

Bridge Inspection Report

M2922
SH 343-01 LM 0.22
over
King Bayou



Inspection Date:

Inspected By:

Inspection Type(s):

TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	7
ELEMENTS	8
PICTURES	11
SKETCHES	13

Inspector:

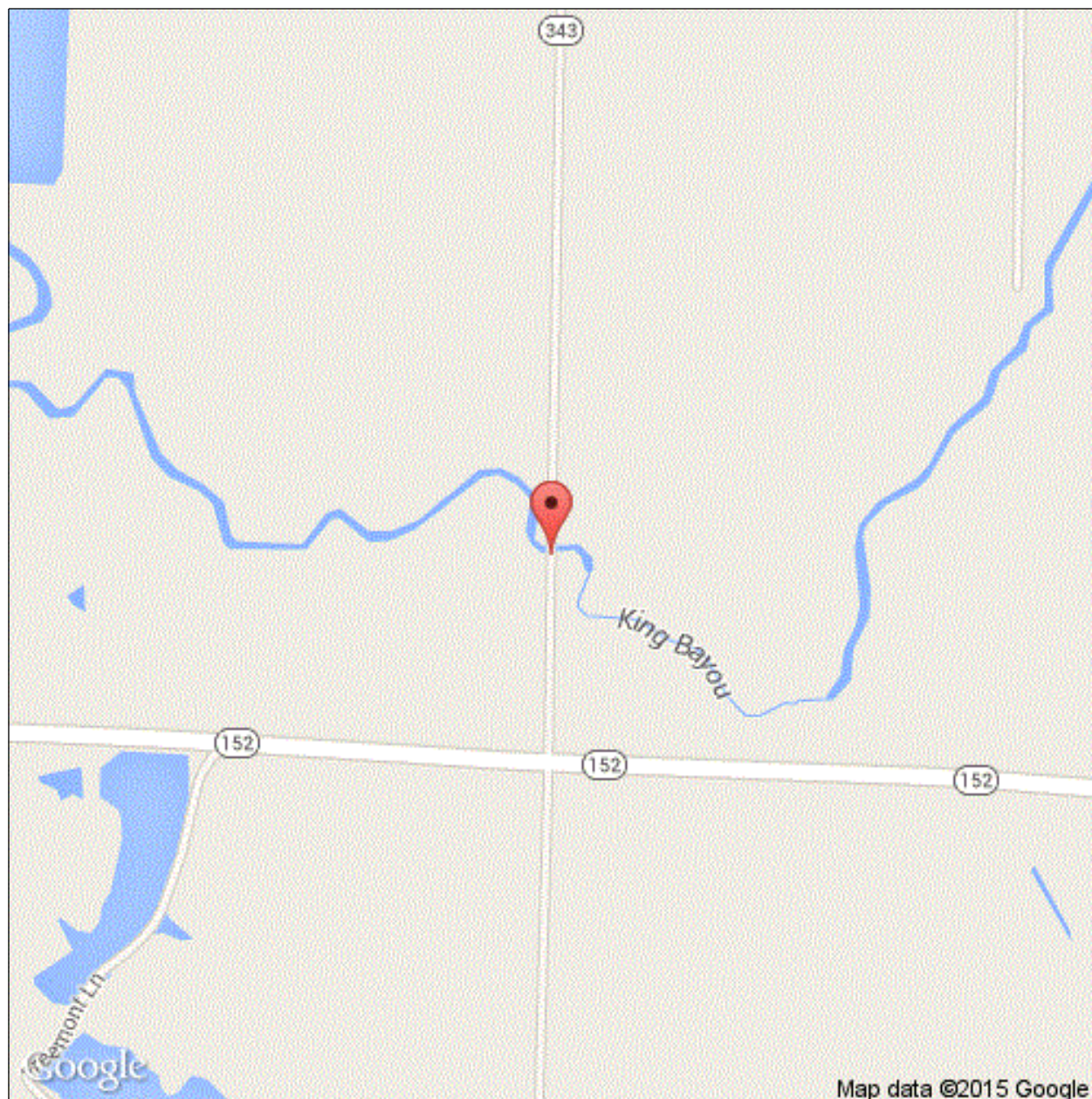
Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Location Map



Latitude: 34.34975178708272

Longitude: -91.57996590211661

Inspector:

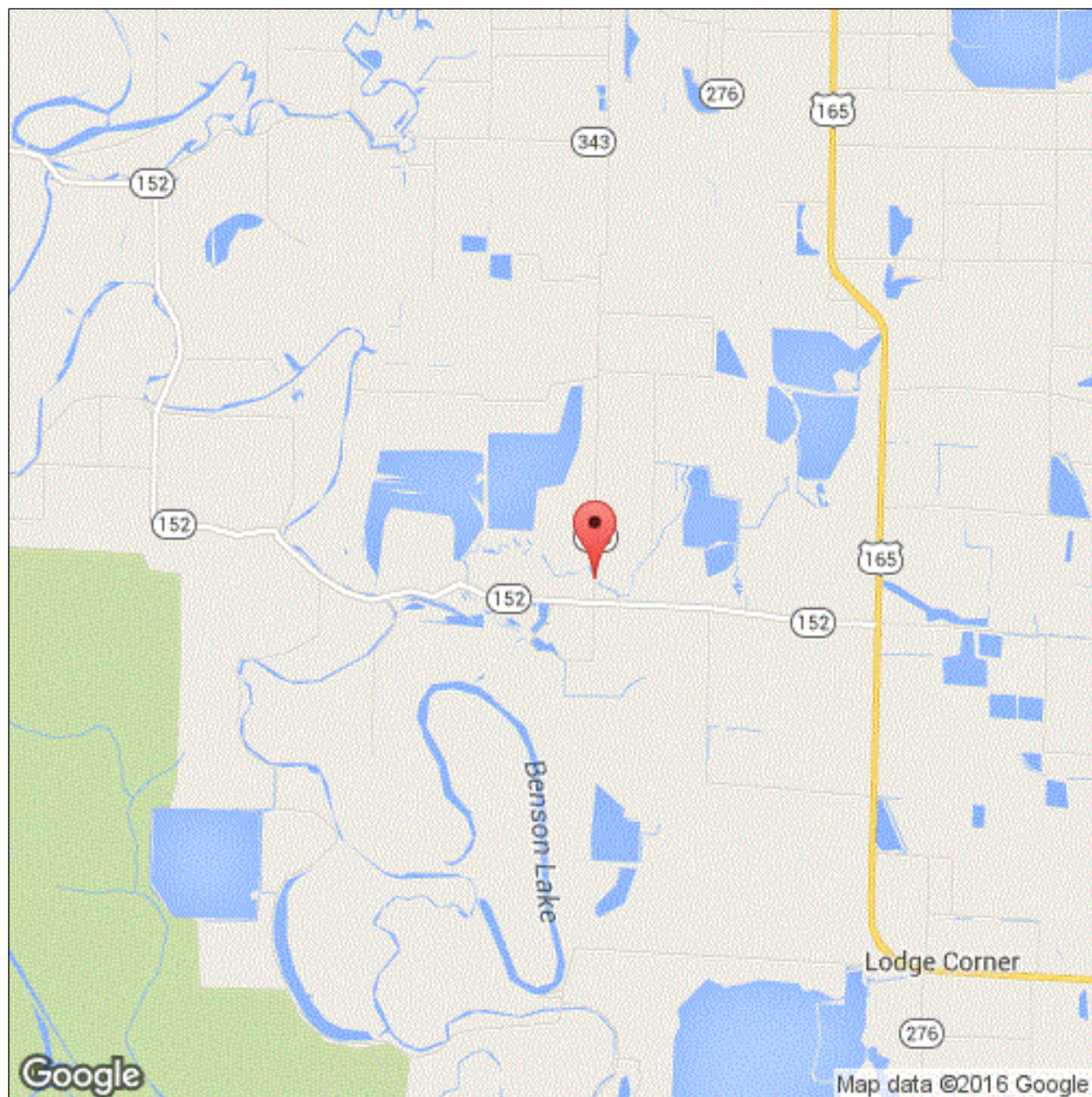
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Executive Summary

Bridge is logged from south to north. (Beginning toward SH 152.)

07-16-2018 GGL-KLR: Contract is currently scheduled to be let December 5, 2018 to replace this bridge - Job # 020582.

05-07-2018 GGL-KLR: Contract is currently scheduled to be let in September 2018 to replace this bridge.

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	05/07/2018
(8) STRUCTURE NUMBER	M2922	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 343 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 001	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	King Bayou	C. OTHER SPECIAL	Y 24 10/24/2018
(7) FACILITY CARRIED	SH 343-01 LM 0.22		
(9) LOCATION	0.22 Mi N SH 152-FiveOaks		
(11) MILEPOINT 0.220	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.34975178708272	(17) LONGITUDE -91.57996590211661		
(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: 7 - Wood or Timber		(59) SUPERSTRUCTURE	7 (60) SUBSTRUCTURE 4
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	6 (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 7	(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 1965	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	0
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	2
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	18.0
(29) AVERAGE DAILY TRAFFIC 200	(19) BYPASS DETOUR LENGTH 17	(65) METHOD USED TO DETERMINE INVENTORY RATING	2
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	11.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	0
		(41) STRUCTURE OPEN/POSTED/CLOSED	P
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 19	(49) STRUCTURE LENGTH (ft.) 135	(67) STRUCTURAL EVALUATION	2
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5 RIGHT 0.5		(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 24.6		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 25.8		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 22.0		(72) APPROACH ROADWAY ALIGNMENT	8
(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.) 25.6		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	5
(56) MIN LATERAL UNDER CLEARANCE (ft.) 0		SUFFICIENCY RATING	36.0 STATUS 1
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.) 164.0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	109	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	370	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2000	(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 341	(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	5
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

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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
12 - Reinforced Concrete Deck	1- Ben.	3483	sq. ft.	913	2260	310	0
	Deck: 25.8' wide x 135' long. Light to moderate scaling along gutterlines. Moderate-sized unsealed transverse cracks, mainly at bent lines. (6 bents @ 30'x1' each = 150 square feet total) Some patched areas, mostly in Span 1 & 2 - left side. (20%) Abrasive wear - mainly in right lane (50%).						
1080 - Delamination/Spall/Patched Area		679		0	539	140	0
1130 - Cracking (RC and Other)		150		0	0	150	0
1190 - Abrasion/Wear (PSC/RC)		1741		0	1721	20	0
111 - Timber Open Girder/Beam	1- Ben.	2430	ft.	2160	270	0	0
	Girders: 18 per span \ 135' total. Some weathering and moderate cracks on outside girders.						
1150 - Check/Shake		270		0	270	0	0
216 - Timber Abutment	1- Ben.	66	ft.	58	8	0	0
	Backwalls: 33' each \ Bents 1 & 8. Bent 1: Small check entire length of one back wall board. Bent 8: Minor decay in back wall outside of bridge						
1140 - Decay/Section Loss		8		0	8	0	0

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Element Inspection

228 - Timber Pile	1- Ben.	32	each	27	0	2	3
<p>Piling: 4 per bent \ Bents 1-8. Bent 1 Piles 1-3: Not visible. Bent 1 Pile 4: A minor-sized check on right side - CS2 check.</p> <p>Bent 2 Pile 1: A large-sized check on the ahead side - CS3 check. Bent 2 Pile 3: One moderate-sized check on ahead side near ground-line - CS3 check. Bent 2 Pile 4: A few scattered moderate-sized checks - CS3 check.</p> <p>Bent 3 Pile 2: A few scattered minor-sized checks - CS2 check. Bent 3 Pile 3: A couple moderate-sized checks - CS3 check.</p> <p>Bent 4 Pile 1: Significant deterioration/decay around brace bolt hole - CS4 decay. Bent 4 Pile 2: Decay/hollow-sounding (1" shell remaining) - CS4 decay. Bent 4 Pile 3: Some scattered splintering on the surface.</p> <p>Bent 6 Pile 1: See below [OLD NOTE - Deterioration/decay (1/2" shell remaining) - vegetation growth out of pile - CS4 decay.] Bent 6 Pile 3: See below [OLD NOTE - Hollow-sounding (1" shell remaining) - CS3 decay.] *Bent 6 Pile 4: Decay (1/2" shell remaining) - vegetation growth out of pile - CS4 decay. 07-24-2018 GGL-KLR: Bent 6 Piles 1 & 3 were sliced and concrete-collared / Pile 4 existing slice is currently underwater and repair/replacement is not possible at the current time.</p> <p>*Bent 7 Pile 1: Deterioration/decay from water line up (1/2" shell remaining) - vegetation growth out of pile - CS4 decay. Bent 7 Pile 2: Moderate-sized checking - CS3 check. Bent 7 Pile 3: Moderate surface decay to outer shell - CS3 decay. Bent 7 Pile 4: Full-height vertical checking with ring separation - CS3 check.</p> <p>Bent 8 Pile 1: Not visible. Bent 8 Pile 2: A few scattered minor-sized checks - CS2 check. Bent 8 Piles 3-4: A few scattered moderate-sized checks - CS3 check x2.</p> <p>Some very minor checking and light deterioration beginning on remaining piling.</p>							
1140 - Decay/Section Loss		5		0	0	2	3
235 - Timber Pier Cap	1- Ben.	400	ft.	350	50	0	0
<p>Caps: 25' each \ Bents 1-8. Bent 1 right: Vertical split - 2' CS3 split. Bent 3: Minor checking on ahead side - 25' CS2 check. Bent 7: Minor checking on back side - 25' CS2 check. Bent 8: State forces have repaired/replaced since 2016 inspection.</p>							
1150 - Check/Shake		50		0	50	0	0

