

# Bridge Inspection Report

**01909**  
**US 412 -8 LM 1.34**  
**over**  
**CACHE RELIEF**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

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Inspector:

Structure Number: 01909

Inspection Date:

Facility Carried: US 412 -8 LM 1.34

## Bridge Inspection Report

### Location Map



Latitude: 36.07018

Longitude: -90.80014



Inspector:

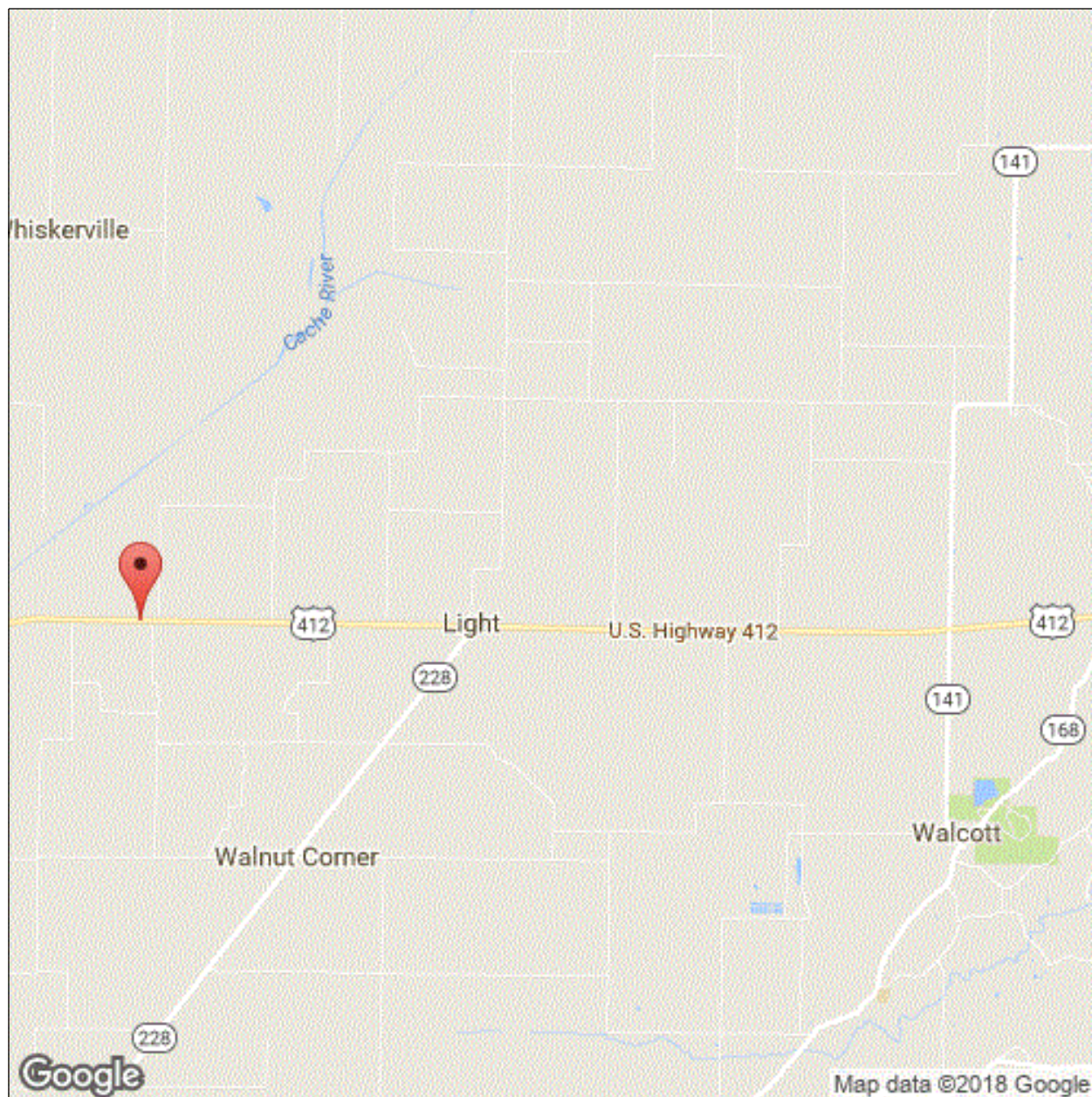
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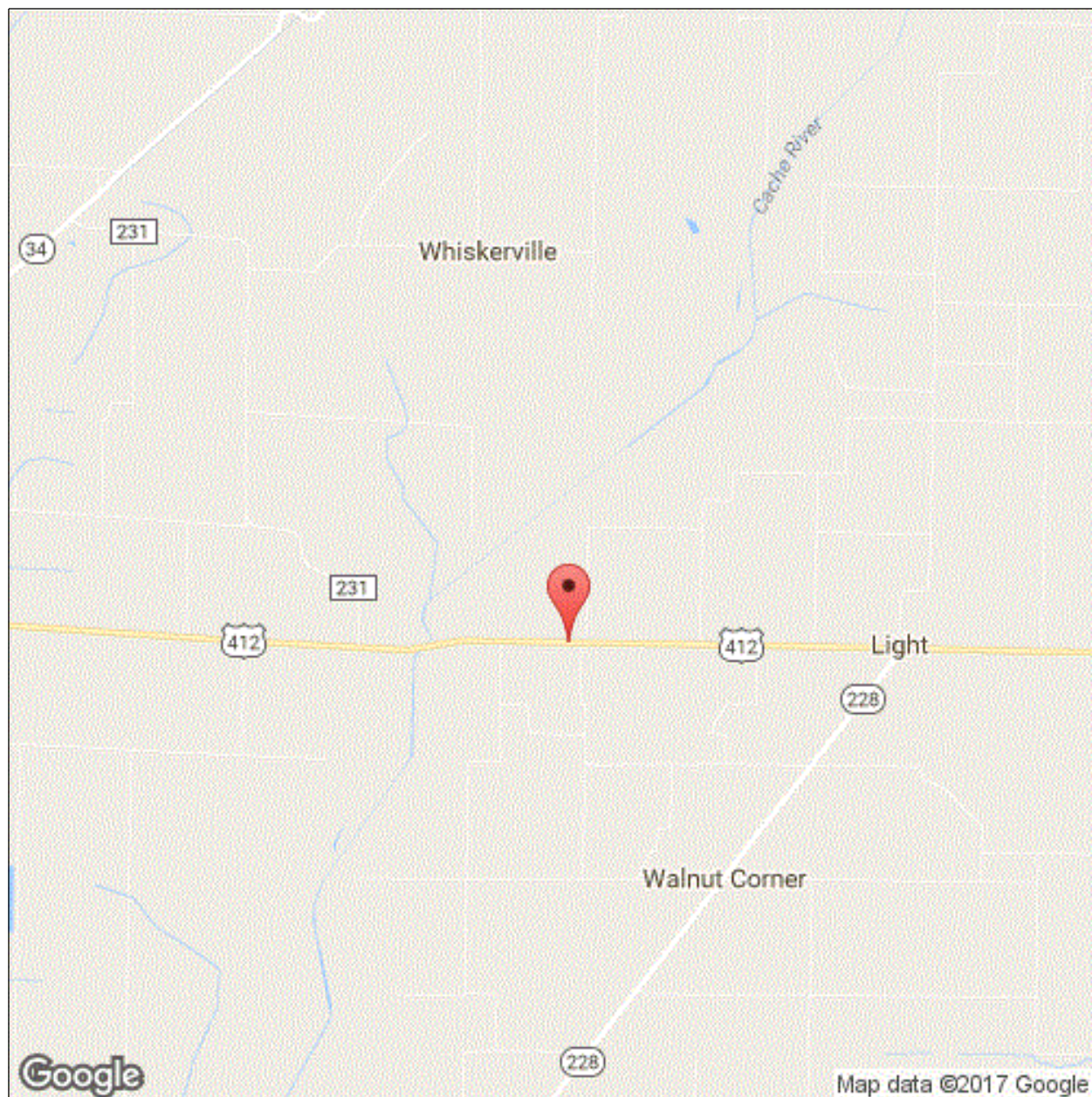
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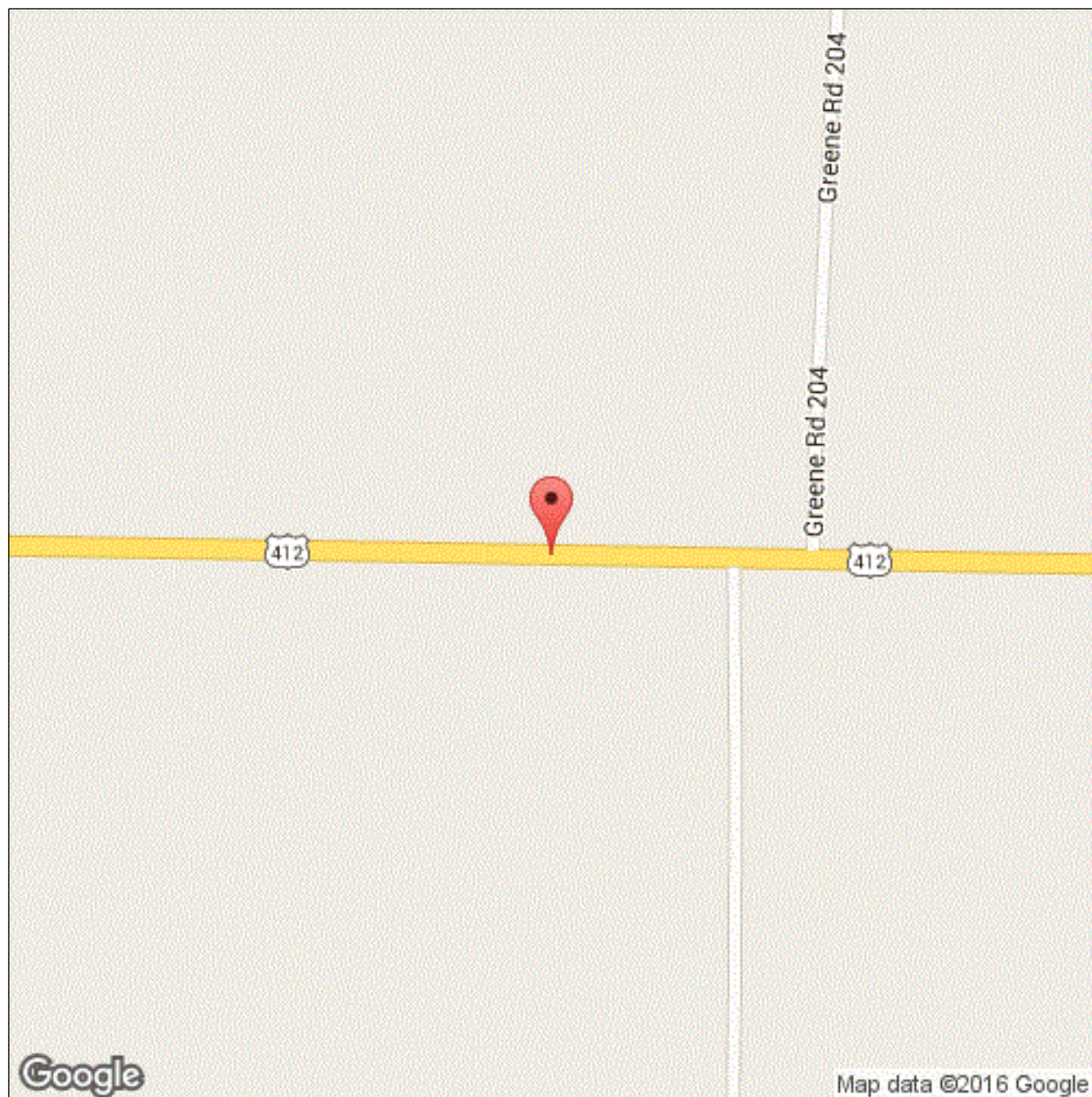
