



Structure Inventory and Appraisal

Bridge ID: GOODRICH-129140 FHWA No.: 129140		Official SR: 26.2 Unofficial SR: 44.6	SD/FO: Not Deficient or Obsolete SD/FO: Functionally Obsolete
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: 084392205 5E Directional Suffix: 0 - NOT APPLICABLE 6 Feature Intersected: BIG CREEK 2 District: 0 Garage: 000 98 Border Bridge Code: % Responsibility: 0 99 Border Bridge No.:		INSPECTION 90 Inspection Date: 06/14/2016 Next Routine Insp Date: 06/14/2018 Inspection Agency: 5 - Consultant 93A FC Inspection Date: 08/14/2016 92A FC Frequency: 24 93B UW Inspection Date: 92B UW Frequency: 0 93C SI Date: 92C SI Frequency: 0 Other Non-NBI Date: Other Non-NBI Freq.:	
STRUCTURE TYPE AND MATERIALS 43A Main Span: 3 - Steel 43B Main Span Design: 10 - Truss Thru 45 No. Spans Main Unit: 1 44A Appr. Span: 003 - Steel 44B Appr. Span Design: 002 - Stringer/Multi-beam or Girder 46 No. of Appr. Spans: Near 1 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		CONDITION 58 Deck: 5 - Fair Condition (minor section loss) 59 Super: 5 - Fair Condition (minor section loss) 60 Sub: 5 - Fair Condition (minor section loss) 61 Channel/Channel Prot.: 6 - Bank slump, widespread minor damage 62 Culvert: N - Not Applicable	
GEOMETRIC DATA 48 Length Max Span: 60 ft. 49 Structure Length: 91 ft. 34 Skew: 0° Deck Area: 1547.0 sq. ft. 50B Curb/Sdwk Width R: 0 ft. 50A Curb/Sdwk Width L: 0 ft. 51 Width Curb to Curb: 17.0 ft. 52 Width Out to Out: 17.0 ft. 32 Appr. Roadway width: 24 ft. (w/ Shoulders) 33 Median: 0 - No median 35 Structure Flared: 00 - No flare 10 Vertical Clearance: 99'99" 47 Horiz. Clearance: 16'00" 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"		APPRAISAL 67 Str. Evaluation: 4 - Meets minimum tolerable limits 68 Deck Geometry: 3 - Intolerable - high priority of corrective action 69 Underclear Vert & Horiz: N - Not applicable 71 Waterway Adequacy: 5 - Occasional Flooding - Significant Delays 72 Approach Alignment: 5 - Somewhat better than minimum adequacy 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	
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"		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: 21.5 Tons 65 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading. 66 Inventory Rating: 14.4 Tons 70 Posting: 1 - 30.0-39.9% below legal loads 41 Posting Status: P - Posted for Load	
16 Latitude: 42.08011639 17 Longitude: -95.37076732		AGE AND SERVICE 27 Year Built: 1948 108 Year Reconstructed: 2004 42A Type of Service on: 1 - Highway 42B Type of Service Under: 5 - Waterway 28A Lanes on: 1 28B Lanes under: 0 29 ADT: 30 30 Year of ADT: 2012 109 Truck ADT: 0 % Speed Limit: 55 19 Detour Length: 3 mi.	
FRA No. (if RR Bridge): Mile Post:		CLASSIFICATION 112 NBIS Length: Y 28 Functional Class: 09 - Rural - Local 100 STRANET: 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: 3 - May be eligible for National Register 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: GOODRICH-129140
 FHWA No.: 129140

Official	SR: 26.2	SD/FO: Not Deficient or Obsolete
Unofficial	SR: 45.6	SD/FO: Functionally Obsolete

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: 084392205
 5E Directional Suffix: 0 - NOT APPLICABLE
 6 Feature Intersected: BIG CREEK
 2 District: 0
 Garage: 000
 98 Border Bridge Code:
 % Responsibility: 0
 99 Border Bridge No.:

INSPECTION

90 Inspection Date: 05/08/2014
 Next Routine Insp Date: 05/08/2015
 Inspection Agency: 5 - Consultant
 93A FC Inspection Date: 05/08/2014
 92A FC Frequency: 24
 93B UW Inspection Date:
 92B UW Frequency: 0
 93C SI Date:
 92C SI Frequency: 0
 Other Non-NBI Date:
 Other Non-NBI Freq.:

Inspection Type: N/A
 91 Frequency: 12
 Next Insp Type: In-Depth
 Inspection Group: Calhoun-Burns & Associates, Inc.
 Next FC Insp.: 05/08/2016
 Next UW Insp.: NA
 Next Spec. Insp.: NA
 Next Other Insp.: NA

STRUCTURE TYPE AND MATERIALS

43A Main Span 3 - Steel
 43B Main Span Design: 10 - Truss Thru
 45 No. Spans Main Unit: 1
 44A Appr. Span 003 - Steel
 44B Appr. Span Design: 002 - Stringer/Multi-beam or Girder
 46 No. of Appr. Spans: Near 1 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

CONDITION

58 Deck: 7 - Good Condition (some minor problems)
 59 Super: 5 - Fair Condition (minor section loss)
 60 Sub: 5 - Fair Condition (minor section loss)
 61 Channel/Channel Prot.: 6 - Bank slump. widespread minor damage
 62 Culvert: N - Not Applicable

GEOMETRIC DATA

48 Length Max Span: 60 ft.
 49 Structure Length: 91 ft.
 34 Skew: 0°
 Deck Area: 1547.0 sq. ft.
 50B Curb/Sdwb Width R: 0 ft.
 50A Curb/Sdwb Width L: 0 ft.
 51 Width Curb to Curb: 17.0 ft.
 52 Width Out to Out: 17.0 ft.
 32 Appr. Roadway width: 24 ft.
 (w/ Shoulders)
 33 Median: 0 - No median
 35 Structure Flared: 00 - No flare
 10 Vertical Clearance: 99'99"
 47 Horiz. Clearance: 16'00"
 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"

APPRAISAL

67 Str. Evaluation: 4 - Meets minimum tolerable limits
 68 Deck Geometry: 3 - Intolerable - high priority of corrective action
 69 Underclear Vert & Horiz: N - Not applicable
 71 Waterway Adequacy: 5 - Occasional Flooding - Significant Delays
 72 Approach Alignment: 5 - Somewhat better than minimum adequacy
 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

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"

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: 21.5 Tons
 65 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
 66 Inventory Rating: 14.4 Tons
 70 Posting: 1 - 30.0-39.9% below legal loads
 41 Posting Status: P - Posted for Load

16 Latitude: 42.08011639 17 Longitude: -95.37076732

AGE AND SERVICE

27 Year Built: 1949 Design No.: 0
 106 Year Reconstructed: 2004
 42A Type of Service on: 1 - Highway
 42B Type of Service Under: 5 - Waterway
 28A Lanes on: 1 28B Lanes under: 0
 29 ADT: 30 30 Year of ADT: 2012
 109 Truck ADT: 0 % Speed Limit: 55
 19 Detour Length: 3 mi.

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

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: 3 - May be eligible for National Register
 75A Type of Work Proposed: 31 - Replacement - Load/Geometry
 75B Work Done by: 1 - Work to be done by contract

Rating Summary

CRAWFORD Co.
GOODRICH 23
129140

JAR
12/23/03

Bridge Standard: Z Series (Z1 thru Z7, and Z9)

Date Issued: 1927 (except Z9, issued in 1930)

Date Revised: 1945

St'd No.	Span Length	Roadway Width	Rating (1) (HS)		Legal Load Capacity, Tons (1)		
			Inv.	Oper.	Truck Type		
	ft.	ft.			4	3S3	3-3
Z1	45	16	5.0	7.2	12	17	22
→ Z2	60	16	5.0	7.2	12	17	22 ←
Z3	75	16	5.0	7.2	12	17	22
Z4	90	16	5.0	7.2	12	17	22
Z5	105	16	4.8	7.0	10	15	21
Z6	122.5	16	4.8	7.0	10	15	21
Z7	140	16	4.8	7.0	10	15	21
Z9	157.5	16	4.8	7.0	10	15	21

(1) 16 ft. roadway bridges are considered one lane bridges.

NOTE: Rating and load capacity for all spans was controlled by the laterally unsupported compression flange of interior stringers. If the original wood plank floor has been replaced with planks adequately attached to the top of all stringers, the rating and load capacity should be re-evaluated.

PILE DETERIORATION CONTROLS BRIDGE RATING.

POST "9 TONS" & "ONE LANE"

CLOSELY MONITOR PILES, ESPECIALLY AT WEST ABUTMENT.
FURTHER DETERIORATION (FROM CONDITION AS DOCUMENTED
IN '02 FIELD REPORT) WILL WARRANT LOWER POSTING
OR CLOSURE.

*Bridge was repaired in 2004
by observation truss will control
rating as use 12-17-22 for posting*



17058

Project Number:		CRAWFORD COUNTY DAY LABOR PROJECT SHEET																				Date: June 15, 2004													
Location: 110404g										Section: 15&22										Township: Goodrich															
Description of Work:		Add a 30' approach to the existing truss bridge.																				FHWA No: 129140													
For the month of:		April																				Bridge Type: truss													
Employee	Hours worked per day																															Total Hours	Hourly Rate	Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Terry Lally														4	4				4		4	8	8				8	8	8				56	\$ 36.58	\$2,048.48
Dan Blunk													4	8	8				8			8	8				8	8	8				68	\$ 33.49	\$2,277.32
Howard Clark													4	8					8		4	8	8				8	8	8				64	\$ 26.54	\$1,698.56
Kyle Schultz														8	8				8		4						8	8	8				52	\$ 26.51	\$1,378.52
Mike V ogt														8	8				8		4	8	8				8	8	8				68	\$ 12.52	\$851.36
Chris Boeck																																	0	\$ 9.95	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	Labor Cost:		\$8,254.24
Equipment	Hours worked per day																															Total Hours	Hourly Rate	Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
#83 Cat Excavater														6	3				2		4	22	1				6	5	6				55	\$ 72.99	\$4,014.45
#73 Link Belt Crane													4	4			4	2										4					18	\$ 97.52	\$1,755.36
#103 Tele-Crane																																	0	\$ 89.90	\$0.00
#75 IH Dozer																																	0	\$ 39.84	\$0.00
#59 J. D. Dozer																												2	4				6	\$ 25.17	\$151.02
#32 J.D. crawler																																	0	\$ 26.95	\$0.00
#87 Air Comp.																																	0	\$ -	\$0.00
#63 Welder																		6				2	4									12	\$ -	\$0.00	
#18 Tool Truck													2	2	2			2	2	2	2	2				2	2	2				22	\$ 9.26	\$203.72	
																																0	\$ -	\$0.00	
																																	0	\$ -	\$0.00
																																	0	\$ -	\$0.00
																																	Equipment Costs:		\$6,124.55
No. of pieces	Size	Materials List		Stockpile location or purchased from	New/ Used	No. Units	* Units	Unit Cost	Total Costs																										
12	15"	30' I beams		stock	used	12	each	\$ 66.00	\$ 792.00																										
45		plank clips		stock		45	each	\$ 1.00	\$ 45.00	Total Labor Costs: \$8,254.24																									
126	3/4"	2" bolts		stock	new/	126	each	\$ 0.63	\$ 79.38	Materials (page 1): \$ 1,126.63																									
380'	1/2"	cable		stock	New/	380	ln.ft.	\$ 0.50	\$ 190.00	Materials (page 2): \$ 7,850.89																									
15	#60	ring shank spikes		stock		15	lbs	\$ 1.35	\$ 20.25	Total Material Cost: \$8,977.52																									
						0		\$ -	\$ -	Equipment Costs: \$6,124.55																									
						0		\$ -	\$ -																										
						0		\$ -	\$ -																										
						0		\$ -	\$ -	Total Costs: \$23,356.31																									
										Material Costs (page 1):				\$ 1,126.63																					

Crawford County Secondary Roads Material List					Project No.:			
No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
12	3"x12"	16' Plank	Denison	new	192	In.ft.	\$ 1.25	\$240.00
	3"x12"	18' Plank	Denison	new	0	In.ft.	\$ 2.51	\$0.00
14	3"x12"	20' Plank	Denison	new	280	In.ft.	\$ 2.51	\$702.80
9	3"x12"	22' Plank	Denison	new	198	ln.ft.	\$ 2.58	\$510.84
3	3"x12"	24' plank	Denison	new	72	In.ft.	\$ 2.25	\$162.00
4	4"x12"	16' plank		used	64	In.ft.	\$ 1.25	\$80.00
15	4"x12"	24' plank			360	In.lnft.	\$ 3.99	\$1,436.40
1	4"x16"	any length		used	18	In.ft.	\$ 1.25	\$22.50
					0		\$ -	\$0.00
	10"x10"	Wood Cap			0	In.ft.	\$ 9.17	\$0.00
	12"x12"	Wood Cap			0	In.ft.	\$ 13.20	\$0.00
					0		\$ -	\$0.00
	4"x6"	12' nailer			0	each	\$ 26.05	\$0.00
2	4"x6"	16' nailer			2	each	\$ 29.77	\$59.54
					0		\$ -	\$0.00
	2"x4"	any length			0	In.ft.	\$ 0.28	\$0.00
	2"x6"	any length				In.ft.	\$ 0.39	\$0.00
	1/2"	4'x8' plywood			0	each	\$ 11.05	\$0.00
	3/4"	4'x8' plywood			0	each	\$ -	\$0.00
					0		\$ -	\$0.00
4	25'	wood piling			4	each	\$ 141.36	\$565.44
5	30'	wood piling			5	each	\$ 168.00	\$840.00
	35'	wood piling			0	each	\$ 217.69	\$0.00
	40'	wood piling			0	each	\$ 296.37	\$0.00
					0		\$ -	\$0.00
8	8"x8"	40'steel@36lb./ft.			320	In. ft.	\$ 7.41	\$2,371.20
	8"x8"	50'steel @36lb./ft			0	In. ft.	\$ -	\$0.00
Total Materials (page two) :								\$6,990.72

Crawford County Secondary Roads Material List				Project No.:				
No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
	10"x10"	40' Steel H@42 lb./ft.	Denison	new	0	lin. Ft..	\$ 8.50	\$0.00
	10"x10"	50' Steel H@42 lb/ft	Denison	new	0	lin. Ft..	\$ 7.80	\$0.00
32'	10"	40' channel @15.3 lbs./ft.	Denison	new	32	lin. Ft..	\$ 3.13	\$100.16
	12"	40' channel @15.3 lbs./ft.	Denison	new	0	lin. Ft..	\$ 4.90	\$0.00
	1/2"x14"	10' steel plates	Denison	new	0	lin. Ft..	\$ 6.43	\$0.00
1	25'	Steel Caps		used	1	each	\$ 20.00	\$20.00
36	30 1/2"	Diaphragms		used	36	each	\$ 11.97	\$430.92
	38 1/2"	Diaphragms			0	each	\$ 14.05	\$0.00
12	85lb.	rail posts			12	each	\$ 8.50	\$102.00
	straight 20'	7 ga.sheet piling	Denison	new	0	each	\$ 123.22	\$0.00
	45degree	sheet piling	Denison	new	0	each	\$ 151.40	\$0.00
	90degree	sheet piling	Denison	new	0	each	\$ 139.80	\$0.00
					0			\$0.00
	13'	gaurdrail		used	0	lin. Ft..	\$ 1.00	\$0.00
60'	26'	gaurdrail		used	60	lin. Ft..	\$ 1.00	\$60.00
	25'	W-beam gaurdrail		new	0	lin. Ft..	\$ 2.25	\$0.00
2	2'	gaurdrail terminal ends		new	2	each	\$ 28.00	\$56.00
	1/4"	2 1/2"x2 1/2" angle 20'	Denison	new	0	lin. Ft..	\$ 0.78	\$0.00
	3/8"	3"x3" angle 20'	Denison	new	0	lin. Ft..	\$ 1.35	\$0.00
					0			\$0.00
	1/2"	wire cable	Denison	new	0	lin. Ft..	\$ 1.18	\$0.00
28	1/2"	cable clamps	Denison	new	28	each	\$ 0.38	\$10.64
					0			\$0.00
	1/2"	20' rebar	Denison	new	0	lin. Ft..	\$ 0.16	\$0.00
	5/8"	20' rebar	Denison	new	0	lin. Ft..	\$ 0.22	\$0.00
	5/8"	20" rebar with Epoxy	Denison	new	0	each	\$ 6.46	\$0.00
					0			\$0.00
Total Materials (page three) :								\$779.72

Crawford County Secondary Roads Material List				Project No.:				
No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
50	12'	felt fabric	Denison		50	lin ft.	\$ 0.74	\$37.00
	12'	mesh fabric	Denison		0	lin.	\$ 2.00	\$0.00
	box	1"x6"x6" fabric staples	Denison		0	each	\$ 21.70	\$0.00
					0			\$0.00
	8d	nails	Denison		0	lb.	\$ 0.80	\$0.00
	16d	nails	Denison		0	lb.	\$ 0.69	\$0.00
	16d	double head nails	Denison		0	lb.	\$ 0.69	\$0.00
	60d	ringshank spikes	Denison		0	lbs.	\$ 1.15	\$0.00
					0			\$0.00
	3/4"	anchor bolts	Denison		0	each	\$ 3.63	\$0.00
25	1/2"	maellable washers	Denison		25	each	\$ 0.94	\$23.50
	3/4"	maellable washers	Denison		0	each	\$ 0.94	\$0.00
	1/2"	flat washers	Denison		0	each		\$0.00
	3/4"	flat washers	Denison		0	each		\$0.00
					0			\$0.00
	3/4"	2 1/2" bolts	Denison			each	\$ 0.70	\$0.00
	3/4"	3" bolts	Denison		0	each	\$ 0.80	\$0.00
5	1/2"	9" bolts	Denison		5	each	\$ 1.05	\$5.25
15	1/2"	10" bolts	Denison		15	each	\$ 0.98	\$14.70
	1/2"	11" bolts	Denison		0	each	\$ 1.05	\$0.00
	1/2"	12" bolts	Denison		0	each	\$ 1.84	\$0.00
					0			\$0.00
					0			\$0.00
					0			\$0.00
					0			\$0.00
					0			\$0.00
					0			\$0.00
					0			\$0.00
Total Materials (page four) :								\$80.45