

Inspector: Gerstenslager,Michael

Inspection Date: 06/15/2023

Structure Number: 1814915

Facility Carried: USR 422

Ohio Bridge Inspection Summary Report

CUY-00422-1627R (1814915)

2: District 72928 - SOLON (CUY county)
ict
12

5A: Inventory Route 1 00422

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 12

7: Facility On USR 422
6: Feature Ints CR-18 (HARPER RD)
9: Location 3.1 MI E I-271
Lat, Lon 41.405939 ,-81.466836

Condition	Structure Type
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58: Deck **6 - Satisfactory Condition**
58.01 Wearing Surface 7 - Good (1% distress)
58.02 Joint 5- Fair (obvious leaking, 1" offset)
59: Superstructure **6 - Satisfactory Condition**
59.01 Paint & PCS 7 - Good (1-5% corr.)
60: Substructure **7 - Good Condition**
61: Channel **N**
61.01 Scour **N - Not Applicable**
62: Culverts **N - Not Applicable**

43: Bridge Type 4 - Steel continuous
02 - Stringer/Multi-beam or Girder
N- Not Applicable
45: Spans Main / Approach 4 / 0
107: Deck Type 1 - Concrete Cast-in-Place
408: Composite Deck N - Non-composite Construction
414A Joint Type 1 2 - Sliding Metal Plate Angle
414B: Joint Type 2 N - None
108A: Wearing Surface 2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
2- MicroSilica

67.01 GA **6**

Appraisal

Sufficiency Rating 98.0 SD/FO 0 - ND
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

422: WS Date 07/01/1975
423: WS Thick (in) 1.8
482: Protective Coating 5 - Paint System OZEU
483: PCS Date 11/07/2009
453: Bearing Type 1 2 - Rockers & Bolsters
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) 68.0
49: Structure Length (ft) 236.0
52: Deck Width, Out-To-Out (ft) 54.0
424: Deck Area (sf) 12744
32: Appr Roadway Width (ft) 52.0
51: Road Width, Curb-Curb (ft) 50.5
50A: Curb/SW Width: Left (ft) 0
50A: Curb/SW Width: Right (ft) 0
34: Skew (deg) 40
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 1975 / 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 0
29: ADT 24975
109: % Trucks (%) 6

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 07/01/1976
63: Analysis Method 7 - Allowable Stress (AS) rating reported

Inspections

90: Routine Insp. 12 Months 06/15/2023
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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	by 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.	12744	sq. ft.	11250	911	583	0
	CS2- Cracks. A few leached cracks. CS3- Spalls and delams. Long sealed spall along right fascia in span 3 (old collision damage).						
510-Wearing Surfaces		11918	sq. ft.	8918	2500	500	0
	CS2- Cracks. Scaling. CS3- Transverse cracks as wide as 1/16".						
107-Steel Open Girder/Beam	3 - Mod.	1652	ft.	1473	50	129	0
	Note: Repair to right fascia with additional splice plate in span 3. CS2- Some surface rust. Scrapes to all lower flanges over N/B lane #2. CS3- Areas of arrested section loss near beam ends, some heavy. Worst is rear beam 5.						
515-Steel Protective Coating		18202	sq. ft.	18021	181	0	0
	CS 2 - Some chalking of outside surfaces of fascia beams, isolated spots of rust.						
205-Reinforced Concrete Column	3 - Mod.	15	each	11	3	1	0
	CS2 -P2C2- 7 SF delam P2C3- 7 SF delam P2C4- 3 SF sealed spall < 1" deep CS3 - P2C1- 5 SF delam and spall exceeding 1 inch.						
521-Concrete Protective Coating		1978	sq. ft.	1953	0	0	25
	CS 4 - Coating not effective.						
215-Reinforced Concrete Abutment	3 - Mod.	141	ft.	115	22	4	0
	CS2- Cracks. Some honey combing. CS3- A few delams. Missing cheek wall at rear right.						
521-Concrete Protective Coating		564	sq. ft.	508	0	0	56
	CS 4 - Coating not effective.						
234-Reinforced Concrete Pier Cap	3 - Mod.	212	ft.	211	0	1	0
	CS3- Delam to P3 corner between C2-C3						
521-Concrete Protective Coating		2832	sq. ft.	2828	0	0	4
	CS 4 - Coating not effective.						
305-Assembly Joint without Seal	3 - Mod.	108	ft.	15	25	68	0
	CS2- A few gouges to armor. Dirt and debris in joint. CS3- Small spall in rear ExJt header (lane #2). Section loss to armor. Wide cracks to header. Evidence of moderate leaking down both backwalls.						
311-Movable Bearing	3 - Mod.	28	each	10	14	4	0
	CS2- Areas of surface rust. CS3- Rusted section loss.						
313-Fixed Bearing	3 - Mod.	7	each	7	0	0	0

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
321-Reinforced Concrete Approach Slab	3 - Mod.	2600	sq. ft.	1385	1000	85	130
CS2- Cracks. CS3- Wide cracks in both slabs. CS4- Asphalt patches and broken up concrete in lane 2 at both ends (forward slab is worse).							
331-Reinforced Concrete Bridge Railing	3 - Mod.	472	ft.	449	23	0	0
CS2- A few cracks. Minor collision scrapes. Shallow pop-outs.							
521-Concrete Protective Coating		2992	sq. ft.	2946	0	0	46
CS 4 - Coating not effective.							
830-Abutment Backwall	3 - Mod.	141	ft.	105	36	0	0
CS2- Cracks. Concrete patches to top of both backwalls in bays 1-3. Construction joints sealed with Great Stuff.							

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ODOT District: District 12

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Date Built: 07/01/1975

Major Maint: 01 - State Highway Agency

Facility Carried: USR 422

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: CR-18 (HARPER RD)

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 72928 - SOLON (CUY county)

Location: DISTRICT 12

3.1 MI E I-271

Insp Resp B:

Inspector

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Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Approach

Approach Guardrail

Minor collision damage to FWD right and rear left.

Approach Wearing Surface

Cracks. Asphalt patches. Asphalt break up along both slabs.

Approach Embankment

Erosion at rear-left (covered with vegetation).

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Heavy section loss with rusted thru holes to some end frames. Horizontal angle of rear end frames 3, 4 & 5 are missing.

Fatigue

Welded moment plates at piers.

Substructure

Slope Protection

Cracks. Uneven settlement. gap at forward abutment as wide as 11". Large tufa deposit below weep hole at rear-left.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

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Channel

Scour Critical

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Pictures