

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

- Of the 9,401 bridges in the state, 795, or 8.5 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 877 bridges classified as structurally deficient in 2014.
- 29 of the structurally deficient bridges are on the Interstate Highway System.
- 667 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,160 bridges at an estimated cost of \$1.5 billion.
- This compares to 1,680 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	349	465,102	8,286,025	17	25,476	325,650
Other principal arterial	494	780,371	3,387,489	43	74,308	240,450
Minor arterial	743	778,594	3,170,879	97	91,419	371,975
Major collector	2,125	837,977	2,675,387	182	64,502	248,123
Minor collector	444	115,998	149,605	25	4,630	7,727
Local	2,609	573,102	725,288	226	40,850	54,927
<b>Urban Bridges</b>						
Interstate	393	1,149,299	14,191,550	12	26,472	783,450
Freeway/expressway	106	282,421	1,888,689	5	6,749	151,850
Other principal arterial	379	885,627	7,457,947	20	32,577	389,700
Minor arterial	546	676,309	6,201,404	59	51,039	634,800
Collector	591	275,973	2,567,511	55	25,416	241,722
Local	622	165,077	646,252	54	10,894	32,637
<b>Total</b>	<b>9,401</b>	<b>6,985,851</b>	<b>51,348,028</b>	<b>795</b>	<b>454,332</b>	<b>3,483,011</b>

## Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	751	\$432,995	2,066,309	306,284
Widening & rehabilitation	1,177	\$985,537	15,877,556	1,293,384
Rehabilitation	222	\$48,291	1,386,216	142,128
Deck rehabilitation/replacement	0	\$0	0	0
Other work	10	\$980	16,875	10,728
<b>Total</b>	<b>2,160</b>	<b>\$1,467,804</b>	<b>19,346,956</b>	<b>1,752,524</b>



## Top Most Traveled Structurally Deficient Bridges in South Carolina

County	Year Built	Daily Crossings	Type of Bridge	Location
Richland	1958	124,800	Urban Interstate	I-26 over C.N. and L. Railroad
Greenville	1960	109,700	Urban Interstate	I-85 over Trib Laurel Crk
Charleston	1963	100,100	Urban Interstate	I-26 EB over S.C.L. RR & Southern Rwy
Lexington	1959	97,500	Urban Interstate	I-26 over SC 302
Lexington	1958	97,500	Urban Interstate	I-26 over Southern Rwy (No. 1)
Lexington	1959	92,700	Urban Interstate	I-26 over US 1
Richland	1977	51,300	Urban freeway/expressway	SC 277 NB over I-77
Richland	1961	50,200	Urban Interstate	I-126 over S.C.L. Railroad
Spartanburg	1953	38,300	Urban freeway/expressway	SC 85 over S-2
Spartanburg	1953	38,300	Urban freeway/expressway	SC 85 over Southern RR & S-42-995

**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.