



Latitude:35.12872, Longitude:-90.50430

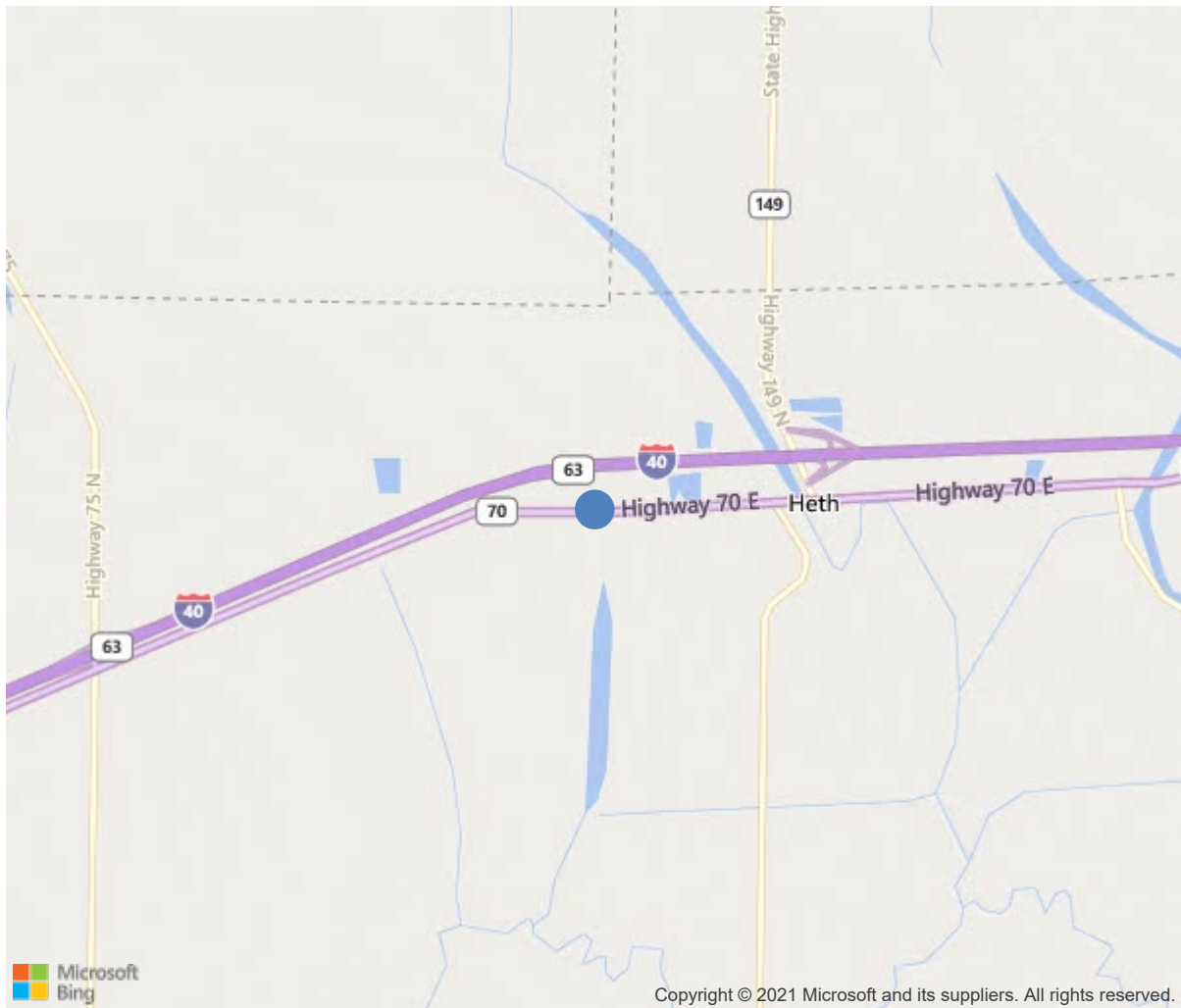
Route:70 Section:19 Log:18.9

Arnold Road ID:68x70x19xA, Arnold Log mile:18.858

District 01, St. Francis County

Owner: 1-State Highway Agency

1.00 Mi Sw Jct Of Sh 149



35.12872, -90.50430



**Bridge #01374(Routine, Underwater type 2)**

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead: Myron Futrell Inspection Date: January 13, 2020**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	01374
(5) Inventory Route	70
(2) Highway Agency District	01
(3) County Code	123-St. Francis County, Arkansa
(4) Place Code	0
(6) Features Intersected	Drainage Canal
(7) Facility Carried	Us-70/Sec-19/L18.9
(9) Location	1.00 Mi Sw Jct Of Sh 149
(11) Mile Point	18.9 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.128719
(17) Longitude	-90.504303
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1-Concrete
Type	4-Tee beam
(44) Approach Structure Type	11
Material	1-Concrete
Type	1-Slab
(45) No. of Spans in Main Unit	1
(46) No. of Approach Spans	2
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1930
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	1300
(30) Year of ADT	2014
(109) Truck ADT	18 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	62 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	27.2 ft
(52) Deck Width Out to Out	30.3 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	27.6 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7-Rural Major Collector
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	1-The inventory route is part of the
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	6
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	40
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	1
Rating	24
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	4-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	Replacement of bridge or other
(76) Length of Structure Improvement	87 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 125
(96) Total Project Cost	\$ 303
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	1573
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			01/2020
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



Bridge #01374(Routine, Underwater type 2)

Us-70/Sec-19/L18.9 over Drainage Canal

Location: 1.00 Mi Sw Jct Of Sh 149

Team Lead: Myron Futrell, Inspection Date: January 13, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	900	883	11	6	0
