

Inspector: Ropelewski,Robert

Inspection Date: 07/26/2023

Structure Number: 1808133

Facility Carried: HAMILTON AVE.

Ohio Bridge Inspection Summary Report

CUY-00090-1794 (1808133)

2: District 16000 - CLEVELAND (CUY county)
ict
12

5A: Inventory Route 1 03774

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

7: Facility On HAMILTON AVE.

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

6: Feature Ints IR 90

221 Inspection A/B 01 - State Highway Agency /

9: Location .26 MI. E. OF JCT. US-6

220: Inv. Location DISTRICT 12

Lat, Lon 41.513488 ,-81.673285

Condition

58: Deck **6 - Satisfactory Condition**
 58.01 Wearing Surface 6 - Satisfactory (1-10% distress)
 58.02 Joint 2- Critical

59: Superstructure **6 - Satisfactory Condition**
 59.01 Paint & PCS 6 - Satisfactory (5-10% corr.)

60: Substructure **6 - Satisfactory 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 2 / 0

107: Deck Type 1 - Concrete Cast-in-Place

408: Composite Deck N - Non-composite Construction

414A Joint Type 1 2 - Sliding Metal Plate Angle

414B: Joint Type 2 N - None

108A: Wearing Surface 2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
 N- Not Applicable

67.01 GA 6

Appraisal

Sufficiency Rating 95.9 SD/FO 2 - FO

36: Rail, Tr, Gd, Term Std 1 N N N

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 01/01/2001

423: WS Thick (in) 2.0

482: Protective Coating 0 - Other Paint

483: PCS Date 01/01/1987

453: Bearing Type 1 3 - Sliding (Bronze)

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 4 - Spread Footing (on Soil)

Geometric

48: Max Span Length (ft) 71.0

49: Structure Length (ft) 152.0

52: Deck Width, Out-To-Out (ft) 47.0

424: Deck Area (sf) 7144

32: Appr Roadway Width (ft) 35.0

51: Road Width, Curb-Curb (ft) 35.0

50A: Curb/SW Width: Left (ft) 6

50A: Curb/SW Width: Right (ft) 6

34: Skew (deg) 16

33: Bridge Median 0 - No median

54B: Min Vert Underclearance (ft) 16

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 1959 / 0000

42A: Service On 1 - Highway

42B: Service Under 1 - Highway, with or w/out pedestrian

28A: Lanes on 02

28B: Lanes Under 08

19: Bypass Length 1

29: ADT 1000

109: % Trucks (%) 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

6 - Load Factor (LF) rating reported by

Inspections

90: Routine Insp. 12 Months 07/26/2023

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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63: Analysis Method	rating factor (RF) method using MS18 loading.		

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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.	6525	sq. ft.	4545	1000	980	0
<p>Note: Floor is timber sub-decked. Forward-right (NW corner of deck is touching backwall).</p> <p>CS2- Epoxy smeared areas. Leaching cracks. Delamination's.</p> <p>CS3- Spalls. Mottled areas. Two patched through holes with 4' of 360 degree rebar exposure.</p>							
805-Wearing Surface - Monolithic Concrete		4794	sq. ft.	3044	1750	0	0
CS2 - Transverse cracks. Map cracks thru out. Other cracks.							
107-Steel Open Girder/Beam	3 - Mod.	1025	ft.	917	80	28	0
<p>CS2- Areas of surface rust</p> <p>CS3- Section loss to beam ends at abutments.</p>							
515-Steel Protective Coating		11504	sq. ft.	0	9204	1725	575
<p>CS2 - Light surface rust. Surface dulling.</p> <p>CS3 - Blistered paint with rust underneath. Peeling paint coats.</p> <p>CS4 - Unprotected steel.</p>							
205-Reinforced Concrete Column	3 - Mod.	4	each	4	0	0	0
521-Concrete Protective Coating		560	sq. ft.	560	0	0	0
215-Reinforced Concrete Abutment	3 - Mod.	98	ft.	82	10	6	0
<p>CS2 - Cracks, some epoxy injected. Delams.</p> <p>CS3 - Small spalls to rear seat at beams 2 & 4.</p>							
521-Concrete Protective Coating		1470	sq. ft.	1465	0	0	5
CS4- Not effective							
234-Reinforced Concrete Pier Cap	3 - Mod.	56	ft.	41	8	7	0
<p>CS2 - Few cracks. Delams to bottom of cap.</p> <p>CS3 - Spall with exposed rebar above eastside of C4.</p>							
521-Concrete Protective Coating		412	sq. ft.	412	0	0	0
305-Assembly Joint without Seal	3 - Mod.	94	ft.	0	0	24	70
<p>CS3- Heavy rusting section loss, mainly to sidewalk ExJts. Gouges to armor. Plow damage to rear-right curb plate (nearly severed). Water leaking through joint between rear abutment & rear-left wingwall.</p> <p>CS4 - Both joints closed at 80°F. Thru holes at rear-right & forward-right curbs. Riser bar missing in areas. FWD exjt header has been paved over with asphalt that has cracks.</p>							
311-Movable Bearing	3 - Mod.	14	each	0	0	14	0
CS3 - Debris & rust engulf most abutment bearings. Heavy rusting. All abutment bearings are past design travel limits. Most abutment bearings are only partially bearing.							
313-Fixed Bearing	3 - Mod.	7	each	0	7	0	0
CS2 - Surface rust to pier bearings.							

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321-Reinforced Concrete Approach Slab	3 - Mod.	1750	sq. ft.	1750	0	0	0
Note: Paved over with asphalt							
331-Reinforced Concrete Bridge Railing	3 - Mod.	277	ft.	130	147	0	0
CS2- Many leaching cracks.							
521-Concrete Protective Coating		1662	sq. ft.	1637	0	0	25
CS4- Not effective							
815-Drainage	3 - Mod.	4	each	0	0	0	4
CS4 - Water has overflowed from filled hoppers & flowed down abutment walls onto berms in bays 1 & 6 at both abutments (these four hoppers are plugged with dirt & debris). Hopper in forward bay 1 has fallen over.							
830-Abutment Backwall	3 - Mod.	98	ft.	57	15	20	6
Beams into both backwalls. CS2 - Leaching cracks. Long horizontal crack from bay 1 to bay 5. CS3 - Both backwalls have deep spalls exposing some exjt anchorage (rear has 5' of 360° rebar exposure). Rear has broken up areas in bays 1 and 6 around water lines. CS4 - Thru holes under north and south curb at rear.							
521-Concrete Protective Coating		225	sq. ft.	175	0	0	50
CS4- Not effective							

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ODOT District: District 12

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Date Built: 07/01/1959

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: IR 90

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

.26 MI. E. OF JCT. US-6

Insp Resp B:

Inspector

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Inspection Date 07/26/2023

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Inspection Note: East is rear.

Floor

Spall forming over WB #4 lane on south deck edge.

Curbs/Sidewalk

Minor delams & spalls to curbs, concrete.

Approach

Approach Wearing Surface

Approach Embankment

Advanced settlement with areas of concrete break up at all four approach walks. First sidewalk section at forward left has broken in half and settled several inches.

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Horizontal angle of forward endframe #6 has two rusted thru holes. Forward endframe #1 is 90% rust severed. other rusting thru holes in endframes.

Fatigue

Welded moment plates at pier.

Utilities

Rusting section loss to supports at abutments & conduits.

Substructure

Wingwalls

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Cracks, some leaching, some epoxy injected. Left wingwall has cracked at top & pulled away from rear abutment as much as 1" with water leaking thru joint.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical

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Pictures