

# Bridge Inspection Report

**02379**

**US 270-10 LM 3.72**

**over**

**Hurricane Creek Relief**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

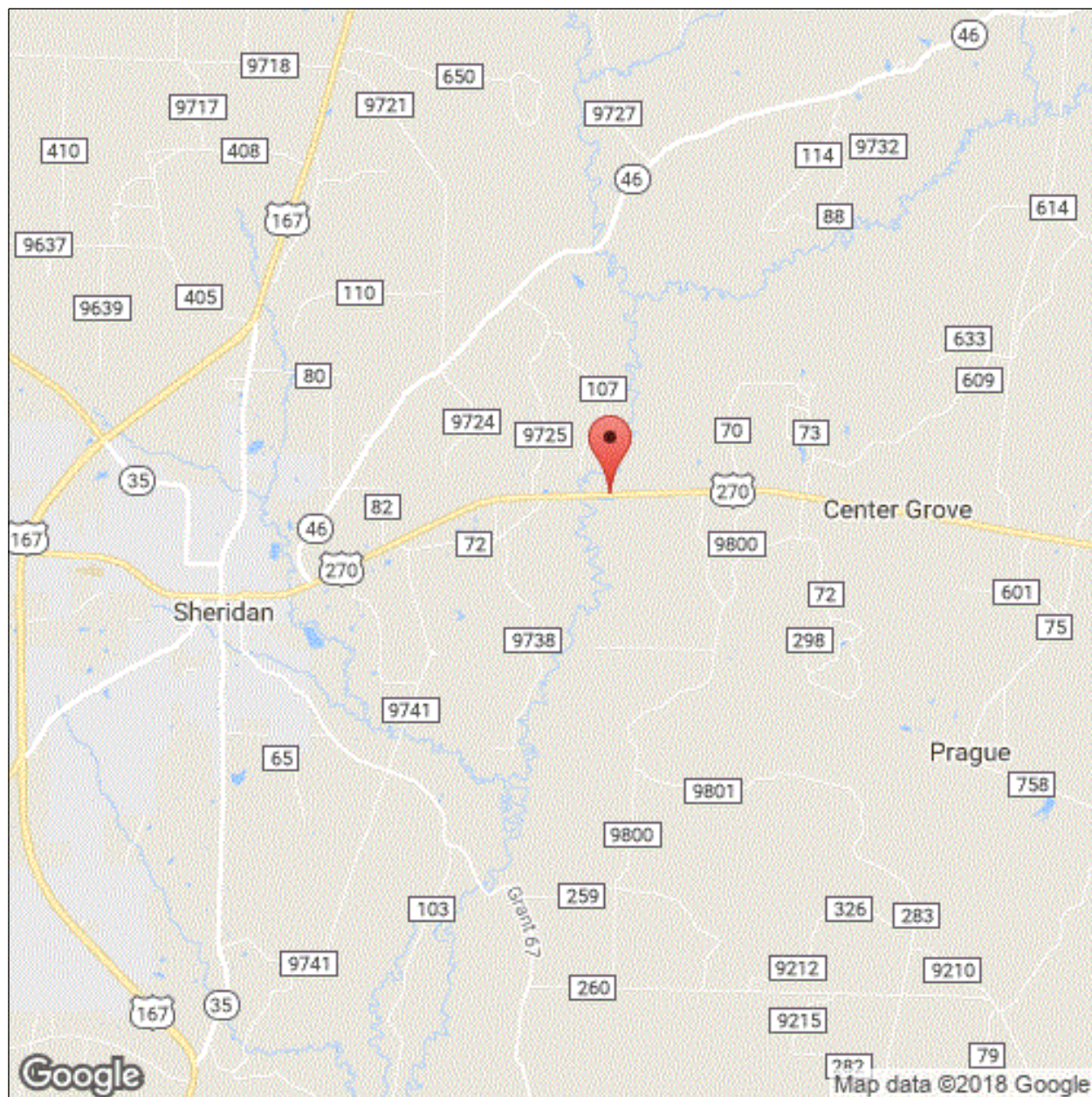
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Structure Number: 02379

Facility Carried: US 270-10 LM 3.72

## Location Map



Longitude: -92.33768892659077



Inspector:

