

Highlights from FHWA's 2020 National Bridge Inventory Data

- Of the 15,348 bridges in the state, 1,302, or 8.5 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,478 bridges classified as structurally deficient in 2016.
- The deck area of structurally deficient bridges accounts for 4.9 percent of total deck area on all structures.
- 1 of the structurally deficient bridges are on the Interstate Highway System. A total of 96.7 percent of the structurally deficient bridges are not on the National Highway System, which includes the Interstate and other key roads linking major airports, ports, rail and truck terminals.
- 3,996 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 6,366 bridges at an estimated cost of \$2.3 billion.

Bridge Inventory

Type of Bridge ⁴	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	194	140,766	4,159,050	0	0	0
Other principal arterial	832	484,663	3,920,940	34	12,212	160,365
Minor arterial	1,270	464,106	2,234,020	50	36,452	89,740
Major collector	2,355	673,485	1,524,830	110	32,577	57,869
Minor collector	1,208	210,175	171,248	70	9,705	16,205
Local	8,542	1,123,736	569,527	1,012	95,995	38,335
Urban Bridges						
Interstate	134	369,605	10,643,645	1	2,724	14,995
Freeway/expressway	138	238,284	4,722,165	2	1,323	123,735
Other principal arterial	189	315,418	3,257,299	6	10,539	110,386
Minor arterial	195	219,231	2,137,329	9	8,751	75,400
Collector	97	70,286	523,819	4	2,610	12,385
Local	194	56,970	234,834	4	792	2,450
Total	15,348	4,366,723	34,098,708	1,302	213,680	701,865

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	3,309	\$1,108,612.3	1,422,453	632,323
Widening & rehabilitation	2,819	\$991,059.5	5,488,104	842,022
Rehabilitation	174	\$57,008.1	311,326	47,719
Deck rehabilitation/replacement	5	\$7,560.7	83,286	6,492
Other work	59	\$91,533.6	836,690	79,925
Total	6,366	\$2,255,774.2	8,141,859	1,608,480

Top Most Traveled Structurally Deficient Bridges in Nebraska

County	Year Built	Daily Crossings	Type of Bridge	Location
Douglas	1970	85,640	Urban freeway/expressway	US75 over J St
Sarpy	1989	38,095	Urban freeway/expressway	US75 over Betz Creek
Douglas	1960	38,000	Urban other principal arterial	42nd St/FAU 5057 over UPRR 191-593-U
Douglas	1960	38,000	Urban other principal arterial	42nd St/FAU 5057 over UPRR 816-825-N
Lancaster	1968	19,370	Urban minor arterial	N 14th St/FAU 5227 over Oak Creek
Lancaster	1961	15,450	Urban minor arterial	14th St/FAU 5227 over US6
Dakota	1977	14,995	Urban Interstate	I129/US275 over Crystal Lake
Lancaster	1978	14,560	Urban minor arterial	Old Cheney/Fau5202 over Salt Creek (O 37)
Platte	1931	14,395	Rural arterial	WB-US30/US81 over Loup River
Sarpy	1941	13,470	Urban other principal arterial	Ft Crook Road over Betz Ditch

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on March 11, 2021. 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 2019 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.

© 2021 The American Road & Transportation Builders Association (ARTBA). All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of ARTBA.