



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRIDGE MANAGEMENT UNIT

ATTENTION

VERT CLR CHECKED  
 TEMP REPAIRS TO SPALLING AT B1  
 TEMP REPAIRS TO BEAMS (IMPACT DAMAGE)

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GASTON BRIDGE NUMBER 350149 INSPECTION CYCLE 2 YRS 25.9  
 ROUTE SR2093 ACROSS I85 M.P. 0

LOCATION 1.0 MI. N. JCT. NC273

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

ABUTS: RC CAP ON ROCK FOUNDATION; BENTS: RC POST AND BEAM W/ SPREAD FTGS.

SUBSTRUCTURE [REDACTED]

1@65'; 2@75'; 1@74.5' COMPOSITE

SPANS [REDACTED]

LONGITUDE 81° 2' 37.35" LATITUDE 35° 15' 26.08"

INSPECTION DATE 08/04/2014 PRESENT CONDITION FAIR

PRESENT POSTING N NOT POSTED PROPOSED POSTING \_\_\_\_\_

OTHER SIGNS PRESENT NONE



SOUTH APPROACH

Fracture Critical	<u>No</u>
Temporary Shoring	<u>No</u>
Scour Critical	<u>No</u>
Scour POA	<u>No</u>

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
<u>No</u> WEIGHT LIMIT	_____
<u>No</u> DELINEATORS	_____
<u>No</u> NARROW BRIDGE	_____
<u>No</u> ONE LANE BRIDGE	_____
<u>No</u> LOW CLEARANCE	_____

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 09/10/2014

**IDENTIFICATION**

(1) STATE NAME -NORTH CAROLINA BRIDGE **350149**  
 (8) STRUCTURE NUMBER(FEDERAL) 00000000710149  
 (5) INVENTORY ROUTE (ON/UNDER) - ON 31020930  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 1  
 (3) COUNTY CODE 71 (4) PLACE CODE 4840  
 (6) FEATURE INTERSECTED - I85  
 (7) FACILITY CARRIED SR2093  
 (9) LOCATION 1.0 MI. N. JCT. NC273  
 (11) MILEPOINT 0  
 (16) LAT 35° 15' 26.08" (17) LONG 81° 2' 37.35"  
 (98) BORDER BRIDGE STATE CODE PCT SHARE  
 (99) BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 66  
 STATUS = Functionally Obsolete

**CLASSIFICATION CODE**

(112) NBIS BRIDGE SYSTEM - YES  
 (104) HIGHWAY SYSTEM Is not on NHS 0  
 (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

**STRUCTURE TYPE AND MATERIAL**

(43) STRUCTURE TYPE MAIN: Steel  
 TYPE - Stringer Mutlibeam or Girder CODE 302  
 (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

**CONDITION CODE**

(58) DECK 6  
 (59) SUPERSTRUCTURE 7  
 (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-47 84  
 (65) INVENTORY RATING METHOD - Load Factor 1  
 (66) INVENTORY RATING - HS-28 50  
 (70) BRIDGE POSTING - No Posting Required 5  
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED A  
 DESCRIPTION - Open, No Restriction

**AGE AND SERVICE**

(27) YEAR BUILT 1961  
 (106) YEAR RECONSTRUCTED  
 (42) TYPE OF SERVICE : ON - Highway - Pedestrian  
 UNDER - Highway CODE 51  
 (28) LANES: ON STRUCTURE 4 UNDER STRUCTURE 6  
 (29) AVERAGE DAILY TRAFFIC 16000  
 (30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 12%  
 (19) BYPASS OR DETOUR LENGTH 0 MI

**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 0010  
 (113) SCOUR CRITICAL BRIDGES N

**GEOMETRIC DATA**

(48) LENGTH OF MAXIMUM SPAN 74 FT  
 (49) STRUCTURE LENGTH 290 FT  
 (50) CURB OR SIDEWALK: LEFT 5.1 FT RIGHT 5.1 FT  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 52 FT  
 (52) DECK WIDTH OUT TO OUT 64.33 FT  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 48 FT  
 (33) BRIDGE MEDIAN - No Median CODE 0  
 (34) SKEW 43° (35) STRUCTURE FLARED 0  
 (10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 52 FT  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT  
 (54) MIN VERT UNDERCLEAR REF Highway 16.58 FT  
 (55) MIN LAT UNDERCLEAR RT REF Highway 9 FT  
 (56) MIN LAT UNDERCLEAR LT REF - 4.58 FT

**PROPOSED IMPROVEMENTS CODE**

(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 32000 (115) YEAR FUTURE ADT 2025

**INSPECTIONS**

(90) INSPECTION DATE 08/04/2014  
 (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

**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

Structure No: 350149

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							
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade	STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
	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	15.17	25.98	1	10085		11	3	59000	2012	49.5	H	15	9	4.5	9	1	1	1
3	I 85 N	11000850	16.92	25.98	1	10085		11	3	59000	2012	49.58	H	16.58	9	4.58	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 : 350149              LENGTH : 290 FEET

ROUTE CARRIED : SR2093                      FEATURE INTERSECTED : I85

LOCATED : 1.0 MI. N. JCT. NC273                      BRIDGE NAME :                      CITY : BELMONT

FUNC. CLASS : 14              SYST.ON : FA              SYST.UNDER : NFA              ADT & YR : 16000 2012              RAIL TYPE : LT 139 RT 139

BUILT : 1961              BY : SHC              PROJ : 8.16318              FED.AID PROJ : I-85-1(6)20              DESIGN LOAD : HS 20 + MOD

REHAB :              BY :              PROJ :              ALIGNMENT : TAN              SKEW : 47              LANES : ON 4 UNDER 6

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

SUPERSTRUCTURE : REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE : E.BTS:RC CAPS/ROCK FOUNDATION;INT.BTS:RC P&B /SPREAD FTGS.

