

Inspector: Gerstenslager,Michael

Inspection Date: 07/14/2023

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	
<b>58: Deck</b>	<b>6 - Satisfactory Condition</b>	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
<b>59: Superstructure</b>	<b>7 - Good Condition</b>	45: Spans Main / Approach	5 / 0
59.01 Paint & PCS	7 - Good (1-5% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
<b>60: Substructure</b>	<b>7 - Good Condition</b>	408: Composite Deck	N - Non-composite Construction
<b>61: Channel</b>	<b>N</b>	414A Joint Type 1	2 - Sliding Metal Plate Angle
61.01 Scour	<b>N - Not Applicable</b>	414B: Joint Type 2	N - None
<b>62: Culverts</b>	<b>N - Not Applicable</b>	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)	15.08
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		
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 (%)	145
704: Analysis Date	03/21/2022
63: Analysis Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18

Inspections			
		Months	
90: Routine Insp.		12	07/14/2023
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
Inspector	Gerstenslager,Michael		

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12-Reinforced Concrete Deck</b>	3 - Mod.	49588	sq. ft.	23611	25212	750	15
	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.						
<b>510-Wearing Surfaces</b>		49082	sq. ft.	23562	25000	500	20
	Westbound lanes shifted south, due to construction. CS2 - Cracks. Areas of light map cracking. CS3 - Wide cracks. Map cracking. CS4 - Areas of broken-up concrete, eastbound lanes 1 & 2. Asphalt patches, eastbound lane 2.						
<b>107-Steel Open Girder/Beam</b>	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.						
<b>515-Steel Protective Coating</b>		41200	sq. ft.	28750	12000	400	50
	CS2 - Surface dulling throughout. CS3 - Some areas of bubbling & cracking. CS4 - A few areas of bare rusting metal.						
<b>205-Reinforced Concrete Column</b>	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.						
<b>521-Concrete Protective Coating</b>		4198	sq. ft.	4184	0	0	14
	CS4 - PCS is ineffective where defects are present.						
<b>215-Reinforced Concrete Abutment</b>	3 - Mod.	205	ft.	170	33	2	0
	CS2 - Mostly vertical cracks. Delams. CS3 - Wide cracks, some with rust-stains. A few spalls to forward.						
<b>521-Concrete Protective Coating</b>		6168	sq. ft.	6063	0	0	105
	CS4 - PCS is ineffective where defects are present.						
<b>231-Steel Pier Cap</b>	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.						
<b>515-Steel Protective Coating</b>		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.	45	24	127	0
	Westbound side in low speed berm is under construction. CS2 - Surface rust. Areas of debris in joints. CS3 - Areas of rusting section loss. Gouges to armor. Crack in forward-right riser. Spalling to headers.						
311-Movable Bearing	3 - Mod.	50	each	0	50	0	0
	CS2 - Surface rust.						
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.	2000	250	150	0
	Pavedoverwithasphalt. CS2 - Asphalt patches. Cracks. CS3 - Rough asphalt patches. Asphalt break-up along both EXJTs.						
331-Reinforced Concrete Bridge Railing	3 - Mod.	2024	ft.	1144	700	180	0
	CS2 - Cracks, some leaching. Delams. Small spalls. CS3 - Rust-stained cracks, mostly to medians. Spalls, some with exposed rebar.						
521-Concrete Protective Coating		14168	sq. ft.	11528	0	0	2640
	CS4 - PCS is ineffectve where defects are present.						
815-Drainage	3 - Mod.	60	each	12	48	0	0
	CS2 - Partially plugged scuppers. Surface rust to downspout ends.						
830-Abutment Backwall	3 - Mod.	205	ft.	125	60	5	15
	CS2 - Vertical cracks. Delams. Small spalls along EXJTs. CS3 - Spalls with exposed rebar in forward bays 3 & 4. CS4 - Spalls with 4+, 360° exposed rebar in bays 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

Facility Carried: IR 480

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

Insp  
Resp B:

Inspector

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Reviewer Seif,Youssef

## **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 lane and high-speed berm.

### **Approach**

#### **Approach Wearing Surface**

Cracks. Asphalt break-up. Rough asphalt patches.

#### **Embankment**

Erosion along both forward wingwalls & rear-right embankment.

#### **Signs**

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

#### **Approach Guardrail**

Spall with exposed rebar to top of forward-left concrete approach parapet.

## **Inspector Comments - General Appraisal**

### **Superstructure**

#### **Diaphragm/X-Frames**

Pack rust and section loss to some endframes.

### **Substructure**

#### **Wingwalls**

Leaching map cracks.

### **Culvert**

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**Inspector Comments - Waterway**

**Waterway Adequacy**

**Channel**

**Scour Critical**