American Road & Transportation Builders Association

National Bridge Inventory: Arizona

- The state has identified needed repairs on 1,654 bridges.
- This compares to 1,716 bridges that needed work in 2020.
- Over the life of the IIJA, Arizona will receive a total of $225.0 million in bridge formula funds, which will help make needed repairs.
- Arizona currently has access to $135.0 million of that total, and has committed $97.9 million towards 9 projects as of June 2024.
- Of the 8,573 bridges in the state, 99, or 1.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 132 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 1.0 percent of total deck area on all structures.

51

Compared to 52 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	19.0%
50. Texas	1.0%
51. Arizona	1.0%

46

Compared to 46 in 2023

in the nation in # of structurally deficient bridges

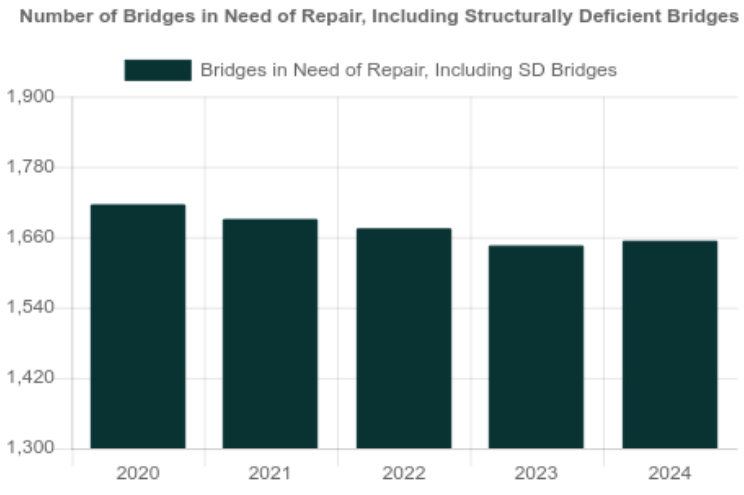
1. Iowa	4,544
45. Rhode Island	119
46. Arizona	99
47. Utah	91

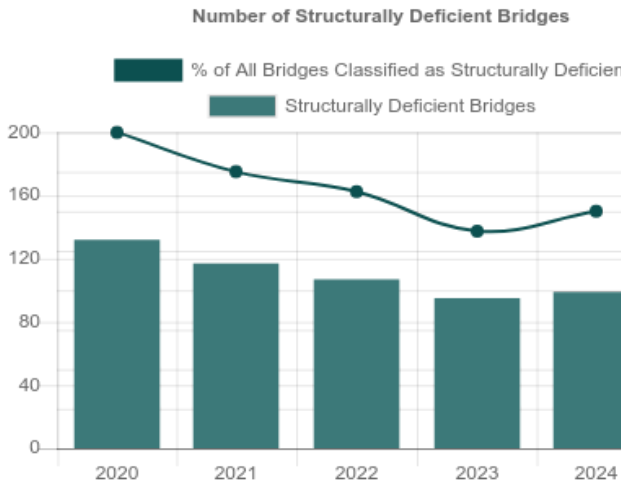
49

Compared to 50 in 2023

in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
49. Arizona	1.0%
50. Texas	1.0%





Top Most Traveled Structurally Deficient Bridges in Arizona

County	Year Built	Daily Crossings	Type of Bridge	Location
Pima	1966	39,799	Urban minor arterial	22nd Street over SPRR; Aviation Hwy
Maricopa	1976	37,601	Urban other principal arterial	Shea Boulevard over Indian Bend Wash
Mohave	1967	32,192	Rural Interstate	I 15 over Virgin River
Mohave	1964	27,997	Rural Interstate	I 15 over Virgin River
Navajo	1969	21,131	Rural Interstate	I-40 WB over SB 40
Mohave	1972	16,394	Rural Interstate	I 15; NB over Virgin River
Mohave	1973	14,734	Rural Interstate	I 15; SB over Virgin River
Apache	1964	8,418	Rural Interstate	IRR I 40; WB over Window Rock Rd
Yuma	1978	8,350	Urban Interstate	I 8 EB over Colo R Pentntry Av Sptco
Pinal	1929	7,553	Rural arterial	US 60 over Waterfall Canyon
Pinal	1949	6,929	Rural arterial	US 60 over Queen Creek
Cochise	1960	6,156	Rural minor arterial	SR 80 over San Pedro River
Yavapai	1977	5,844	Rural minor arterial	SR 169 over Ash Creek
Maricopa	1957	5,487	Rural Interstate	I-8 EB over Gillespie Canal
Gila	1920	5,162	Urban minor arterial	Jesse Hayes Rd over Pinal Creek
Coconino	1936	4,618	Rural arterial	SR 64 over Red Lake Wash
Coconino	1960	4,518	Rural arterial	IRR US 89; Fap 037 over Wash
Navajo	1990	4,078	Rural major collector	IRR BIA Rte N4 over Wepo Wash
Yuma	1965	3,550	Urban minor arterial	IRR BIA Rte 31 over Southern Pacific RR
La Paz	1962	3,000	Rural major collector	IRR BIA Rte 1 over Main Drain
Pima	1959	2,718	Rural major collector	Trico-Marana Road over Santa Cruz River
La Paz	1934	2,156	Rural minor arterial	US 60 over Centennial Wash
Navajo	1986	2,051	Rural minor arterial	IRR BIA Rte N15 over Black Canyon Wash
Apache	1976	1,620	Rural minor arterial	IRR BIA Rte N59 over Burro Wash
Maricopa	1965	1,600	Rural minor collector	IRR BIA Rte 11 over Arizona Canal

Bridge Inventory: Arizona

Type of Bridge	Number of Bridges	Area of All Bridges (sq. meters)	Daily Crossings on All Bridges	Number of Structurally Deficient Bridges	Area of Structurally Deficient Bridges (sq. meters)	Daily Crossings on Structurally Deficient Bridges
Rural Interstate	1,224	582,841	20,274,669	7	12,601	126,353
Rural arterial	930	587,034	8,423,269	4	2,860	23,618
Rural minor arterial	700	274,914	5,225,265	14	7,190	21,122
Rural major collector	1,099	473,369	2,792,459	10	4,153	15,388
Rural minor collector	355	113,445	471,624	16	6,877	7,766
Rural local road	845	243,791	764,831	34	6,087	7,424
Urban Interstate	314	641,589	17,657,193	1	10,977	8,350
Urban freeway/expressway	459	1,124,007	27,450,262	0	0	0
Urban other principal arterial	735	805,581	17,265,476	1	2,126	37,601
Urban minor arterial	690	749,697	11,214,257	3	10,381	48,511
Urban collector	464	325,804	2,799,431	1	61	660
Urban local road	758	272,542	2,049,748	8	1,184	7,516
Total	8,573	6,194,613	116,388,484	99	64,496	304,309

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	1,193	$2,049	21,491,099	670,404
Widening & rehabilitation	191	$176	4,177,485	84,313
Rehabilitation	152	$329	2,405,108	159,138
Deck rehabilitation/replacement	22	$37	249,659	17,447
Other structural work	96	$201	3,361,754	98,057
Total	1,654	$2,791	31,685,105	1,029,358

About the data:

Data and cost estimates are from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on August 20, 2024. 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 2023 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.