



Bridge #03665(Routine, Underwater type 2)

SH 9/Stone County over LICK CREEK

Location: 5.85 MI NE VANBUREN CO LN

Team Lead: Nathan Edwards **Inspection Date:** November 17, 2020



Latitude:35.76430, Longitude:-92.22036

Route:9 Section:11 Log:5.849

Arnold Road ID:69x9x11xA, Arnold Log mile:5.589

District 05, Stone County

Owner: 1-State Highway Agency



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03665
(5) Inventory Route	9
(2) Highway Agency District	05
(3) County Code	137-Stone County, Arkansas
(4) Place Code	0
(6) Features Intersected	LICK CREEK
(7) Facility Carried	SH 9/Stone County
(9) Location	5.85 MI NE VANBUREN CO LN
(11) Mile Point	5.849 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.7643
(17) Longitude	-92.22036
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
Type	2-Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1963
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	1100
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	45 ft
(49) Structure Length	138 ft
(50) Curb or Sidewalk Width	
Left	1.1 ft
Right	1.1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	22 ft
(33) Bridge Median	0-No median
(34) Skew	30 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7-Rural Major Collector
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	0-The inventory route is not part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	4
(59) Superstructure	2
(60) Substructure	6
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	47
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	28
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	1458
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			11/2020
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	Yes		11/2021
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	3933	0	3523	410	0
1080	Delamination/Spall/Patched Area	SF	3533	0	3443	90	0
1090	Exposed Rebar	SF	10	0	0	10	0
1120	Efflorescence/Rust Staining	SF	45	0	20	25	0
1130	Cracking (RC and Other)	SF	345	0	60	285	0
(12)	See attached Form-III for detailed locations and descriptions of deficiencies.						
107	Steel Open Girder/Beam	LF	680	165	402	102	11
1000	Corrosion	LF	508	0	400	100	8
1010	Cracking	LF	1	0	0	0	1
1900	Distortion	LF	6	0	2	2	2
515	Steel Protective Coating	SF	3774	1574	1500	500	200
3440	Effectiveness (Steel Protective Coatings)	SF	2200	0	1500	500	200
(107)	See attached Form-III for detailed locations and descriptions of deficiencies.						
205	Reinforced Concrete Column	EA	4	0	0	4	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1130	Cracking (RC and Other)	EA	2	0	0	2	0
1190	Abrasion/Wear (PSC/RC)	EA	1	0	0	1	0
(205)	See attached Form-III for detailed locations and descriptions of deficiencies.						
215	Reinforced Concrete Abutment	LF	75	51	0	24	0
1120	Efflorescence/Rust Staining	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	20	0	0	20	0
(215)	See attached Form-III for detailed locations and descriptions of deficiencies.						
234	Reinforced Concrete Pier Cap	LF	60	33	9	18	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1090	Exposed Rebar	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	24	0	9	15	0

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234)							
See attached Form-III for detailed locations and descriptions of deficiencies.							
303	Assembly Joint with Seal	LF	112	112	0	0	0
311	Movable Bearing	EA	15	0	0	15	0
1000	Corrosion	EA	15	0	0	15	0
515	Steel Protective Coating	SF	30	0	0	0	30
3440	Effectiveness (Steel Protective Coatings)	SF	30	0	0	0	30
(311)							
Bearings all have rust with moderate section loss.							
313	Fixed Bearing	EA	15	0	0	15	0
1000	Corrosion	EA	15	0	0	15	0
515	Steel Protective Coating	SF	30	0	0	0	30
3440	Effectiveness (Steel Protective Coatings)	SF	30	0	0	0	30
(313)							
Bearings all have rust with moderate section loss.							
330	Metal Bridge Railing	LF	276	126	150	0	0
1000	Corrosion	LF	150	0	150	0	0
515	Steel Protective Coating	SF	828	678	0	0	150
3440	Effectiveness (Steel Protective Coatings)	SF	150	0	0	0	150
(330)							
Bridge Rail has minor rusting areas through out.							



Roadway with Log Mile running Southwest to Northeast.

Maintenance Needs

Date Reported: 12/07/2010
Priority: C - Important
Type of Work: N/A
Status: Assigned
Component:

Deficiency Description

Rust with moderate to severe section loss to ends of girders at web below haunch, diaphragm connections, and bottom flange over Bents 1 & 2.

Remarks



Rust with moderate to severe section loss to ends of girders at web below haunch, diaphragm connections, and bottom flange over Bent 1.

Date Reported: 12/07/2010

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Component:

Deficiency Description

Superstructure

Areas of rust to bottom flanges of Girders at Spans 1 thru 3.

Remarks



Rust to bottom flange of Girder 5 @ end of Span 2.



Girder 1 @ beginning of Span 3.



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Date Reported: 12/07/2010

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Component:

Deficiency Description

Deck

Unsealed cracks, small spalls, and delaminated areas to deck at all spans.

Remarks



Deck photo with Log Mile.



Deck photo against Log Mile.

Date Reported: 11/18/2020
Priority: CF - Critical Finding
Type of Work: Repair
Status: Open
Component: 107 - Steel Open Girder/Beam

Deficiency Description

Span 1:

Girder 1 has severe section loss with holes & cracks & is beginning to crush @ end of span.

Girders 2, 3 & 4 have severe section loss with holes in web & knife edge to bottom flange @ end of span.

Span 2:

Girder 1 has severe section loss with holes in web & bottom flange & is crushing over Bearing @ end of span.

Girder 2 has severe section loss with holes & knife edge to bottom flange & is beginning to crush @ end of span.

Girders 3 & 4 have severe section loss with holes in webs & Girder 4 is beginning to crush.

Span 3:

Girder 5 has heavy section loss with hole to bottom flange.

Remarks



Section loss with large hole to bottom flange @
Girder 5 @ beginning of Span 3.(#4)



Crushing to Girder 1 @ end of Span 2.(#4)



Section loss to bottom flange with hole in web &
Crushing to Girder 1 @ end of Span 2.(#4)



Girder 2 @ end of Span 2 has heavy s/l with holes
& is beginning to crush.



Girder 3 @ end of Span 2 has heavy s/l with holes & is beginning to crush.



Girder 1 @ end of Span 1 has heavy s/l with holes, cracks & is beginning to crush.



Girder 5 @ end of Span 2 has heavy s/l with knife edge.



Girder 2 @ end of Span 1 has heavy s/l to bottom flange with holes in web below haunch.(typical to Girders 3 & 4)



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Inspection Comments

Elevation with Log Mile running to the Right.

Superstructure Notes

Severe Section Loss with Holes, Cracks and some Crushing at Ends of Girders over Bents 1 & 2.

See attached Form-III for detailed locations and descriptions of deficiencies.