

Bridge Inspection Report

03310
SH 21 Carroll
over
CEDAR CREEK



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

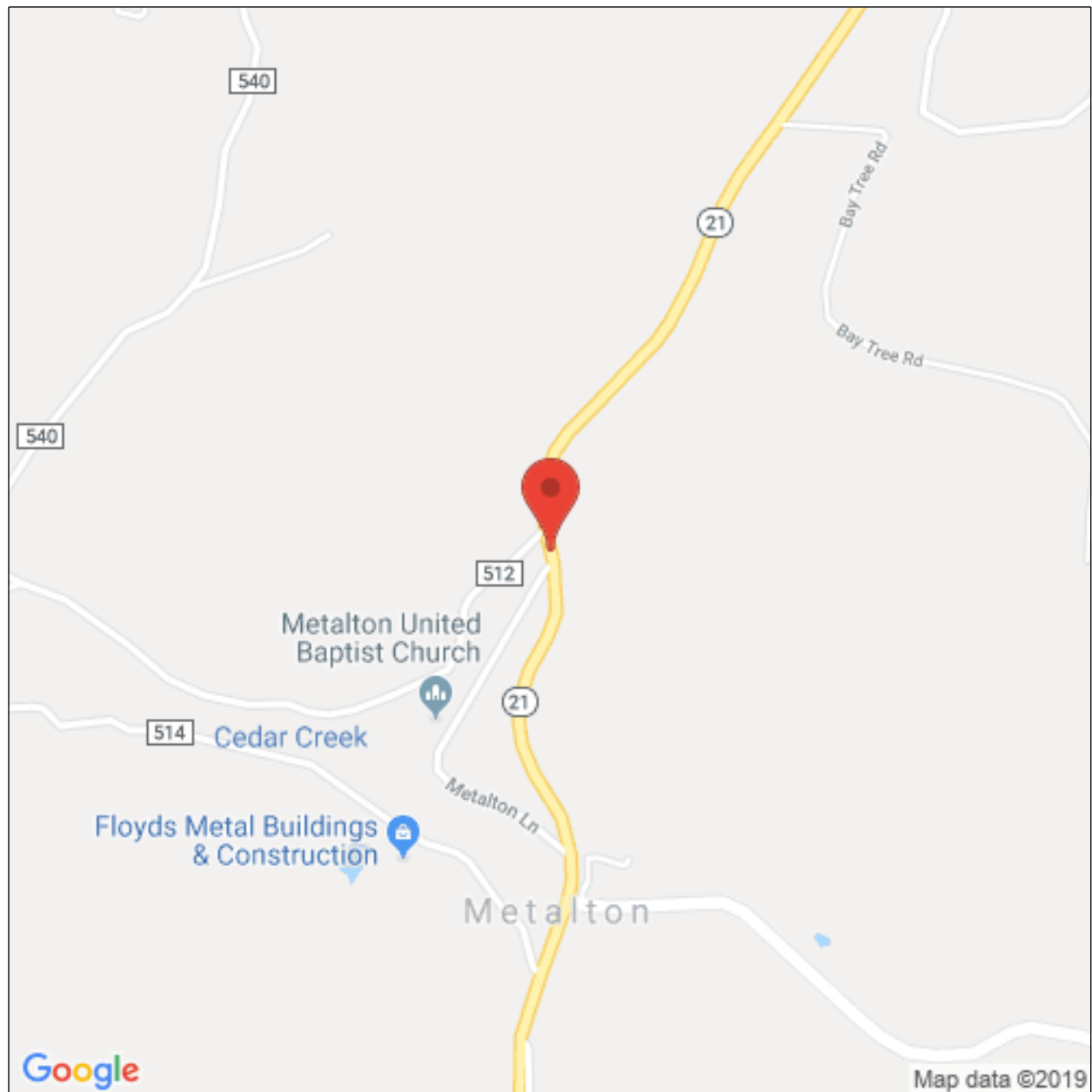
Structure Number: 03310

Inspection Date:

Facility Carried: SH 21 Carroll

Bridge Inspection Report

Location Map



Latitude: 36.22882

Longitude: -93.53003

Inspector:

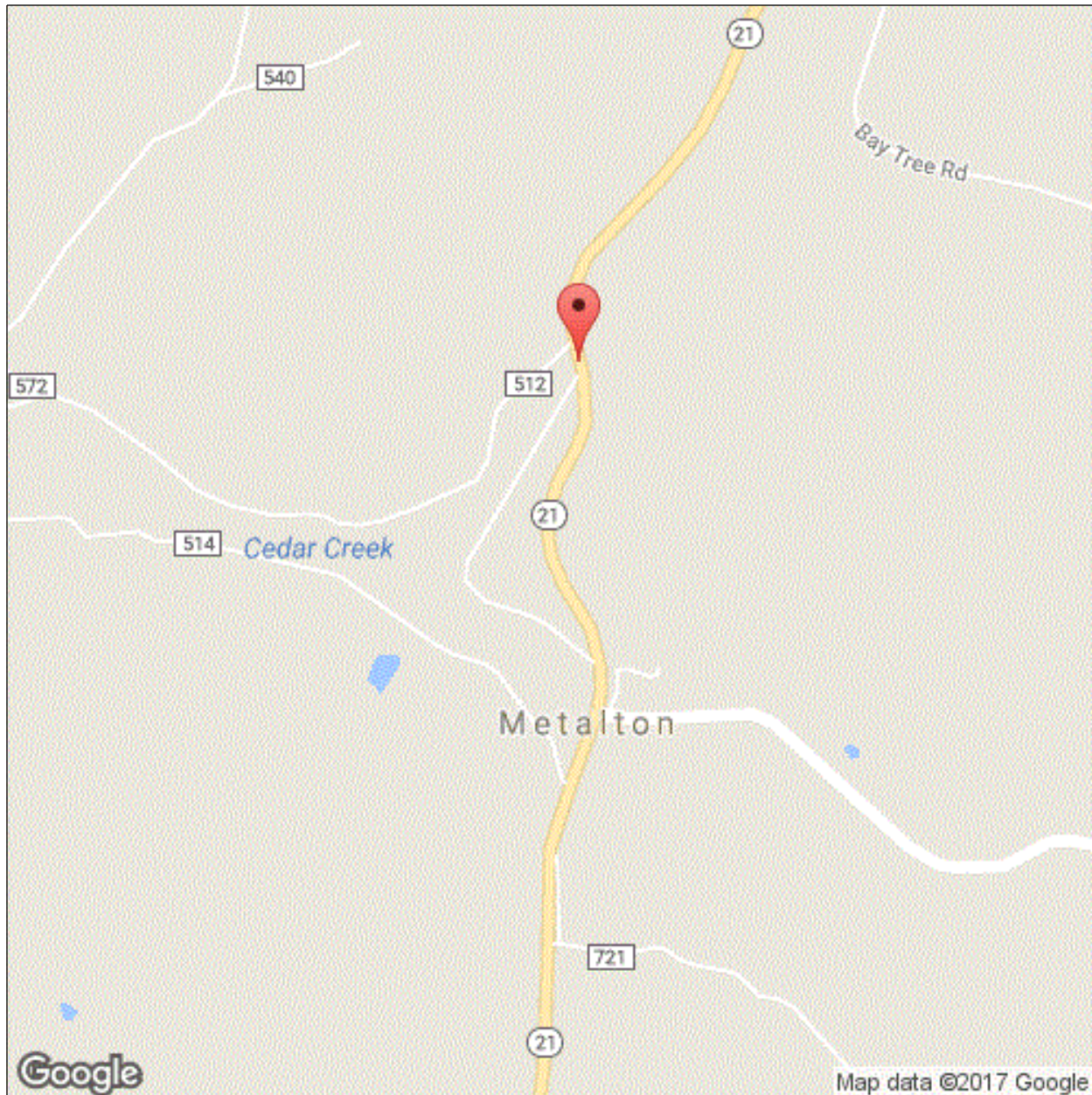
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Executive Summary

Structure is logged from South to North, and is accessible with a small extension ladder.

No bat activity noted.

