

Bridge Inspection Report

02654

**State Highway 28
over
Hazel Creek-Scott Co.**



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

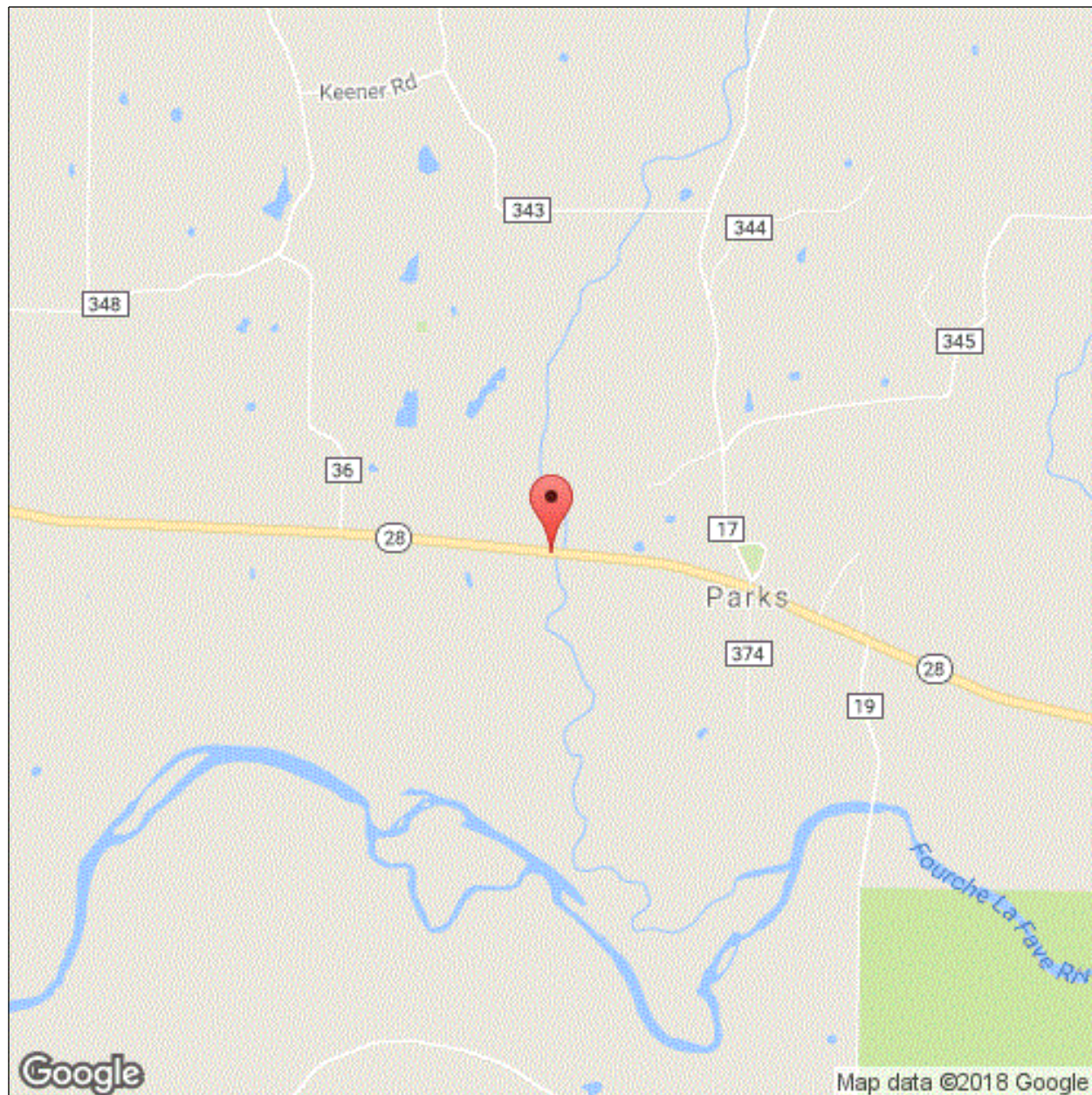
Structure Number: 02654

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Facility Carried: State Highway 28

