

2020 Bridge Profile

Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 2,502 bridges in the state, 213, 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 251 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 6.9 percent of total deck area on all structures.
- 10 of the structurally deficient bridges are on the Interstate Highway System.
- 153 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,449 bridges at an estimated cost of \$3.8 billion.
- This compares to 2,435 bridges that needed work in 2015.

Bridge Inventory

	All Bridges			Structurally Deficient Bridges		
Type of Bridge	Total	Area	Daily	Total	Area	Daily
	Number	(sq. meters)	Crossings	Number	(sq. meters)	Crossings
Rural Bridges						
Interstate	207	119,273	2,008,430	1	99	13,512
Other principal arterial	123	56,013	1,093,492	11	5,576	97,291
Minor arterial	165	59,897	798,548	10	2,844	48,774
Major collector	199	67,332	554,923	22	9,847	52,194
Minor collector	179	37,271	233,177	12	3,939	12,421
Local	844	112,334	304,612	94	8,323	42,583
Urban Bridges						
Interstate	163	204,793	5,146,227	9	14,134	287,055
Freeway/expressway	92	117,431	2,827,938	1	200	12,000
Other principal arterial	113	160,013	1,876,253	6	11,237	107,990
Minor arterial	134	103,852	1,507,431	15	13,281	181,515
Collector	118	58,518	687,404	12	6,049	83,050
Local	165	46,844	263,867	20	3,840	24,689
Total	2,502	1,143,572	17,302,302	213	79,370	963,074

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,439	\$3,780	17,287,773	1,142,528
Widening & rehabilitation	0	\$0	0	0
Rehabilitation	5	\$1	185	590
Deck rehabilitation/replacement	1	\$0	50	180
Other work	4	\$5	11,007	2,210
Total	2,449	\$3,787	17,299,015	1,145,507

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Top Most Traveled Structurally Deficient Bridges in New Hampshire

County	Year Built	Daily Crossings	Type of Bridge	Location
Merrimack	1959	47,817	Urban Interstate	I-89 over South Street
Merrimack	1958	45,231	Urban Interstate	I-393,US 4,US202 over I-93
Merrimack	1958	45,231	Urban minor arterial	US202 over NHRR,Constitution Av.
Merrimack	1980	43,592	Urban Interstate	I-393,US 4,US202 over Fort Eddy Rd
Hillsborough	1960	41,616	Urban Interstate	I-293 SB,Nh101 EB over Merrimack River,Par
Hillsborough	1923	26,010	Urban other principal arterial	US 3,NH 3A over I-293,NH 3A,PAR,Merr R
Hillsborough	1956	23,929	Urban Interstate	I-293,NH 3A,Tpk N over Black Brook
Grafton	1966	22,328	Urban Interstate	I-89 NB over US 4,NH 10
Hillsborough	1956	21,848	Urban Interstate	I-293,NH 3A,Tpk S over Black Brook
Grafton	1966	20,734	Urban Interstate	I-89 NB over Connecticut River,Necrr

Cost estimates have been derived by ARTBA, based on 2018 and average bridge replacement costs for structures on and off the National Highway System, <u>published by FHWA</u>. 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.

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.