

Inspection Report

80I00400036

-1

Inspector: Eric Edd

07/28/2021

IDENTIFICATION

Bridge Key: 80I00400036
NBI Number: -1
Structure Name: -1
Location (9): 0.03 MI W. PUTNAM CO. LN
Carries (7): I40
Type of Service (42A): 1 Highway
Feature Crossed (6): CANEY FORK RIV & NFA A43
Type of Service (42B): 6 Highway-waterway
Placecode (4): Unknown
County (3): Smith
State (1): 47 Tennessee
Station: 32 Nashville B
Region (2): Region 3
Latitude (16): 36.14
Longitude (17): -85.80
Owner (22): State Highway Agency
Custodian (21): State Highway Agency
Year Built (27): 1971
Year Recon (106): 1991
Historical (37): 4 Hist sign not determin

Border State: Unknown (P)

Border Number: _

% Responsibility:

-2

INSPECTION

Date of Inspection (90): 7/28/2021
Frequency (91): 24
Next Inspection: 7/28/2023

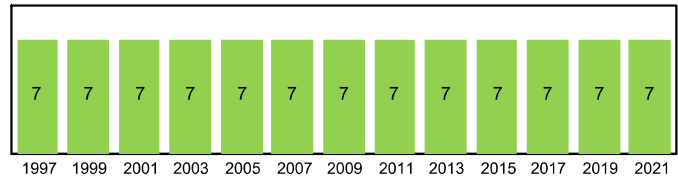
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Element	24	7/28/2021	7/28/2023
Fracture Critical (A)	24	1/1/1901	1/1/1901
Underwater (B)	24	1/1/1901	1/1/1901
Special Insp (C)	24	1/1/1901	1/1/1901

LOAD RATING AND POSTING

Posting Status (41): A Open, no restriction
Posting % (70): 5 At/Above Legal Loads
Rating Date: 1/1/1901
Design Load (31): 4 M 18 (H 20)
Opr Method (63): 1 LF Load Factor
Opr Rating (64): 63.05 Tons
Inv Method (65): 1 LF Load Factor
Inv Rating (66): 35.71 Tons

DECK GEOMETRY

Deck Geometry (68): 8 Desirable Criteria
Deck Area: 14,063.00
Deck Type (107): 9 Other
Wearing Surface (108A): 6 Bituminous
Membrane (108B): 0 None
Deck Protection (108C): None
O. to O. Width (52): 43.96
Curb / Sidewalk Width L (50A): 0.00
Curb / Sidewalk Width R (50B): 0.00
Median (33): 0 No median



DECK CONDITION

Deck Rating (58): 7 Good
Bridge Rail (36A): 1 Meets Standards
Transition (36B): 1 Meets Standards
Approach Rail (36C): 1 Meets Standards
Approach Rail Ends (36D): 1 Meets Standards

SUPERSTRUCTURE GEOMETRY

of Main Spans (45): 4
of Approach Spans (46): 0
Main Material (43 A): 5 Prestressed Concrete
Main Design (43 B):
Max Span Length (48): 89.90
Structure Length (49): 319.88
NBIS Length (37): Long Enough
Temp Structure (103): Unknown (NBI)
Skew (34): 0
Structure Flared (35): 0 No flare
Parallel Structure (101): Left of || bridge
Approach Alignment (72): 8 Equal Desirable Crit

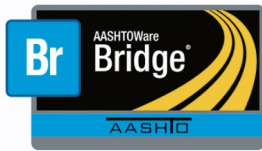


SUPERSTRUCTURE CONDITION

Superstructure Rating (59): 6 Satisfactory
Structure Evaluation (67): 7 Above Min Criteria

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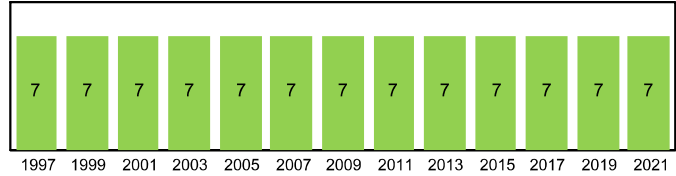
-1

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SUBSTRUCTURE GEOMETRY

Navigation Control (38): Permit Not Required
Nav Vert Clearance (39): 0.00
Nav Horiz Clearance (40): 0.00
Pier Protection (111): Unknown (NBI)
Lift Bridge Vertical Clearance (116): -3.28
Scour Rating (113): 8 Stable Above Footing
Waterway Adequacy (71): 6 Equal Minimum



SUBSTRUCTURE CONDITION

Substructure Rating (59): 7 Good
Channel Rating (61): 7 Minor Damage

ROUTE UNDER STRUCTURE: -1

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	One Route Under	Funct Class (26):	09 Rural Local	Vertical (10):	14.99
Kind of Hwy (5B):	4 County Hwy	Level Service (5C):	7 Ramp	Min Vert Over (53):	99.99 14.93
Route Num (5D):	00431	NHS (104):	0 Not on NHS	Vert Ref (54A):	H Hwy beneath struct
LRS Route (13A/B):		Defense Hwy (100):	0 Not a STRAHNET hwy	Horizontal (47):	43.96
Milepost (11):	0.04 mi (0.06 km)	Toll Facility (20):	3 On free road	Min Lat Left (56):	0.00
Suffix (5E):	0 N/A (NBI)	ADT (29):	960 Cars/Day	Min Lat Right (55B):	12.92
Lanes Under (28B):	2	Pct Trucks (109):	2.00%	Horiz Ref (55A):	H Hwy beneath struct
Detour Length (19):	49.71 mi (80.00 km)	ADT Year (30):	1999	Underclearance (69):	4 Tolerable

ROUTE ON STRUCTURE: -1

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	Route On Structure	Funct Class (26):	01 Rural Interstate	Vertical (10):	99.99
Kind of Hwy (5B):	1 Interstate Hwy	Level Service (5C):	1 Mainline	Min Vert Over (53):	99.99 14.93
Route Num (5D):	00040	NHS (104):	1 On the NHS	Vert Ref (54A):	H Hwy beneath struct
LRS Route (13A/B):	80I0040001/00	Defense Hwy (100):	1 On Interstate STRAHNET	Horizontal (47):	41.99
Milepost (11):	17.16 mi (27.62 km)	Toll Facility (20):	3 On free road	Min Lat Left (56):	0.00
Suffix (5E):	0 N/A (NBI)	ADT (29):	32,150 Cars/Day	Min Lat Right (55B):	12.92
Lanes On (28A):	2	Pct Trucks (109):	31.00%	Horiz Ref (55A):	H Hwy beneath struct
Detour Length (19):	1.24 mi (2.00 km)	ADT Year (30):	2013	Underclearance (69):	4 Tolerable

