

# Bridge Inspection Report

**03533**  
**SH 46-02 LM 6.18**  
**over**  
**Cox Creek Relief**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: 03533

Inspection Date:

Facility Carried: SH 46-02 LM 6.18

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	09/05/2017
(8) STRUCTURE NUMBER	03533	(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
(4) PLACE CODE	00000	A. FRACTURE CRITICAL DETAIL	N
(6) FEATURES INTERSECTED	Cox Creek Relief	B. UNDERWATER INSPECTION	N
(7) FACILITY CARRIED	SH 46-02 LM 6.18	C. OTHER SPECIAL	N
(9) LOCATION	1.5 Mi N SH 229-Leola	CONDITION	
(11) MILEPOINT	6.180	(58) DECK	7
(12) BASE HIGHWAY NETWORK	0	(59) SUPERSTRUCTURE	6
(13A) LRS INVENTORY ROUTE	0000000000	(60) SUBSTRUCTURE	6
(13B) SUBROUTE NUMBER	00	(61) CHANNEL & CHANNEL PROTECTION	6
(16) LATITUDE	34.19563006145234	(62) CULVERT	N
(17) LONGITUDE	-92.56663179794953	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	2
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	47
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(66) INVENTORY RATING	28
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	APPRAISAL	
B) TYPE OF DESIGN/CONSTR:	00 - Other	(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN	4	(68) DECK GEOMETRY	4
(46) NUMBER OF APPROACH	0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(107) DECK STRUCTURE TYPE	2	(71) WATERWAY ADEQUACY	8
(108A) WEARING SURFACE	6	(72) APPROACH ROADWAY ALIGNMENT	8
(108B) DECK MEMBRANE	0	(36) TRAFFIC SAFETY FEATURE	
(108C) DECK PROTECTION	0	36A) BRIDGE RAILINGS:	0
AGE OF SERVICE		36B) TRANSITIONS:	0
(27) YEAR BUILT	1963	36C) APPROACH GUARDRAIL:	0
(106) YEAR RECONSTRUCTED	0000	36D) APPROACH GUARDRAIL ENDS:	0
(42) TYPE OF SERVICE	ON 1 UNDER 9	(113) SCOUR CRITICAL BRIDGES	5
(28) LANES	ON 02 UNDER 00	SUFFICIENCY RATING	72.6
(29) AVERAGE DAILY TRAFFIC	1700	STATUS	ND
(19) BYPASS DETOUR LENGTH	8	CLASSIFICATION	
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(112) NBIS BRIDGE LENGTH	Y
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
GEOMETRIC DATA		(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(48) LENGTH OF MAX SPAN (ft.)	19	(100) STRAHNET HIGHWAY DESIGNATION	0
(49) STRUCTURE LENGTH (ft.)	76	(101) PARALLEL STRUCTURE DESIGNATION	N
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0.5 RIGHT 0.5	(102) DIRECTION OF TRAFFIC	2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.3	(103) TEMP STRUCTURE	
(52) DECK WIDTH, OUT-TO-OUT (ft.)	25.3	(105) FEDERAL LANDS HIGHWAYS	0
(32) APPROACH ROADWAY WIDTH (ft.)	24.9	(110) DESIGNATED NATIONAL NETWORK	0
(33) BRIDGE MEDIAN	0	(20) TOLL	3
(34) SKEW (DEG.)	0	(21) MAINTENANCE RESPONSIBILITY	01
(35) STRUCTURE FLARED	0	(22) OWNER	01
(10) INV RTE, MIN VERT CLEAR (ft.)	99.99	(37) HISTORICAL	5
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	25.6	NAVIGATION DATA	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(38) NAVIGATION CONTROL	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(111) PIER OR ABUTMENT PROTECTION	5
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(39) NAV VERT CLEARANCE (ft.)	0
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
PROPOSED IMPROVEMENTS		(40) NAV HORIZONTAL CLEARANCE (ft.)	0
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY		
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0		
(94) BRIDGE IMPROVEMENT COST (\$)	0		
(95) ROADWAY IMPROVEMENT COST (\$)	0		
(96) TOTAL PROJECT COST	0		
(97) YEAR OF IMPROVEMENT COST ESTIMATE			
(114) FUTURE ADT	1042		
(115) YEAR OF FUTURE ADT	2028		

