NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PM ISSUED

Structure Safety Report

Routine Element Inspection

COUNTY: ROBESON **STRUCTURE NUMBER:** 770162 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1726 **MILE POST:**

LOCATION: 0.8 MI E JCT US301

FEATURE INTERSECTED: I95

LATITUDE: 34° 50' 50.67" **LONGITUDE:** 78° 58' 11.08"

SUPERSTRUCTURE: PRECAST PRESTRESSED CONCRETE CORED SLAB, APPROACH SLABS

SUBSTRUCTURE: E.BTS:RC CAPS ON PPC PILES, INT.BTS:RC POST & BEAM, SPREAD FOOTINGS

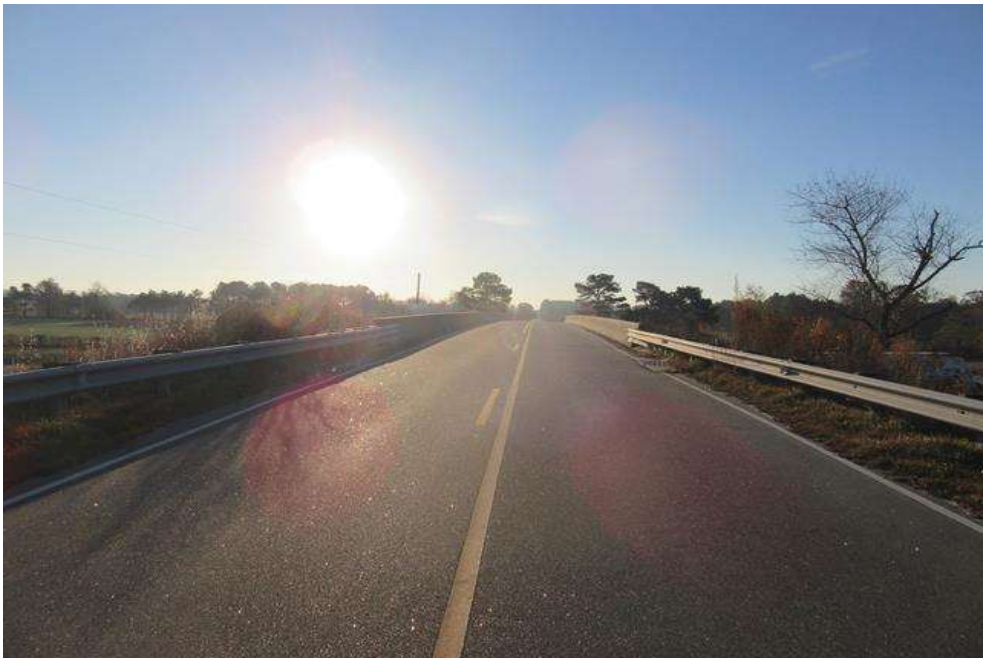
SPANS: 1@49'-0", 1@57'-10", 2@58'-0", 1@48'-8"

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

PRESENT CONDITION: Fair **INSPECTION DATE:** 11/29/2017

POSTED SV: Not Posted **POSTED TTST:** Not Posted

OTHER SIGNS PRESENT: NONE



LOOKING EAST

Sign noticed issued for		Number Required
NO	**WEIGHT LIMIT**	0
NO	**DELINEATORS**	0
NO	**NARROW BRIDGE**	0
NO	**ONE LANE BRIDGE**	0
NO	**LOW CLEARANCE**	0

DIRECTION OF INSPECTION W-E

DIRECTION MATCHES PLANS YES

INSPECTED BY	SIGNATURE	ASSISTED BY
Ray L. Kisner	Ray L. Kisner	Debra Kristensen

Structure Element Scoring

Structure Number: **770162**

Inspection Date **11/29/2017**

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
15	0	Prestressed Concrete Top Flange	Beam	7290	7290	0	0	0
104	0	Prestressed Concrete Closed Web/Box Gir	Beam	2430	2430	0	0	0
205	0	Reinforced Concrete Column	Piles and Columns	8	8	0	0	0
215	0	Reinforced Concrete Abutment	Abutments	72	72	0	0	0
220	0	Reinforced Concrete Pile Cap/Footing	Footing	32	32	0	0	0
226	0	Prestressed Concrete Pile	Piles and Columns	14	14	0	0	0
234	0	Reinforced Concrete Pier Cap	Caps	212	203	5	4	0
301	0	Pourable Joint Seal	Expansion Joints	0	0	0	0	0
310	0	Elastomeric Bearing	Bearing Device	90	90	0	0	0
321	0	Reinforced Concrete Approach Slabs	Approaches	853	853	0	0	0
331	0	Reinforced Concrete Bridge Railing	Bridge Rail	544	538	6	0	0
510	0	Wearing Surface	Wearing Surfaces	6500	6383	0	117	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: **770162** Inspection Date: **11/29/2017**

MMS Code	Element Name	Defect Name	Recommended Quantity
3348	Reinforced Concrete Pier Cap	Delamination/Spall	4 Feet
2816	Wearing Surface	Crack (Wearing Surface)	117 Square Feet

