

Ohio Bridge Inspection Summary Report

LAK-00283-1434 (4302826)

2: District 12 49056 - MENTOR (LAK county)
 21: Major Maint A/B 01 - State Highway Agency /
 225 Routine Main A/B 04 - City or Municipal Highway /
 Agency
 221 Inspection A/B 01 - State Highway Agency /
 220: Inv. Location LAK

5A: Inventory Route 1 00283
 7: Facility On SR 283
 6: Feature Ints SR-44 (LAK-44-0784)
 9: Location JCT SR 44

Condition	
58: Deck	4 - Poor Condition
58.01 Wearing Surface	4 - Poor (advanced)
58.02 Joint	5- Fair (obvious leaking)
59: Superstructure	6 - Satisfactory Condition
59.01 Paint & PCS	6 - Satisfactory (5-10% corr.)
60: Substructure	5 - Fair Condition
61: Channel	N
61.01 Scour	N - Not Applicable
62: Culverts	N - Not Applicable
67.01 GA	5

Structure Type	
43: Bridge Type	4 - Steel continuous 02 - Stringer/Multi-beam or Girder N- Not Applicable
45: Spans Main / Approach	4 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	X - Not Applicable
414A Joint Type 1	2 - Sliding Metal Plate Angle
414B: Joint Type 2	N - None
108A: Wearing Surface	3 - Latex Concrete or similar additive N- Not Applicable
422: WS Date	04/01/1985
423: WS Thick (in)	1.2
482: Protective Coating	5 - Paint System OZEU
483: PCS Date	01/01/1992
453: Bearing Type 1	2 - Rockers & Bolsters
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	1 - Steel H Piles (Other size)
533: Foundn: Abut Rear	1 - Steel H Piles (Other Size)
536: Foundn: Pier 1	1 - Steel H Piles (Other size)
539: Foundn: Pier 2	0 - Other

Appraisal				
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			

Age and Service	
27: Year Built/ 106 Rehab	1962 / 0000
42A: Service On	5 - Highway-pedestrian
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	04
28B: Lanes Under	04
19: Bypass Length	1
29: ADT	7545
109: % Trucks (%)	5

Geometric	
48: Max Span Length (ft)	65.0
49: Structure Length (ft)	240.0
52: Deck Width, Out-To-Out (ft)	65.8
424: Deck Area (sf)	15780.0
32: Appr Roadway Width (ft)	66.0
51: Road Width, Curb-Curb (ft)	59.0
50A: Curb/SW Width: Left (ft)	2
50A: Curb/SW Width: Right (ft)	2
34: Skew (deg)	46
33: Bridge Median	2 - Closed median (no barrier)
54B: Min Vert Underclearance (ft)	14.83
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	07/01/1973
63: Analysis Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

Inspections		
	Months	
90: Routine Insp.	12	08/19/2020
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	0
92D: UBIT Insp.	N	
92E: Drone Insp.		
Inspector	Gerstenslager,Michael	

Inspector: Michael Gerstenslager

Structure Number: 4302826

Inspection Date: 08/19/2020

Facility Carried: SR 283

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.	15780	sq. ft.	12955	1500	1325	0
805 - Wearing Surface - Monolithic Concrete		14160	sq. ft.	11738	1200	1162	60
107 - Steel Open Girder/Beam	3 - Mod.	1920	ft.	1300	620	0	0
515 - Steel Protective Coating		16936	sq. ft.	0	15776	1100	60
205 - Reinforced Concrete Column	3 - Mod.	24	each	20	1	3	0
215 - Reinforced Concrete Abutment	3 - Mod.	188	ft.	152	20	16	0
234 - Reinforced Concrete Pier Cap	3 - Mod.	156	ft.	133	23	0	0
305 - Assembly Joint without Seal	3 - Mod.	188	ft.	0	94	94	0
311 - Movable Bearing	3 - Mod.	32	each	16	16	0	0
313 - Fixed Bearing	3 - Mod.	8	each	8	0	0	0
321 - Reinforced Concrete Approach Slab	3 - Mod.	3300	sq. ft.	3292	8	0	0
330 - Metal Bridge Railing	3 - Mod.	480	ft.	395	85	0	0
815 - Drainage	3 - Mod.	16	each	16	0	0	0
830 - Abutment Backwall	3 - Mod.	188	ft.	158	30	0	0

