

Bridge Inspection Report

02652

SH 28 - Scott Co.

over

Dripping Springs Creek



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

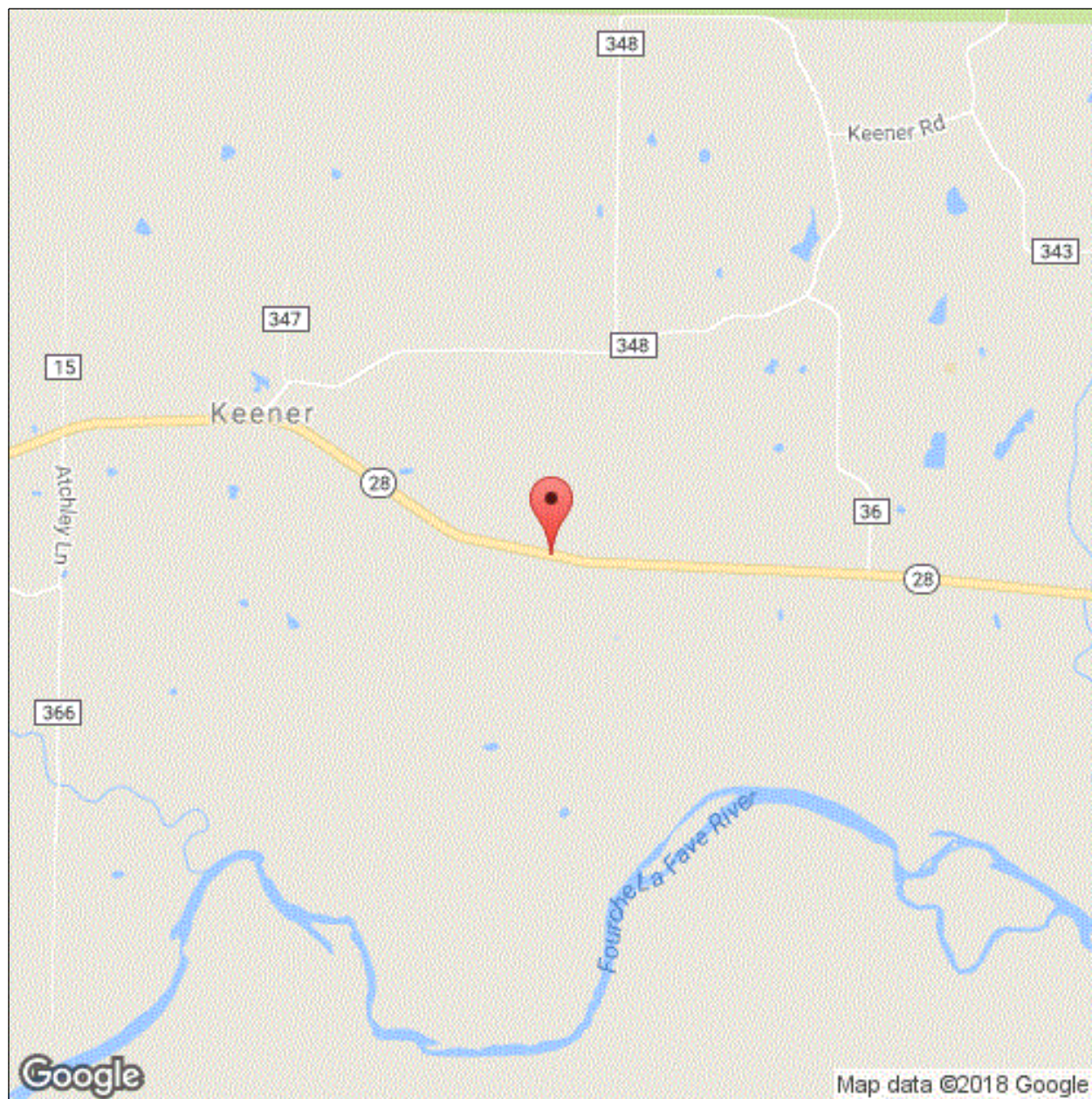
Structure Number: 02652

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Facility Carried: SH 28 - Scott Co.

Bridge Inspection Report

Location Map



Latitude: 34.80470

Longitude: -93.98932

Inspector:

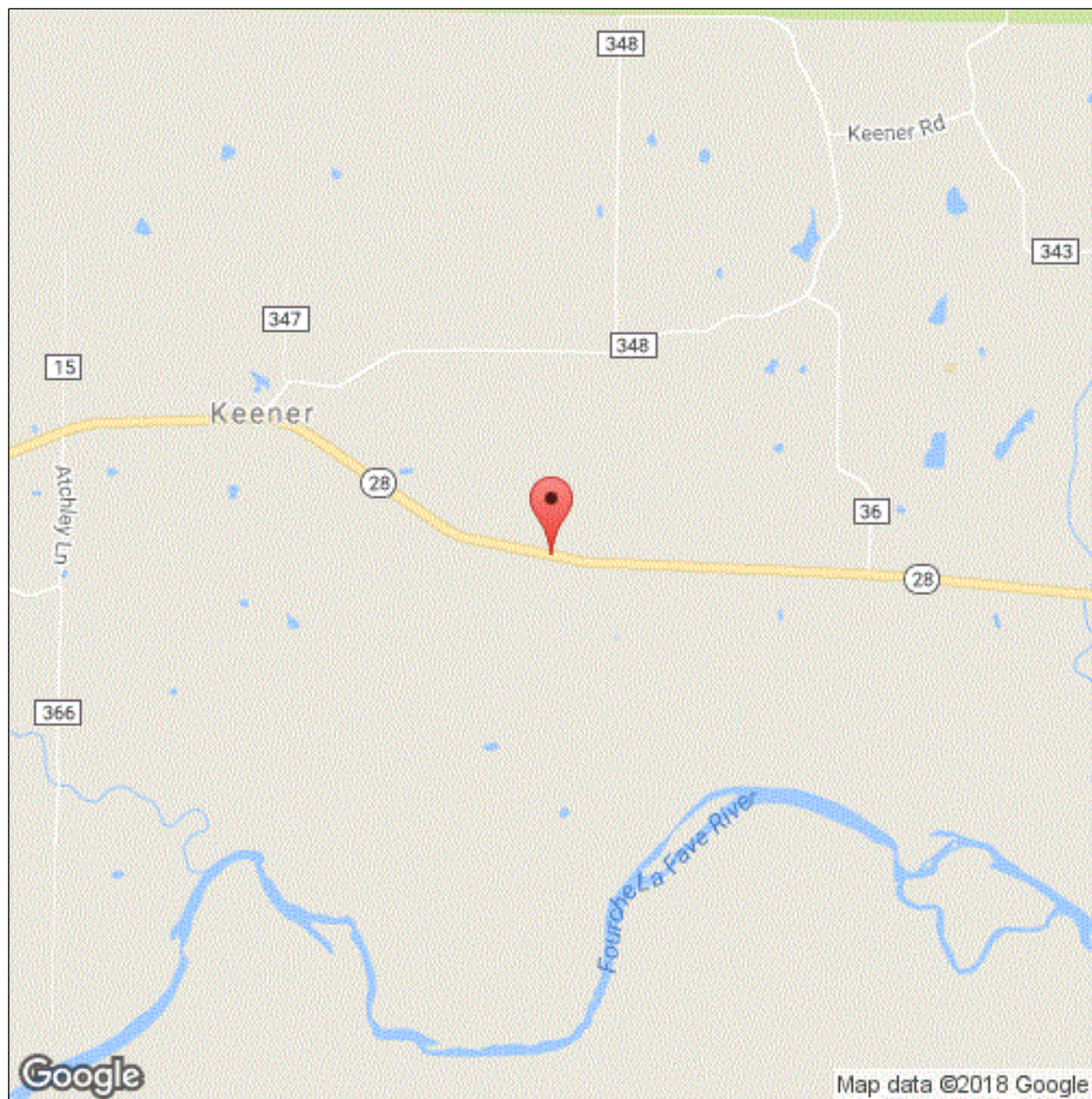
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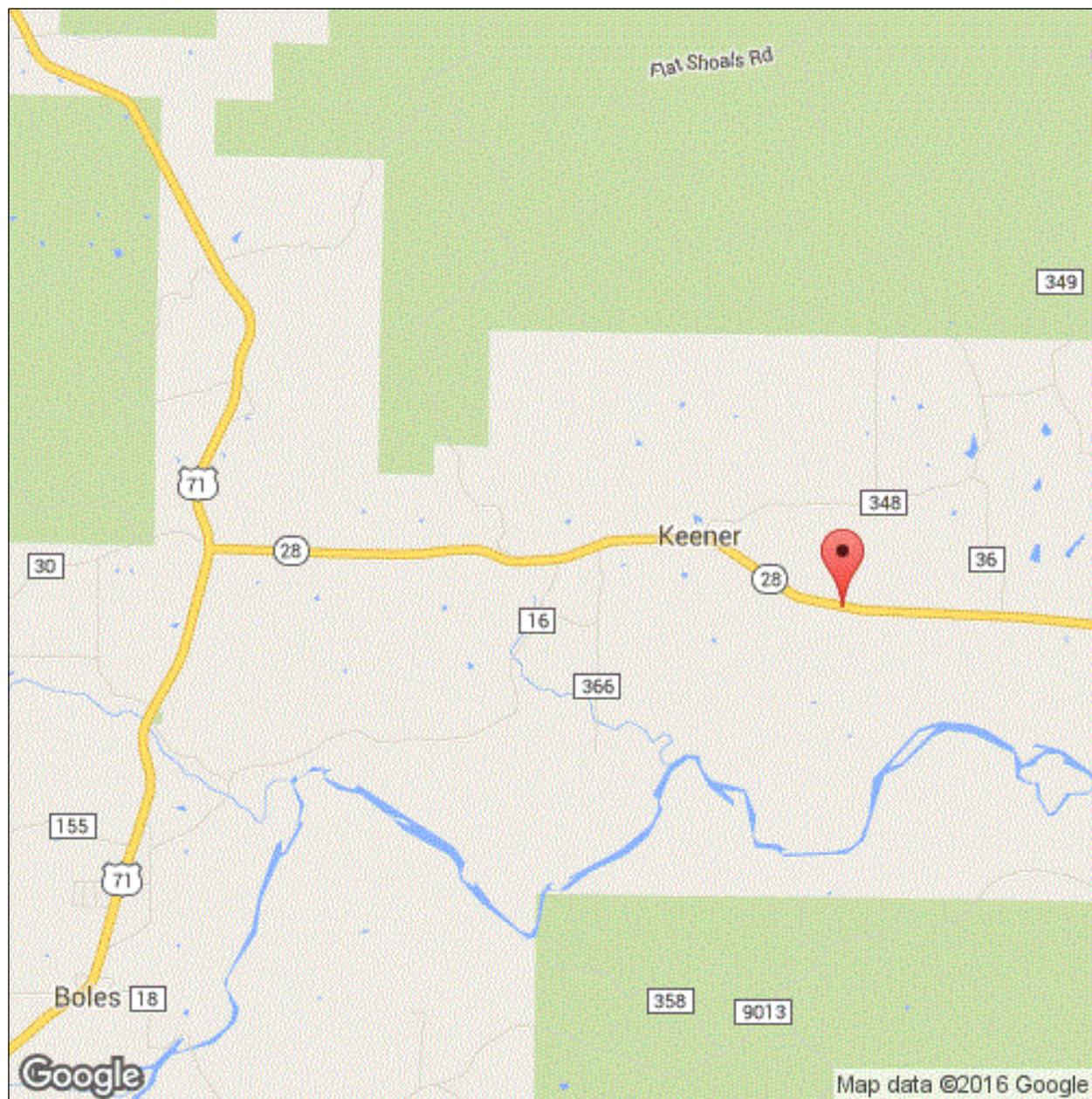
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Executive Summary

01/22/2018 EJW & JRT - Underwater Type 2 inspections conducted on this date. Wading and probing with higher than normal water conditions. Previous inspection indicated that Bent 4 had the most extreme case of undermining at the inlet end approximately 3' long measured along the length of the footing that penetrates the full width of the pier wall. However, at this inspection we could not locate the areas of undermining due to possible silting in from the stream bed material. The exposed portions of the footings had medium to heavy abrasion. Voids typical along and under the edges of the footings that typically do not reach the masonry substructure. No apparent significant scour problems at this inspection.

01/26/2016 JPB & RSM-Routine and Underwater Type 2 inspections conducted this date.

Underwater Type 2 Inspection: The intermediate bents have scour/undermining along the footings. Bent 4 is the most extreme case with an area of undermining at the inlet end approximately 3' long measured along the length of the footing that penetrates the full width of the pier wall. The exposed portions of the footings have medium abrasion.

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National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	01/22/2018
(8) STRUCTURE NUMBER	02652	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 28 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04 (3) COUNTY CODE 127	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Dripping Springs Creek	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 28 - Scott Co.		
(9) LOCATION	2.96 MI E JCT OF US 71		
(11) MILEPOINT 2.960	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.80470	(17) LONGITUDE -93.98932		
(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
B) TYPE OF DESIGN/CONSTR: 01 - Slab		(60) SUBSTRUCTURE	5
(44) STRUCTURE TYPE, APPROACH SPANS		(61) CHANNEL & CHANNEL PROTECTION	6
A) KIND OF MATERIAL/DESIGN: 0 - Other		(62) CULVERT	N
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN	4 (46) NUMBER OF APPROACH		
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE		
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT	1950 (106) YEAR RECONSTRUCTED	(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	37.0
(29) AVERAGE DAILY TRAFFIC	700 (19) BYPASS DETOUR LENGTH	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(66) INVENTORY RATING	22.0
(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.)	19 (49) STRUCTURE LENGTH (ft.)	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 1 RIGHT 1	(68) DECK GEOMETRY	4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	22.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	24	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	23.0	(72) APPROACH ROADWAY ALIGNMENT	6
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	23.6	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	54.8
		STATUS	0
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	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(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	927 (115) YEAR OF FUTURE ADT	(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.	1776	sq. ft.	1712	59	5	0
	-The East and West approach roadways both have settlement adjacent to the bents. -The East end approach roadway has two potholes adjacent to Bent #5. -The East approach roadway has settlement at the bridge end with a hole in the Left shoulder adjacent to the abutment. -The driving surface has transverse cracking over each of the intermediate bents causing leaking to accrue on the caps. -The undersurface of the slab has isolated areas of typical hairline longitudinal cracking with efflorescence leaching through. -There are typical isolated areas of spalling that exposes the reinforcing steel with section loss around the drip grooves and deck drains. -The Left and Right sides of span # 4 has concrete deterioration in the end of the span over Bent # 4.						
1090 - Exposed Rebar		5				5	
1120 - Efflorescence/Rust Staining		7			7		
1130 - Cracking (RC and Other)		52			52		
510 - Wearing Surfaces		1628	sq. ft.	1535	0	93	0
3220 - Crack (Wearing Surface)		93				93	
213 - Masonry Pier Wall	1- Ben.	66	ft.	61	0	5	0
	-Past inspection indicated that the intermediate bents have scour/undermining along the footings. Bent # 4 is the most extreme case with an area of undermining at the inlet end approximately 3' long measured along the length of the footing that penetrates the full width of the pier wall. The exposed portions of the footings have medium abrasion. However, at this inspection we could not locate the voids under the footings due to possible silting in of stream bed material. -There are isolated areas of cracking with efflorescence leaching through. -There is random locations with grout deterioration and grout displacement along the base of the masonry pier walls.						
1610 - Mortar Breakdown (Masonry)		5				5	
217 - Masonry Abutment	1- Ben.	50	ft.	50			0
	01/22/2018 - Maintenance forces have grouted the cracks since the last inspection and measurements could not be obtained at this inspection but no apparent additional rotation was evident in the grouted repairs. -Bent # 5 (East Abutment) Concrete cap appears to have a history of rotation and movement. Right side of cap has 2 3/4" space between cap and rock masonry. The left side has approximately 3/16" gap between grout repair and back of cap. The right side of bent # 5 abutment has a "Y" shaped crack at the wing wall juncture.						

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Element Inspection

220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	135	ft.	132	0	3	0
-Past inspection indicated that the intermediate bents have scour/undermining along the footings. Bent # 4 is the most extreme case with an area of undermining at the inlet end approximately 3' long measured along the length of the footing that penetrates the full width of the pier wall. The exposed portions of the footings have medium abrasion. However, at this inspection we could not locate the voids under the footings due to possible silting in of stream bed material.							
1190 - Abrasion/Wear (PSC/RC)							
6000 - Scour		3				3	
234 - Reinforced Concrete Pier Cap	1- Ben.	125	ft.	123	0	2	0
-Bents 2 cap right side has a basketball size spall that exposes the reinforcing steel with active corrosion and section loss. -Bent # 3 has a shallow spalling at the top of the cap. -Maintenance forces have painted reinforcing steel since last inspection. -Past inspection indicated that bent # 5 (East Abutment) concrete cap appears to have a history of rotation and movement. Right side of cap has 2 3/4" space between cap and rock masonry. The left side has approximately 3/16" gap between grout repair and back of cap. The right side of bent # 5 abutment has a "Y" shaped crack at the wing wall juncture. Deficiencies appeared to be repaired at this inspection with grout. However, at this inspection it appeared the deficiencies have been repaired by maintenance forces with grout and previous measurements were not obtainable at this inspection due to previous repairs.							
1090 - Exposed Rebar		2				2	
330 - Metal Bridge Railing	1- Ben.	148	ft.	0	74	74	0
-The Bridge railing has a failing paint system with a rust coating over the majority of the railing. -The Northeast end of bridge railing had a 6" area of damage to the metal railing due to possible mowing equipment.							
1000 - Corrosion		148			74	74	
515 - Steel Protective Coating		296	sq. ft.	0	0	296	0
3440 - Effectiveness (Steel Protective Coatings)		296				296	

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Pictures

PHOTO 1

Description

PHOTO 2

Description

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Sketches

Inspector:

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Maintenance Needs

Date Reported: 4/9/2012 12:00:00 AM

Priority: C - Important

Work Code: Repair

Deficiency Description:

Substructure

The intermediate bents have scour/undermining along the edges of footings. Bent # 4 is the most extreme case with an area of undermining at the inlet end that is approximately 3' long measured along the length of the footing that penetrates the full width of the pier wall.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Undermining to inlet end of Bent #4, photo #1.

Stage: Assigned



PHOTO 2 Description Undermining to inlet end of Bent #4, photo #2.

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Maintenance Needs

Date Reported: 1/24/2014 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Substructure

Rock displacement on the top of the wing walls at Bent # 5.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Rock missing behind the cap at Bent # 5 left side.

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Maintenance Needs

Date Reported: 01/26/2016

Priority: C - Important

Work Code: Repair

Deficiency Description:

Approach Roadway

The approach roadways have settlement at the bridge ends. The East approach roadway has a hole that is approximately 14 inches in diameter and approximately 10 inches deep located in the left shoulder adjacent to the abutment.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Settlement at East approach.

Stage: Open



PHOTO 2 Description Settlement in the East approach roadway with a hole in the Left shoulder at the bridge end.