Element Structure Maintenance Quantities

Structure Number: **770162** Inspection Date **11/29/2017**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3350	Maintenance of Concrete Wings and Wall	0	72	0	0	0	72
Approaches	3353	Maintenance of Concrete Bridge Approach Slabs	0	853	0	0	0	853
Beam	3306	Maintenance Concrete Superstructure Components	0	2430	0	0	0	2430
Beam	3326	Maintenance of Concrete Deck	0	7290	0	0	0	7290
Bearing Device	3334	Bridge Bearing	0	90	0	0	0	90
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	0	544	0	0	6	538
Caps	3348	Maintenance of Concrete Substructure	4	212	0	4	5	203
Expansion Joints	3310	Maintenance of Standard Bridge Expansion Joints	0	0	0	0	0	0
Footing	3348	Maintenance of Concrete Substructure	0	32	0	0	0	32
Piles and Columns	3348	Maintenance of Concrete Substructure	0	22	0	0	0	22
Wearing Surfaces	2816	Asphalt Surface Repair	117	6500	0	117	0	6383

Element Condition and Maintenance Data

Structure Number: **770162** Inspection Date: **11/29/2017**

Span 1 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,172	1,169	0	3	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	1/8" WIDE TRANSVERSE CRACK OVER END BENT 1 IN WESTBOUND LANE	3	3	3	Square Feet

General Comments

Span 2 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,388	1,364	0	24	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	1/4" WIDE TRANSVERSE CRACK OVER BENT 1	3	24	24	Square Feet

General Comments

Span 2 — Right Bridge Rail

Concrete Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
331	Reinforced Concrete Bridge Railing	58	58	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

Span 3 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,388	1,349	0	39	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	1/4" WIDE LONGITUDINAL CRACK IN LEFT SHOULDER AT BENT 2	3	15	15	Square Feet
510	Crack (Wearing Surface)	3/16" WIDE TRANSVERSE CRACK OVER BENT 2	3	24	24	Square Feet

General Comments

Span 4 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,388	1,364	0	24	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	3/16" WIDE TRANSVERSE CRACK OVER BENT 3	3	24	24	Square Feet

General Comments

Span 4 — Left Bridge Rail

Concrete Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
331	Reinforced Concrete Bridge Railing	58	52	6	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
331	Cracking (RC and Other)	HAIRLINE MAP CRACKING AT BENT 3	2	6		Feet

General Comments

Span 5 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,164	1,137	0	27	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	1/4" WIDE TRANSVERSE CRACK OVER BENT 4	3	24	24	Square Feet
510	Crack (Wearing Surface)	1/8" WIDE TRANSVERSE CRACK OVER END BENT 2	3	3	3	Square Feet

General Comments

Bent 1 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	35	33	0	2	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
234	Delamination/Spall	SPALL 14" LONG X 8" WIDE X 1.25" DEEP WITH 8" EXPOSED RUSTED REBAR. PRIORITY MAINTENANCE ISSUED	3	2	2	Feet

General Comments

End Bent 1 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	36	36	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

CAP MEASUREMENTS FROM PLANS, PILE SPACINGS NOT VISIBLE ON PLANS

Bent 2 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	35	33	0	2	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
234	Delamination/Spall	2 FT. DIAMETER DELAMINATION IN BOTTOM OF CAP AT 2 FT. FROM COLUMN 2	3	2	2	Feet

General Comments

EFFLORESCENCE LEAKAGE AT BENT 2 LATERAL GUIDE

End Bent 2 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	36	36	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

CAP MEASUREMENTS FROM PLANS, PILE SPACINGS NOT VISIBLE ON PLANS

Bent 4 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	35	30	5	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
234	Cracking (RC and Other)	HAIRLINE TRANSVERSE CRACKS AT 1' SPACING IN BOTTOM OF CAP BETWEEN COLUMNS	2	5		Feet

General Comments

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 1	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 1	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 1	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	49
Span 1	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	49
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1172
Span 2	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 2	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 2	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 2	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 2	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1388
Span 3	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 3	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 3	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 3	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 3	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 3	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1388
Span 4	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	58
Span 4	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	174
Span 4	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 4	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	58
Span 4	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1388
Span 5	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 1	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 2	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 3	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 5	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 4	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 5	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 6	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 7	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Slab 8	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Top Flange	144
Span 5	Slab 9	Prestressed Concrete Cored Slab	Prestressed Concrete Closed Web/Box Girder	48
Span 5	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	49
Span 5	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	49
Span 5	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1164
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	35
Bent 1	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 1	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
End Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	36
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	36
Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	35
Bent 2	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 2	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
End Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	36
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	36
Bent 3	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	35
Bent 3	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 3	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 4	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	35
Bent 4	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 4	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1

General Inspection Notes

Bent 1	Cap 1

CAP MEASUREMENTS FROM PLANS, PILE SPACINGS NOT VISIBLE ON PLANS

Bent 2	Cap 1

CAP MEASUREMENTS FROM PLANS, PILE SPACINGS NOT VISIBLE ON PLANS

Span 2	Right Bridge Rail

National Bridge and NC Inspection Items

Structure Number: 770162 **Inspection Date:** 11/29/2017

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	**8**
Item 59: Superstructure	0 - 9 , N	**8**
Item 60: Substructure	0 - 9 , N	**5**
Item 61: Channel and Channel Protection	0 - 9 , N	**N**
Item 62: Culvert	0 - 9 , N	**N**
Item 71: Waterway Adequacy	0 - 9 , N	**N**
Item 72: Approach Roadway Alignment	0 - 9 , N	**8**

Note: If NBI Inspection Item is not present, code NBI item with "N"

NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	**G**	**0**	**3376**
Drainage System	G, F, P, or C	**G**	**0**	**3332**
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	**G**	**0**	**3352**
Scour	G, F, P, or C			
Wingwall	G, F, P, or C	**G**	**0**	**3350**
Field Scour Evaluation				
Drift	G, F, P, or C			
Fender System	G, F, P, or C			
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	**G**		
Estimated Remaining Life	0 - 100 Years	**50**		
Superstructure Paint Code				

Note: If NC SMU Insepction Item is not present, leave NC SMU item blank

Inspection Information

Item	Grade Scale	Grade
Regulatory Sign Noticed Issued	YES/NO	**N**
Priority Maintenance Request Submitted	YES/NO	**Y**
Inspection Time	Hours	**10**
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	**Y**
Bucket Truck Used	YES/NO	**N**
Boat Used	YES/NO	**N**
Other Equipment Used	YES/NO	**N**

National Bridge and NC SMU Inspection Item Details

Structure Number: 770162 **Inspection Date:** 11/29/2017

Item	Superstructure - Item 59	**Grade**	8	**Maint Code**		**Qty.**	0
Details	ALL BEARINGS ARE ELASTROMERIC BEARING PADS, NOT VISIBLE						
Item	Priority Maintenance Issued	**Grade**	Y	**Maint Code**		**Qty.**	0
Details	PRIORITY MAINTENANCE ISSUED FOR BENT 1 CAP SPALL						
Item	General Comments and Misc Items	**Grade**		**Maint Code**		**Qty.**	0
Details	ALL BEARINGS ARE ELASTROMERIC BEARING PADS, NOT VISIBLE						

Span 5 Wearing Surface: 1/8" WIDE TRANSVERSE CRACK OVER END BENT 2

Span 5 Wearing Surface: 1/4" WIDE TRANSVERSE CRACK OVER BENT 4

Span 4 Wearing Surface: 3/16" WIDE TRANSVERSE CRACK OVER BENT 3

Span 4 Left Bridge Rail: HAIRLINE MAP CRACKING AT BENT 3

Span 3 Wearing Surface: 1/4" WIDE LONGITUDINAL CRACK IN LEFT SHOULDER AT BENT 2

Span 3 Wearing Surface: 3/16" WIDE TRANSVERSE CRACK OVER BENT 2

Span 2 Wearing Surface: 1/4" WIDE TRANSVERSE CRACK OVER BENT 1

Span 1 Wearing Surface: 1/8" WIDE TRANSVERSE CRACK OVER END BENT 1 IN WESTBOUND LANE

Bent 4 Cap 1: HAIRLINE TRANSVERSE CRACKS AT 1' SPACING IN BOTTOM OF CAP BETWEEN COLUMNS

EFFLORESCENCE LEAKAGE AT BENT 2 LATERAL GUIDE

Bent 2 Cap 1: 2 FT. DIAMETER DELAMINATION IN BOTTOM OF CAP AT 2 FT. FROM COLUMN 2

Bent 1 Cap 1: SPALL 14" LONG X 8" WIDE X 1.25" DEEP WITH 8" EXPOSED RUSTED REBAR. PRIORITY MAINTENANCE ISSUED

SOUTH PROFILE

LOOKING NORTH, NORTHBOUND LANE THRU SPAN 4

NORTH PROFILE

LOOKING SOUTH, SOUTHBOUND LANE THRU SPAN 2

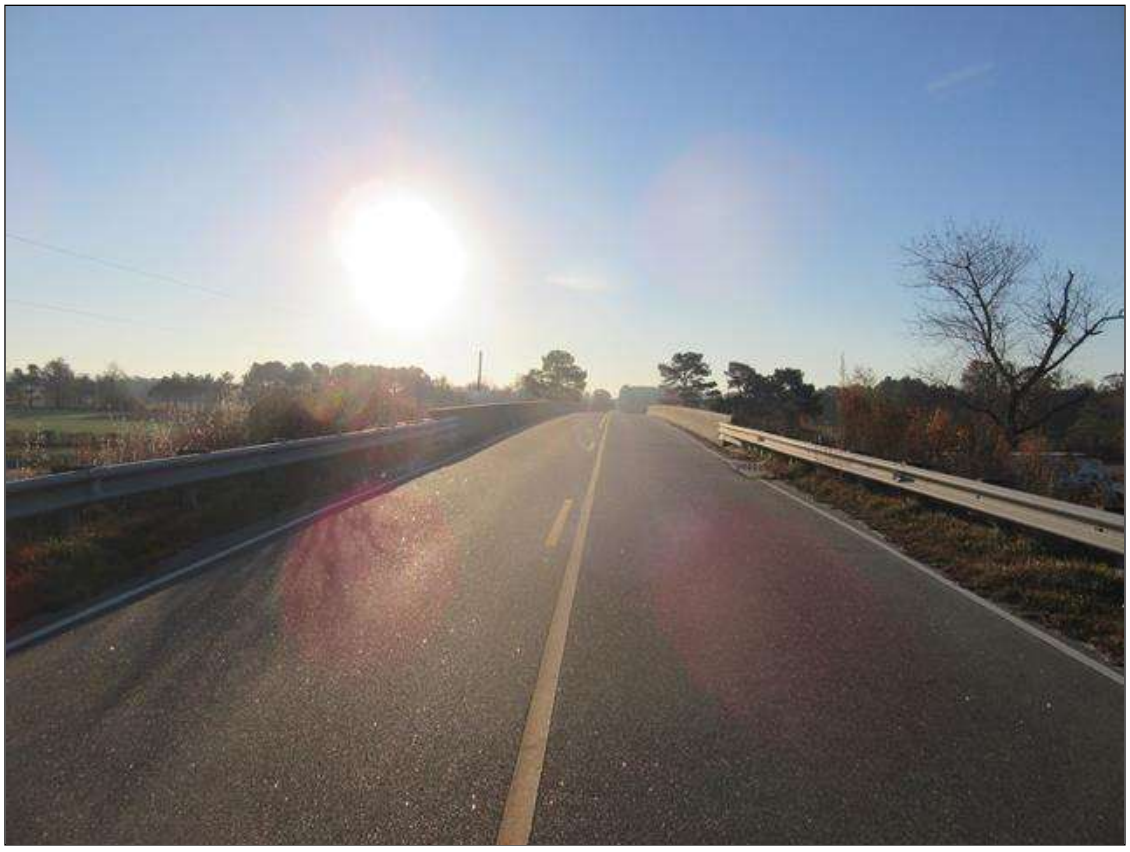
SPAN 2 SUPERSTRUCTURE, ALL SPANS ARE SIMILAR

BENT 1

END BENT 1

GUARDRAIL END TERMINAL, ALL CORNERS ARS SIMILAR

GUARDRAIL POST SPACING AT MID PORTION



LOOKING EAST

GUARDRAIL POST SPACING AT BRIDGE

GUARDRAIL CONNECTION

EXTERIOR GUARDRAIL CONNECTION

LOOKING WEST, OFF BRIDGE

LOOKING NORTH, I 95

LOOKING SOUTH, I-95

LOOKING EAST, OFF BRIDGE

LOOKING WEST

END BENT 2

BENT 4

BENT 3

BENT 2

SOUTH END OF BENT 2 CAP, SIMPLE SPANS

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 04/12/2018

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **770162**
(8) STRUCTURE NUMBER(FEDERAL) 000000001550162
(5) INVENTORY ROUTE (ON/UNDER) - ON 31017260
(2) STATE HIGHWAY DEPARTMENT DISTRICT 1
(3) COUNTY CODE 155 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - I95
(7) FACILITY CARRIED SR1726
(9) LOCATION 0.8 MI E JCT US301
(11)MILEPOINT 0
(16)LAT 34° 50' 50.67" (17)LONG 78° 58' 11.08"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Prestressed Concrete
TYPE - Slab CODE 501
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 5
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 2 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1959
(106)YEAR RECONSTRUCTED 2009
(42) TYPE OF SERVICE : ON - Highway
UNDER - Highway CODE 11
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4
(29) AVERAGE DAILY TRAFFIC 450
(30) YEAR OF ADT 2015 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 1 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 57 FT
(49) STRUCTURE LENGTH 272 FT
(50)CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 23.917 FT
(52) DECK WIDTH OUT TO OUT 27 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 22 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 27° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 23.917 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 17.583 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 9.167 FT
(56) MIN LAT UNDERCLEAR LT REF - 12 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 72.74
STATUS = Functionally Obsolete

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Local 09
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 2-way Traffic 2
(103)TEMPORARY STRUCTURE -
(110)DESIGNATED NATIONAL NETWORK - Not on the National Network 0
(20) TOLL On Free Road 3
(31) MAINTAIN - State Highway Agency 01
(22) OWNER - State Highway Agency 01
(37) HISTORICAL SIGNIFICANCE - Not Eligible 5

CONDITION — CODE

(58) DECK 8
(59) SUPERSTRUCTURE 8
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD HS 20 + MOD 6
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-42 76
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-25 45
(70) BRIDGE POSTING - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED A
DESCRIPTION - Open, No Restriction

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 5
(68) DECK GEOMETRY 4
(69) UNDERCLEARANCES,VERTI & HORIZ 3
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1111
(113)SCOUR CRITICAL BRIDGES N

PROPOSED IMPROVEMENTS

(75) TYPE OF WORK - CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114)FUTURE ADT 900 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 11/29/2017
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - NO B)
C) OTHER SPECIAL INSP NO C)
SCOUR

Structure No: 770162 County: ROBESON Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Numer of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1					STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade			
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	I95S	11000950	17.42	34.10	1	10095		1	2	22500	2015	45.67	H	17.33	10.17	12	9	1	1	1
4	I95N	11000950	17.67	34.10	1	10095		1	2	22500	2015	44.92	H	17.58	9.17	12	9	1	1	1

Note 1: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69. The under route that generates the lowest Underclearance Appraisal value will be reported on the Facility Carried record.

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 04/12/2018

COUNTY : ROBESON
DIVISION : 6
DISTRICT: 1
STRUCTURE NUMBER : 770162
LENGTH : 272 FEET

ROUTE CARRIED : SR1726
FEATURE INTERSECTED : I95

LOCATED : 0.8 MI E JCT US301
BRIDGE NAME :
CITY :

FUNC. CLASS : 09
SYST.ON : NFA
SYST.UNDER : NFA
ADT & YR : 450 2015
RAIL TYPE : LT 41 RT 41

BUILT : 1959
BY : SHC
PROJ : 8.13962
FED.AID PROJ :
DESIGN LOAD : HS 20 + MOD

REHAB : 2009
BY : DOH
PROJ : 41927.3.1
ALIGNMENT : TAN
SKEW : 63
LANES : ON 2 UNDER 4

NAVIGATION : VC 0 FT HC 0 FT
HT. CRN. TO BED : 0 FT
WATER DEPTH : 0 FT

SUPERSTRUCTURE : PRECAST PRESTRESSED CONCRETE CORED SLAB, APPROACH SLABS

SUBSTRUCTURE : E.BTS:RC CAPS ON PPC PILES, INT.BTS:RC POST & BEAM, SPREAD FOOTINGS

SPANS : 1@49'-0", 1@57'-10", 2@58'-0", 1@48'-8"

BEAMS OR GIRDERS : 9 SECTIONS 3'-0" X 1'-9" PPC CORED SLAB UNITS

FLOOR : PPC.CS, 5.76"
AWS
ENCROACHMENT :
DECK (OUT TO OUT) : 27 FT

CLEAR ROADWAY : 23.917 FT
BETWEEN RAILS : 23.917 FT
SIDEWALK OR CURB : LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-25
OPE.RTG. : HS-42
CONTR.MEMBER : CS B-D
POSTED : SV
TTST
DATE

SYSTEM : Primary S.R. Route
GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

Span	Route Description	Vertical Clearances		Horizontal Clearances		
		MMVC	MVC	Total	Left	Right
2	I95S	17.4170	17.3330	45.6670	12	10.1670
4	I95N	17.6670	17.5830	44.9170	12	9.1670

Note: All measurements are in feet.

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 770162 County ROBESON Date: 11/29/2017

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3348	Maintain Concrete Substructure Components	LF	2	Bent 1 Cap 1: SPALL 14" LONG X 8" WIDE X 1.25" DEEP WITH 8" EXPOSED RUSTED REBAR. PRIORITY MAINTENANCE ISSUED	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 770162 County ROBESON

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

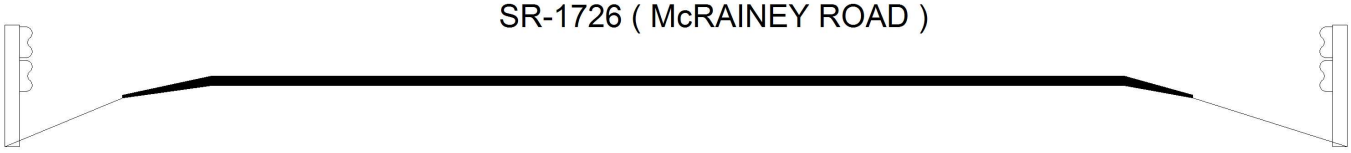
MMS Code	MMS Description	Quantity
3348	Maintain Concrete Substructure Components	2 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
11/29/2017	Ray L. Kisner	

Details
Bent 1 Cap 1: SPALL 14" LONG X 8" WIDE X 1.25" DEEP WITH 8" EXPOSED RUSTED REBAR. PRIORITY MAINTENANCE ISSUED

Bridge Inspection Field Sketch

SR-1726 (McRAINEY ROAD)



Roadway	18.75ft Wide	2 Paved Lanes	Looking East
Left Shoulder	4.25ft Wide	1.833ft Paved	2.417ft Unpaved
Right Shoulder	4.584ft Wide	1.417ft Paved	3.167ft Unpaved
Left Guardrail	4.25ft from road		
Right Guardrail	4.583ft from road		

MEASUREMENTS VERIFIED BY RLK 12/13/11
MEASUREMENTS VERIFIED BY RLK 11/6/13

MEASURED 15 FT. WEST OF STRUCTURE

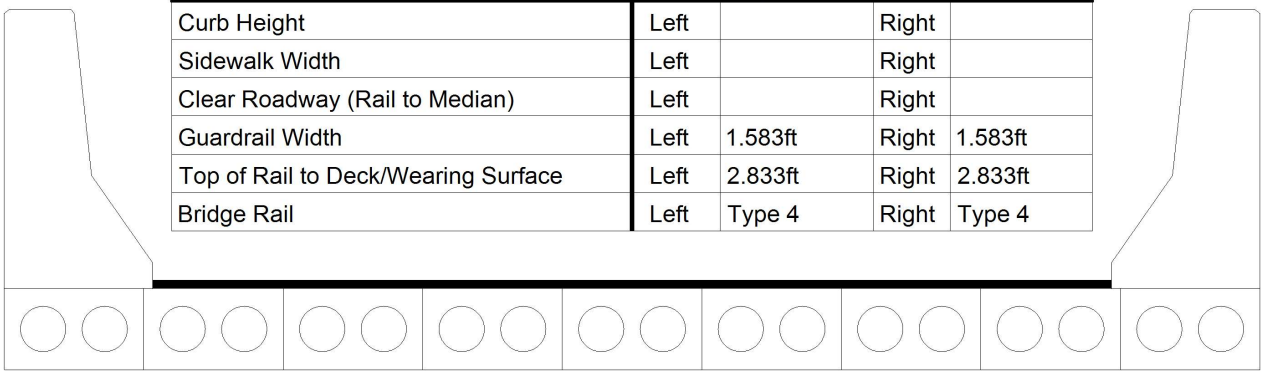
MEASUREMENTS VERIFIED BY RLK 11/16/15
MEASUREMENTS VERIFIED BY DLK 11/29/17

Title	**Description**
APPROACH ROADWAY	LOOKING EAST

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
770162	RLK	1/26/2010	S0098000248

