

Bridge Inspection Report

A0872
US 65 Boone
over
ELM BRANCH



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: A0872

Inspection Date:

Facility Carried: US 65 Boone

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/17/2017
(8) STRUCTURE NUMBER	A0872	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 65 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	09 (3) COUNTY CODE 009	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	69300	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	ELM BRANCH	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US 65 Boone		
(9) LOCATION	SO CITY LIMITS VALLEY SPR		
(11) MILEPOINT 8.568	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000065020 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 36.15606	(17) LONGITUDE -92.99261		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	7
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(59) SUPERSTRUCTURE	7 (60) SUBSTRUCTURE 7
B) TYPE OF DESIGN/CONSTR: 04 - Tee Beam		(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 2	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 6		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1929	(106) YEAR RECONSTRUCTED 1964	(31) DESIGN LOAD	4
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 03 UNDER 00		(64) OPERATING RATING	39.0
(29) AVERAGE DAILY TRAFFIC 8600	(19) BYPASS DETOUR LENGTH 16	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	24.0
(109) AVERAGE DAILY TRUCK TRAFFIC 12		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 35	(49) STRUCTURE LENGTH (ft.) 72	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 4 RIGHT 4		(68) DECK GEOMETRY	4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	40.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	50	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	44.0	(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 45	(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.)	47.9	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:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	SUFFICIENCY RATING	0 STATUS 52.8
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 12000	(115) YEAR OF FUTURE ADT 2035	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(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
16 - Reinforced Concrete Top Flange	1- Ben.	2880	sq. ft.	2768	112	0	0
	The driving surface of the deck has a 2" asphalt overlay. The left deck overhang in span #1 has hairline transverse cracks with rust staining and efflorescence. Span #1 has 28' of transverse cracking in the underside of the deck. Span #2 has 84' of longitudinal and transverse hairline cracking, some with efflorescence and rust staining.						
1130 - Cracking (RC and Other)		112			112		
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	432	ft.	426	5	1	0
	6 tee beam system. Tee beam #1 in span #1 has minor delamination at the bearing at abutment #1 and bent #1. The concrete diaphragm in bay #1 has a spall with rebar exposed. Tee beam #3 has 1' of delamination over abutment #1. Span #2- tee beam #1 has a 1' area of delamination over abutment #2. Tee beam #3 has a 1' area of delamination over abutment #2.						
1080 - Delamination/Spall/Patched Area		5			5		
1090 - Exposed Rebar		1				1	
205 - Reinforced Concrete Column	1- Ben.	6	each	2	4	0	0
	Columns #1,2 have minor scour beneath the footing with loss of concrete, but footing is set in solid rock. No deficiencies noted in columns #3,4. The column footings are showing minor abrasion. Column #5 has spalling on the upstream side near the top of the footing. Column #6 has a full height delamination with a 1' delamination on the span #2 side. All footings are exposed at bent #1 but are cast on solid rock.						
1080 - Delamination/Spall/Patched Area		2			2		
6000 - Scour		2			2		
215 - Reinforced Concrete Abutment	1- Ben.	168	ft.	154	13	1	0
	Abutment #1 has 13 vertical cracks including the integral wing walls, some cracks are 0.040", the top and vertical face of the footing is exposed for the full length of the abutment, but is cast on solid rock. No undermining was noted. Abutment #2 has 24' of vertical cracking some cracks are 0.045". Abutment #2 has one small pop out with rebar exposed under bay #1. The top of the abutment footing and vertical face is exposed for the full width of the abutment, but is cast on solid rock. The channel beneath the structure is entirely solid rock.						
1090 - Exposed Rebar		1				1	
1130 - Cracking (RC and Other)		13			13		
234 - Reinforced Concrete Pier Cap	1- Ben.	58	ft.	54	2	2	0
	The bent cap has a 1' area of exposed rebar on the span #1 side over column #1 and column #3. The right end of the bent cap has 2 hairline vertical cracks in the vertical face on the span #2 side.						
1090 - Exposed Rebar		2				2	
1130 - Cracking (RC and Other)		2			2		

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311 - Movable Bearing	1- Ben.	6	each	6			
	The bronze bearings in the original portion of the structure at abutment #1 and #2 have patina and appear to be in good condition and functioning as intended.						
333 - Other Bridge Railing	1- Ben.	144	ft.	140	4	0	0
	The beginning bridge left side corner post is broken loose from bridge rail due to vehicle damage. Concrete Rail posts #4,5,6 on the left side of the structure have a spall with rebar exposed at the bottom. Rail posts #1,5 on the right side of the structure have shallow exposed rebar in the concrete posts. The left ending metal railing has sporadic corrosion between posts 8-10.						
1010 - Cracking		1			1		
1080 - Delamination/Spall/Patched Area		3			3		
515 - Steel Protective Coating		324	sq. ft.	288	36	0	0
3440 - Effectiveness (Steel Protective Coatings)		36			36		