SPANS : 1 @ 65', 2 @ 75', 1@74'-6"

BEAMS OR GIRDERS : 10 LINES 36' I-BEAMS @ 6'-1 CENTERS

FLOOR : 6.75 RC/1.5 AWS              ENCROACHMENT :              DECK (OUT TO OUT) : 64.33 FT

CLEAR ROADWAY : 52 FT              BETWEEN RAILS : 62.17 FT              SIDEWALK OR CURB : LT 5.1 FT RT 5.1 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-28              OPE.RTG. : HS-47              CONTR.MEMBER : intbm(B)              POSTED : SV              TTST              DATE 11/20/2012

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

**UNDER ROUTES AND CLEARANCES**

Span	Route Description	Vertical Clearances		Horizontal Clearances		
		MMVC	MVC	Total	Left	Right
2	I 85 S	15.17	15	49.50	4.50	9
3	I 85 N	16.92	16.58	49.58	4.58	9

*Note: All measurements are in feet.*

REMARKS :

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 350149 COUNTY GASTON ROUTE SR2093 OVER I85  
 STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS  
 ROUTE ORIENTATION S - N SPANS

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

INSPECTION ITEM				ITEM 61						
DECK ITEMS			GRADES							
1. WEARING SURFACE			F	45. CHANNEL & CHANNEL PROT.	a. WATERWAY					
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58			G		b. ALIGNMENT					
a. CONCRETE			4		c. SCOUR					
b. TIMBER					d. SLOPE PROT., RIP-RAP, DIKES, ETC.					
c. STEEL PLANK				50. APPROACH ROADWAY CONDITION				F		
d. OPEN GRID				51. APPROACH SLABS						
3. RAILING			G	52. PAINT SYSTEM			CODE I	G		
a. CONCRETE				53. UTILITIES						
b. TIMBER				54. RESPONSE TO LIVE LOAD				G		
c. ALUMINUM			G	55. ESTIMATED REMAINING LIFE				12		
d. STEEL										
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G							
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			G	60. REGULATORY SIGN NOTICE ISSUED				NO		
6. DECK EXP JTS. OR DEVICES. NO. OF EACH				61. PROMPT-ACTION NOTICE ISSUED				NO		
a. STEEL PL OR FINGER				62. PRESENTLY POSTED				NO		
b. MISC PREFAB				63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)				5		
c. COMPRESSION SEAL				64. TOTAL SNOOPER INSP. TIME (HRS)				0		
d. STANDARD JOINTS			3	F	65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)				0	
e. OPEN JOINTS										
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			G	70. SI&A GENERAL CONDITION RATINGS						
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				a. DECK			ITEM 58	6		
10. LONGITUDINAL BEAMS OR GIRDERS			F	b. SUPERSTRUCTURE			ITEM 59	7		
11. LONGITUDINAL JOIST OR STRINGERS				c. SUBSTRUCTURE			ITEM 60	5		
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			F	d. CHANNEL & CHANNEL PROT.			ITEM 61			
13. END DIAP'S, CURTAIN WALLS, & CONN'S			G	71. SI&A FIELD APPRAISAL RATINGS						
14. FLOOR BEAMS AND CONNECTIONS				a. WATERWAY ADAQUACY						
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G	b. APPR. RDWY. ALIGNMENT				8		
16. DRAINAGE SYSTEM (ON STRUCTURE)			G							
17. MOVABLE SPAN MACHINERY				72. FIELD SCOUR EVALUATION						
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)				USE OF INSP. ACCESSIBILITY EQUIPMENT						
35. TIM SUB STR.				a. ABUT. & INT. BENT CAPS & RISERS			SNOOPER (CODE S, 4, OR N)		HRS	NO
b. PILES, POST, SILLS, & BRACING				c. BULKHEADS, WING'S, & TIE BACKS			LADDER		NO	
36. CONC SUB STR.			F	a. ABUT. & INT. BENT CAPS			BUCKET TRUCK		NO	
b. ABUT. & BENT COL'S BREASTWALLS			F	c. ABUT. & INT. BENT PILES			BOAT		NO	
c. ABUT. & INT. BENT PILES				d. BACKWALLS, WING'S, RETAIN. WALLS			OTHER		NO	
d. BACKWALLS, WING'S, RETAIN. WALLS			G	e. ABUT. & BENT FOOTINGS & SILLS						
e. ABUT. & BENT FOOTINGS & SILLS				37. STEEL SUB STR.			SPECIAL INSPECTION REQUESTED FOR			
a. ABUT. & INT. BENT CAPS & RISERS				b. PILES, BRACING, AND BULKHEADS						
38. FOUNDATION PILES TYPE MATERIAL				NOTE						
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			G							
40. FENDER SYSTEMS				80. INSPECTED BY:			<i>WRL</i>			
41. DRIFT				81. REVIEWED BY:						

Bridge I&A Form 1(82)H <b>State of North Carolina</b> <b>Dept. of Transportation</b> <b>Division of Highways</b>		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspeccion &amp; Analysis</u>	
Team Leader <b>DEREK RICKUS</b>			
Assisted By <b>EAP</b>			
<b>Item No.</b>	<b>Grade</b>		
1	F	AWS CRACKED AND OPEN FULL WIDTH ALL (3) JOINTS.	
2a	G	NOT DIRECTLY VISIBLE, BUT NO POTHOLING	

