

Bridge Inspection Report

16233
County Road 288
over
Buffalo Creek - Polk Co.



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

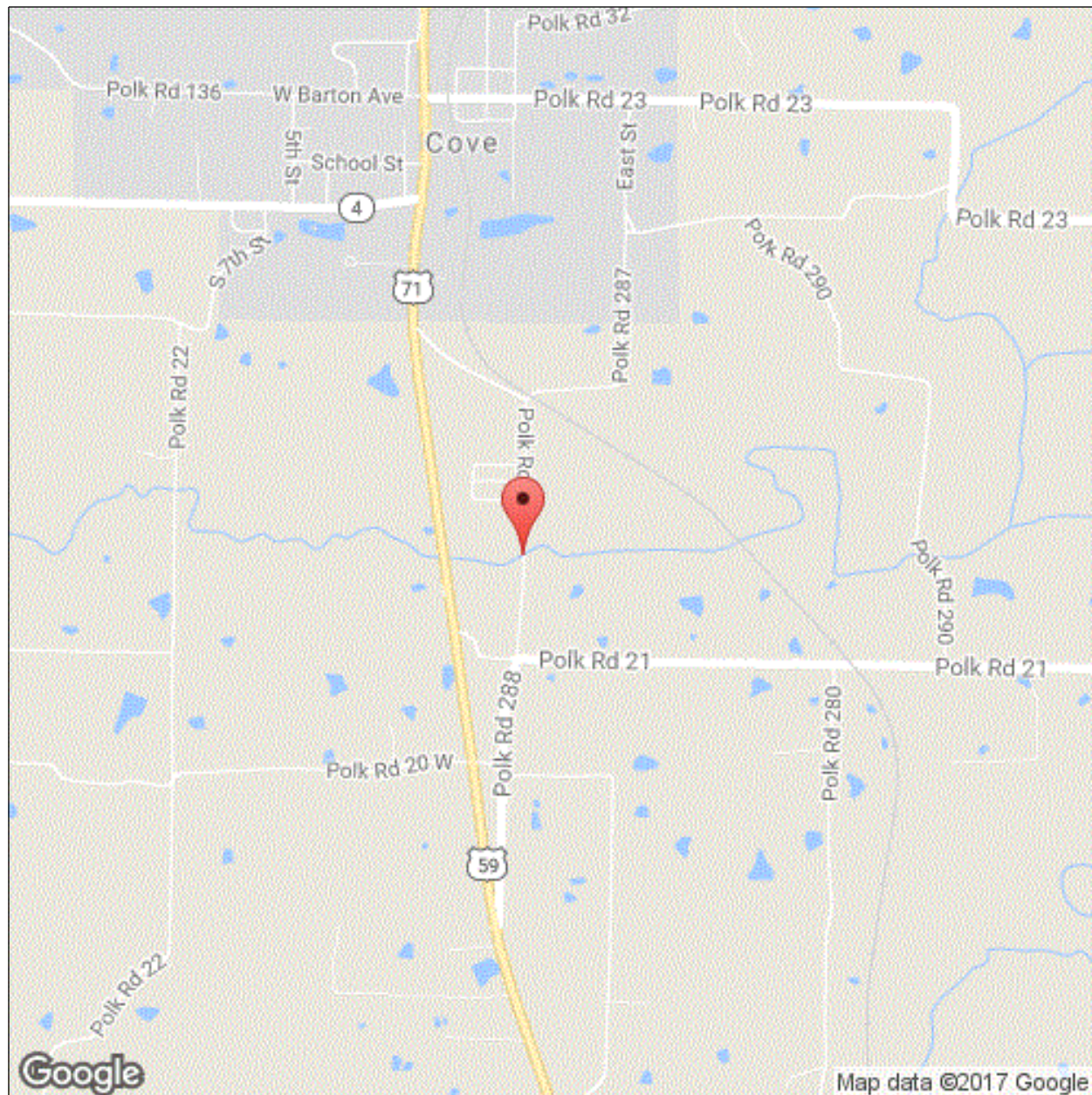
Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Location Map



Latitude: 34.420704

Longitude: -94.407646

Inspector:

Structure Number: 16233

Inspection Date:

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Bridge Inspection Report

Executive Summary

10/11/2017 - JCJ & JML - Fracture Critical Inspection - Visual / Hands - On method of inspection. Superstructure has an NBIS Rating of 2 for Item 59 (Superstructure) based upon the measurable section loss and numerous holes rusted through the superstructure.