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## Bridge Inspection Report

## 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.	1923	sq. ft.	1923			
Note: 3" ACHM overlay on deck.	Deck: 25.3' wide x 76' long. Some scattered minor-sized cracking beginning in asphalt wearing surface, mainly right lane.						
510 - Wearing Surfaces		1846	sq. ft.	1846			
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	532	ft.	515	15	2	0
	Girders: 7 precast units per span / 76' total span.  Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated: Span 3 Unit 2: Right leg at end of span – 2' long. NOTE: Spalling is at anchorage point of reinforcing steel and ability to carry loads may be beginning to be reduced.  Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated: Span 1 Unit 1: Right leg from mid- to 3/4 span – 6' long. Span 1 Unit 2: Left leg at 2/3 point – 3' long. Span 2 Unit 1: Right leg at 65-90% span – 4' long.  Cracking and delaminations along bottom of legs at locations indicated: Span 2 Unit 1: Left leg at 40% point – 2' long. Span 2 Unit 1: Left leg at midspan – 1' long. Span 2 Unit 2: Left leg at 1/4 span – 2' long. Span 4 Unit 6: Right leg at 1/3 span – 1' long.						
1080 - Delamination/Spall/Patched Area		6			6		
1090 - Exposed Rebar		11			9	2	
215 - Reinforced Concrete Abutment	1- Ben.	66	ft.	44	12	10	0
	Abutments: 33' each / Bents 1 & 5. Bent 1 cap: Some cracking near top of cap under Unit 2. (3') Bent 5 cap: Some cracking near top of cap under Units 1, 2, & 6. (9')  Channel - Span 4 left: Significant erosion of end slope along left side of bridge. Local scouring (2-3' deep) around Bent 4 Pile 1.						
1130 - Cracking (RC and Other)		12			12		
6000 - Scour		10				10	
227 - Reinforced Concrete Pile	1- Ben.	9	each	8	1	0	0
	Piling: 3 per bent / Bents 2-4. Channel – Span 4 left: Significant erosion of end slope along left side of bridge. Local scouring (3-4' deep) around Bent 4 Pile 1.						
6000 - Scour		1			1		

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## Element Inspection

234 - Reinforced Concrete Pier Cap	1- Ben.	81	ft.	77	4	0	0
	Caps: 27' each / Bents 2-4. Bent 2 unit 6 has small horizontal cracking . Bent 2 & 3 have minor spalling and scaling on outer ends of caps . Bent 3 back has contact spall unit unit 1 .						
1080 - Delamination/Spall/Patched Area		1			1		
1130 - Cracking (RC and Other)		3			3		
330 - Metal Bridge Railing	1- Ben.	152	ft.	143	0	9	0
	Railing: 76' each side. Coating: 2.5 square feet/linear feet of railing. Metal railing with concrete posts.						
1000 - Corrosion		9				9	
515 - Steel Protective Coating		380	sq. ft.	358	0	22	0
3440 - Effectiveness (Steel Protective Coatings)		22				22	

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 09/03/2015

Priority: G - General/ Preventive maintenance

Work Code: Repair

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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 1: Right leg from mid- to 3/4 span – 6' long.

Span 1 Unit 2: Left leg at 2/3 point – 3' long.

Span 2 Unit 1: Right leg at 65-90% span – 4' long.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

put into your schedule you can

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Stage: Monitor



PHOTO 1      Description      Span 1 Units 1 & 2



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#### Deficiency Description:

Channel beam units:

Cracking and delaminations along bottom of legs at locations indicated:

Span 2 Unit 1: Left leg at 40% point – 2' long.

Span 2 Unit 1: Left leg at midspan – 1' long.

Span 2 Unit 2: Left leg at 1/4 span – 2' long.

Span 4 Unit 6: Right leg at 1/3 span – 1' long.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Span 2 Unit 2 left

Stage: Monitor



PHOTO 2      Description      Span 4 Unit 6 right

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 09/03/2015

Priority: D - Routine

Work Code: Repair

---

#### Deficiency Description:

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

Span 2 Unit 1: Right leg at end of span – 2' long.

Span 3 Unit 2: Right leg at end of span – 2' long.

Span 4 Unit 5: Left leg at beginning of span – 2' long.

NOTE: Spalling is at anchorage point of reinforcing steel and ability to carry loads may be beginning to be reduced.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Span 2 Unit 1 right

Stage: Monitor



PHOTO 2      Description      Span 3 Unit 2 right

Inspector:

Inspection Date:

Structure Number: 03533

Facility Carried: SH 46-02 LM 6.18

## Bridge Inspection Report

### Maintenance Needs

Stage: Monitor



PHOTO 3 Description Span 4 Unit 5 left

Stage: Assigned



PHOTO 4 Description Span 1 girder 1&2 have spall with exposed rebar with section loss.



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Date Reported: 09/03/2015

Priority: D - Routine

Work Code: Repair

---

#### Deficiency Description:

Channel – Span 4 left: Significant erosion of end slope along left side of bridge. Local scouring (3-4' deep) around Bent 4 Pile 1.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      End slope - Span 4 left