Bridge Inspection Field Sketch

Deck Width/Out to Out	27ft	Between Rails				23.917ft
Clear Roadway	23.917ft	Wearing Surface				0.48ft
Median Width		Median Height				
Curb Height		Left		Right		
Sidewalk Width		Left		Right		
Clear Roadway (Rail to Median)		Left		Right		
Guardrail Width		Left	1.583ft	Right	1.583ft	
Top of Rail to Deck/Wearing Surface		Left	2.833ft	Right	2.833ft	
Bridge Rail		Left	Type 4	Right	Type 4	



Measurements for Span #	1	SPANS 2,3,4,AND 5 SIMILAR	
Deck Thickness	1.75	Left Overhang	
Top of Rail to Bottom of Beam	5.0 FT.	Right Overhang	

Number of Slabs	Slab Width	Slab Height	Comments
9	3.0ft	1.75ft	

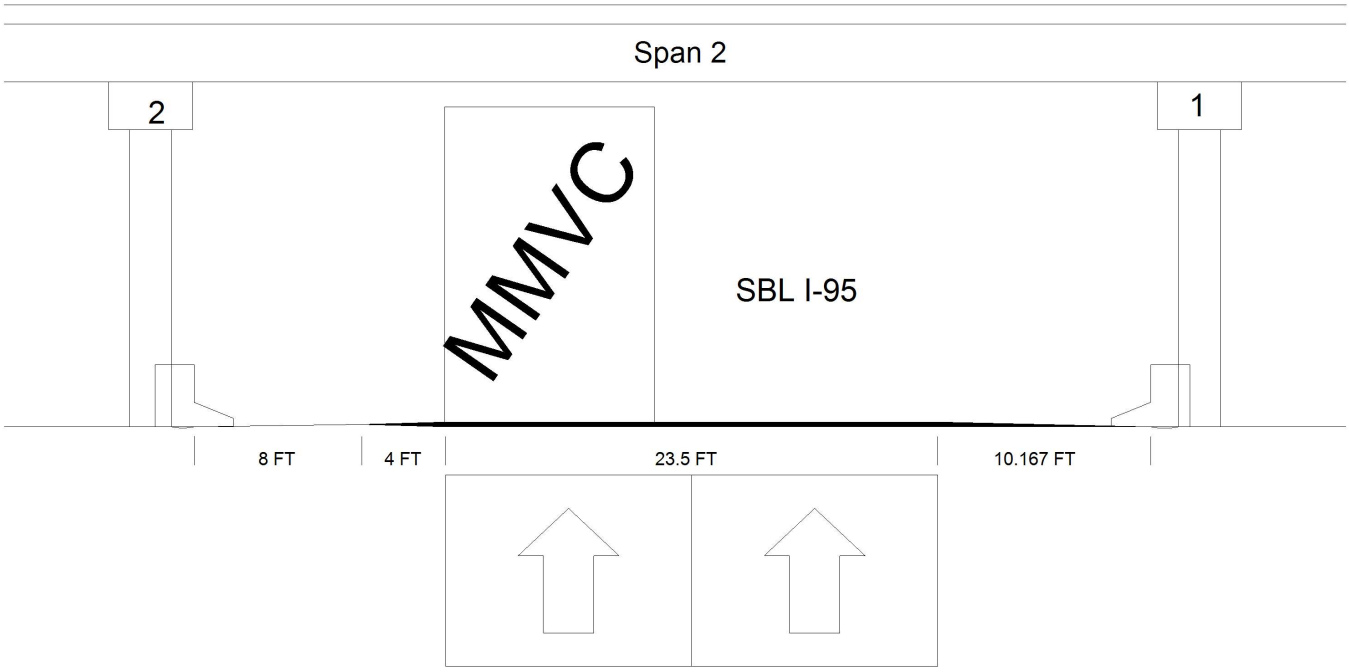
MEASUREMENTS VERIFIED BY RLK 12/13/11
MEASUREMENTS VERIFIED BY RLK 11/6/13
MEASUREMENTS VERIFIED BY RLK 11/16/15
MEASUREMENTS VERIFIED BY DLK 11/29/17

ELASTOMERIC BEARING PADS NOT VISIBLE

Title	**Description**
SUPERSTRUCTURE	SIMILAR SECTION

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
770162	RLK	1/26/2010	S0098000249

Bridge Inspection Field Sketch

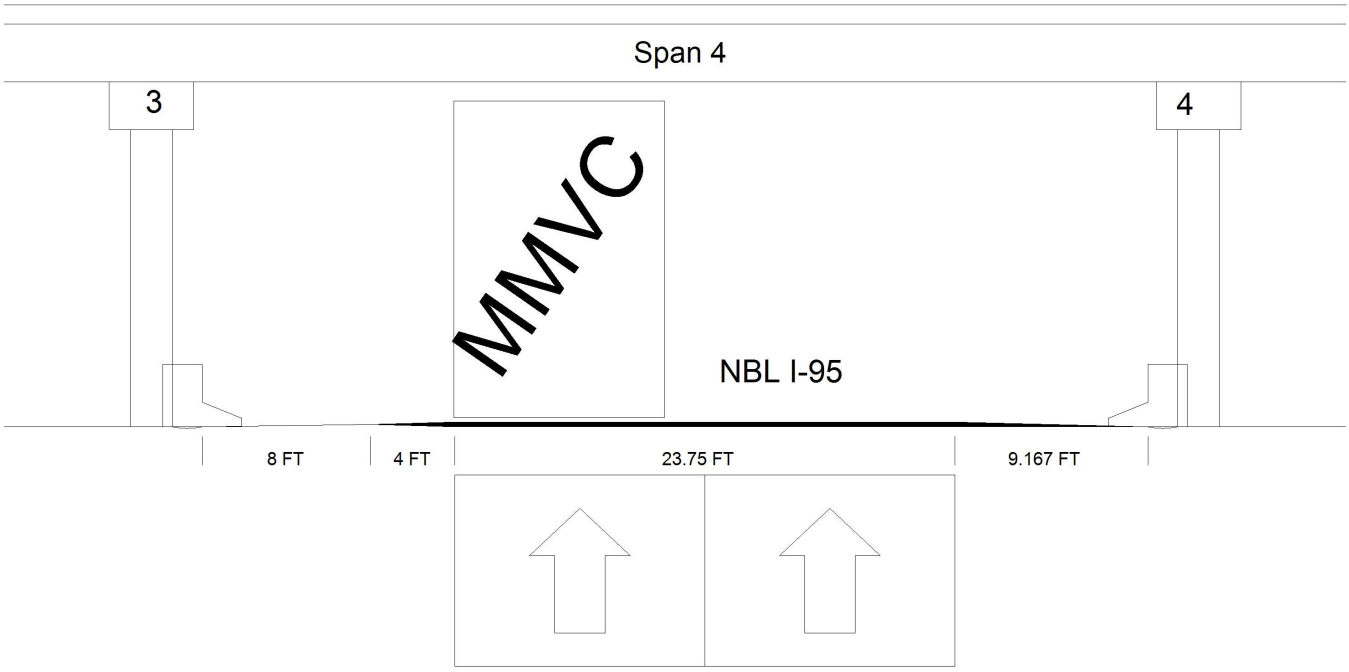


Roadway 1		Direction of Traffic	South
Distance to Left Rail	12FT	Distance to Right Rail	10.167FT
Distance to Left Toe of Slope		Distance to Left Bent	13.083FT
Distance to Right Toe of Slope		Distance to Right Bent	11.5FT
MMVC	17.417 Ft at Beam 9, 10 FT from 10' FROM LT EDGE OF PAVEMENT		
MVC	17.333 Ft at Beam 9, 0 FT from MEASURED AT CENTERLINE OF PAVEMENT		

MEASUREMENTS VERIFIED BY DLK ON 11/29/2017

Title	**Description**		
Underclearance S.B.L.	Span 2 SBL		
Bridge No: 770162	**Drawn By:** RLK	**Date:** 11/16/2015	**File Name:** S0098000250

Bridge Inspection Field Sketch

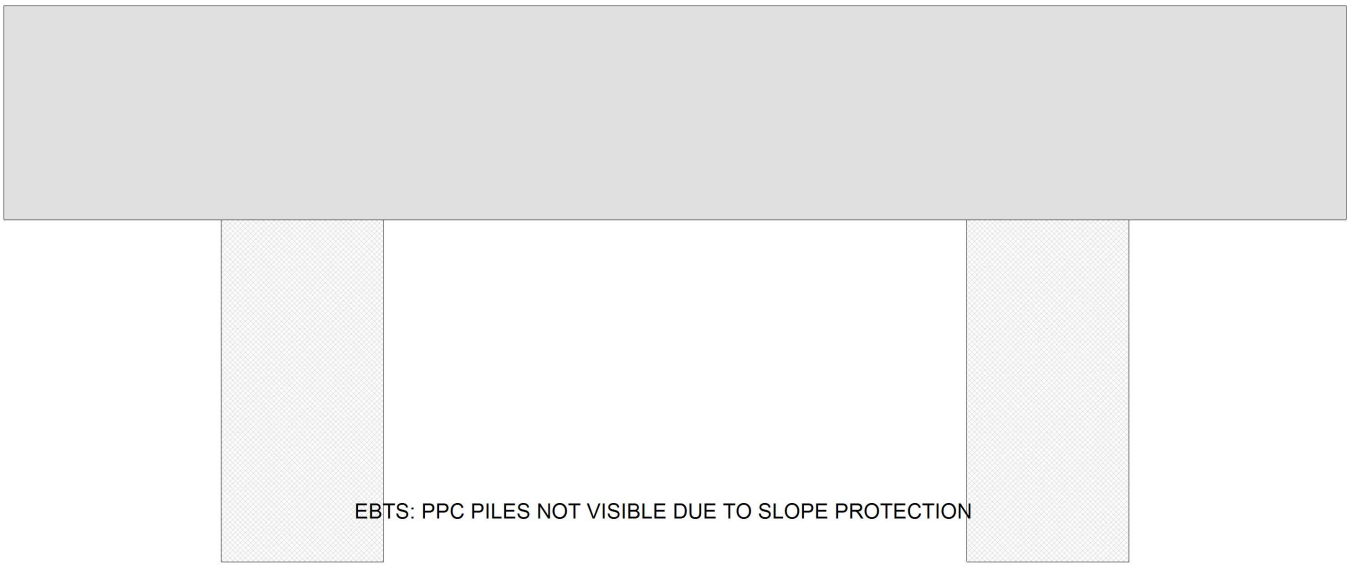


Roadway 1		Direction of Traffic	North
Distance to Left Rail	12FT	Distance to Right Rail	9.167FT
Distance to Left Toe of Slope		Distance to Left Bent	13.417FT
Distance to Right Toe of Slope		Distance to Right Bent	10.583FT
MMVC	17.667 Ft at Beam 9, 10 FT from 10' FROM LT EDGE OF PAVEMENT		
MVC	17.583 Ft at Beam 9, 0 FT from MEASURED AT CENTERLINE OF ROADWAY		

MEASUREMENTS VERIFIED BY DLK ON 11/29/2017

Title	**Description**		
Underclearance N.B.L.	Span 4 NBL		
Bridge No: 770162	**Drawn By:** RLK	**Date:** 11/16/2015	**File Name:** S0098000251

Bridge Inspection Field Sketch



Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
34.500 ft.	2.500 ft.	5.500 ft.	7.667 ft.	7.667 ft.	2.000 ft.	2.000 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1		19.167 ft.	4.167 ft.			Vertical	No	No	No	No
2			4.167 ft.			Vertical	No	No	No	No

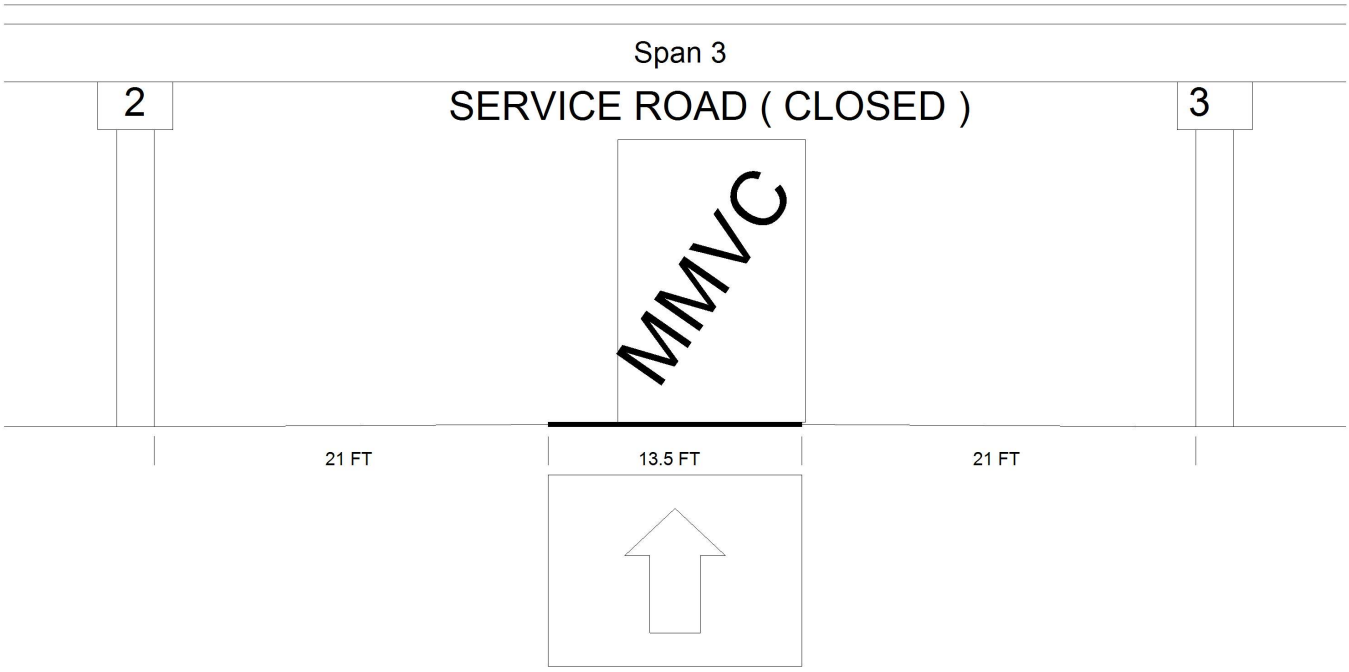
MEASUREMENTS VERIFIED BY RLK 12/13/11
MEASUREMENTS VERIFIED BY RLK 11/6/13
MEASUREMENTS VERIFIED BY RLK 11/16/15
MEASUREMENTS VERIFIED BY DLK 11/29/17

Bent/Abutment #: 1 Similar Bents: 2,3 & 4

Title	**Description**
SUBSTRUCTURE	BENT 1

Bridge No: 770162	**Drawn By:** RLK	**Date:** 1/26/2010	**File Name:** S0254000414

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	North
Distance to Left Rail		Distance to Right Rail	
Distance to Left Toe of Slope		Distance to Left Bent	21FT
Distance to Right Toe of Slope		Distance to Right Bent	21FT
MMVC	17.542 Ft at Beam 9, 10 FT from FROM LEFT EGDE OF PAVEMENT		
MVC	17.458 Ft at Beam 9, 0 FT from AT RIGHT EDGE OF PAVEMENT		

Title	**Description**
SPAN 3 CLEARANCE	SPAN 3 SERVICE ROAD

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
770162	RLK	11/29/2017	S0094000732