

Inspector: Miller,Jason
 Inspection Date: 03/28/2023

Structure Number: 1814745
 Facility Carried: USR 422

Ohio Bridge Inspection Summary Report

CUY-00422-1390R (1814745)

2: District 80990 - WARRENSVILLE HTS (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 SR 175 (RICHMOND RD)
 9: Location OVER SR 175
 Lat, Lon 41.429403 ,-81.497881

Condition	Structure Type
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58: Deck **6 - Satisfactory Condition**
 58.01 Wearing Surface 7 - Good (1% distress)
 58.02 Joint N- Not Applicable
59: Superstructure **7 - Good Condition**
 59.01 Paint & PCS 4 - Poor PCS (15-20% corr.)
60: Substructure **5 - Fair 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 3 / 0
 107: Deck Type 1 - Concrete Cast-in-Place
 408: Composite Deck U - Unknown
 414A Joint Type 1 N - None
 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 **5**

Appraisal	
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Sufficiency Rating 68.0 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

422: WS Date 07/01/2002
 423: WS Thick (in) 1.2
 482: Protective Coating 0 - Other Paint
 483: PCS Date 01/01/1992
 453: Bearing Type 1 0 - Other
 455: Bearing Type 2 N - None
 528: Foundn: Abut Fwd U - Unknown
 533: Foundn: Abut Rear U - Unknown
 536: Foundn: Pier 1 U - Unknown
 539: Foundn: Pier 2 U - Unknown

Geometric	
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48: Max Span Length (ft) 71.0
 49: Structure Length (ft) 145.0
 52: Deck Width, Out-To-Out (ft) 30.4
 424: Deck Area (sf) 4408
 32: Appr Roadway Width (ft) 16.0
 51: Road Width, Curb-Curb (ft) 26.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 18
 33: Bridge Median 0 - No median
 54B: Min Vert Underclearance (ft) 16.08
 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	
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27: Year Built/ 106 Rehab 1971 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 02
 28B: Lanes Under 02
 19: Bypass Length 0
 29: ADT 8038
 109: % Trucks (%) 3

Load Posting	
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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 07/01/1973
 63: Analysis Method 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections	Months	
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90: Routine Insp. 12 03/28/2023
 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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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	4413	sq. ft.	3798	600	15	0
	CS2 - Cracks, some leaching. Delams. CS3 - Haunch spalls. Spalls with exposed rebar.						
510-Wearing Surfaces		3770	sq. ft.	3454	300	0	16
	CS2 - Cracks. CS4 - Asphalt patches along forward and rear approaches.						
107-Steel Open Girder/Beam	3 - Mod.	580	ft.	278	290	12	0
	CS2 - Surface rust, mainly along lower flanges. Small gouges/scrapes to right fascia over SB lane #1. CS3 - Rusting section loss at both embedded beam ends 2, 3 & 4.						
515-Steel Protective Coating		5044	sq. ft.	655	4244	130	15
	CS2 - Faded & peeling areas. CS3 - Surface rust, mainly along lower flanges. CS4 - Spots of bare rusted metal.						
205-Reinforced Concrete Column	3 - Mod.	6	each	0	2	1	3
	CS2 - P1C1- ~4 SF delam. P2C1- ~3 SF delam, 4 SF spall. CS3 - P1C2- ~42 SF delam. CS4 - P1C3- ~8 SF delam, 16 SF spalls with 4+ bars of rebar exposed. P2C2- ~10 SF delam, 23 SF spalls with 4+ bars of rebar exposed. P2C3- ~4 SF delam, 11 SF spalls with 4+ bars of rebar exposed.						
521-Concrete Protective Coating		904	sq. ft.	0	0	0	904
	CS4- Not effective.						
215-Reinforced Concrete Abutment	3 - Mod.	64	ft.	46	6	12	0
	CS2 - Leaching cracks. rust stains, evidence of water leaking through construction joints with areas of efflorescence. CS3 - Spall with 360° rebar exposure and horizontal crack with efflorescent buildup at forward-right.						
521-Concrete Protective Coating		128	sq. ft.	118	0	0	10
	CS4- Not effective.						
234-Reinforced Concrete Pier Cap	3 - Mod.	64	ft.	22	35	7	0
	CS2 - Cracks, delams to both sides of P1 cap. CS3 - Spall with exposed rebar at P2 cap above C1.						
521-Concrete Protective Coating		576	sq. ft.	0	0	0	576
	CS4- Not effective.						
310-Elastomeric Bearing	3 - Mod.	8	each	0	8	0	0
	CS2 - Rusting to sole plates.						
312-Enclosed/Concealed Bearing	3 - Mod.	8	each	0	8	0	0
	CS2 - Evidence of rusting bearings behind diaphragms.						

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321-Reinforced Concrete Approach Slab	3 - Mod.	800	sq. ft.	570	120	0	110
CS2 - Cracks. Diagonal crack to forward slab. CS4 - Asphalt repairs to both slabs. Heaving pavement and concrete break up in forward-right berm. Large spalls at rear.							
331-Reinforced Concrete Bridge Railing	3 - Mod.	290	ft.	116	145	29	0
CS2 - Vertical and map cracking. CS3 - Small spall to inside left rail. Spalls along outside edge of left rail, some with exposed rebar. Spalls to outside of right rail. Map cracking and spalls at rear-right rail. Rear-right and forward-left railing transitions have spalled inside corners and are tipped out 1.5".							
521-Concrete Protective Coating		2030	sq. ft.	0	0	0	2030
CS4- Not effective.							
815-Drainage	3 - Mod.	3	each	3	0	0	0
Heavy dirt along both railings.							
840-Approach Slab: Termination or Joint	3 - Mod.	52	ft.	26	26	0	0
CS2 - Cracks at rear, mostly sealed.							

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Facility Carried: USR 422

ODOT District: District 12

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Date Built: 07/01/1971

Major Maint: 01 - State Highway Agency

Facility Carried: USR 422

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: SR 175 (RICHMOND RD)

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 80990 - WARRENSVILLE HTS (CUY county)

Location: DISTRICT 12

OVER SR 175

Insp Resp B:

Inspector

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Inspection Date 03/28/2023

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Approach

Approach Wearing Surface

Cracks, mostly sealed at rear. A few cracks at forward.

Approach Embankment

5' wide by 2' deep erosion to forward-left embankment (water running down from median of route 422).

Approach Guardrail

Minor collision damage to approach guardrail on both sides. Forward-left & rear-right concrete rails tip out 1.5". Wide cracks to rear right approach railing. Spall to inside of forward left approach railing.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Surface rust.

Fatigue

Welded cover plates at piers.

Utilities

Damaged conduit on P2C1. Rusting to under bridge conduit. Some broken underdeck light covers.

Substructure

Slope Protection

Cracks, minor uneven settlement. 2' deep erosion channel at forward-left slope. Undermining of CSP at bottom left corner.

Culvert

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Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical