NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION NO MAINT

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GASTON **BRIDGE NUMBER** 350134 **INSPECTION CYCLE** 2 **YRS** 20.7

ROUTE SR2200 **ACROSS** I-85 **M.P.** 0

LOCATION 0.3 MI. E. JCT. US29

SUPERSTRUCTURE RC DECK ON PPC GIRDERS, PPC DECK PANELS, APPROACH SLABS

SUBSTRUCTURE E.BNTS:RC CAP ON STEEL PILES, INT.BNTS:RCP&B W/PILE FOOTINGS

SPANS 1@32'0, 2@64'6, 1@53'6 COMPOSITE

LONGITUDE 81° 8' 1.19" **LATITUDE** 35° 15' 53.24"

INSPECTION DATE 07/30/2014 **PRESENT CONDITION** GOOD

PRESENT POSTING N NOT POSTED **PROPOSED POSTING**

OTHER SIGNS PRESENT NONE

WEST APPROACH

Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	No

SIGN NOTICE ISSUED FOR		NUMBERED REQUIRED
No	WEIGHT LIMIT	
No	DELINEATORS	
No	NARROW BRIDGE	
No	ONE LANE BRIDGE	
No	LOW CLEARANCE	

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 09/10/2014

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **350134**
(8) STRUCTURE NUMBER(FEDERAL) 000000000710134
(5) INVENTORY ROUTE (ON/UNDER) - ON 31022000
(2) STATE HIGHWAY DEPARTMENT DISTRICT 1
(3) COUNTY CODE 71 (4) PLACE CODE 25580
(6) FEATURE INTERSECTED - I-85
(7) FACILITY CARRIED SR2200
(9) LOCATION 0.3 MI. E. JCT. US29
(11)MILEPOINT 0
(16)LAT 35° 15' 53.24" (17)LONG 81° 8' 1.19"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Prestressed Concrete
TYPE - Stringer Mutlibeam or Girder CODE 502
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 4
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 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 1990
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Highway - Pedestrian
UNDER - Highway CODE 51
(28) LANES: ON STRUCTURE 6 UNDER STRUCTURE 6
(29) AVERAGE DAILY TRAFFIC 34500
(30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 12%
(19) BYPASS OR DETOUR LENGTH 2 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 63 FT
(49) STRUCTURE LENGTH 215 FT
(50)CURB OR SIDEWALK: LEFT 5 FT RIGHT 5 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 76 FT
(52) DECK WIDTH OUT TO OUT 88.5 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 76 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 14° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 76 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 16.75 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 8.667 FT
(56) MIN LAT UNDERCLEAR LT REF - 7.083 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 = 72.13
STATUS = Functionally Obsolete

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is on the NHS 1
(26) FUNCTIONAL CLASS - Other Principal Arterial 14
(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 7
(59) SUPERSTRUCTURE 7
(60) SUBSTRUCTURE 7
(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-44 80
(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 7
(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 69000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 07/30/2014
(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: 350134 County: GASTON 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	I 85 S	11000850	21	20.70	1	10085		11	3	54500	2012	55.25	H	19.42	12	7.25	9	1	1	1
3	I 85 N	11000850	17.83	20.70	1	10085		11	3	54500	2011	51.75	H	16.75	8.67	7.08	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: 09/10/2014