10/11/2017 - JCJ & JML - Item 58, deck NBIS Rating is lowered to 4 this inspection.

10/11/2017 - JCJ & JML - Jeff Howard, the designated Polk County contact person, was notified by phone at approximately 1:45 pm concerning the fractured deck planks and timber runners. He was also notified that this structure has a NBIS Rating of 2 for Item 59 (Superstructure) based upon the measurable section loss and numerous holes rusted through the superstructure.

11/06/2017 - JCJ - Returned Form VIII from Polk County states that they are consulting with a Registered Professional Engineer to replace this structure.

Structural

BRIDGE GROUP

WEARING SURFACE THICKNESS WEATHERING STEEL PIN / HANGER STAY IN PLACE FORMS STEEL TONS (41) STRUCTURE
OPEN/POSTED/CLOSED**Location**ROAD / ROUTE NAME SECTION ZONE **Seismic**

SEISMIC

SEISMIC YEAR / ZONE **Notification**SCHOOL DISTRICT EMAIL OWNER EMAIL

LATE REASON

South to North
Special inspection By HBM and FHWA to evaluate s
gussets and U2-L1 chords. Posting signs in place a
signs in place, the defects do not warrant NBIS Item

16233 ▲

Forms

Report Info

Report Sections

Pictures/Files

Location Map

Asset Files

Inventory & Condition

National Bridge Inventory

Under Records

Element Inspection

Notes

Executive Summary

Notes

Appraisal and Rating

Load Rating

NBI Calculations

NBI Error Check

Inspector:

Structure Number: 16233

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Bridge Inspection Report

National Bridge Inventory

| IDENTIFICATION | | INSPECTIONS | |
|---|--|---|-----------------|
| (1) STATE CODE | 056 - Arkansas | (90) INSPECTION DATE | 10/11/2017 |
| (8) STRUCTURE NUMBER | 16233 | (91) DESIGNATED INSPECTION FREQUENCY | 24 |
| (5) INV. ROUTE (ON/UNDER) | 1 4 1 288 0 | (92) CRITICAL FEATURE INSPECTION | (93) CFI DATE |
| (2) HIGHWAY AGENCY | 04 (3) COUNTY CODE 113 | A. FRACTURE CRITICAL DETAIL | Y 24 10/11/2017 |
| (4) PLACE CODE | 00000 | B. UNDERWATER INSPECTION | N |
| (6) FEATURES INTERSECTED | Buffalo Creek - Polk Co. | C. OTHER SPECIAL | N |
| (7) FACILITY CARRIED | County Road 288 | | |
| (9) LOCATION | 0.85 MI N US 71. | | |
| (11) MILEPOINT 0.850 | (12) BASE HIGHWAY NETWORK 0 | | |
| (13A) LRS INVENTORY ROUTE | 0000000000 (13B) SUBROUTE NUMBER 00 | | |
| (16) LATITUDE 34.420704 | (17) LONGITUDE -94.407646 | | |
| (98A) BORDER BRIDGE CODE | | | |
| PERCENT RESPONSIBILITY | (99) BORDER BRIDGE STRUCT | | |
| STRUCTURE TYPE AND MATERIAL | | CONDITION | |
| (43) STRUCTURE TYPE, MAIN | | (58) DECK | 4 |
| A) KIND OF MATERIAL/DESIGN: 3 - Steel | | (59) SUPERSTRUCTURE | 3 |
| B) TYPE OF DESIGN/CONSTR: 10 - Truss - Thru | | (60) SUBSTRUCTURE | 6 |
| (44) STRUCTURE TYPE, APPROACH SPANS | | (61) CHANNEL & CHANNEL PROTECTION | 7 |
| A) KIND OF MATERIAL/DESIGN: 0 - Other | | (62) CULVERT | N |
| B) TYPE OF DESIGN/CONSTR: 00 - Other | | | |
| (45) NUMBER OF SPANS IN MAIN 1 | (46) NUMBER OF APPROACH 0 | | |
| (107) DECK STRUCTURE TYPE 8 | (108A) WEARING SURFACE 6 | | |
| (108B) DECK MEMBRANE 0 | (108C) DECK PROTECTION 0 | | |
| AGE OF SERVICE | | LOAD RATING AND POSTING | |
| (27) YEAR BUILT 1915 | (106) YEAR RECONSTRUCTED 0000 | (31) DESIGN LOAD | 1 |
| (42) TYPE OF SERVICE ON 1 UNDER 5 | | (63) METHOD USED TO DETERMINE OPERATING RATING | 2 |
| (28) LANES ON 01 UNDER 00 | | (64) OPERATING RATING | 7.1 |
| (29) AVERAGE DAILY TRAFFIC 87 | (19) BYPASS DETOUR LENGTH 2 | (65) METHOD USED TO DETERMINE INVENTORY RATING | 2 |
| (30) YEAR OF AVERAGE DAILY TRAFFIC 1987 | | (66) INVENTORY RATING | 4.0 |
| (109) AVERAGE DAILY TRUCK TRAFFIC 1 | | (70) BRIDGE POSTING | 0 |
| | | (41) STRUCTURE OPEN/POSTED/CLOSED | P |
| GEOMETRIC DATA | | APPRAISAL | |
| (48) LENGTH OF MAX SPAN (ft.) 81 | (49) STRUCTURE LENGTH (ft.) 82 | (67) STRUCTURAL EVALUATION | 2 |
| (50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5 RIGHT 0.5 | | (68) DECK GEOMETRY | 6 |
| (51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 14.8 | | (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL | N |
| (52) DECK WIDTH, OUT-TO-OUT (ft.) 16 | | (71) WATERWAY ADEQUACY | 7 |
| (32) APPROACH ROADWAY WIDTH (ft.) 16.1 | | (72) APPROACH ROADWAY ALIGNMENT | 8 |
| (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.) 15.7 | | 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 | 5 |
| (56) MIN LATERAL UNDER CLEARANCE (ft.) 0 | | SUFFICIENCY RATING | 1 |
| | | STATUS | 25.4 |
| PROPOSED IMPROVEMENTS | | CLASSIFICATION | |
| (75A) TYPE OF WORK PROPOSED 31 | (75B) WORK DONE BY 1 | (112) NBIS BRIDGE LENGTH | Y |
| (76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 108.0 | | (104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE | 0 |
| (94) BRIDGE IMPROVEMENT COST (\$) 0 | | (26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE | 09 |
| (95) ROADWAY IMPROVEMENT COST (\$) 109 | | (100) STRAHNET HIGHWAY DESIGNATION | 0 |
| (96) TOTAL PROJECT COST 290 | | (101) PARALLEL STRUCTURE DESIGNATION | N |
| (97) YEAR OF IMPROVEMENT COST ESTIMATE 2003 | | (102) DIRECTION OF TRAFFIC | 3 |
| (114) FUTURE ADT 108 | (115) YEAR OF FUTURE ADT 2007 | (103) TEMP STRUCTURE | |
| | | (105) FEDERAL LANDS HIGHWAYS | 0 |
| | | (110) DESIGNATED NATIONAL NETWORK | 0 |
| | | (20) TOLL | 3 |
| | | (21) MAINTENANCE RESPONSIBILITY | 02 |
| | | (22) OWNER | 02 |
| | | (37) HISTORICAL | 2 |
| | | 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 |

Inspector:

Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/17/2011 12:00:00 AM

Priority: A - Safety deficiency; requires prompt action

Work Code: Repair

Deficiency Description:

Superstructure -

Pack rust, active corrosion, and holes rusted through the lower connection plates. The bottom flanges of floorbeams have heavy pitting with knife edge section loss in locations. Holes rusted through the webs of the channels at the base of the end posts. Lower chords have section loss in numerous locations.

Work Description:

Date Repairs Completed:

Maintenance Comments:

10/21/2015 - EJW - Jeff Howard (Polk County Contact) was contacted at 8:20am on this date and informed of the Critical Finding issued for this structure due to a Superstructure NBI rating of a "2".

1/25/2016 - The load rating was updated in 2013 with lower recommended postings to account for the worsening of the member conditions. Since the lower posting addresses the CF I moved this to an "A". Mike Hill

2/23/2018 - Due to special inspection dated 2/22/2018 item 59 was changed to a 3 this maintenance item is no longer priority CF and has been changed to "A". ADN

10/31/2016 JCJ & JML - Jeff Howard, the designated Polk County contact person, was notified by phone at approximately 2:15 pm concerning the measurable section loss and numerous holes rusted through the superstructure. He was also notified that this structure has a NBIS Rating of 2 for Item 59.

8/10/2017 - Policy is that a "2" rating on Item 59 would call for a "CF". Priority was moved back to "CF" from "A" to align with policy and correct the mistake made on 1/25/16. Mike Hill

9/1/17 - Reviewed by Mike Hill

10/2/17 - Reviewed by Mike Hill

10/11/2017 - JCJ & JML - Jeff Howard, the designated Polk County contact person, was notified by phone at approximately 1:45 pm concerning the measurable section loss and numerous holes rusted through the superstructure. He was also notified that this structure has a NBIS Rating of 2 for Item 59.

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

11/1/17 - Reviewed by Mike Hill

12/12/17 - Reviewed by Michael Hill

1/2/18 - Reviewed by Michael Hill

Reviewed by Michael Hill on 2/1/18. Stewart plans to visit site.

Stage: Forward Local



PHOTO 1 Description L0. Left hole rusted through the interior end post at the gusset connection

Stage: Forward Local



PHOTO 2 Description L8. Left

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Forward Local



PHOTO 3 Description L10. Interior connection

Stage: Forward Local

Stage: Forward Local



PHOTO 5 Description L10. Right. Hole rusted through the interior channel of the end post.

Stage: Forward Local



PHOTO 4 Description L2. Right. Lower lateral gusset connection



PHOTO 6 Description L0. Right. Exterior connection plate with 1/4" hole.

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Forward Local



PHOTO 7 Description L4 Left Interior gusset at the Floor beam connection.

Stage: Forward Local



PHOTO 8 Description L0. Left. Exterior connection plate.

Stage: Forward Local



PHOTO 9 Description L4. Right. Interior. Lower gusset connection

Stage: Forward Local



PHOTO 10 Description L2. Left

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 10/17/2011 12:00:00 AM

Priority: B - Pressing; 6 month completion goal

Work Code: Repair

Deficiency Description:

Upper chord connections -
Upper chord connection plates appear to have out of plane bending.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Forward Local



PHOTO 1 Description Right Truss. Typical

Stage: Forward Local



PHOTO 2 Description Left Truss. Typical

Inspector:

Inspection Date:

Structure Number: 16233

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Bridge Inspection Report

Maintenance Needs

Stage: Forward Local



PHOTO 3 Description U7 connection plate.

Inspector:

Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/17/2011 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Stringer connections -
Stringers have loose bolted connections.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Forward Local



PHOTO 1 Description L8 Right. Stringer / Floor beam connections

Inspector:

Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/17/2011 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Steel Pony Truss -
Superstructure has no paint system with numerous areas of active corrosion.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Forward Local



PHOTO 1 Description Right Truss. Typical

Stage: Forward Local



PHOTO 2 Description Left Truss. Typical

Inspector:

Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/17/2011 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

U5 Right exterior connection plate -
U5 right has a short duration crack in the exterior connection plate.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Forward Local



PHOTO 1 Description U5-L6 at U5. Right. 1/8" crack with out of plane bending. No change.

Inspector:

Structure Number: 16233

Inspection Date:

Facility Carried: County Road 288

Bridge Inspection Report

Maintenance Needs

Date Reported: 10/22/2013 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

North and south abutments -

The north and south abutments have dirt and debris on the bridge seats that has accumulated against the steel stringer beams promoting corrosion.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Forward Local



PHOTO 1 Description Bent 2. Dirt on cap.

Stage: Forward Local



PHOTO 2 Description Bent 1 cap. Dirt on stringers.

Inspector:

Structure Number: 16233

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 10/19/2015

Priority: A - Safety deficiency; requires prompt action

Work Code: Repair

Deficiency Description:

Deck - The deck has a Missing portion of timber 4X4 approximately 4' long between steel stringers # 5 and # 7 near the South abutment. Timber runners are fractured over the fractured deck plank and are loose in other locations.

Work Description:

Date Repairs Completed:

Maintenance Comments:

10/11/2017 - JCJ & JML - Jeff Howard, the designated Polk County contact person, was notified by phone at approximately 1:45 pm concerning the fractured deck plank and timber runners.

Stage: Forward Local



PHOTO 1 Description Deck. Typical

Stage: Forward Local



PHOTO 2 Description Deck. Right wheel path. Bay 1.

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Forward Local



PHOTO 3 Description Deck soffit. Bay 1. Right wheel path.