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Element Inspection

330 - Metal Bridge Railing	1- Ben.	270	ft.	0	270	0	0
Railing: 135' each side. Coating: 2.5 sqft/lf of rail. Metal rail on timber posts. Minor splits and cracks in timber posts. Rust forming on metal railing, mainly along top.							
1000 - Corrosion		270		0	270	0	0
515 - Steel Protective Coating		675	sq. ft.	0	675	0	0
3440 - Effectiveness (Steel Protective Coatings)		675		0	675	0	0

Inspector:

Inspection Date:

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Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Pictures

PHOTO 1

Description

PHOTO 1

Description

Inspector:

Inspection Date:

Structure Number: M2922

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Pictures

PHOTO 2

Description

Inspector:

Inspection Date:

Structure Number: M2922

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Sketches

Inspector:

Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Date Reported: 04/14/2016

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Deck – all spans: Light to moderate scaling along gutterlines - a couple small areas of active scaling.
Moderate-sized unsealed transverse cracks, mainly at bent lines.

REPLACEMENT JOB # 020582 SCHEDULED - January 16, 2019 letting.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Deck - Spans 1-2 left

Stage: Monitor



PHOTO 2 Description

Inspector:

Inspection Date:

Structure Number: M2922

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description

Stage: Monitor

Stage: Monitor



PHOTO 5 Description Deck - Bent 3



PHOTO 4 Description

Inspector:

Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Date Reported: 05/07/2018

Priority: C - Important

Work Code: N/A

Deficiency Description:

Approach roadway – Bents 1 & 8: Large-sized crack between approach roadway and bridge end, allowing stormwater to flow down and possibly soften and erode end slope under abutment. (Minor erosion already exists at Bent 8.)
Some minor settlement of roadway fill material, causing a bump and impact to the structure as traffic comes onto bridge.

REPLACEMENT JOB # 020582 SCHEDULED - January 16, 2019 letting.

Work Description:

Repaired by state forces.

05-07-2018 GGL-KLR: Cracks still exist at both bridge ends - no evidence of any repairs.

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Approach roadway - Bent 1 right

Stage: Monitor



PHOTO 2 Description Approach roadway - Bent 8

Inspector:

Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description Approach roadway - Bent 1: Crack at end of bridge

Stage: Monitor



PHOTO 4 Description Approach roadway - Bent 8: Crack at bridge end

Stage: Monitor



PHOTO 5 Description Approach roadway - Bent 8: Deterioration/cracking

Inspector:

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Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Date Reported: 07/16/2018

Priority: B - Pressing; 6 month completion goal

Work Code: N/A

Deficiency Description:

*Bent 7 Pile 1: Deterioration/decay from water line up (1/2" shell remaining) - vegetation growth out of pile - CS4 decay.
Bent 7 Pile 4: Full-height vertical checking with ring separation - CS3 check.

07-16-2018 GGL-KLR: Changed priority from "G" to "B".

REPLACEMENT JOB # 020582 SCHEDULED - January 16, 2019 letting.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Bent 7 pile 4 full height vertical crack with ring separation.

Stage: Assigned



PHOTO 2 Description Bent 7 Pile 1 : Decay

Inspector:

Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/24/2018

Priority: C - Important

Work Code: N/A

Deficiency Description:

*Bent 6 Pile 4: Decay (1/2" shell remaining) - vegetation growth out of pile - CS4 decay.

NOTE: State forces have been unable to repair/replace pile due to existing slice being under water level.

REPLACEMENT JOB # 020582 SCHEDULED - December 5, 2018 letting.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Bent 6 Pile 4: Decay

Stage: Open



PHOTO 2 Description Bent 6 Pile 4: Decay

Inspector:

Structure Number: M2922

Inspection Date:

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/24/2018

Priority: A - Safety deficiency; requires prompt action

Work Code: N/A

Deficiency Description:

Bent 4 Pile 1: Significant deterioration/decay around brace bolt hole - CS4 decay.

Bent 4 Pile 2: Decay/hollow-sounding (1" shell remaining) - CS4 decay.

(2 adjacent pile in Bent 4 have significant deterioration/decay - showing signs of "brooming" - beginning to crush.)

10-24-2018 GGL-KLR: Changed priority from "B" to "A".

REPLACEMENT JOB # 020582 SCHEDULED - January 16, 2019 letting.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Stage: Assigned



PHOTO 1 Description Bent 4 - Pile 2

Inspector:

Inspection Date:

Structure Number: M2922

Facility Carried: SH 343-01 LM 0.22

Bridge Inspection Report

Maintenance Needs

Stage: Open



PHOTO 2 Description Bent 4 - Pile 2: Decay

Stage: Assigned



PHOTO 2 Description Bent 4 - Pile 1