

# Bridge Inspection Report

**03535**  
**SH 46-02 LM 7.28**  
**over**  
**Cox Creek**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: 03535

Inspection Date:

Facility Carried: SH 46-02 LM 7.28

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/30/2016
(8) STRUCTURE NUMBER	03535	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 46 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY 02	(3) COUNTY CODE 053	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Cox Creek	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 46-02 LM 7.28	<b>CONDITION</b>	
(9) LOCATION	0.8 Mi S SalineRvr-JenkFr	(58) DECK	7
(11) MILEPOINT 7.280	(12) BASE HIGHWAY NETWORK 0	(59) SUPERSTRUCTURE 6	(60) SUBSTRUCTURE 6
(13A) LRS INVENTORY ROUTE 0000000000	(13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION 7	(62) CULVERT N
(16) LATITUDE 34.20546	(17) LONGITUDE -92.55153	<b>LOAD RATING AND POSTING</b>	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	2
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
<b>STRUCTURE TYPE AND MATERIAL</b>		(64) OPERATING RATING	60.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(66) INVENTORY RATING	36.0
B) TYPE OF DESIGN/CONSTR: 22 - Channel Beam		(70) BRIDGE POSTING	5
(44) STRUCTURE TYPE, APPROACH SPANS		(41) STRUCTURE OPEN/POSTED/CLOSED	A
A) KIND OF MATERIAL/DESIGN: 0 - Other		<b>APPRAISAL</b>	
B) TYPE OF DESIGN/CONSTR: 00 - Other		(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN 21	(46) NUMBER OF APPROACH 0	(68) DECK GEOMETRY	4
(107) DECK STRUCTURE TYPE 2	(108A) WEARING SURFACE 6	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0	(71) WATERWAY ADEQUACY	6
<b>AGE OF SERVICE</b>		(72) APPROACH ROADWAY ALIGNMENT	7
(27) YEAR BUILT 1963	(106) YEAR RECONSTRUCTED 0000	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE ON 1	UNDER 5	36A) BRIDGE RAILINGS:	0
(28) LANES ON 02	UNDER 00	36B) TRANSITIONS:	0
(29) AVERAGE DAILY TRAFFIC 1700	(19) BYPASS DETOUR LENGTH 8	36C) APPROACH GUARDRAIL:	0
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		36D) APPROACH GUARDRAIL ENDS:	0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(113) SCOUR CRITICAL BRIDGES	5
<b>GEOMETRIC DATA</b>		SUFFICIENCY RATING	78.7
(48) LENGTH OF MAX SPAN (ft.) 19	(49) STRUCTURE LENGTH (ft.) 401	STATUS	ND
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5	RIGHT 0.5	<b>CLASSIFICATION</b>	
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.0	(112) NBIS BRIDGE LENGTH	Y
(52) DECK WIDTH, OUT-TO-OUT (ft.)	25	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(32) APPROACH ROADWAY WIDTH (ft.)	26.9	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0	(100) STRAHNET HIGHWAY DESIGNATION	0
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	(101) PARALLEL STRUCTURE DESIGNATION	N
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	25.6	(102) DIRECTION OF TRAFFIC	2
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(103) TEMP STRUCTURE	
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(105) FEDERAL LANDS HIGHWAYS	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(110) DESIGNATED NATIONAL NETWORK	0
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(20) TOLL	3
<b>PROPOSED IMPROVEMENTS</b>		(21) MAINTENANCE RESPONSIBILITY	01
(75A) TYPE OF WORK PROPOSED 35	(75B) WORK DONE BY 1	(22) OWNER	01
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	401.0	(37) HISTORICAL	5
(94) BRIDGE IMPROVEMENT COST (\$)	0	<b>NAVIGATION DATA</b>	
(95) ROADWAY IMPROVEMENT COST (\$)	0	(38) NAVIGATION CONTROL	0
(96) TOTAL PROJECT COST	450	(111) PIER OR ABUTMENT PROTECTION	5
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(39) NAV VERT CLEARANCE (ft.)	0
(114) FUTURE ADT 1042	(115) YEAR OF FUTURE ADT 2028	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	10025	sq. ft.	10025			
510 - Wearing Surfaces	<div>Note: 3" of ACHM overlay on deck</div> Deck: 25' wide x 401' long. Some minor cracking of asphalt wearing surface along joints of spans. NOTE: Patches in asphalt wearing surface where Span 19 Unit 6 & Span 20 Units 6 & 7 were replaced.						
		9624	sq. ft.	9624			
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	2793	ft.	2699	94	0	0
1080 - Delamination/Spall/Patched Area	Girders: 7 per span / 19' spans (21 spans) = 399' total (channel beam units).  Channel beam units: Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated: Span 1 Unit 6: Left leg at 95% point – 1' long. Span 7 Unit 4: Right leg at 5% point – 1' long. (2' total)  Channel beam units: Cracking and delaminations along bottom of legs at locations indicated: Span 2 Unit 3: Left leg 5% point – 1' long. Span 4 Unit 1: Left leg at 50% point – 2' long. Span 7 Unit 2: Right leg at 5% point – 1' long. Span 7 Unit 7: Left leg at 10-65% point – 4' long. Span 8 Unit 1: Left leg at 1/3 – 3' long. Span 9 Unit 1: Left leg at 1/3 point – 3' long. Span 12 Unit 1: Left leg at 40% point – 1' long. Span 15 Unit 6: Right leg at 1/3 point – 2' long. Span 16 Unit 6: Right leg at 1/3 point – 4' long. Span 18 Unit 1: Left leg at 1/3 point – 1' long. Span 18 Unit 5: Left leg at 5% point – 1' long. Span 18 Unit 6: Right leg 2/3 point – 2' long. (84' total)  Span 14 Unit 7 @ Bent 14: Some cracking and heavy efflorescence on soffit and legs of units on first 8' of unit.  NOTE: State forces have cleaned and grouted over most spalled and heavy cracked and delaminated areas. These repaired areas are still reflected in State 2 quantities. Span 19 Unit 6 & Span 20 Units 6 & 7 have been replaced.						
		84			84		
1090 - Exposed Rebar		2			2		
1120 - Efflorescence/Rust Staining		8			8		
215 - Reinforced Concrete Abutment	1- Ben.	66	ft.	54	12	0	0
1130 - Cracking (RC and Other)	Abutments: 33' each / Bents 1 & 22. Bents 1 & 22: Large cracks on top of faces of abutments, mostly under Units 3 & 4 (12' total).						
		12			12		

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227 - Reinforced Concrete Pile	1- Ben.	60	each	60			
	Piling: 3 per bent / Bents 2-21. Some very minor abrasion and loss of mortar on surface, especially near waterline.						
234 - Reinforced Concrete Pier Cap	1- Ben.	540	ft.	400	140	0	0
	Caps: 27' each / Bents 2-21. Bents 18 & 22: Some large horizontal cracks near tops of faces of caps, mainly under Units 2-6. NOTE: State forces have cleaned and grouted over most spalled and heavy cracked and delaminated areas. These repaired areas are still reflected in State 2 quantities.						
1080 - Delamination/Spall/Patched Area		90			90		
1130 - Cracking (RC and Other)		50			50		
330 - Metal Bridge Railing	1- Ben.	802	ft.	594	200	8	0
	Railing: 401' each side. Coating: 2.5 square feet per linear feet of girder. Metal railing with concrete posts.  Bents 1 & 22 left & right: Heavy corrosion and section loss to metal railing at turn-downs. Remaining railing has spotty surface rust.						
1000 - Corrosion		208			200	8	
515 - Steel Protective Coating		2005	sq. ft.	1485	0	500	20
3440 - Effectiveness (Steel Protective Coatings)		520				500	20

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Bridge Inspection Report

**Maintenance Needs**

Date Reported: 7/12/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

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Deficiency Description:

Channel beam units: Cracking and delaminations along bottom of legs at locations indicated:

- Span 2 Unit 3: Left leg 5% point – 1' long.
- Span 4 Unit 1: Left leg at 50% point – 2' long.
- Span 7 Unit 2: Right leg at 5% point – 1' long.
- Span 7 Unit 7: Left leg at 10-65% point – 4' long.
- Span 8 Unit 1: Left leg at 1/3 – 3' long.
- Span 9 Unit 1: Left leg at 1/3 point – 3' long.
- Span 12 Unit 1: Left leg at 40% point – 1' long.
- Span 15 Unit 6: Right leg at 1/3 point – 2' long.
- Span 16 Unit 6: Right leg at 1/3 point – 4' long.
- Span 18 Unit 1: Left leg at 1/3 point – 1' long.
- Span 18 Unit 5: Left leg at 5% point – 1' long.
- Span 18 Unit 6: Right leg 2/3 point – 2' long.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/12/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

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#### Deficiency Description:

Channel beam units: Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated:

Span 1 Unit 6: Left leg at 95% point – 1' long.

Span 7 Unit 4: Right leg at 5% point – 1' long.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Span 7 Unit 4 right @ Bent 7 (rebar exposed)



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### Maintenance Needs

Date Reported: 7/12/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

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#### Deficiency Description:

Caps – Bents 18 & 22: Some large horizontal cracks near tops of faces of caps, mainly under Units 2-6.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Cap - Bent 22 (cracking)

Stage: Monitor



PHOTO 2      Description      Cap - Bent 18 ahead (cracking)

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 6/24/2014 12:00:00 AM

Priority: C - Important

Work Code: N/A

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#### Deficiency Description:

Roadway slope – Bent 1 left: Some erosion/washing right at bridge end – steep slope right up to edge of pavement (inside approach railing and almost up to curb of bridge).

#### Work Description:

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Date Repairs Completed:

#### Maintenance Comments:

Grant: David: get this on your schedule as soon as possible

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Stage: Monitor



PHOTO 1      Description      Approach roadway - Bent 1 left  
(erosion)