Bridge I&A Form 1(82)H		<h1>FIELD INSPECTION REPORT</h1> <h2><u>Bridge Inspection &amp; Analysis</u></h2>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader <b>DEREK RICKUS</b>			
Assisted By <b>EAP</b>			
Item No.	Grade		
10	F	<p>FORM PRIOR REPORT:</p> <p>IMPACT DAMAGE INSPECTION WAS REQUESTED BY DIVISION BRIDGE MAINTENANCE FOR SPAN 2 OVER I 85 SOUTH GIRDERS HAVE BEEN PAINTED SINCE THE IMPACT.</p> <p>GIRDER #10: POINT OF IMPACT ON GIRDER #10 WAS 19'-11" FROM FACE OF BENT 1, THE FLANGE AND FLANGE COVER PLATE ARE BENT OUT OF SHAPE 1 7/8" TO THE SOUTH AT 19'-11" FROM BENT 1., A CRACK 1' -0" IN THE COVER PLATE TO FLANGE WELD, A 7" CRACK ACROSS THE COVER PLATE ONLY LEAVING 3 3/4"+/- NOT BEING CRACKED, A GOUGE IN THE COVER PLATE 8" X 1 1/4" X 1/4"+/- DEEP ALL AT 19'-11" FROM BENT 1. THE FLANGE AND COVER PLATE ARE BENT UPWARD 1/2", WITH AN INDENTION IN COVER PLATE 12"X 1/16" AT 21'-10" FROM FACE OF BENT 1. A 8" CRACK IN THE FLANGE TO COVER PLATE WELD AT 21'-2" FROM FACE OF BENT 1. INDENTIONS IN FLANGE COVER PLATE 5" X 1/16" AT 25'-9", A 2 1/2" X 1/2" AT 24'-6", A 6 1/2" X 1/4" AT 23'-11", A 3" X 1/16" AT 23'-7", 2 1/2" X 1/4" AT 23'-3", A 5 1/2" X 1/4" AT 18'-4", A 3'-4" X 1/16" AT 16'-2" ALL FROM FACE OF BENT 1. INDENTIONS IN FLANGE 2 1/2" X 1/2" AT 24'-6", A 4" X 1/4" AT 23'-11", A 1 1/2" X 1/4" AT 22'-8", A 12" X 1/4" AT 16'-2" ALL FROM FACE OF BENT 1. GIRDER IS OUT OF PLUMB 1 7/8" IN THE DIRECTION OF TRAFFIC AT 20'-2" FROM BENT 1. INDENTION IN FLANGE COVER PLATE 17" X 1/2" AND IN FLANGE 2'-0" X 5/8" AT 38'-2" FROM FACE OF BENT 1. INDENTION IN FLANGE COVER PLATE 7" X 5/8" AT 35'-7" FROM FACE OF BENT 1. GIRDER 10 IS 4 1/4" OUT OF PLUMB AT 37'-5" FROM FACE OF BENT 1. INDENTION IN FLANGE COVER PLATE 7" X 1/16" AND IN FLANGE 2'-10" X 1/4" AT 43'-1" FROM FACE OF BENT 1. (SEE PHOTOS)</p> <p>GIRDER #9: POINT OF IMPACT ON GIRDER #9 WAS 18'-0" FROM FACE OF BENT 1, INDENTION IN FLANGE COVER PLATE 1'-6" X 1/4". INDENTIONS IN FLANGE COVER PLATE 2 1/2" X 1/16" AT 19'-9", A 3" X 1/16" AT 16'-10" FROM FACE OF BENT 1. INDENTION IN FLANGE 1" X 1/16" AT 16'-10" FROM FACE OF BENT 1. A INDENTION IN FLANGE COVER PLATE 5" X 1/16" AT 36'-6" FROM FACE OF BENT 1. INDENTION IN FLANGE COVER PLATE 3" X 1/16" AT 42'-9" FROM FACE OF BENT 1. (SEE PHOTOS)</p> <p>GIRDER #8: POINT OF IMPACT ON GIRDER #8 WAS 21'-6" FROM FACE OF BENT 1, INDENTION IN FLANGE COVER PLATE 2" X 1/16" &amp; 5 1/2" X 1/16", A INDENTION IN FLANGE 1 1/2" X 1/16" ALL IN THE DAMAGED AREA. INDENTION IN FLANGE COVER PLATE 1'-7" X 1/16" AT 19'-4", 1 1/2" X 1/16 AT 18'-3" FROM FACE OF BENT 1. THE TOP WELD ON THE STIFFNER AT THE WEST END OF GIRDER #8 HAS RUSTED AWAY . (SEE PHOTOS)</p> <p>GIRDER 7: POINT OF IMPACT ON GIRDER #7 WAS 23'-11" FROM FACE OF BENT 1, INDENTION IN FLANGE COVER PLATE 3 3/4" X 1/2" AND IN FLANGE 5" X 1/4" AT DAMAGED AREA. INDENTIONS IN FLANGE COVER PLATE 6" X 1/16" AT 22'-10", A 4" X 1/16" AT 21'-9" FROM FACE OF BENT 1. (SEE PHOTOS)</p> <p>GIRDER #6: POINT OF IMPACT ON GIRDER #6 WAS 23'-6" FROM FACE OF BENT 1, INDENTION IN FLANGE COVER PLATE 2 1/2" X 1/16" AND A 4" X 1/16" IN THE DAMAGED AREA (SEE PHOTO)</p>	

Bridge I&A Form 1(82)H		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspection &amp; Analysis</u>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader <b>DEREK RICKUS</b>			
Assisted By <b>EAP</b>			
Item No.	Grade		
10A	NO	NO CURVED GIRDERS	
12	F	FROM PRIOR REPORT:  CONNECTION PLATE OF INTERMEDIATE DIAPHRAGMS: ON GIRDER #10 AT 19'-4" FROM FACE OF BENT 1 HAS 4 LOOSE DIAPHRAGM BOLTS AND 4 DIAPHRAGMS BOLTS WITHOUT WASHERS. SPACERS/WASHERS HAVE BEEN ADDED BEHIND THE DIAPHRAGM TO THE LOWER DIAPHRAGM BOLTS TO FILL THE SPACE BETWEEN DIAPHRAGM AND WEB. BOTTOM OF DIAPHRAGM AT 39'-11" IS 2 1/2" FROM WEB. THE DIAPHRAGM BRACE ON GIRDER 10 IS BENT TO THE WEST 1 1/4" AT 39'-11" FROM FACE OF BENT 1. WASHERS HAVE BEEN ADDED TO THE LOWER HALF OF DIAPHRAGM TO MAKE UP 2 1/2" AT 39'-11" FROM FACE OF BENT 1. ON GIRDER 10 THE 22 DIAPHRAGM BOLTS 14 ARE WITHOUT WASHERS AND 8 HAVE WASHERS AT 39'-11" FROM BENT 1. AT THE TOP OF DIAPHRAGM ON GIRDER #8 AT 13'-11" FROM BENT 1 IS PULLED AWAY FROM WEB 1/8". THE SECOND BOLT DOWN ON THE RIGHT SIDE OF DIAPHRAGM ON GIRDER #9 AT 16'-6" FROM FACE OF BENT 1 IS NOT FULLY THREADED. DIAPHRAGM BOLT ON GIRDER 9 AT 34'-7" IS NOT PULLED UP TIGHT .REPAIRS HAVE BEEN MADE TO THE DIAPHRAGM ON GIRDER #9 AT 16'-6" FROM FACE OF BENT 1. ALL GIRDERS HAVE BEEN PAINTED SINCE DAMAGE. (SEE PHOTOS)	
36a	F	SPALLING WITH RESTEEL EXPOSED, BENT 3, ABOVE C2, APPROX 6'L X 2'H  SPALLING WITH RESTEEL EXPOSED, BENT 3, BTWN C2-3, BOTTOM STRANDS OF RESTEEL EXPOSED AT N CORNER, APPROX 8'L X 3'H SPALLING, BENT 3, C3 RADIUS, APPROX 4'L  SPALLING WITH RESTEEL EXPOSED, BENT 3, BOTTOM SIDE OF CAP, BTWN C3-4, APPROX 8'L X 4'W  TEMP REPAIRS TO SPALLS SCATTERED ON BENT 1 CAP	
36b	F	SPALLING WITH RESTEEL EXPOSED, BENT 2 CAP, BETWEEN C1-2 BENT 2, COLUMN 2 HAS A 1 FT HIGH X 5 INCH WIDE SPALL ON THE NE CORNER JUST UNDER THE HAUNCH.	
36e		NOT VISIBLE	
39	G	POURED CONCRETE	
50	F	SOUTH APPROACH AWS CRACKED AND SUNKEN UP TO 0.5" FULL WIDTH. NORTH APPROACH AWS CRACKED, POTHOLED, AND SUNKEN UP TO 1.5", FULL WIDTH.	



# BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 350149

County GASTON


Date: 08/04/2014

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
2816	Asphalt Surface Repair or Replacement	SY	240	NORTH APPROACH AWS CRACKED, POTHOLED, AND SUNKEN UP TO 1.5", FULL WIDTH.	
3310	Maintenance/Repair/Replacement of Standard Bridge Expansion Joints	LF	180	JOINT 3 CRACKED FULL WIDTH, OPEN UP TO 4"W X UP TO 2"D	
3348	Maintain Concrete Substructure Components	LF	35	SPALLING WITH RESTEEL EXPOSED, BENT 2 CAP, BETWEEN C1-2 AND BETWEEN C2-3, TOTAL AREA APPROX 35SF	
3348	Maintain Concrete Substructure Components	LF	70	SPALLING WITH RESTEEL EXPOSED, BENT 3, BOTTOM SIDE OF CAP, BTWN C3-4, APPROX 8'L X 4'W	

**Key**

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined



SOUTH APPROACH AWS CRACKED AND SUNKEN UP TO 0.5" FULL WIDTH.



JOINT 1 CRACKED AND OPEN UP TO 1", FULL WIDTH



JOINT 2 CRACKED FULL WIDTH, OPEN UP TO 2.5"W X UP TO 2"D



JOINT 3 CRACKED FULL WIDTH, OPEN UP TO 4"W X UP TO 2"D



NORTH APPROACH AWS CRACKED, POTHOLED, AND SUNKEN UP TO 1.5", FULL WIDTH.



BEAMS PAINTED SINCE LAST INSPECTION.



SPALLING WITH RESTEEL EXPOSED, BENT 3 CAP, ABOVE C2, APPROX 6'L X 2'H



SPALLING WITH RESTEEL EXPOSED, BENT 3 CAP, BTWN C2-3, BOTTOM STRANDS OF RESTEEL EXPOSED AT N CORNER, APPROX 8'L X 3'H



SPALLING, BENT 3, C3 RADIUS, APPROX 4'L



SPALLING WITH RESTEEL EXPOSED, BENT 3 CAP, BOTTOM SIDE OF CAP, BTWN C3-4, APPROX 8'L X 4'W



TEMP REPAIRS TO SPALLS SCATTERED ON BENT 1 CAP

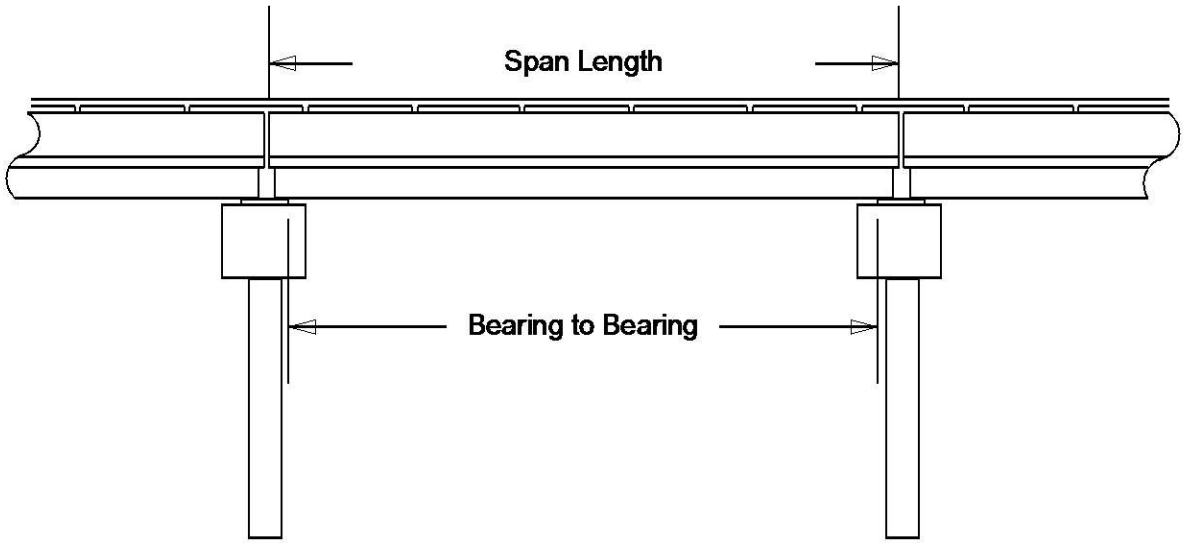


SPALLING WITH RESTEEL EXPOSED, BENT 2 CAP, BETWEEN C1-2 AND BETWEEN C2-3, TOTAL AREA APPROX 35SF

# Structure Data Worksheet

Spans

County: GASTON      Structure No: 350149      Date: 08/04/2014      Inspected By: DCR



Span No	Span Length	Bearing to Bearing	Comments
1	74.500'	72.083'	
2	75.000'	74.333'	
3	75.000'	74.333'	
4	65.000'	62.917'	NBIS = 281.5'



# Bridge Inspection Field Sketch



Roadway	48.00ft Wide	4 Paved Lanes	Looking East
Left Shoulder	12ft Wide		12.00ft Unpaved
Right Shoulder	9ft Wide		9.00ft Unpaved
Left Guardrail			
Right Guardrail	9.00ft from road		

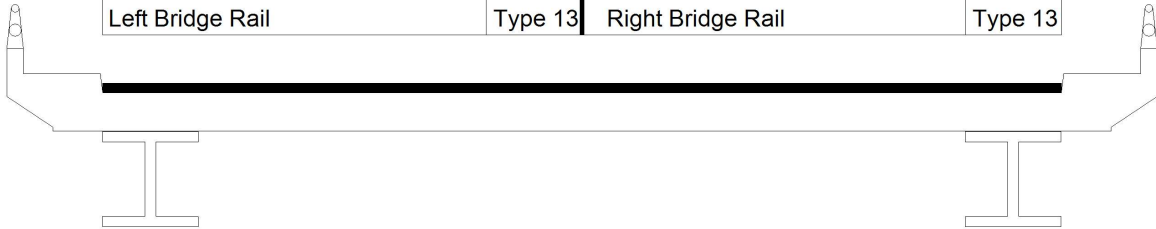
SOUTH APPROACH

VERIFIED BY DEREK RICKUS ON 8/4/2014

<b>Title</b> APPROACH ROADWAY		<b>Description</b> APPROACH ROADWAY	
<b>Bridge No:</b> 350149	<b>Drawn By:</b> DJA	<b>Date:</b> 8/20/2008	<b>File Name:</b> S0298000778

# Bridge Inspection Field Sketch

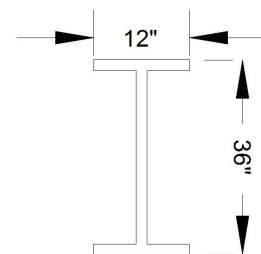
Deck Width/Out to Out	64.33ft	Wearing Surface	0.13ft
Between Rails	62.17ft	Median Width	
Curb Height	0.75ft	Median Height	
Top Rail to Deck/Wearing Surface	3.17ft	Left Guardrail Width	
Clear Roadway	52.00ft	Right Guardrail Width	
Left Bridge Rail	Type 13	Right Bridge Rail	Type 13



Measurements for Span #	1		
Deck Thickness	0.56	Left Overhang	5.29
Top of Rail to Bottom of Beam		Right Overhang	5.29

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	6.08ft	
2	Steel I Beam	6.08ft	
3	Steel I Beam	6.08ft	
4	Steel I Beam	6.08ft	
5	Steel I Beam	5.00ft	
6	Steel I Beam	6.08ft	
7	Steel I Beam	6.08ft	
8	Steel I Beam	6.08ft	
9	Steel I Beam	6.08ft	
10	Steel I Beam		

## BEAMS (NON-TAPERED FLANGES)



FLANGES = 1 1/16"  
WEB = 7/8"

