

Inspector: Banaszak, Ken
 Inspection Date: 03/09/2023

Structure Number: 2801558
 Facility Carried: CHAGRIN RIVER ROAD

Ohio Bridge Inspection Summary Report

GEA-00422-0026 (2801558)

2: District 03590 - BAINBRIDGE TWP (GEA county)
 District 12

5A: Inventory Route 1 00188

21: Major Maint A/B 01 - State Highway Agency /
 225 Routine Main A/B 02 - County Highway Agency /
 221 Inspection A/B 01 - State Highway Agency /
 220: Inv. Location DISTRICT 12

7: Facility On CHAGRIN RIVER ROAD
 6: Feature Ints USR 422 ALT (0026)
 9: Location .26 MI E GEAUGA CNTY LINE
 Lat, Lon 41.388078, -81.38685

Condition		Structure Type	
58: Deck	7 - Good Condition	43: Bridge Type	4 - Steel continuous
58.01 Wearing Surface	7 - Good (1% distress)		02 - Stringer/Multi-beam or Girder
58.02 Joint	6- Satisfactory (isolated leaking)		N- Not Applicable
59: Superstructure	6 - Satisfactory Condition	45: Spans Main / Approach	4 / 0
59.01 Paint & PCS	4 - Poor PCS (15-20% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
60: Substructure	7 - Good Condition	408: Composite Deck	Y - Composite Construction
61: Channel	N	414A Joint Type 1	3 - Compression Seal
61.01 Scour	N - Not Applicable	414B: Joint Type 2	N - None
62: Culverts	N - Not Applicable	108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck)
			N- Not Applicable
67.01 GA	6	422: WS Date	07/01/1989

Appraisal	
Sufficiency Rating	85.5 SD/FO 2 - FO
36: Rail, Tr, Gd, Term Std	1 1 1 1
72: Approach Alignment	8 - Equal to present desirable criteria
113: Scour Critical	N - Not over waterway
71: Waterway Adequacy	N - Not Applicable

423: WS Thick (in)	2.0
482: Protective Coating	3 - Paint System A
483: PCS Date	01/01/1989
453: Bearing Type 1	4 - Elastomeric (Plain)
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)
533: Foundn: Abut Rear	2 - Cast-in-Place reinforced Concrete Piles (Other diameter)
536: Foundn: Pier 1	2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)
539: Foundn: Pier 2	0 - Other

Geometric	
48: Max Span Length (ft)	69.0
49: Structure Length (ft)	244.0
52: Deck Width, Out-To-Out (ft)	34.0
424: Deck Area (sf)	8296
32: Appr Roadway Width (ft)	32.0
51: Road Width, Curb-Curb (ft)	31.8
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	6
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	14.83
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	1989 / 0000
42A: Service On	1 - Highway
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	02
28B: Lanes Under	04
19: Bypass Length	3
29: ADT	33720
109: % Trucks (%)	12

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	07/01/1989
63: Analysis Method	6 - Load Factor (LF) rating reported by

Inspections		
	Months	
90: Routine Insp.	12	03/21/2023
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	0
92D: UBIT Insp.	N	0
92E: Drone Insp.	N	0
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	rating factor (RF) method using MS18 loading.		

