90 Inspection Date - 1/27/2017
Inspector - KSHUGAR (364)

081C00022N - **8 Bridge ID**
Special-Posted Bridge -**Primary Inspection Type**

Inspection Report with SI&A Data

Structure Description: 121.06 Foot - Single Span Steel Truss - Thru
2 District: 09 **3 County:** Mason **16 Latitude:** 38°31′50.00″ **7 Longitude:** 83°38′51.00″
7 Facility Carried DAVIS LN **Milepoint:** 0.020
6A Feature Intersected: N.FK.LICKING RVR
9 Location: NE @ JCT CR 5120

NBI	X
Element	
Fracture Critical	
Underwater	
Special	X

NBI CONDITION RATINGS

58 Deck:	6	**61 Channel:**	4
59 Superstructure:	4	**62 Culvert:**	N
60 Substructure:	6	**Sufficiency Rating:**	22.5

DESIGN

Substandard:	Weight
43A Main Span Material:	(3) Steel
43B Main Span Design:	(10) Truss-Thru
45 Number of Spans Main:	1
44A Approach Span Material:	Not Applicable (0)
44B Approach Span Design:	Not Applicable (00)
46 Number of Approach Spans:	0
107 Deck Type:	(1) Concrete-Cast-in-Place
108A Wearing Surface:	(1) Monolithic Concrete
108B Membrane:	(0) None
108C Deck Protection:	(0) None
Overlay Y/N:	No
Overlay Type:	None
Overlay Thickness:	in
Overlay Date:	

APPRAISAL

36A Bridge Railings:	(0) Substandard
36B Transitions	(0) Substandard
36C Approach Guardrail:	(0) Substandard
36D Approach Guardrail Ends:	(0) Substandard
71 Waterway Adequacy:	(8) Equal Desirable
72 Approach Alignment:	(4) Minimum Tolerable
92A Fracture Critical Inspection:	Yes
92B Under Water Inspection:	No
113 Scour Critical:	(8) Stable above footing
Recommended Scour Critical:	(2) SC- Extensive Scour

LOAD RATINGS

63 Operating Type:	(1) Load Factor (LF)
64 Operating Rating:	9.6 tons
65 Inventory Type:	(1) Load Factor (LF)
66 Inventory Rating:	5.8 tons
Truck Capacity Type I:	4 tons
Truck Capacity Type II:	4 tons
Truck Capacity Type III:	5 tons
Truck Capacity Type IV:	8 tons

GEOMETRIC DATA

48 Max Length Span:	118.110 ft
49 Structure Length:	121.063 ft
32 Approach Roadway:	9.843 ft
33 Median:	(0) No Median
34 Skew:	0°
35 Flare:	No Flare
50A Curb/Sidewalk Width L:	0.000 ft
50B Curb/Sidewalk Width R:	0.000 ft
47 Horiz. Clearance:	13.123 ft
51 Width Curb to Curb:	13.123 ft
52 Width Out to Out:	13.451 ft

ADMINISTRATIVE

27 Year Built:	1918
106 Year Reconstructed:	0
42A Type of Service On:	(1) Highway
42B Type of Service Under:	(5) Waterway
37 Historical Significance:	(3) Possibly Eligible for NRHP
21 Maintenance Responsibility:	(02) County Hwy Agency
22 Owner:	(02) County Hwy Agency
101 Parallel Structure:	(N) No II Structure Exists

CLEARANCES

10 Vert. Clearance:	15.322 ft
53 Min. Vert. Clearance Over:	15.322 ft
54A Vert. Under Reference:	(N) Feature not hwy or RR
54B Min. Vert. Underclearance:	0.000 ft
55A Lateral Under Reference:	(N) Feature not hwy or RR
55B Min. Lat. Underclearance R:	0.000 ft
56 Min. Lat. Underclearance L:	0.000 ft

POSTINGS

41 Posting Status:	(P) Posted For Load
Signs Posted Cardinal:	Yes
Signs Posted Non-Cardinal:	Yes
Field Postings Gross:	4 tons
Field Postings Type I:	tons
Field Postings Type II:	tons
Field Postings Type III:	tons
Field Postings Type IV:	tons

Inspection Report with SI&A Data

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Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
			%		%		%		%

STRUCTURE NOTES

40.9
6/17/2016 Controlling member is floorbeam at L2. Critical point is 1.5 (midspan) for all trucks. Gross post at 4 tons due to rating of superstructure. DGA

INSPECTION NOTES

This is a special NBI inspection to only verify that the proper posting signs have been put back in place where they were missing and to change item (41) to P posted for load. Both ends of the bridge are posted as recommended. Inspection by A. Greiner & W. K. Shugars.

WORK

Action:	

View of the west 9 tons posting.

View of moderate impact damage to the downstream rail at the west abutment.

View of minor sized transverse cracking in the wearing surface near the west abutment.

The wearing surface is rough along the centerline of the bridge. This is in Amish country and the bridge sees alot of horseshoes.

View of a bend in the lower section of the upstream L1 vertical.

View of a minor sized full width transverse crack in the wearing surface between the L1 and L2 connections.

View of a minor sized full width transverse crack in the wearing surface between the L4 and L5 connections.

View of a more moderate sized (~1/16") full width transverse crack in the wearing surface near the L5 connection.

View of a more moderate sized (~1/16") full width transverse crack in the wearing surface near the L6 connection.

View of a minor sized full width transverse crack in the wearing surface between the L6 and L7 connections.

View of 2 minor (there is actually 3, one is not visible in photo) sized diagonal trending cracks in the wearing surface between the L7 and L8 connections

View of the east 9 tons posting.

View of the upstream east bearing.

View of ~ 3.25" measured along the forge in the interior eyebar at the upstream L2 connection. There is a retrofit at this location.

View of retrofit at upstream L2.

View of heavy vegetation growth at the east abutments downstream bearing.

View from the upstream east end of the bridge. Notice the heavy vegetation growth.

View of heavy vegetation growth at the upstream end of the east abutment.

Typical view of the east abutment. Notice the minor sized horizontal cracking in the concrete cap.

View of heavy vegetation growth at the downstream end of the east abutment.

View of heavy vegetation growth at the east end of the bridge.

Typical view of heavy corrosion at the upstream end of the floorbeam at L7.

View looking west.

View of heavy drift blocking the channel~ 75' upstream of the bridge.

View of the floorbeam at L2. Notice that the retrofitted floorbeam that was welded to the bottom flange of the original floorbeam has fallen off. Note the floorbeam at L1.

View of the retrofitted floorbeam that WAS welded to the bottom flange of the original floorbeam at L2. It has fallen off.

View of the floorbeam at L2. Notice that the retrofitted floorbeam that was welded to the bottom flange of the original floorbeam has fallen off. Note the floorbeam at L1.

View of the floorbeam near the upstream L2 connection. Notice that the retrofitted floorbeam that was welded to the bottom flange of the original floorbeam has fallen off. Note the heavy corrosion.

Typical view of moderate to heavy corrsoion of the stringer ends at the west abutment.

Typical view of the upstream bearing at the west abutment.