

Inspector: Miller,Jason

Inspection Date: 07/22/2024

Structure Number: 1812491

Facility Carried: IR 480

Ohio Bridge Inspection Summary Report**CUY-00480-0800 (1812491)**2: District 16000 - CLEVELAND (CUY county)
ict
12

5A: Inventory Route 1 00480

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 127: Facility On IR 480
6: Feature Ints AIRPORT FREEWAY & RAMPS
9: Location .54 MI. W. OF JCT. I-71
Lat, Lon 41.420383 , -81.828431

Condition		Structure Type	
58: Deck	6 - Satisfactory Condition	43: Bridge Type	4 - Steel continuous
58.01 Wearing Surface	6 - Satisfactory (1-10% distress)		02 - Stringer/Multi-beam or Girder
58.02 Joint	4- Poor (heavy leaking, offset)		N- Not Applicable
59: Superstructure	7 - Good Condition	45: Spans Main / Approach	5 / 0
59.01 Paint & PCS	7 - Good (1-5% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
60: Substructure	7 - Good Condition	408: Composite Deck	N - Non-composite Construction
61: Channel	N	414A Joint Type 1	2 - Sliding Metal Plate Angle
61.01 Scour	N - Not Applicable	414B: Joint Type 2	8 - Elastomeric Strip Seal
62: Culverts	N - Not Applicable	108A: Wearing Surface	2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)

67.01 GA 7

Appraisal	
Sufficiency Rating	84.0 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	05/01/2000
423: WS Thick (in)	2.5
482: Protective Coating	5 - Paint System OZEU
483: PCS Date	01/09/1993
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	4 - Spread Footing (on soil)
539: Foundn: Pier 2	0 - Other

Geometric	
48: Max Span Length (ft)	109.0
49: Structure Length (ft)	506.0
52: Deck Width, Out-To-Out (ft)	98.0
424: Deck Area (sf)	49588
32: Appr Roadway Width (ft)	97.0
51: Road Width, Curb-Curb (ft)	97.0
50A: Curb/SW Width: Left (ft)	1
50A: Curb/SW Width: Right (ft)	1
34: Skew (deg)	17
33: Bridge Median	1 - Open median
54B: Min Vert Underclearance (ft)	14.4
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	04
28B: Lanes Under	08
19: Bypass Length	4
29: ADT	86134
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 (%)	135
704: Analysis Date	03/25/2024
63: Analysis Method	8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF)

Inspections	
	Months
90: Routine Insp.	12 07/22/2024
92A: FCM Insp. Y	24 07/13/2023
92B: Dive Insp. N	0
92C: Special Insp. N	0
92D: UBIT Insp. Y	24 07/13/2023
92E: Drone Insp. Y	36 06/03/2020
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method using HL-93 loadings.

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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.	49588	sq. ft.	23611	25212	750	15
	Wearing surface overlay in 2023. CS2 - Transverse cracks, some leaching. Delams. CS3 - Spalls, some with exposed rebar. Large, mottled areas mostly in bays 1-3. CS4 - Spalls with 4+ exposed rebar and section loss in span 4, bay 1.						
510-Wearing Surfaces		49082	sq. ft.	47357	1500	200	25
	CS2 - A few cracks to EB lanes. CS3 - A few wide transverse cracks in EB lanes. CS4 - Areas of broken-up concrete in eastbound lane 2. Asphalt patches in eastbound lane 2.						
107-Steel Open Girder/Beam	3 - Mod.	6060	ft.	5645	395	20	0
	CS2 - Areas of surface rust. Fretting at tops of some X-frame stiffeners. CS3 - Isolated areas of section loss to some beam ends. Possible out of plane bending cracks in web of beam 2 at tops of X-frame stiffeners 4 & 5 from rear, cracks marked at 2020 inspection.						
515-Steel Protective Coating		41200	sq. ft.	28750	12000	400	50
	CS2 - Surface dulling throughout. CS3 - Some areas of paint blistering & cracking. CS4 - A few areas of bare rusting metal.						
205-Reinforced Concrete Column	3 - Mod.	12	each	10	2	0	0
	The lower portions of P1C4 & P4C4 are fiber wrapped. Both P2 & P3 columns are fully fiber wrapped. CS2 - P1C1 has 5 SF of delam. P1C3 has 9 SF of delam.						
521-Concrete Protective Coating		4198	sq. ft.	4184	0	0	14
	CS4 - PCS is ineffective where defects are present.						
215-Reinforced Concrete Abutment	3 - Mod.	205	ft.	168	33	4	0
	CS2 - Mostly vertical cracks. Delams. CS3 - Wide cracks, some with rust-stains. A few spalls to forward. Spall with exposed rebar in forward median bay.						
521-Concrete Protective Coating		6168	sq. ft.	6063	0	0	105
	CS4 - PCS is ineffective where defects are present.						
231-Steel Pier Cap	3 - Mod.	202	ft.	155	45	2	0
	CS2 - Isolated areas of corrosion on outside of both caps. Some warping to backer bars inside both caps. CS3 - Areas of sealed section loss at doors.						
515-Steel Protective Coating		5024	sq. ft.	4960	0	0	64
	CS4 - PCS is ineffective where defects are present.						

