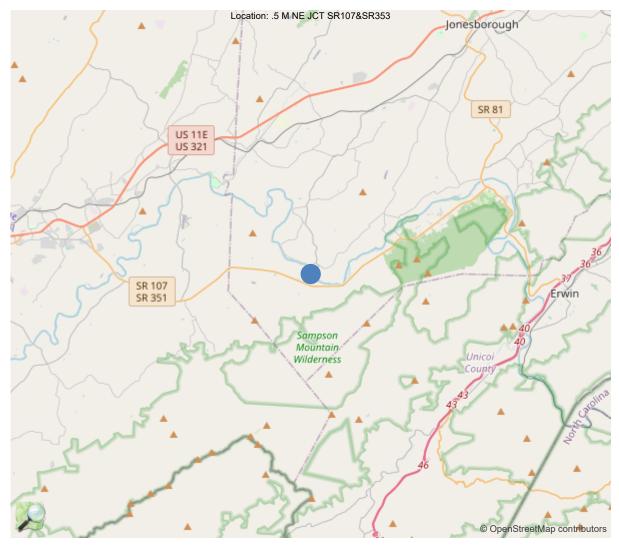




Latitude:36.15567, Longitude:-82.59055 Region 01, 90 - Washington County Team Leader: Leon LaSalle Inspectors: Adam Wallen, Jesse Dunn, Tom Williams





BAILEY BRIDGE RD. Crossing NOLICHUCKY RIVER

36.15567, -82.59055



90 - LAST INSPECTION DATE	07/02/2024
10 - MIN. V.C. OVER DECK (ROADWAY + SHOULDERS)	99.99 FT.
520 - MIN. V.C. OVER DECK (EXCLUDES SHOULDERS)	99.99 FT.

36 - TRAFFIC SAFETY FEATURES

Br. Rail	Trans.	Appr. Rail	Termina	I SPI	EED LIM.	
0	0	1	1		45	
41 - STR	C OPEN/CI	_OSED/POS ⁻	TED	Р		
58 - DEC	к		_	5		
59 - SUP	PERSTRUCT	TURE	_	5		
60 - SUE	STRUCTU	RE	_	5		
61 - CHA	NL/CHANL	. PROTECTIO	ON	7		
62 - CULVERT AND RETAIN WALL N						
71 - WA		_	7			
72 - APPROACH RDWY ALIGNMENT 8						
521 - OV	ERALL CO	NDITION	:	2 - Fair		
16 - LAT	ITUDE	17 - LO	NGITU	DE		
36	.155667	-8	2.59055	0		

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

TEAM LEADER SIGNATURE



CL & COURT CATLON

(1) State Names 47 - Tennessee 90S23860001 (8) Structure Number (5) Inventory Route (2) Highway Agency District Region 1 90 - Washington (3) County Code (4) Place Code 00000 (6) Features Intersected NOLICHUCKY RIVER (7) Facility Carried FAS 353 (9) Location 5 M NE JCT SR107&SR353 (11) Mile Point 0.450 mi (12) Base Highway Network No (13) LRS Inventory Rte & Subrte (16) Latitude 36.155667 (17) Longitude -82.590550 (98) Border Bridge State Code (99) Border Bridge Structure No STRUCTURE TYPE AND MATERIAL (43) Main Structure Type 14 Material 1 - Concrete 4 - Tee beam Type (44) Approach Structure Type 00 Material 0 - Other / None Туре 0 - Other / None (45) No. of Spans in Main Unit 9 (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 1958 (106) Year Reconstructed 0 (42) Type of Service 15 1 - Highway On Under 5 - Waterway (28) Lane 2 On 0 Under 1355 (29) Average Daily Traffic (30) Year of ADT 2021 (109) Truck ADT 5 % (19) Bypass, Detour Length 5 mi GEOMETRIC DATA (48) Length of Maximum Span 53.0 ft (49) Structure Length 354.5 ft (50) Curb or Sidewalk Width 0.0 ft Left Right 0.0 ft (51) Bridge Roadway Width Curb to Curb 24.0 ft (52) Deck Width Out to Out 28 5 ft (32) Approach Roadway Width (W/Shoulders) 28.0 ft (33) Bridge Median 0 - No median 90 Deg (34) Skew (35) Structure Flared 0 - No flare (10) Inventory Route Min Vert Clear 99.99 ft (47) Inventory Route Total Horiz Clear 24.0 ft (53) Min Vert Clear Over Bridge Rdwy 99 99 ft (54) Min Vert Underclear 0.00 ft Ref: (55) Min Lat Underclear RT 0.0 ft Ref (56) Min Lat Underclear LT 0.0 ft NAVIGATION DATA (38) Navigation Control 0 - No navigation control on w

IDENTIFICATION

(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

CLASSIFI	CATION
(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
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	ź
(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
CONDI	•
(58) Deck	5
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	<u> </u>
(62) Culverts	
LOAD RATING	
	2 - M 13.5 / H 15
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method (64) Operating Rating	<u> </u>
	d and Pasistance Easter Pating (I PE
	d and Resistance Factor Rating (LRF 13.93
Rating	8 - Load and Resistance Factor
(65) Inventory Rating Method	0 - LUAU ANU RESISIANCE I ACIUI
(66) Inventory Rating	
Type Rating	11.02
(70) Bridge Posting	4 - 00.1 - 09.9 % below
(41) Structure Open/Posted/Closed	P - Posted for load (may inclu
APPRA	
(67) Structural Evaluation	ISAL 3
<u>, , ,</u>	4
(68) Deck Geometry	4 N
(69) Clearances, Vertical/Horizontal	<u> </u>
(71) Waterway Adequacy	<u> </u>
(72) Approach Roadway Alignment	
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
PROPOSED IMI	
(75) Type of Work	33 - Widening of existing brid
(76) Length of Structure Improvement	354.3 ft
(94) Bridge Improvement Cost	\$ 621
(95) Roadway Improvement Cost	\$ 63
(96) Total Project Cost	\$ 932
(97) Year of Improvement Cost Estima	
(114) Future ADT	2168
(115) Year of Future ADT	2042
INSPECT	MONG *
(90) Inspection Date	10/23/2023

INSPEC	TIONS *		
(90) Inspection Date			10/23/2023
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	Yes	60	08/15/2021
C: Other Special Inspection	Yes	12	10/23/2023

* 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 Da	y Inspected	0730		_		Weather Condition	ns	68° Cle	ar
Vehicles O	bserved A	ll Types							
				LI	VE LOAD E	BEHAVIOR			
Sub Horiz.	/ Vert. Defl	(No)							
Sub Vibrat	ion	(No)							
Super Hori	iz./ Vert. De	efl (No)							
Super Vibr	ration	(No)							
					APPRO	ACH			
Alignment		(Good)							
Pavement		(Good)							
Embankm	ent	(Good)							
				TRAF	FIC SAFET	Y FEATURES			
Bridge Rai Rating	ling	(Fair)	Concr	Concrete patches, minor scale, high steel pop-outs					
Transition	s Rating	(Good)							
Guardrail I	Rating	(Good)							
Guardrail Rating	Ferminal	(Good)							
				SIG	NS POSTEI	O ON ROUTE			
Paddleboa	rds		Yes			Weight Limit Post	ed		Yes
Vertical Cle	earance (<1	4'-6")				Gross			Tons
Posted Hei	ght	-				Single-unit Vehicle	е	10	— Tons
Narrow Bridge Signs		_				Multi-unit Vehicle			
One Lane Bridge Signs		s _						18	Tons
Other Signs or Plaques			"Nolichı Rivei			564 Assigned Bric	dge N	Name	JOEL L. BAILEY BRIDGE (1961)
					ATTACHE	D SIGNS			
Sign No	L	ocation			Text on	Sign			Noted Defects