ODOT District: 12

LAK-00283-1434_(4302826)

Date Built: 07/01/1962

Major Maint: 01 - State Highway Agency

Facility Carried: SR 283

Traffic On: 5 - Highway-pedestrian

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: SR-44 (LAK-44-0784)

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

Insp. 01 - State Highway Agency

FIPS Code: 49056 - MENTOR (LAK county)

Location: LAK

JCT SR 44

Resp A:

Insp

Resp B:

Inspector

Gerstenslager,Michael

Inspection Date

08/19/2020 12:00:00 AM

Reviewer

Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

Transverse leached cracks. Dripping stalactites. Mottled areas. Approx 300 sf of spalls & delams. Rust stains. Floor under EB lanes is in worse condition than floor under WB.

Edge of Floor/Slab (LF)

Spalls with exposed rebar . Leaching cracks.

Bridge Wearing Surface (SF)

Longitudinal & transverse cracks with heavy leaching (some as wide as 1/16"). Map cracking with heavy leaching. Some breaking up areas. Approx 325 sf of asphalt patches and 100 sf of breaking up areas. Large delaminated areas.

Curbs/Sidewalk (LF)

Scaling. Spalls & delams. Spalls with exposed rebar at curb plates.

Bridge Median (LF)

Cracks. Spalls. Delams. Open median.

Bridge Railing (LF)

Spalls, some with exposed rebar. Rust stains. Collision damage to left with one broken post (3rd from forward). Gaps in left horizontal tubular rail. Right rail is compression spalled at rear exjt.

Deck Drainage (EA)

Broken downspout weld to beam 1 in bay 1 near forward. Some rusting section loss to scuppers. Partially plugged scuppers.

Expansion Joint (LF)

Rear exjt is closed at 80 degrees F. Forward is open 1" at 2020 inspection, and deck armor is 1/2" higher than slab. Rusting section loss to deck armor with rusted thru holes to curb plates. Leakage down forward backwall in bay 2 with dirt & debris on forward abutment seat. Full width asphalt patches with cracking along exjt. headers.

Approach

Approach Wearing Surface (EA)

Cracks. Asphalt patches.

Approach Slab (SF)

A few gaps (as deep as 15") where asphalt meets approach curb at rear right and fwd left. Note: paved over with asphalt.

Approach Embankment (EA)

Some erosion at rear-left. Some erosion to forward left approx 50' north of the wingwall.

Approach Guardrail (EA)

Minor collision damage to forward-left and right. Spalls & delams to concrete approach rails.

Signs (EA)

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Beams/Girders (LF)

Rusting section loss at abutments. Scrapes to lower flanges of beams 5-8 over SB traffic. Lower flange of beam 1 has ground down gouges & is bent up 1/4" over SB lane 2. Lower flange of beam 1 is bent up 1/2" over NB lane 2. Rusting to many top flanges. 2006 QAR sticker 12-0229. 2011 QAR sticker 12-03.

Diaphragm/X-Frames (EA)

Rusting section loss. Almost rust severed horizontal angle with thru holes to forward endframe 7. Broken welds to endframes in forward bays 1, 2 & 6 and rear bay 2. Bent xframe in bay 7 over SB lane 2 with broken weld between horizontal angle & fascia.

Bearing Devices (EA)

Most bearings have pack rust between masonry plates and rockers. Forward rockers 2,4,& 5 are more than slightly tipped out.

Protective Coating System (LF)

Rust. Blistering & peeling paint.

Fatigue (LF)

Welded cover plates at piers.

Utilities (LF)

Welded bracket on the bent horizontal xframe angle in bay 7 is broken over SB lane #2.

Substructure

Abutment Walls (LF)

Cracks. Rust stains. Minor scaling under some weep holes.

Pier Caps (LF)

A few cracks. Some delams to P1 and P3.

Pier Columns/Bents (EA)

Cracks, Spalls and delams; P1C2 - 4sf spall (rebar exposed) / 10sf delam, P3C1 - 5sf spall, P3C2 - 5sf spall (rebar exposed) / 8sf delam, P3C3 - 5sf spall / 4sf delam with one rust severed rebar.

Backwalls (LF)

Cracks. Delams. Spalls.

Slope Protection (EA)

Some voids & undermining of grout bag at forward (under right scuppers). As much as 24" of vertical face of forward abutment footer exposed.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical