

Inspector: Persanyi,Andrea
 Inspection Date: 10/31/2022

Structure Number: 1806904
 Facility Carried: IR 77

Bridge Inspection Report

Ohio Bridge Inspection Summary Report

CUY-00077-1575 (1806904)

2: District 16000 - CLEVELAND (CUY county)
 District 12

5A: Inventory Route 1 00077

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 IR 77
 6: Feature Ints E 14TH ST
 9: Location 1.66 MI. N. OF JCT. SR-14
 Lat, Lon 41.493081 ,-81.677722

Condition	Structure Type
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58: Deck **4 - Poor Condition**
 58.01 Wearing Surface 7 - Good (1% distress)
 58.02 Joint 4- Poor (heavy leaking, offset)
59: Superstructure **7 - Good Condition**
 59.01 Paint & PCS 4 - Poor PCS (15-20% corr.)
60: Substructure **6 - Satisfactory Condition**
61: Channel **N**
61.01 Scour **N - Not Applicable**
62: Culverts **N - Not Applicable**
67.01 GA **6**

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 4 - Low Slump Concrete
 N- Not Applicable

Appraisal	422: WS Date
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Sufficiency Rating 76.2 SD/FO 1 - SD
 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 10/31/2004
 423: WS Thick (in) 1.2
 482: Protective Coating 5 - Paint System OZEU
 483: PCS Date 01/01/1986
 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	Age and Service
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48: Max Span Length (ft) 99.0
 49: Structure Length (ft) 177.0
 52: Deck Width, Out-To-Out (ft) 87.0
 424: Deck Area (sf) 15399
 32: Appr Roadway Width (ft) 87.0
 51: Road Width, Curb-Curb (ft) 84.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 0
 33: Bridge Median 1 - Open median
 54B: Min Vert Underclearance (ft) 15
 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	Inspections
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27: Year Built/ 106 Rehab 1962 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 06
 28B: Lanes Under 07
 19: Bypass Length 2
 29: ADT 59893
 109: % Trucks (%) 19

Load Posting	Inspections
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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 (%) 135
 704: Analysis Date 10/31/2021

Inspections	Inspections
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90: Routine Insp. *Months*
 12 10/31/2022
 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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63: Analysis Method 6 - Load Factor (LF) rating reported 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.	15399	sq. ft.	11635	2204	1100	460
<p>CS2- Transverse cracks.</p> <p>CS3- Large mottled areas. Spalls with exposed rebar. Delams. Some areas of deck move independently from beams with live load.</p> <p>CS4- Spalls with 4+ consecutive bars of rebar exposed.</p>							
805-Wearing Surface - Monolithic Concrete		14868	sq. ft.	14098	770	0	0
<p>CS2 - A few cracks. Shallow spall in SB lane 2 at forward exjt.</p>							
107-Steel Open Girder/Beam	3 - Mod.	2284	ft.	1712	457	115	0
<p>CS2- Areas of surface rust. Minor scrapes to lower flanges of beams 11-13 over SB lane 2.</p> <p>CS3- Rusting section loss, heavier at beam ends.</p>							
515-Steel Protective Coating		17766	sq. ft.	0	16816	800	150
<p>CS2- Faded paint.</p> <p>CS3- Areas of surface rust.</p> <p>CS4- Peeling & Paint failing at beam ends.</p>							
205-Reinforced Concrete Column	3 - Mod.	18	each	16	2	0	0
<p>CS2 - delams: P2C3 - 4 SF, P2C6 - 2 SF.</p>							
215-Reinforced Concrete Abutment	3 - Mod.	188	ft.	76	94	18	0
<p>CS2- Leaching cracks. Rust stains.</p> <p>CS3- Delams. Spall at rear-left that runs to masonry plate. Spall with exposed rebar that runs into seat in rear bay 10.</p>							
234-Reinforced Concrete Pier Cap	3 - Mod.	282	ft.	268	0	14	0
<p>CS3 - Spalls & delams.</p>							
305-Assembly Joint without Seal	3 - Mod.	188	ft.	0	113	0	75
<p>CS2- Dirt, debris & asphalt in joint openings.</p> <p>CS3- Rusting section loss. Collision damage to rear riser bar in NB lane 2.</p> <p>CS4- Sections of riser bar missing along nearly entire forward joint in NB lanes, and in SB lanes 1 & 3 at forward and SB lane 2 at rear. Rusting thru hole in rear-right curb plate. Forward NB joint closed at 40° F.</p>							
311-Movable Bearing	3 - Mod.	65	each	0	39	26	0
<p>CS2- Surface rust,</p> <p>CS3- Heavier with some pack rust to abutment rockers. Some shim plates at forward abutment sliding out.</p>							
321-Reinforced Concrete Approach Slab	3 - Mod.	2175	sq. ft.	2093	82	0	0
<p>CS2 - Asphalt pavement is breaking up at expansion joint in SB lanes.</p>							

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
331-Reinforced Concrete Bridge Railing	3 - Mod.	354	ft.	153	72	129	0
	CS2- Cracks.						
	CS3- Delams & spalls.						
815-Drainage	3 - Mod.	6	each	0	0	0	6
	CS4- Plugged scuppers. Heavy debris in berms.						
830-Abutment Backwall	3 - Mod.	188	ft.	0	141	35	12
	CS2- Leaching cracks.						
	CS3- Delams. Many other spalls, some with rebar & cheese plate exposure.						
	CS4- 8 sf spall as deep as 6" with 360° rebar exposure in forward backwall behind right fascia. Spall with 4+ bars of exposed rebar in forward bay 8.						

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ODOT District: District 12

CUY-00077-1575_(1806904)

Date Built: 07/01/1962

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: E 14TH ST

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

Insp. 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

1.66 MI. N. OF JCT. SR-14

Resp A:

Insp

Resp B:

Inspector

Persanyi,Andrea

Inspection Date 10/31/2022

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor

Spall forming over lane line between #1 & 2 lanes in bay 4. Northbound- {Lane #1 Bay 5} {Lane #2 Bays 2,3,11}
Southbound- {Lane #1 Bays 8,10} {Lane #2 Bays 4,9}

Curbs/Sidewalk (LF)

Cracks. Delams. Many areas of spalls with exposed rebar / concrete deterioration.

Approach

Approach Wearing Surface (EA)

A few cracks. Minor asphalt break up along exjts.

Approach Embankment (EA)

Washout in forward-right embankment which extends to guardrail posts (covered with vegetation).

Approach Guardrail (EA)

Collision damage to rear-right guardrail. Large spall with exposed rebar in rear-right concrete approach rail. Erosion around posts at forward-right (see embankment comments).

Signs (EA)

SB median bridge end marker missing.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Areas of surface rust. Endframe rusting section loss.

Utilities (LF)

Electrical box disconnected / hanging from beam 4 at rear abutment.

Substructure

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Wingwalls (EA)

Spalls to rear-left.

Slope Protection (EA)

Forward concrete drainage trough breaking up below scuppers.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical