

Bridge Inspection Report

M2728
SH 289/Fulton Co.
over
WARN CREEK



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

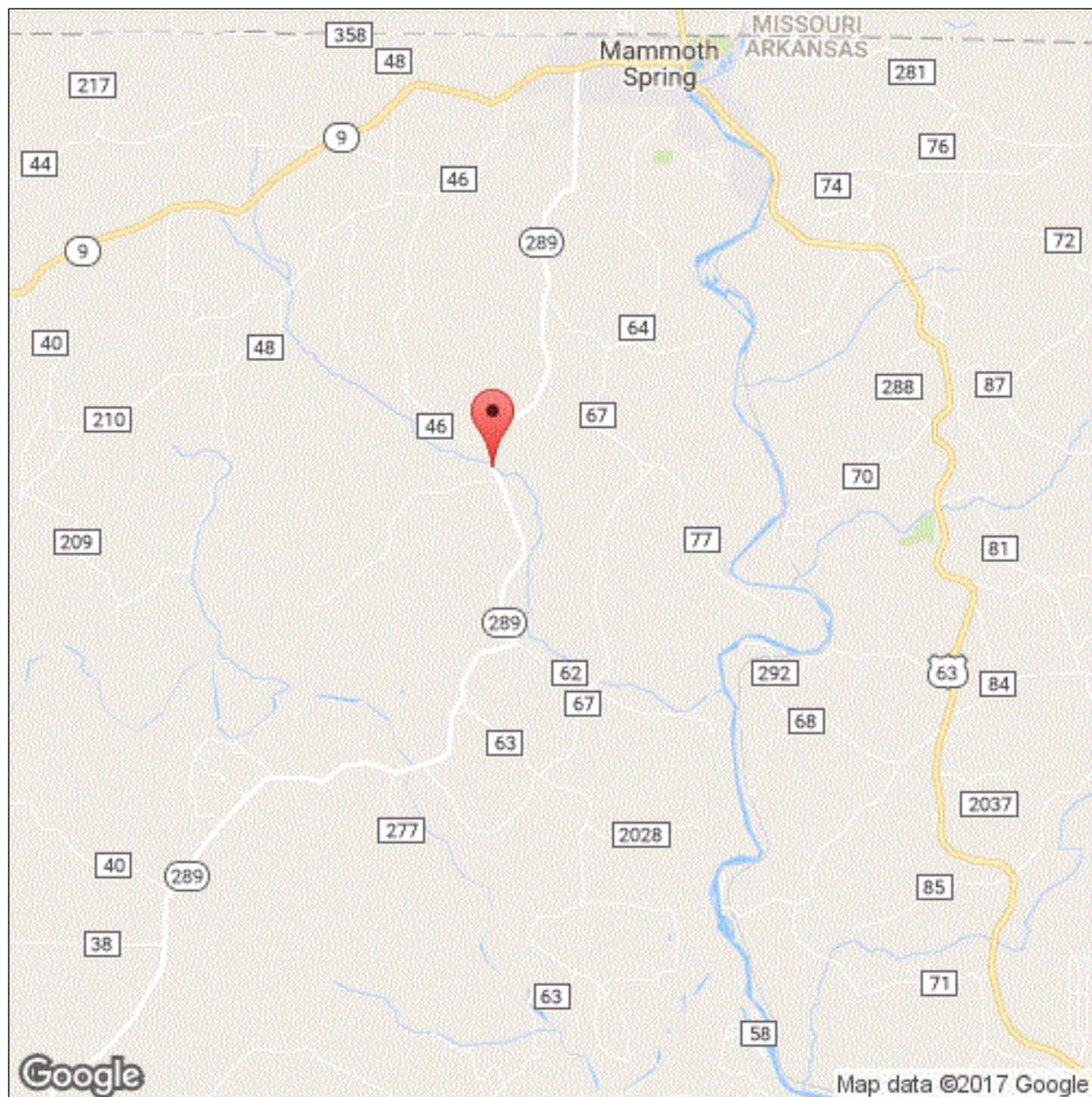
Structure Number: M2728

Inspection Date:

Facility Carried: SH 289/Fulton Co.

Bridge Inspection Report

Location Map



Latitude: 36.44455

Longitude: -91.56697

Inspector:

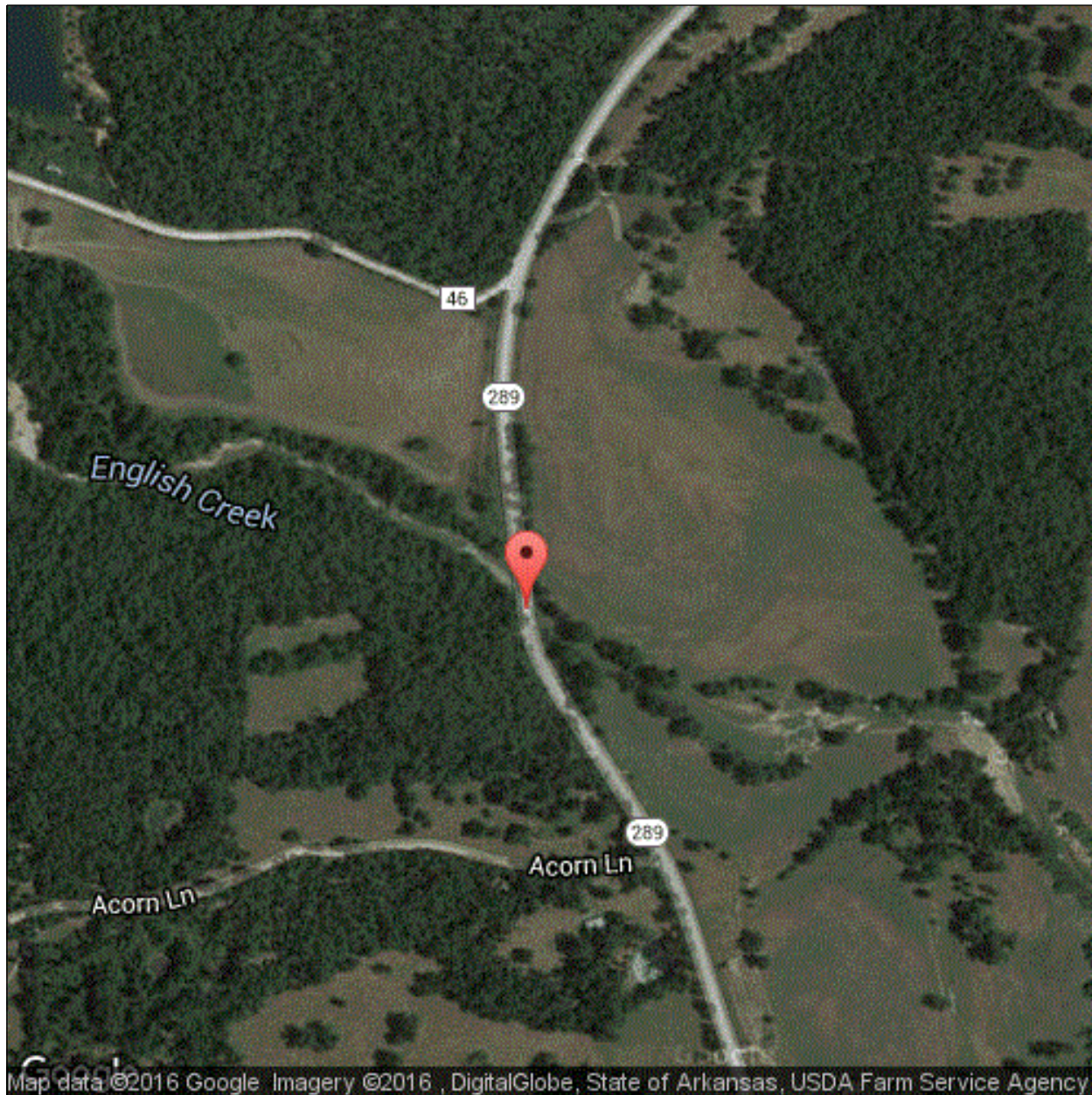
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Bridge Inspection Report

Executive Summary

Log Mile running North.

