

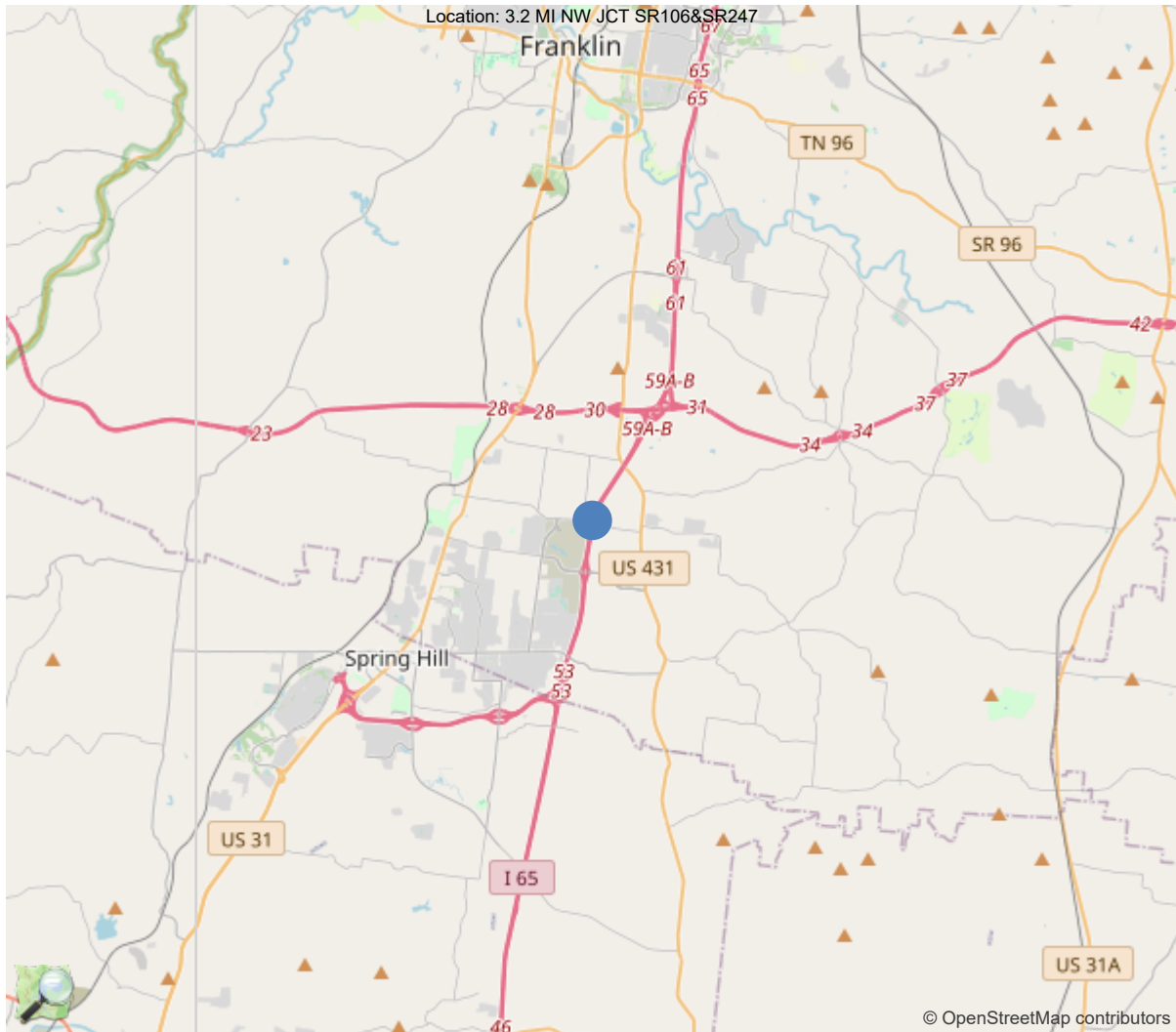


Latitude:35.78971, Longitude:-86.86071

Region 03, 94 - Williamson County

Team Leader: Crystal Burgess

Inspectors: Ricky Knight



THOMPSON STATION RD. E. Crossing NFA 1928 / I65

35.78971, -86.86071

90 - LAST INSPECTION DATE 02/03/2025

10 - MIN. V.C. OVER DECK 99.99 FT.
(ROADWAY + SHOULDERS)

520 - MIN. V.C. OVER DECK 99.990 FT.
(EXCLUDES SHOULDERS)

36 - TRAFFIC SAFETY FEATURES

Br. Rail	Trans.	Appr. Rail	Terminal	SPEED LIM.
1	0	0	0	45

41 - STRC OPEN/CLOSED/POSTED P

58 - DECK 7

59 - SUPERSTRUCTURE 6

60 - SUBSTRUCTURE 7

61 - CHANL/CHANL PROTECTION N

62 - CULVERT AND RETAIN WALL N

71 - WATERWAY ADEQUACY N

72 - APPROACH RDWY ALIGNMENT 8

521 - OVERALL CONDITION 2 - Fair

16 - LATITUDE	17 - LONGITUDE
35.789705	-86.860706

Crystal Burgess

TEAM LEADER SIGNATURE

N NOT APPLICABLE

9 EXCELLENT CONDITION

8 VERY GOOD CONDITION - NO PROBLEMS NOTED.

7 GOOD CONDITION - SOME MINOR PROBLEMS.

6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.

5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.

4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.

3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.

2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.

1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT IT BACK IN LIGHT SERVICE.

0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORREC

IDENTIFICATION	
(1) State Names	47 - Tennessee
(8) Structure Number	94I00650003
(5) Inventory Route	1
(2) Highway Agency District	Region 3
(3) County Code	94 - Williamson
(4) Place Code	00000
(6) Features Intersected	NFA 1928 / I65
(7) Facility Carried	NFA 1928 (SA 9405)
(9) Location	3.2 MI NW JCT SR106&SR247
(11) Mile Point	0.970 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	
(16) Latitude	35.789705
(17) Longitude	-86.860706
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	55
Material	5 - Prestressed concrete *
Type	5 - Box beam or girders - Multiple
(44) Approach Structure Type	00
Material	0 - Other / None
Type	0 - Other / None
(45) No. of Spans in Main Unit	4
(46) No. of Approach Spans	0
(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	1961
(106) Year Reconstructed	0
(42) Type of Service	11
On	1 - Highway
Under	1 - Highway, with or without pedestrian
(28) Lane	
On	2
Under	4
(29) Average Daily Traffic	3663
(30) Year of ADT	2021
(109) Truck ADT	3 %
(19) Bypass, Detour Length	10 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	65.9 ft
(49) Structure Length	238.8 ft
(50) Curb or Sidewalk Width	
Left	0.0 ft
Right	0.0 ft
(51) Bridge Roadway Width Curb to Curb	26.6 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	29.9 ft
(33) Bridge Median	0 - No median
(34) Skew	87 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	26.6 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	17.26 ft
Ref:	
(55) Min Lat Underclear RT	11.2 ft
Ref:	
(56) Min Lat Underclear LT	28.5 ft
NAVIGATION DATA	
(38) Navigation Control	N - Not applicable, no waterwa
(111) Pier Protection	
(39) Navigation Vertical Clearance	0.0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	ft
(40) Navigation Horizontal Clearance	0.0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	17 - Urban Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	4 - Historical significance is
CONDITION	
(58) Deck	7
(59) Superstructure	6
(60) Substructure	7
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	8
(64) Operating Rating	
Type	8 - Load and Resistance Factor Rating (LRF
Rating	29.81
(65) Inventory Rating Method	8 - Load and Resistance Factor
(66) Inventory Rating	
Type	
Rating	11.34
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	P - Posted for load (may inclu
APPRAISAL	
(67) Structural Evaluation	3
(68) Deck Geometry	3
(69) Clearances, Vertical/Horizontal	5
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	N - Bridge not over waterway.
PROPOSED IMPROVEMENTS	
(75) Type of Work	33 - Widening of existing brid
(76) Length of Structure Improvement	238.8 ft
(94) Bridge Improvement Cost	\$ 712
(95) Roadway Improvement Cost	\$ 72
(96) Total Project Cost	\$ 1069
(97) Year of Improvement Cost Estimate	2021
(114) Future ADT	5013
(115) Year of Future ADT	2041

INSPECTIONS *			
(90) Inspection Date	02/03/2025		
(91) Frequency	24		
(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.			

PERFORMANCE EVALUATION

Time of Day Inspected 10:00 Weather Conditions CLEAR (64°)
 Vehicles Observed ALL TYPES OF CARS AND TRUCKS

LIVE LOAD BEHAVIOR

Sub Horiz./ Vert. Defl (No) _____
 Sub Vibration (No) _____
 Super Horiz./ Vert. Defl (No) _____
 Super Vibration (No) _____

APPROACH

Alignment (Good) _____
 Pavement (Fair) CRACKS IN ASPHALT IN APPROACH NO.1, CRACKS AND SPALL IN ASPHALT AT APPROACH NO. 2
 Embankment (Good) _____

TRAFFIC SAFETY FEATURES

Bridge Railing Rating (Good) STANDARD - HAIRLINE CRACKS
 Transitions Rating (Good) SUBSTANDARD- METAL BLOCKOUTS
 Guardrail Rating (Good) SUBSTANDARD- METAL BLOCKOUTS
 Guardrail Terminal Rating (Good) SUBSTANDARD

SIGNS POSTED ON ROUTE

Paddleboards	<u>Yes</u>	Weight Limit Posted	<u>Yes</u>
Vertical Clearance (<14'-6")	<u>No</u>	Gross	<u>40</u> Tons
Posted Height	_____	Single-unit Vehicle	_____ Tons
Narrow Bridge Signs	<u>No</u>	Multi-unit Vehicle	_____ Tons
One Lane Bridge Signs	<u>No</u>	564 Assigned Bridge Name	_____
Other Signs or Plaques	_____		

ATTACHED SIGNS

Sign No	Location	Text on Sign	Noted Defects
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DECK

Wearing Surface Type		Asphalt	Wearing Surface Depth	4
Wearing Surface	(Good)	ASPHALT WITH HAIRLINE CRACKS		
Deck - Structural Condition	(Good)			
Parapet	(Good)	HAIRLINE CRACKS		
Deck Drains	(Good)			

SUPERSTRUCTURE

Bearing Devices	(Good)	NEOPRENE
Beams	(Fair)	SIDE BY SIDE BOX BEAMS, CRACKS UP TO 1/16" OPEN, RUST STAINS, AND EFF.
Superstructure Paint	(Good)	
Alignment of Members	(Good)	

TEXTURE COAT

ABUTMENTS

Abutment Caps	(Good)	
Abutment Wings	(Fair)	LARGE CHIP IN LEFT WING AT ABUTMENT 2
Abutment Plumb	(Good)	
Abutment Piles		N/V
Abutment Embankment	(Good)	
Abutment Bearing Surface	(Good)	NEOPRENE
Abutment Slope Paving	(Good)	

PIERS

BENTS

Bent Caps	(Good)	SOUND PATCHES
Bent Columns	(Good)	
Bent Plumb	(Good)	
Bent Bearing Surface	(Good)	
Piles Need Replacement	(No)	

Inspection Team's Summary

INSPECTION TEAM'S SUMMARY
BRIDGE NUMBER 94-1928-0.97
NON-FA ROUTE 1928 OVER I-65

FEBUARY 03, 2025

The subject bridge was inspected, on the above date, and found to be in fair condition.

This structure is a 4 span precast, prestressed, concrete box beam bridge on an 86° skew to the left. All substructure members are cast-in-place concrete. The bridge has a roadway width of 26'-6" and a total length of 239'-3".

The approach alignment and embankment are rated good. The approach pavement is fair with cracks and a spall. The structure is posted for 40 tons.

The approach guardrail and transitions are substandard with metal blockouts. The terminals have striped decals but are substandard. The approach guardrail and transitions are all substandard with metal blockouts on the underpass route. Underpass terminals are good and standard.

The wearing surface is good with hairline cracks . The parapets are rated good with a few hairline cracks. The deck is rated good.

The superstructure consist of box beams rated fair with cracks up to 1/16" open with leaching and some rust staining. All substructure members are rated good, except for the left wing at abutment No. 2 having a heavy chip. Sound patches were noted on the bottoms of the bent caps.

No channel items exist, this bridge is over I-65.

General Inspection Comment

HQ notes to TL

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Re Concrete Deck	SF	6819	6819	0	0	0
510	Wearing Surfaces	SF	6340	5072	0	1268	0
3220	Crack (Wearing Surface)	SF	1268	0	0	1268	0
(12) Element record added 2/6/2017							
104	Pre Clsd Box Girder	LF	2153	1783	0	370	0
1110	Cracking (PSC)	LF	370	0	0	370	0
(104) Element record added 2/6/2017							
205	Re Conc Column	EA	6	6	0	0	0
(205) Element record added 2/6/2017							
215	Re Conc Abutment	LF	60	60	0	0	0
(215) Element record added 2/6/2017							
234	Re Conc Pier Cap	LF	90	73	17	0	0
1080	Delamination/Spall/Patched Area	LF	17	0	17	0	0
(234) Element record added 2/6/2017							
310	Elastomeric Bearing	EA	45	45	0	0	0
(310) Element record added 2/6/2017							
331	Re Conc Bridge Railing	LF	479	431	48	0	0
1130	Cracking (RC and Other)	LF	48	0	48	0	0
(331) Element record added 2/6/2017							

Equipment List

General Inspection

- ☐ Pocket knife
☒ Sounding/chipping hammer
☐ Chain drag
☒ Range pole
☒ 25' rod - depth and clearance

Visual Aid

- ☐ Binoculars
☒ Flashlight
☐ Magnifying glass
☐ Hand mirror

Cleaning

- ☐ Wisk broom
☐ Wire brush
☐ Flat bladed screwdriver
☐ Hand shovel
☐ Penetrating oil (WD-40, etc.)

Tools For Access

- ☐ Ladders
☐ Rope
☒ Waders
☐ Machete or bush axe

Comment

Tools For Measuring

- ☐ Masonry/Wood Ruler
☐ 6' Pocket Tape
☒ 25' and 100' Tape
☐ Calipers
☒ Thermometer
☐ Carpenter's Level
☐ String and Weighted line (plumb bob)

Special Purpose Equipment

- ☐ Reach All
☐ Bucket Truck
☐ Traffic control
☐ Boat
☐ Sonar depth finder
☐ Increment borer
☐ Survey equipment
☐ Safety Harness
☐ Climbing equipment
☐ Dye penetrant
☐ Drone
☐ Air Meter

Special Purpose Equipment

Reach-All Approval and Comments



BRIDGE #



APPROACH #1



APPROACH #2



ACROSS TOP DECK



ELEVATION VIEW RIGHT SIDE



ABUTMENT TYPICAL



BENT TYPICAL



BOTTOM DECK TYPICAL



LOOKING AHEAD ON ROUTE



LOOKING BACK ON ROUTE



WEIGHT POSTING SIGN IN APPR. #1



WEIGHT POSTING SIGN IN APPR. #2



CRACK IN BOTTOM OF BOX BEAM "A", SPAN #1



CRACK IN BOTTOM OF BOX BEAM "I", SPAN #2



CRACK IN BOTTOM OF BOX BEAM "A", SPAN #4



SPALL W/ REBAR IN TOP OF ABUT. #2 LEFT WING

Maintenance Recommendations

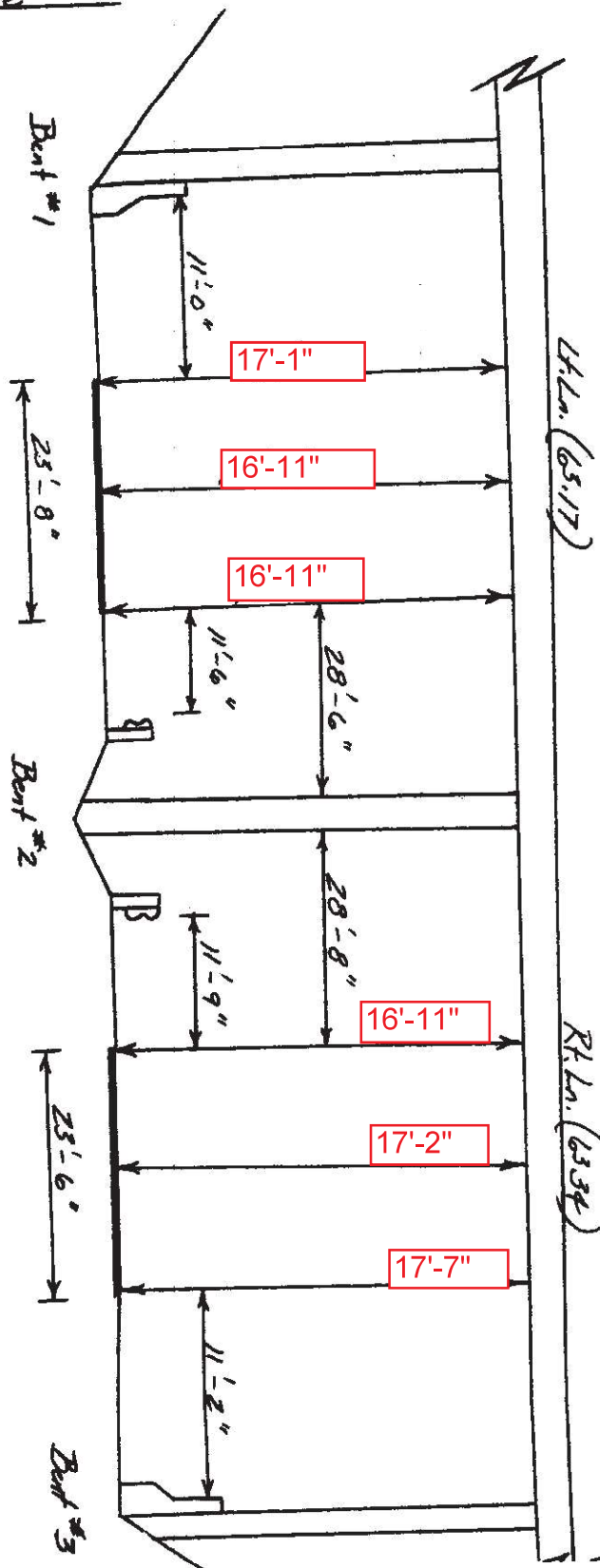
525 - Repair List # N 523 - Repair List Add Date 524 - Repair List Revise Date 2/3/2021 1

Date Added	Recommendation	Priority
02/04/2015	REPAIR BOX BEAM "I" IN BOTTOM SPANS NO. 2, 3, AND 4	3
02/02/2017	REPAIR BOX BEAM "A" IN SPANS NO. 1 AND 4	3
02/03/2025	SEAL CRACKS IN ASPHALT WEARING SURFACE	
02/03/2025	REPAIR ASPHALT IN BOTH APPROACHES	

Br. No. 94-1928-0.97
Underpass Clearance

DATE: 02/03/2025

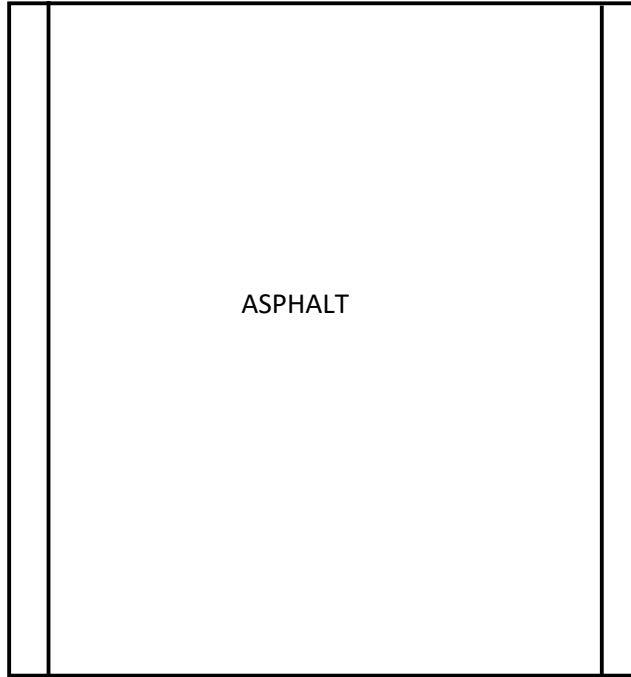
ELEVATION VIEW, RT. SIDE



Top Span No. 1

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

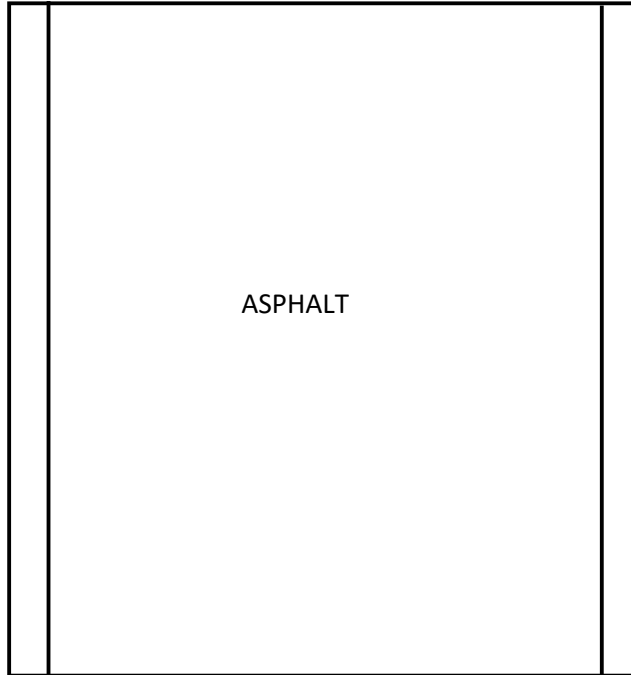


W. SURFACE	GOOD	HAIRLINE CRACKS IN ASPHALT
CURBS	N/A	
PARAPET	GOOD	HAIRLINE CRACKS
DRAINS	GOOD	
JOINT	N/A	

Top Span No. 2

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

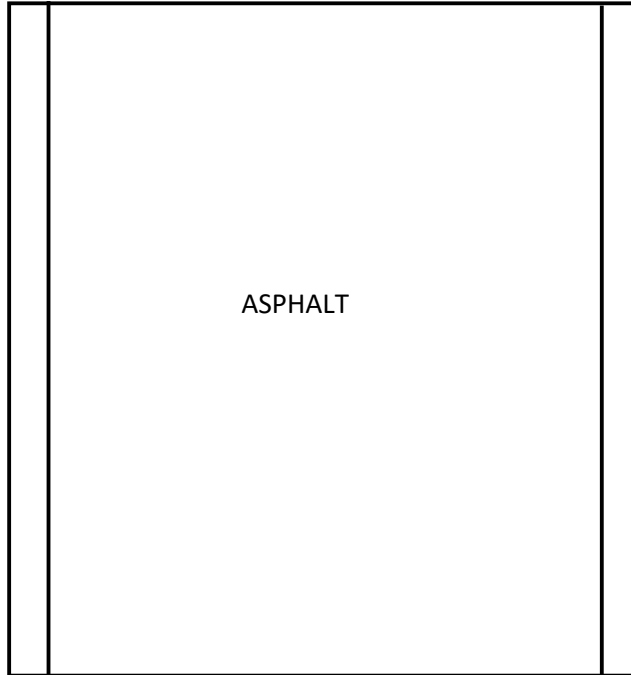


W. SURFAC	GOOD	HAIRLINE CRACKS IN ASPHALT
CURBS	N/A	
PARAPET	GOOD	HAIRLINE CRACKS
DRAINS	GOOD	
JOINT	N/A	

Top Span No. 3

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

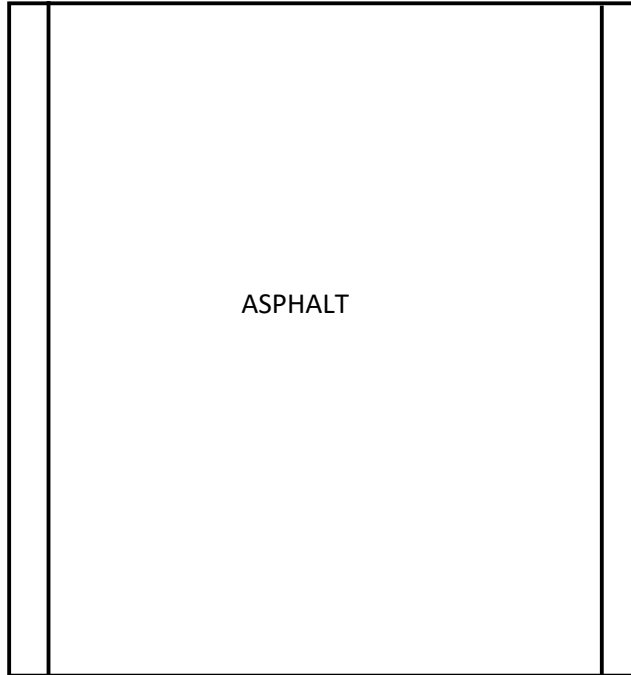


W. SURFAC	GOOD	HAIRLINE CRACKS IN ASPHALT
CURBS	N/A	
PARAPET	GOOD	HAIRLINE CRACKS
DRAINS	GOOD	
JOINT	N/A	

Top Span No. 4

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



W. SURFAC	GOOD	HAIRLINE CRACKS IN ASPHALT
CURBS	N/A	
PARAPET	GOOD	HAIRLINE CRACKS
DRAINS	GOOD	
JOINT	N/A	

Bottom Span No. 1

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



CRACK W/EFF									
A	B	C	D	E	F	G	H	I	

BEAMS	A	FAIR	1/32" CRACK W/EFF
	B	GOOD	
	C	GOOD	
	D	GOOD	
	E	GOOD	
	F	GOOD	
	G	GOOD	
	H	GOOD	
	I	GOOD	

Bottom Span No. 2

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



		HAIRLINE CRACK					CRACK W/EFF RUST STAINS	CRACKS, EFF, RUST STAINS
A	B	C	D	E	F	G	H	I

BEAMS	A	GOOD	
	B	GOOD	
	C	FAIR	HAIRLINE CRACKS
	D	GOOD	
	E	GOOD	
	F	GOOD	
	G	GOOD	
	H	FAIR	HAIRLINE CRACKS, EFF, RUST STAINS
	I	FAIR	CRACKS UP TO 1/16" OPEN, EFF, RUST STAINS

Bottom Span No. 3

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



		HAIRLINE CRACK		HAIRLINE CRACK	HAIRLINE CRACK		HAIRLINE CRACK	CRACK UP TO 1/16", EFF, RUST STAINS
A	B	C	D	E	F	G	H	I

BEAMS	A	GOOD	
	B	GOOD	
	C	FAIR	HAIRLINE CRACK
	D	GOOD	
	E	FAIR	HAIRLINE CRACK
	F	FAIR	HAIRLINE CRACK
	G	GOOD	
	H	FAIR	HAIRLINE CRACK
	I	FAIR	CRACKS UP TO 1/16" OPEN, EFF, RUST STAINS

