



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

- Of the 780 bridges in the state, 180, or 23.1 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 173 bridges classified as structurally deficient in 2014.
- 27 of the structurally deficient bridges are on the Interstate Highway System.
- 117 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 721 bridges at an estimated cost of \$1.8 billion.
- This compares to 719 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	13	6,813	362,215	1	787	43,029
Other principal arterial	16	6,275	137,635	2	2,229	18,655
Minor arterial	9	2,264	38,281	1	64	5,199
Major collector	22	6,385	65,461	8	2,677	30,071
Minor collector	23	7,078	22,411	2	315	1,800
Local	31	3,231	17,460	12	1,089	4,600
<b>Urban Bridges</b>						
Interstate	130	216,324	7,523,554	26	56,187	1,745,718
Freeway/expressway	121	244,485	3,480,537	33	48,537	1,178,514
Other principal arterial	128	126,330	1,915,053	25	21,061	397,947
Minor arterial	144	114,551	1,648,194	31	43,095	368,148
Collector	87	41,480	420,240	20	8,356	76,449
Local	56	18,312	313,810	19	5,367	46,694
<b>Total</b>	<b>780</b>	<b>793,527</b>	<b>15,944,851</b>	<b>180</b>	<b>189,763</b>	<b>3,916,824</b>

## Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	5	\$10,208	19,209	3,527
Widening & rehabilitation	0	\$0	0	0
Rehabilitation	714	\$1,757,334	14,745,484	685,581
Deck rehabilitation/replacement	0	\$0	0	0
Other work	2	\$665	3,050	3,633
<b>Total</b>	<b>721</b>	<b>\$1,768,206</b>	<b>14,767,743</b>	<b>692,741</b>



## Top Most Traveled Structurally Deficient Bridges in Rhode Island

County	Year Built	Daily Crossings	Type of Bridge	Location
Providence	1964	171,707	Urban Interstate	I-95 NB & SB over US 6, Woon Rvr, Amtrak
Providence	1961	167,639	Urban Interstate	I-95 NB & SB over Blackstone St
Providence	1964	157,769	Urban Interstate	I-95 NB & SB over Amtrak
Providence	1965	157,769	Urban Interstate	I-95 NB & SB over US 1 Elmwood Av
Providence	1964	157,769	Urban Interstate	I-95 NB & SB over Wellington Av
Providence	1964	156,790	Urban Interstate	I-95 NB & SB over Narr Elec Co Siding
Kent	1966	154,113	Urban Interstate	I-95 NB & SB over Jefferson Blvd
Providence	1958	116,900	Urban Interstate	I-95 NB & SB over Water St
Providence	1969	76,700	Urban Interstate	I-195 WB over Seekonk River
Providence	1953	70,690	Urban freeway/expressway	US 6 Olneyville Exp over Plainfield St

**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.