

Inspector: Miller,Jason

Inspection Date: 08/03/2024

Structure Number: 1805045

Facility Carried: BELLAIRE RD.

Ohio Bridge Inspection Summary Report

CUY-00071-1372 (1805045)

2: District 43918 - LINNDALE (CUY county)
ict
12

5A: Inventory Route 1 14654

21: Major Maint A/B 01 - State Highway Agency /

7: Facility On BELLAIRE RD.

225 Routine Main A/B 04 - City or Municipal Highway /
Agency

6: Feature Ints IR-71

221 Inspection A/B 01 - State Highway Agency /

9: Location 3.71 MI. N. OF JCT. I-480

220: Inv. Location DISTRICT 12

Lat, Lon 41.444812 , -81.769334

Condition		Structure Type	
58: Deck	5 - Fair 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	5- Fair (obvious leaking, 1" offset)		N- Not Applicable
59: Superstructure	7 - Good Condition	45: Spans Main / Approach	4 / 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	N - None
62: Culverts	N - Not Applicable	108A: Wearing Surface	2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
			1- Super Plasticized
67.01 GA	7		

Appraisal				
Sufficiency Rating	81.6	SD/FO	2 - FO	
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			

Geometric	
48: Max Span Length (ft)	136
49: Structure Length (ft)	448
52: Deck Width, Out-To-Out (ft)	85
424: Deck Area (sf)	38080
32: Appr Roadway Width (ft)	71
51: Road Width, Curb-Curb (ft)	71
50A: Curb/SW Width: Left (ft)	6
50A: Curb/SW Width: Right (ft)	6
34: Skew (deg)	50
33: Bridge Median	1 - Open median
54B: Min Vert Underclearance (ft)	14.71
336A: Min Vert Clrnce IR Cardinal (ft)	99
336B: Min V Clr IR Non-Cardinal (ft)	0
578: Culvert Length (ft)	0

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	07/01/1986
63: Analysis Method	7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

422: WS Date	10/01/2010
423: WS Thick (in)	1.5
482: Protective Coating	5 - Paint System OZEU
483: PCS Date	10/01/2010
453: Bearing Type 1	2 - Rockers & Bolsters
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	4 - Spread Footing (on soil)
533: Foundn: Abut Rear	4 - Spread Footing (on Soil)
536: Foundn: Pier 1	4 - Spread Footing (on soil)
539: Foundn: Pier 2	0 - Other

Age and Service	
27: Year Built/ 106 Rehab	1968 / 0
42A: Service On	5 - Highway-pedestrian
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	5
28B: Lanes Under	10
19: Bypass Length	2
29: ADT	8872
109: % Trucks (%)	7

Inspections		
	Months	
90: Routine Insp.	12	08/03/2024
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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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	38080	sq. ft.	14030	22900	850	300
	Median bay timber sub-decked over traffic. CS2 - Transverse leached cracks. Other cracks. Lightly mottled areas at deck ends. A few small full depth repairs. Delams. CS3 - Spalls, some with rebar exposure. Heavy pattern map cracking. CS4 - Large spalls with 4+ bars exposed, most of which are in median bay.						
510-Wearing Surfaces		31808	sq. ft.	21715	10000	85	8
	CS2 - Many cracks. Areas of map cracking. Repaired through hole at rear at the intersection of transverse and longitudinal joints in NB turning lane to 71 SB. Small spalls in curb lane near mid span in NB lanes. CS3 - A few wide cracks. CS4 - Asphalt patch at rear along deck armor in SB lanes and forward of NB lanes.						
107-Steel Open Girder/Beam	3 - Mod.	4851	ft.	4770	80	0	1
	CS2 - Minor gouges in lower flange. Arrested section loss at beam ends. Bent stiffener to right fascia over NB ramp lane. Some areas of surface rust. CS4 - Small thru hole in web of beam 2 at forward end frame.						
515-Steel Protective Coating		98550	sq. ft.	98000	550	0	0
	CS2 - Areas of initiated surface rust.						
205-Reinforced Concrete Column	3 - Mod.	27	each	0	27	0	0
	CS2 - Most columns have fiber wrap repairs. Almost all fiber wraps have some rust staining and bubbling. P1C1 - Delams and shallow spalls. P1C2 - fiber wrap. P1C3 - Cracked fiber wrap at top left. P1C4 - P1C9, fiber wrap. P2C1 - P2C9, fiber wrap. P3C1 - P3C8, Fiber wrap. P3C9 - Cracks and delams.						
521-Concrete Protective Coating		2798	sq. ft.	2518	0	0	280
	CS4 - Coating not effective.						
215-Reinforced Concrete Abutment	3 - Mod.	265	ft.	219	42	4	0
	CS2 - Cracks. Some scaling. CS3 - Thru crack in rear abutment below left fascia. Rust leaching cracks. Spall in forward bay 2.						
521-Concrete Protective Coating		1060	sq. ft.	1006	0	0	54
	CS4 - Coating not effective.						
234-Reinforced Concrete Pier Cap	3 - Mod.	397	ft.	335	30	32	0
	CS2 - Cracks. Delams on P1 over C2 and under beam 6. Many delams on P2 & P3 caps. CS3 - Loose delams and spalls to P2, P3 cap. Wide horizontal cracks to P3 above C5 and 6.						