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**Title**  
DECK DIMENSIONS

**Description**  
TYPICAL SECTION

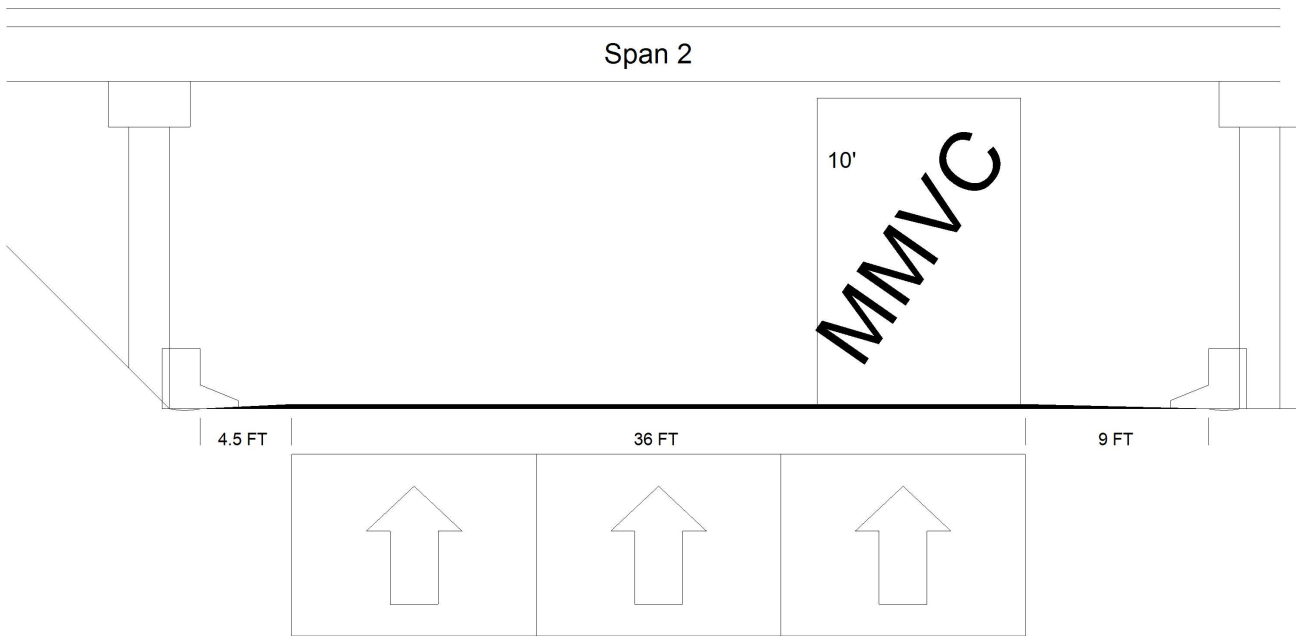
Bridge No: 350149

Drawn By: DJA

Date: 8/20/2008

File Name: S0298000779

# Bridge Inspection Field Sketch



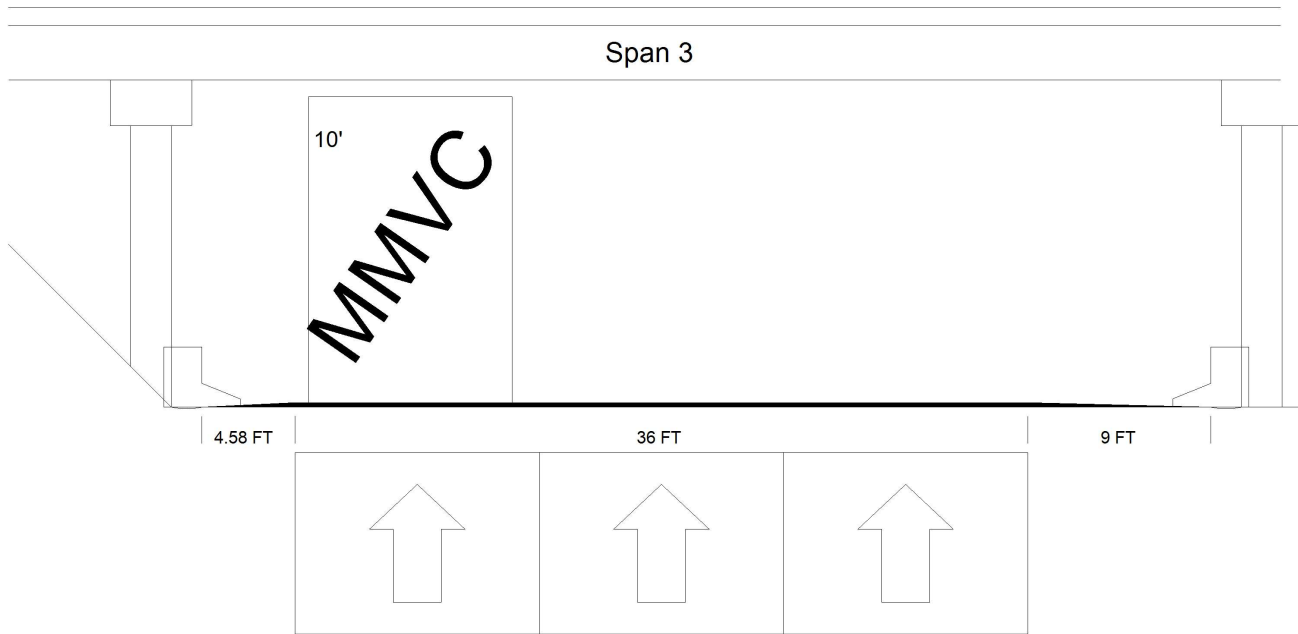
Roadway 1		Direction of Traffic	South
Distance to Left Rail	4.5FT	Distance to Right Rail	9FT
Distance to Left Toe of Slope		Distance to Left Bent	6FT
Distance to Right Toe of Slope	16FT	Distance to Right Bent	10.5FT
MMVC	15.17 Ft at Beam 10, 10 FT from RIGHT EDGE OF PAVEMENT		
MVC	15 Ft at Beam 10, 0 FT from LEFT EDGE OF PAVEMENT		

MILEPOST 25.98

VERIFIED BY DEREK RICKUS ON 8/4/2014

<b>Title</b>		<b>Description</b>	
SPAN #2 OVER I-85 SOUTHBOUND		SPAN #2 UNDERCLEARANCE	
Bridge No: 350149	Drawn By: DJA	Date: 8/20/2008	File Name: S0298000780

# Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	North
Distance to Left Rail	4.58FT	Distance to Right Rail	9FT
Distance to Left Toe of Slope		Distance to Left Bent	6.08FT
Distance to Right Toe of Slope	16FT	Distance to Right Bent	10.5FT
MMVC	16.92 Ft at Beam 10, 10 FT from LEFT EDGE OF PAVEMENT		
MVC	16.58 Ft at Beam 10, 36 FT from LEFT EDGE OF PAVEMENT		

MILEPOST 25.98

VERIFIED BY DEREK RICKUS ON 8/4/2014

**Title**

SPAN #3 OVER I-85 NORTHBOUND

**Description**

SPAN #3 UNDERCLEARANCE

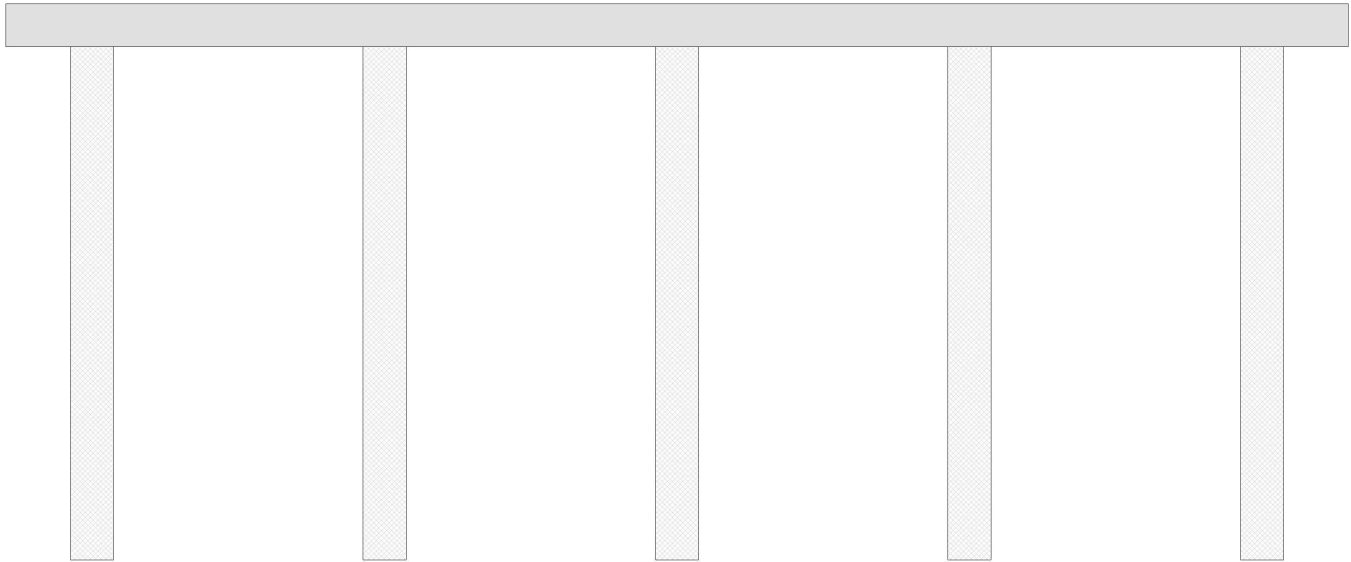
Bridge No: 350149

Drawn By: DJA

Date: 8/20/2008

File Name: S0298000781

# Bridge Inspection Field Sketch



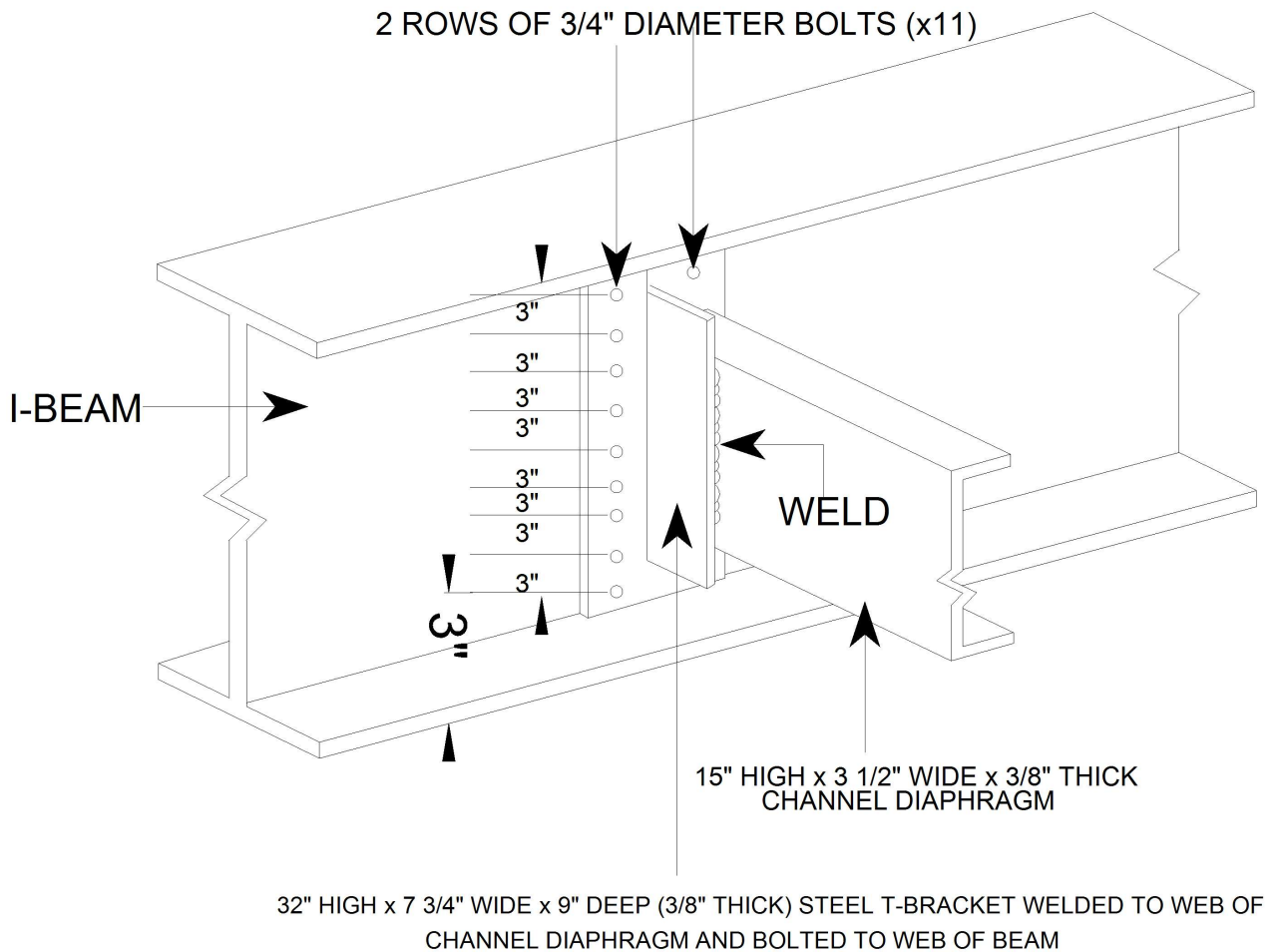
<b>Cap Information</b>			Material Cast-in-Place Concrete							
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.				
78.000 ft.	2.500 ft.	2.500 ft.	5.000 ft.	5.000 ft.	1.833 ft.	1.833 ft.				
<b>Subcap Information</b>			Material							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
<b>Sill Information</b>			Material							
Length	Width	Height								
<b>Pile #</b>	<b>Material</b>	<b>Spacing</b>	<b>Width/Dia.</b>	<b>Height</b>	<b>Length</b>	<b>Orientation</b>	<b>Driven?</b>	<b>Replacement?</b>	<b>Removed?</b>	<b>Collar?</b>
1	Concrete	17.000 ft.	2.500 ft.	2.500 ft.		Vertical	No	No	No	No
2	Concrete	17.000 ft.	2.500 ft.	2.500 ft.		Vertical	No	No	No	No
