Inspector:
 Jewell,Todd
 Structure Number:
 0700797

 Inspection Date:
 04/24/2024
 Facility Carried:
 SR 7

# **Ohio Bridge Inspection Summary Report**

# BEL-00007-2497 (0700797)

2: DistrictDistr 48104 - lict	MARTINS FERRY (BEL county)		5A: Inventory R	oute	1	00007
21: Major Maint A/B 225 Routine Main A/B	01 - State Highway Agency 04 - City or Municipal Highway Agency	/ /26	7: Facility On 6: Feature Ints	SR 7 PATTON	NRUN &	TR 469
221 Inspection A/B	01 - State Highway Agency	/	9: Location	1.47MI.S	S.OF BEI	_ JEF CO LI
220: Inv. Location DIS	STRICT 11		Lat, Lon	40.1364	6	,-80.71442
			1 1	_		

220: Inv. Location DISTRICT 11		Lat, Lon 40.13646	,-80.71442		
	Condition	Structure Type			
58: Deck 58.01 Wearing Surface 58.02 Joint 59: Superstructure 59.01 Paint & PCS 60: Substructure 61: Channel 61.01 Scour 62: Culverts	8: Deck 7 - Good Condition  58.01 Wearing Surface 6 - Satisfactory (1-10% distress)  58.02 Joint 4- Poor (heavy leaking, offset)  9: Superstructure 7 - Good Condition  59.01 Paint & PCS 7 - Good (1-5% corr.)  0: Substructure 6 - Satisfactory Condition  1: Channel 7  61.01 Scour 6 - Satisfactory		eel continuous tringer/Multi-beam or Girder t Applicable uch 4 / 0 1 - Concrete Cast-in-Place N - Non-composite Construction 2 - Sliding Metal Plate Angle N - None 2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)		
67.01 GA	6	7 422: WC Data	2- MicroSilica		
Sufficiency Rating 36: Rail, Tr, Gd, Term Std 72: Approach Alignment 113: Scour Critical 71: Waterway Adequacy	91.5 SD/FO 2 - FO 1 1 1 1 7 - Better than present minimum criteria 5 - Scour within limits of footing or piles 9 - Bridge Above Flood Water Elevations	422: WS Date 423: WS Thick (in) 482: Protective Coating 483: PCS Date 453: Bearing Type 1 455: Bearing Type 2 528: Foundn: Abut Fwd	10/27/1999 2.8 5 - Paint System OZEU 10/01/1999 2 - Rockers & Bolsters B - Fixed 7 - Steel H Piles (HP 10 x 42)		
	Geometric	7	7 - Steel H Piles (HP 10 x 42)		
48: Max Span Length (ft) 49: Structure Length (ft)	45.0 158.0	536: Foundn: Pier 1 539: Foundn: Pier 2	7 - Steel H Piles (HP 10 x 42) U - Unknown		

ay / lacquacy						
Geometric						
48: Max Span Length (ft)	45.0					
49: Structure Length (ft)	158.0					
52: Deck Width, Out-To-Out (ft)	102.0					
424: Deck Area (sf)	16116					
32: Appr Roadway Width (ft)	98					
51: Road Width, Curb-Curb (ft)	98.0					
50A: Curb/SW Width: Left (ft)	0					
50A: Curb/SW Width: Right (ft)	0					
34: Skew (deg)	22					
33: Bridge Median	<ul><li>3 - Closed median with non- mountable barriers</li></ul>					
54B: Min Vert Underclearance (ft)	14.5					
336A: Min Vert Clrnce IR Cardinal (ft)	99					
336B: Min V Clr IR Non-Cardinal (ft)	0					
578: Culvert Length (ft)	0					

	27: Year Built/ 106 Rehab	1976	/ 0000			
	42A: Service On	1 - Highway				
	42B: Service Under	6 - Highway - waterway				
	28A: Lanes on	04				
	28B: Lanes Under	02				
۱-	19: Bypass Length	3				
	29: ADT	18497				
	109: % Trucks (%)	11				
	Inspe	ctions				
]	90: Routine Insp.	Months 12	04/24/2024			

Age and Service

	Load Posting	90
41: Op/Post/Closed	A - Open	92
70: Posting 5 - Equal to	o or above legal loads	92
70.01: Date		92
70.02: Sign Type		92
734: Percent Legal (%)	150	92
704: Analysis Date	07/01/1983	Ins
63: Analysis Method	7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.	

l	90: Routine Insp.		12	04/24/2024
92A: FCM Insp.		N	0	
92B: Dive Insp.		N	0	
92C: Special Insp. I		N	0	
92D: UBIT Insp.		N	0	
92E: Drone Insp. N		N	0	
	Inspector Jewell,	Todd		

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	16116	sq. ft.	13480	2631	5	0
	CS2 -Map cract 11), (110 SF in between Beams approximately 6 CS3 - Spall with 12 at midspan),	Span 4 bet s 12 and 13 6' apart thro	ween B at Pier ughout	eams 5 and 3). Minor tra all spans (2 ement (4 SF	6). Delamin ansverse cra 500 SF total in Span 1 b	ation (1 SF incks spaced in all spans)	n Span 3
510-Wearing Surfaces		15484	sq. ft.	14537	775	172	0
<b>5</b>	CS2 - transvers SF). CS3 - Spa Right Bridge), (	II filled with	ith area	(50 SF in S	pan 1 near t	he Rear Abu	
107-Steel Open Girder/Beam	3 - Mod.	2212	ft.	2191	0	21	0
	Bridge from left to right. CS3 - Active laminate corrosion on the bottom flange and lower 6" of the web (6 LF on Beam 7 at the Rear Abutment), (10 LF on Beam 10 at the Rear Abutment), (2 LF on Beam 11 at the Rear Abutment) Minor pitting with up to 1/16" deep section loss to the bottom flange and web at the beam end (3 LF at Beam 5 at the Forward Abutment)						
515-Steel Protective Coating		16325	sq. ft.	16125	0	180	20
	Beam perimeter = 7.38'. OZEU 10-99. CS3 - Paint starting to to fail with minor corrosion initiating (100 SF at Beams 7, 10, 14 at the Rear Abutment), (20 SF Beam 5 at the Forward Abutment), (10 SF Beam 10 at the Forward Abutment). Isolated areas of surface corrosion on the beam ends at the Forward Abutment, Beams 7, 10, and 14 primarily (50 SF). CS4 - Areas of active laminate rust (20 SF at Beam 7, Rear Abutment)						
205-Reinforced Concrete Column	3 - Mod.	30	each	22	8	0	0
	CS2- minor spa PIER 2 COLUM						
215-Reinforced Concrete Abutment	3 - Mod.	220	ft.	176	20	14	10
	Heavy debris buildup on beam seat at both abutment. CS2 - Hairline vertical crack (2 LF at Rear Abutment), (3 LF at left end of Forward Abutment), (1LF at forward abutment under beam 10), Horizontal crack along seat (2 LF at Beam 9 of the Rear Abutment), (3 LF between Beams 3 and 4 at Forward Abutment), (1 LF between Beams 5 and 6 at Forward Abutment), (3 LF between Beams 9 and 10 at Forward Abutment), (2 LF between Beams 12 and 11 at Forward Abutment), (2LF between beams 12 and 13 at forward abutment). Delamination (1LF between beams 12 and 13 at forward abutment),  CS3 - Horizontal cracks along edge of seat with rust staining (6LF at rear abutment between beams 3 and 4), (3 LF at right end of Forward Abutment). Vertical crack with rust staining (1 LF at the Forward Abutment under Beam 6), (1LF at the forward abutment under beam 13), (1LF at the forward abutment between beams 13 and 14). 2LF spall with exposed reinforcement rear abutment near beam 8.  CS4- REAR ABUT SPALL WITH EXPOSED REINFORCEMENT UP TO MASONRY PLATES 3LF AT BEARING 6, 7LF AT BEARING 12 AND 13.						

