

Ohio Bridge Inspection Summary Report

CUY-00480-1787WN (1806351)

2: District 12 37240 - INDEPENDENCE (CUY county)
 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

5A: Inventory Route 1 00480
 7: Facility On RAMP WN
 6: Feature Ints UP IR 77, DN IR-480-L/R
 9: Location 2.01 MI. E. OF JCT. SR-17

Condition

58: Deck **5 - Fair Condition**
 58.01 Wearing Surface 6 - Satisfactory (1-10% distress)
 58.02 Joint 6- Satisfactory (isolated leaking)
59: Superstructure **6 - Satisfactory Condition**
 59.01 Paint & PCS 3 - Serious PCS (20-30% corr.)
60: Substructure **5 - Fair Condition**
61: Channel **N**
61.01 Scour **N - Not Applicable**
62: Culverts **N - Not Applicable**

Structure Type

43: Bridge Type 4 - Steel continuous
 02 - Stringer/Multi-beam or Girder
 N- Not Applicable
 45: Spans Main / Approach 5 / 0
 107: Deck Type 1 - Concrete Cast-in-Place
 408: Composite Deck N - Non-composite Construction
 414A Joint Type 1 8 - Elastomeric Strip Seal
 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

Sufficiency Rating 73.1 SD/FO 2 - FO
 36: Rail, Tr, Gd, Term Std 1 1 1 1
 72: Approach Alignment 6 - Equal to present minimum criteria
 113: Scour Critical N - Not over waterway
 71: Waterway Adequacy N - Not Applicable

422: WS Date 06/01/1996
 423: WS Thick (in) 2.0
 482: Protective Coating 4 - Paint System B
 483: PCS Date 01/01/1974
 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 2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)

Geometric

48: Max Span Length (ft) 129.0
 49: Structure Length (ft) 473.0
 52: Deck Width, Out-To-Out (ft) 30.3
 424: Deck Area (sf) 14331.9
 32: Appr Roadway Width (ft) 36.0
 51: Road Width, Curb-Curb (ft) 26.3
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 46
 33: Bridge Median 0 - No median
 54B: Min Vert Underclearance (ft) 16.75
 336A: Min Vert Clrnce IR Cardinal (ft) 14.75
 336B: Min V Clr IR Non-Cardinal (ft) 0
 578: Culvert Length (ft) 0

Age and Service

27: Year Built/ 106 Rehab 1974 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 01
 28B: Lanes Under 10
 19: Bypass Length 2
 29: ADT 4800
 109: % Trucks (%) 10

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 07/01/1973
 63: Analysis Method 6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

Inspections

90: Routine Insp. *Months* 12 05/12/2021
 92A: FCM Insp. N
 92B: Dive Insp. N
 92C: Special Insp. N
 92D: UBIT Insp. N
 92E: Drone Insp.
 Inspector Gerstenslager,Michael

Inspector: Michael Gerstenslager

Structure Number: 1806351

Inspection Date: 05/12/2021

Facility Carried: RAMP WN

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.	14348	sq. ft.	6884	4494	2970	0
	<p>Mottled areas with efflorescence stalactites, and rust stains (CS 3). Approximately 50 sf of spalls with exposed rusted rebar and 50 sf of delaminations (CS 3).</p> <p>Transverse leaching cracks (CS 2).</p>						
510 - Wearing Surfaces		12456	sq. ft.	8010	3736	650	60
	<p>60 sf of rough asphalt patch with broken up concrete at forward (CS 4).</p> <p>10 sf of broken up concrete over 480 Westbound lanes (CS 3). Saturated areas along construction joint with cracks as wide as 1/4" (CS 3).</p> <p>Many transverse cracks and areas of map cracking (CS 2).</p>						
107 - Steel Open Girder/Beam	3 - Mod.	1892	ft.	0	1419	473	0
	<p>Rusting section loss throughout (CS 3). Pack rust to some lower flange splice plates (CS 3).</p> <p>Surface rust throughout (CS 2). Slight warp in web of left fascia at forward backwall (CS 2).</p>						
515 - Steel Protective Coating		26960	sq. ft.	0	12132	8088	6740
	<p>Paint failure throughout (CS 4).</p> <p>Peeling and cracking to finish and primer coats throughout (CS 3).</p> <p>Fading and chalking (CS 2).</p>						
205 - Reinforced Concrete Column	3 - Mod.	9	each	3	6	0	0
	<p>Delaminations as large as 10 sf to P1C2 and C3, P2C1 and C2, and P3C1 and C2 (CS 2).</p>						
215 - Reinforced Concrete Abutment	3 - Mod.	88	ft.	41	17	30	0
	<p>Large delaminations and spalls with exposed rebar that go into seat in rear bays 1 and 2. (CS 3). Corner of rear masonry plate 1 is slightly undermined. Spalls with exposed rebar at forward rocker 3 and forward-left corner (CS 3).</p> <p>Cracks (CS 2).</p>						
234 - Reinforced Concrete Pier Cap	3 - Mod.	131	ft.	58	66	7	0
	<p>Spalls with exposed rebar to left cantilever of P3 cap (CS 3).</p> <p>Many delaminations. (CS 2). Some cantilevered ends have signs of shear type cracks (CS 2). Other cracks (CS 2).</p>						