PROPOSED IMPROVEMENTS

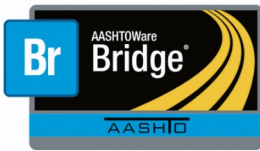
Bridge Cost 94:	\$-2	Type of Work 75:	Unknown (P)
Roadway Cost 95:		Length of Improvement 76	-3.3 ft
Total Cost 96:		Future ADT 114:	54,320
Year of Cost Estimate 9	Unknown	Year of Future ADT 115	2034

BRIDGE NOTES

INSPECTION NOTES

BRIDGEWARE inspection comments -
Structure 80I00400036 -
Date 2005-05-13 -
Previous comments > PONTIS inspection comments -
Structure 80I00400036 -
Date 2003-04-28 -
Previous comments > < none >

Str Unit	Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
0	12/3	Re Concrete Deck	14,080.00	100%	14,080.00	0%	0.00	0%	0.00	0%	0.00
0	510/3	Wearing Surfaces	13,440.00	99%	13,240.00	1%	100.00	0%	0.00	0%	0.00
0	3230/3	Effectiveness (Wearing Surface)		100.00%	0%	0.00	100%	100.00%	0%	0%	0.00
0	104/3	Pre Clsd Box Girder	3,222.00	100%	3,205.00	0%	8.00	0%	8.00	0%	0.00



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Str Unit	Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
0	1080/3	Delamination/Spall/Patched Area	5.00	0%	0.00	0%	0.00	100%	5.00	0%	0.00
0	1100/3	Exposed Prestressing	4.00	0%	0.00	0%	0.00	100%	4.00	0%	0.00
0	1110/3	Cracking (PSC)	8.00	0%	0.00	100%	8.00	0%	0.00	0%	0.00
0	210/3	Re Conc Pier Wall	120.00	83%	100.00	8%	10.00	8%	10.00	0%	0.00
0	1080/3	Delamination/Spall/Patched Area	10.00	0%	0.00	0%	0.00	100%	10.00	0%	0.00
0	1130/3	Cracking (RC and Other)	10.00	0%	0.00	100%	10.00	0%	0.00	0%	0.00
0	215/3	Re Conc Abutment	110.00	95%	104.00	5%	6.00	0%	0.00	0%	0.00
0	521/3	Conc Prot Coating	110.00	100%	110.00	0%	0.00	0%	0.00	0%	0.00
0	310/3	Elastomeric Bearing	80.00	100%	80.00	0%	0.00	0%	0.00	0%	0.00
0	331/3	Re Conc Bridge Railing	640.00	50%	320.00	50%	320.00	0%	0.00	0%	0.00
0	521/3	Conc Prot Coating	4,480.00	100%	4,480.00	0%	0.00	0%	0.00	0%	0.00
0	1130/3	Cracking (RC and Other)	320.00	0%	0.00	100%	320.00	0%	0.00	0%	0.00

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Smith County



Regular Inspection Report

Location: 80 - I0040 - 17.16LT

Federal ID: 80I00400036

Owner: STATE OF TENNESSEE

Description:

4 Span Bridge

I40 / CANEY FORK RIVER & NFA A43

G.P.S.

N 36° 08.3998' W 85° 48.1795'



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BRIDGE MAINTENANCE RECOMMENDATIONS

COUNTY: SMITH

LOCATION: 80-I0040-17.16-L

CO. SEQ.: 1 SPEC. CASE: 0

MILEPOST: 267.18

CROSSING: CANEY FORK RIV & NFA A43

FED. BRIDGE NO.: 80I00400036

MAINT. DIST.: 80

Tennessee Department
of Transportation

REPAIR LIST NO.: N

DATE ADDED:

REVISED: 07/24/2019

FACILITY CARRIED:	I40	NUMBER OF MAIN SPANS:	4
HIGHWAY SYSTEM:	01-INTERSTATE RURAL	NUMBER OF APPROACH SPANS:	0
BRIDGE WIDTH (CURB TO CURB):	41 FT 11 IN	BRIDGE LENGTH (FT):	320
BRIDGE WIDTH (OUT TO OUT):	43 FT 11 IN	MAXIMUM SPAN LENGTH (FT):	90
APPROACH ROADWAY (W/SHOULDERS):	38 FT 0 IN	SKEW ANGLE (DEGREES):	90
MAINTAINED BY: STATE HIGHWAY AGENCY			
MAIN SPAN MATERIAL: PRESTRESSED CONCRETE			
MAIN SPAN DESIGN TYPE: BOX BEAM OR GIRDERS - MULTIPLE			
APPROACH SPAN MATERIAL: OTHER OR NOT APPLICABLE			
APPROACH SPAN DESIGN TYPE: OTHER OR NOT APPLICABLE			
INSPECTION DATE:	07/28/2021	GENERAL CONDITION:	FAIR
EVALUATION DATE:	09/03/2019	STRUCTURALLY DEFICIENT:	NO
PPRM PIN NUMBER:			
H TRUCK RATING @ INV.:	20 TONS	SUFFICIENCY RATING:	91.9

No.	RECOMMENDATIONS	REPAIR DATE	REPAIRED BY
1.	REPAIR RETAINING WALL AT THE BASE OF SLOPE PAVEMENT AT ABUT 1		

SUGGESTED ROUTINE MAINTENANCE AND COMMENTS

CLEAN AND SEAL JOINTS

APPR RAILS ARE SUBSTANDARD

GENERAL COMMENTS:

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 07/28/2021

Bridge Number: 80I004000361
(Includes Item 5A)
Feature Intersected: CANEY FORK RIV & NFA A43
Evaluation Status: OTHER ITEM(S) HAVE BEEN CHANGED

County: 80
Route: I0040
Special Case: 0
County Sequence: 1
Log Mile: 17.16

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	LAST INSPECTION DATE	07/28/2021	<p>N NOT APPLICABLE</p> <p>9 EXCELLENT CONDITION</p> <p>8 VERY GOOD CONDITION - NO PROBLEMS NOTED.</p> <p>7 GOOD CONDITION - SOME MINOR PROBLEMS.</p> <p>6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.</p> <p>5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.</p> <p>4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.</p> <p>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.</p> <p>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.</p> <p>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.</p>
	EARLIEST DATE OF NEXT REGULAR INSPECTION	05/29/2023	
		/ /	
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.	
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.	
36	TRAFFIC SAFETY FEATURES		
	Br. Rail Trans. Appr. Rail Terminal SPEED LIMIT		
	1 0 0 1 70		
41	STRC OPEN/CLOSED/POSTED	A	
	A K P		
58	DECK	7	
59	SUPERSTRUCTURE	6	
60	SUBSTRUCTURE	7	
61	CHANL/CHANL PROTECTION	7	
62	CULVERT AND RETAIN WALL	N	
71	WATERWAY ADEQUACY	6	
72	APPROACH RDWY ALIGNMENT	8	
521	OVERALL CONDITION	FAIR	
16	LATITUDE	17 LONGITUDE	
	N 36° 8.3998'	W 85° 48.1795'	

