IOWA DOT

Structure Inventory and Appraisal

Bridge ID: CHARTER OAK-129780
FHWA No.: 129780

Official	SR: 25	SD/FO: Structurally Deficient
Unofficial	SR: 24.9	SD/FO: Structurally Deficient

IDENTIFICATION

7 Facility Carried:	LOCAL
5B Rte. Signing Prefix:	4
5C Level of Service:	1 - MAINLINE
5D Inventory Route:	00000
City:	RURAL
3 County:	024 - Crawford
9 Location:	084413102
5E Directional Suffix:	0 - NOT APPLICABLE
6 Feature Intersected:	EAST SOLDIER RIVER
2 District:	0
Garage:	000
98 Border Bridge Code:	
% Responsibility:	0
99 Border Bridge No.:	

STRUCTURE TYPE AND MATERIALS

43A Main Span	3 - Steel
43B Main Span Design:	10 - Truss Thru
45 No. Spans Main Unit:	3
44A Appr. Span	000 - NA
44B Appr. Span Design:	000 - NA
46 No. of Appr. Spans:	Near 0 Far 0
107 Deck Type:	8 - Wood or Timber
108A Wearing Surface:	7 - Wood or Timber
108B Membrane:	0 - None
108C Deck Protection:	0 - None

GEOMETRIC DATA

48 Length Max Span:	90 ft.
49 Structure Length:	141 ft.
34 Skew:	0°
Deck Area:	2340.6 sq. ft.
50B Curb/Sdwk Width R:	0 ft.
50A Curb/Sdwk Width L:	0 ft.
51 Width Curb to Curb:	15.5 ft.
52 Width Out to Out:	16.6 ft.
32 Appr. Roadway width: (w/ Shoulders)	26 ft.
33 Median:	0 - No median
35 Structure Flared:	00 - No flare
10 Vertical Clearance:	99'99"
47 Horiz. Clearance:	15'06"
53 Min. Vert. Clearance Over:	99'99"
54B Min. Vert. Underclearance:	00'00"
55 Min. Lat. Underclearance R:	00'00"
56 Min. Lat. Underclearance L:	00'00"

NAVIGATION DATA

38 Navigation Control:
0 - No navigation control on waterway (bridge permit not required)

111 Pier Protection:	
39 Vertical Clearance:	00'00"
40 Horiz. Clearance:	000'00"

16 Latitude: 42.0487656 17 Longitude: -95.6717079

FRA No. (if RR Bridge):
Mile Post:

INSPECTION

90 Inspection Date:	06/10/2016	Inspection Type:	N/A
Next Routine Insp Date:	06/10/2018	91 Frequency:	24
		Next Insp Type:	In-Depth
Inspection Agency:	5 - Consultant	Inspection Group:	Calhoun Burns & Assoc.
93A FC Inspection Date:			
92A FC Frequency:	0	Next FC Insp.:	NA
93B UW Inspection Date:			
92B UW Frequency:	0	Next UW Insp.:	NA
93C SI Date:			
92C SI Frequency:	0	Next Spec. Insp.:	NA
Other Non-NBI Date:			
Other Non-NBI Freq.:		Next Other Insp.:	NA

CONDITION

58 Deck:	5 - Fair Condition (minor section loss)
59 Super:	4 - Poor Condition (advanced deterioration)
60 Sub:	4 - Poor Condition (advanced deterioration)
61 Channel/Channel Prot.:	6 - Bank eroded., major damage
62 Culvert:	N - Not Applicable

APPRAISAL

67 Str. Evaluation:	2 - Intolerable - high priority of replacement
68 Deck Geometry:	7 - Better than present minimum criteria
69 Underclear Vert & Horiz:	N - Not applicable
71 Waterway Adequacy:	6 - Occasional Overtopping of Approaches
72 Approach Alignment:	7 - Better than present minimum criteria
36A Bridge Rail:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED.
36B Transition:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36C Approach Rail:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36D Approach Rail Ends:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
113 Scour Critical:	3 - Scour Critical - Unstable

LOAD RATING AND POSTING

31 Design Load:	0 - Unknown
63 Rating Method:	2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
64 Operating Rating:	09.0 Tons
65 Rating Method:	2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
66 Inventory Rating:	05.5 Tons
70 Posting:	0 - More than 39.9% below legal loads
41 Posting Status:	P - Posted for Load

AGE AND SERVICE

27 Year Built:	1957	Design No.:	0
106 Year Reconstructed:			
42A Type of Service on:	1 - Highway		
42B Type of Service Under:	5 - Waterway		
28A Lanes on:	1	28B Lanes under:	0
29 ADT:	35	30 Year of ADT:	2012
109 Truck ADT:	0 %	Speed Limit:	55
19 Detour Length:	3 mi.		

CLASSIFICATION

112 NBIS Length:	Y
26 Functional Class:	09 - Rural - Local
100 STRAHNET:	0 - Not a defense highway
101 Parallel Structure:	N - No parallel structure
102 Direction of Traffic:	3 - One lane bridge for 2-way traffic
22 Owner:	02 - County Highway Agency
21 Custodian:	02 - County Highway Agency
37 Historical Significance:	5 - Not eligible
75A Type of Work Proposed:	31 - Replacement - Load/Geometry
75B Work Done by:	1 - Work to be done by contract

Structure Inventory and Appraisal

Bridge ID: CHARTER OAK-129780
FHWA No.: 129780

Official	SR: 24.9	SD/FO: Structurally Deficient
Unofficial	SR: 24.9	SD/FO: Structurally Deficient

IDENTIFICATION

7 Facility Carried:	LOCAL
5B Rte. Signing Prefix:	4
5C Level of Service:	1 - MAINLINE
5D Inventory Route:	00000
City:	RURAL
3 County:	024 - Crawford
9 Location:	084413102
5E Directional Suffix:	0 - NOT APPLICABLE
6 Feature Intersected:	EAST SOLDIER RIVER
2 District:	0
Garage:	000
98 Border Bridge Code:	
% Responsibility:	0
99 Border Bridge No.:	

STRUCTURE TYPE AND MATERIALS

43A Main Span	3 - Steel
43B Main Span Design:	10 - Truss Thru
45 No. Spans Main Unit:	3
44A Appr. Span	000 - NA
44B Appr. Span Design:	000 - NA
46 No. of Appr. Spans:	Near 0 Far 0
107 Deck Type:	8 - Wood or Timber
108A Wearing Surface:	7 - Wood or Timber
108B Membrane:	0 - None
108C Deck Protection:	0 - None

GEOMETRIC DATA

48 Length Max Span:	90 ft.
49 Structure Length:	141 ft.
34 Skew:	0°
Deck Area:	2340.6 sq. ft.
50B Curb/Sdwk Width R:	0 ft.
50A Curb/Sdwk Width L:	0 ft.
51 Width Curb to Curb:	15.5 ft.
52 Width Out to Out:	16.6 ft.
32 Appr. Roadway width: (w/ Shoulders)	26 ft.
33 Median:	0 - No median
35 Structure Flared:	00 - No flare
10 Vertical Clearance:	99'99"
47 Horiz. Clearance:	15'06"
53 Min. Vert. Clearance Over:	99'99"
54B Min. Vert. Underclearance:	00'00"
55 Min. Lat. Underclearance R:	00'00"
56 Min. Lat. Underclearance L:	00'00"

NAVIGATION DATA

38 Navigation Control:
0 - No navigation control on waterway (bridge permit not required)

111 Pier Protection:	
39 Vertical Clearance:	00'00"
40 Horiz. Clearance:	000'00"

16 Latitude: 42.0487656 17 Longitude: -95.6717079

FRA No. (if RR Bridge):
Mile Post:

INSPECTION

90 Inspection Date:	**05/08/2014**	Inspection Type:	N/A
Next Routine Insp Date:	01/30/2016	91 Frequency:	12
		Next Insp Type:	In-Depth
Inspection Agency:	5 - Consultant	Inspection Group:	Calhoun-Burns & Associates, Inc.
93A FC Inspection Date:			
92A FC Frequency:	0	Next FC Insp.:	NA
93B UW Inspection Date:			
92B UW Frequency:	0	Next UW Insp.:	NA
93C SI Date:	01/30/2014		
92C SI Frequency:	24	Next Spec. Insp.:	01/30/2016
Other Non-NBI Date:			
Other Non-NBI Freq.:		Next Other Insp.:	NA

CONDITION

58 Deck:	5 - Fair Condition (minor section loss)
59 Super:	4 - Poor Condition (advanced deterioration)
60 Sub:	4 - Poor Condition (advanced deterioration)
61 Channel/Channel Prot.:	5 - Bank eroded.. major damage
62 Culvert:	N - Not Applicable

APPRAISAL

67 Str. Evaluation:	2 - Intolerable - high priority of replacement
68 Deck Geometry:	7 - Better than present minimum criteria
69 Underclear Vert & Horiz:	N - Not applicable
71 Waterway Adequacy:	6 - Occasional Overtopping of Approaches
72 Approach Alignment:	7 - Better than present minimum criteria
36A Bridge Rail:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED.
36B Transition:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36C Approach Rail:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36D Approach Rail Ends:	0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
113 Scour Critical:	3 - Scour Critical - Unstable

LOAD RATING AND POSTING

31 Design Load:	0 - Unknown
63 Rating Method:	2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
64 Operating Rating:	09.0 Tons
65 Rating Method:	2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
66 Inventory Rating:	05.5 Tons
70 Posting:	0 - More than 39.9% below legal loads
41 Posting Status:	P - Posted for Load

AGE AND SERVICE

27 Year Built:	1957	Design No.:	0
106 Year Reconstructed:	0		
42A Type of Service on:	1 - Highway		
42B Type of Service Under:	5 - Waterway		
28A Lanes on:	1	28B Lanes under:	0
29 ADT:	35	30 Year of ADT:	2012
109 Truck ADT:	0 %	Speed Limit:	55
19 Detour Length:	3 mi.		

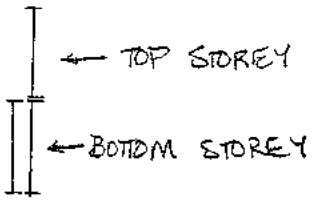
CLASSIFICATION

112 NBIS Length:	Y
26 Functional Class:	09 - Rural - Local
100 STRAHNET:	0 - Not a defense highway
101 Parallel Structure:	N - No parallel structure
102 Direction of Traffic:	3 - One lane bridge for 2-way traffic
22 Owner:	02 - County Highway Agency
21 Custodian:	02 - County Highway Agency
37 Historical Significance:	5 - Not eligible
75A Type of Work Proposed:	31 - Replacement - Load/Geometry
75B Work Done by:	1 - Work to be done by contract

CHARTER OAK I				
129780	CRAWFORD	RATE BRIDGE	JAR	12/22/03

BRIDGE IS A 140' x 15.4' BAILEY TRUSS. BRIDGE IS COMPOSED OF 3 SPANS 20'-90'-30'. IT IS UNCLEAR FROM THE FIELD REPORTS AS TO WHETHER THE TRUSS IS CONTINUOUS OVER THE PIERS. ASSUME THE TRUSSES ARE SIMPLY SUPPORTED FOR RATING.

THE TRUSS CONSISTS OF A DOUBLE STOREY. THE BOTTOM STOREY IS DOUBLE WIDE WITH THE TOP STOREY SINGLE WIDE.



FOR EASE OF CALCULATIONS, RATE THE FLOORBEAM AND STRINGERS. (SEE ATTACHED RATINGS). THEN CHECK THE TRUSSES TO VERIFY THAT THE WILL RATE BETTER THAN THE FLOORBEAM AND STRINGERS.

	INV				OPER			
	4	3S3A	3-3	HS20	4	3S3A	3-3	HS20
FLOORBEAM	6	8	12	7	9	13	18	11
STRINGERS	18	26	28	14	25	36	40	20

SEE ATTACHED CHARTS FOR BAILEY TRUSS. NEGLECT TOP STOREY INITIALLY. DOUBLE, SINGLE RATES A LITTLE LESS THAN AN HS-44 LOAD. CONSIDERING THE SECOND STOREY, THE TRUSSES WILL RATE AT OR BETTER THAN AN 15T FOR AN HS DESIGN VEHICLE.

BRIDGE IS CURRENTLY POSTED "6, 9, 15". DUE TO AGE, DO NOT RAISE POSTING.

POST "406, 509, 615 ALL VEHICLES" OR POST "6 TONS"
POST "ONE LANE"