

Inspector: Trivoli, Raymond
 Inspection Date: 05/25/2023

Structure Number: 3403246
 Facility Carried: SR 799

Ohio Bridge Inspection Summary Report

HAS-00799-0563 (3403246)

2: District 57456 - NOTTINGHAM TWP (HAS county)
 District 11

5A: Inventory Route 1 00799

21: Major Maint A/B 01 - State Highway Agency /
 225 Routine Main A/B 01 - State Highway Agency /
 221 Inspection A/B 01 - State Highway Agency /
 220: Inv. Location DISTRICT 11

7: Facility On SR 799
 6: Feature Ints MCFADDEN RUN
 9: Location .42 M W OF MALLARNEE RD
 Lat, Lon 40.2655617699 , -81.1873109162

Condition	
58: Deck	4 - Poor Condition
58.01 Wearing Surface	7 - Good (1% distress)
58.02 Joint	N- Not Applicable
59: Superstructure	4 - Poor Condition
59.01 Paint & PCS	N - Not Applicable
60: Substructure	6 - Satisfactory Condition
61: Channel	6
61.01 Scour	6 - Satisfactory
62: Culverts	N - Not Applicable
67.01 GA	4

Structure Type	
43: Bridge Type	5 - Prestressed concrete
	05 - Box Beam or Girders - Multiple
	N- Not Applicable
45: Spans Main / Approach	1 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	N - Non-composite Construction
414A Joint Type 1	N - None
414B: Joint Type 2	N - None
108A: Wearing Surface	6 - Bituminous
	N- Not Applicable

Appraisal	
Sufficiency Rating	50.0 SD/FO 1 - SD
36: Rail, Tr, Gd, Term Std	1 1 1 1
72: Approach Alignment	7 - Better than present minimum criteria
113: Scour Critical	5 - Scour within limits of footing or piles
71: Waterway Adequacy	6 - Occasional Overtopping of Approaches

422: WS Date	10/31/2019
423: WS Thick (in)	3.75
482: Protective Coating	N - None or Not Applicable
483: PCS Date	
453: Bearing Type 1	4 - Elastomeric (Plain)
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	A - Cast-in-Place Reinforced Concrete Piles (12" diameter)
533: Foundn: Abut Rear	A - Cast-in-Place Reinforced Concrete Piles (12" diameter)
536: Foundn: Pier 1	N - None (Such as most Culverts)
539: Foundn: Pier 2	N - None (Such as most Culverts)

Geometric	
48: Max Span Length (ft)	22.0
49: Structure Length (ft)	24.0
52: Deck Width, Out-To-Out (ft)	24.3
424: Deck Area (sf)	583.2
32: Appr Roadway Width (ft)	24.0
51: Road Width, Curb-Curb (ft)	24.3
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	41
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	0
336A: Min Vert Clrnce IR Cardinal (ft)	99
336B: Min V Clr IR Non-Cardinal (ft)	0
578: Culvert Length (ft)	0

Age and Service	
27: Year Built/ 106 Rehab	1948 / 1981
42A: Service On	1 - Highway
42B: Service Under	5 - Waterway
28A: Lanes on	02
28B: Lanes Under	00
19: Bypass Length	99
29: ADT	352
109: % Trucks (%)	13

Load Posting	
41: Op/Post/Closed	A - Open
70: Posting	5 - Equal to or above legal loads
70.01: Date	
70.02: Sign Type	
734: Percent Legal (%)	150
704: Analysis Date	06/22/2023
63: Analysis Method	8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.

Inspections			
		Months	
90: Routine Insp.		12	05/25/2023
92A: FCM Insp.	N	0	
92B: Dive Insp.	N	60	08/25/2022
92C: Special Insp.	N	12	
92D: UBIT Insp.	N	0	
92E: Drone Insp.	N	0	
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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
15-Prestressed Concrete Top Flange	3 - Mod.	584	sq. ft.	236	85	44	219
	SEE ELEMENT 104						
510-Wearing Surfaces		584	sq. ft.	550	34	0	0
	CS2- (34SF) 10 FT LONGITUDINAL CRACK RT LANE AT MIDSPAN. TRANSVERSE CRACKS AT FWD AND REAR DECK JOINTS. 2023 INSP: CS2- (24SF) LONGITUDINAL CRACK ON RT SIDE. SHORT TRANSVERSE CRACKS THROUGHOUT.						
104-Prestressed Concrete Closed Web/Box Girder	3 - Mod.	144	ft.	58	21	11	54
	<p>2023 INSP:</p> <p>BEAM 1: CS4 - 4LF NEAR 1/3 POINT ALONG SPAN SPALLED W/ 1 S.B., 3 LF NEAR 2/3 POINT ALONG SPAN SPALLED W/ 1 S.B. CS3- 1 LF NEAR FWD. ABUT. ON LT OUTSIDE EDGE. CS3- 2 LF CR. AND DELAM. ALONG FASCIA LT EDGE, NEAR REAR ABUTMENT. 1 REBAR EXPOSED ALONG RIGHT EDGE OF BEAM W/IN SAME LF. BEAM 2: CS4 - 12 LF SPALLED W/2 S.B. ALONG RIGHT EDGE OF BEAM AT MIDSPAN. BEAM 2: CS2 - 1 LF CR. AND DELAM ON BOTH LT/RT AT FWD ABUT. BEAM 3: CS4 - 12 LF SPALLED W/2S.B. ALONG LT EDGE OF BEAM MID SPAN. SAME AREA ON RT SIDE CR. AND DELAM. BEAM 3: CS4 - 2 LF SPALLED W/ 1 S.B. BEAM 3: CS2 - 12LF CR. AND DELAM. ON BOTH LT AND RT SIDE OF BEAM. BEAM 4: CS4 - 12LF SPALL WITH 2 BROKEN STRAND ON LT EDGE AND 4 LF SPALL WITH 1 BROKEN STRAND ALONG RT EDGE NEAR 1/4 SPANIN SAME AREA AS LT SIDE. BEAM 4: CS4 - 6LF SPALLED W/2 S.B. ON LT SIDE REAR ABUT. CS3 - 4 LF CR AND DELAM WITH RUST STAINING RT SIDE SAME AREA AT REAR ABUT. BEAM 4: CS3 - 2LF CR. AND DELAM ON LT SIDE OF SPALLED AREA. BEAM 5: CS2 - 1 LF CR AND DELAM NEAR REAR ABUT. ON RT SIDE. BEAM 5: CS2 - 7 LF CR AND DELAM NEAR MID SPAN ON LT SIDE. BEAM 6: CS4 - 3 LF SPALL WITH 360 DEG EXPOSURE OF ONE STRAND ON LT SIDE NEAR REAR ABUT. BEAM 6: CS3 - 1 LF CR. AND DELAM. AT FWD ABUT. LT/RT. BEAM 6: CS2 - 6 LF FASCIA BEAM HAS CR. W EFFLO</p> <p>2022 Insp:</p> <p>BEAM 1: CS4 - 4LF NEAR 1/3 POINT ALONG SPAN, 3 LF NEAR 2/3 POINT ALONG SPAN, 1 LF NEAR FWD. ABUT. ALL LOCATIONS ALONG FASCIA EDGE. CS3 - 2 FT ALONG FASCIA EDGE, NEAR REAR ABUTMENT. 1 REBAR EXPOSED ALONG RIGHT EDGE OF BEAM W/IN SAME LF. BEAM 2: CS2 - 10 LF CR. AND DELAM ALONG RIGHT EDGE OF BEAM AT MIDSPAN. BEAM 3 LT EDGE: CS3 - 3 LF REAR REAR ABUT, 2 LF NEAR FWD ABUT. BEAM 3 RT EDGE: CS4 - 4 LF SPALL WITH 1 BROKEN STRAND NEAR 1/4 SPAN. CS2 - REMANING BEAM EDGE. BEAM 4: CS4 - 6 LF SPALL WITH 1 BROKEN STRAND ON LT EDGE AND 4 LF SPALL WITH 1 BROKEN STRAND ALONG RT EDGE NEAR 1/4 SPAN. CS3 - 4 LF CR AND DELAM WITH RUST STAINING. CS2 - 10 LF CR AND DELAM NEAR MIDSPAN. BEAM 5: CS2 - 1 LF CR AND DELAM NEAR REAR ABUT BEAM 6: CS4 - 3 LF SPALL WITH 360 DEG EXPOSURE OF ONE STRAND</p>						

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
215-Reinforced Concrete Abutment	3 - Mod.	125	ft.	55	64	6	0
CS2-SCALING. CRACKED & SOME BREAKING OUT AT JOINTS BETWEEN ABUTMENTS AND WINGWALLS, MOSTLY OLD PART. CS3- (6LF) RT REAR ABUT. IS SPALLED W/REBAR EXPOSED. UNDER DECK EDGE.							
310-Elastomeric Bearing	3 - Mod.	24	each	24	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	960	sq. ft.	960	0	0	0
330-Metal Bridge Railing	3 - Mod.	48	ft.	48	0	0	0
815-Drainage	3 - Mod.	2	each	1	0	0	1
2023 INSP: CS4- (1EA) THROUGH HOLES ON RT SIDE OF DRIP STRIP.							

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ODOT District: District 11

HAS-00799-0563_(3403246)

Date Built: 07/01/1948

Major Maint: 01 - State Highway Agency

Facility Carried: SR 799

Traffic On: 1 - Highway

Rehab Date: 01/01/1981

Routine Maint: 01 - State Highway Agency

Feature Inters: MCFADDEN RUN

Traffic Under: 5 - Waterway

Insp. 01 - State Highway Agency

FIPS Code: 57456 - NOTTINGHAM TWP (HAS county)

Location: DISTRICT 11

.42 M W OF MALLARNEE RD

Resp A:

Inspector

Trivoli,Raymond

Inspection Date 05/25/2023

Reviewer Khalifa,Waseem

Insp

Resp B:

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

SEE ELEMENT 104

Bridge Wearing Surface (SF)

NEW ASPHALT IN 2019.

2022 INSP: 10 FT LONGITUDINAL CRACK RT LANE AT MIDSPAN. TRANSVERSE CRACKS AT FWD AND REAR DECK JOINTS. 2023 INSP: CS2- (24SF) LONGITUDINAL CRACK ON RT SIDE. SHORT TRANSVERSE CRACKS THROUGHOUT.

Bridge Railing (LF)

MINOR DAMAGE. RUSTING ON BOTTOM HALF LEFT SIDE.

DRAINAGE (EA)

THROUGH HOLES IN DRIP STRIP ON RT SIDE.

Approach

Approach Wearing Surface (EA)

NEW ASPHALT IN 2019.

Approach Slab (SF)

ASPHALT COVERED. TRANSVERSE CRACK AT RT REAR AND FWD APPROACH JOINTS.

Approach Guardrail (EA)

MINOR DAMAGE TO LT REAR.

SIGNS (EA)

4 BRIDGE MARKER SIGNS IN PLACE.

Inspector Comments - General Appraisal

Superstructure

Beams/Girders (LF)

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BROKEN OUT AT BOTTOM LEFT EDGE BESIDE BRIDGE POST BOLTS WITH 1 STRAND EXPOSED AND RUST. MOISTURE SEEPAGE THROUGH JOINTS. LONGITUDINAL CRACKING 10' ALONG JOINT WITH 2ND, 3RD AND 4TH AND 5TH BEAMS WITH RUST STAINS AT REAR. ALSO CRACKING AT FWD ABUTMENT BETWEEN JOINTS. CRACKING AT REAR ABUTMENT EDGES BETWEEN 1ST AND 2ND BEAMS, 2ND AND 3RD BEAMS, 4TH AND 5TH BEAMS. READY TO SPALL OFF. SUPERSTRUCTURE RATING WAS DROPPED TO A 5, DUE TO LENGTH AND WIDTH OF CRACKS IN BEAMS WERE EXPANDING. MULTIPLE DARK AND DISCOLORED AREAS THROUGHOUT. CENTER BEAM ON EDGE HAS 4' LONG LONGITUDINAL CRACK WITH RUST STAINS. 2' HL HORIZONTAL CRACK ON RT FACIA BEAM BETWEEN RAIL POST 2 AND 3.

CS3- 2022 INSP : CENTER BEAM NOW HAS 4' LONG SPALL ON LT EDGE. BEAM # 6 BEAM HAS 3' LONG SPALL WITH ONE STRAND EXPOSED ON LT REAR.

Substructure

Abutment Walls (LF)

SCALING. CRACKED & SOME BREAKING OUT AT JOINTS BETWEEN ABUTMENTS AND WINGWALLS, MOSTLY OLD PART. HAIRLINE VERTICAL CRACKS. SMALL SPALL AT RIGHT REAR WINGWALL. EFFLOR SEEPAGE @ SOME CRACKS.

2022: Abutment

1: The

submerged portions of the abutment exhibited light scaling up to 1/16 in. deep from the channel bottom to the waterline. Isolated areas of poor concrete consolidation up to 3/8 in. penetration with no exposed reinforcing steel was observed along the entire abutment. A vertical crack up to 3/8 in. wide with spalling up to 6 in. diameter by 1 in. deep was observed extending from the channel bottom to the top of cap. A vertical crack up to 1/16 in. wide from the channel bottom to the top of the web wall was observed 7 ft from the end of the northwest web wall. **Abutment**

2: The

submerged portions of the abutment exhibited light scaling up to 1/16 in. deep from the channel bottom to the waterline. Isolated areas of poor concrete consolidation up to 3/8 in. penetration with no exposed reinforcing steel was observed along the entire abutment. A vertical crack up to 1/16 in. wide from the channel bottom to the top of the web wall was observed 10 ft from the end of the northeast web wall. A vertical crack with efflorescence up to 1/16 in. wide from the channel bottom to the top of the web wall was observed 13 ft from the end of the northeast web wall. A vertical crack up to 5 ft vertical by 1/16 in. wide extending from 3 ft below the waterline to 2 ft above the waterline was observed 6 ft from the end of the southeast web wall.

Wingwalls (EA)

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Substructure Scour (EA)

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PROBED 2020. 2' OF FOOTER EXPOSED @ LT REAR, WATER 6' DEEP THERE. 1' OF FOOTER EXPOSED @ RT REAR, LT FWD & RT FWD.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Channel Protection (LF)

UNDERMINING OF STONE PROTECTION AT LEFT REAR WINGWALL.

Scour Critical