridge formula funds to support 1 project in the District.

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	1	671	23,335	0	0	0
Other principal arterial	81	97,375	1,646,836	0	0	0
Minor arterial	111	65,134	922,402	0	0	0
Major collector	124	56,572	730,996	1	90	4,150
Minor collector	29	16,341	99,363	0	0	0
Local	254	95,129	850,187	2	310	2,430
Urban Bridges						
Interstate	581	2,366,440	49,864,913	4	15,693	441,558
Freeway/expressway	978	4,361,235	39,083,966	3	41,599	90,256
Other principal arterial	363	718,807	6,486,088	2	3,770	32,755
Minor arterial	314	318,616	4,120,373	0	0	0
Collector	426	593,656	4,838,856	2	5,159	27,033
Local	694	403,982	2,942,677	6	6,641	92,910
Total	3,956	9,093,958	111,609,992	20	73,262	691,092

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	44	\$31.0	252,544	26,410
Widening & rehabilitation	1	\$0.1	23,945	127
Rehabilitation	31	\$33.6	550,366	51,461
Deck rehabilitation/replacement	0	\$0	0	0
Other work	1,258	\$1,121.8	23,850,577	1,582,663
Total	1,334	\$1,186.5	24,677,432	1,660,660

Top Most Traveled Structurally Deficient Bridges in this District

County	Year Built	Daily Crossings	Type of Bridge	Location
Harris	1966	187,570	Urban Interstate	IH 610 over FM 521 & BNSF RR
Harris	1960	116,204	Urban Interstate	IH 45 SB over Crosstimbers St
Harris	1960	116,204	Urban Interstate	IH 45 NB over Crosstimbers St
Harris	1986	47,938	Urban freeway/expressway	SH 146 over Clear Crk & Shipyard Dr
Harris	1970	44,730	Urban local road	S Braeswood Blvd over Hcfcd Ditch
Harris	1956	25,730	Urban other principal arterial	US 90A SB over Buffalo Bayou/ Zoltowski
Harris	1930	21,880	Urban local road	Calhoun St over Brays Bayou
Harris	1962	21,580	Urban Interstate	Ih45 SB Mckiney Ex over Buffalo Byu/IH 45 NB
Harris	1979	21,541	Urban freeway/expressway	US 59 NB/IH 610 WB over IH 610
Harris	1979	20,777	Urban freeway/expressway	US 59 SB/IH 610 EB over IH 610 / US 59

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

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.

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.