1080	Delamination/Spall/Patched Area	SF	11	0	11	0	0
1090	Exposed Rebar	SF	5	0	0	5	0
1120	Efflorescence/Rust Staining	SF	1	0	0	1	0
510	Wearing Surfaces	SF	810	810	0	0	0
(16)	Asphalt overlay has a few transverse open cracks. Soffit bay #1 has one piece of exposed rebar near bent two with 10% section loss and two feet of delamination's. Soffit bay #2,3,4 each have three square feet of delamination's. Soffit over hangs have delaminated areas with small spalls around drains four square feet total with rebar exposed with 5% section loss. Soffit over hang right side has one foot of heavy efflorescence near bent #3.						
38	RC Slab	SF	950	790	160	0	0
1130	Cracking (RC and Other)	SF	160	0	160	0	0
510	Wearing Surfaces	SF	855	745	110	0	0
3220	Crack (Wearing Surface)	SF	110	0	110	0	0
(38)	Asphalt overlay has several transverse cracks. Soffit of slab has longitudinal cracks spaced 6' apart. One crack each span has light efflorescence full length.						
110	Reinforced Concrete Open Girder/Beam	LF	182	176	5	1	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
(110)	Bent #2 span #1 right cantilever is spalled with 2' of exposed rebar with 5% section loss. Each girder has one delamination on side five feet total on all.						
215	Reinforced Concrete Abutment	LF	75	74	0	1	0
1130	Cracking (RC and Other)	LF	1	0	0	1	0
(215)	Abutment 2 left headwall/wing cracked,						
227	Reinforced Concrete Pile	EA	20	20	0	0	0
(227)	Bent 3 pile 1 cracked near cap.						
234	Reinforced Concrete Pier Cap	LF	54	26	4	24	0
1080	Delamination/Spall/Patched Area	LF	20	0	0	20	0





**Bridge #01374**(Routine, Underwater type 2)

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead:** Myron Futrell, **Inspection Date:** January 13, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1090	Exposed Rebar	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	4	0	4	0	0
(234)	Bent #2 right end and ahead face has several hairline cracks. Bent #3 cap has areas of delamination's on both faces, ahead face has two foot spall with exposed rebar towards right end with 5% section loss, and four feet of cracking towards left. Left end has 2' spall with exposed rebar with 5% section loss.						
331	Reinforced Concrete Bridge Railing	LF	124	123	0	1	0



Typical soffit.



Typical soffit.





Abutment 1



Hole in abutment 1 right approach shoulder.





Hole in abutment 1 left approach shoulder.