[Signature]

Digitally signed by Eric R. Edd
DN: cn=Eric R. Edd, o=TDOT
Structures, ou=Reg 3 Bridge Insp.
3021, email=eric.edd@tn.gov, c=US
Date: 2021.08.23 11:50:35-05'00'

TEAM LEADER SIGNATURE

REVIEW DATE

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Photographs

Bridge ID #: 80I00400036

Date: 7/28/2021



"A" APPROACH VIEW



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"B" APPROACH VIEW

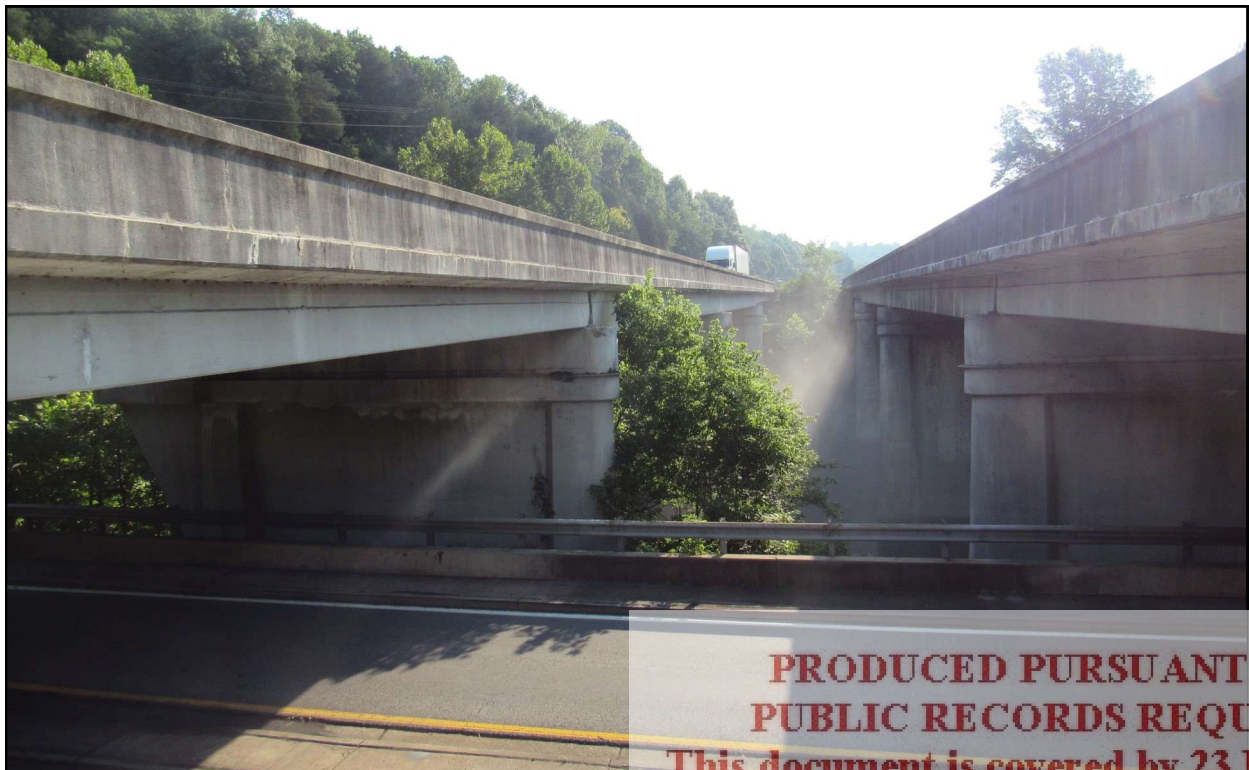
Photographs

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VIEW ACROSS DECK



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INLET ELEVATION

Photographs

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UPSTREAM VIEW



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DOWNSTREAM VIEW

Photographs

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ABUTMENT TYPICAL



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PIER TYPICAL

Photographs

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BOTTOM DECK VIEW



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BRIDGE INSPECTION REPORT

Form BIR 3.0

Field Report No. 25 Date 7/28/2021
Previous Report No. 24 Date 7/24/2019
Plans: DESIGN

Bridge No. 80I00400036
Eleven Digit No.

Bridge Location No. 80 - I0040 - 17.16 L
Co. Route Log Mile

I 40 over CANEY FORK RIV & NFA A431
Road Name Crossing Structure Name (If Named)
Year Constructed 1960 County 80 Maintenance District 37
Year Widened 1990 Year Rehabilitated 1990

FEATURES

Wearing Surface ASPHALT Depth 4 (in.)
Flared Width NO Median Width NONE
Navigational Control NO Bridge Skew 90°
Structure Type (Main Span) PPCIB
Structure Type (Appr.Spans) _____
No. Main Spans 4 No. Approach Spans _____
Maximum Span Length 90 (**. ft.)
Total Length 322 (**. ft.)

INSPECTORS

TL. EDD
2. PISARRA
3. COLLEY
4. MOOTH
5. ABSHIRE
6. _____
7. _____
8. _____

WIDTHS (*. ft.)

Deck Out-to-Out 44
Roadway Curb/Curb 42
Roadway Rail/Rail -
Sidewalk Rt. - Lt. -
*Approach Roadway 24
*(Does Not Include Shoulders)
Approach Shoulder Rt. 10
Lt. 4

CLEARANCES

Min. Vertical Clearance over Deck NA (ft.-in.)
Min. Vertical Under Clearance 14'10" (ft.-in.)
Min. Lateral Under Clearance Rt. 4 (*. ft.)
Min. Lateral Under Clearance Lt. 0 (*. ft.)

FRACTURE CRITICAL: NO
(If Yes, Include BIR 3.9)

NBIS Bridge Length (<25 ft.) >25 (ft.-in.)

UNDERWATER INSPECTION

To Be Performed By: NONE REQUIRED Date _____

Change in Structural Condition: NO Major Repairs Made: NO BRIDGE is: OPEN

COMMENTS:

Supervising Bridge Inspector: ERIC EDD

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BRIDGE RATING: FAIR

Bridge Location No. 80 - I0040 - 17.16 L
Co. Route Log Mile

Date 7/28/2021

PERFORMANCE EVALUATION

Time of Day Inspected 8:30 AM Weather Conditions SUNNY 79
Vehicles Observed ALL TYPES

LIVE LOAD BEHAVIOR

Substructure	Yes/No	Comments
Horiz./ Vert. Defl.	NO	
Vibration	NO	
Superstructure		
Horiz./ Vert. Defl.	NO	
Vibration	YES	

APPROACH

	Rating	Comments
Alignment	GOOD	
Slab	NV	
Joints	POOR	PAVED OVER
Pavement	FAIR	CRACKS IN AC AT APPROACH SLAB @ ABUTMENT-2
Embankment	GOOD	
Drains	GOOD	

TRAFFIC SAFETY FEATURES

	Rating	Standard/ SubStandard	Comments
Bridgerailing	GOOD	STANDARD	
Transitions	GOOD	SUBSTANDARD	MBO
Guardrail	GOOD	SUBSTANDARD	MBO
Guardrail Terminal	GOOD	STANDARD	

SIGNING

	Yes/ No/ Needed	Weight Limit Posted	NO
Paddleboards	NO	Gross.....	Tons
Vertical Clearance (<14'-6")	NO	2 Axle.....	Tons
Narrow Bridge Signs	NO	3 or more Axles..	Tons
One Lane Bridge Signs	NO		

Other Signs or Plaques:

Comments Regarding any
Problems with Signing:

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Bridge Location No. 80 - I0040 - 17.16 L
Co. Route Log Mile

Date 7/28/2021

DECK

	Rating	Comments
Wearing Surface	GOOD	ASPHALT
Deck - Structural Condition	GOOD	RANDOM TRANSVERSE HAIRCRACKS ON THE OVERHANGS
Curbs	NA	
Median	NA	
Sidewalks	NA	
Parapet	NA	
Railing	FAIR	LONGITUDINAL CRACKS ON THE LEFT SIDE
Paint	NA	
Drains	NA	
Lighting Standards	NA	
Utilities	NA	
Joint Leakage	NA	
Expansion Joints	POOR	PAVED OVER

SUPERSTRUCTURE

Bearing Devices	GOOD	
Girders or Beams	FAIR	H.C.'S ON SIDE OF BM-"A" @ ABUT-1, THERE ARE 2 SPALLS IN BM-C SPAN-1 W/2 EXP CABLES
Floor Beams	NA	
Stringers	NA	
Diaphragms	NA	
Bracing	NA	
Trusses - General	NA	
Portals	NA	
Bracing	NA	
Paint	NA	
Alignment of Members	GOOD	

TEXTURE COAT

Condition Rating	GOOD	Needs Spot Painting	NO
Overall Appearance	GOOD	Needs Repainting	NO
Staining Rating	GOOD	Comments	
Fading Rating	GOOD		
Scaling Rating	GOOD		

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SUBSTRUCTURE

ABUTMENTS

	Rating	Comments
Caps	GOOD	
Breastwall	NA	
Wings	GOOD	
Backwall	GOOD	
Plumb	GOOD	
Footing	NV	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	FAIR	RETAINING WALL AT BASE OF SLOPE IS TILTED 1/2"
Rip Rap	NA	

PIERS

Caps	GOOD	
Columns/Walls	GOOD	
Plumb	GOOD	
Footings	NV	
Piles	NV	
Bearing Surface	GOOD	

BENTS

Caps	NA	
Columns	NA	
Plumb	NA	
Footings	NA	
Piles	NA	
Bearing Surface	NA	

Piles Need Replacement: NO

Piles To Be Replaced:

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Bridge Location No. 80 - I0040 - 17.16 L
Co. Route Log Mile

Date 7/28/2021

STREAM CHANNEL DATA AND CONDITIONS

Stream Crossing: CANEY FORK RIV & NFA A431

- I. 1. Type of bed material? BEDROCK AND GRAVEL
2. Has channel shifted? NO (Yes/ No/ Not Apparent)
3. Condition of rip-rap? NA Est. % failed 0 %
4. Overall condition of channel? GOOD
5. Item 61 - Code values 0 thru 9 according to the recording
and coding guide currently in effect: 7
6. Underwater diver inspection recommended? NO
If yes, why? _____
- II. Channel and bank stability conditions: (yes if applicable)
 1. Steep bank conditions: Failures upstream _____ Failures downstream _____
 2. Moderate bank erosion YES
 3. Bank vegetation: a. low growth _____ b. large timber YES c. clear banks _____
d. dead trees upstream YES e. dead trees downstream YES
 4. Sediment or gravel accumulation: YES (Yes/ No/ Unknown)
 5. Channel altered or straightened: NO (Yes/ No/ Unknown)
 6. Stable conditions: a. live growth YES b. bedrock YES
c. boulders YES d. flat slopes ($\leq 2:1$) _____
- III. Waterway adequacy and debris characteristics: (yes if applicable)
 1. Bridge deck elevations:
 - a. level with approach roadway. YES
 - b. higher than approach roadway. _____
 - c. roadway approach ≥ 2 ft. above natural ground line. . YES
 2. Abutment encroaches into channel. _____
 3. Large scour (blowhole) under bridge. _____
 4. Indications that flood waters overtop bridge: NO (Yes/No)
If YES, Answer: Occasionally, Frequently, or Unknown _____
 5. Debris characteristics:
 - a. debris/drift present NO
 - b. debris/drift likely to accumulate YES
 - c. dead trees upstream YES dead trees downstream YES
- IV. Comments:

SPECIAL INSPECTION DATA - FOR REASONS OTHER THAN FC OR SCOUR

- I. Does this bridge need a special inspection? NO
- II. Reason for special inspection:

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Inspection Team's Summary
Bridge Location No. 80 - I0040 - 1716 L
Inspection Date 7/28/2021
Bridge Rating FAIR

I40/Caney Fork River & Rest Area Ramp
4 Span/P.P.C.B.B.

This bridge was inspected and found to be in fair condition. All approach elements are rated good with the exception of the pavement and joints which are rated fair with cracks and poor with being paved over respectively. The bridge railing is rated good and standard. The approach guardrail is rated good but substandard with metal blockouts. The deck is rated good. A.C. wearing surface is good.

The superstructure was rated fair due to exposed strands in beam J, spans 2 and 3. The substructure is rated good.

The retaining wall at the toe of the slope pavement at abutment 1 is tilted out toward the traffic lane. The vertical clearance is posted at 14' 6".

The channel opening was clean and appeared adequate. No problems exist in the underpass roadway.

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Stream Profile

Date 7/28/2021

Bridge Location No. 80 I40 17.16LT
County Route Logmile

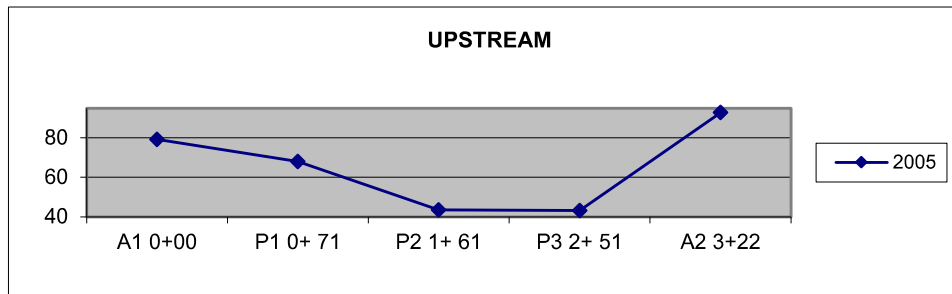
Elevations:

Benchmark Location: TOP OF RAIL

Assumed elevation 100 feet

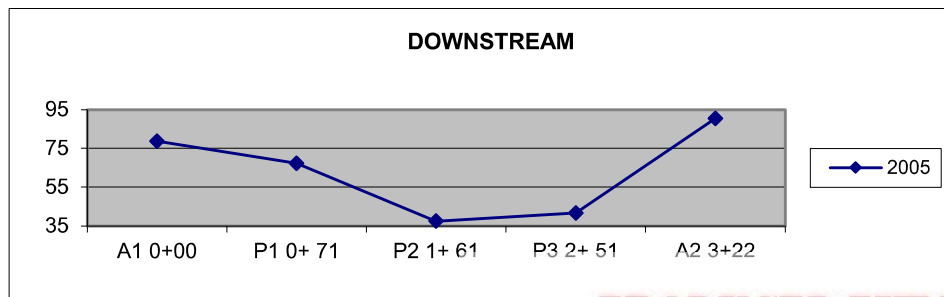
Station Elevation in: NO CHANGE
2005

A1 0+00	79.2
P1 0+ 71	68
P2 1+ 61	43.5
P3 2+ 51	43.2
A2 3+22	92.7



Station Elevation in: NO CHANGE
2005

A1 0+00	78.7
P1 0+ 71	67.2
P2 1+ 61	37.5
P3 2+ 51	41.7
A2 3+22	90.4



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Top of Deck Span No. 1

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

ASPHALT 4"



DECK	NV	AC OVERLAY IS GOOD
CURBS	NA	
RAILS	FAIR	1/16" OPEN LONGITUDINAL CRACK IN THE LEFT WALL
		RANDOM HAIR LINE CRACKS
SIDEWALK	NA	
JOINTS	NA	
DRAINS	NA	

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Top of Deck Span No. 2

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

ASPHALT 4"



DECK	NV	AC OVERLAY IS GOOD
CURBS	NA	
RAILS	FAIR	OPEN LONGITUDINAL CRACK UP TO 1/8"W X 32"L TOP LEFT
		RANDOM HAIR LINE CRACKS
SIDEWALK	NA	
JOINTS	NA	
DRAINS	NA	

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Top of Deck Span No. 3

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

ASPHALT 4"



DECK	NV	AC OVERLAY IS GOOD
CURBS	NA	
RAILS	G	RANDOM HAIR LINE CRACKS
SIDEWALK	NA	
JOINTS	NA	
DRAINS	NA	

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Top of Deck Span No. 4

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

ASPHALT 4"



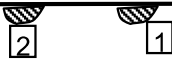
DECK	NV	AC OVERLAY IS GOOD
CURBS	NA	
RAILS	G	RANDOM HAIR LINE CRACKS
SIDEWALK	NA	
JOINTS	NA	
DRAINS	NA	

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Bottom of Slab Span No. 1

Date 7/28/2021
INSPECTOR LP

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	



DECK	NV	
DIAPHRAGMS	NA	
BEAMS	F	TRAFFIC SCRAPES
		1.BREAKOUT 1'L x 4"W x 1"Dp
		2. BREAKOUT w/EXPOSED REBAR 8"L x 4"W x 2"Dp
		SHEAR CRACKS BEAM "A" AT ABUTMENT-1
		SHEAR CRACKS BEAM "J" AT PIER 1

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Bottom of Slab Span No. 2

Date 7/28/2021
INSPECTOR LP

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	



DECK	NV	
DIAPHRAGMS	NA	
BEAMS	F	BEAM-A OUTSIDE SHEAR CRACKS @ PIER-2
		1. HIGH STEEL POPOUT 1.5"L X 1"W X 1/2"DP
		BEAM J AT PIER 2 SHEAR CRACK W EXP STRANDS
OVERHANG	F	RANDOM HAIR LINE CRACKS W EFF

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Bottom of Slab Span No. 3

Date 7/28/2021
INSPECTOR LPBridge Location No. 80 I40 17.13LT
County Route Log Mile

A	
B	(1)
C	
D	
E	
F	
G	[2]
H	
I	
J	



DECK	NA	
DIAPHRAGMS	NA	
BEAMS	F	(1) SPALL W STRAND 10" L X 5" W X UP TO 2" DEEP MID SPAN BEAM-A & J SHEAR CRACKS @ PIER-2 & 3 W EXP STRAND
		[2] SPALL W/ STRAND 10" L X 4" W X 2" DEEP BEAM "G"
OVERHANG	F	RANDOM HAIR LINE CRACKS W EFF

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Bottom of Slab Span No. 4

Date 7/28/2021INSPECTOR LP

Bridge Location No. 80 I40 17.13LT
 County Route Log Mile

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	



DECK	NV	
DIAPHRAGMS	NA	
BEAMS	G	
OVERHANG	F	RANDOM HAIR LINE CRACKS W EFF.

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Abutment No. 1

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile

SP

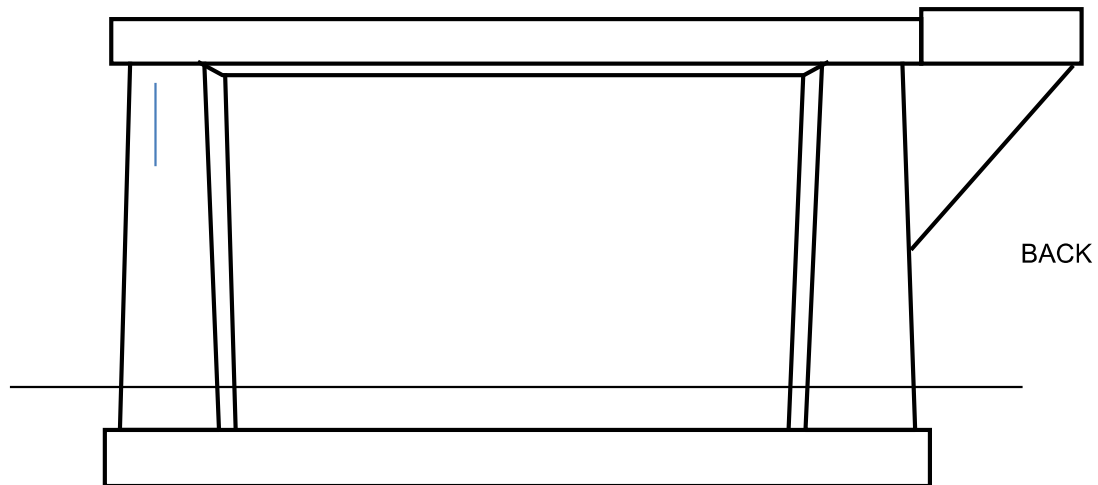
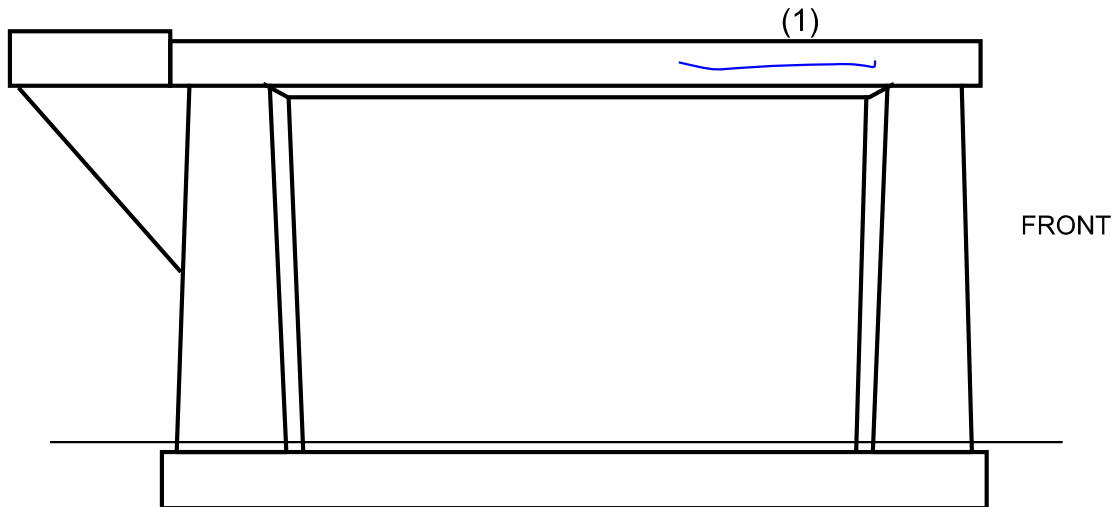
BACKWALL	G	
CAP	G	
WINGS	G	
BEARINGS	G	
SLOPE	FAIR	CONCRETE SLOPE HAS CRACKED UP TO 1/2", CRACK RUNS
		THROUGH RETAINING WALL AND WALL HAS TILTED OUT UP TO 1/2"
		w/A SPALL 2'H x 8"W x 6"Dp

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Pier No. 1

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile



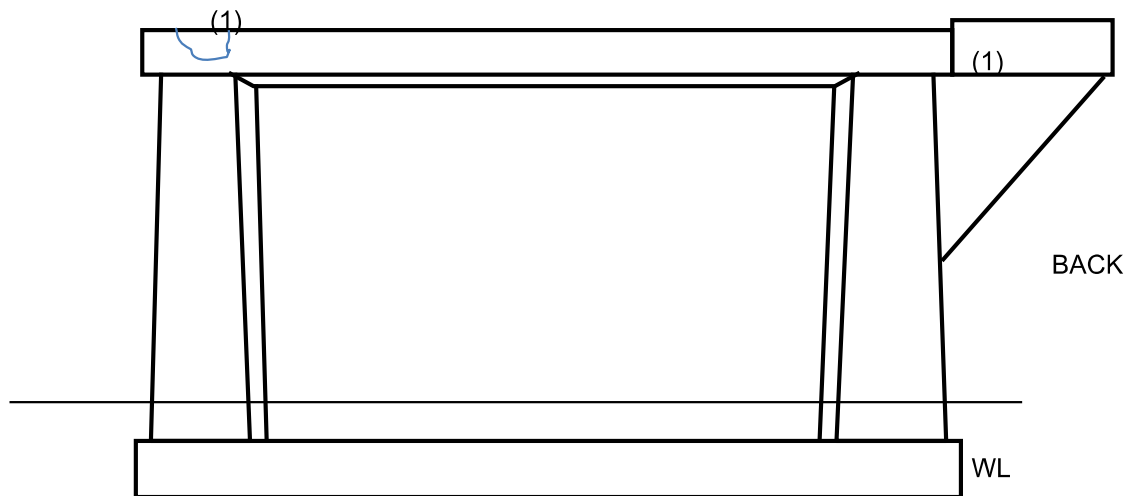
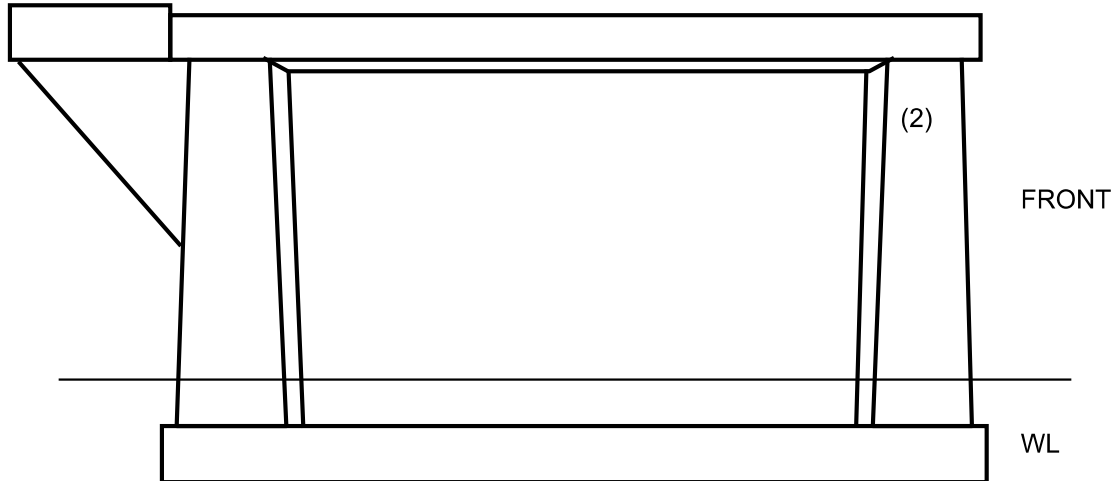
CAP	G	(1) 1/8" HORIZONTAL CRACK 8' LONG
		AREAS OF MAP CRACKING
WALL	G	FEW HAIR CRACKS
FOOTING	NV	
BEARINGS	P	

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Pier No. 2

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile



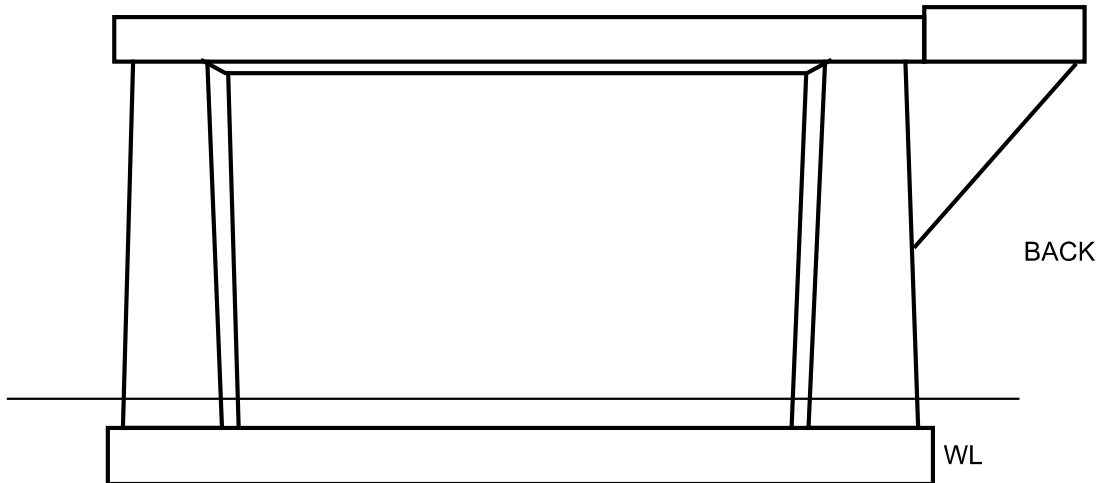
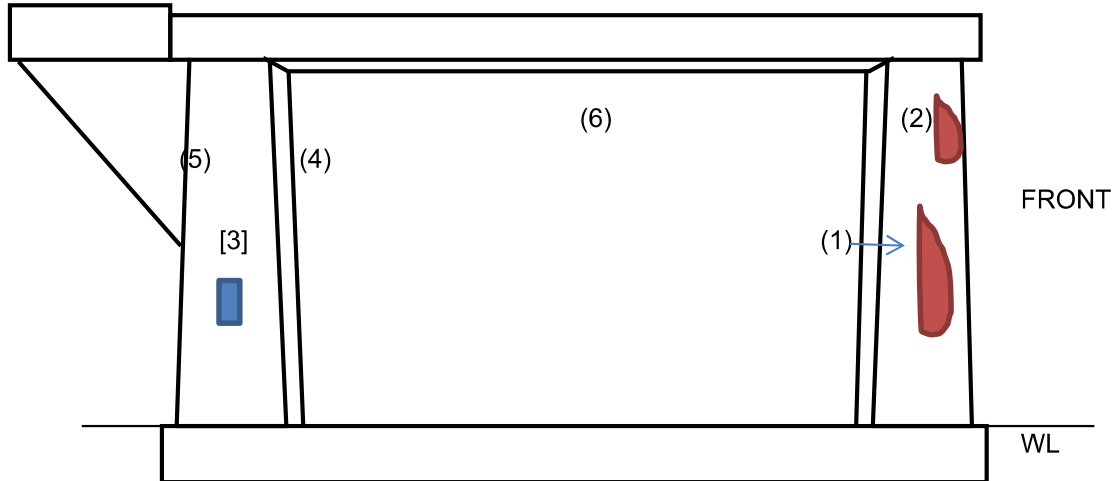
CAP	G	(1) HAIR CRACK W EFF
		(2) VERTICAL CRACKS ON OUTSIDE OF PIER
WALL	G	
FOOTING	NV	
BEARINGS	P	

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Pier No. 3

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 I40 17.13LT
County Route Log Mile



CAP	G	AREAS OF MAP CRACKING; (6) 1/16" CRACK 3'L
		RANDOM HAIR CRACKS WITH LEACHING
WALL	G	(1) AREA OF DELAM 4' H X 1' W; (4) DELAM 3'H x 2'W
		(2) AREA OF DELAM 5'H X 2'W; (5) 1/16" CRACK, 3'L
		[3] AREA OF DELAM 4' H X 1' W
FOOTING	NV	
BEARINGS	NV	

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Abutment No. 2

Date 7/28/2021
INSPECTOR RLC

Bridge Location No.	<u>80</u>	<u>I40</u>	<u>17.13LT</u>
	County	Route	Log Mile

BACKWALL	G	
CAP	G	
WINGS	G	
BEARINGS	G	
		SPILL THROUGH

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 07/28/2021

Bridge Number: 80I004000362
(Includes Item 5A)

County: **80**

Route: **0A431**

Special Case: **0**

County Sequence: **1**

Feature Intersected: **I40 / REST AREA RAMP**

Log Mile: **0.04**

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	LAST INSPECTION DATE EARLIEST DATE OF NEXT REGULAR INSPECTION	<div>07/28/2021</div> <div>05/29/2023</div> <div>/ /</div>	515 (A) TYPE UNDERPASS BARRIER
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	14 FT. 10 IN. ____ FT. ____ IN.	Revised Barrier Type
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	14 FT. 10 IN. ____ FT. ____ IN.	(B) ADEQUACY OF BARRIER OR RAIL
47	TOTAL HORIZONTAL UNDERCLEARANCE	44 FT. 0 IN. ____ FT. ____ IN.	(C) ADEQUACY OF TRANSITIONS
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	Circle One: H R ____ FT. ____ IN.	(D) ADEQUACY OF TERMINALS
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE	Circle One: H R ____ FT. ____ IN.	554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	____ FT. ____ IN.	16 LATITUDE 17 LONGITUDE N 36° 8.3000' W 85° 48.2000'
521	OVERALL CONDITION	GOOD _____	HEIGHT POSTED AT BOTH APPROACHES? YES [] NO [] N/A []
555	COMMENTS	<div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div>	

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TEAM LEADER SIGNATURE

REVIEW DATE

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INSPECTION REPORT FOR UNDERPASS ROUTE A

Form BIR 3.0A

Field Report No. <u>25</u>		Date <u>7/28/2021</u>
Previous Report No. <u>24</u>		Date <u>7/24/2019</u>
Bridge No. <u>80I00400036</u>	Underpass Location No. <u>80 - A431 - 0004</u>	
Eleven Digit No.	Co. <u>80</u> Route <u>A431</u> Log Mile <u>0004</u>	
Railroad/Walkway <u>80 - I0040 - 1716 L</u>	over <u>80 - A431 - 0004</u>	
Co. <u>80</u> Route <u>A431</u> Log Mile <u>0004</u>	Co. <u>80</u> Route <u>A431</u> Log Mile <u>0004</u>	
County <u>80</u>	Structure Name (If Named) _____	
Year Constructed <u>1960</u>		
Year Widened <u>1990</u>	Year Rehabilitated <u>1990</u>	

GEOMETRIC FEATURES UNDER BRIDGE (*.* ft. unless otherwise noted)

Divided Highway <u>LT RDWY</u>	Type of Wearing Surface <u>ASPHALT</u>
Width of Approach Traveled Roadway <u>13</u> ft. (Does Not Include Shoulders)	
Width of Median if Divided Highway <u>7</u> ft.	
Approach Shoulder Width <u>6.3</u> ft. Right <u>1</u> ft. Left	
*Horizontal Clearance Under Bridge <u>44.3</u> ft.	
*Distance Between Pier Protection Guardrail and Substructure _____ ft. Right _____ ft. Left	
*Width of Sidewalk Under Bridge <u>3</u> ft. Right _____ ft. Left	
*Minimum Vertical Clearance: <u>14</u> ft. <u>10</u> in. (ft.-in.)	
*Show on Sketch	

TRAFFIC SAFETY FEATURES

Pier Protection Railing or Parapet
Approach Guardrail Transitions
Approach Guardrail
Approach Guardrail Terminal

Rating	Standard/ SubStandard Non Exist
GOOD	STANDARD
GOOD	STANDARD
GOOD	STANDARD
GOOD	SUBSTANDARD

INSPECTORS

TL.	EDD
2.	PISARRA
3.	COLLEY
4.	MOOTH
5.	ABSHIRE
6.	

SIGNING

Yes/ No/ Needed

Paddleboards	NO
Vertical Clearance (<14'-6")	NO
Narrow Passage	NO
One Lane Passage	NO
Other Underpass Signs Needed	

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Underpass Location No. 80 - A431 - 0004
 Co. Route Log Mile

Other Signs or Plaques:

Comments Regarding any
Problems with Signing:

BRIDGE FEATURES (*.* ft.)

Bridge Skew 90 ° Number of Lanes/Tracks on Bridge 2
 Structure Type (Main Span) PPCIB No. Main Spans 4
 Structure Type (Appr.Spans) _____ No. Appr. Spans _____
 Maximum Span Length 90 (ft.) Total Length 322 (ft.)
 Width of Bridge Out-to-Out 44 (ft.) Right Angle to Centerline of Bridge)
 Width of Bridge Along Skew _____ (ft.) (If Unable to Measure at Right
 Angle to Centerline of Bridge)

BRIDGE CONDITION: FAIR

Does Potential Exist for Elements from Bridge Falling on Roadway Beneath? NO
 Does Potential Exist Because of Deteriorated Condition or Failure of Major Members? NO

Comment on any Conditions of Bridge that would Effect Roadway Beneath:

Note: If Underpass Route is Divided Highway, Use Two of These Forms, One for Each Roadway.

MINIMUM PICTURES REQUIRED

1. Elevation View of Bridge on Both Sides Showing Underpass
2. View Showing Both Approaches to Bridge
3. View Showing Safety Features
4. View Showing Any Problems

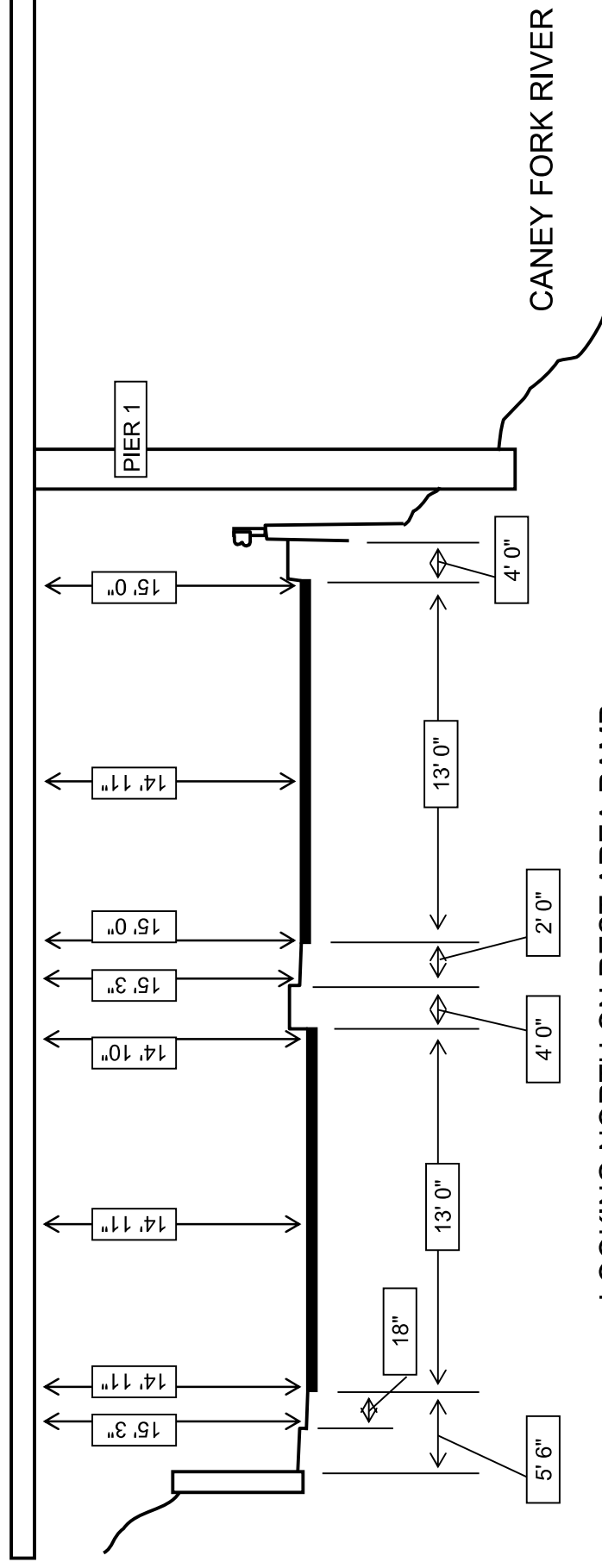
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CLEARANCE SKETCH

Date 7/28/2021
INSPECTOR RLC

Bridge Location No. 80 County I40 Route 17.13LT Log Mile

W.B.L. I40



(80-A431-0.04)

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