Bridge Inspection Report

Location Map



Latitude: 34.80346

Longitude: -93.96845

Inspector:

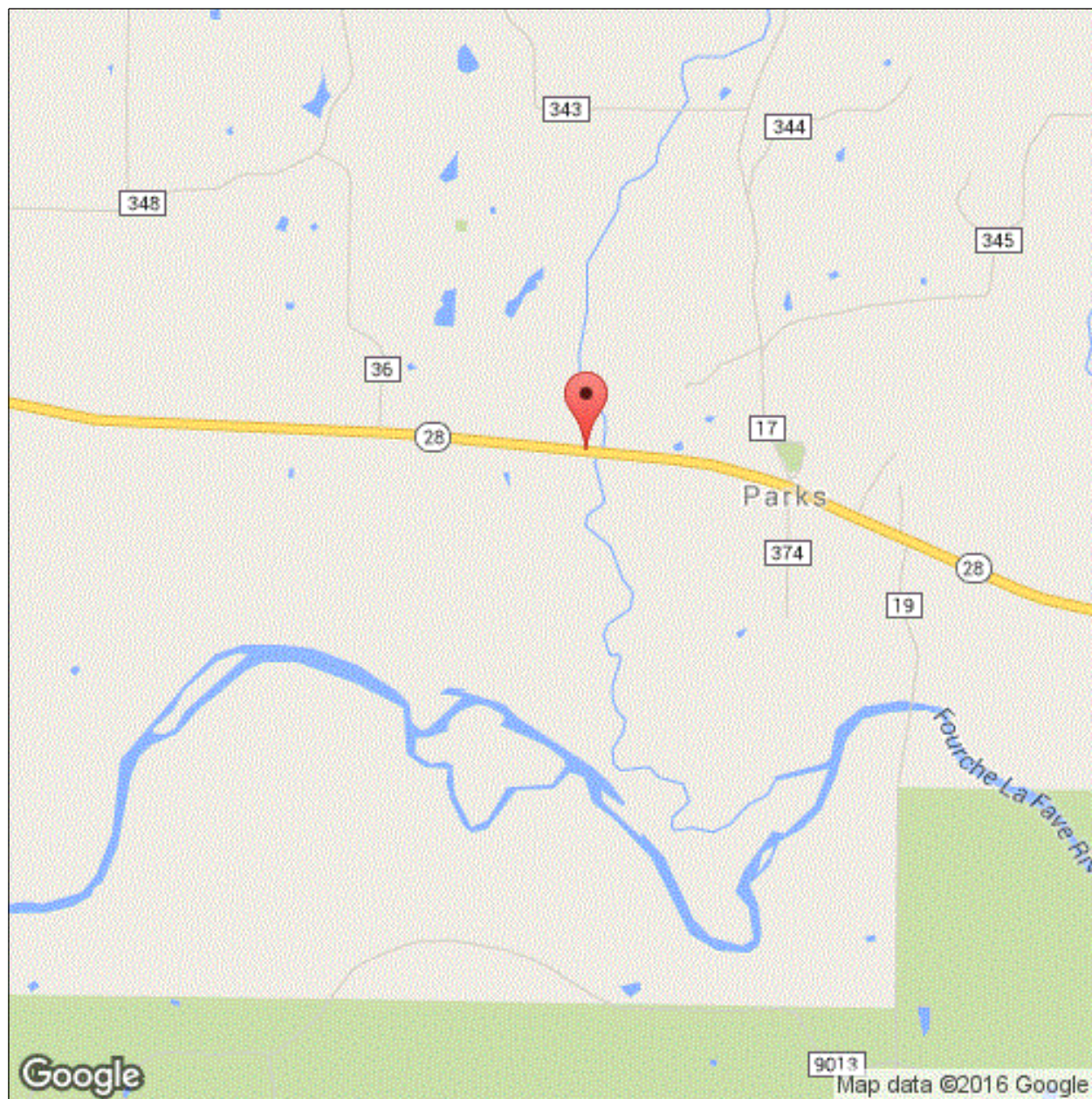
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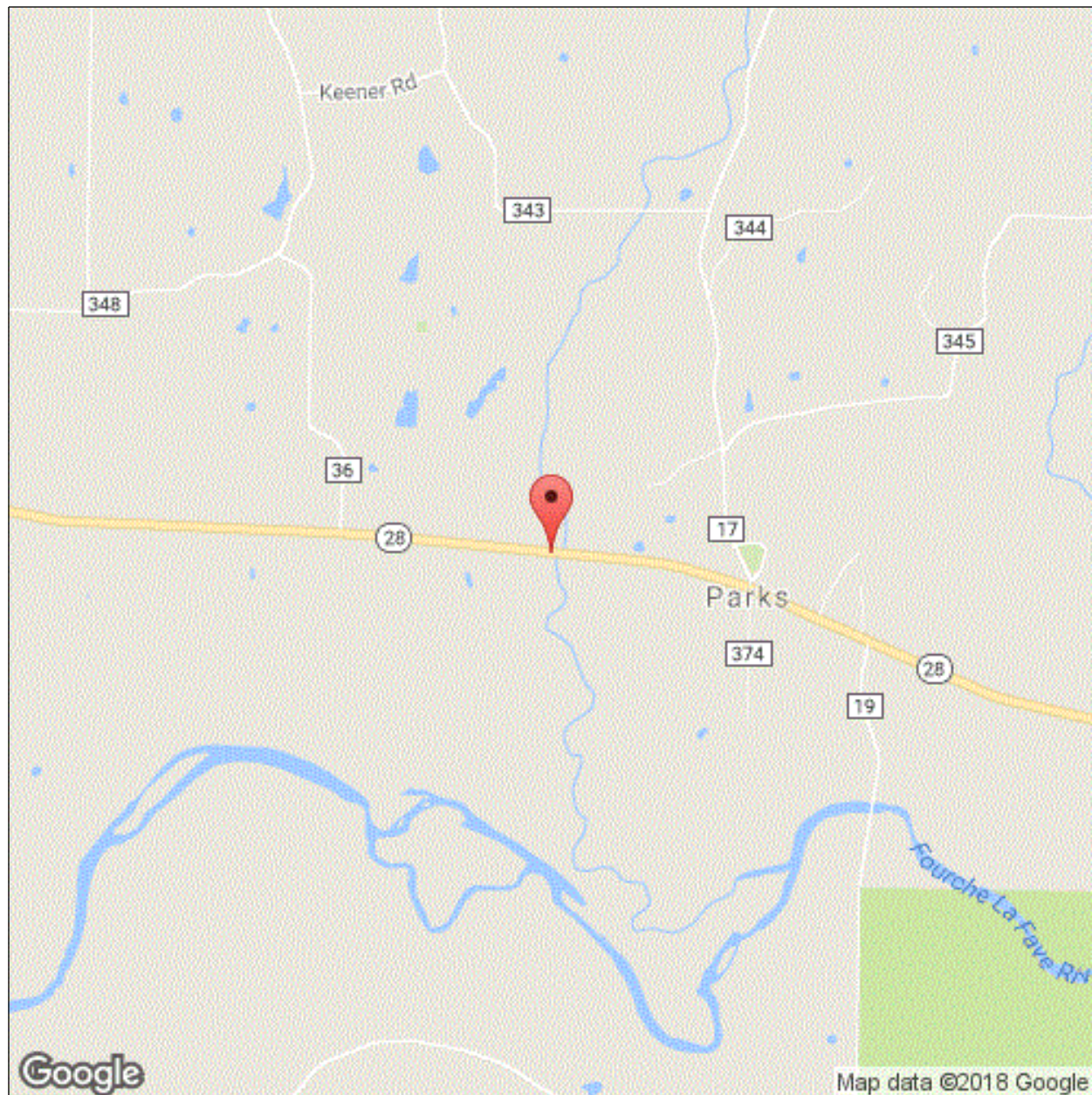
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Executive Summary

01/18/2018 EJW & JRT - Underwater Type 2 inspection conducted on this date. Wading and probing with low water conditions indicated minor scour at the base of the concrete rip rap along Bents 1 and 10. No apparent undermining at this inspection. There was medium to heavy abrasion along the base of the columns.

01/27/2016 JPB & RSM-Routine inspection conducted this date.

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Bridge Inspection Report

National Bridge Inventory

| IDENTIFICATION | | INSPECTIONS | |
|---|--|---|-----------------------|
| (1) STATE CODE | 056 - Arkansas | (90) INSPECTION DATE | 01/18/2018 |
| (8) STRUCTURE NUMBER | 02654 | (91) DESIGNATED INSPECTION FREQUENCY | 24 |
| (5) INV. ROUTE (ON/UNDER) | 1 3 1 28 0 | (92) CRITICAL FEATURE INSPECTION | (93) CFI DATE |
| (2) HIGHWAY AGENCY | 04 (3) COUNTY CODE 127 | A. FRACTURE CRITICAL DETAIL | N |
| (4) PLACE CODE | 00000 | B. UNDERWATER INSPECTION | N |
| (6) FEATURES INTERSECTED | Hazel Creek-Scott Co. | C. OTHER SPECIAL | N |
| (7) FACILITY CARRIED | State Highway 28 | | |
| (9) LOCATION | 4.15 MI E JCT OF US 71 | | |
| (11) MILEPOINT 4.149 | (12) BASE HIGHWAY NETWORK 0 | | |
| (13A) LRS INVENTORY ROUTE | 0000000000 (13B) SUBROUTE NUMBER 00 | | |
| (16) LATITUDE 34.80346 | (17) LONGITUDE -93.96845 | | |
| (98A) BORDER BRIDGE CODE | | | |
| PERCENT RESPONSIBILITY | (99) BORDER BRIDGE STRUCT | | |
| STRUCTURE TYPE AND MATERIAL | | CONDITION | |
| (43) STRUCTURE TYPE, MAIN | | (58) DECK | 6 |
| A) KIND OF MATERIAL/DESIGN: 1 - Concrete | | (59) SUPERSTRUCTURE | 6 (60) SUBSTRUCTURE 5 |
| B) TYPE OF DESIGN/CONSTR: 01 - Slab | | (61) CHANNEL & CHANNEL PROTECTION | 7 (62) CULVERT N |
| (44) STRUCTURE TYPE, APPROACH SPANS | | | |
| A) KIND OF MATERIAL/DESIGN: 0 - Other | | | |
| B) TYPE OF DESIGN/CONSTR: 00 - Other | | | |
| (45) NUMBER OF SPANS IN MAIN 9 | (46) NUMBER OF APPROACH 0 | | |
| (107) DECK STRUCTURE TYPE 1 | (108A) WEARING SURFACE 6 | | |
| (108B) DECK MEMBRANE 0 | (108C) DECK PROTECTION 0 | | |
| AGE OF SERVICE | | LOAD RATING AND POSTING | |
| (27) YEAR BUILT 1950 | (106) YEAR RECONSTRUCTED 0000 | (31) DESIGN LOAD | 2 |
| (42) TYPE OF SERVICE ON 1 UNDER 5 | | (63) METHOD USED TO DETERMINE OPERATING RATING | 1 |
| (28) LANES ON 02 UNDER 00 | | (64) OPERATING RATING | 34 |
| (29) AVERAGE DAILY TRAFFIC 700 | (19) BYPASS DETOUR LENGTH 14 | (65) METHOD USED TO DETERMINE INVENTORY RATING | 1 |
| (30) YEAR OF AVERAGE DAILY TRAFFIC 2014 | | (66) INVENTORY RATING | 21 |
| (109) AVERAGE DAILY TRUCK TRAFFIC 1 | | (70) BRIDGE POSTING | 5 |
| | | (41) STRUCTURE OPEN/POSTED/CLOSED | A |
| GEOMETRIC DATA | | APPRAISAL | |
| (48) LENGTH OF MAX SPAN (ft.) 18 | (49) STRUCTURE LENGTH (ft.) 162 | (67) STRUCTURAL EVALUATION | 5 |
| (50) CURB/SIDEWALK WIDTHS (ft.) LEFT 1 RIGHT 1 | | (68) DECK GEOMETRY | 4 |
| (51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) | 22.0 | (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL | N |
| (52) DECK WIDTH, OUT-TO-OUT (ft.) | 24 | (71) WATERWAY ADEQUACY | 8 |
| (32) APPROACH ROADWAY WIDTH (ft.) | 24.0 | (72) APPROACH ROADWAY ALIGNMENT | 7 |
| (33) BRIDGE MEDIAN 0 | (34) SKEW (DEG.) 0 | (36) TRAFFIC SAFETY FEATURE | |
| (35) STRUCTURE FLARED 0 | (10) INV RTE, MIN VERT CLEAR (ft.) 99.99 | 36A) BRIDGE RAILINGS: | 0 |
| (47) TOTAL HORIZONTAL CLEARANCE (ft.) | 23.6 | 36B) TRANSITIONS: | 0 |
| (53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) | 99.99 | 36C) APPROACH GUARDRAIL: | 0 |
| (54) VERTICAL UNDER CLEARANCE (ft.) | N 0 | 36D) APPROACH GUARDRAIL ENDS: | 0 |
| (55) LATERAL UNDER CLEARANCE RIGHT (ft.) | N 99.9 | (113) SCOUR CRITICAL BRIDGES | 8 |
| (56) MIN LATERAL UNDER CLEARANCE (ft.) | 0 | SUFFICIENCY RATING | 53.0 STATUS 0 |
| PROPOSED IMPROVEMENTS | | CLASSIFICATION | |
| (75A) TYPE OF WORK PROPOSED | (75B) WORK DONE BY | (112) NBIS BRIDGE LENGTH | Y |
| (76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0 | | (104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE | 0 |
| (94) BRIDGE IMPROVEMENT COST (\$) | 0 | (26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE | 07 |
| (95) ROADWAY IMPROVEMENT COST (\$) | 0 | (100) STRAHNET HIGHWAY DESIGNATION | 0 |
| (96) TOTAL PROJECT COST | 0 | (101) PARALLEL STRUCTURE DESIGNATION | N |
| (97) YEAR OF IMPROVEMENT COST ESTIMATE | | (102) DIRECTION OF TRAFFIC | 2 |
| (114) FUTURE ADT 927 | (115) YEAR OF FUTURE ADT 2028 | (103) TEMP STRUCTURE | |
| | | (105) FEDERAL LANDS HIGHWAYS | 0 |
| | | (110) DESIGNATED NATIONAL NETWORK | 0 |
| | | (20) TOLL | 3 |
| | | (21) MAINTENANCE RESPONSIBILITY | 01 |
| | | (22) OWNER | 01 |
| | | (37) HISTORICAL | 5 |
| | | NAVIGATION DATA | |
| | | (38) NAVIGATION CONTROL | 0 |
| | | (111) PIER OR ABUTMENT PROTECTION | 1 |
| | | (39) NAV VERT CLEARANCE (ft.) | 0 |
| | | (116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.) | 0 |
| | | (40) NAV HORIZONTAL CLEARANCE (ft.) | 0 |

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Bridge Inspection Report

Element Inspection

| | Environment | Total Quantity | Units | Condition State 1 | Condition State 2 | Condition State 3 | Condition State 4 |
|---|--|----------------|---------|-------------------|-------------------|-------------------|-------------------|
| 38 - Reinforced Concrete Slab | 1- Ben. | 3564 | sq. ft. | 3430 | 108 | 26 | 0 |
| | -There is spalling in isolated areas around the deck drains and the drip grooves that exposes the reinforcing steel with initial section loss. -Transverse cracks in the asphalt over the deck joints with vegetation growing in the joints and with the asphalt driving surface of the deck is breaking up over the deck joints. -Span 4, at Bent 5 Lt exterior edge of deck has a spall with exposed reinforcing steel. -Bents 1 and 10 right side have hairline shear type cracks. | | | | | | |
| 1090 - Exposed Rebar | | 26 | | | | 26 | |
| 1120 - Efflorescence/Rust Staining | | 6 | | | 6 | | |
| 1130 - Cracking (RC and Other) | | 102 | | | 102 | | |
| 510 - Wearing Surfaces | | 3564 | sq. ft. | 2958 | 386 | 220 | 0 |
| 3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces) | | 44 | | | 44 | | |
| 3220 - Crack (Wearing Surface) | | 562 | | | 342 | 220 | |
| 205 - Reinforced Concrete Column | 1- Ben. | 20 | each | 4 | 10 | 6 | 0 |
| | -The Rt column of Bent 3 has a vertical crack along the exterior edge of the column. -There is medium to heavy abrasion at the base of the columns. -Bent 3 column 2 has spalling with exposed reinforcing steel with approximately 25% section loss -Bent 4, right Column has a softball size failed grouted repair spall with exposed reinforcing steel. -Bent 6, right Column has 1 softball size spall with exposed reinforcing steel that has a grouted repair since last inspection. -Bent 9 column 1 has spalling with exposed reinforcing steel with approximately 25% section loss | | | | | | |
| 1080 - Delamination/Spall/Patched Area | | 1 | | | | 1 | |
| 1090 - Exposed Rebar | | 2 | | | | 2 | |
| 1130 - Cracking (RC and Other) | | | | | | | |
| 1190 - Abrasion/Wear (PSC/RC) | | 13 | | | 10 | 3 | |
| 220 - Reinforced Concrete Pile Cap/Footing | 1- Ben. | 100 | ft. | 100 | | | |
| | No apparent problems. | | | | | | |

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Element Inspection

| | | | | | | | |
|---|---------|-----|---------|-----|-----|----|---|
| 234 - Reinforced Concrete Pier Cap | 1- Ben. | 198 | ft. | 151 | 27 | 20 | 0 |
| -Maintenance forces have made numerous patches over the spalls in the bent caps since last inspection. -Stains on the bent caps indicate that the deck joints are open and leak water and debris on the caps. -Bent 2 has softball size spall with exposed reinforcing steel visible from the undersurface of the Rt side of cap. -Bent 3 has a 24" delaminated area over the Lt column. -Bent 4 has concrete deterioration with exposed reinforcing steel at the Rt side of cap that has a grouted repair since last inspection. -Bent 6 has horizontal cracking adjacent to Column 1. -Bent 7 has softball size spall with exposed reinforcing steel visible from the undersurface of the Rt side of cap. -Bent 8 has a vertical crack in the centerline of the cap. -Base of Bent 8 cap has map cracking with a 12" delaminated area. -Bent 8 cap has a 10" delaminated area over the Rt column. -Bent 9 has a approximately 5' of concrete delamination located at the base of the cap. -Bent 9 has a 3' spalled area that exposes the reinforcing steel with approximately 25% section loss. -Bent 9 has map cracking with efflorescence in the Lt end of cap. | | | | | | | |
| 1080 - Delamination/Spall/Patched Area | | 12 | | | | 12 | |
| 1090 - Exposed Rebar | | 4 | | | | 4 | |
| 1120 - Efflorescence/Rust Staining | | 4 | | | | 4 | |
| 1130 - Cracking (RC and Other) | | 27 | | | 27 | | |
| 330 - Metal Bridge Railing | 1- Ben. | 324 | ft. | 0 | 324 | 0 | 0 |
| Metal bridge railing has general protective coating failure with a rust coating throughout the railing. | | | | | | | |
| 1000 - Corrosion | | 324 | | | 324 | | |
| 515 - Steel Protective Coating | | 648 | sq. ft. | 0 | 648 | | |

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Bridge Inspection Report

Pictures

PHOTO 1

Description

PHOTO 2

Description

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Bridge Inspection Report

Sketches

Inspector:

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Maintenance Needs

Date Reported: 4/12/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Deck

Open cracks in the asphalt driving surface over the deck joints. There are water stains on the substructure caps that indicate joint seal leakage.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description

Inspector:

Structure Number: 02654

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Bridge Inspection Report

Maintenance Needs

Date Reported: 1/27/2014 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

R.C. Slab

There is several areas of spalling that exposes the reinforcing steel with initial section loss.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description

Stage: Assigned



PHOTO 2 Description Deck drains have exposed reinforcing steel with section loss typical of all drains.

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Maintenance Needs

Date Reported: 1/27/2014 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Abutments

Scour at bents 1 and 10 along the base of the concrete rip rap.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Minor scour at the base of the concrete rip rap. No apparent undermining at this inspection.

Stage: Assigned



PHOTO 2 Description