

Bridge Inspection Report

05430
SH 59-Crawford Co.
over
Ar. & Mo. Railroad



Inspection Date:

Inspected By:

Inspection Type(s):

TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	8
ELEMENTS	10
PICTURES	12
SKETCHES	13

Inspector:

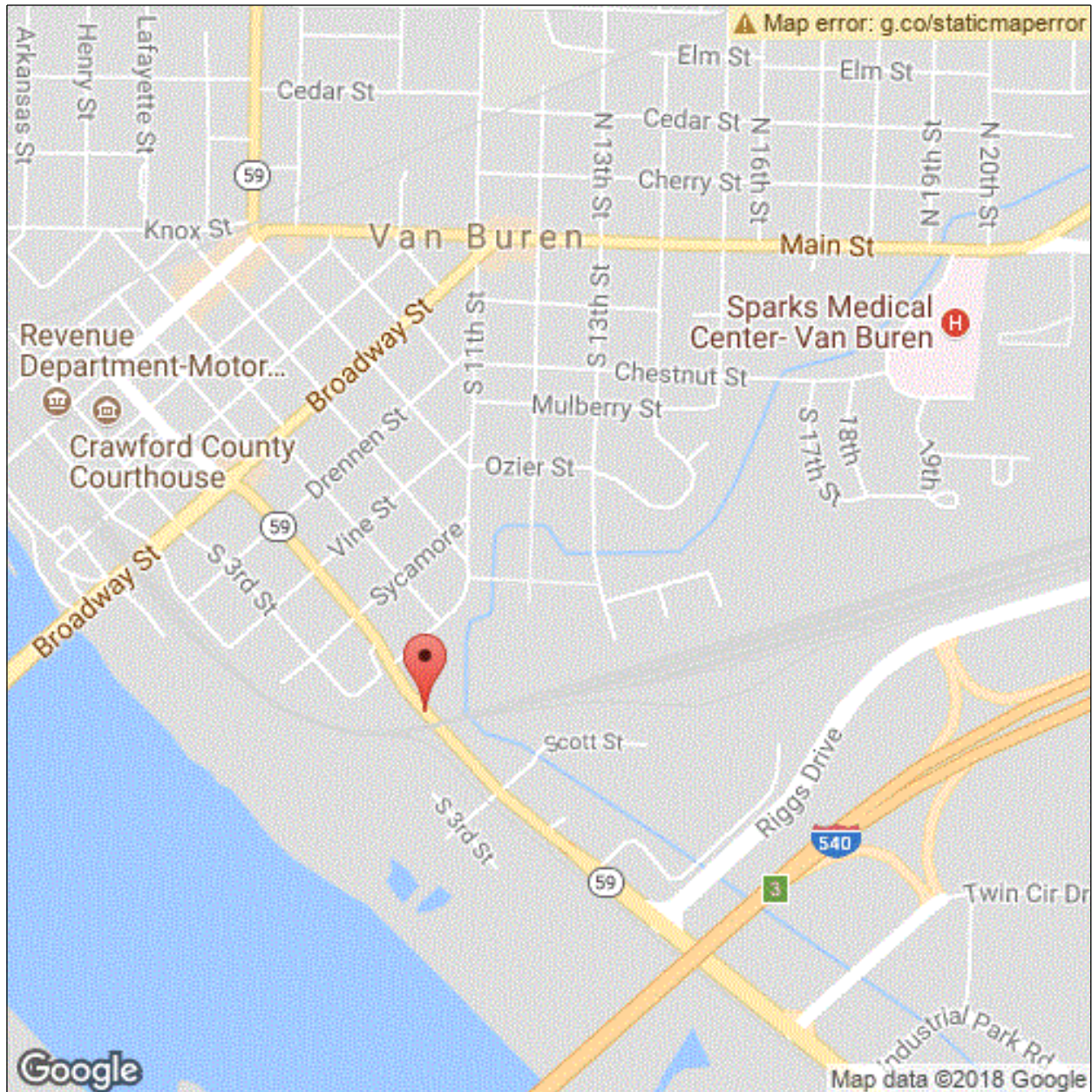
Structure Number: 05430

Inspection Date:

Facility Carried: SH 59-Crawford Co.

Bridge Inspection Report

Location Map



Latitude: 35.429120770063854

Longitude: -94.34925903373295

Inspector:

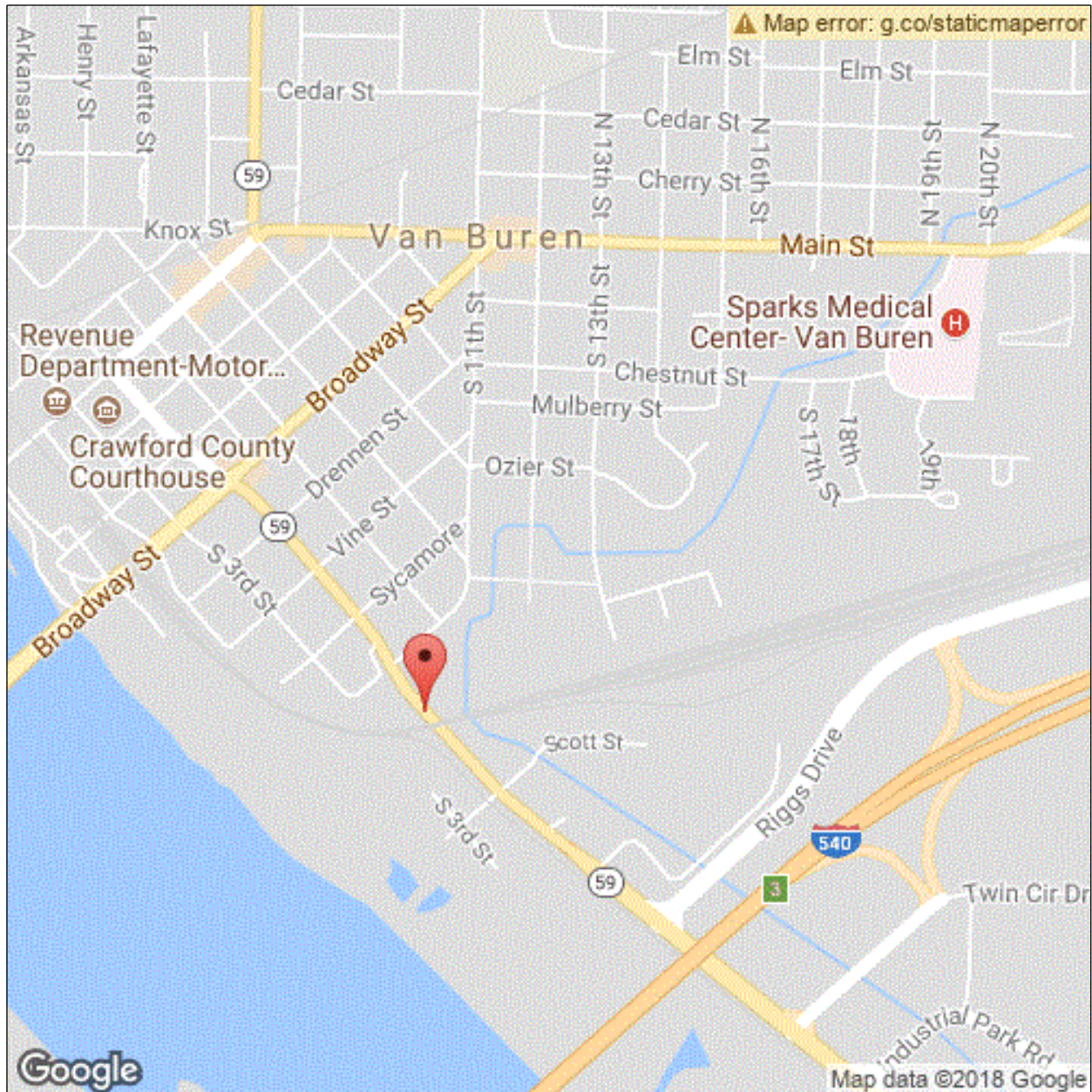
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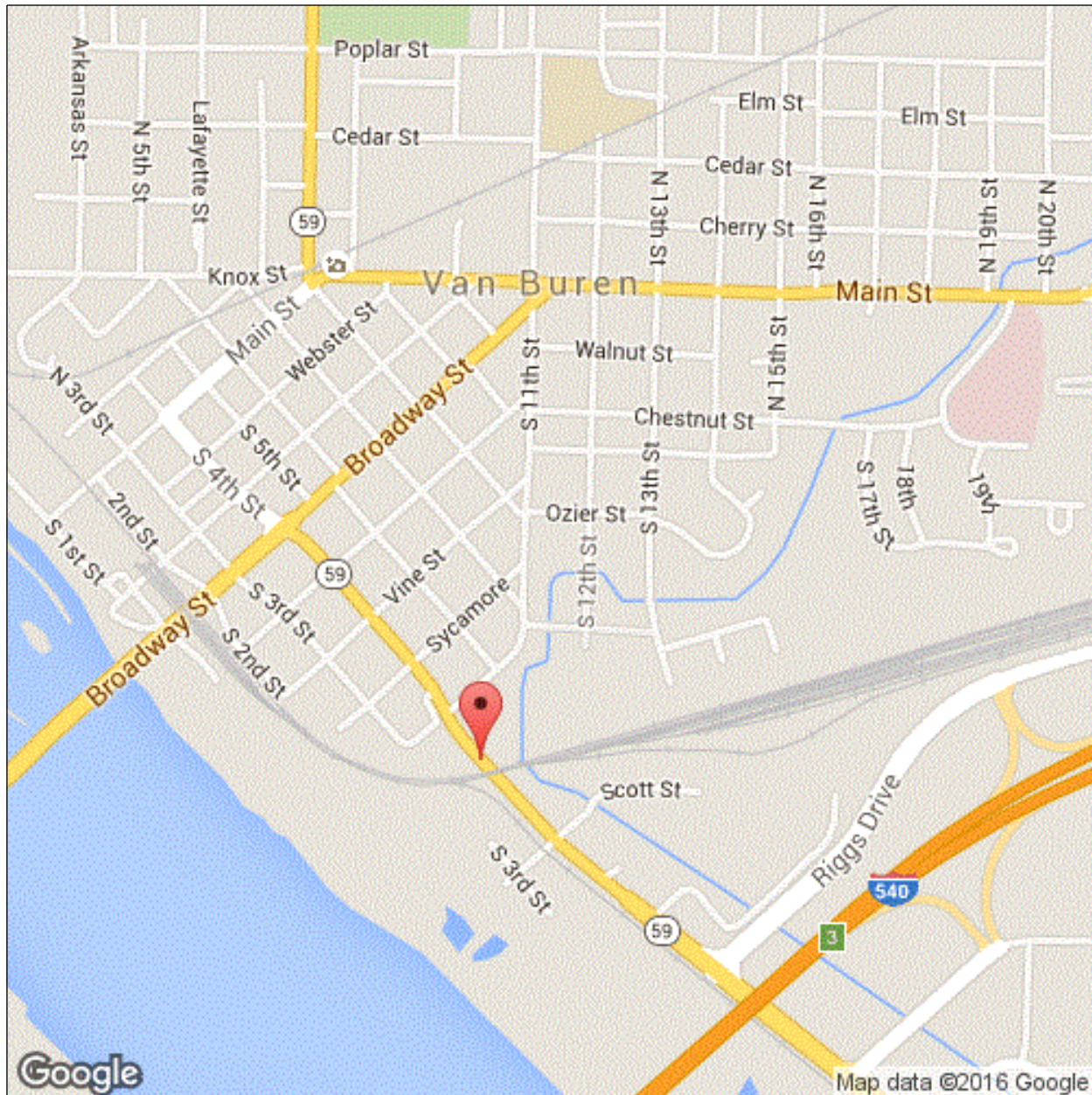
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Bridge Inspection Report

Executive Summary

02/21/2018 - EJW, JRT & TML - Routine Inspection conducted on this date. Underclearance verified at this inspection.