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National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/15/2019
(8) STRUCTURE NUMBER	03310	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 21 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	09 (3) COUNTY CODE 015	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	CEDAR CREEK	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 21 Carroll		
(9) LOCATION	N OUTSKIRTS OF METALTON		
(11) MILEPOINT 6.779	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 36.22882	(17) LONGITUDE -93.53003		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	6
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 5
B) TYPE OF DESIGN/CONSTR: 01 - Slab		(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 3	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1960	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	2
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	48.0
(29) AVERAGE DAILY TRAFFIC 2200	(19) BYPASS DETOUR LENGTH 10	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	29.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 28	(49) STRUCTURE LENGTH (ft.) 84	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 1 RIGHT 1		(68) DECK GEOMETRY	2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	26.5	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	24.0	(72) APPROACH ROADWAY ALIGNMENT	7
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	25.9	36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	SUFFICIENCY RATING	60.3 STATUS 2
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED 31	(75B) WORK DONE BY 1	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	110	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	125	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	341	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2002	(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 3405	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	0
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(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
38 - Reinforced Concrete Slab	1- Ben.	2226	sq. ft.	210	1908	108	0
	07/15/2019 WNR & DBM: Driving surface- Spans #1,2 have a diagonal crack in the driving surface in the beginning of the span in the left driving lane. All spans have longitudinal and transverse cracking. The entire driving surface of the deck has heavy wear with loss of coarse aggregate. The left and right gutter lines have delaminations for the entire length of the structure. The deck is patched with asphalt at both joint locations for the full width of the deck over bents #1,2. The vertical face of the curb has small areas of exposed rebar. Undersurface- no deficiencies noted in the undersurface of spans #1,2,3.						
1080 - Delamination/Spall/Patched Area		629		0	575	54	0
1090 - Exposed Rebar		9		0	0	9	0
1130 - Cracking (RC and Other)		45		0	0	45	0
1190 - Abrasion/Wear (PSC/RC)		1333		0	1333	0	0
205 - Reinforced Concrete Column	1- Ben.	4	each	3	1	0	0
	Bent #1 Left Column- has the footing exposed, but is cast on solid rock, the column is showing minor abrasion for 3' above the footing. Right Column- has the footing exposed, but is cast on solid rock. Bent #2 Left Column- no deficiencies noted. Right Column- has the footing exposed, but is cast on solid rock.						
1190 - Abrasion/Wear (PSC/RC)		1		0	1	0	0
215 - Reinforced Concrete Abutment	1- Ben.	72	ft.	59	13	0	0
	Abutment #1- has 11' of vertical and horizontal hairline cracking near the mid section. Abutment #2- has 2' of full height vertical hairline cracking near the mid section.						
1130 - Cracking (RC and Other)		13		0	13	0	0
234 - Reinforced Concrete Pier Cap	1- Ben.	56	ft.	42	6	8	0
	Bent #1 cap- The span #1 side of the bent #1 cap has 8' of delamination's with areas of shallow honeycombing. The span #2 side has a 4' delamination at the midsection on the bottom edge. Bent #2 cap- The bent #2 cap has a 6' delamination on the underside at the midsection. The vertical face of both sides has areas of shallow honeycombing with loss of coarse aggregate. The left underside of the cap has shallow exposed rebar, and the right end of the cap has spalling with exposed rebar.						
1080 - Delamination/Spall/Patched Area		12		0	6	6	0

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Element Inspection

1090 - Exposed Rebar		2		0	0	2	0
330 - Metal Bridge Railing	1- Ben.	168	ft.	84	84	0	0
	<p>The left side metal bridge railing has pin point rusting throughout its length.</p> <p>The right side bridge railing is in good condition.</p> <p>The concrete posts have areas of exposed rebar on the underside and cracking near the bottoms of the posts near the curb.</p>						
1000 - Corrosion		84		0	84	0	0
515 - Steel Protective Coating		504	sq. ft.	252	252	0	0
3440 - Effectiveness (Steel Protective Coatings)		252		0	252	0	0

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Pictures

PHOTO 1

Description

PHOTO 1

Description

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Bridge Inspection Report

Sketches

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/17/2013 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Right underside at bent #2 cap, bridge rail post spalled with 12" exposed rebar. Also post #5 left side span #1 has 6" exposed rebar.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Right underside at bent #2 cap showing bridge rail post spall with exposed rebar.

Stage: Monitor



PHOTO 2 Description

Inspector:

Inspection Date:

Structure Number: 03310

Facility Carried: SH 21 Carroll

Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description Right side of bent #2 cap steel exposed.

Inspector:

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Maintenance Needs

Date Reported: 7/17/2013 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

The bent #1 cap has a large delaminated area on the underside at the mid section. Bent #2 cap also has a large delaminated area on the underside at the mid section. The left under side of the bent #2 cap has shallow exposed rebar, and the right end of the bent #2 cap is spalled with rebar exposed.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Bent #2 underside of cap delamination

Stage: Monitor



PHOTO 2 Description Bent #1 cap underside delaminated area.

Inspector:

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Maintenance Needs

Date Reported: 07/24/2017

Priority: D - Routine

Work Code:

Deficiency Description:

The left approach railing has vehicle damage.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description Northwest approach railing has collision damage.