Inspector:

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National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	02/13/2019
(8) STRUCTURE NUMBER	M2728	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 289 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	05 (3) COUNTY CODE 049	A. FRACTURE CRITICAL DETAIL	Y 24 02/13/2019
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	WARN CREEK	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 289/Fulton Co.		
(9) LOCATION	16.2 MI N JCT US 62		
(11) MILEPOINT 16.150	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 36.44455	(17) LONGITUDE -91.56697		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	4
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE	5 (60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 10 - Truss - Thru		(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 1 - Concrete			
B) TYPE OF DESIGN/CONSTR: 22 - Channel Beam			
(45) NUMBER OF SPANS IN MAIN 1	(46) NUMBER OF APPROACH 1		
(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 1929	(106) YEAR RECONSTRUCTED 0000	(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	35.1
(29) AVERAGE DAILY TRAFFIC 590	(19) BYPASS DETOUR LENGTH 8	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	21.1
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	3
		(41) STRUCTURE OPEN/POSTED/CLOSED	P
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 122	(49) STRUCTURE LENGTH (ft.) 153	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.4	RIGHT 0.4	(68) DECK GEOMETRY	3
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	20.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	21	(71) WATERWAY ADEQUACY	7
(32) APPROACH ROADWAY WIDTH (ft.)	22.0	(72) APPROACH ROADWAY ALIGNMENT	5
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 14.6	36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	20.7	36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	14.57	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	49.4 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.)	183.0	(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	396	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 805	(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	1
		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

Rollup

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	2562	sq. ft.	1052	825	685	0
1080 - Delamination/Spall/Patched Area		685		0	525	160	0
1090 - Exposed Rebar		25		0	0	25	0
1120 - Efflorescence/Rust Staining		300		0	300	0	0
1130 - Cracking (RC and Other)		500		0	0	500	0
16 - Reinforced Concrete Top Flange	1- Ben.	651	sq. ft.	511	140	0	0
1080 - Delamination/Spall/Patched Area		80		0	80	0	0
1130 - Cracking (RC and Other)		60		0	60	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	186	ft.	88	98	0	0
1120 - Efflorescence/Rust Staining		8		0	8	0	0
1130 - Cracking (RC and Other)		90		0	90	0	0
113 - Steel Stringer	1- Ben.	720	ft.	250	430	40	0
1000 - Corrosion		470		0	430	40	0
515 - Steel Protective Coating		3017	sq. ft.	0	0	2217	800
3440 - Effectiveness (Steel Protective Coatings)		3017		0	0	2217	800
120 - Steel Truss	1- Ben.	480	ft.	449	0	31	0
1000 - Corrosion		18		0	0	18	0
1010 - Cracking		3		0	0	3	0
1020 - Connection		5		0	0	5	0
7000 - Damage		5		0	0	5	0
515 - Steel Protective Coating		10304	sq. ft.	10276	0	10	18
3440 - Effectiveness (Steel Protective Coatings)		28		0	0	10	18
152 - Steel Floor Beam	1- Ben.	151	ft.	131	0	20	0
1000 - Corrosion		20		0	0	20	0
515 - Steel Protective Coating		1092	sq. ft.	1064	0	0	28
3440 - Effectiveness (Steel Protective Coatings)		28		0	0	0	28
162 - Steel Gusset Plate	1- Ben.	20	each	14	0	6	0
1000 - Corrosion		6		0	0	6	0
515 - Steel Protective Coating		330	sq. ft.	318	0	0	12
210 - Reinforced Concrete Pier Wall	1- Ben.	25	ft.	0	2	23	0
1080 - Delamination/Spall/Patched Area		2		0	2	0	0
1090 - Exposed Rebar		1		0	0	1	0
6000 - Scour		22		0	0	22	0
215 - Reinforced Concrete Abutment	1- Ben.	96	ft.	87	8	1	0
1120 - Efflorescence/Rust Staining		4		0	4	0	0
1130 - Cracking (RC and Other)		5		0	4	1	0
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	81	ft.	0	0	81	0
234 - Reinforced Concrete Pier Cap	1- Ben.	24	ft.	24	0	0	0

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Element Inspection

303 - Assembly Joint with Seal	1- Ben.	21	ft.	21	0	0	0
311 - Movable Bearing	1- Ben.	2	each	0	1	1	0
1000 - Corrosion		2		0	1	1	0
515 - Steel Protective Coating		12	sq. ft.	9	0	0	3
3440 - Effectiveness (Steel Protective Coatings)		3		0	0	0	3
313 - Fixed Bearing	1- Ben.	2	each	2	0	0	0
515 - Steel Protective Coating		12	sq. ft.	12	0	0	0
330 - Metal Bridge Railing	1- Ben.	302	ft.	261	40	1	0
1020 - Connection		10		0	10	0	0
7000 - Damage		31		0	30	1	0
515 - Steel Protective Coating		325	sq. ft.	205	100	20	0
3440 - Effectiveness (Steel Protective Coatings)		120		0	100	20	0

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Element Inspection

Approach

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	651	sq. ft.	511	140	0	0
	Unit 2 - 2' spall to deck @ beg. of span. Unit 3 - 4' spall to deck @ end of span. Unit 4 - 2' spall to deck @ beg. of span. Unit 6 - 2' spall to deck @ mid span.						
1080 - Delamination/Spall/Patched Area		80		0	80	0	0
1130 - Cracking (RC and Other)		60		0	60	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	186	ft.	88	98	0	0
	Longitudinal cracks to units 2, 3, 4, and 5 at Span 1. Minor efflorescent cracks to Concrete Girders at Span 1.						
1120 - Efflorescence/Rust Staining		8		0	8	0	0
1130 - Cracking (RC and Other)		90		0	90	0	0
215 - Reinforced Concrete Abutment	1- Ben.	48	ft.	47	0	1	0
	1 full height vertical crack at Abutment 1.						
1130 - Cracking (RC and Other)		1		0	0	1	0
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	44	ft.	0	0	44	0
	Footing exposed but is set on solid rock.						
6000 - Scour		44		0	0	44	0
330 - Metal Bridge Railing	1- Ben.	62	ft.	61	0	1	0
	End post on left side has collision damage and is broke loose.						
7000 - Damage		1		0	0	1	0

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Main

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	2562	sq. ft.	1052	825	685	0
	Large spalled, deteriorated, and delaminated area to left lane between L2 -L4 at Span 2. Several spalls / cracks / delaminated areas to deck w/ most cracks unsealed at Span 2. Patch in right lane at Span 2. (240 S.F.) Right curb deteriorated and spalling with 2' of exposed rebar at middle of Span 2.						
1080 - Delamination/Spall/Patched Area		685		0	525	160	0
1090 - Exposed Rebar		25		0	0	25	0
1120 - Efflorescence/Rust Staining		300		0	300	0	0
1130 - Cracking (RC and Other)		500		0	0	500	0
113 - Steel Stringer	1- Ben.	720	ft.	250	430	40	0
	Top flanges of all stringers are rusting. Pack rust with minor to moderate section loss to top flange of Stringers 1 and 6 at Span 2.						
1000 - Corrosion		470		0	430	40	0
515 - Steel Protective Coating		3017	sq. ft.	0	0	2217	800
3440 - Effectiveness (Steel Protective Coatings)		3017		0	0	2217	800
120 - Steel Truss	1- Ben.	480	ft.	449	0	31	0
	Collision damage to portal bracing and all sway bracing. Loose bolts at all sway bracing. Interior channels of verticals are cracked below sway bracing at U2 Lt and Rt. Interior channel of vertical at U3 Rt has bent flange. Interior channel of vertical is cracked below sway bracing at U4 Rt. Minor rust and flaking to all upper gusset plate connections. Top Plate at U5 Right has Pack Rust bending it upward. Section loss & pack rust to bottom chord at splice plates. Bottom chord at L3 left & L4 right rusting / flaking. Bottom laterals ahead of floor beams 2 and 3 are bent. Pack rust and section loss at gusset plates, floorbeam, and lower lateral connections. Moderate to severe section loss some knife edged at lower chord at lateral brace connections at L1, L2, L3 and L4 on Rt, and L3 and L5 on Lt. Moderate Section Loss to Lower Chord at L1 Left at Vertical connection. Rust and Minor to Moderate Section Loss to connections at L0 and L6						
1000 - Corrosion		18		0	0	18	0
1010 - Cracking		3		0	0	3	0
1020 - Connection		5		0	0	5	0
7000 - Damage		5		0	0	5	0
515 - Steel Protective Coating		10304	sq. ft.	10276	0	10	18

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3440 - Effectiveness (Steel Protective Coatings)		28		0	0	10	18
152 - Steel Floor Beam	1- Ben.	151	ft.	131	0	20	0
Rusting w/ minor corrosion at end connections. Rust to top flanges with some pack rust between floor beam and deck.							
1000 - Corrosion		20		0	0	20	0
515 - Steel Protective Coating		1092	sq. ft.	1064	0	0	28
3440 - Effectiveness (Steel Protective Coatings)		28		0	0	0	28
162 - Steel Gusset Plate	1- Ben.	20	each	14	0	6	0
Pack rust and section loss at gusset plates, floor beams and lower lateral connections.							
1000 - Corrosion		6		0	0	6	0
515 - Steel Protective Coating		330	sq. ft.	318	0	0	12
210 - Reinforced Concrete Pier Wall	1- Ben.	25	ft.	0	2	23	0
Spalls with rebar exposed to Pier wall @ Bent 1. 2' area of delam on Back side under Unit 6. Scour @ ahd. side of Bent 1							
1080 - Delamination/Spall/Patched Area		2		0	2	0	0
1090 - Exposed Rebar		1		0	0	1	0
6000 - Scour		22		0	0	22	0
215 - Reinforced Concrete Abutment	1- Ben.	48	ft.	40	8	0	0
Vertical cracks and minor efflorescent cracks to Abutment 2.							
1120 - Efflorescence/Rust Staining		4		0	4	0	0
1130 - Cracking (RC and Other)		4		0	4	0	0
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	37	ft.	0	0	37	0
Entire footing is exposed @ Bent 1 and is set on solid rock. 10' section of Abutment 2 is exposed.							
6000 - Scour		37		0	0	37	0
234 - Reinforced Concrete Pier Cap	1- Ben.	24	ft.	24	0	0	0
303 - Assembly Joint with Seal	1- Ben.	21	ft.	21	0	0	0
311 - Movable Bearing	1- Ben.	2	each	0	1	1	0
Corrosion to roller nest @ Abutment 2 Left. Section loss to roller nest @ Abutment 2 Right.							
1000 - Corrosion		2		0	1	1	0
515 - Steel Protective Coating		12	sq. ft.	9	0	0	3
3440 - Effectiveness (Steel Protective Coatings)		3		0	0	0	3
313 - Fixed Bearing	1- Ben.	2	each	2	0	0	0
515 - Steel Protective Coating		12	sq. ft.	12	0	0	0
330 - Metal Bridge Railing	1- Ben.	240	ft.	200	40	0	0
Bridge rail at Span 2 has Loose bolts through out. Left rail at beginning of truss has collision damage.							
1020 - Connection		10		0	10	0	0
7000 - Damage		30		0	30	0	0

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515 - Steel Protective Coating		325	sq. ft.	205	100	20	0
3440 - Effectiveness (Steel Protective Coatings)		120		0	100	20	0

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Bridge Inspection Report

Maintenance Needs

Date Reported: 02/16/2016

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Abutment 1 Left end post has collision damage and is broken loose.
Metal bridge rail at beginning of Span 2 left has collision damage.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Abutment 1
Left end post has vehicle damage and
is broken loose

Stage: Monitor



PHOTO 2 Description Collision damage to Left end post at
Abutment 1.