Bottom Span No. 4

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



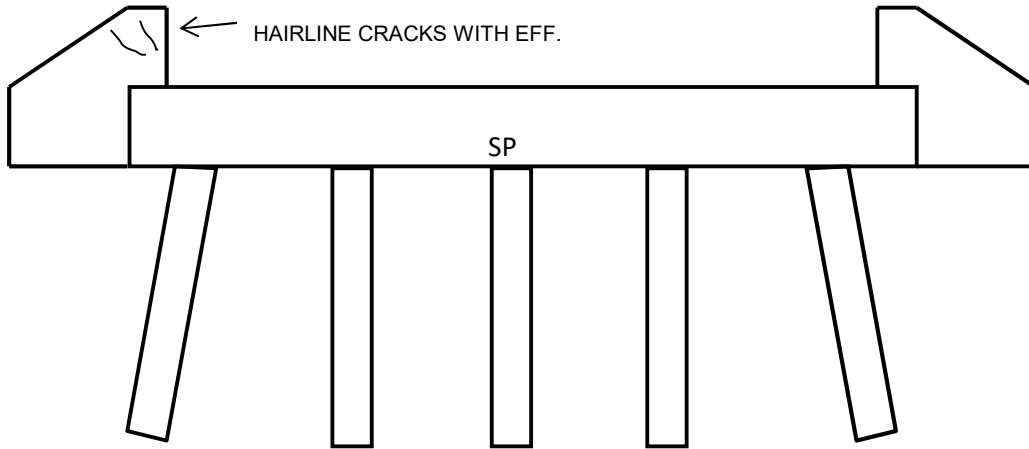
1/32" CRACKS, EFF, RUST STAINS			HAIRLINE CRACK	HAIRLINE CRACK	HAIRLINE CRACK			HAIRLINE CRACK, EFF, RUST STAINS
A	B	C	D	E	F	G	H	I

BEAMS	A	FAIR	1/32" CRACKS, EFF, RUST STAINS
	B	GOOD	
	C	GOOD	
	D	FAIR	HAIRLINE CRACKS
	E	FAIR	HAIRLINE CRACKS
	F	FAIR	HAIRLINE CRACKS
	G	GOOD	
	H	GOOD	
	I	FAIR	HAIRLINE CRACKS, EFF, RUST STAINS

Abutment No. 1

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

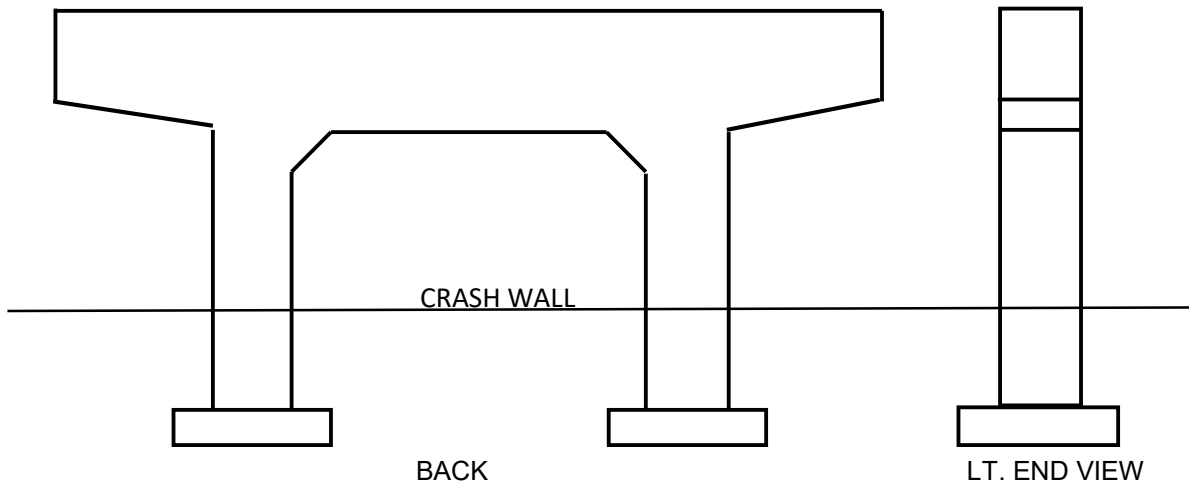
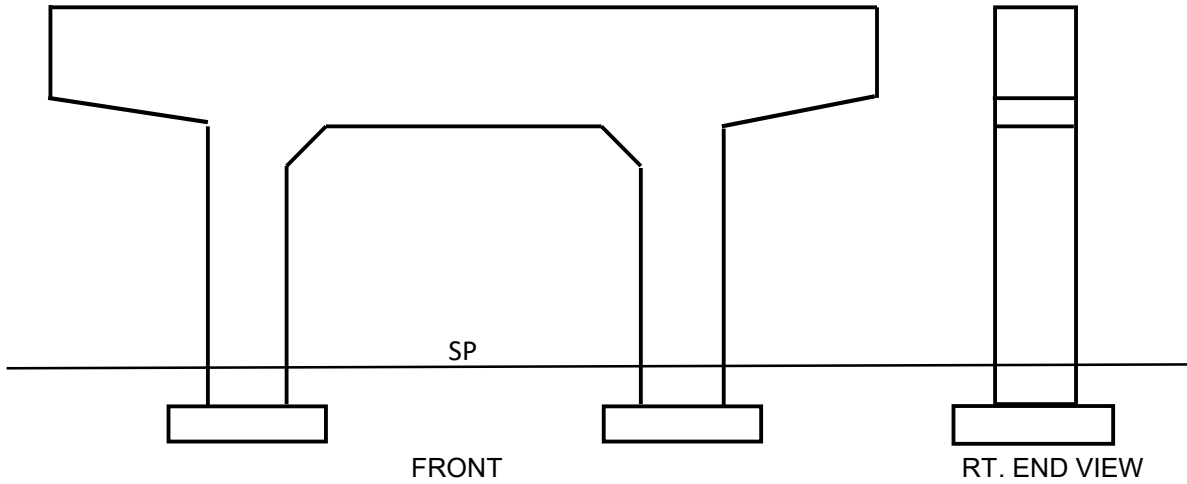


BEARING	GOOD	NEOPRENE
CAP	GOOD	
LEFT WING	GOOD	
RIGHT WING	GOOD	HAIRLINE CRACKS WITH EFF.
PILES	N/V	

BENT NO. 1

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

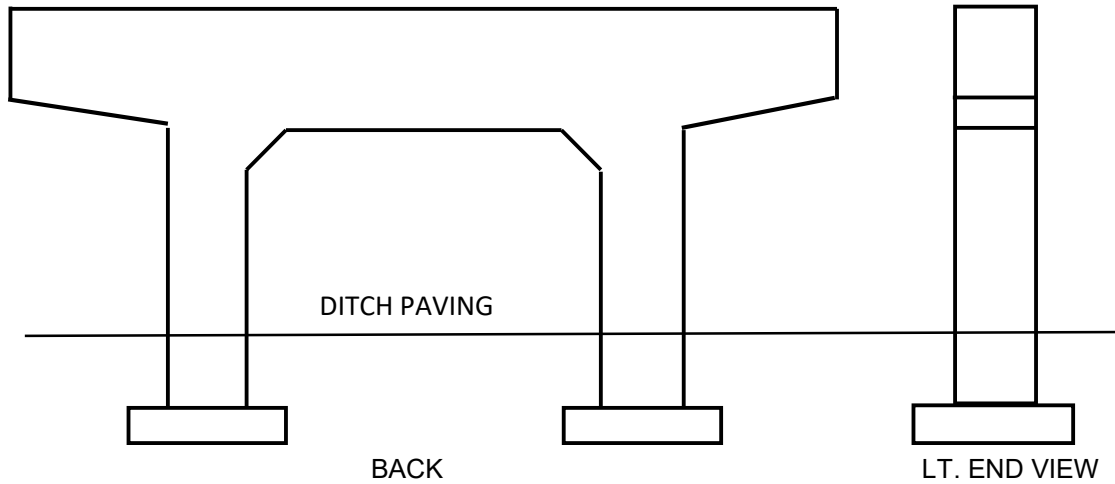
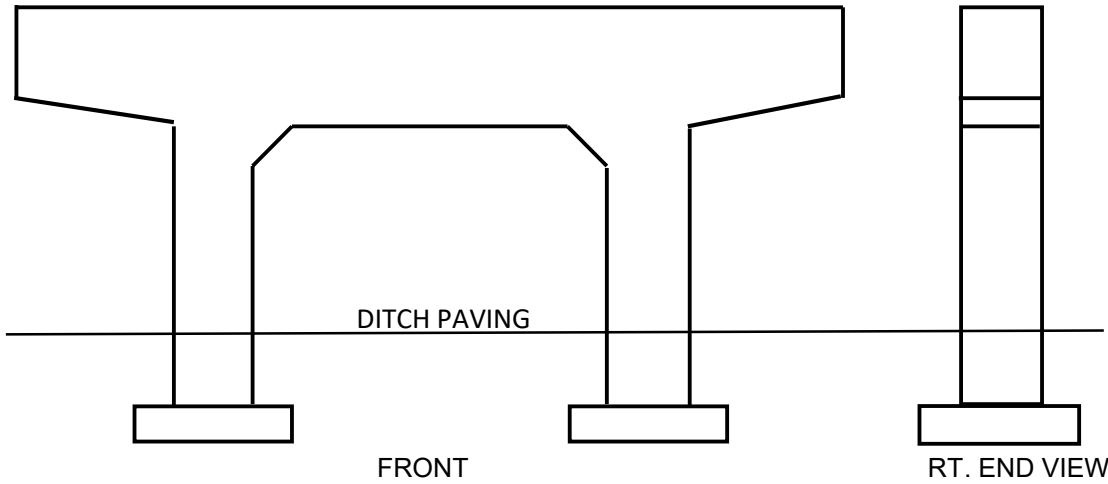


CAP	GOOD	SOUND PATCHES IN BOTTOM OF CAP (9 LF)
COLUMN A	GOOD	
COLUMN B	GOOD	
BEARINGS	GOOD	NEOPRENE
FOOTING	N/V	

BENT NO. 2

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

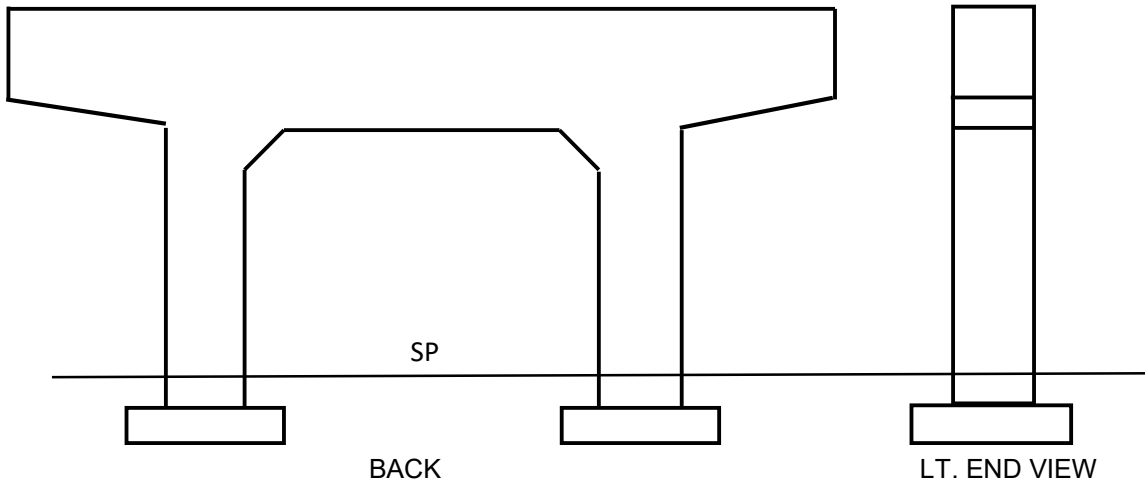
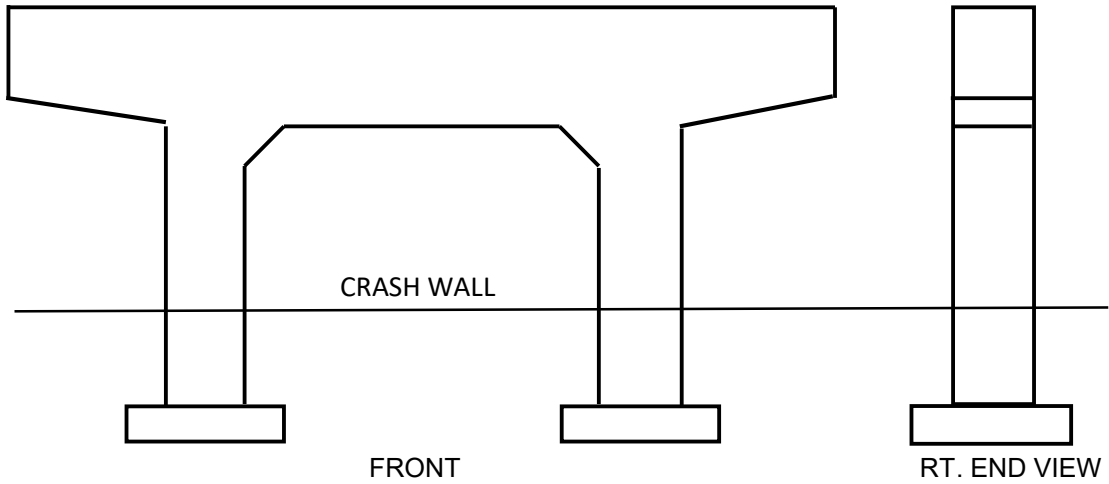


CAP	GOOD	SOUND PATCHES IN BOTTOM OF CAP (4 LF)
COLUMN A	GOOD	
COLUMN B	GOOD	
BEARINGS	GOOD	
FOOTING	N/V	

BENT NO. 3

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile



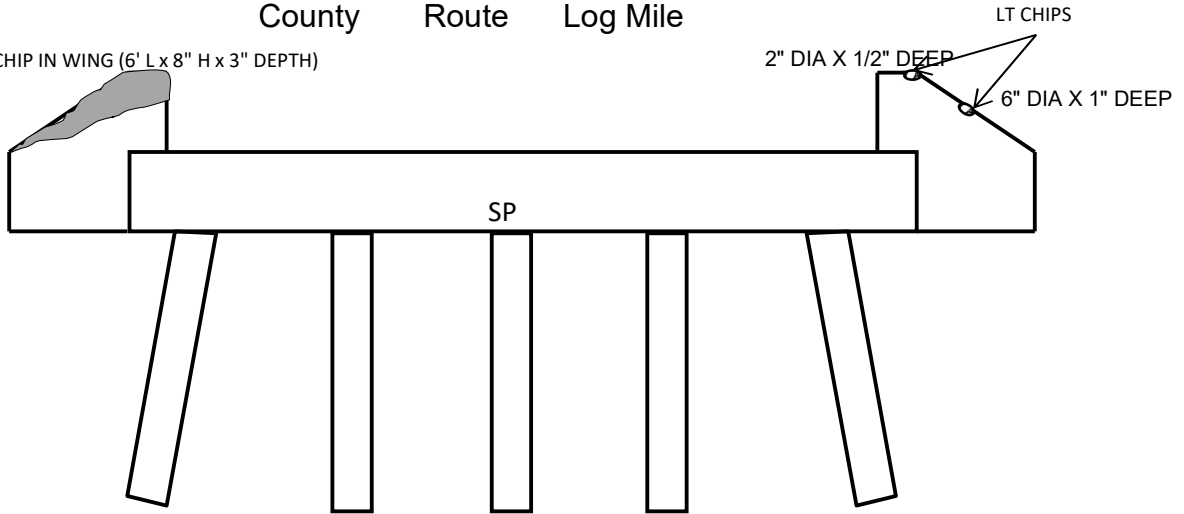
CAP	GOOD	SOUND PATCHES IN BOTTOM OF CAP (4 LF)
COLUMN A	GOOD	
COLUMN B	GOOD	
BEARINGS	GOOD	
FOOTING	N/V	

Abutment No. 2

Date: 2/03/2025

Bridge Location No. 94 1928 0.97
County Route Log Mile

LARGE CHIP IN WING (6' L x 8" H x 3" DEPTH)



BEARING	GOOD	NEOPRENE
CAP	GOOD	
LEFT WING	FAIR	LARGE CHIP IN WING
		6' L x 8" H x 3" DEPTH
RIGHT WING	GOOD	LT CHIPS
PILES	N/V	