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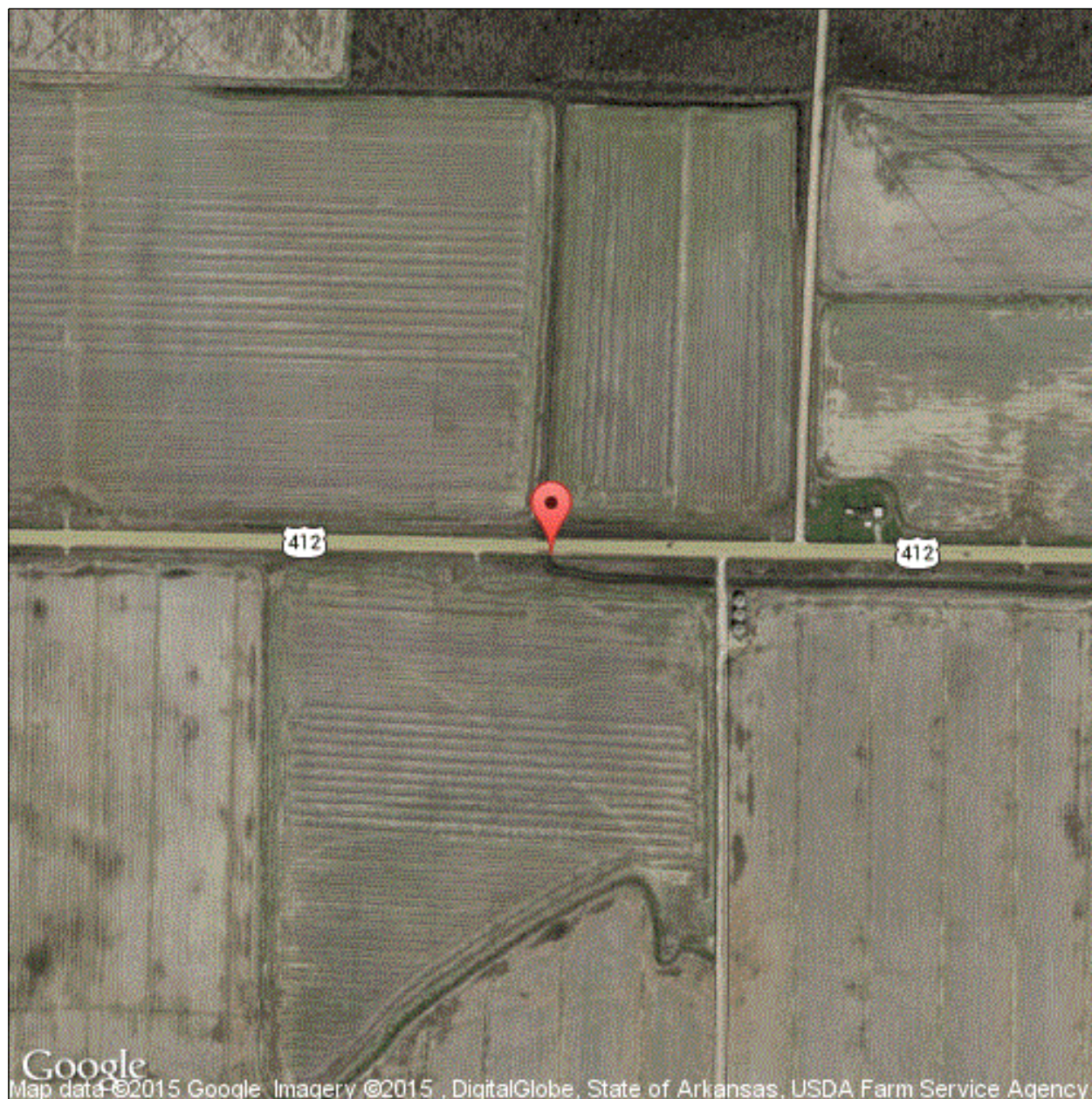
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## Bridge Inspection Report

### Executive Summary



Inspector:

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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	03/27/2018
(8) STRUCTURE NUMBER	01909	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 412 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 055	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	CACHE RELIEF	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US 412 -8 LM 1.34		
(9) LOCATION	1.34 MI E OF CACHE RIVER		
(11) MILEPOINT 1.340	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000412080 (13B) SUBROUTE NUMBER 01		
(16) LATITUDE	36.07018 (17) LONGITUDE -90.80014		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	5
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE	3 (60) SUBSTRUCTURE 6
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	1 (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	1934 (106) YEAR RECONSTRUCTED	0000	
(42) TYPE OF SERVICE	ON 1 UNDER 9	(31) DESIGN LOAD	2
(28) LANES	ON 02 UNDER 00	(63) METHOD USED TO DETERMINE OPERATING RATING	1
(29) AVERAGE DAILY TRAFFIC	3400 (19) BYPASS DETOUR LENGTH	(64) OPERATING RATING	22
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(109) AVERAGE DAILY TRUCK TRAFFIC	22	(66) INVENTORY RATING	13
		(70) BRIDGE POSTING	1
		(41) STRUCTURE OPEN/POSTED/CLOSED	P
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.)	45 (49) STRUCTURE LENGTH (ft.)	2	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0.6 RIGHT 0.6	(67) STRUCTURAL EVALUATION	2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	27	(68) DECK GEOMETRY	3
(52) DECK WIDTH, OUT-TO-OUT (ft.)	28.5	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(32) APPROACH ROADWAY WIDTH (ft.)	44.0	(71) WATERWAY ADEQUACY	9
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	0	
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	99.99	
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	26.9	(72) APPROACH ROADWAY ALIGNMENT	8
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(36) TRAFFIC SAFETY FEATURE	
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	36A) BRIDGE RAILINGS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	36B) TRANSITIONS:	1
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	36C) APPROACH GUARDRAIL:	1
		36D) APPROACH GUARDRAIL ENDS:	1
		(113) SCOUR CRITICAL BRIDGES	5
		SUFFICIENCY RATING	6.0 STATUS 1
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	31 (75B) WORK DONE BY	1	
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	71.0	(112) NBIS BRIDGE LENGTH	Y
(94) BRIDGE IMPROVEMENT COST (\$)	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(95) ROADWAY IMPROVEMENT COST (\$)	176	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(96) TOTAL PROJECT COST	334	(100) STRAHNET HIGHWAY DESIGNATION	0
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(101) PARALLEL STRUCTURE DESIGNATION	N
(114) FUTURE ADT	4600 (115) YEAR OF FUTURE ADT	(102) DIRECTION OF TRAFFIC	2
		(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	5
		(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
12 - Reinforced Concrete Deck	1- Ben.	1283	sq. ft.	497	0	786	0
1120 - Efflorescence/Rust Staining		786		0	0	786	0
510 - Wearing Surfaces		1215	sq. ft.	0	85	1130	0
3220 - Crack (Wearing Surface)		1215		0	85	1130	0
107 - Steel Open Girder/Beam	1- Ben.	270	ft.	0	59	175	36
1000 - Corrosion		270		0	59	175	36
515 - Steel Protective Coating		2181	sq. ft.	0	0	503	1678
3440 - Effectiveness (Steel Protective Coatings)		2181		0	0	503	1678
215 - Reinforced Concrete Abutment	1- Ben.	93	ft.	33	31	29	0
1120 - Efflorescence/Rust Staining		4		0	4	0	0
1130 - Cracking (RC and Other)		7		0	7	0	0
6000 - Scour		49		0	20	29	0
311 - Movable Bearing	1- Ben.	6	each	0	0	6	0
1000 - Corrosion		6		0	0	6	0
313 - Fixed Bearing	1- Ben.	6	each	0	0	6	0
1000 - Corrosion		6		0	0	6	0
330 - Metal Bridge Railing	1- Ben.	90	ft.	75	0	15	0
1010 - Cracking		15		0	0	15	0



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## Bridge Inspection Report

### Pictures

PHOTO 1

Description

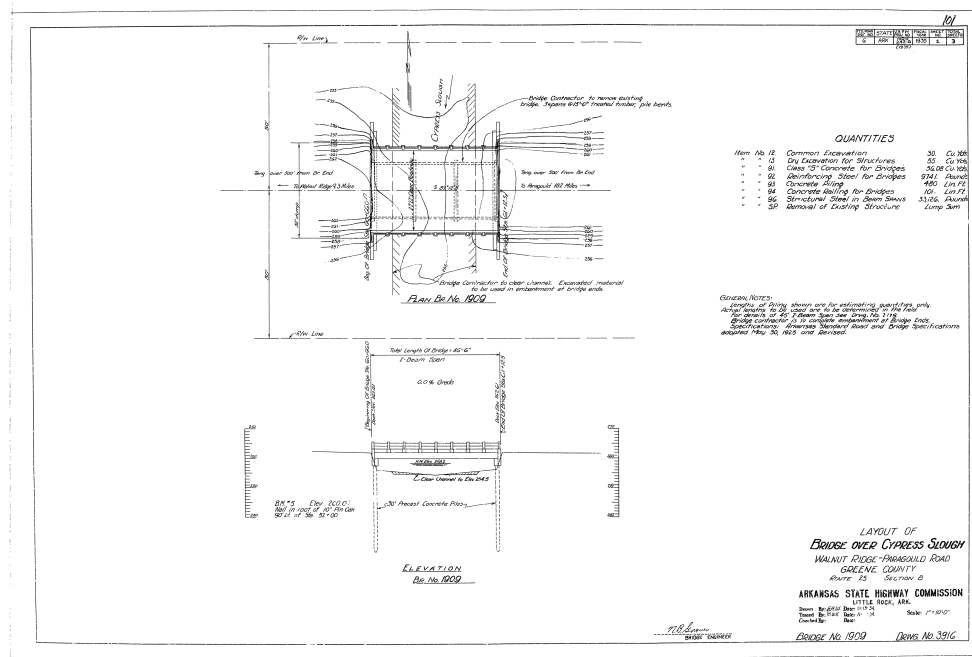


PHOTO 1

Description layout

Inspector:

Inspection Date:

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# Bridge Inspection Report

## Pictures

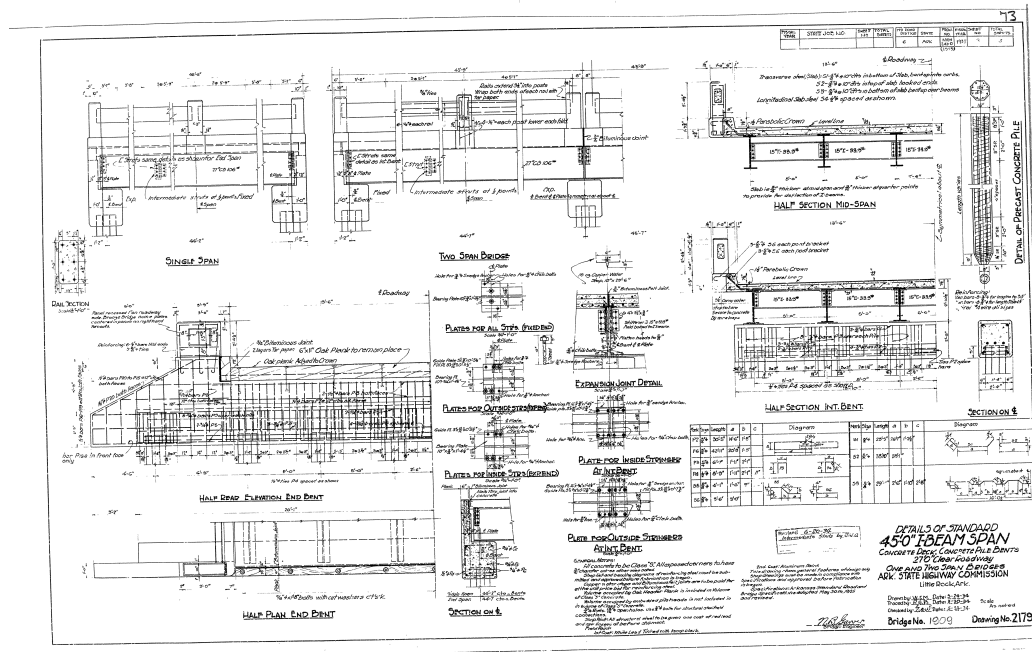


PHOTO 2

Description span detail



Inspector:

Inspection Date:

Structure Number: 01909

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## Bridge Inspection Report

Sketches

Inspector:

Structure Number: 01909

Inspection Date:

Facility Carried: US 412 -8 LM 1.34

Bridge Inspection Report

**Maintenance Needs**

Date Reported: 5/24/2011 12:00:00 AM

Priority: C - Important

Work Code:

---

Deficiency Description:

Asphalt wearing surface has map cracking throughout.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---



Inspector:

Structure Number: 01909

Inspection Date:

Facility Carried: US 412 -8 LM 1.34

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 6/5/2012 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Girders have surface rust throughout with areas of section loss on ends. Majority of paint system has failed. Bearings have rust and section loss throughout. Bearings are mostly covered with dirt and debris. Diaphragms have advanced deterioration with several holes rusted through.

Girders over bent 1 have section loss to bottom flange. Bottom flange is knife edged near bearing at several girders.

Girders 1 and 6 over bent 1 have had plates welded on each side of web in the past as repairs, but plates have rust and some section loss.

Girder 6 over bent 1 has a 4" x 5" hole in bottom flange near bearing.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Structure Number: 01909

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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 6/5/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Bent 1 abutment has deterioration and efflorescent cracks at concrete scour repair section. Minor scour at bent 1 is beginning to undermine repair section up to 1' below and 1' back under.

Bent 2 abutment has 7' of cracking.

Bent 2 abutment has minor scour beginning to undermine Lt end of repair section up to 1' below and 2' back under.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description



Inspector:

Structure Number: 01909

Inspection Date:

Facility Carried: US 412 -8 LM 1.34

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 5/23/2013 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Soffit has several transverse cracks with efflorescence and map cracking with heavy efflorescence under Lt and Rt gutters.

Bridge rail posts have efflorescent cracks and/or are spalled with rebar exposed near bottom of posts.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description