Inspector:

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	02/21/2018
(8) STRUCTURE NUMBER	05430	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 59 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04 (3) COUNTY CODE 033	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	69380	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Ar. & Mo. Railroad	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 59-Crawford Co.		
(9) LOCATION	VAN BUREN		
(11) MILEPOINT 0.470	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.42912077006385	(17) LONGITUDE -94.34925903373295		
(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: 3 - Steel		(59) SUPERSTRUCTURE 7	(60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	N (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 1972	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	5
(42) TYPE OF SERVICE ON 1 UNDER 2		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	60.0
(29) AVERAGE DAILY TRAFFIC 10000	(19) BYPASS DETOUR LENGTH 2	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	36.0
(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.) 60	(49) STRUCTURE LENGTH (ft.) 162	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.4 RIGHT 0.4		(68) DECK GEOMETRY	6
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 44.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	4
(52) DECK WIDTH, OUT-TO-OUT (ft.) 47		(71) WATERWAY ADEQUACY	N
(32) APPROACH ROADWAY WIDTH (ft.) 44.0		(72) APPROACH ROADWAY ALIGNMENT	7
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 26	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 49.9		36B) TRANSITIONS:	1
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	1
(54) VERTICAL UNDER CLEARANCE (ft.) R 22.83		36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) R 9.6		(113) SCOUR CRITICAL BRIDGES	N
(56) MIN LATERAL UNDER CLEARANCE (ft.) 000		SUFFICIENCY RATING	96.6 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	16
(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
		(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	N
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0

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Bridge Inspection Report

National Bridge Inventory

(114) FUTURE ADT 16813

(115) YEAR OF FUTURE ADT 2028

(40) NAV HORIZONTAL CLEARANCE (ft.) 0

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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.	7614	sq. ft.	3133	4480	1	0
	-Isolated shallow spalls with no exposed reinforcing steel. -Numerous pop outs in the driving surface of the deck. -Minor sealable deck cracking. -Areas of wear on the driving surface of the deck.						
1080 - Delamination/Spall/Patched Area		1				1	
1130 - Cracking (RC and Other)		3840			3840		
1190 - Abrasion/Wear (PSC/RC)		640			640		
107 - Steel Open Girder/Beam	1- Ben.	972	ft.	936	36	0	0
	-No visible cracks in the beams at this inspection -The beams are discolored in Span 2 from exhaust. -The ends of the beams have a light rust coating beginning to develop from the joint seals leaking on to the superstructure.						
1000 - Corrosion		36			36		
515 - Steel Protective Coating		7515	sq. ft.	7237	278	0	0
3440 - Effectiveness (Steel Protective Coatings)		278			278		
205 - Reinforced Concrete Column	1- Ben.	6	each	4	0	2	0
	-Concrete spalling at both ends of the base of Bent 2 at the ground level with no exposed reinforcing steel. -Spalling at the West column base is approx. 1" deep and 14" tall. -Spalling at the East column base is approx. 2" deep and 12" tall. Sounding indicates that there is 12" of additional delamination of concrete above the spall.						
1080 - Delamination/Spall/Patched Area		2				2	
210 - Reinforced Concrete Pier Wall	1- Ben.	62	ft.	38	14	10	0
	-Vertical cracking typical in the struts between the columns.						
1080 - Delamination/Spall/Patched Area		2				2	
1130 - Cracking (RC and Other)		22			14	8	
215 - Reinforced Concrete Abutment	1- Ben.	100	ft.	64	36	0	0
	-Abutment caps have staining from apparent water leakage through the joints. -The abutment back walls have areas of light scale and a few random cracks. -The abutments have minor dirt accumulation.						
1080 - Delamination/Spall/Patched Area		13			13		
1130 - Cracking (RC and Other)		23			23		
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	42	ft.	42			
	-Footings have cover and are not visible.						