Hole in abutment 2 approach gutter left side.





Abutment 2 right approach gutter.



Bent 3 pile 1.





Abutment 2.



Bent 3 cap left end.





Typical deck.



Top view.

## Maintenance Needs

**Date Reported:** 02/18/2011  
**Priority:** C - Important  
**Type of Work:** N/A  
**Status:** Monitor  
**Component:**

---

## Deficiency Description

Wing wall abutment #1 right side wall broken and falling down and slope under wing wall eroded.

## Remarks

---



Abutment #1 right approach gutter undermined  
with hole in roadway



**Date Reported:** 02/08/2012

**Priority:** D- Routine

**Type of Work:** N/A

**Status:** Monitor

**Component:**

---

### Deficiency Description

Bent #3 cap has areas of delamination's on both faces, ahead face has two foot spall with exposed rebar towards right end with 5% section loss, and four feet of cracking towards left. Left end has 2' spall with exposed rebar with 5% section loss.

### Remarks

---



Bent #3 cap ahead face



Bent #3 ahead face right end



Bent #3 cap left end



**Bridge #01374**(Routine, Underwater type 2)

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead:** Myron Futrell **Inspection Date:** January 13, 2020

**Date Reported:** 02/03/2014  
**Priority:** C - Important  
**Type of Work:** N/A  
**Status:** Assigned  
**Component:**

---

### Deficiency Description

Edge of roadway all four corners are eroding causing holes to form at bridge ends and causing approach slabs to have voids under them.

### Remarks

---











**Bridge #01374**(Routine, Underwater type 2)

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead:** Myron Futrell **Inspection Date:** January 13, 2020





Bridge #01374(Routine, Underwater type 2)

Us-70/Sec-19/L18.9 over Drainage Canal

Location: 1.00 Mi Sw Jct Of Sh 149

Team Lead: Myron Futrell Inspection Date: January 13, 2020

Date Reported: 02/03/2014

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Component:

---

### Deficiency Description

Approach rails abutment #1 right side and abutment #2 both sides have minor collision damage.

### Remarks

---



Abutment #2 right approach rail minor damage



Abutment #2 left approach rail minor damage



Abutment #1 right approach rail





**Bridge #01374**(Routine, Underwater type 2)

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead:** Myron Futrell **Inspection Date:** January 13, 2020

**Date Reported:** 01/22/2018  
**Priority:** C - Important  
**Type of Work:** N/A  
**Status:** Monitor  
**Component:**

---

#### Deficiency Description

Abutment #1 slope has erosion gulleys up to 2' deep.

#### Remarks

---



Abutment #1 slope has erosion veins up to 2' deep.



**Date Reported:** 01/22/2018

**Priority:** D- Routine

**Type of Work:** N/A

**Status:** Monitor

**Component:**

---

**Deficiency Description**

Both abutments erosion control is starting to fail.

**Remarks**

---



Abutment #2



Abutment #1

**Date Reported:** 01/14/2020  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Open  
**Component:** Channel

---

**Deficiency Description**

Abutment 1 left side behind pile 1 has a 2' void behind cap.

**Remarks**

---



Void behind abutment 1 cap left side.





**Bridge #01374**(Routine, Underwater type 2)

**Us-70/Sec-19/L18.9 over Drainage Canal**

**Location: 1.00 Mi Sw Jct Of Sh 149**

**Team Lead:** Myron Futrell **Inspection Date:** January 13, 2020

### **Inspection Comments**

Drawing Nos. 1583, 1956.

01/30/2017 Special Inspection for scour. Holes in edge of roadway, erosion under abutment #2 approach slab and deterioration of sacked riprap continues to increase.

01/22/2018 removing special inspection due to erosion at abutments seem to be holding.

01/22/2018 lowered substructure from 7 to 6 to erosion at abutments.

Abutment #1 slope has erosion veins up to 2' deep.

Edge of roadway all four corners are eroding causing holes to form at bridge ends and causing approach slabs to have voids under them

Approach rails abutment #1 right side and abutment #2 both sides have minor collision damage.

Wing wall abutment #1 right side wall broken and falling down and slope under wing wall eroded.