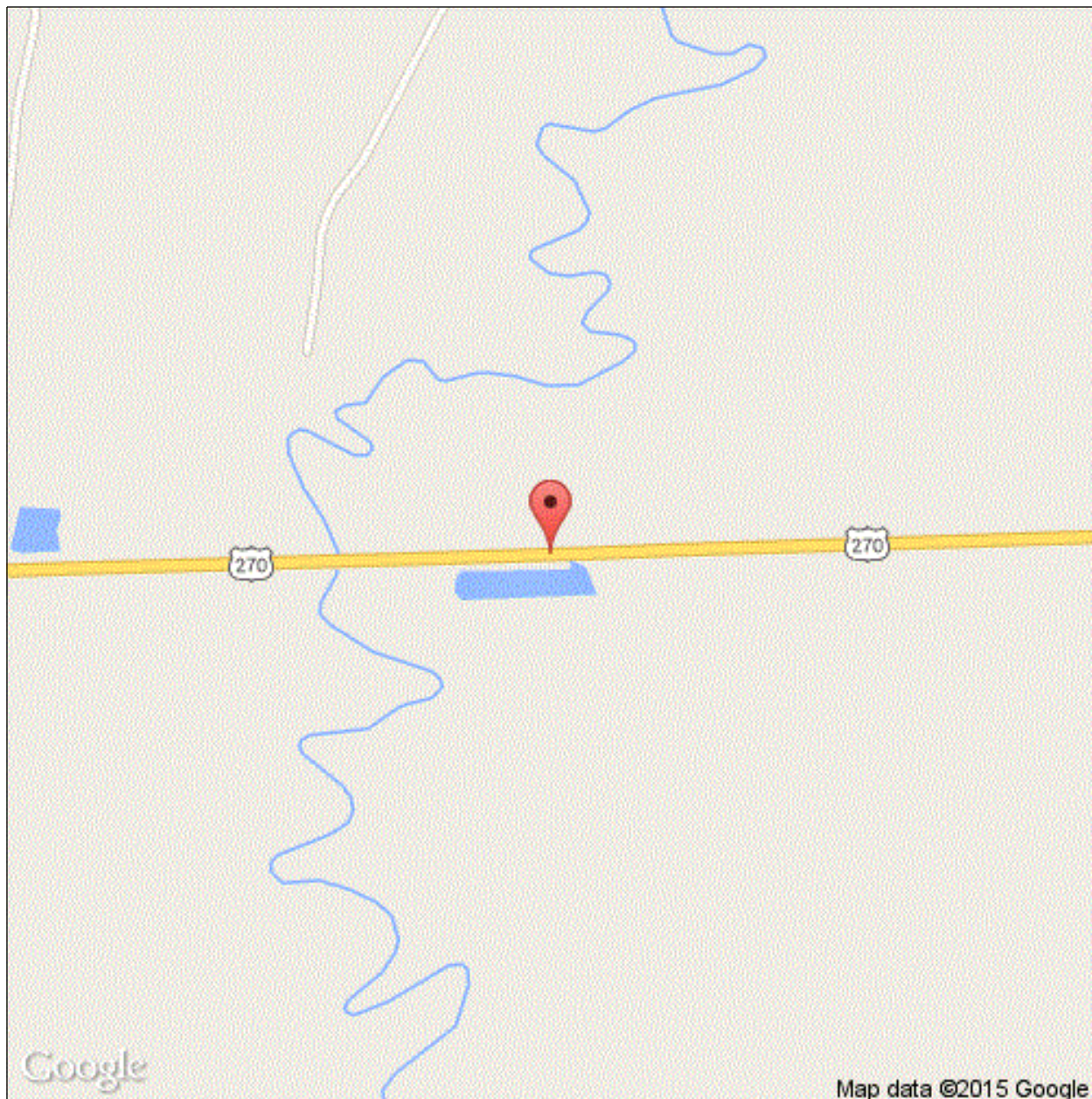
Structure Number: 02379

Inspection Date:

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## Bridge Inspection Report

### Location Map



Latitude: 34.320048735277894

Longitude: -92.337688892659077



Inspector:

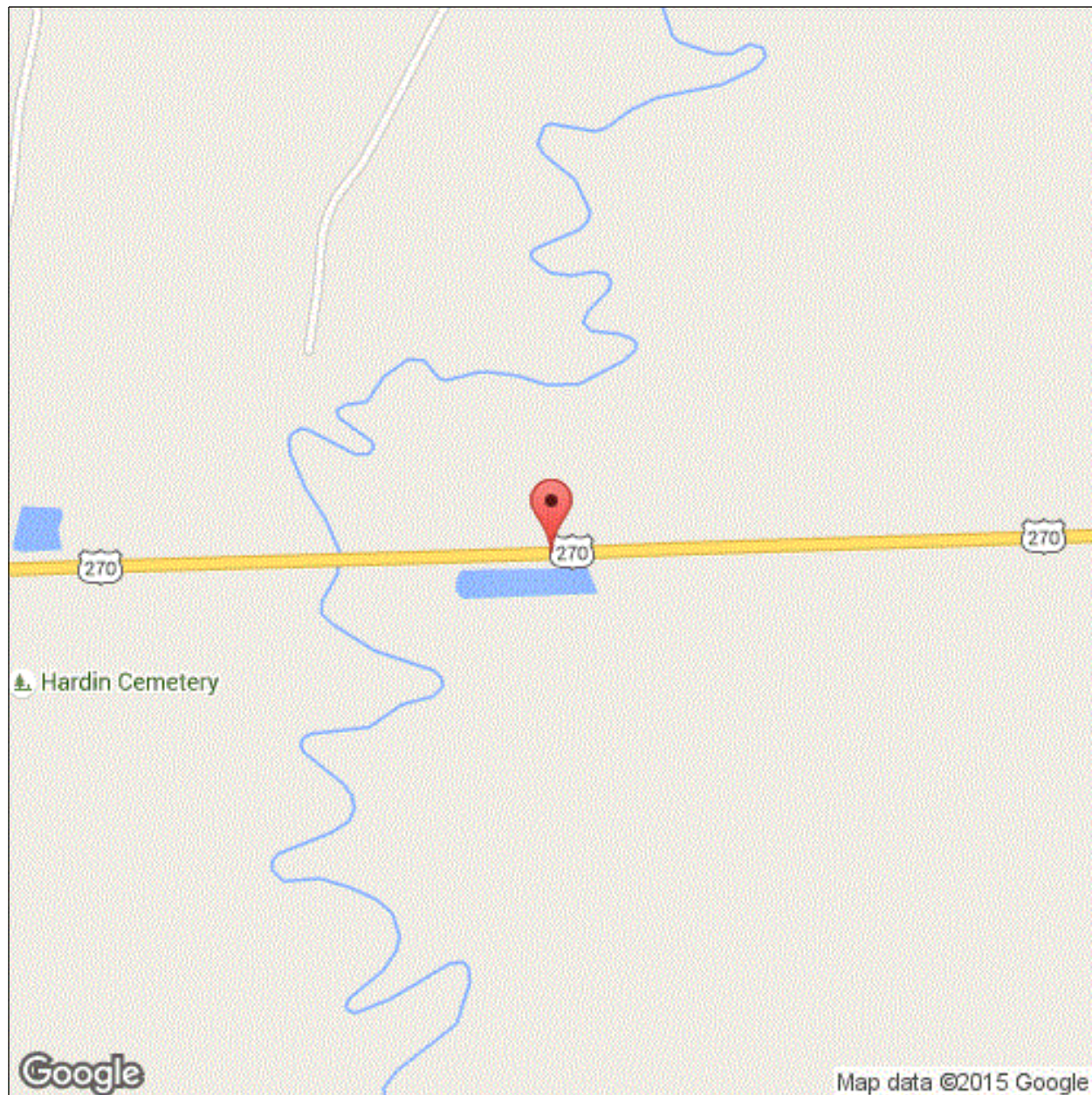
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## Bridge Inspection Report

### Location Map



Latitude: 34.320048735277894

Longitude: -92.337688892659077

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## Bridge Inspection Report

### Executive Summary

Bridge is logged from west to east.

SPOA: bottom of cap is trigger elevation for flood monitoring program.

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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/25/2016
(8) STRUCTURE NUMBER	02379	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 270 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 053	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Hurricane Creek Relief	C. OTHER SPECIAL	Y 24 07/19/2017
(7) FACILITY CARRIED	US 270-10 LM 3.72	CONDITION	
(9) LOCATION	3.72 Mi E US 167-Sheridan	(58) DECK	6
(11) MILEPOINT 3.719	(12) BASE HIGHWAY NETWORK 1	(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 8
(13A) LRS INVENTORY ROUTE	0000270100 (13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(16) LATITUDE 34.32004873527789	(17) LONGITUDE -92.33768892659077	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	4
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	49.1
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	3 - Steel	(66) INVENTORY RATING	30.0
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder	(70) BRIDGE POSTING	5
(44) STRUCTURE TYPE, APPROACH SPANS		(41) STRUCTURE OPEN/POSTED/CLOSED	A
A) KIND OF MATERIAL/DESIGN:	0 - Other	APPRAISAL	
B) TYPE OF DESIGN/CONSTR:	00 - Other	(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN	11 (46) NUMBER OF APPROACH	(68) DECK GEOMETRY	3
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION	(71) WATERWAY ADEQUACY	8
AGE OF SERVICE		(72) APPROACH ROADWAY ALIGNMENT	8
(27) YEAR BUILT	1948 (106) YEAR RECONSTRUCTED	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE	ON 1 UNDER 5	36A) BRIDGE RAILINGS:	0
(28) LANES	ON 02 UNDER 00	36B) TRANSITIONS:	0
(29) AVERAGE DAILY TRAFFIC	6700 (19) BYPASS DETOUR LENGTH	36C) APPROACH GUARDRAIL:	0
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	36D) APPROACH GUARDRAIL ENDS:	1
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(113) SCOUR CRITICAL BRIDGES	3
GEOMETRIC DATA		SUFFICIENCY RATING	2 STATUS 60.0
(48) LENGTH OF MAX SPAN (ft.)	36 (49) STRUCTURE LENGTH (ft.)	CLASSIFICATION	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 2 RIGHT 2	(112) NBIS BRIDGE LENGTH	Y
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	25.9	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(52) DECK WIDTH, OUT-TO-OUT (ft.)	31	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(32) APPROACH ROADWAY WIDTH (ft.)	29.9	(100) STRAHNET HIGHWAY DESIGNATION	0
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(101) PARALLEL STRUCTURE DESIGNATION	N
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	(102) DIRECTION OF TRAFFIC	2
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	28.9	(103) TEMP STRUCTURE	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(105) FEDERAL LANDS HIGHWAYS	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(110) DESIGNATED NATIONAL NETWORK	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(20) TOLL	3
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(21) MAINTENANCE RESPONSIBILITY	01
PROPOSED IMPROVEMENTS		(22) OWNER	01
(75A) TYPE OF WORK PROPOSED	31 (75B) WORK DONE BY	(37) HISTORICAL	5
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	436.0	NAVIGATION DATA	
(94) BRIDGE IMPROVEMENT COST (\$)	0	(38) NAVIGATION CONTROL	0
(95) ROADWAY IMPROVEMENT COST (\$)	400	(111) PIER OR ABUTMENT PROTECTION	5
(96) TOTAL PROJECT COST	1974	(39) NAV VERT CLEARANCE (ft.)	0
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2004	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0

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### National Bridge Inventory

(114) FUTURE ADT 7117

(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.	12338	sq. ft.	12338			
	Deck: 31' wide x 398' long. Asphalt wearing surface: Large-sized, heavy cracking and delaminations at joints with some small potholes beginning to appear. (Some areas have been previously patched.) Remaining of asphalt wearing surface is cracking with a couple small potholes appearing, especially in wheel ruts  Unsealed hairline cracking and light scaling top of curb.						
510 - Wearing Surfaces		10348	sq. ft.	3044	4776	2528	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		936				936	
3220 - Crack (Wearing Surface)		6368			4776	1592	
107 - Steel Open Girder/Beam	1- Ben.	1990	ft.	1880	0	110	0
	Girders: 5 per span / 398' total. Coating: 6.9 square feet / linear feet of railing.  Various locations: A few scattered spots of rust with some old section loss on web at haunches and on top of bottom flange and on bottom flange in various locations. Heaviest section loss is to Span 10 Girder 1 on right side - some loss at haunch, along bottom of web and bottom flange (knife-edged). NOTE: Some spot-painting has been done in various locations with plates welded over web in a few places to cover section loss and holes at haunches.						
1000 - Corrosion		110				110	
515 - Steel Protective Coating		13731	sq. ft.	12972	0	0	759
3440 - Effectiveness (Steel Protective Coatings)		759					759
215 - Reinforced Concrete Abutment	1- Ben.	76	ft.	76			
	Abutments: 38' each / Bents 1 & 12.						
227 - Reinforced Concrete Pile	1- Ben.	50	each	50			
	Piling: 5 per bent / Bents 2-11. Some minor abrasion and loss of mortar, especially near waterline.						
234 - Reinforced Concrete Pier Cap	1- Ben.	260	ft.	260			
	Caps: 26' per bent / Bents 2-10.						