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
234-Reinforced Concrete Pier Cap	3 - Mod.	203	ft.	105	95	3	0
	CS2 - Cracks, some leaching. Some shear cracks. Delams. CS3 - Wide cracks with efflorescent build-up and delamination to right cantilever of P4.						
521-Concrete Protective Coating		2696	sq. ft.	2211	0	0	485
	CS4 - PCS is ineffective where defects are present.						
305-Assembly Joint without Seal	3 - Mod.	196	ft.	100	0	0	96
	WB joints replaced in 2023. Surface rust to EB joints. Areas of debris in joints. Areas of rusting section loss to EB joints. Gouges to armor of EB joints. Crack in forward-right riser. CS4- Forward joint in EB lanes is closed. EB joint headers were heavily spalled then paved over.						
311-Movable Bearing	3 - Mod.	50	each	0	48	0	2
	CS2 - Surface rust. forward bearing 3 tipped out inconsistent for temperature. CS4- Forward bearings 8 and 10 are loose.						
313-Fixed Bearing	3 - Mod.	26	each	0	26	0	0
	Fixed above steel pier caps, P2 & P3 and at P2C1 & P3C2. CS2 - Surface rust.						
321-Reinforced Concrete Approach Slab	3 - Mod.	2400	sq. ft.	2150	250	0	0
	EBpavedoverwithasphalt.WBapproachslabsreplacedin 2023. CS2 - Cracks to asphalt.						
330-Metal Bridge Railing	3 - Mod.	1012	ft.	454	558	0	0
	CS2- Several areas of collision damage to both rails. Loss of gavanized coating and surface rusting.						
331-Reinforced Concrete Bridge Railing	3 - Mod.	2024	ft.	1904	60	60	0
	CS2 - Cracks, some leaching to EB median and railing. Small spalls to EB railing CS3 - Rust leaching cracks to EB median. Spalls, some with exposed rebar to EB median and railing. Delams.						
521-Concrete Protective Coating		14168	sq. ft.	7084	0	0	7084
	CS4 - PCS is ineffectve where defects are present.						
815-Drainage	3 - Mod.	60	each	50	10	0	0
	CS2 - Partially plugged scuppers. Surface rust to downspout ends.						
830-Abutment Backwall	3 - Mod.	205	ft.	160	30	0	15
	Patched areas from WB exjt replacement. CS2 - Vertical cracks. Delams. Small spalls along EXJTs. CS4 - Spalls with 4+, 360° exposed rebar in bays 8, 9 & 10 at forward.						
521-Concrete Protective Coating		1025	sq. ft.	625	0	0	400
	CS4 - PCS is ineffective where defects are present.						

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ODOT District: District 12

CUY-00480-0800 _(1812491)

Date Built: 07/01/1975

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: AIRPORT FREEWAY &
RAMPS

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

Insp. 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

.54 MI. W. OF JCT. I-71

Resp A:

Inspector

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Inspection Date 07/22/2024

Reviewer Seif,Youssef

Insp

Resp B:

Inspector Comments - Deck and Approach

Deck

Floor

Timber sub-decking over the Berea Fwy. Spalls forming over traffic in span 2, bays 8, 9 & 11 over lane 1 and bay 11 over lane 2, as well as span 4, bays 1, 2, 3 & 4 over the ramp and high-speed berm.

Approach

Approach Wearing Surface

New at 2024 inspection.

Embankment

Erosion along both forward wingwalls & rear-right embankment.

Signs

No bridge markers on median walls or rear right. Minor scratches to forward-left bridge marker.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Pack rust and section loss to a few end frames, left half replaced in 2023.

Substructure

Wingwalls

Leaching map cracks.

Culvert

Inspector Comments - Waterway

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Waterway Adequacy

Channel

Scour Critical

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Bridge Inspection Report

Pictures