COUNTY : GASTON
DIVISION : 12
DISTRICT: 1
STRUCTURE NUMBER : 350134
LENGTH : 215 FEET

ROUTE CARRIED : SR2200
FEATURE INTERSECTED : I-85

LOCATED : 0.3 MI. E. JCT. US29
BRIDGE NAME :
CITY : GASTONIA

FUNC. CLASS : 14
SYST.ON : FA
SYST.UNDER : NFA
ADT & YR : 34500 2012
RAIL TYPE : LT 639 RT 639

BUILT : 1990
BY : DOH
PROJ : 8.1810502
FED.AID PROJ : IR-85-1(74)2
DESIGN LOAD : HS 20 + MOD

REHAB :
BY :
PROJ :
ALIGNMENT : TAN
SKEW : 104
LANES : ON 6 UNDER 6

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

SUPERSTRUCTURE : RC DECK ON PPC GIRDERS, PPC DECK PANELS

SUBSTRUCTURE : E.BTS:RC CAPS/H-PILES; INT.BNTS:RC P&B/PILE FOOTINGS

SPANS : 1@32', 2@64'-6, 1@53'-6

BEAMS OR GIRDERS : 11 LINES 45" PPC GIRDERS @ VARIOUS CENTERS

FLOOR : 5 RC, 3.5 PPC/NO AWS
ENCROACHMENT : 6LNS 4 PVC(TEL)
DECK (OUT TO OUT) : 88.5 FT

CLEAR ROADWAY : 76 FT
BETWEEN RAILS : 86 FT
SIDEWALK OR CURB : LT 5 FT RT 5 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-25
OPE.RTG. : HS-44
CONTR.MEMBER : intbmLR(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	I 85 S	21	19.4170	55.25	7.25	12
3	I 85 N	17.8330	16.75	51.75	7.0830	8.6670

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
BRIDGE NO. 350134 COUNTY GASTON ROUTE SR2200 OVER I-85
STRUCTURE TYPE RC DECK ON PPC GIRDERS, PPC DECK PANELS, APPROACH SLABS
ROUTE ORIENTATION W - E SPANS 1@32'0, 2@64'6, 1@53'6 COMPOSITE

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM			
DECK ITEMS			GRADES
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE	4	G
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		G
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			G
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL	5	G
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			G
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			G
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			G
13. END DIAP'S, CURTAIN WALLS, & CONN'S			G
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G
16. DRAINAGE SYSTEM (ON STRUCTURE)			G
17. MOVABLE SPAN MACHINERY			
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, POST, SILLS, & BRACING		
	c. BULKHEADS, WING'S, & TIE BACKS		
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS		G
	b. ABUT. & BENT COL'S BREASTWALLS		G
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		G
	e. ABUT. & BENT FOOTINGS & SILLS		
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, BRACING, AND BULKHEADS		
38. FOUNDATION PILES TYPE MATERIAL			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			G
40. FENDER SYSTEMS			
41. DRIFT			

ITEM 61		
45. CHANNEL & CHANNEL PROT.	a. WATERWAY	
	b. ALIGNMENT	
	c. SCOUR	
	d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
50. APPROACH ROADWAY CONDITION		G
51. APPROACH SLABS		G
52. PAINT SYSTEM	CODE	
53. UTILITIES		G
54. RESPONSE TO LIVE LOAD		G
55. ESTIMATED REMAINING LIFE		41
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		NO
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		5
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		0
70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	7
b. SUPERSTRUCTURE	ITEM 59	7
c. SUBSTRUCTURE	ITEM 60	7
d. CHANNEL & CHANNEL PROT.	ITEM 61	
71. SI&A FIELD APPRAISAL RATINGS		
a. WATERWAY ADAQUACY		
b. APPR. RDWY. ALIGNMENT		8
72. FIELD SCOUR EVALUATION		
USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		NO
BOAT		NO
OTHER		NO
SPECIAL INSPECTION REQUESTED FOR		
NOTE		
80. INSPECTED BY:		
81. REVIEWED BY:		

Bridge I&A Form 1(82)H

State of North Carolina
Dept. of Transportation
Division of Highways

FIELD INSPECTION REPORT

Bridge Inspecion & Analysis

Team Leader **DEREK RICKUS**

Assisted By **EAP**

Item No.	Grade	
2a	**G**	SCATTERED CHIPPING ALONG EDGES OF EXPANSION JOINTS. SCATTERED H/L CRACKING IN TOP OF DECK.
10A	**NO**	NO CURVED GIRDERS
36e		NOT VISIBLE
38		NOT VISIBLE
39	**G**	POURED CONCRETE
53	**G**	(6) 3" CONDUITS HANGING FROM STEEL SUPPORTS IN BAY 10

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 350134 County GASTON Date: 07/30/2014

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

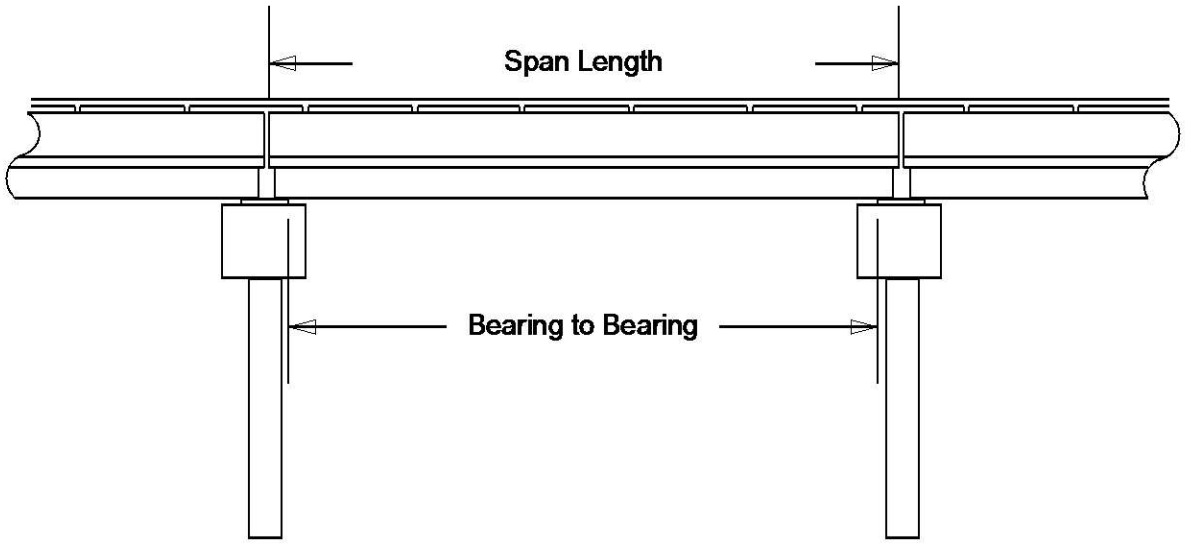
MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
0	No Maintenance Required	NA	0	NO MAINT	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

Structure Data Worksheet

County: GASTON **Structure No:** 350134 **Date:** 07/30/2014 **Inspected By:** DCR



Span No	Span Length	Bearing to Bearing	Comments
1	52.58	50.500'	
2	64.58	62.833'	
3	64.58	62.833'	
4	30.83	28.500'	NBIS=212.5'

Bridge Inspection Field Sketch

Roadway	72.00ft Wide	6 Paved Lanes	Looking East
Left Shoulder	2ft Wide	2.00ft Paved	
Right Shoulder	2ft Wide	2.00ft Paved	
Left Guardrail	10.50ft from road		
Right Guardrail	7.00ft from road		

VERIFIED BY DEREK RICKUS ON 7/30/2014

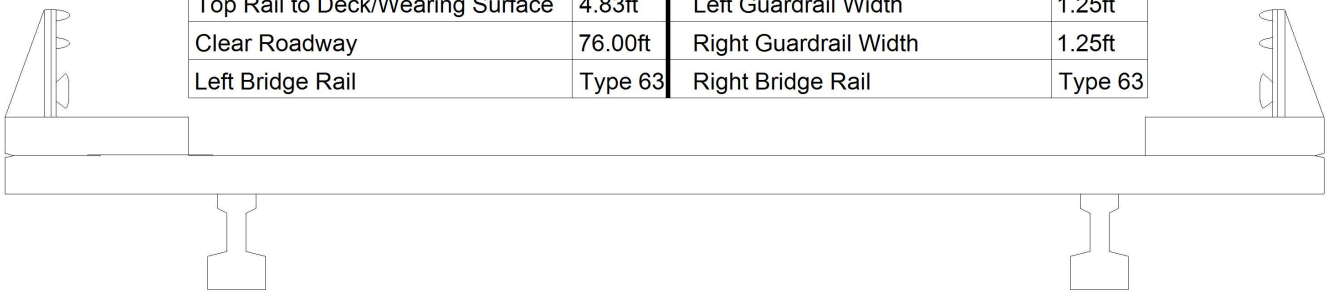
Title	**Description**		
APPROACH ROADWAY	LOOKING WEST		
Bridge No: 350134	**Drawn By:** DJA	**Date:** 08/25/2008	**File Name:** S0298000760

