

Highlights from FHWA’s 2019 National Bridge Inventory Data

- Of the 14,249 bridges in the state, 1,026, or 7.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,132 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 4.0 percent of total deck area on all structures.
- 34 of the structurally deficient bridges are on the Interstate Highway System.
- 669 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 1,905 bridges at an estimated cost of \$1.6 billion.
- This compares to 2,042 bridges that needed work in 2015.

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	631	468,218	12,128,862	20	9,951	423,800
Other principal arterial	1,111	809,624	8,600,885	26	13,589	115,335
Minor arterial	1,129	505,417	3,975,643	38	18,784	129,139
Major collector	1,817	556,623	2,886,220	211	53,765	246,322
Minor collector	727	173,474	641,707	93	20,371	63,740
Local	5,872	971,830	2,037,453	494	56,473	104,391
Urban Bridges						
Interstate	656	1,175,698	22,461,489	14	20,291	607,130
Freeway/expressway	214	357,107	4,692,999	1	460	15,000
Other principal arterial	768	931,870	12,490,185	32	28,316	550,899
Minor arterial	567	607,798	5,455,423	36	42,509	321,213
Collector	201	123,512	953,985	22	7,191	62,073
Local	556	265,345	2,116,425	39	8,355	85,376
Total	14,249	6,946,514	78,441,272	1,026	280,057	2,724,418

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	1,881	\$1,617	12,380,790	1,109,146
Widening & rehabilitation	0	\$0	0	0
Rehabilitation	3	\$0	284	304
Deck rehabilitation/replacement	15	\$3	13,830	2,993
Other work	6	\$1	1,382	753
Total	1,905	\$1,621	12,396,286	1,113,196

Top Most Traveled Structurally Deficient Bridges in Wisconsin

County	Year Built	Daily Crossings	Type of Bridge	Location
Milwaukee	1960	124,000	Urban Interstate	IH 43-N-S Freeway over Lrd Glendale Ave
Milwaukee	1959	124,000	Urban Interstate	IH 43-N-S Freeway over Lrd W Hampton Ave
St. Croix	1972	73,000	Urban Interstate	IH 94-USH 12-Sth 3 over Lrd Front St
St. Croix	1972	73,000	Urban Interstate	IH 94-USH 12-Sth 3 over Sth 35 SB
Milwaukee	1967	50,000	Urban Interstate	IH 41/Ush 45/Sth 1 over Cth W Mill Rd (Cth S)
Milwaukee	1967	50,000	Urban Interstate	IH 41/Ush 45/Sth 1 over Cth W Mill Rd (Cth S)
Kenosha	1959	45,350	Rural Interstate	IH 41 SB/94 EB over Cth Kr
Racine	1959	38,800	Rural Interstate	IH 41 SB/94 EB over Sth 11
Dane	1956	36,178	Urban other principal arterial	Cth M Century Av over Pheasant Branch Creek
Milwaukee	1969	35,262	Urban other principal arterial	Cth Pp W Good Hop over Br Milwaukee River

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released April 2, 2020. 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 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 2018 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.