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521-Concrete Protective Coating		5303	sq. ft.	4773	0	0	530
	CS4 - Coating not effective.						
305-Assembly Joint without Seal	3 - Mod.	265	ft.	0	165	48	52
	Longitudinal median joint at rear has approx. 30' of seal missing. Joint bangs at rear in bay 4. CS2 - Cracks and areas of dirt in the joint near curbs and on sidewalks. Misalignment of rear joint on approach side up to 1/2". CS3 - Spalls. Wide cracks to headers. Some concrete break up to header at forward and rear in SB lanes. Riser bar loose at rear in NB Lane 1 and forward SB Lane 1. Wide cracks to headers. CS4 - Approx. 35' of rear-left riser bar removed. Rusting thru hole to forward right curb plate.						
311-Movable Bearing	3 - Mod.	44	each	20	22	2	0
	CS2 - Surface rust and/or debris between rocker and masonry plate at most abutment bearings. CS3 - Air gaps between rockers & masonry plates of bearings 6 & 7 on P3.						
313-Fixed Bearing	3 - Mod.	11	each	11	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	6625	sq. ft.	5849	600	70	106
	CS2 - Cracks. Areas of map cracking. Delams. CS3 - Areas of concrete break up. Some cracks as wide as 1/4". CS4 - Asphalt patches.						
330-Metal Bridge Railing	3 - Mod.	896	ft.	885	0	10	1
	CS3 - Impact damage on right rail. CS4 - Broken connection at concrete rail from impact damage.						
331-Reinforced Concrete Bridge Railing	3 - Mod.	896	ft.	691	130	75	0
	Stainless steel angles attached to tops of concrete rail which are wire tied to bottom of fence. CS2 - Cracks. Some delams. CS3 - Spalled areas to outside of rail.						
521-Concrete Protective Coating		3870	sq. ft.	3483	0	0	387
	CS4 - Coating not effective.						
815-Drainage	3 - Mod.	34	each	2	21	9	2
	CS2 - Partially plugged scuppers. CS3 - Mostly plugged scuppers. CS4 - Completely plugged scuppers. 1 at forward right and 1 at forward left.						
830-Abutment Backwall	3 - Mod.	265	ft.	207	52	5	1
	CS2 - Leaching cracks. Delams. CS3 - Rust leaching cracks. A few spalls. CS4- Thru spall in rear bay 1 with some 360° rebar exposure.						
521-Concrete Protective Coating		1060	sq. ft.	957	0	0	103
	CS4 - Coating not effective.						

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ODOT District: District 12

Date Built: 07/01/1968

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Traffic On: 5 - Highway-pedestrian

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: IR-71

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 43918 - LINNDALE (CUY county)

Location: DISTRICT 12

3.71 MI. N. OF JCT. I-480

Insp Resp B:

Inspector

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Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Inspection Procedures: The north abutment is the rear.

Floor/Slab

Spalls forming over traffic.

I-71 SB: Highspeed berm in Bay 5. Lane 2 in Bay 7. Lane 3 in Bays 1,3, and 7. Lane 4 in Bays 1,2,3, and 7. Lane 5 in Bays 1 and 2. Low speed berm in Bay 1.

I-71 NB: Lane 1 in Bay 9. Lane 2 in Bays 1,4, and 5. Lane 3 in Bays 5,7,8, and 10. Lane 4 in Bays 2,4,7, and 10. Lane 5 in Bays 1,2,5, and 10. Low speed berm in Bays 1 and 2.

Curbs/Sidewalk

Transverse cracks to sidewalks. Cracks & delams to curbs.

Bridge Median

Cracks. Spalls, some with exposed rebar.

Railing

Damage to inner pedestrian fence with a couple broken and several bent posts.

Approach

Approach Wearing Surface

Cracks.

Approach Guardrail

Cracks to all concrete approach railings. Areas of scaling. Deteriorated concrete at rear right. Rear right gaurdrail completely destroyed. Spall with rebar exposed at forward left end.

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Some section loss to end frames. Bent angle in Bay 9 at second x-frame from rear. Rear end frame 1 Diagonal 1 has a

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cracked weld at beam 1, Diagonal 2 is completely broken free and sitting on abutment. Rear end frame 9 has a broken weld at center connection plate. Rear end frame 10 broken welds at center connection plate and top left connection plate. Forward end frame 1 Diagonal 2 has a cracked weld at bottom and broken weld at top, as well as a broken weld at the beam 2 connection. Forward end frame 7 has a cracked weld at the beam 8 connection. Forward end frame 10 has rusting through holes to diagonal 3.

Utilities

Some disconnected utility conduits.

Substructure

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical

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Pictures