

National Bridge Inventory: Hawaii

- The state has identified needed repairs on 1,109 bridges.
- This compares to 1,109 bridges that needed work in 2020.
- Over the life of the IIJA, Hawaii will receive a total of \$364.3 million in bridge formula funds, which will help make needed repairs.
- Hawaii currently has access to \$218.6 million of that total, and has committed \$57.6 million towards 10 projects as of June 2024.
- Of the 1,195 bridges in the state, 78, or 6.5 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 84 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 4.6 percent of total deck area on all structures.

22

Compared to 22 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	19.0%
21. North Carolina	7.0%
22. Hawaii	7.0%
23. Wisconsin	7.0%

49

Compared to 47 in 2023

in the nation in # of structurally deficient bridges

1. Iowa	4,544
48. Vermont	83
49. Hawaii	78
50. Nevada	24

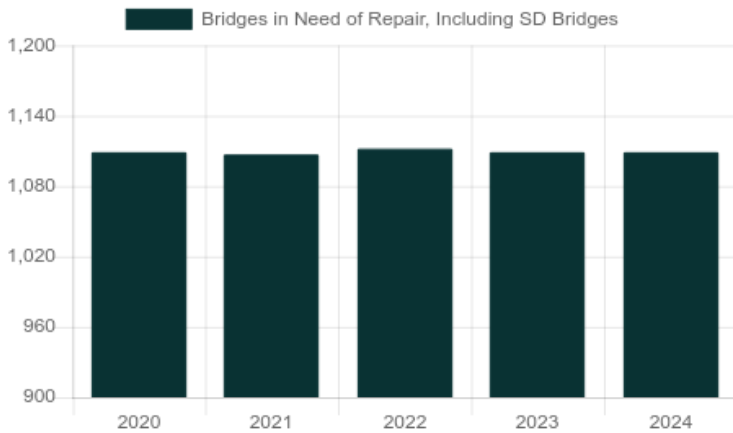
31

Compared to 43 in 2023

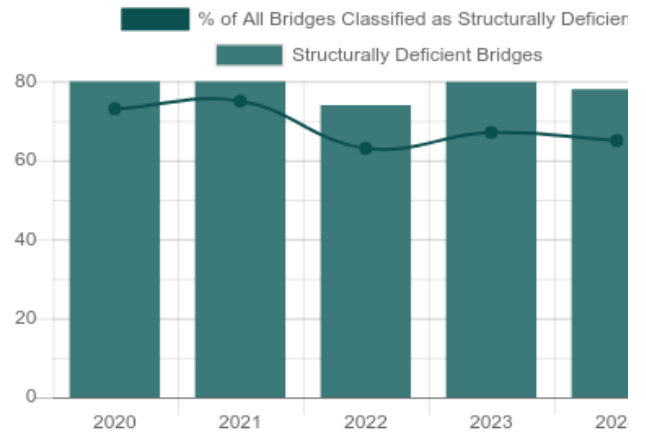
in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
30. Nebraska	5.0%
31. Hawaii	5.0%
32. Wisconsin	4.0%

Number of Bridges in Need of Repair, Including Structurally Deficient Bridges



Number of Structurally Deficient Bridges



Top Most Traveled Structurally Deficient Bridges in Hawaii

County	Year Built	Daily Crossings	Type of Bridge	Location
Honolulu	1975	110,500	Urban Interstate	Fal-H1(N Leg Via) over FAI-H1(N Leg Via)
Honolulu	1934	58,500	Urban freeway/expressway	Kal Hwy over Niu Strm
Honolulu	1949	57,600	Urban other principal arterial	Nimitz Hwy over Kapalama Canal (E.B)
Honolulu	1952	57,600	Urban other principal arterial	Nimitz Hwy over Slip Cover #4 Hon Hbr
Honolulu	1932	57,600	Urban other principal arterial	Nimitz Hwy over Nuuanu Strm (W.B.)
Honolulu	1965	36,500	Urban other principal arterial	Farr Hwy over Dbl Sectl PI Culvt-Strm
Honolulu	1967	33,735	Urban other principal arterial	Farr Hwy over Maipalaoa Strm
Honolulu	1929	31,925	Urban minor arterial	Kalakaua Ave over Ala Wai Canal
Kauai	1920	31,600	Urban freeway/expressway	Kuhio Hwy/Plan.Rd. over Wailua River
Kauai	1945	31,600	Rural major collector	Kuhio Hwy over Wailua River
Honolulu	1930	26,300	Urban minor arterial	Dillingham Blvd over Kapalama Canal
Honolulu	1932	26,100	Urban other principal arterial	Kam Hwy over Nf Kaukonahua(K Thot)
Honolulu	1949	26,100	Urban other principal arterial	Farr Hwy over Mailiili Strm
Honolulu	1963	24,200	Urban other principal arterial	Farr Hwy over Ulehawa Strm
Honolulu	1922	19,680	Urban freeway/expressway	N King St over Nuuanu Strm
Honolulu	1937	18,800	Urban other principal arterial	Farr Hwy over Kaupuni Strm
Honolulu	1937	18,700	Urban other principal arterial	Farr Hwy over Unmd Strm(Makaha #2A)
Honolulu	1970	16,994	Urban collector	Pensacola Street over Pensacola Relief Drain
Honolulu	1922	16,500	Rural arterial	Kam Hwy over Waiahole Strm(County)
Kauai	1963	15,500	Rural minor arterial	Kuhio Hwy over Kalihiwai River
Honolulu	1932	13,700	Urban other principal arterial	Kam Hwy over Laieloa Strm
Honolulu	1933	13,700	Urban other principal arterial	Kam Hwy over Kahawainui Strm-LAiewai
Honolulu	1980	13,700	Urban other principal arterial	Kam Hwy over Kahaluu Strm
Honolulu	1921	12,850	Rural arterial	Kamehameha Hwy over Anahulu Strm
Kauai	1928	12,108	Rural major collector	Koloa Rd over Waikomo Stream

Bridge Inventory: Hawaii

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	28	216,821	1,030,600	0	0	0
Rural arterial	94	45,262	1,233,649	9	1,744	99,235
Rural minor arterial	164	86,495	1,473,991	11	8,068	34,044
Rural major collector	124	29,972	543,118	8	2,538	55,983
Rural minor collector	47	9,231	143,105	2	192	790
Rural local road	131	30,683	110,194	18	4,664	18,229
Urban Interstate	184	736,786	14,887,359	1	26,432	110,500
Urban freeway/expressway	76	53,650	2,607,602	3	2,977	109,780
Urban other principal arterial	117	112,211	3,069,835	16	8,978	421,385
Urban minor arterial	46	56,630	776,572	3	1,942	69,407
Urban collector	78	34,339	531,235	2	7,239	26,594
Urban local road	106	22,272	263,918	5	836	6,678
Total	1,195	1,434,352	26,671,178	78	65,609	952,625

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	1	\$0	500	51
Widening & rehabilitation	1	\$1	775	166
Rehabilitation	14	\$130	78,373	31,233
Deck rehabilitation/replacement	31	\$85	439,800	7,220
Other structural work	1,062	\$15,559	24,793,073	1,223,431
Total	1,109	\$15,775	25,312,521	1,262,101

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.