3	Concrete	17.000 ft.	2.500 ft.	2.500 ft.		Vertical	No	No	No	No
4	Concrete	17.000 ft.	2.500 ft.	2.500 ft.		Vertical	No	No	No	No
5	Concrete		2.500 ft.	2.500 ft.		Vertical	No	No	No	No
VERIFIED BY DEREK RICKUS ON 8/4/2014										
<b>Bent/Abutment #:</b> 1			<b>Similar Bents:</b> 2,3							

<b>Title</b>				<b>Description</b>			
INTERIOR BENTS				SUBSTRUCTURE DETAILS			
<b>Bridge No:</b>	350149	<b>Drawn By:</b>	DELVIN ADAMS	<b>Date:</b>	8/23/2012	<b>File Name:</b>	S0146031711

# Bridge Inspection Field Sketch

## DIAPHRAGM DETAILS

LOCATIONS : 1/4 POINTS OF SPANS



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**Title**

INTERMEDIATE DIAPHRAGMS

**Description**

DIAPHRAGM DETAILS

Bridge No: 350149

Drawn By: DELVIN ADAMS

Date: 8/23/2012

File Name: S0146031712

# Bridge Inspection Field Sketch



Roadway	48.00ft Wide	4 Paved Lanes	Looking North
Left Shoulder	9ft Wide		9ft Unpaved
Right Shoulder	12ft Wide		12ft Unpaved
Left Guardrail	9ft from road		
Right Guardrail	12ft from road		

NORTH APPROACH (LOOKING NORTH)

VERIFIED BY DEREK RICKUS ON 8/4/2014

<b>Title</b> NORTH APPROACH		<b>Description</b> DETAILS	
<b>Bridge No:</b> 350149	<b>Drawn By:</b> DEREK RICKUS	<b>Date:</b> 8/4/2014	<b>File Name:</b> S0142002210



TYP GR END FOR SOUTHEAST & NORTHWEST CORNERS



SOUTH APPROACH





GR NOT CONNECTED, SOUTHEAST & NORTHWEST CORNERS



DATA PLATE, SOUTHEAST CORNER



NO GR, SOUTHWEST & NORTHEAST CORNERS



GUARDRAIL LOOKING SOUTH



GUARDRAIL LOOKING NORTH



NORTH APPROACH



LOOKING EAST



ABUTMENT 2



BENT 3



BENT 2



LOOKING WEST



ABUTMENT 1



BENT 1