

# Bridge Inspection Report

**A5445**  
**I-555NB-02-LM16.92**  
**over**  
**DITCH 60**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: A5445

Inspection Date:

Facility Carried: I-555NB-02-  
LM16.92

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	11/10/2015
(8) STRUCTURE NUMBER	A5445	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 1 1 555 1	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 111	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	DITCH 60	C. OTHER SPECIAL	Y 24 10/10/2016
(7) FACILITY CARRIED	I-555NB-02-LM16.92		
(9) LOCATION	.6MI E JCT SH14		
(11) MILEPOINT 16.92	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000063080 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.53784	(17) LONGITUDE -90.48489		
(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	6 (60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(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	30 (46) NUMBER OF APPROACH		
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE		
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION		
	0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT	1973 (106) YEAR RECONSTRUCTED	(31) DESIGN LOAD	5
(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	60.0
(29) AVERAGE DAILY TRAFFIC	20469 (19) BYPASS DETOUR LENGTH	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(66) INVENTORY RATING	36.0
(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.)	80 (49) STRUCTURE LENGTH (ft.)	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0 RIGHT 0	(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	37.1	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	39.7	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	38.1	(72) APPROACH ROADWAY ALIGNMENT	9
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	38.4	36B) TRANSITIONS:	1
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	36C) APPROACH GUARDRAIL:	1
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	36D) APPROACH GUARDRAIL ENDS:	1
(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 92.0
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	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	01
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	1
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	L
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	1
(114) FUTURE ADT	8692 (115) YEAR OF FUTURE ADT	(103) TEMP STRUCTURE	
	2028	(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	5
		(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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## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12 - Reinforced Concrete Deck</b>	1- Ben.	50895	sq. ft.	33182	2609	15104	0
1080 - Delamination/Spall/Patched Area		6524				6524	
1090 - Exposed Rebar		65			65		
1120 - Efflorescence/Rust Staining		2544			2544		
1130 - Cracking (RC and Other)		8580				8580	
<b>107 - Steel Open Girder/Beam</b>	1- Ben.	6400	ft.	5500	0	894	6
1000 - Corrosion		900				894	6
515 - Steel Protective Coating		47457	sq. ft.	45946	0	0	1511
3440 - Effectiveness (Steel Protective Coatings)		1511					1511
<b>205 - Reinforced Concrete Column</b>	1- Ben.	12	each	10	0	2	0
1090 - Exposed Rebar		2				2	
<b>215 - Reinforced Concrete Abutment</b>	1- Ben.	84	ft.	0	84		
<b>220 - Reinforced Concrete Pile Cap/Footing</b>	1- Ben.	93	ft.	0	93		
<b>227 - Reinforced Concrete Pile</b>	1- Ben.	136	each	129	7		0
<b>234 - Reinforced Concrete Pier Cap</b>	1- Ben.	986	ft.	956	0	0	30
1090 - Exposed Rebar		30					30
<b>302 - Compression Joint Seal</b>	1- Ben.	1147	ft.	935	0	212	0
2330 - Seal Damage		212				212	
<b>311 - Movable Bearing</b>	1- Ben.	150	each	0	0	150	0
1000 - Corrosion		150				150	
<b>313 - Fixed Bearing</b>	1- Ben.	150	each	0	0	150	0
1000 - Corrosion		150				150	
<b>331 - Reinforced Concrete Bridge Railing</b>	1- Ben.	2564	ft.	2564			

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Bent 31 road iron is loose and has vibration under traffic, and 13 ft. is missing.

Majority of compression seals are deteriorated, split and torn.

Some Joint Compression seals have dropped down:

Bent 5 = 38 ft,

Bent 19 = 26 ft,

Bent 26 = 20 ft,

Bent 31 = 24 ft

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Inspector:

Structure Number: A5445

Inspection Date:

Facility Carried: I-555NB-02-  
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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 11/20/2015

Priority: B - Pressing; 6 month completion goal

Work Code:

### Deficiency Description:

Span 18 side of Bent 19 Cap at Bearing 4 & 5 have a large shelled off area (2 ft. x 3 ft. with exposed rebar and anchor bolts. 50% (3 inches) loss of bearing support, see 2015 photo.

### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Open



PHOTO 2 Description

Inspector:

Structure Number: A5445

Inspection Date:

Facility Carried: I-555NB-02-  
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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: D - Routine

Work Code:

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#### Deficiency Description:

Steel girders have rust with some very light pitting; ends of majority of girders are rusted with pitting and/or initial section loss, typical 2 ft. on ends.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Inspector:

Inspection Date:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

#### Deficiency Description:

Caps Bents 2, 3,17, 19,22, 24,25,27,28,&30 has rebar exposed mainly by concrete coverage as built condition. Some cracking to caps and piles.

#### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Open



PHOTO 2 Description

Inspector:

Structure Number: A5445

Inspection Date:

Facility Carried: I-555NB-02-  
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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Span 3 side of Bent 4 Pile 2A & 3A has a honeycomb area with rebar exposed

Span 4 side of Bent 4 Pile 3B has a 1ft. diameter honeycomb area with exposed rebar.

Bent 27 Piles 1&3 at construction joint has a spall with rebar exposed, (1 foot typical)

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Majority of Bearings have rust with some pack rust. Some Bearings have missing nuts:

Span 4 Girder 1 Bent 5 has 1 nut missing

Span 5 Girder 3 Bent 6 has 1 nut missing

Span 7 Girder 2 Bent 8 has 1 nut missing

Span 11 Girder 4 Bent 11 has 1 nut missing

Span 11 Girder 2 Bent 12 has 1 nut missing

Span 27 Girder 1 Bent 27 has 1 anchor nut missing.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Inspector:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Several Girders are Floating; (1/16in. – 1/8in.) typical under traffic.

Span 6 Girder 2 Bent 7  
Span 6 Girder 4 Bent 7  
Span 7 Girder 2 Bent 7  
Span 7 Girder 4 Bent 7  
Span 7 Girder 2 Bent 8  
Span 7 Girder 4 Bent 8  
Span 8 Girder 2 Bent 9  
Span 8 Girder 4 Bent 9  
Span 9 Girder 2 Bent 10  
Span 10 Girder 3 Bent 11  
Span 11 Girder 2 Bent 11  
Span 11 Girder 4 Bent 11  
Span 11 Girder 2 Bent 12  
Span 11 Girder 4 Bent 12  
Span 12 Girder 2 Bent 13  
Span 12 Girder 4 Bent 13  
Span 13 Girder 4 Bent 13  
Span 17 Girder 3 Bent 17  
Span 17 Girder 2 Bent 18  
Span 20 Girder 4 Bent 20  
Span 21 Girder 3 Bent 22  
Span 24 Girder 2 Bent 25  
Span 25 Girder 2 Bent 26  
Span 27 Girder 4 Bent 27  
Span 27 Girder 3 Bent 28  
Span 28 Girder 2 Bent 28  
Span 28 Girder 4 Bent 28  
Span 29 Girder 3 Bent 29  
Span 29 Girder 3 Bent 30

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/20/2015

Priority: C - Important

Work Code:

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#### Deficiency Description:

All spans top of deck have minor to moderate size and density cracks.

Heavy map cracking top of deck especially in wheel path, Spans 10 thru 12, 15 thru 17, 19 thru 27, 29 & 30. especially Rt. Lane

Top of deck all spans have numerous concrete and asphalt patch repairs with several existing spalled areas several patches are shelling out with rebar exposed.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Inspection Date:

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## Bridge Inspection Report

### Maintenance Needs

Stage: Monitor



PHOTO 3 Description

Stage: Monitor



PHOTO 4 Description

Inspector:

Structure Number: A5445

Inspection Date:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Several Diaphragm Bolts are loose or missing.  
Span 7 Girder 2 Bay 2 Diaphragm 2 has 1 nut missing  
Span 10 Bay 2 Diaphragm 2 has 6 bolts loose.  
Span 10 Bent 10 Bay 2 Diaphragm 1 has 3 bolts and nuts missing.  
Span 10 Bent 11 Bay 2 Diaphragm 3 has 1 bolt and nut missing  
Span 10 Bent 11 Bay 3 Diaphragm 3 has 2 bolts and nuts missing.  
Span 11 Girder 4 Bent 11 Bay 4 Diaphragm 1 has 3 bolts and nuts missing  
Span 12 Bay 1 Diaphragm 2 has 4 loose bolts  
Span 13 Bent 13 Bay 4 Diaphragm 1 has 1 loose bolt  
Span 15 Bent 16 Bay 2 Diaphragm 3 has 1 nut missing.  
Span 15 Bent 16 Bay 4 Diaphragm 3 has 1 nut missing  
Span 16 Girder 4 Bent 16 Bay 3 Diaphragm 1 has 1 nut missing  
Span 16 Girder 4 Bent 16 Bay 4 Diaphragm 1 has 1 bolt and nut missing  
Span 18 Bent 18 Bay 3 Diaphragm 1 has 1 loose bolt  
Span 19 Girder 5 Bent 19 Bay 4 Diaphragm 1 has 1 bolt and nut missing  
Span 21 Bent 22 Bay 2 Diaphragm 3 has 4 loose bolts  
Span 25 Bay 2 Diaphragm 2 has 2 nuts missing and 10 loose nuts

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: C - Important

Work Code:

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#### Deficiency Description:

Several caps have shelled out areas with rebar exposed,  
Bent 8 right side of bottom of cap (8 ft.),  
Bent 8 left end (2ft.)  
Bent 13 right end is spalled  
Bent 18 left end (2ft.),  
Bent 20 left end, (2 ft.),  
Bent 22 right end (2 ft.),  
Bent 25 right end (2 ft.),  
Bent 30 right end (2 ft.)

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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#### Maintenance Needs

Date Reported: 11/20/2015

Priority: B - Pressing; 6 month completion goal

Work Code:

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#### Deficiency Description:

Span 14 Girder 4 Bent 14 has 2 ft. on end of girder, bottom flange and web, is rusted with up to 1/8 in. section loss.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Open



PHOTO 1 Description

Inspector:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/20/2015

Priority: C - Important

Work Code:

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#### Deficiency Description:

Girder3 Span 8 Bent 8 Hole rusted thru web at diaphragm and bearing connection

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Open



PHOTO 1 Description