American Road & Transportation Builders Association

National Bridge Inventory: West Virginia

- The state has identified needed repairs on 3,489 bridges.
- This compares to 3,656 bridges that needed work in 2020.
- Over the life of the IIJA, West Virginia will receive a total of $548.1 million in bridge formula funds, which will help make needed repairs.
- West Virginia currently has access to $328.9 million of that total, and has committed $280.5 million towards 404 projects as of June 2024.
- Of the 7,348 bridges in the state, 1,370, or 18.6 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,545 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 12.8 percent of total deck area on all structures.

2

Compared to 1 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	**19.0%**
1. Iowa	19.0%
2. West Virginia	19.0%
3. South Dakota	16.0%

9

Compared to 9 in 2023

in the nation in # of structurally deficient bridges

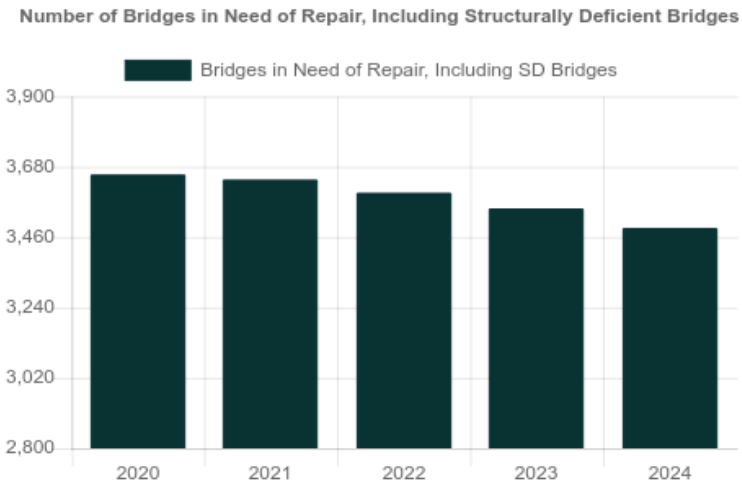
1. Iowa	**4,544**
8. Louisiana	1,458
9. West Virginia	1,370
10. Kansas	1,310

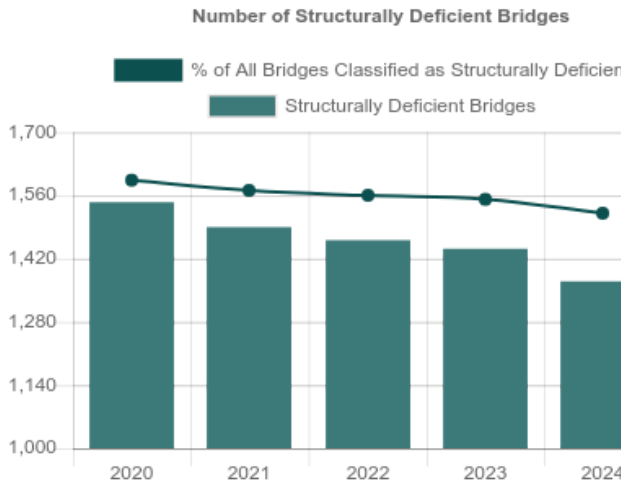
2

Compared to 2 in 2023

in the nation in % of structurally deficient bridge deck area

1. Rhode Island	**14.0%**
1. Rhode Island	14.0%
2. West Virginia	13.0%
3. New York	12.0%





Top Most Traveled Structurally Deficient Bridges in West Virginia

County	Year Built	Daily Crossings	Type of Bridge	Location
Putnam	1959	64,400	Urban Interstate	I-64 EB over Cr 33/5
Kanawha	1975	47,700	Urban Interstate	I-77 NB & SB over US 60
Cabell	1959	33,900	Urban Interstate	I 64 WB over Guyandotte R, Cr60/52&26
Cabell	1964	32,400	Urban Interstate	I 64 WB over West, East, and Cook Rds
Cabell	1964	28,200	Urban Interstate	I 64 EB over West, East & Cookschool
Kanawha	1965	28,000	Urban Interstate	I-64 Ramp B over Wv25
Wood	1935	27,421	Urban other principal arterial	West Virginia 14 over Little Kanawha River
Ohio	1966	27,010	Urban Interstate	Interstate 70 EB over Wheeling Creek & City St
Putnam	1959	26,150	Urban Interstate	I 64 WB over Cr 29 & Rocky Step Run
Harrison	1977	26,100	Urban other principal arterial	US Route 50 over US 19 & WV 20
Harrison	1977	26,100	Urban other principal arterial	US Route 50 over CSX Railbed
Cabell	1996	23,600	Urban Interstate	I64 EB over Mud River
Cabell	1958	23,500	Urban Interstate	I 64 over Cr 60/89
Monongalia	1969	22,800	Rural Interstate	I 79 SB over Whiteday Crk & Cr 73/01_
Monongalia	1969	22,800	Rural Interstate	I 79 NB over Whiteday Crk & Cr 73/01_
Harrison	1974	22,600	Urban other principal arterial	US Route 50 over Interstate 79
Brooke	1984	22,100	Urban freeway/expressway	US Route 22 over Ramp D, Railroad
Marion	1966	21,200	Urban Interstate	Interstate 79 SB over WV 310
Wood	1971	20,100	Urban freeway/expressway	West Virginia 68 over 2nd Street
Ohio	1970	20,100	Urban Interstate	Interstate 70 over Mid.Whg Crk, US40 Cty St
Monongalia	1971	19,100	Rural minor arterial	US Route 119 over I-68 EB & WB
Kanawha	1953	18,959	Urban collector	Cr 25/47 over 10th St.,US Rt 60, Kan R
Monongalia	1970	18,950	Rural Interstate	Interstate 79 NB over I-68 Eastbound On-Ramp
Monongalia	1970	18,950	Rural Interstate	Interstate 79 SB over I-68 Eastbound On-Ramp
Wayne	1962	18,900	Urban Interstate	I 64 WB over US 52 and WV 75

Bridge Inventory: West Virginia

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	396	482,322	5,792,089	49	58,518	581,636
Rural arterial	432	730,114	2,634,154	50	74,342	233,790
Rural minor arterial	361	208,234	1,072,801	73	26,691	221,970
Rural major collector	1,479	449,681	1,948,525	303	65,243	377,157
Rural minor collector	498	92,583	276,286	79	9,609	31,712
Rural local road	3,053	447,622	615,729	623	62,202	109,892
Urban Interstate	256	610,464	7,499,768	28	54,653	600,144
Urban freeway/expressway	78	181,681	805,903	11	27,971	113,700
Urban other principal arterial	154	306,939	2,099,611	22	62,119	288,778
Urban minor arterial	207	224,932	1,614,969	41	25,435	325,588
Urban collector	148	81,006	524,041	25	18,636	113,716
Urban local road	286	100,939	354,572	66	16,546	58,030
Total	7,348	3,916,517	25,238,448	1,370	501,964	3,056,113

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	2,065	$1,235	3,321,809	405,542
Widening & rehabilitation	167	$113	356,322	54,861
Rehabilitation	674	$1,297	4,431,975	631,447
Deck rehabilitation/replacement	496	$1,218	3,226,718	592,763
Other structural work	87	$197	314,910	95,971
Total	3,489	$4,060	11,651,734	1,780,584

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.