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Bridge Inspection Report

Element Inspection

234 - Reinforced Concrete Pier Cap	1- Ben.	88	ft.	61	13	14	0
	-Bent 2 cap, Span 1 side of cap has one basket ball size delaminated area and one 18" delaminated area on the Rt side of cap. -Bent 2 cap has one vertical and two areas of horizontal cracks on the Span 1 side. -Bent 2 cap, Span 2 side of cap has a 24" delaminated area under Beam 4. -The bent caps have staining from apparent water leakage through the deck joints.						
1080 - Delamination/Spall/Patched Area		9				9	
1090 - Exposed Rebar		2				2	
1130 - Cracking (RC and Other)		16			13	3	
302 - Compression Joint Seal	1- Ben.	188	ft.	0	188	0	0
	-The compression joint seals are in place but have numerous rips and tears that allow water and debris to leak on the caps. -The joint anchorage is sound at this inspection.						
2330 - Seal Damage		188			188		
311 - Movable Bearing	1- Ben.	18	each	0	18		
	-Span 2 rocker bearings leaning towards the North over Bent 2. Compression joint not excessively closed.						
515 - Steel Protective Coating		18	sq. ft.	0	9	9	0
3440 - Effectiveness (Steel Protective Coatings)		18			9	9	
313 - Fixed Bearing	1- Ben.	18	each	9	7	2	0
	-The paint system at the abutments is beginning to flake from dirt and water leakage of the compression joint seals and some bearing have active corrosion.						
1000 - Corrosion		9			7	2	
515 - Steel Protective Coating		18	sq. ft.	6	6	6	0
3440 - Effectiveness (Steel Protective Coatings)		12			6	6	
330 - Metal Bridge Railing	1- Ben.	324	ft.	324			
	-Minor scrape marks on the right bridge rail with no apparent problems. -The metal rail is firmly attached to the concrete bridge rail at this inspection.						
331 - Reinforced Concrete Bridge Railing	1- Ben.	324	ft.	172	152	0	0
	-Numerous vertical cracks in the concrete portion of the bridge rails.						
1130 - Cracking (RC and Other)		152			152		

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Bridge Inspection Report

Pictures

PHOTO 1

Description

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Bridge Inspection Report

Sketches

Inspector:

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Inspection Date:

Facility Carried: SH 59-Crawford Co.

Bridge Inspection Report

Maintenance Needs

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

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Substructure. The Base of Bent # 2 columns.

The base of Bent # 2 Columns # 1 & 3 have spalling and delaminated concrete that does not expose reinforcing steel.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Spalling at the East column base is approx. 2" deep and 12" tall. Sounding indicates that there is 12" of additional delamination of concrete above the spall.

Stage: Assigned



PHOTO 2 Description Spalling at the West column base is approx. 1" deep and 14" tall.

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Inspection Date:

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Bridge Inspection Report

Maintenance Needs

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

Priority: D - Routine

Work Code: Replace

Deficiency Description:

Deck Joint Seals

The compression deck joint seals have rips, tears and leak water and debris on the bent caps.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description The compression deck joint seals have rips, tears and leak on the bent caps.

Stage: Assigned



PHOTO 2 Description Typical compression joint seals.

Inspector:

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Bridge Inspection Report

Maintenance Needs

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

Priority: G - General/ Preventive maintenance

Work Code: Clean

Deficiency Description:

Substructure. Bents # 1 & 4

Dirt accumulation on Bents # 1 & 4 cap.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Dirt accumulation on Bents # 1 & 4 cap.

Inspector:

Structure Number: 05430

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

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

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Deck

Minor sealable cracks on the driving surface of the deck.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Minor sealable cracks on the driving surface of the deck.

Inspector:

Structure Number: 05430

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 2/19/2014 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Substructure

Bent # 2 cap has delaminated concrete and spalling that exposes reinforcing steel on the right end of the cap.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1	Description	Concrete delamination with exposed reinforcing steel on the caps
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