

District Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- Of the 2,710 bridges in the counties of this district, 182, or 6.7 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 169 bridges classified as structurally deficient in 2019.
- Repairs are needed on 397 bridges in the district, which will cost an estimated \$829.6 million.
- This compares to 375 bridges that needed work in 2019.
- The state has committed \$1.9 million in IIJA bridge formula funds to support 6 projects in the District.

	All Bridges			Structurally Deficient Bridges		
Type of Bridge	Total	Area	Daily	Total	Area	Daily
	Number	(sq. meters)	Crossings	Number	(sq. meters)	Crossings
Rural Bridges						
Interstate	65	102,210	1,327,342	0	0	0
Other principal arterial	58	30,878	474,543	2	734	16,712
Minor arterial	51	19,805	265,913	1	984	3,813
Major collector	149	47,341	430,336	10	1,500	15,034
Minor collector	122	24,055	214,422	10	1,794	10,775
Local	477	100,079	488,369	62	6,810	49,574
Urban Bridges						
Interstate	481	1,092,926	24,103,217	12	30,658	703,712
Freeway/expressway	144	284,065	3,723,083	1	964	14,583
Other principal arterial	228	328,818	3,339,759	10	20,250	157,563
Minor arterial	388	425,471	3,784,353	36	67,984	394,994
Collector	263	190,755	1,562,804	10	3,977	56,065
Local	284	120,183	931,407	28	11,279	78,067
Total	2,710	2,766,587	40,645,548	182	146,934	1,500,892

Bridge Inventory

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	81	\$131.5	1,057,954	52,700
Widening & rehabilitation	10	\$43.3	258,415	26,237
Rehabilitation	209	\$352.1	1,760,454	206,789
Deck rehabilitation/replacement	59	\$266.3	1,714,534	157,310
Other work	38	\$36.4	341,377	21,250
Total	397	\$829.6	5,132,734	464,285

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Top Most Traveled Structurally Deficient Bridges in this District

County	Year Built	Daily Crossings	Type of Bridge	Location	
Cuyahoga	1971	142,337	Urban Interstate	Ir 480 over Cr 8 (Lee Rd)	
Cuyahoga	1971	106,617	Urban Interstate	Ir 90 over Rocky River Valley	
Cuyahoga	1980	77,220	Urban Interstate	Ramp SW from I-71 over IR 480 Mainline	
Cuyahoga	1980	77,220	Urban Interstate	Ramp Es from I-480 over IR 480 Mainline	
Cuyahoga	1962	59,893	Urban Interstate	IR 77 over E 14th St	
Cuyahoga	1962	59,893	Urban Interstate	IR 77 over E 22 St	
Cuyahoga	1962	59,893	Urban Interstate	IR 77 over US-422 WB (Cuy-422-0125)	
Cuyahoga	1973	44,715	Urban Interstate	Ir 480 E.B. over Up 480-ES&Wn,Dn 77-Sw&Ne	
Cuyahoga	1973	44,715	Urban Interstate	Ir 480 WB over Up480-ES&Wn,Dn77-Sw&Ne	
Cuyahoga	1976	41,217	Urban minor arterial	Warren Road CR-66 over IR-90 (Warren)	

Data includes information for the following area(s): Cuyahoga County, Medina County, Portage County, Stark County, Summit County, Wayne 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, <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.