Inspector:

Inspection Date:

Structure Number: M2728

Facility Carried: SH 289/Fulton Co.

Bridge Inspection Report

Maintenance Needs

Stage: Assigned



PHOTO 3 Description Left rail at beginning of truss.

Stage: Monitor



PHOTO 4 Description Collision damage to Left Bridge Rail at beginning of Span 2.

Inspector:

Structure Number: M2728

Inspection Date:

Facility Carried: SH 289/Fulton Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 02/06/2017

Priority: C - Important

Work Code: Repair

Deficiency Description:

Span 2 (Truss) Lower Chord

Moderate to severe section loss some knife edged at lower chord at lateral brace connections at L1, L2, L3 and L4 on Right, and L3 and L5 on Left.

Pack rust and section loss at gusset plates, floor beams and lower lateral connections.

Moderate Section Loss to Lower Chord at L1 Left at Vertical connection.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Lower chord @ L1 Right.

Stage: Assigned



PHOTO 2 Description Lower Chord @ L2 Right.

Inspector:

Inspection Date:

Structure Number: M2728

Facility Carried: SH 289/Fulton Co.

Bridge Inspection Report

Maintenance Needs

Stage: Assigned



PHOTO 3 Description Lower chord @ L3 Left.

Inspector:

Structure Number: M2728

Inspection Date:

Facility Carried: SH 289/Fulton Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 02/16/2016

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Rust to top flanges of stringers & floorbeams.

Rust to ends of floor beams.

Top flanges of Stringers 1 & 6 on outside edges have pack rust and moderate section loss.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Bottom flange of Floor Beam at L1 right.

Stage: Assigned



PHOTO 2 Description Top flange of Stringer 6 ahead of L1 Right.

Inspector:

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Maintenance Needs

Stage: Assigned



PHOTO 3 Description Floor Beam 4 between Stringer 4 & 5
Top Flange.

Stage: Assigned



PHOTO 4 Description Top flange of Stringer 4 back side of
Floor Beam 6.

Stage: Assigned



PHOTO 5 Description Top Flange of Stringers 3, 4 & 5 and
Floor Beam 4 ahead.

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Maintenance Needs

Date Reported: 02/06/2017

Priority: C - Important

Work Code: Repair

Deficiency Description:

Span 2-(Truss)

Interior channels of verticals are cracked below sway bracing at U2 Lt & Rt.

Interior channel of vertical is cracked below sway bracing at U4 Rt.

Loose bolts at all sway bracing.

Portals & all sway bracing have vehicle damage. Vertical @ Panel Point 3 has collision damage..

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description U2 Right crack.

Stage: Assigned



PHOTO 2 Description U2 Left crack.

Inspector:

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Maintenance Needs

Stage: Assigned



PHOTO 3 Description Vertical @ Panel Point 3 Right has collision damage.

Stage: Assigned



PHOTO 5 Description Portal bracing @ Abutment 2 has collision damage.

Stage: Assigned



PHOTO 4 Description U4 Right crack.

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Maintenance Needs

Date Reported: 02/06/2017

Priority: C - Important

Work Code: Repair

Deficiency Description:

Deck @ Span 2

Heavy scaling, spalls & cracking to top of deck. Epoxy patches are cracked and spalling out.

Soffit is map cracked with rust stains, spalled and has several large delaminated areas.

Large spall with 18' rebar exposed between Floorbeams 4 and 5 between Stringers 1, 2 and 3.

Spall with 3' of exposed rebar to soffit between Stringers 1 & 2 between Floorbeams 3 & 4.

,Right curb is deteriorated with 2' rebar exposed.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Deck at beginning of Span 2.

Stage: Assigned



PHOTO 2 Description Deck at Span 2.

Inspector:

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Maintenance Needs

Stage: Assigned



PHOTO 3 Description Right curb is deteriorated with 2' rebar exposed.

Stage: Assigned



PHOTO 4 Description Large spall with 18' rebar exposed between Floorbeams 4 and 5 between Stringers 1, 2 and 3.