WEST VIRGINIA

American Road & Transportation Builders Association

2020 Bridge Profile

Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 7,291 bridges in the state, 1,531, or 21.0 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 1,059 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 16.2 percent of total deck area on all structures.
- 93 of the structurally deficient bridges are on the Interstate Highway System.
- 907 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 3,660 bridges at an estimated cost of $2.9 billion.
- This compares to 3,440 bridges that needed work in 2015.

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	399	457,005	5,590,285	44	46,904	684,062
Other principal arterial	430	690,485	2,727,759	69	80,525	392,548
Minor arterial	350	202,126	1,188,886	91	35,278	295,909
Major collector	1,484	444,393	2,284,303	346	78,630	495,567
Minor collector	501	93,182	341,313	100	14,384	51,028
Local	3,012	423,316	720,350	659	66,276	123,155
Urban Bridges						
Interstate	252	587,001	6,757,733	49	115,223	1,262,839
Freeway/expressway	78	193,207	842,169	13	51,059	168,438
Other principal arterial	147	293,077	2,185,366	27	52,948	382,003
Minor arterial	208	220,322	1,799,640	54	41,027	481,641
Collector	145	78,995	570,198	21	18,108	108,242
Local	285	98,249	367,836	58	13,008	59,125
Total	**7,291**	**3,781,357**	**25,375,838**	**1,531**	**613,371**	**4,504,557**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,056	$907	3,465,359	411,572
Widening & rehabilitation	244	$93	514,523	63,788
Rehabilitation	690	$775	3,771,718	566,143
Deck rehabilitation/replacement	568	$971	4,636,382	719,202
Other work	102	$113	328,004	85,172
Total	**3,660**	**$2,859**	**12,715,986**	**1,845,877**

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Top Most Traveled Structurally Deficient Bridges in West Virginia

County	Year Built	Daily Crossings	Type of Bridge	Location
Kanawha	1974	86,494	Urban Interstate	I-64 WBL & EBL over Cr 61/12
Kanawha	1974	58,619	Urban Interstate	I-77 NB & SB over Westmoreland Road
Kanawha	1974	58,619	Urban Interstate	I-77 NB & SB over Garrison Avenue
Kanawha	1974	58,441	Urban Interstate	I-77 NB & SB over Cora Street
Ohio	1968	49,381	Urban Interstate	Interstate 70 over Middle Creek & Cr 39
Harrison	1974	45,550	Urban other principal arterial	US Route 50 over Interstate 79
Ohio	1958	38,855	Urban Interstate	Interstate 70 EB over Mt. Dechantal Road
Ohio	1955	38,180	Urban Interstate	Interstate 70 over Ohio River & N Front St
Kanawha	1981	36,375	Rural Interstate	I-77 over Route 94 and Lens Creek
Ohio	1970	34,243	Urban Interstate	Interstate 70 West over US 40

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released April 2, 2020. 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 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 2018 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.