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## Bridge Inspection Report

## Element Inspection

311 - Movable Bearing	1- Ben.	55	each	0	0	55	0
<p>Moveable bearings: 5 per bent / Bent 2-10 back, Bent 11 back &amp; ahead. Coating: 2 square feet each.</p> <p>Most bearings have heavy pack rust between rocker and masonry plate, restricting movement. Remaining bearing have some scattered rust and minor section loss in various locations. Bent 4 Bearing 4 back: Pin is loose. Nut has backed off on right side. Anchor bolts have rusted and have section loss - many locations have had supplemental anchors installed.</p>							
1000 - Corrosion		55				55	
515 - Steel Protective Coating		110	sq. ft.	0	0	0	110
3440 - Effectiveness (Steel Protective Coatings)		110					110
313 - Fixed Bearing	1- Ben.	55	each	0	33	22	0
<p>Fixed bearings: 5 per bent / Bent 1, Bent 2-10 ahead, Bent 11. Coating: 2 square feet each.</p> <p>Pitting and section loss, mainly on outside bearings.</p>							
1000 - Corrosion		55			33	22	
515 - Steel Protective Coating		110	sq. ft.	0	0	66	44
3440 - Effectiveness (Steel Protective Coatings)		110				66	44
331 - Reinforced Concrete Bridge Railing	1- Ben.	796	ft.	796			
<p>Railing: 398' each side. A few scattered areas that have been repaired after impact damage.</p>							

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## Bridge Inspection Report

Pictures



Inspector:

Inspection Date:

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## Bridge Inspection Report

Sketches

Inspector:

Structure Number: 02379

Inspection Date:

Facility Carried: US 270-10 LM 3.72

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/18/2012 12:00:00 AM

Priority: C - Important

Work Code: N/A

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#### Deficiency Description:

Deck - Asphalt wearing surface: Large-sized, heavy cracking and delaminations at joints with some small potholes beginning to appear. (Some areas have been previously patched.)

Remaining of asphalt wearing surface is cracking with a couple small potholes appearing, especially in wheel ruts.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Wearing surface - Bent 11 (spalling)

Stage: Monitor



PHOTO 2      Description      Wearing surface - Spans 8-10 right (cracking)

Inspector:

Inspection Date:

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## Bridge Inspection Report

### Maintenance Needs

Stage: Monitor



PHOTO 3 Description Wearing surface - Bent 6 (patches)

Stage: Monitor



PHOTO 4 Description Wearing surface - Span 2 (cracking)



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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 7/18/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

### Deficiency Description:

Girders – various locations: A few scattered spots of rust with some old section loss on web at haunches and on top of bottom flange and on bottom flange in various locations.

Heaviest section loss is to Span 10 Girder 1 on right side – some loss at haunch, along bottom of web and bottom flange (knife-edged).

NOTE: Some spot-painting has been done in various locations with plates welded over web in a few places to cover section loss and holes at haunches.

### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Span 5 Girder 3 left @ Bent 5 (corrosion)

Stage: Monitor



PHOTO 2 Description Span 2 Girder 3 right @ Bent 2 (corrosion)

Inspector:

Inspection Date:

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### Maintenance Needs

Stage: Monitor



PHOTO 3      Description      Span 6 Girder 1 right @ Bent 6  
(corrosion)

Stage: Monitor



PHOTO 4      Description      Span 10 Girder 1 @ Bent 10  
(corrosion)

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/18/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

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#### Deficiency Description:

Bearings – various locations: Most movable bearings have heavy pack rust between rocker and masonry plate, restricting movement. Remaining bearing have some scattered rust and minor section loss in various locations.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Bent 9 Bearing 5 back (corrosion)

Stage: Monitor



PHOTO 2      Description      Bent 10 Bearing 3 ahead (corrosion)



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## Bridge Inspection Report

### Maintenance Needs

Stage: Monitor



PHOTO 3 Description Bent 5 Bearing 4 back (corrosion)

Stage: Monitor



PHOTO 4 Description Bent 6 Bearing 1 ahead (corrosion)