DECK

Wearing Surface Ty	pe Asphalt	Wearing Surface Depth 4
Wearing Surface	(Good)	
Deck - Structural Condition	(Good)	Previous deficiencies have been repaired in spans 1-9 with the following exceptions:
Condition		Span #9: Heavy spalling right side overhang and in-place spalling
		Span #5: In place spall/delamination and high steel popout span #5 left overhang
		Span #1: In place spall/delamination in left overhang
Curbs	(Good)	Minor scale, minor spall outside edge span #1, high steel pop-outs spans #3 & #8
Parapet	(Fair)	Repaired bridge rail right side approach #1
Railing	(Good)	Concrete patches, minor scale, high steel pop-outs, minor spall right side span #5
Deck Drains	(Good)	
Expansion Joints	(Poor)	All are paved over expansion joints
		SUPERSTRUCTURE
Bearing Devices	(Fair)	Heavy corrosion, flaking, pitting & section loss spans #3 - #6
Girders	(Good)	Cracking and spalls have been repaired in all beams and spans with the following exceptions:
		Hairline to 1/8" longitudinal crack beam "A" at midspan span #6
Diaphragms	(Good)	Hairline cracks
Alignment of Members	(Good)	
		TEXTURE COAT



ABUTMENTS

Abutment Caps	(Good)	Previous deficiencies have been repaired
Abutment Wings	(Good)	Hairline cracks, minor scale
Abutment Backwall	(Good)	Previous deficiencies have been repaired
Abutment Plumb	(Good)	
Abutment Piles	(Fair)	2 piles exposed at abutment #2 left side
Abutment Embankment	(Good)	Previous erosion and settlement deficiencies has been repaired
Abutment Bearing Surface	(Good)	Hairline 1/16" cracks under girders "A-C" at abutment #1
Abutment Rip Rap	(Fair)	Some missing at both abutments

PIERS

Pier Caps	(Good)	
Pier Columns I Walls	(Good)	Minor water abrasion pier #3, moderate water abrasion pier #4
Pier Plumb	(Good)	
Pier Footing	(Not Visible)	
Pier Bearing Surface	(Good)	

BENTS

Bent Caps	(Good)	Previous deficiencies have been repaired
Bent Columns	(Good)	Previous deficiencies have been repaired
Bent Plumb	(Good)	
Bent Footing	(Not Visible)	
Bent Bearing Surface	(Good)	



Inspection Team's Summary

The subject C.D.G. bridge over Nolichucky River was inspected and found to be generally in FAIR condition.

The approach alignment is good. The approach rail is good. The bridge railing is good with patched areas, minor scale, minor spall, high steel pop-outs and is sub-standard. The damaged end-post and approach rail at approach #1 has been repaired. There are paddleboards, two "Nolichucky River" and "12 Ton two axle, 21 Ton three axle" weight limit signs present.

The wearing surface is good. The expansion joints are poor and have all been paved over. The underside deck is fair with hairline cracks and map cracks throughout. Previous deficiencies in deck have been repaired in spans 1 through 9, except span #1 and #9 have heavy spalling, span #5 has an in place spalling and high steel pop out. The girders are fair with cracking and spalls having been repaired in all spans except, beam "A" in span #6 has 1/8" longitudinal crack at mid span. Dead load deflection in span #6 was measured at 1.5".

The abutments are good with previous deficiencies repaired. The piers are good with water abrasion and water stains. The bents are fair with minor scale, and water stains.

The channel opening appears adequate.

General Inspection Comment

Bridge has been repaired July 2024

HQ notes to TL



ELEMENTS DESCRIPTION UNITS TOTAL CS1 CS2 CS3 CS4 12 Re Concrete Deck SF 10129 10129 0 0 0 510 Wearing Surfaces SF 10129 10129 0 0 0 (12) Element record added 2016-07-21. (S10-12) Element record added 2016-07-21. 1080 Delamination/Spail/Patched Area LF 4639 4634 0 0 5 (1080 Delamination/Spail/Patched Area LF 5 0 0 0 5 (1080-110) Element record added 2016-07-21. LF 112 112 0 0 0 (205) Element record added 2016-07-21. EA 6 6 0 0 0 (210) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (210) Element record added 2016-07-21. LF 180 180 0<								
510 Wearing Surfaces SF 10129 10129 0 0 (12) Element record added 2016-07-21. (10) Re Conc Opn Girder/Beam LF 4639 4634 0 0 5 1080 Delamination/Spall/Patched Area LF 5 0 0 0 5 (10) Element record added 101-07-21. LF 5 0 0 0 5 (100-110) Element record added 11/18/2019 LF 112 112 0 0 0 205 Re Conc Column EA 6 6 0 0 0 (205) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 180 180 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. 302 Compressn Joint Seal LF 259 0 259 0 <t< th=""><th>ELEMENTS</th><th>DESCRIPTION</th><th>UNITS</th><th>TOTAL</th><th>CS1</th><th>CS2</th><th>CS3</th><th>CS4</th></t<>	ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(12) Element record added 2016-07-21. (510-12) Element record added 2016-07-21. 110 Re Conc Op Girder/Beam LF 4639 4634 0 0 5 1080 Delamination/Spail/Patched Area LF 5 0 0 0 5 (110) Element record added 2016-07-21. LF 5 0 0 0 0 (205) Element record added 2016-07-21. EA 6 6 0 0 0 (210) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21.	12	Re Concrete Deck	SF	10129	10129	0	0	0
(510-12) Element record added 2016-07-21. 110 Re Conc Opn Girder/Beam LF 4639 4634 0 0 5 1080 Delamination/Spall/Patched Area LF 5 0 0 0 5 (110) Element record added 2016-07-21. 110 Element record added 2016-07-21. 0 0 0 (205) Element record added 2016-07-21. EA 6 6 0 0 0 (210) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (210) Element record added 2016-07-21. LF 180 180 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. LF 259 0 0 259 0 (302) Compressn Joint Seal LF 259 0 0 259 0 (302) Element record added 2016-07-21. 1 1 Moveable Bearing EA	510	Wearing Surfaces	SF	10129	10129	0	0	0
International of the second of the second added 2016-07-21. LF 4639 4634 0 0 5 1080 Delamination/Spall/Patched Area LF 5 0 0 0 5 (110) Element record added 2016-07-21. LF 5 0 0 0 0 0 205 Re Conc Column EA 6 6 0 0 0 (205) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. .	(12) Elemen	t record added 2016-07-21.						
1080 Delamination/Spall/Patched Area LF 5 0 0 5 (110) Element record added 2016-07-21. (1080-110) Element record added 11/18/2019 EA 6 6 0 0 0 205 Re Conc Column EA 6 6 0 0 0 (205) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. LF 259 0 0 259 0 302 Compressn Joint Seal LF 259 0 0 259 0 311 Moveable Bearing EA 72 0 72 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 331 Re Conc Bridge Raili	(510-12) Ele	ement record added 2016-07-21.						
(110) Element record added 2016-07-21. (1080-110) Element record added 11/18/2019 205 Re Conc Column EA 6 6 0 0 (205) Element record added 2016-07-21. 210 Re Conc Pier Wall LF 112 112 0 0 0 (210) Element record added 2016-07-21. EF 72 72 0 0 0 (215) Element record added 2016-07-21. EF 180 180 0 0 0 (234) Element record added 2016-07-21. EF 180 180 0 0 0 302 Compressn Joint Seal LF 259 0 0 259 0 302 Compressn Joint Seal LF 259 0 0 259 0 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 331 Re Conc Bridge R	110	Re Conc Opn Girder/Beam	LF	4639	4634	0	0	5
(1080-110) Element record added 11/18/2019 205 Re Conc Column EA 6 6 0 0 (205) Element record added 2016-07-21. 210 Re Conc Pier Wall LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 0 0 0 (215) Element record added 2016-07-21. LF 72 0 0 0 (234) Element record added 2016-07-21. 234 Re Conc Pier Cap LF 180 180 0 0 0 (302) Compressn Joint Seal LF 259 0 0 259 0 302 Compressn Joint Seal LF 259 0 0 259 0 (302) Element record added 2016-07-21. 11 Moveable Bearing EA 72 0 72 0 0 (1000 Corrosion EA 72 0 72 0 0 (311) Element record added 11/18/2019 330 Metal Bridge Railing LF 554 554 0 0 0 (1080	Delamination/Spall/Patched Area	LF	5	0	0	0	5
Z05 Re Conc Column EA 6 6 0 0 (205) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 112 112 0 0 0 (210) Element record added 2016-07-21. LF 72 0 0 0 (215) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. LF 259 0 0 259 0 302 Compressn Joint Seal LF 259 0 0 259 0 (302) Element record added 2016-07-21. 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 330 Metal Bridge Railing LF 554 554 0	(110) Eleme	nt record added 2016-07-21.						
(205) Element record added 2016-07-21. 210 Re Conc Pier Wall LF 112 112 0 0 (210) Element record added 2016-07-21. 215 Re Conc Abutment LF 72 72 0 0 (215) Element record added 2016-07-21. 234 Re Conc Pier Cap LF 180 180 0 0 (234) Element record added 2016-07-21. 302 Compressn Joint Seal LF 259 0 0 259 0 9999 Unknown LF 259 0 0 259 0 (302) Element record added 2016-07-21. 111 Moveable Bearing EA 72 0 72 0 0 11000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. (1000-311) Element record added 11/18/2019 1 1 1 0 0 0 330 Metal Bridge Railling LF 554 554 0 0 0 331 Re Conc Bridge Railling LF 712<	(1080-110)	Element record added 11/18/2019						
210 Re Conc Pier Wall LF 112 112 0 0 (210) Element record added 2016-07-21. LF 72 72 0 0 0 (215) Element record added 2016-07-21. LF 72 72 0 0 0 (234) Element record added 2016-07-21. LF 180 180 0 0 0 (234) Element record added 2016-07-21. LF 259 0 0 259 0 302 Compressn Joint Seal LF 259 0 0 259 0 (302) Element record added 2016-07-21. IF 259 0 259 0 311 Moveable Bearing EA 72 0 72 0 0 (311) Element record added 2016-07-21. IIII IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	205	Re Conc Column	EA	6	6	0	0	0
(210) Element record added 2016-07-21. 215 Re Conc Abutment (215) Element record added 2016-07-21. 234 Re Conc Pier Cap (234) Element record added 2016-07-21. 302 Compressn Joint Seal UF 259 0 0 9999 Unknown LF 259 0 0 (302) Element record added 2016-07-21. 11 Moveable Bearing EA 72 0 72 0 0 311 Moveable Bearing EA 72 0 72 0 0 (1000 Corrosion EA 72 0 72 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 331 Re Conc Bridge Railing LF 712 712 0 0 0	(205) Eleme	nt record added 2016-07-21.						
215 Re Conc Abutment LF 72 72 0 0 (215) Element record added 2016-07-21. 234 Re Conc Pier Cap LF 180 180 0 0 0 (234) Element record added 2016-07-21. 234 Re Conc Pier Cap LF 180 180 0 0 0 302 Compressn Joint Seal LF 259 0 0 259 0 9999 Unknown LF 259 0 0 259 0 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. (1000-311) Element record added 11/18/2019 2 0 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 (330) Element record added 2016-07-21. 2 1 2 0 0 0 0	210	Re Conc Pier Wall	LF	112	112	0	0	0
(215) Element record added 2016-07-21. 234 Re Conc Pier Cap LF 180 180 0 0 (234) Element record added 2016-07-21. 302 Compressn Joint Seal LF 259 0 0 259 0 9999 Unknown LF 259 0 0 259 0 (302) Element record added 2016-07-21. EA 72 0 72 0 0 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. 330 Metal Bridge Railing LF 554 554 0 0 (330) Element record added 2016-07-21. 331 Re Conc Bridge Railing LF 712 712 0 0	(210) Eleme	nt record added 2016-07-21.						
234 Re Conc Pier Cap LF 180 180 0 0 (234) Element record added 2016-07-21.	215	Re Conc Abutment	LF	72	72	0	0	0
(234) Element record added 2016-07-21. 302 Compressn Joint Seal LF 259 0 0 259 0 9999 Unknown LF 259 0 0 259 0 (302) Element record added 2016-07-21. EA 72 0 72 0 0 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. 0 </td <td>(215) Eleme</td> <td>nt record added 2016-07-21.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	(215) Eleme	nt record added 2016-07-21.						
302 Compressn Joint Seal LF 259 0 0 259 0 9999 Unknown LF 259 0 0 259 0 (302) Element record added 2016-07-21. Image: Compression of the second added 2016-07-21. EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. Image: Compression of the second added 2016-07-21. Image: Compression of the second added 11/18/2019 Image: Compression of the second added 2016-07-21. Image: Compression of the second added 2016-07-21. Image: Compression of the second added 2016-07-21. 330 Metal Bridge Railing LF 554 554 0 0 0 331 Re Conc Bridge Railing LF 712 712 0 0 0	234	Re Conc Pier Cap	LF	180	180	0	0	0
9999 Unknown LF 259 0 0 259 0 (302) Element record added 2016-07-21. EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. EA 72 0 72 0 0 (1000-311) Element record added 11/18/2019 LF 554 554 0 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 (330) Element record added 2016-07-21. LF 712 0 0 0	(234) Eleme	nt record added 2016-07-21.						
(302) Element record added 2016-07-21. 311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. (1000-311) Element record added 11/18/2019 LF 554 554 0 0 0 330 Metal Bridge Railing LF 554 554 0 0 0 (330) Element record added 2016-07-21. LF 712 0 0 0	302	Compressn Joint Seal	LF	259	0	0	259	0
311 Moveable Bearing EA 72 0 72 0 0 1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21.	9999	Unknown	LF	259	0	0	259	0
1000 Corrosion EA 72 0 72 0 0 (311) Element record added 2016-07-21. .	(302) Eleme	nt record added 2016-07-21.						
(311) Element record added 2016-07-21. (1000-311) Element record added 11/18/2019 330 Metal Bridge Railing (330) Element record added 2016-07-21. 331 Re Conc Bridge Railing LF 712 712 0 0	311	Moveable Bearing	EA	72	0	72	0	0
(1000-311) Element record added 11/18/2019 330 Metal Bridge Railing (330) Element record added 2016-07-21. 331 Re Conc Bridge Railing LF 712 712 0 0	1000	Corrosion	EA	72	0	72	0	0
330 Metal Bridge Railing LF 554 554 0 0 0 (330) Element record added 2016-07-21. LF 712 712 0 0 0 331 Re Conc Bridge Railing LF 712 712 0 0 0	(311) Eleme	nt record added 2016-07-21.						
(330) Element record added 2016-07-21. 331 Re Conc Bridge Railing LF 712 712 0 0	(1000-311)	Element record added 11/18/2019						
331 Re Conc Bridge Railing LF 712 712 0 0 0	330	Metal Bridge Railing	LF	554	554	0	0	0
	(330) Eleme	nt record added 2016-07-21.						
	331	Re Conc Bridge Railing	LF	712	712	0	0	0
(331) Element record added 2016-07-21.	(331) Eleme	nt record added 2016-07-21.						



STREAM CHANNEL DATA AND CONDITIONS

Stream Crossing	Nolichucky River		
Type of bed material	Bedrock		
Has channel shifted?	No		
Condition of rip-rap	Good	Est. % failed %	
Overall condition of channel	Good		
Underwater Inspection Req?	Yes		
Why UW required?	Water too deep for T	DOT inspectors	
	Channel an	nd bank stability conditions	
Steep bank cond - Failure US		Moderate Bank Erosion	
Steep bank cond - Failure DS		Sediment or Gravel Accumulation	No
Bank Vegetation:		Channel Altered or Straightened	No
Low Growth	Yes	Stable Conditions:	
Large Timber	Yes	Live Growth	Yes
Clear Banks		Bedrock	Yes
Dead Trees - US		Boulders	Yes
Dead Trees - DS	Yes	FlatSlopes (<=2:1)	
	Waterway adeq	uacy and debris characteristics	
Bridge deck elevations:		Large Scour Under Bridge	
Level with Approach Roadw	ray	Indications Flood Overtop Bridge	No
Higher than Approach Roac	lway	Debris / Drift - Present	Yes
Road Appr >2' Above Natur	al Ground Yes	Debris / Drift - Likely to Accumulat	e Yes
Abutment Encroaches into Ch	annel		



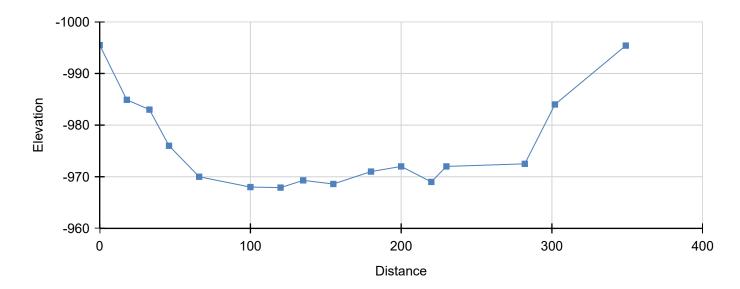
Channel Profile Upstream

Be	nchmark height	1000.00	Benchmark location
	norman and norgine	1000.00	Benefitiant le cation

Top of curb

Comment

Station	Distance	HI	Upstream
0.1	0	1000	-995.5
0.2	18	1000	-984.9
0.3	33	1000	-983
0.4	46	1000	-976
0.5	66	1000	-970
0.6	100	1000	-968
0.7	120	1000	-967.9
0.8	135	1000	-969.3
0.9	155	1000	-968.6
1.0	180	1000	-971
1.1	200	1000	-972
1.2	220	1000	-969
1.3	230	1000	-972
1.4	282	1000	-972.5
1.5	302	1000	-984
1.6	349	1000	-995.4



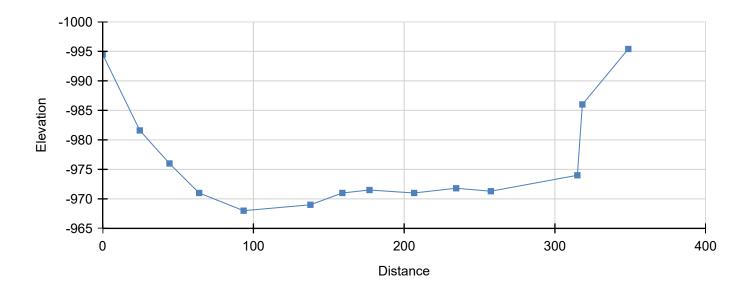


Channel Profile Downstream

Benchmark height 1000.00	Benchmark location	Top of curb
--------------------------	--------------------	-------------

Comment

Station	Distance	HI	Downstream
0.1	0	1000	-994.5
0.2	24.6	1000	-981.6
0.3	44.3	1000	-976
0.4	64	1000	-971
0.5	93.5	1000	-968
0.6	137.8	1000	-969
0.7	159	1000	-971
0.8	177	1000	-971.5
0.9	206.6	1000	-971
1.0	234.5	1000	-971.8
1.1	257.5	1000	-971.3
1.2	314.9	1000	-974
1.3	318.2	1000	-986
1.4	348.7	1000	-995.4





Substructure Exposure

Last Exposure	Abut/Bent/Pier Number	Total height	Footing Thickness	Exposure
	A1			3
	B1			5
	P1			23
	P2			24
	Р3			22
	P4			22
	Р5			23
	B2			14
	В3			12
	A2			3

Last Exposure Upstream	Rip-Rap
Last Exposure Downstream	 @ Abutment
Top of cap to top of water	 @ Bents
Upstream Distance	@ Piers
Upstream Depth	Upstream
Thru structure	Downstream
Downstream Distance	Thru Structure
Downstream Depth	

TN TDOT Department of Transportation

Asset **#90S23860001**(Repair) County: 90 - Washington, Route: SR353, Log mile: 0.450 Team Lead: Leon LaSalle, Inspection Date: 07/02/2024

Equipment List

General Inspection	Tools For Measuring
<u>Yes</u> Pocket knife	Yes Masonry/Wood Ruler
<u>Yes</u> Sounding/chipping hammer	6' Pocket Tape
Chain drag	Yes 25' and 100' Tape
<u>Yes</u> Range pole	Calipers
Yes 25' rod - depth and clearance	Thermometer
Visual Aid	<u>Yes</u> Carpenter's Level String and Weighted line (plumb bob)
Binoculars	5 5 (1)
<u>Yes</u> Flashlight	Special Purpose Equipment
Magnifying glass	Yes Reach All
Hand mirror	Bucket Truck
Cleaning	Yes Traffic control
Wisk broom	Boat Sonar depth finder
<u>Yes</u> Wire brush	Increment borer
Yes Flat bladed screwdriver	Yes Survey equipment
Hand shovel	<u>Yes</u> Safety Harness
Penetrating oil (WD-40, etc.)	Climbing equipment
Tools For Access	Dye penetrant
Ladders	Drone
Rope	Air Meter
Waders	Special Purpose Equipment
Yes Machete or bush axe	·
Comment	

Reach-All Approval and Comments





Forward on log with weight posting



Back on log with weight posting obscured by vegetation





Bridge #



Elevation left

TN TDOT Department of Transportation Asset **#90S23860001**(Repair) County: 90 - Washington, Route: SR353, Log mile: 0.450 Team Lead: Leon LaSalle, Inspection Date: 07/02/2024



Elevation right at inlet



Downstream





Upstream



Repaired bottom of superstructure span #1, typical all





Pier typical



Bent typical





Abutment typical



Span #5: In place spall/delamination and high steel popout span #5 left overhang





In place spall/delamination in left overhang span #1



Repairs to spalling around drains all spans





Span #9: In-place spalling right side overhang



Span #9: Heavy spalling right side overhang





Heavy corrosion, flaking, pitting & section loss bearings spans #3 - #6



Crack repairs to beam "A" span #7





Crack repairs to beams "B, C, & D" span #6



Repairs to beam "A" span #6





Repairs to beam "D" span #6



Hairline to 1/8" longitudinal crack beam "A" at midspan span #6





Crack repairs to beam "A" span #4



Crack repairs to beams in span #4





Patches on beam "D" span #4



Repairs to beam "B" span #8, typical all





Repairs to beam "A" span #9



Repairs to vertical and transverse hairline to 1/8" cracks in all spans





Abutment caps have been repaired with new concrete



Previous cracks in abutment #2 backwall have been repaired





Shot rock added to abutment #2 bank



Previous settlement at abutment #2 has been repaired with a concrete cap





Previous void at abutment #1 has been repaired with a concrete cap, rip rap added to bank



Bent caps have been repaired with new concrete





Patch on pier #5



Spall and delamination repairs pier #3





Spall repairs pier #2



Cracking and spalls in bent columns have been repaired





1.5" dead load deflection span #6



4" asphalt depth





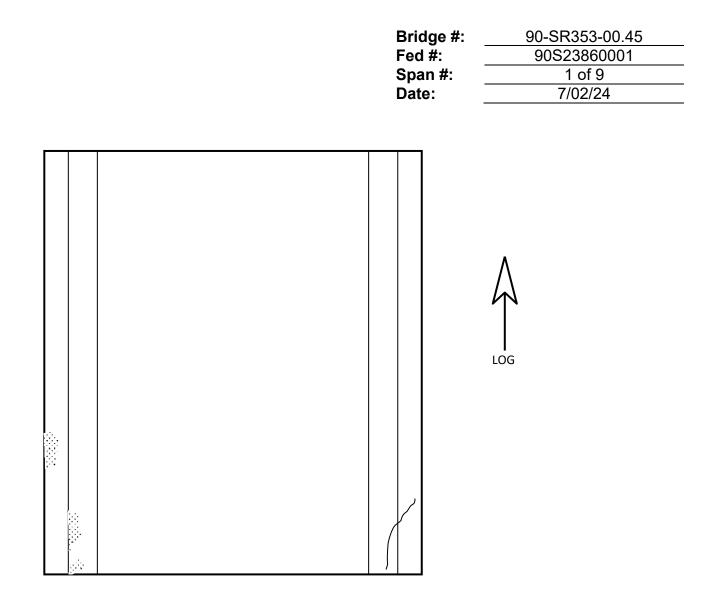
New wearing surface



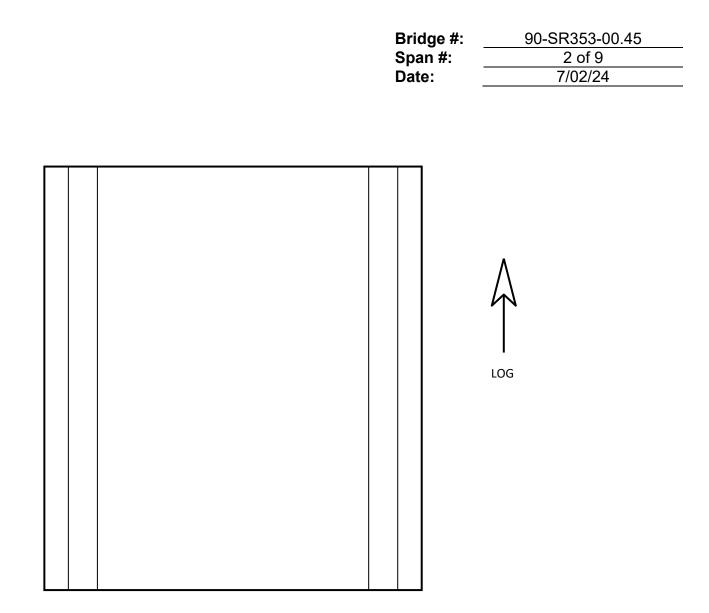
Maintenance Recommendations

525 - Repair List # 1 523 - Repair List Add Date 11/18/2019 524 - Repair List Revise Date 10/26/2022

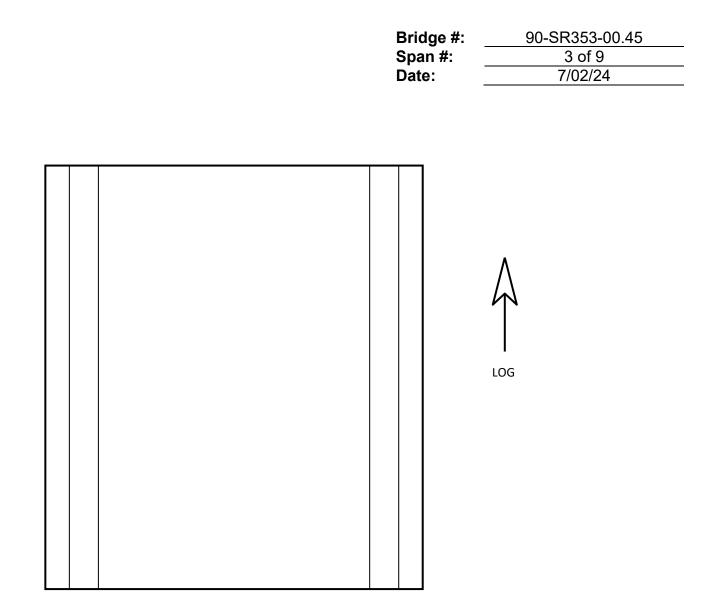
Date Added	Recommendation	Priority
01/24/2006	BRIDGERAILS ARE SUBSTANDARD	
01/26/2006	CLEAN & PAINT BEARING - ALL	
10/26/2022	REINSTALL WEIGHT POSTING SIGNS AT BOTH APPROACHES	4



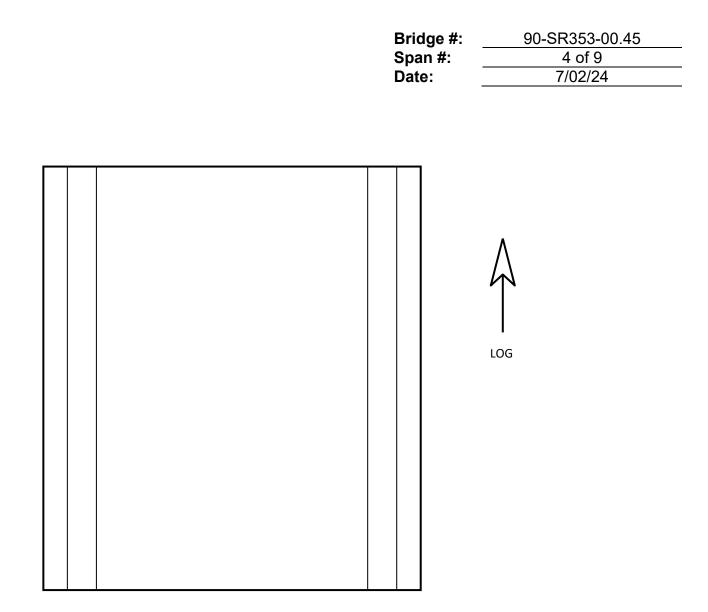
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	Concrete patches
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor spall @ outside edge



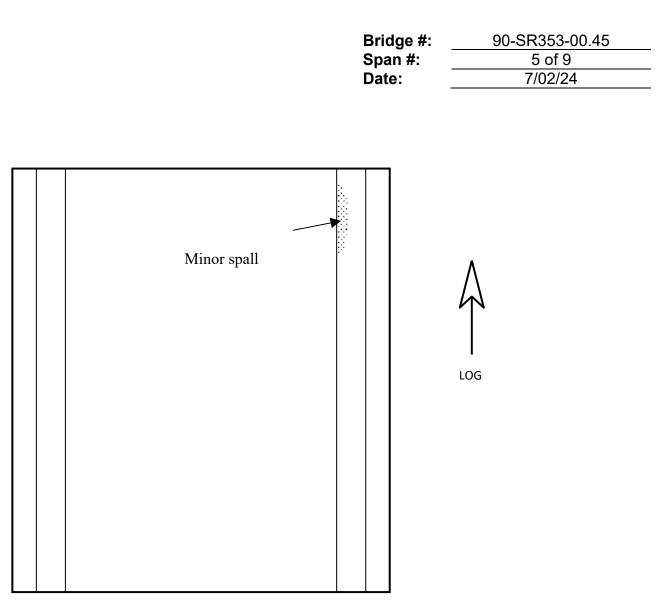
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale



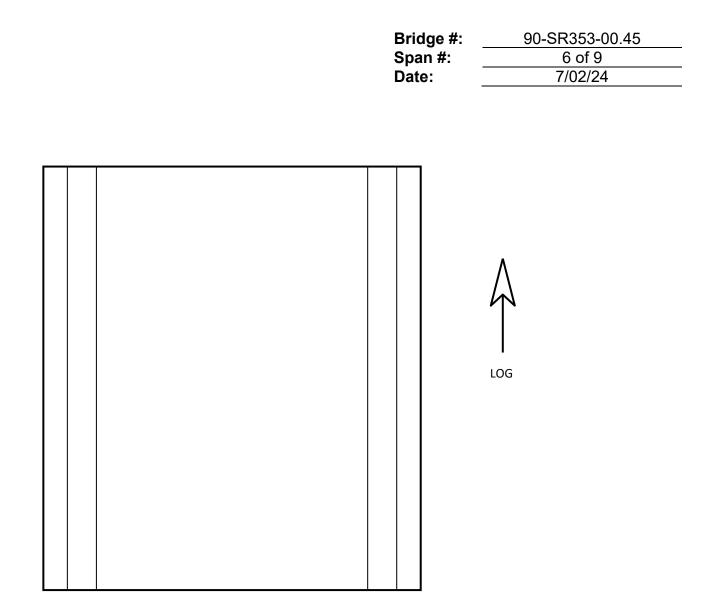
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale, high steel pop-outs



Element	Rating	Comments
Top Deck	G	
Bridge Rail	F	Minor scale, high steel pop-outs
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale



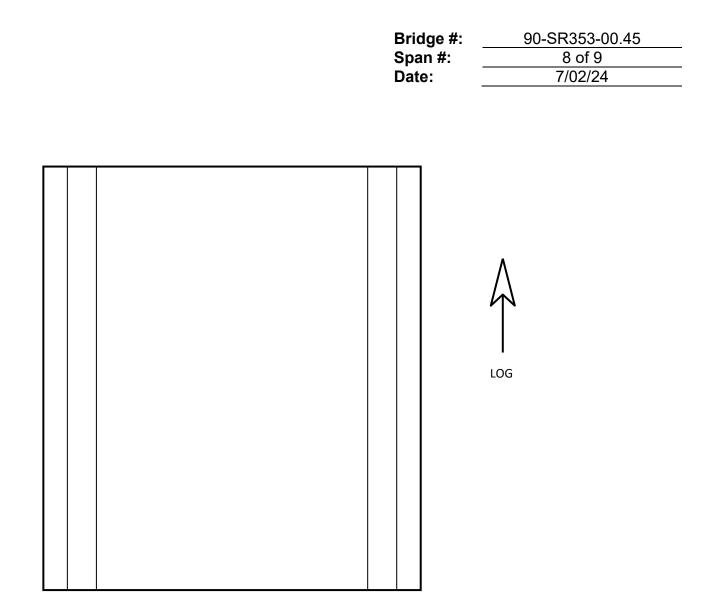
Element	Rating	Comments
Top Deck	G	
Bridge Rail	F	Minor scale, high steel pop-outs, minor spall
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale



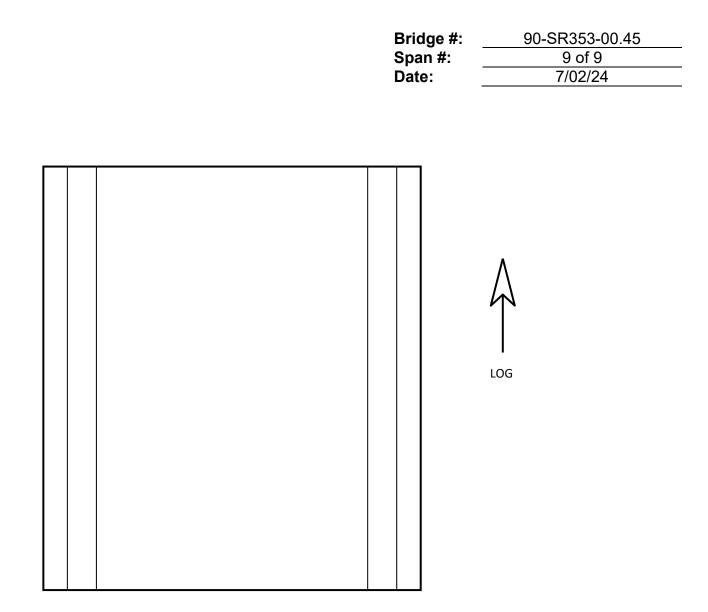
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	Minor scale
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale

Bridge #: Span #: Date:	90-SR353-00.45 7 of 9 7/02/24
	₩ LOG

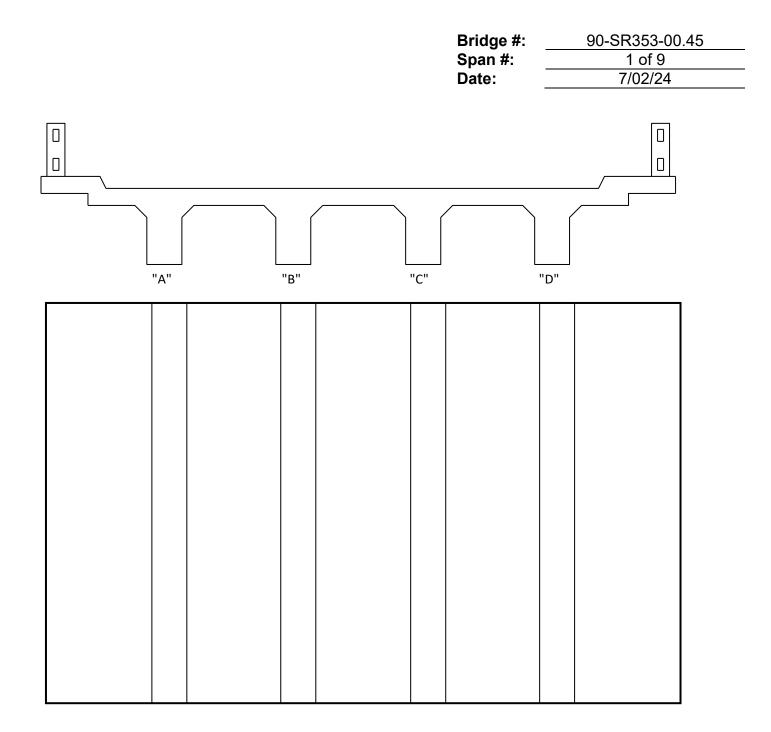
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	Minor scale, high steel pop-outs
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale



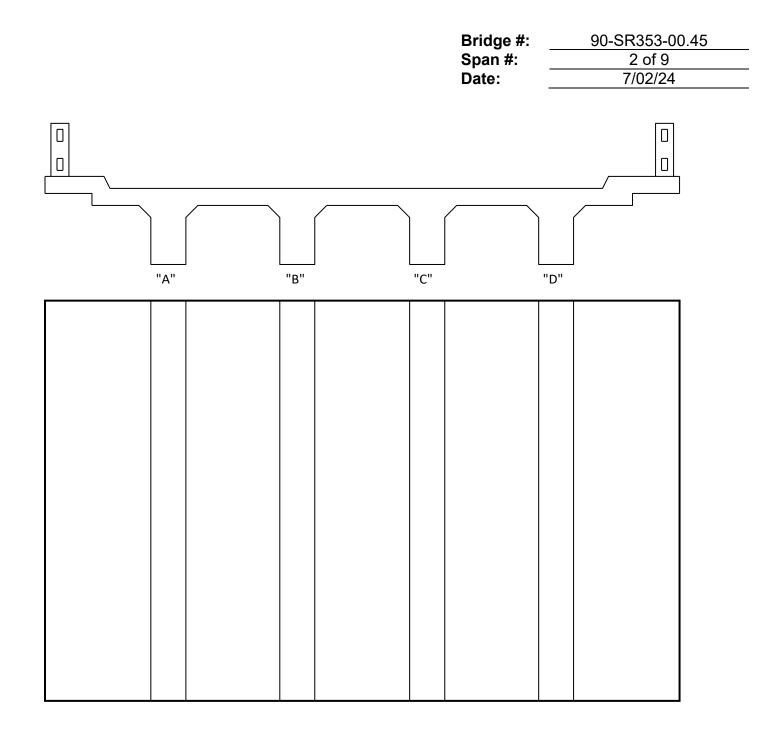
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	Minor scale
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale, high steel pop-outs



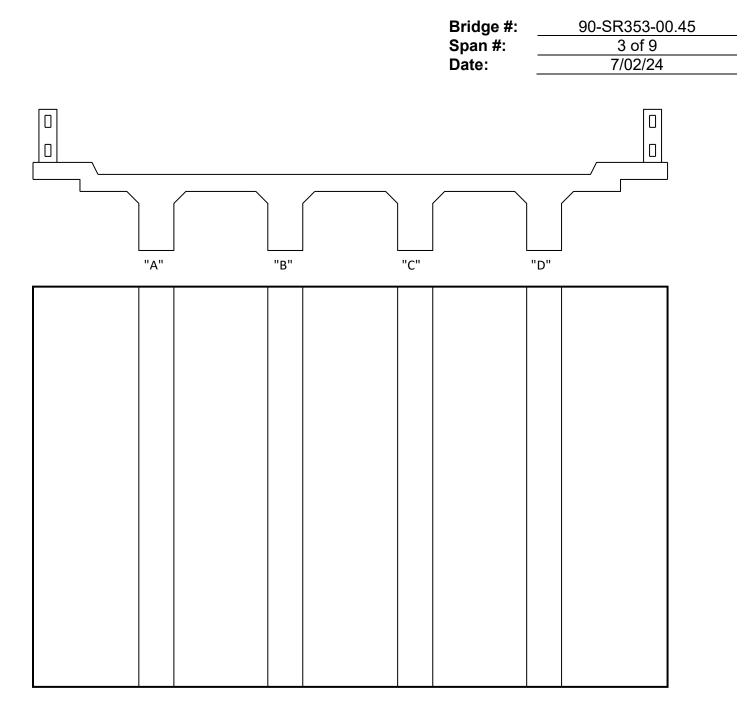
Element	Rating	Comments
Top Deck	G	
Bridge Rail	G	Minor scale
Exp. Joint	G	Paved over
Drains	G	
Curbs	G	Minor scale



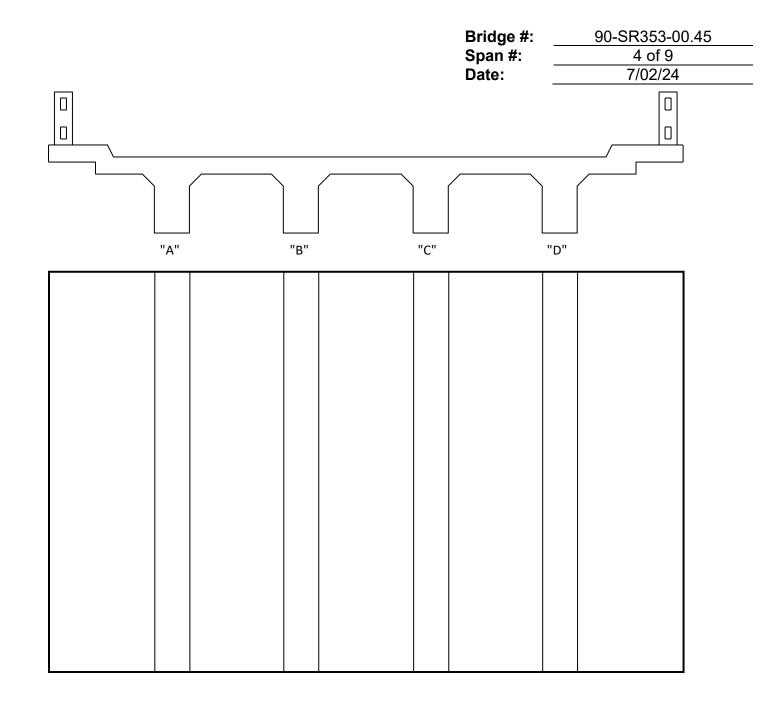
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



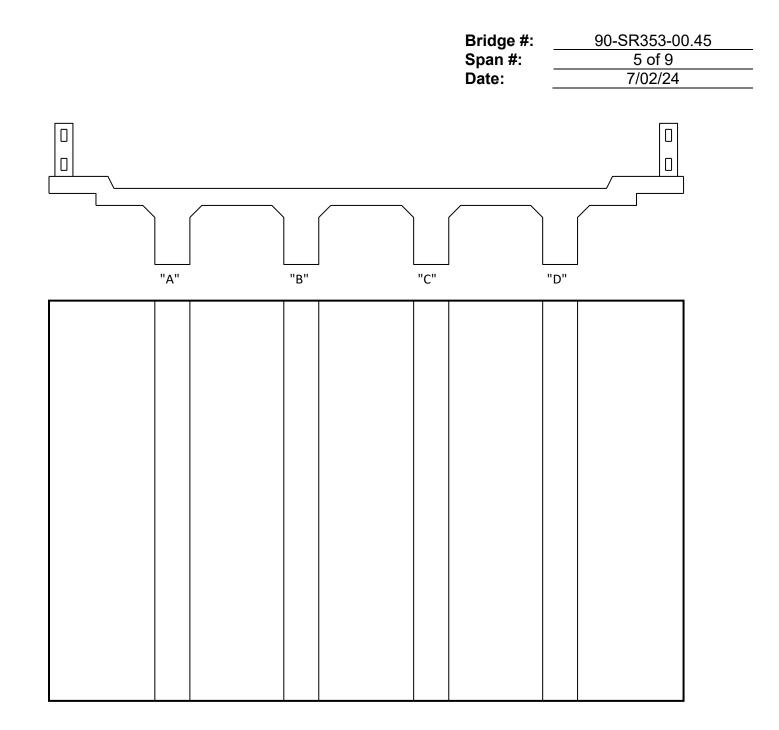
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



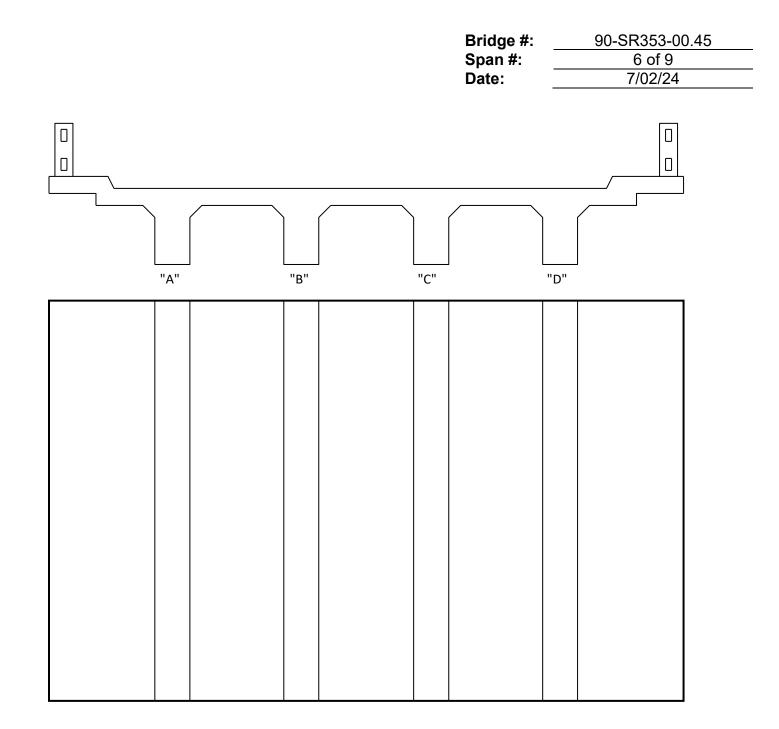
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Bearing Device	F	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



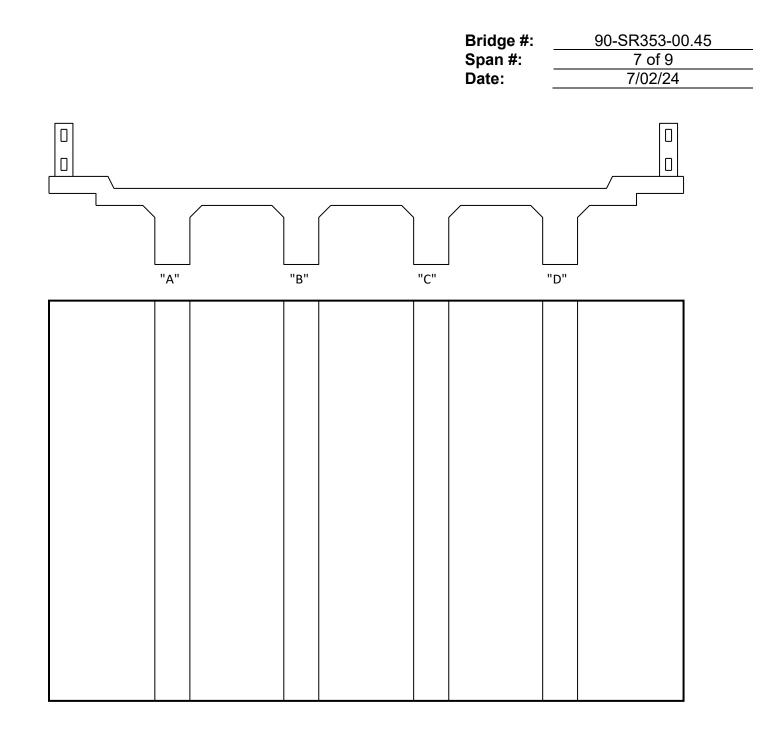
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Bearing Device	F	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



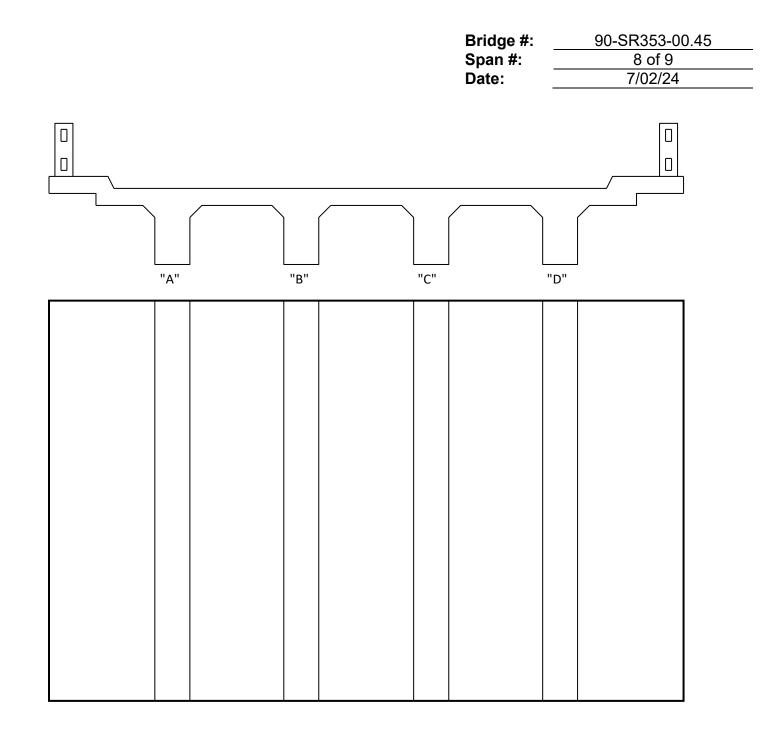
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Bearing Device	F	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



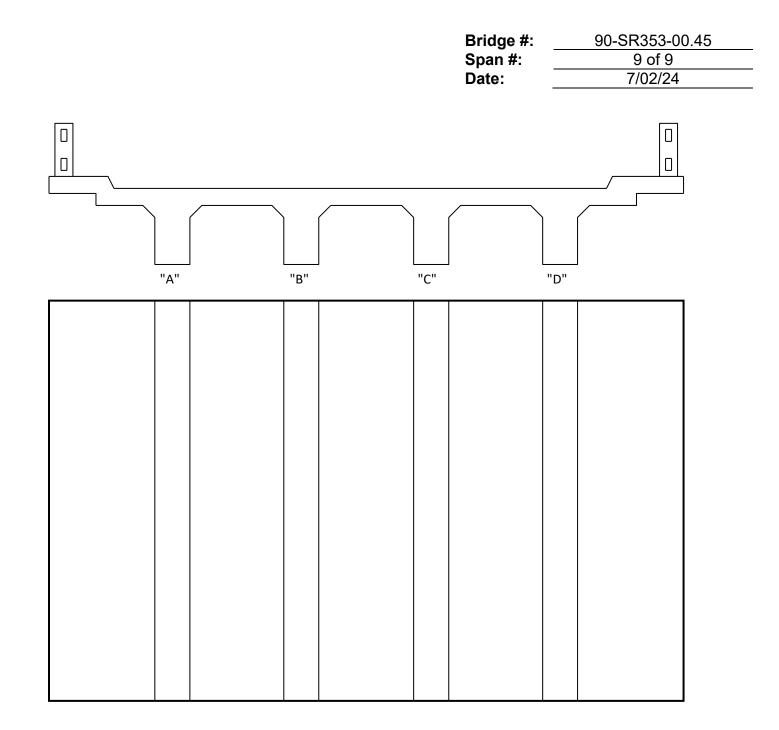
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Bearing Device	F	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



Element	Rating	Comments
Underside	F	
Diaphragms	G	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



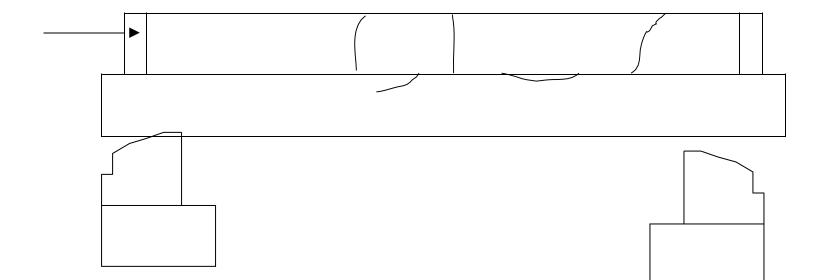
Element	Rating	Comments
Underside	F	
Diaphragms	G	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	



Element	Rating	Comments
Underside	F	
Diaphragms	G	
Beam "A"	F	
Beam "B"	F	
Beam "C"	F	
Beam "D"	F	

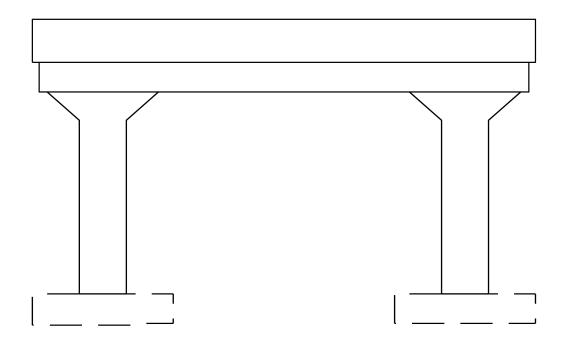
Bridge #:	90-SR353-00.45
Abutment #:	1
Date:	7/02/24





Element	Rating	Comments
Backwall	G	
Сар	G	
Wings	G	
Bearing Area	G	
Plumb	G	
Embankment	G	
Piles	N/V	
Rip Rap	G	

Bridge #:	90-SR353-00.45	
Bent #:	1 of 3	
Date:	7/02/24	



Element	Rating	Comments
Сар	G	
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Pier #:	1 of 5
Date:	7/02/24
I	

Element	Rating	Comments
Cap	G	
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #: Pier #: Date:	90-SR353-00.45 2 of 5 7/02/24

Element	Rating	Comments
Сар	G	Heavy water stains
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Pier #:	3 of 5
Date:	7/02/24

Element	Rating	Comments
Сар	G	
Column	G	
Footing	G	Where visible
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Pier #:	4 of 5
Date:	7/02/24

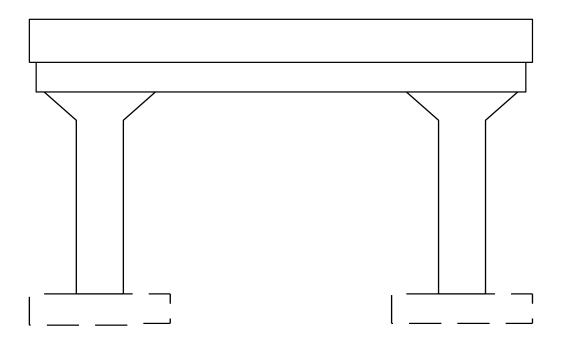
Element	Rating	Comments
Сар	G	
Column	G	Moderate water abrasion
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Pier #:	5 of 5
Date:	7/02/24

[

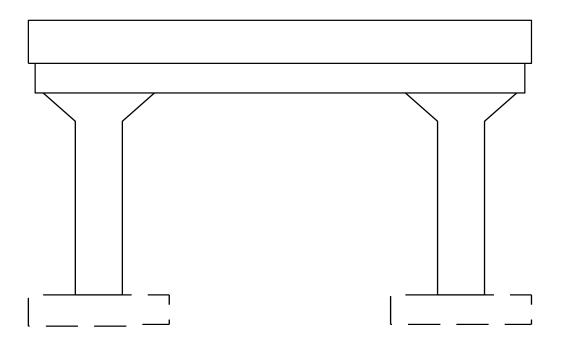
Element	Rating	Comments
Сар	G	
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Bent #:	2 of 3
Date:	7/02/24



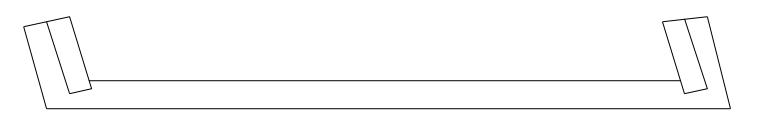
Element	Rating	Comments
Сар	G	
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

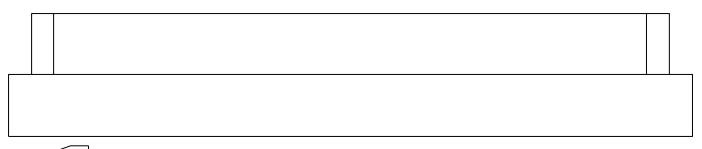
Bridge #:	90-SR353-00.45
Bent #:	3 of 3
Date:	7/02/24



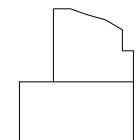
Element	Rating	Comments
Сар	G	
Column	G	
Footing	N/V	
Bearing Area	G	
Plumb	G	

Bridge #:	90-SR353-00.45
Abutment #:	2
Date:	7/02/24









Element	Rating	Comments
Backwall	G	
Сар	G	
Wings	G	
Bearing Area	G	
Plumb	G	
Embankment	G	
Piles	G	
Rip Rap	G	