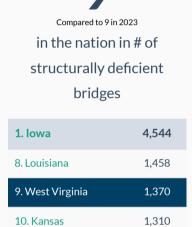


# National Bridge Inventory: West Virginia

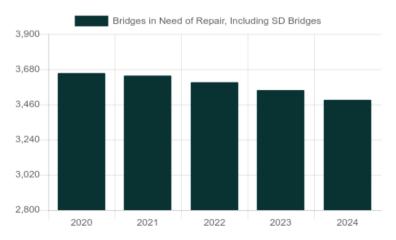
- The state has identified needed repairs on 3,489 bridges.
- This compares to 3,656 bridges that needed work in 2020.
- Over the life of the IIJA, West Virginia will receive a total of \$548.1 million in bridge formula funds, which will help make needed repairs.
- West Virginia currently has access 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.



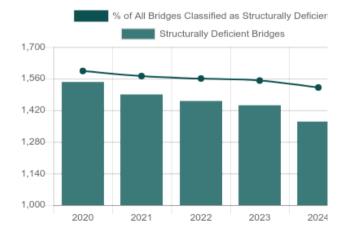








#### Number of Structurally Deficient Bridges



## 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<br>Bridges | Area of All<br>Bridges<br>(sq. meters) | Daily Crossings<br>on All Bridges | Number of<br>Structurally<br>Deficient Bridges | Area of<br>Structurally<br>Deficient Bridges<br>(sq. meters) | Daily Crossings on<br>Structurally Deficient<br>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<br>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<br>(in millions) | Daily Crossings | Area of Bridges<br>(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.