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	8296	sq. ft.	7763	500	33	0
CS2 - Four sf patched area in bay 1 near collision damage. Some cracks, minor mottled areas at abutments. CS3 - Haunch spalls along left fascia top flange above pier 1.							
805-Wearing Surface - Monolithic Concrete		7747	sq. ft.	6872	875	0	0
CS2 - A few cracks. Small spalls at ExJt armor.							
107-Steel Open Girder/Beam	3 - Mod.	976	ft.	551	350	75	0
CS2 - Areas of surface rust mainly to lower flanges. Left fascia over EB has been heat straightened over #2 and bolted splice plate added. Drilled out crack to left fascia over #2 EB. CS3 - Rusting section loss at ends.							
515-Steel Protective Coating		7954	sq. ft.	0	7054	700	200
CS2 - Chalking and faded paint throughout. CS3 - Peeling top coat of some areas of paint throughout. Blistering paint. CS4 - Heat straightening damaged paint exposing bare metal. Areas of paint failure to flanges and beam ends.							
205-Reinforced Concrete Column	3 - Mod.	6	each	2	4	0	0
CS2- P1C2 5 SF delam P1C1 2 SF delam, 1sf spall P3C1- scaling/ shallow spalling P3C2- 4 SF delam, 1 SF spall							
521-Concrete Protective Coating		670	sq. ft.	660	0	0	10
CS4- not effective							
215-Reinforced Concrete Abutment	3 - Mod.	69	ft.	55	4	10	0
Rust stained from leaking joint. CS2 - A few vertical cracks, some leaching. CS3 - Spalls at rear B1 and B3. Undermining of slope protection exposes abutment footing at the rear right.							
521-Concrete Protective Coating		210	sq. ft.	205	0	0	5
CS4- not effective							
234-Reinforced Concrete Pier Cap	3 - Mod.	103	ft.	85	15	3	0
CS2- A few vertical cracks and transverse at bottoms. Diagonal cracks at cantilevers. CS3- Spall with exposed rebar & delams to left (west) end of P1 cap. Delam at P1 under beam 4.							
521-Concrete Protective Coating		927	sq. ft.	922	0	0	5
CS4- not effective							
300-Strip Seal Expansion Joint	3 - Mod.	65	ft.	0	59	6	0
CS2- Cracks and spalls to EXJT headers. Loose debris in joint. Minor rusting section loss. CS3- Both joints allow for moderate leaking. Minor gouges to armor at both ends.							

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311-Movable Bearing	3 - Mod.	16	each	0	8	8	0
CS2 - Pier bearings have start of rust to steel. CS3- Restraint angle of left bearing at rear abutment is bent up. Restraint angle of left bearing at P1 is missing due to old collision damage. Rusting section loss to abutment bearings.							
313-Fixed Bearing	3 - Mod.	4	each	0	4	0	0
CS2 - Start of rust to steel.							
321-Reinforced Concrete Approach Slab	3 - Mod.	1625	sq. ft.	1520	100	5	0
CS2 - A few longitudinal cracks, some sealed. CS3 - Shallow spall at forward. A few small pop outs.							
331-Reinforced Concrete Bridge Railing	3 - Mod.	488	ft.	458	30	0	0
CS2 - A few vertical cracks. Shallow spall to top edge & diagonal cracks to railing above left fascia collision damage.							
521-Concrete Protective Coating		3416	sq. ft.	3414	0	0	2
CS4- not effective							
815-Drainage	3 - Mod.	2	each	0	1	1	0
CS2- Debris in west berm.							
830-Abutment Backwall	3 - Mod.	69	ft.	40	21	8	0
CS2 - A few cracks and shallow spalls to underside near ExJts. CS3- Spalls with exposed rebar at forward in bay 3.							
521-Concrete Protective Coating		207	sq. ft.	199	0	0	8
CS4- not effective							

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ODOT District: District 12

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Date Built: 07/01/1989

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 02 - County Highway Agency

Feature Inters: USR 422 ALT (0026)

Traffic Under: 1 - Highway, with or w/out pedestrian

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 03590 - BAINBRIDGE TWP (GEA county)

Location: DISTRICT 12

.26 MI E GEAUGA CNTY LINE

Insp Resp B:

Inspector

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Inspection Date 03/09/2023

Reviewer Seif, Youssef

Inspector Comments - Deck and Approach

Deck

Floor

Approach

Approach Wearing Surface

Cracks, most are sealed. Large asphalt patches.

Approach Embankment

Erosion that runs into & under both upper corners of rear slope protection.

Approach Guardrail

Post rot. Missing spacer at forward left. Collision scrapes. Both rear concrete approach rails tip out as much as 1/2"

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Superstructure Alignment

Left fascia is warped from heat straightening. Lower flange of left fascia is bowed up from collision damage.

Beams

Note: Bolted plate repairs added to lower flanges of left fascia & beam 2 over EB traffic.

Diaphragm/X-Frames

Rusting section loss throughout (heavy to endframes).

Fatigue

Welded moment plates at piers.

Substructure

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Slope Protection

Rear-right abutment footing is exposed due to undermining of slope. Undermining extends under grout filled bags as far as 8'. Rear-left has some undermining. Note: Abutment footing founded on piles.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical