

Ohio Bridge Inspection Summary Report

CUY-00480-1790ES (1806343)

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 ES
 6: Feature Ints UP IR 77, DN IR-480-L/R
 9: Location 2.04 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 72.5 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 01/01/1973
 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) 134.0
 49: Structure Length (ft) 504.0
 52: Deck Width, Out-To-Out (ft) 30.3
 424: Deck Area (sf) 15271.2
 32: Appr Roadway Width (ft) 28.0
 51: Road Width, Curb-Curb (ft) 28.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 48
 33: Bridge Median 0 - No median
 54B: Min Vert Underclearance (ft) 16.33
 336A: Min Vert Clrnce IR Cardinal (ft) 14.917
 336B: Min V Clr IR Non-Cardinal (ft) 0
 578: Culvert Length (ft) 0

Age and Service

27: Year Built/ 106 Rehab 1973 / 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 5
 29: ADT 13400
 109: % Trucks (%) 5

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 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections

90: Routine Insp. *Months* 12 05/11/2021
 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: 1806343

Inspection Date: 05/11/2021

Facility Carried: RAMP ES

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.	15288	sq. ft.	5500	4788	5000	0
	Mottled areas with efflorescence, rust stains, and stalactites (CS 3). Spalls with exposed rebar (CS 3). Delaminations (CS 3). Rust stains from rebar chairs throughout (CS 2). Transverse leaching cracks throughout (CS 2).						
510 - Wearing Surfaces		14112	sq. ft.	7212	4500	2400	0
	Areas of failing concrete and asphalt patches mainly along construction joint (CS 3). Broken up areas with wide cracks along construction joint (CS 3). Localized areas of map cracking that appear saturated. Cracks are as wide as 1/16" (CS 3). Note: failing patches and saturated cracking corresponds with mottled areas of floor mainly in bay 2. Sound concrete patches (CS 2). Many other cracks throughout (CS 2).						
107 - Steel Open Girder/Beam	3 - Mod.	2016	ft.	0	1516	500	0
	Rusting section loss throughout mainly to lower flanges and at beam ends (CS 3). Pack rust to some lower flange splice plates (CS 3). Gouge in lower flange of right fascia over Westbound lane 2 (CS 2).						
515 - Steel Protective Coating		29900	sq. ft.	0	13455	8970	7475
	Paint failure along lower flanges and at beam ends (CS 4). Rusting and peeling throughout (CS 3). Areas of pigment loss throughout (CS 3). Chalking and faded areas (CS 2).						
205 - Reinforced Concrete Column	3 - Mod.	9	each	5	1	3	0
	12 sf spall with exposed rebar to P3C2 (Cs 3). Spalls as large as 15 sf with exposed rebar to P2C1 and C2 (CS 3). 20 sf delamination to P4C2 (CS 2).						
215 - Reinforced Concrete Abutment	3 - Mod.	91	ft.	38	22	31	0
	Spalls with exposed rebar in rear bays 1 and 2 and forward bays 2 and 3. Spalled area at forward bay 3 extends to right wingwall and partially undermines masonry plate for bearing 4 >1". (CS 3). Cracks and minor delaminations (CS 2).						
234 - Reinforced Concrete Pier Cap	3 - Mod.	136	ft.	68	68	0	0
	Signs of shear type cracks to some cantilevered parts of pier caps (CS 2). Many small delaminations (CS 2).						
300 - Strip Seal Expansion Joint	3 - Mod.	60	ft.	37	20	3	0
	Gouges to forward armor with damage seal (CS 3). Evidence of leakage at rear and forward in bay 3 (CS 2).						

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311 - Movable Bearing	3 - Mod.	20	each	0	17	3	0
Rusted section loss to forward bearings (CS 3).							
Surface rust throughout (CS 2).							
313 - Fixed Bearing	3 - Mod.	4	each	0	4	0	0
Surface rust (CS 2).							
321 - Reinforced Concrete Approach Slab	3 - Mod.	1400	sq. ft.	1316	84	0	0
Full width asphalt patches to both (CS 2). Many sealed cracks to both (CS 2).							
331 - Reinforced Concrete Bridge Railing	3 - Mod.	1008	ft.	858	100	50	0
Rust stained cracks (CS 3).							
Minor cracks delaminations and spalls to both (CS 2).							
815 - Drainage	3 - Mod.	2	each	1	1	0	0
Thick debris in left berm (CS 2).							
830 - Abutment Backwall	3 - Mod.	91	ft.	76	10	5	0
Spall to forward at construction joint in bay 2 (CS 3). Rust stains to both (CS 3).							
Shallow spall at forward (CS 2). Cracks (CS 2).							

ODOT District: 12

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Date Built: 07/01/1973

Major Maint: 01 - State Highway Agency

Facility Carried: RAMP ES

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

2.04 MI. E. OF JCT. SR-17

Resp A:

Insp

Resp B:

Inspector

Gerstenslager,Michael

Inspection Date 05/11/2021

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

Spalls forming over traffic in bay 1 over 77 South to go 480 East lane 2, and bay 1 between lanes 2 and 3 Westbound.

Edge of Floor/Slab (LF)

Cracks. Spall at forward-right corner.

Bridge Railing (LF)

Collision scrapes & gouges. Spall forming on left parapet over 480 EB lane 3.

Expansion Joint (LF)

Loose debris in seals.

Approach

Approach Wearing Surface (EA)

NOTE: South abutment is rear. Many cracks. Asphalt break up. Full width asphalt patches along exjts. Other asphalt patches.

Approach Slab (SF)

Paved over with asphalt.

Approach Guardrail (EA)

Rust stained cracks to forward-right concrete approach. Collision damage to forward-right guardrail.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Rusting throughout. Rusting thru hole in forward endframe 3.

Lateral Bracing (EA)

Rusting throughout.

Fatigue (LF)

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

Substructure

Wingwalls (EA)

Cracks. Spall to forward-right wingwall.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical