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February 10, 2025

The Honorable Dan Zumbach, Chair, Senate Transportation Committee
The Honorable David E. Young, Chair, House Transportation Committee
Timothy McDermott, Director, Legislative Services Agency
Ground Floor, State Capitol Building
Des Moines, Iowa 50319

Re: County Structurally Deficient Bridges Report for FY 2024

Pursuant to Iowa Code Section 307.32, the Iowa Department of Transportation respectfully submits the subject report summarizing the progress made during Fiscal Year (FY) 2024 to reduce the number of Structurally Deficient (SD) county bridges in Iowa. Included with the report is "A Guide to the County Structurally Deficient Bridges Summary Report," which provides background information, definitions, and other information related to the report.

Highlights from this year's report include the following:

- At the beginning of the FY there were 4,313 SD county bridges.
- During the FY an additional 259 bridges became SD, resulting in a total of 4,572 SD bridges. Of the 4,572 SD bridges, 268 bridges were repaired or replaced to remove their SD status. The final result was a net decrease of 9 SD bridges.
- Of the 4,304 bridges that remained in SD status at the end of the FY, 3,988 are still open to traffic and 316 are closed.
- Of the 3,988 bridges that are still open to traffic, 573 (or about 14 percent) are programmed for replacement or rehabilitation in the next five years.
- Of the 316 bridges that are closed, 289 (or about 91 percent) are not likely to reopen due to lack of funding for rehabilitation or replacement or due to the structure no longer being necessary.

The number of SD county bridges had risen slightly in FY'22 and FY'23 but decreased slightly 2024, indicating positive progress. FY'23 was a record year for county bridge expenditures since this report was initiated, and while FY'24 bridge expenditures fell just short of FY'23, they still exceeded $100 million in total. Of this $100 million, about $39 million was from local county funding sources.

To help address funding challenges, counties have been cooperatively and aggressively pursuing additional federal discretionary bridge funding opportunities. In FY'23, nine counties were awarded a $24.76M federal discretionary RAISE grant for the replacement of large bridges, and in FY'24 six counties were awarded a $38.64M federal discretionary BIP grant for the replacement of six bridges and the removal of one bridge. Counties will continue to pursue other discretionary grant opportunities to increase investment in county bridges and reduce the number of county SD bridges.

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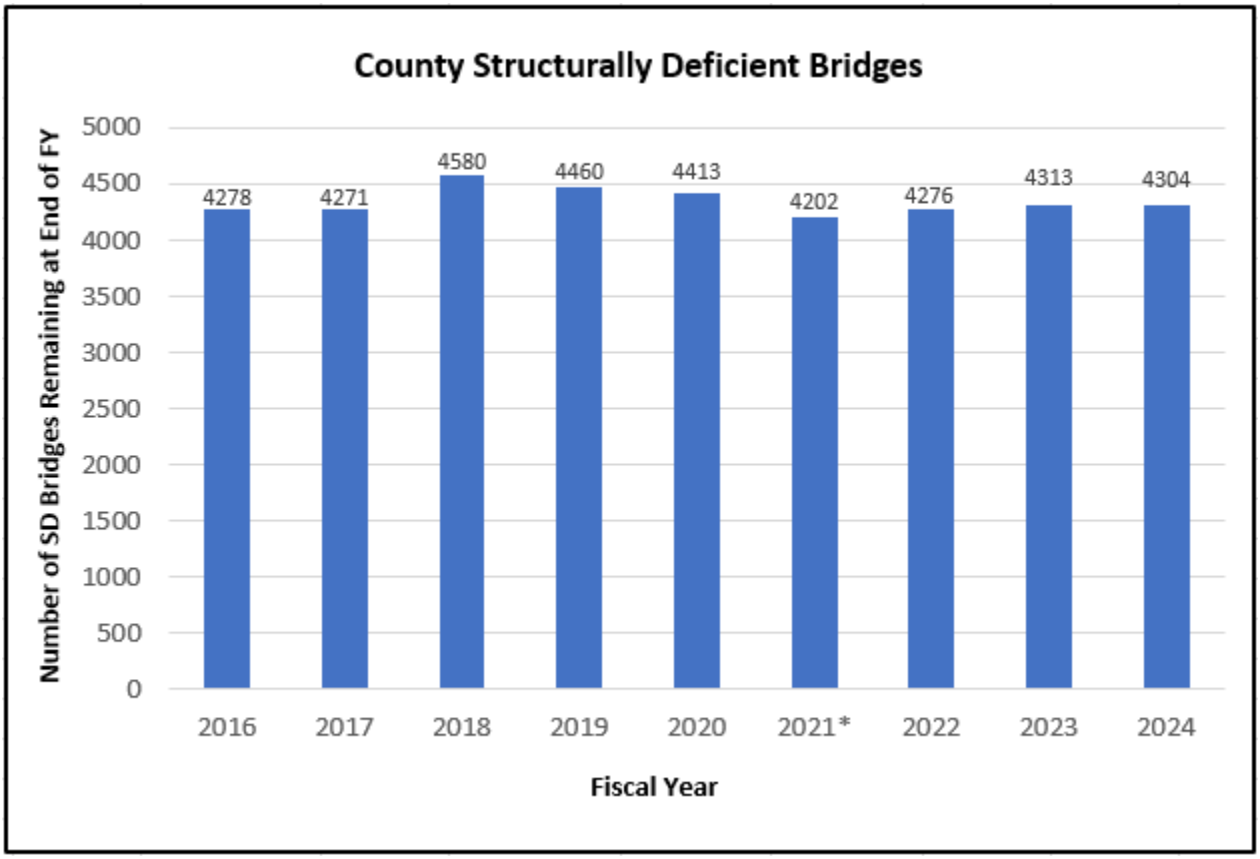
The chart below shows the trend of county SD bridges over the past several years.



*The number of Structurally Deficient bridges shown for 2021 is slightly different from what was reported in the FY'21 report due to a change in the federal definition. Additional information can be found in the attached guide.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott C. Marler, Director

County Structurally Deficient Bridges Summary Report - Fiscal Year 2024

In accordance with Iowa Code 309.22A, this report details the manner in which counties use their road use tax funds to replace or repair structurally deficient bridges.

County	Beginning Status: Carry over and newly designated SD			Structures taken off SD status: Bridges removed from structurally deficient status: restored to full legal load capacity				Structures that remained in SD status at end of year						
								In Service (Open) - Still SD			Out of Service (Closed)			
	SD at beginning of reporting period	Became SD during FY 2024	**Total SD during this FY**	via Replacement	via Major Rehabilitation	via Light Rehabilitation	**Total Restored**	Partially Rehabed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen	**Total SD Remaining**
Adair	**47**	0	**47**	7	2	0	**9**	0	1	35	0	0	2	**38**
Adams	**78**	5	**83**	2	0	0	**2**	0	2	69	2	1	7	**81**
Allamakee	**16**	0	**16**	0	0	0	**0**	0	3	13	0	0	0	**16**
Appanoose	**58**	1	**59**	3	0	0	**3**	0	5	47	0	0	4	**56**
Audubon	**40**	3	**43**	7	1	0	**8**	0	1	31	0	1	2	**35**
Benton	**70**	12	**82**	1	0	0	**1**	0	33	46	0	0	2	**81**
Black Hawk	**20**	5	**25**	2	0	0	**2**	3	9	8	0	0	3	**23**
Boone	**40**	0	**40**	0	0	0	**0**	0	3	35	0	0	2	**40**
Bremer	**32**	1	**33**	5	0	0	**5**	0	2	24	0	0	2	**28**
Buchanan	**24**	1	**25**	3	0	2	**5**	0	1	17	0	2	0	**20**
Buena Vista	**48**	2	**50**	1	0	0	**1**	0	5	41	0	0	3	**49**
Butler	**41**	5	**46**	4	0	0	**4**	2	8	28	0	0	4	**42**
Calhoun	**50**	3	**53**	3	0	0	**3**	1	11	35	0	0	3	**50**
Carroll	**16**	1	**17**	1	0	0	**1**	0	5	11	0	0	0	**16**
Cass	**102**	0	**102**	1	1	1	**3**	0	3	93	0	0	3	**99**
Cedar	**65**	1	**66**	8	0	0	**8**	0	2	55	0	0	1	**58**
Cerro Gordo	**12**	0	**12**	1	0	0	**1**	0	1	10	0	0	0	**11**
Cherokee	**76**	0	**76**	9	1	0	**10**	0	5	51	0	0	10	**66**
Chickasaw	**82**	5	**87**	6	0	0	**6**	0	12	66	0	0	3	**81**
Clarke	**52**	4	**56**	3	0	0	**3**	0	7	38	0	0	8	**53**
Clay	**14**	1	**15**	0	0	0	**0**	0	1	12	0	0	2	**15**
Clayton	**25**	0	**25**	0	0	0	**0**	0	9	16	0	0	0	**25**
Clinton	**7**	0	**7**	0	0	0	**0**	0	0	5	0	2	0	**7**
Crawford	**27**	0	**27**	3	0	0	**3**	0	2	22	0	0	0	**24**
Dallas	**11**	0	**11**	0	0	0	**0**	0	1	7	1	1	1	**11**
Davis	**43**	3	**46**	4	0	0	**4**	0	1	40	0	0	1	**42**
Decatur	**82**	4	**86**	7	0	0	**7**	0	2	71	0	0	6	**79**
Delaware	**17**	2	**19**	1	0	0	**1**	0	1	17	0	0	0	**18**
Des Moines	**22**	2	**24**	1	0	0	**1**	2	9	12	0	0	0	**23**
Dickinson	**20**	1	**21**	3	4	0	**7**	0	6	7	0	0	1	**14**
Dubuque	**27**	4	**31**	3	0	0	**3**	0	2	23	0	0	3	**28**
Emmet	**12**	1	**13**	0	0	0	**0**	0	1	10	0	0	2	**13**
Fayette	**68**	18	**86**	3	0	0	**3**	0	22	60	0	0	1	**83**
Floyd	**30**	1	**31**	1	0	0	**1**	0	12	16	0	0	2	**30**
Franklin	**36**	2	**38**	7	2	0	**9**	0	10	19	0	0	0	**29**
Fremont	**33**	2	**35**	0	0	1	**1**	1	2	28	0	0	3	**34**
Greene	**25**	0	**25**	0	0	0	**0**	0	3	22	0	0	0	**25**
Grundy	**71**	0	**71**	1	0	0	**1**	2	25	41	0	1	1	**70**
Guthrie	**91**	9	**100**	6	0	0	**6**	0	11	76	1	0	6	**94**
Hamilton	**34**	2	**36**	3	0	0	**3**	0	2	28	0	0	3	**33**
Hancock	**29**	0	**29**	1	0	0	**1**	0	4	24	0	0	0	**28**
Hardin	**50**	15	**65**	0	0	0	**0**	0	8	54	0	0	3	**65**
Harrison	**42**	0	**42**	2	0	0	**2**	3	1	35	0	0	1	**40**
Henry	**34**	4	**38**	1	0	0	**1**	0	3	34	0	0	0	**37**
Howard	**43**	4	**47**	1	0	0	**1**	0	9	35	0	0	2	**46**
Humboldt	**10**	0	**10**	1	0	0	**1**	0	2	7	0	0	0	**9**
Ida	**28**	2	**30**	2	0	0	**2**	1	1	25	0	0	1	**28**
Iowa	**48**	0	**48**	2	0	0	**2**	0	6	36	0	1	3	**46**
Jackson	**40**	1	**41**	1	0	0	**1**	0	5	34	0	0	1	**40**
Jasper	**112**	6	**118**	8	0	0	**8**	0	11	90	0	0	9	**110**
Jefferson	**30**	2	**32**	4	0	0	**4**	1	2	23	0	0	2	**28**
Johnson	**26**	0	**26**	1	1	0	**2**	0	8	12	0	0	4	**24**
Jones	**7**	2	**9**	1	0	0	**1**	0	1	5	0	1	1	**8**
Keokuk	**36**	0	**36**	0	0	1	**1**	0	10	24	0	1	0	**35**
Kossuth	**36**	12	**48**	4	0	0	**4**	0	1	43	0	0	0	**44**
Lee	**23**	0	**23**	1	0	0	**1**	0	5	16	0	0	1	**22**
Linn	**18**	0	**18**	2	0	0	**2**	0	9	7	0	0	0	**16**
Louisa	**25**	2	**27**	1	1	0	**2**	0	4	18	0	0	3	**25**
Lucas	**65**	1	**66**	1	0	0	**1**	0	6	52	0	1	6	**65**
Lyon	**57**	6	**63**	4	0	0	**4**	0	8	41	0	1	9	**59**
Madison	**85**	4	**89**	5	0	0	**5**	0	2	75	0	2	5	**84**
Mahaska	**78**	5	**83**	8	3	0	**11**	0	13	53	0	0	6	**72**
Marion	**27**	1	**28**	2	1	0	**3**	0	5	19	0	0	1	**25**
Marshall	**125**	3	**128**	1	0	0	**1**	0	13	112	0	0	2	**127**
Mills	**35**	1	**36**	1	0	0	**1**	0	1	32	0	0	2	**35**
Mitchell	**17**	0	**17**	1	0	0	**1**	0	1	13	0	0	2	**16**
Monona	**38**	3	**41**	1	0	0	**1**	0	0	33	0	0	7	**40**
Monroe	**29**	4	**33**	2	0	0	**2**	0	4	26	0	1	0	**31**
Montgomery	**48**	1	**49**	1	0	0	**1**	0	0	39	0	0	9	**48**
Muscatine	**30**	3	**33**	4	0	0	**4**	0	9	20	0	0	0	**29**
O'Brien	**10**	3	**13**	0	1	0	**1**	2	2	8	0	0	0	**12**
Osceola	**16**	0	**16**	0	0	0	**0**	0	0	14	0	0	2	**16**
Page	**62**	0	**62**	2	0	0	**2**	0	6	49	0	0	5	**60**
Palo Alto	**24**	2	**26**	1	0	0	**1**	0	4	20	0	0	1	**25**
Plymouth	**98**	1	**99**	6	0	0	**6**	0	50	43	0	0	0	**93**
Pocahontas	**49**	5	**54**	4	0	0	**4**	0	3	36	0	0	11	**50**
Polk	**21**	1	**22**	0	0	0	**0**	0	7	11	0	0	4	**22**
Pottawattamie	**43**	3	**46**	6	0	0	**6**	0	5	34	0	0	1	**40**
Poweshiek	**100**	6	**106**	3	3	0	**6**	1	3	85	0	0	11	**100**

County	Beginning Status: Carry over and newly designated SD			Structures taken off SD status: Bridges removed from structurally deficient status: restored to full legal load capacity				Structures that remained in SD status at end of year						
								In Service (Open) - Still SD			Out of Service (Closed)			
	SD at beginning of reporting period	Became SD during FY 2024	**Total SD during this FY**	via Replacement	via Major Rehabilitation	via Light Rehabilitation	**Total Restored**	Partially Rehabed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen	**Total SD Remaining**
Ringgold	**95**	1	**96**	2	0	0	**2**	0	13	61	0	2	18	**94**
Sac	**74**	1	**75**	3	0	0	**3**	1	5	61	0	0	5	**72**
Scott	**16**	8	**24**	3	1	0	**4**	0	1	19	0	0	0	**20**
Shelby	**19**	3	**22**	2	0	0	**2**	0	1	17	0	0	2	**20**
Sioux	**10**	1	**11**	1	0	0	**1**	0	8	1	0	0	1	**10**
Story	**41**	1	**42**	3	0	0	**3**	0	2	31	0	0	6	**39**
Tama	**116**	0	**116**	2	0	0	**2**	0	5	95	0	0	14	**114**
Taylor	**81**	3	**84**	1	0	1	**2**	0	10	58	1	0	13	**82**
Union	**54**	2	**56**	2	0	0	**2**	0	7	41	0	0	6	**54**
Van Buren	**46**	4	**50**	1	0	0	**1**	0	1	45	0	0	3	**49**
Wapello	**27**	2	**29**	1	0	1	**2**	0	0	26	0	0	1	**27**
Warren	**51**	4	**55**	3	2	1	**6**	0	11	34	0	0	4	**49**
Washington	**25**	6	**31**	0	0	0	**0**	1	1	29	0	0	0	**31**
Wayne	**30**	2	**32**	2	0	0	**2**	0	1	26	0	0	3	**30**
Webster	**43**	4	**47**	9	0	0	**9**	0	4	34	0	0	0	**38**
Winnebago	**12**	5	**17**	0	0	0	**0**	0	10	7	0	0	0	**17**
Winneshiek	**61**	1	**62**	2	0	0	**2**	0	14	44	0	1	1	**60**
Woodbury	**85**	4	**89**	2	0	0	**2**	1	3	79	0	2	2	**87**
Worth	**17**	1	**18**	0	0	0	**0**	0	0	16	0	1	1	**18**
Wright	**52**	2	**54**	1	0	0	**1**	0	3	47	0	0	3	**53**
Totals	**4313**	259	**4572**	**236**	**24**	**8**	**268**	**22**	**573**	**3393**	**5**	**22**	**289**	**4304**
		List Comp	Calc	Calc	AR	AR	List Comp	AR	TPMS	TPMS	AR	TPMS	Calc	

SD Structures to account for: 4572

Restored: 268

Still SD: 4304

Still open: 3988

Closed: 316

Net Improvement: 9

SD definition including only "Poor" bridges

A Guide to the County Structurally Deficient Bridges Summary Report

Prepared by the Iowa Department of Transportation
January 2025

Background

Except when more frequent inspection cycles are required or when less frequent inspection cycles are allowed due to low-risk characteristics of the structure, counties must inspect all bridges at least every 24 months for structural integrity and overall condition. Some counties inspect all of their bridges every other year while others inspect roughly one-half of their bridges each year.

In accordance with Iowa Code 309.22A, this report summarizes the manner in which counties used their road use tax funds, along with state and federal funds, to replace or repair structurally deficient bridges. Each year the county engineers submit this information to the Iowa DOT as part of the county annual report of road and bridge expenditures required by Iowa Code 309.22. Additionally, more detailed information is available from the Iowa DOT upon request.

What is a "structurally deficient" (SD) bridge?

A structurally deficient bridge is a bridge having deterioration, cracks, or other flaws that reduce its load carrying capacity. This classification does not mean a bridge is unsafe. Most SD bridges can continue to serve traffic safely if they are properly inspected and maintained, but they must often be posted for weight limits that are less than the maximum legal (non-permit) weights allowed by law.

In accordance with the Pavement and Bridge Condition Performance Measures final rule published by FHWA in January of 2017, the definition of the term of "structurally deficient" has been changed by the FHWA, and the use of the terms "Good", "Fair" and "Poor" has been implemented. The new classification of "Poor" is most equivalent to the previous classification of "SD". Under the previous definition, a bridge was classified as SD when significant load carrying components were found to be in poor or worse condition due to deterioration and/or damage or when the adequacy of the waterway opening provided by the bridge was determined to be extremely insufficient to the point of causing intolerable traffic interruptions. Under the new definition, a bridge still qualifies as SD when significant load carrying components are found to be in poor or worse condition, but it no longer qualifies as structurally deficient via the structural condition (NBI Item 67) or the waterway adequacy (NBI Item 71) rating criteria. Therefore, some bridges that qualified as "SD" under the previous definition do not qualify as "Poor" under the new definition.

In FY 2021, this report continued the use of the previous rule/definition in order to allow valid historic comparisons within the State of Iowa; however, a column on the right side of the report was added that showed the number of bridges classified as "Poor" using the new definition. As of FY 2022, the report has fully transitioned to the use of the new SD definition.

The SD classification is determined based on the latest bridge inspection data and criteria prescribed by the National Bridge Inspection Standards (NBIS) published by the Federal Highway Administration (FHWA).

What do each of the columns of this report mean?

Beginning Status – This section shows how the starting total of SD bridges for the reporting period are calculated.

SD at the beginning of the reporting period – This is the number of bridges which were classified as SD at the beginning of the reporting period.

Became SD during this FY – This is the number of bridges which moved into SD status during the reporting period.

Total SD during this FY – This is the sum of the previous two columns, which provides the total of SD bridges to be accounted for during the reporting period.

Structures Taken Off SD Status – This section shows the number of bridges that were restored to full legal load capacity, thereby removing the SD classifications. It also provides a breakdown of how these bridges were fixed.

Replacement – This is the number of SD bridges which were replaced by a new bridge or culvert.

Major Rehabilitation – This is the number of SD bridges which were not completely reconstructed but which had repairs made that were substantial enough to improve the condition enough to remove the SD condition designation. Examples might include complete deck replacements, beam replacements, or major repairs to the bridge piers or abutments (substructure supports).

Light Rehabilitation – This is the number of SD bridges for which only minor repairs were needed to improve the condition enough to remove the SD condition designation. Examples might include deck patching, beam strengthening, or less substantial repairs to the bridge piers (substructure supports).

Total Restored – This is the sum of the previous three columns, representing the total number of SD bridges replaced or repaired during the reporting period so that they no longer have a SD condition designation.

Structures that remained in SD Status at end of year – This section describes the status of bridges that did not have their SD status removed through the work accomplished during the year. These bridges are grouped into two main categories and several subcategories, as shown below:

In Service (open) Still SD – These bridges are still open to traffic while remaining in SD condition.

Partial Rehabilitation – This is the number of SD bridges on which minor repairs were made but not enough to remove the SD condition. Examples might include limited deck patching, bridge approach pavement repairs, bridge railing repairs, or joint replacements.

Programmed for Rehab or Replace – This is the number of SD bridges included in the county's five-year program which are scheduled for repair or replacement.

Not yet programmed – This is the number of SD bridges not yet included in the county's five-year program for repair or replacement.

Out of Service (Closed) – These bridges are closed to vehicular traffic and remain in SD condition.

Closed: Plan to Replace – This is the number of SD bridges that had an inspection which revealed issues that were serious enough to warrant closing the structure.

Closed: Programmed to Replace – This is the number of SD bridges which are closed to traffic and which will be replaced with an upcoming project. These structures may or may not be in the county's five-year plan.

Closed: Not Likely to Reopen – This is the number of SD bridges which are closed to traffic and for which the county has no current plans for repair or replacement.

Total SD Remaining – This is the total number of bridges that remain in SD status at the close of the reporting period.

Net Improvement – This is the difference between the number of SD bridges at the beginning of the reporting period and the number of SD bridges remaining at the end of the reporting period.