

## Highlights from FHWA's 2018 National Bridge Inventory Data

- Of the 24,512 bridges in the state, 2,116, or 8.6 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 2,079 bridges classified as structurally deficient in 2014.
- 72 of the structurally deficient bridges are on the Interstate Highway System.
- 4,609 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 4,811 bridges at an estimated cost of \$1.3 billion.
- This compares to 5,195 bridges that needed work in 2014.

## Bridge Inventory

Type of Bridge <sup>4</sup>	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
<b>Rural Bridges</b>						
Interstate	478	531,407	6,220,551	28	37,064	350,254
Other principal arterial	1,187	1,138,244	6,978,648	45	51,593	239,789
Minor arterial	1,143	683,854	2,847,421	74	56,863	139,724
Major collector	3,959	1,374,626	3,469,897	485	192,708	313,496
Minor collector	1,058	232,458	356,802	140	38,986	44,288
Local	12,045	1,703,354	1,076,793	1,040	116,035	85,044
<b>Urban Bridges</b>						
Interstate	890	1,892,104	36,127,965	44	175,483	2,234,352
Freeway/expressway	623	952,566	12,347,685	21	54,275	355,173
Other principal arterial	494	634,097	8,177,400	20	46,609	340,997
Minor arterial	798	825,167	7,014,747	45	77,693	368,791
Collector	761	435,704	3,012,196	65	35,250	243,837
Local	1,076	298,183	1,540,437	109	27,245	153,170
<b>Total</b>	<b>24,512</b>	<b>10,701,764</b>	<b>89,170,536</b>	<b>2,116</b>	<b>909,803</b>	<b>4,868,915</b>

## Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,835	\$891,306	3,338,762	777,455
Widening & rehabilitation	1	\$132	4,439	1,810
Rehabilitation	1,938	\$419,044	8,839,626	975,776
Deck rehabilitation/replacement	0	\$0	0	0
Other work	37	\$741	11,699	10,150
<b>Total</b>	<b>4,811</b>	<b>\$1,311,223</b>	<b>12,194,526</b>	<b>1,765,190</b>



## Top Most Traveled Structurally Deficient Bridges in Missouri

County	Year Built	Daily Crossings	Type of Bridge	Location
St. Louis	1964	198,800	Urban Interstate	IS 270 E over CST Conway Rd
St. Louis	1965	157,244	Urban Interstate	IS 270 E over UP RR, Fee Fee Cr
St. Louis	1931	131,273	Urban Interstate	IS 270 E over Maline Cr
St. Louis	1968	119,236	Urban Interstate	IS 170 E over Rvr Des Peres
St. Louis	1969	100,492	Urban Interstate	IS 44 E over BNSF RR
Jackson	1964	97,274	Urban Interstate	IS 435 S over Grave Cr
Platte	1957	93,299	Urban Interstate	IS 29 S over Rt Aa
Clay	1967	84,758	Urban Interstate	IS 435 S over Drain Dtch
Clay	1972	81,501	Urban Interstate	IS 435 S over Missouri Rvr, CST NE Bir
St. Louis	1960	74,231	Urban Interstate	IS 270 W over Rt N

**About the data:** Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released March 15, 2019. 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 2017 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.