

Inspector: Ropelewski,Robert

Inspection Date: 04/16/2024

Structure Number: 1812939

Facility Carried: TIEDEMAN RD

Ohio Bridge Inspection Summary Report

CUY-00480-1162 (1812939)

2: District 09246 - BROOKLYN (CUY county)
ict
12

5A: Inventory Route 1 02093

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 DISTRICT 12

7: Facility On TIEDEMAN RD
6: Feature Ints IR-480 (TIEDEMAN)
9: Location 1.93 MI. W. OF JCT. US-42
Lat, Lon 41.42566 ,-81.761097

| 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 | 6- Satisfactory (isolated leaking) | | 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 | 5 - Fair 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 | 3 - Latex Concrete or similar additive |
| | | | N- Not Applicable |
| 67.01 GA | 5 | | |

| Appraisal | |
|----------------------------|---|
| Sufficiency Rating | 74.3 SD/FO 2 - FO |
| 36: Rail, Tr, Gd, Term Std | 1 1 1 0 |
| 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) | 81.0 |
| 49: Structure Length (ft) | 280.0 |
| 52: Deck Width, Out-To-Out (ft) | 82.3 |
| 424: Deck Area (sf) | 23044 |
| 32: Appr Roadway Width (ft) | 82.0 |
| 51: Road Width, Curb-Curb (ft) | 70.0 |
| 50A: Curb/SW Width: Left (ft) | 5 |
| 50A: Curb/SW Width: Right (ft) | 5 |
| 34: Skew (deg) | 18 |
| 33: Bridge Median | 2 - Closed median (no barrier) |
| 54B: Min Vert Underclearance (ft) | 16.49 |
| 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 | 01/16/2024 |
| 63: Analysis Method | 8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings. |

| | |
|-------------------------|--------------------------------|
| 422: WS Date | 07/01/1985 |
| 423: WS Thick (in) | 2.0 |
| 482: Protective Coating | 5 - Paint System OZEU |
| 483: PCS Date | 05/01/2012 |
| 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 | 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 | 1985 / 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 | 3 |
| 29: ADT | 18558 |
| 109: % Trucks (%) | 7 |

| Inspections | |
|--------------------|-------------------|
| | Months |
| 90: Routine Insp. | 12 04/16/2024 |
| 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 |
| Inspector | Ropelewski,Robert |

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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. | 22960 | sq. ft. | 17198 | 5500 | 250 | 12 |
| | CS2 - Transverse cracks, a few leaching, some mottled areas. Some delams. CS3 - Spalls to all corner deck edges. Other spalls. CS4- Spalls with 4+ bars of exposed rebar in span 3. | | | | | | |
| 510-Wearing Surfaces | | 18480 | sq. ft. | 15960 | 2500 | 20 | 0 |
| | CS2 - Cracks throughout. CS3- Wide diagonal cracks at deck ends. | | | | | | |
| 107-Steel Open Girder/Beam | 3 - Mod. | 2800 | ft. | 2774 | 25 | 1 | 0 |
| | CS2 - A few spots of surface rust. Areas of arrested section loss. CS3- One fastener missing on splice plate 6 over EB lane #4. | | | | | | |
| 515-Steel Protective Coating | | 25200 | sq. ft. | 25130 | 70 | 0 | 0 |
| | CS2- Small isolated areas of rust initiating. | | | | | | |
| 205-Reinforced Concrete Column | 3 - Mod. | 18 | each | 12 | 4 | 2 | 0 |
| | 15 of 18 columns fiber wrapped. CS2- P1C1- ~3 SF delam. P1C3- Cracked fiber wrap and rust stains. P2C5- Cracked fiber wrap at base. P3C2- Cracked fiber wrap at base. CS3- P1C6- ~35 SF delam. P3C5- ~25 SF delam. | | | | | | |
| 521-Concrete Protective Coating | | 2205 | sq. ft. | 2205 | 0 | 0 | 0 |
| 215-Reinforced Concrete Abutment | 3 - Mod. | 174 | ft. | 97 | 10 | 65 | 2 |
| | CS2 - Cracks. CS3 - Spalls and delams, rear is worse. Wide transverse cracking. Rust stained cracks, mostly to rear. CS4- Rear right has spall with 2nd mat of rebar exposed. | | | | | | |
| 521-Concrete Protective Coating | | 348 | sq. ft. | 278 | 0 | 0 | 70 |
| | CS4- Not effective. | | | | | | |
| 234-Reinforced Concrete Pier Cap | 3 - Mod. | 233 | ft. | 203 | 30 | 0 | 0 |
| | CS2- A few cracks. Delams to all 3 caps. | | | | | | |
| 521-Concrete Protective Coating | | 2097 | sq. ft. | 2052 | 0 | 0 | 45 |
| 305-Assembly Joint without Seal | 3 - Mod. | 174 | ft. | 149 | 25 | 0 | 0 |
| | CS2- Gouges to rear riser bar. Some areas of minor rusted section loss. Areas of dirt in forward joint. Cracks to headers. | | | | | | |
| 311-Movable Bearing | 3 - Mod. | 40 | each | 15 | 20 | 5 | 0 |
| | CS2 - Start of rust and arrested section loss to abutment bearings. Forward bearing #8 tipped in inconsistent for temperature. CS3- A few abutment rockers have pack rust starting. | | | | | | |

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| | Environment | Total Quantity | Units | Condition State 1 | Condition State 2 | Condition State 3 | Condition State 4 |
|---|---|----------------|---------|-------------------|-------------------|-------------------|-------------------|
| 313-Fixed Bearing | 3 - Mod. | 10 | each | 2 | 8 | 0 | 0 |
| | CS2- Start of rust. | | | | | | |
| 321-Reinforced Concrete Approach Slab | 3 - Mod. | 3300 | sq. ft. | 2975 | 175 | 150 | 0 |
| | CS2- Longitudinal cracks. Minor spalls along exit header at rear. | | | | | | |
| | CS3- Full length, wide cracks to both. | | | | | | |
| 331-Reinforced Concrete Bridge Railing | 3 - Mod. | 560 | ft. | 459 | 95 | 0 | 6 |
| | Many rust severed lower rail to post connections (lower rail wire tied to fence fabric). A few areas of torn/damaged fence fabric. | | | | | | |
| | CS2 - Cracks and delams, mostly at post bases. Minor spalls. | | | | | | |
| | CS4 - Spall to outside of left rail has 4+ bars of rebar exposed. | | | | | | |
| 521-Concrete Protective Coating | | 2800 | sq. ft. | 2800 | 0 | 0 | 0 |
| | CS4- CPC is not effective | | | | | | |
| 815-Drainage | 3 - Mod. | 16 | each | 12 | 4 | 0 | 0 |
| | CS2 - Partially plugged scupper throughs. | | | | | | |
| 830-Abutment Backwall | 3 - Mod. | 174 | ft. | 56 | 90 | 28 | 0 |
| | CS2 - Cracks. Top of backwalls patched in bays 1-5 at forward and rear. | | | | | | |
| | CS3 - Heavy concrete deterioration and wide cracks near bay 9 at rear. Several spalls and delams, some with exposed rebar. Wide crack in bay 1 at rear. | | | | | | |
| 521-Concrete Protective Coating | | 696 | sq. ft. | 636 | 0 | 0 | 60 |
| | CS4- CPC is not effective | | | | | | |

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ODOT District: District 12

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Date Built: 07/01/1985

Major Maint: 01 - State Highway Agency

Facility Carried: TIEDEMAN RD

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: IR-480 (TIEDEMAN)

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

Insp. 01 - State Highway Agency

FIPS Code: 09246 - BROOKLYN (CUY county)

Location: DISTRICT 12

1.93 MI. W. OF JCT. US-42

Insp Resp A:
Insp Resp B:

Inspector

Ropelewski,Robert

Inspection Date 04/16/2024

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab

Spalls forming over traffic:

WB- Bay 1 over lane 1 and 2, Bay 2 over lane 2, 3 and 4, Bay 3 over lane 1 and 4, Bay 5 over lane 2.

EB- Bay 1 over lane 3. Bay 2 over lane 3. Bay 8 over lane 2, bay 9 over lane 2 and 3.

Curbs/Sidewalk

Cracks. Scaling. A few pop-outs.

Approach

Approach Wearing Surface

Crack.

Approach Embankment

Minor erosion slip in forward-left embankment.

Approach Guardrail

Minor damage at rear-right post #1. Forward left rail has collision damage and some post rot.

Relief Joint

A few cracks. Areas of scaling to asphalt.

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Endframe rusted section loss with a few small rusted thru holes in rear bays 8,9 and forward bay 9.

Fatigue

Welded cover plates at piers.

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Utilities

Areas of sagging conduit in bay 8 over both slopes.

Substructure

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical

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Bridge Inspection Report

Pictures