Bridge Inspection Field Sketch

Deck Width/Out to Out	88.50ft	Wearing Surface	
Between Rails	86.00ft	Median Width	
Curb Height		Median Height	
Top Rail to Deck/Wearing Surface	4.83ft	Left Guardrail Width	1.25ft
Clear Roadway	76.00ft	Right Guardrail Width	1.25ft
Left Bridge Rail	Type 63	Right Bridge Rail	Type 63

5' SIDEWALK

5' SIDEWALK

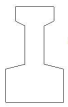


Measurements for Span #	1	SPANS 2 TO 4 SIMILAR	
Deck Thickness	0.42	Left Overhang	2.92
Top of Rail to Bottom of Beam	9.17	Right Overhang	2.92

Beam No	Beam Type	Spacing	Comments
1	PPC Girder	8.67ft	
2	PPC Girder	8.67ft	
3	PPC Girder	8.67ft	
4	PPC Girder	8.67ft	
5	PPC Girder	8.67ft	
6	PPC Girder	4.50ft	
7	PPC Girder	8.67ft	
8	PPC Girder	8.67ft	
9	PPC Girder	8.67ft	
10	PPC Girder	8.67ft	
11	PPC Girder		

NOTE: 6 LINES OF 4" DIAM. PVC TELEDUCT IN BAY 10

16"



45"

22"

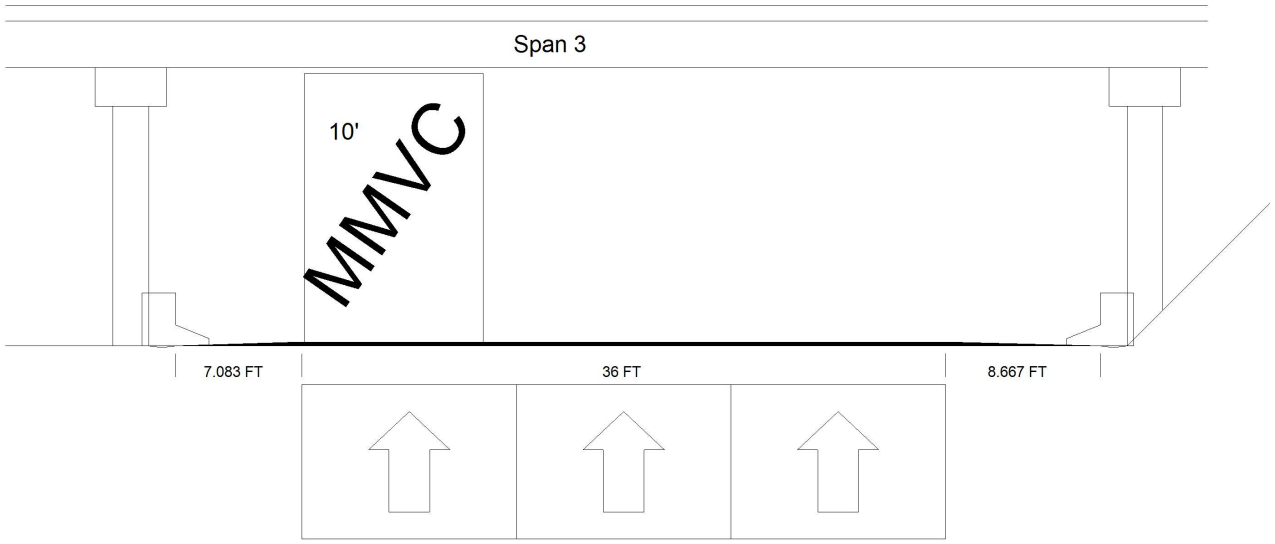
8" X 30" DIAPH.

VERIFIED BY DEREK RICKUS ON 7/30/2014

Title	Description
DECK DIMENSIONS	TYPICAL SECTION

Bridge No:	Drawn By:	Date:	File Name:
350134	DJA	8/25/2008	S0298000761

Bridge Inspection Field Sketch

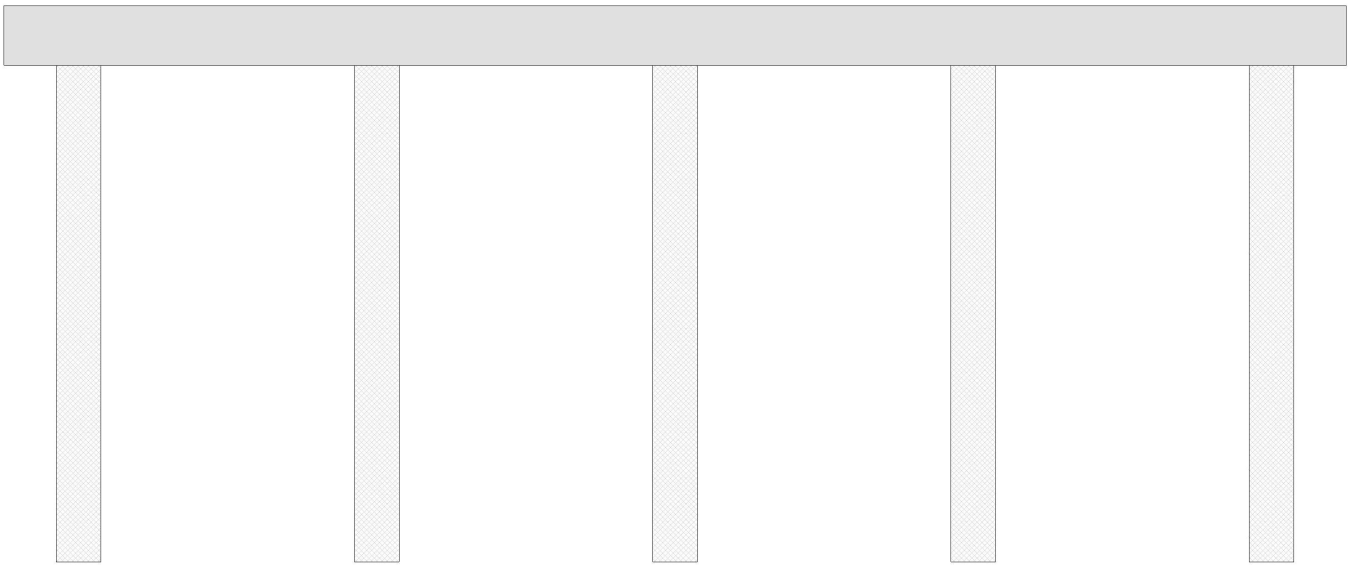


Roadway 1		Direction of Traffic	North
Distance to Left Rail	7.083FT	Distance to Right Rail	8.667FT
Distance to Left Toe of Slope		Distance to Left Bent	8.583FT
Distance to Right Toe of Slope		Distance to Right Bent	10.167FT
MMVC	17.833 Ft at Beam 1, 10 FT from LEFT EDGE OF ROADWAY		
MVC	16.75 Ft at Beam 1, 0 FT from RIGHT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 7/30/2014