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
234-Reinforced Concrete Pier Cap	3 - Mod.	220	ft.	218	2	0	0
	CS2- horizontal	crack (2LF	at Eas	t end of pier	3)		
305-Assembly Joint without Seal	3 - Mod.	220	ft.	38	80	100	2
	CS2 - Debris in Abutment, Left CS3 - Minor see Bridge), (30 LF CONCRETE HI Right Bridge) 10 BRIDGE. CS4- 2LF THRO	Bridge), (10 ction loss to LOSS TO EADER AT OLF BREAK	) LF At ) joint an JOINT A RIGHT (ING UI	Forward Abumor (10 LF MRMOR ANI REAR), (40 POF ASPHA	utment, Righ at Rear Abu D 10LF POT LF at Forwa AULT OVER	t Bridge). tment on the HOLES TO ard Abutmen FWD HEAD	Left t on the
311-Movable Bearing	3 - Mod.	56	each	28	0	18	10
	CS3 - Heavy lai 1,2,4,5,6,9,12,1 Forward Abutm CS4- HEAVY P AT FWD BEAR NOTE: BEARIN	3, at the Reent). ACK RUST INGS 3,7,8	ear Abu AND T ,9.	tment), (Bea	ms 1,2,4,5,6	5,10,11,12,1 RINGS 3,7,8	3,14 at the
313-Fixed Bearing	3 - Mod.	14	each	14	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	4900	sq. ft.	3699	1100	101	0
	CS2 - Minor cr. (250 SF Rear A Left Bridge), (30 CS3 - Spall and Left Bridge), (12 approach on the	pproach on 00 SF Forw I poor qualit 2 SF at rear	the Rigard Apply as the Apply a	ght Bridge), proach on the alt patch (45 ach on the ri	(400 SF Ford Right Bridg SF along Right bridge), (	ward Approage). ear Abutmer (40SF at forv	nt on the ward
331-Reinforced Concrete Bridge Railing	3 - Mod.	632	ft.	607	6	19	0
	31.5" HIGH CS2 - Minor ar exposed reinfor right railing). Sp SPALL AT REA	cement (2 I alls with de	_F left r	ailing), (11 L ion (3LF rigl	F left face of the face center	f center med	lian), (1LF
815-Drainage	3 - Mod.	15	each	5	10	0	0
	CS2 - Partially I	olocked with	n debris	(10 location	ns)		
830-Abutment Backwall	3 - Mod.	220	ft.	203	17	0	0
	CS2 - Vertical at Forward Abu Map cracking (*abutment betwee Delamination (1abutment betwee Delamination betwee Delamination (1abutment betwee Delamination	tment) ILF at forwa een beams LF at forwa	ard abu 10 and ard abut	tment behind 11) ment betwe	d beam 1), (1 en beams 5	1LF at forwa and 6), (1LF	rd at forward

ODOT District: District 11 BEL-00007-2497 \_(0700797)

Major Maint: 01 - State Highway Agency Facility Carried: SR 7 Traffic On: 1 - Highway

Routine Maint: 04 - City or Municipal Highway Feature Inters: PATTON RUN & TR 469 Traffic Under: 6 - Highway - waterway Resp A:

07/01/1976

Date Built:

Rehab Date

Agency Resp A:
FIPS Code: 48104 - MARTINS FERRY (BEL county) Location: DISTRICT 11 1.47MI.S.OF BEL JEF CO LI Insp
Resp B:

Inspector Jewell,Todd Inspection Date 04/24/2024 Reviewer Trivoli,Raymond

### Inspector Comments - Deck and Approach

### **Deck**

### **Approach**

### **Approach Wearing Surface (EA)**

NEW ASPHALT 2016. TRANSVERSE AND LONGITUDINAL CRACKING WITH POTHOLES THROUGHOUT.

### Approach Relief Joint (LF)

ASPHALT COVERED. CRACKING @ JOINTS, SEALED. CRACK AT PRESSURE RELIEF JOINT AT BOTH REAR AND FWD AND HUMPED UP. BREAKING UP AT APP. SLAB. JOINT REAR AND FWD. REGULAR WEAR ON APP. SURFACE.

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### **Inspector Comments - General Appraisal**

#### <u>Superstructure</u>

### Diaphragm/X-Frames (EA)

PACK RUST AT FWD AND REAR ABUT W / CRACKED WELDS. **2021:** crossframe diagonal members with broken and cracked welds at lower connection plate between Beams 4 and 5 (cracked), Beams 9 and 10, Beams 11 and 12 at the Rear Abutment; Beams 4 and 5, Beams 5 and 6, Beams 6 and 7, Beams 10 and 11 at the Forward Abutment.

## Fatigue (LF)

COVER PLATE WELDS ON CENTER PIER.

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### **Substructure**

### **Substructure Scour (EA)**

TOP EDGE OF FOOTER EXPOSED ON 3RD AND 5TH AND 7TH FROM LEFT CENTER PIER COLUMNS. 2022: Erosion along forward edge of channel exposing additional 4' of Columns 2 through 7 at Pier 2. Footings for Columns 2 to 7 exposed for up to 16". No undermining visible. 2024- COLUMNS 1-6 FOOTING IS EXPOSED UP TO 16"IN WORST LOCATIONON REAR FACE NO UNDERMINING VISIBLE AND FOOTER IS ON (10X42) PILING ACCORDING TO PLAN PAGE 372.

## **Slope Protection (EA)**

SEVERE WASHING ALONG TR 469. NO DITCH ON FWD SIDE, WATER RUNS DOWN MIDDLE OF THE ROAD. TREES GROWING ALONG SIDES.

#### Culvert

# Inspector Comments - Waterway

**Waterway Adequacy** 

### **Channel**

### **CHANNEL PROTECTION (LF)**

2022: Erosion along forward edge of channel exposing additional 4' of Columns 2 through 7 at Pier 2.

Footings for Columns 2 to 7 exposed for up to 16". No undermining visible.

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# **Pictures**