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Element Inspection

300 - Strip Seal Expansion Joint	3 - Mod.	88	ft.	35	50	3	0
Collision damage to rear riser bar and armor (CS 3). Evidence of leakage at rear bay 1 and forward in all bays (CS 2). A few gouges to armor (CS 2). Areas of damage to both seals (CS 2).							
311 - Movable Bearing	3 - Mod.	20	each	0	16	4	0
Rusted section loss to some abutment bearings (CS 3). Surface rust (CS 2). Corners of some masonry plates hang over the edge of pier caps in multiple locations (CS 2).							
313 - Fixed Bearing	3 - Mod.	4	each	0	4	0	0
Surface rust (CS 2).							
321 - Reinforced Concrete Approach Slab	3 - Mod.	1800	sq. ft.	1800	0	0	0
331 - Reinforced Concrete Bridge Railing	3 - Mod.	946	ft.	0	237	709	0
Many spalls with exposed rebar (CS 3). Areas of crumbling concrete (CS 3). Large delaminated areas (CS 3). Cracks, collision scrapes (CS 2).							
815 - Drainage	3 - Mod.	5	each	0	5	0	0
Partially plugged scuppers (CS 2).							
830 - Abutment Backwall	3 - Mod.	88	ft.	74	9	5	0
Shallow spalls, rust stains (CS 3). Cracks, some leaching (CS 2).							

ODOT District: 12

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Date Built: 07/01/1974

Major Maint: 01 - State Highway Agency

Facility Carried: RAMP WN

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: UP IR 77, DN IR-480-L/R

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

Insp: 01 - State Highway Agency

FIPS Code: 37240 - INDEPENDENCE (CUY county)

Location: DISTRICT 12

2.01 MI. E. OF JCT. SR-17

Resp A:

Insp

Resp B:

Inspector

Gerstenslager,Michael

Inspection Date 05/12/2021

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

Spalls forming over traffic: over 480 WB: bay 1 over lanes 2, 3 & right berm, bay 2 over lane 2 & right berm, bay 3 over lane 2, 3 & right berm. Over 480 EB: bay 1 over lane 1, bay 2 over lane 1 and 3 bay 3 over lanes 2 and 3. Over 77 north to 480 west ramp: bay 1 over lane 2.

Edge of Floor/Slab (LF)

Cracks.

Bridge Railing (LF)

Spalls forming on right parapet over all WB lanes.

Deck Drainage (EA)

5 partially plugged scuppers.

Approach

Approach Wearing Surface (EA)

NOTE: South abutment is rear. Cracks. Full width & near full width asphalt patches at both ends. Breaking up areas at both ends (rear is worse).

Approach Slab (SF)

Paved over with asphalt.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Rusting throughout. Broken diagonal weld to rear endframe #1.

Lateral Bracing (EA)

Rusting throughout.

Bearing Devices (EA)

Corners of some masonry plates hang over the edge of pier caps in multiple locations.

Fatigue (LF)

Lateral bracing gusset plates welded to beam webs in positive moment areas in span 3 (not retro-fitted).

Substructure

Abutment Walls (LF)

Spalls to forward-right & rear-right cheek walls.

Slope Protection (EA)

Top 24" of forward abutment footing is exposed below bay 1 for 10' of length.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical