Ohio Bridge Inspection Summary Report

BEL-00148-1414 (0704210)

2: District	11 81088 - WASHINGTON TWP (BEL county)	5A: Inventory Route	1 00148
21: Major Maint A/B	01 - State Highway Agency /	7: Facility On	SR 148
225 Routine Main A/B	01 - State Highway Agency /	6: Feature Ints	CAPTINA CREEK
221 Inspection A/B	01 - State Highway Agency /	9: Location	2.18 MI. E OF JCT SR 145
220: Inv. Location	DISTRICT 11	Lat, Lon	39.904886 ,-80.963539

Condition

58: Deck	**7 - Good Condition**
58.01 Wearing Surface	7 - Good (1% distress)
58.02 Joint	7- Good (no leaking)
59: Superstructure	**7 - Good Condition**
59.01 Paint & PCS	7 - Good (1-5% corr.)
60: Substructure	**7 - Good Condition**
61: Channel	**6**
61.01 Scour	**6 - Satisfactory**
62: Culverts	**N - Not Applicable**
67.01 GA	**7**

Appraisal

Sufficiency Rating	93.6 SD/FO 0 - ND
36: Rail, Tr, Gd, Term Std	1 1 1 1
72: Approach Alignment	7 - Better than present minimum criteria
113: Scour Critical	8 - Stable for scour conditions
71: Waterway Adequacy	8 - Bridge Above Approaches

Geometric

48: Max Span Length (ft)	80.0
49: Structure Length (ft)	208.0
52: Deck Width, Out-To-Out (ft)	33.3
424: Deck Area (sf)	6926.4
32: Appr Roadway Width (ft)	32.0
51: Road Width, Curb-Curb (ft)	32.0
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	45
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

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	07/01/1987
63: Analysis Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

Structure Type

43: Bridge Type	4 - Steel continuous
	02 - Stringer/Multi-beam or Girder
	N- Not Applicable
45: Spans Main / Approach	3 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	Y - Composite Construction
414A Joint Type 1	8 - Elastomeric Strip Seal
414B: Joint Type 2	N - None
108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck)
	N- Not Applicable
422: WS Date	01/01/1987
423: WS Thick (in)	1.2
482: Protective Coating	2 - Unpainted Weathered Steel
483: PCS Date	
453: Bearing Type 1	2 - Rockers & Bolsters
455: Bearing Type 2	B - Fixed
528: Foundn: Abut Fwd	U - Unknown
533: Foundn: Abut Rear	U - Unknown
536: Foundn: Pier 1	U - Unknown
539: Foundn: Pier 2	U - Unknown

Age and Service

27: Year Built/ 106 Rehab	1987 / 0000
42A: Service On	1 - Highway
42B: Service Under	5 - Waterway
28A: Lanes on	02
28B: Lanes Under	00
19: Bypass Length	40
29: ADT	1733
109: % Trucks (%)	44

Inspections

		Months	
90: Routine Insp.		12	08/12/2021
92A: FCM Insp.	N	24	
92B: Dive Insp.	N	0	
92C: Special Insp.	N	0	
92D: UBIT Insp.	N		
92E: Drone Insp.			

Inspector Hammerschmidt,Steven

Inspector: Steven Hammerschmidt **Structure Number:** 0704210

Inspection Date: 08/12/2021 **Facility Carried:** SR 148

Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	3 - Mod.	6934	sq. ft.	6859	75	0	0
	2021: CS2 - Transverse hairline cracks (75 SF in Span 2)						
805 - Wearing Surface - Monolithic Concrete		6656	sq. ft.	6456	200	0	0
	2021: CS2 - Transverse cracks up to 1/16” wide (200 SF in Span 2)						
107 - Steel Open Girder/Beam	3 - Mod.	1045	ft.	977	52	16	0
	Beams labeled Beam 1 to 5 from left to right. 2021: CS2 - Minor surface corrosion at beam ends (Rear Abutment: Beam 1 - 4 LF, Beam 2 - 6 LF, Beam 3 - 10 LF, Beam 5 - 6 LF), (Forward Abutment: Beam 1 - 10 LF, Beam 2 - 2 LF, Beam 3 - 6 LF, Beam 4 - 4 LF, Beam 5 - 4 LF) CS3 - Moderate laminate corrosion of beam ends with up to 1/8” deep section loss to bottom flange and 1/16” deep section loss to web (Beam 4 at Rear Abutment - 10 LF), (Beam 1at Forward Abutment, web only - 3 LF), (Beam 5 at Forward Abutment - 3 LF)						
515 - Steel Protective Coating		9227	sq. ft.	8922	60	165	80
	Beam perimeter = 8.83' 2021: CS2 - Areas of dark patina on exterior faces of facia beams (30 SF on Beam 1), (30 SF on Beam 2) CS3 - Areas of surface corrosion and flacking patina (Rear Abutment: Beams 1 to 5 - 75 SF), (Forward Abutment: Beams 1 to 5 - 90 SF) CS4 - Areas of paint failures and section loss at the beam ends (Rear Abutment: Beams 1 to 5 - 60 SF), (Forward Abutment: Beams 1 to 5 - 20 SF)						
210 - Reinforced Concrete Pier Wall	3 - Mod.	44	ft.	44	0	0	0
215 - Reinforced Concrete Abutment	3 - Mod.	94	ft.	90	4	0	0
	2021: CS2 - Isolated minor vertical cracks (2 LF at Rear Abutment), (2 LF at Forward Abutment)						
234 - Reinforced Concrete Pier Cap	3 - Mod.	94	ft.	93	0	1	0
	2021: CS3 - Minor spall with exposed reinforcement (1 LF at Pier 1 on the left end)						

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Bridge Inspection Report

Element Inspection

300 - Strip Seal Expansion Joint	3 - Mod.	94	ft.	48	46	0	0
	2021: CS2 - Minor bulge in seal (2 LF at Forward Abutment right end) Minor debris in joints (10 LF at Rear Abutment), (10 LF at Forward Abutment) Signs of joint leaking on the underside of deck and on the abutment backwall (10 LF at Rear Abutment), (14 LF at Forward Abutment)						
311 - Movable Bearing	3 - Mod.	15	each	6	0	8	1
	2021: CS3 - Moderate laminate corrosion throughout bearing assembly (Rear Abutment Beams 2 - 5), (Forward Abutment Beams 1, 3 - 5) CS4 - Bearing rotated to limit with rocker overhanging right rear corner by 2 1/4” at Beam 2 and Forward Abutment						
313 - Fixed Bearing	3 - Mod.	5	each	5	0	0	0
321 - Reinforced Concrete Approach Slab	3 - Mod.	1600	sq. ft.	1293	300	7	0
	2021: Rear Approach paved over. CS2 - Diagonal cracking and minor wear in travel lanes (300 SF at Forward Approach) CS3 - Spalls along back of abutment (7 SF at Forward Approach)						
330 - Metal Bridge Railing	3 - Mod.	416	ft.	416	0	0	0
815 - Drainage	3 - Mod.	2	each	2	0	0	0
830 - Abutment Backwall	3 - Mod.	94	ft.	0	94	0	0
	2021: CS2 - Isolated minor vertical cracks (5 LF at Rear Abutment) Both backwalls with heavy efflorescence and rust staining from leaking joint above.						

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ODOT District:	11			Date Built:	07/01/1987
Major Maint:	01 - State Highway Agency	Facility Carried:	SR 148	Traffic On:	1 - Highway
Routine Maint:	01 - State Highway Agency	Feature Inters:	CAPTINA CREEK	Traffic Under:	5 - Waterway
FIPS Code:	81088 - WASHINGTON TWP (BEL county)	Location:	DISTRICT 11	2.18 MI. E OF JCT SR 145	
Inspector	Hammerschmidt,Steven	Inspection Date	08/12/2021	Reviewer	Guion,Carolyn

Rehab Date:

Insp. Resp A: 01 - State Highway Agency

Insp Resp B:

Inspector Comments - Deck and Approach

Deck

Approach

Inspector Comments - General Appraisal

Superstructure

Substructure

2021: Minor erosion hole along rear face of Pier 2 approximately 12” deep.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

2021: Large log against upstream side of Pier 1 with timber debris. 6” to 12” of Pier 1 footing exposed. Minor flood debris lodged between the crossframes and on the pier caps.

Riprap missing from right end of Forward Abutment for 15’.

Scour Critical

Inspector: Steven Hammerschmidt **Structure Number:** 0704210

Inspection Date: 08/12/2021 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description Rear Abutment joint (looking north).



PHOTO 1

Description South elevation (looking north).

Inspector: Steven Hammerschmidt **Structure Number:** 0704210

Inspection Date: 08/12/2021 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description Forward Approach (looking west).



PHOTO 1

Description Forward Abutment elevation (looking east).

Inspector: Steven Hammerschmidt **Structure Number:** 0704210

Inspection Date: 08/12/2021 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description Span 1 underside (looking east).



PHOTO 1

Description Downstream channel view looking upstream at the bridge along Pier 2 (looking south)

Pictures



PHOTO 2

Description Span 2 underside (looking west).



PHOTO 2

Description Transverse cracking in wearing surface of eastbound lane, Span 2 (looking north).

Pictures



PHOTO 2

Description Rear Abutment elevation (looking west).



PHOTO 2

Description Upstream channel view looking downstream at the bridge (looking north).

Pictures



PHOTO 2

Description Rear Approach (looking east).



PHOTO 3

Description Pier 1 forward elevation (looking west).

Inspector: Steven Hammerschmidt **Structure Number:** 0704210

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Bridge Inspection Report

Pictures

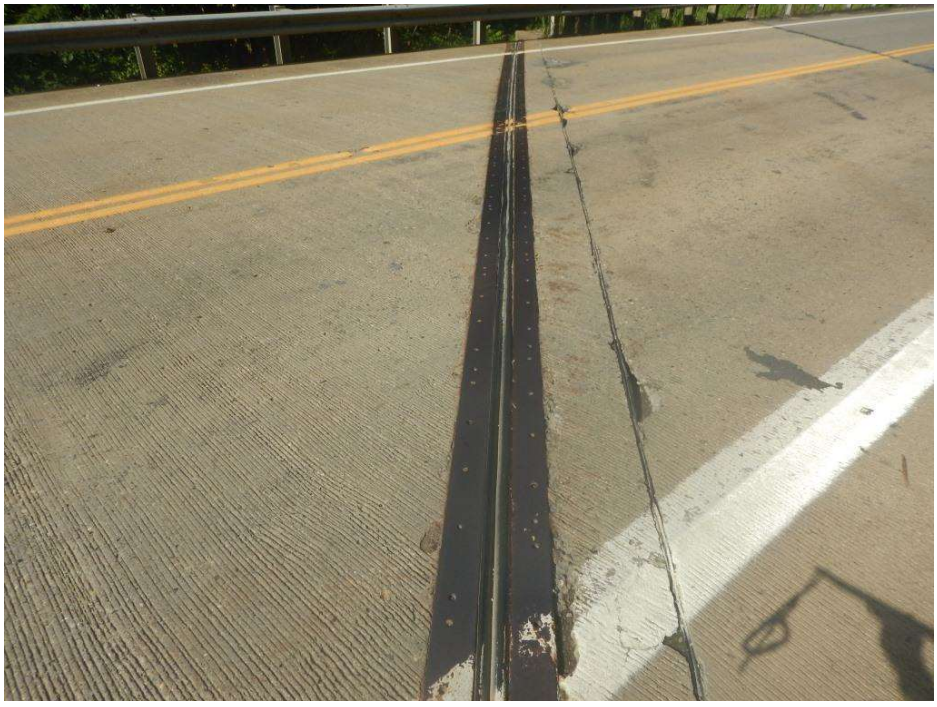

PHOTO 3

Description Forward Abutment joint (looking north).



PHOTO 3

Description Channel along rear face of Pier 2 (looking north).

Pictures



PHOTO 3

Description Beam 2 bearing overhanging the masonry plate at Forward Abutment (looking southeast).



PHOTO 4

Description Bean 2 bearing rotated to limit at the Forward Abutment (looking west).

Pictures



PHOTO 4

Description Debris in channel at the right face of Pier 1 (looking northwest).



PHOTO 4

Description Pier 2 rear elevation (looking east).

Pictures



PHOTO 5

Description Exposed footing at Forward Abutment at the right end (looking east).



PHOTO 5

Description Beam 1 bearing at Rear Abutment (looking west).

Pictures



PHOTO 5

Description Debris in channel at the right face of Pier 1 (looking east).



PHOTO 6

Description Laminate corrosion to the end crossframe in between Beams 2 and 3 at Rear Abutment (looking west).

Pictures



PHOTO 7

Description Laminate corrosion to the right face of Beam 3 at Rear Abutment (looking northwest).