American Road & Transportation Builders Association

Rhode Island
State Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 716 bridges.
- Over the life of the IIJA, Rhode Island will receive a total of $255.0 million in bridge formula funds, which will help make needed repairs.
- Rhode Island currently has access to $102.0 million of that total, and has committed $41.9 million towards 12 projects as of June 2023.
- Of the 782 bridges in the state, 120, or 15.3 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 174 bridges classified as structurally deficient in 2019.

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	14	7,092	873,492	0	0	0
Other principal arterial	16	6,310	128,590	1	200	5,534
Minor arterial	9	2,306	42,545	0	0	0
Major collector	22	6,724	74,644	4	1,261	4,792
Minor collector	23	5,050	20,953	1	318	513
Local	32	3,470	9,682	10	1,055	2,561
Urban Bridges						
Interstate	127	203,943	6,996,056	12	31,250	636,003
Freeway/expressway	122	235,744	3,743,799	18	25,030	679,678
Other principal arterial	129	121,504	1,987,760	18	17,088	350,434
Minor arterial	143	102,253	1,482,776	26	26,989	274,654
Collector	86	41,344	372,149	18	9,501	52,362
Local	59	18,168	91,260	12	2,304	20,843
Total	**782**	**753,907**	**15,823,706**	**120**	**114,996**	**2,027,374**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	5	$37.4	34,396	3,527
Widening & rehabilitation				
Rehabilitation	708	$3,217.5	13,991,938	643,063
Deck rehabilitation/replacement				
Other work	3	$28.5	3,150	3,953
Total	**716**	**$3,283.4**	**14,029,484**	**650,543**

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Top Most Traveled Structurally Deficient Bridges in Rhode Island

County	Year Built	Daily Crossings	Type of Bridge	Location
Providence	1964	134,500	Urban Interstate	I-95 NB & SB over Amtrak
Providence	1964	134,500	Urban Interstate	I-95 NB & SB over Wellington Av
Providence	1965	134,500	Urban Interstate	I-95 NB & SB over US 1 Elmwood Av
Providence	1969	80,500	Urban Interstate	I-195 WB over Seekonk River
Providence	1957	69,109	Urban freeway/expressway	RI 146 Ed Dowl Hwy over RI 15 Mineral Spring Av
Providence	1957	65,800	Urban freeway/expressway	RI 146 Ed Dowl Hwy over Branch Av
Providence	1969	53,619	Urban freeway/expressway	US 6 EB & WB over US 6A Hartford Av Ramp
Providence	1965	47,871	Urban other principal arterial	RI 37 EB & WB over RI 2 New London Av
Providence	1956	47,393	Urban freeway/expressway	RI 146 Ed Dowl Hwy over Cobble Hill Rd
Kent	1963	47,277	Urban freeway/expressway	RI 37 EB over Amtrak

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on February 1, 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, 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.