Title	**Description**		
SPAN #3 OVER I-85 NORTHBOUND	SPAN #3 UNDERCLEARANCE		
Bridge No: 350134	**Drawn By:** DJA	**Date:** 8/25/2008	**File Name:** S0298000764

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.
90.000 ft.	3.500 ft.	4.000 ft.	5.000 ft.	5.000 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	Concrete	20.0 ft.	3.0 ft.			Vertical	No	No	No	No
2	Concrete	20.0 ft.	3.0 ft.			Vertical	No	No	No	No
3	Concrete	20.0 ft.	3.0 ft.			Vertical	No	No	No	No
4	Concrete	20.0 ft.	3.0 ft.			Vertical	No	No	No	No
5	Concrete		3.0 ft.			Vertical	No	No	No	No

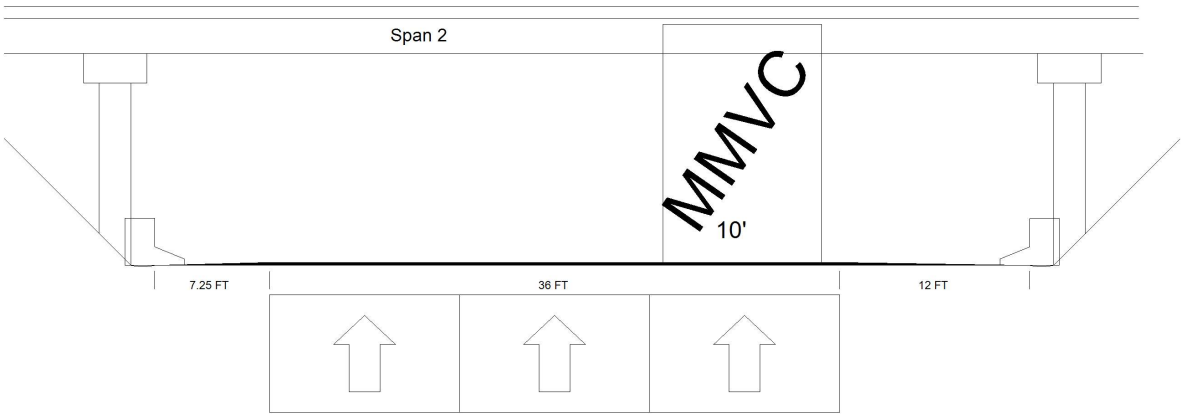
VERIFIED BY DEREK RICKUS ON 7/30/2014

Bent/Abutment #: 2 Similar Bents: 2 AND 3

Title	**Description**
SUBSTRUCTURE	DETAILS

Bridge No: 350134	**Drawn By:** DEREK RICKUS	**Date:** 8/13/2012	**File Name:** S0142001846

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	South
Distance to Left Rail	7.25FT	Distance to Right Rail	12FT
Distance to Left Toe of Slope		Distance to Left Bent	8.75FT
Distance to Right Toe of Slope		Distance to Right Bent	13.5FT
MMVC	21 Ft at Beam 1, 10 FT from RIGHT EDGE OF ROADWAY		
MVC	19.417 Ft at Beam 1, 0 FT from LEFT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 7/30/2014

Title	**Description**		
SPAN #2 OVER I-85 SOUTHBOUND	SPAN #2 UNDERCLEARANCE		
Bridge No: 350134	**Drawn By:** DJA	**Date:** 8/25/2008	**File Name:** S0298000765

LOOKING NORTH

BENT 3

BENT 1

ABUTMENT 1

(6) 3" PVC CONDUITS HANGING FROM STEEL SUPPORTS IN BAY 10

GR END, SOUTHWEST CORNER

WEST APPROACH

TYP GR CONNECTION FOR SOUTHWEST & NORTHEAST CORNERS

GUARDRAIL LOOKING WEST

GUARDRAIL LOOKING EAST

NO GR AT SOUTHEAST & NORTHWEST CORNERS

GR END, NORTHEAST CORNER

EAST APPROACH

ABUTMENT 2

BENT 2

LOOKING SOUTH