NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

IMPACT DAMAGE REPORT ON SPAN 3
RATINGS ON SPAN 3 ITEMS ONLY
PRIORITY MAINTENANCE REQUESTED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY CATAWBA **BRIDGE NUMBER** 170142 **INSPECTION CYCLE** 0 **YRS**

ROUTE SR1692 **ACROSS** US321 **M.P.** 0

LOCATION 0.1 MI. N. JCT. SR2231

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE END BENTS:RC CAP ON TIMBER PILES,INT.BTS:RCP&B ON PILE FTGS.

SPANS 1@45'0, 2@47'6, 1@45'0

LONGITUDE 81° 21' 50.59" **LATITUDE** 35° 43' 47.16"

PRESENT CONDITION POOR **INVENTORY RATING**

INSPECTION DATE 08/06/2012 **OPERATING RATING**

PRESENT POSTING Not Posted **PROPOSED POSTING**

COMPUTER UPDATE **ANALYSIS DATE**

POSTING LETTER DATE **SUFFICIENCY RATING**

OTHER SIGNS PRESENT NONE

LOOKING NORTH

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: 11/29/2012

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **170142**
(8) STRUCTURE NUMBER(FEDERAL) 000000000350142
(5) INVENTORY ROUTE (ON/UNDER) - ON 31016920
(2) STATE HIGHWAY DEPARTMENT DISTRICT 3
(3) COUNTY CODE 35 (4) PLACE CODE 31060
(6) FEATURE INTERSECTED - US321
(7) FACILITY CARRIED SR1692
(9) LOCATION 0.1 MI. N. JCT. SR2231
(11)MILEPOINT 0
(16)LAT 35° 43' 47.16" (17)LONG 81° 21' 50.59"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

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

AGE AND SERVICE

(27) YEAR BUILT 1955
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Highway - Pedestrian
UNDER - Highway CODE 51
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4
(29) AVERAGE DAILY TRAFFIC 4400
(30) YEAR OF ADT 2009 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 48 FT
(49) STRUCTURE LENGTH 185 FT
(50)CURB OR SIDEWALK: LEFT 5.1 FT RIGHT 5.1 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 28 FT
(52) DECK WIDTH OUT TO OUT 40 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 24 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 22° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 28 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 15.333 FT
(55) MIN LAT UNDERCLEAR RT REF Highway .5 FT
(56) MIN LAT UNDERCLEAR LT REF - .5 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 = 76
STATUS = Functionally Obsolete

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Minor Arterial 16
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 1-way Traffic 1
(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 6
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 6
(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
(64) OPERATING RATING - HS-36 164
(65) INVENTORY RATING METHOD - Load Factor
(66) INVENTORY RATING - HS-21 138
(70) BRIDGE POSTING - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED A
DESCRIPTION - Open, No Restriction

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 6
(68) DECK GEOMETRY 4
(69) UNDERCLEARANCES,VERTI & HORIZ 3
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 7
(36) TRAFFIC SAFETY FEATURES 0000
(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 10200 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 01/24/2011
(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: 170142 County: CATAWBA 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	US 321 SBL	21003210	15.42	0	1	20321		12	2	17500	2009	35	H	15.25	.5	.5	9	0	1	1
3	US 321 NBL	21003210	15.33	0	1	20321		12	2	17500	2009	35	H	15.33	.5	.5	9	0	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: 11/29/2012

COUNTY : CATAWBA
DIVISION : 12
DISTRICT: 3
STRUCTURE NUMBER : 170142
LENGTH : 185 FEET

ROUTE CARRIED : SR1692
FEATURE INTERSECTED : US321

LOCATED : 0.1 MI. N. JCT. SR2231
BRIDGE NAME :
CITY : HICKORY

FUNC. CLASS : 16
SYST.ON : FA
SYST.UNDER : NFA
ADT & YR : 4400 2009
RAIL TYPE : LT 311 RT 311

BUILT : 1955
BY : SHPWC
PROJ : 6264
FED.AID PROJ : U-186(7)
DESIGN LOAD : HS 20 + MOD

REHAB :
BY :
PROJ :
ALIGNMENT : TAN
SKEW : 68
LANES : ON 2 UNDER 4

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 : END BENTS:RC CAP ON TIMBER PILES,INT.BTS:RCP&B ON PILE FTGS.

SPANS : 1@45'0, 2@47'6, 1@45'0

BEAMS OR GIRDERS : 6 LINES I-BEAMS @ 6'0 CTS, SP#1&4:W33X130,SP#2&3:W33X141

FLOOR : 6.75 RC,2.5 AWS
ENCROACHMENT : WATER MAIN
DECK (OUT TO OUT) : 40 FT

CLEAR ROADWAY : 28 FT
BETWEEN RAILS : 38.3 FT
SIDEWALK OR CURB : LT 5.1 FT RT 5.1 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-21
OPE.RTG. : HS-36
CONTR.MEMBER : int bm b
POSTED : SV TTST DATE

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

UNDER ROUTES AND CLEARANCES

		Vertical Clearances		Horizontal Clearances		
Span	**Route Description**	**MMVC**	**MVC**	**Total**	**Left**	**Right**
2	US 321 SBL	15.4170	15.25	35	0.50	0.50
3	US 321 NBL	15.3330	15.3330	35	0.50	0.50

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 170142 COUNTY CATAWBA ROUTE SR1692 OVER US321
STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS
ROUTE ORIENTATION SPANS 1@45'0, 2@47'6, 1@45'0

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

INSPECTION ITEM			GRADES
DECK ITEMS			
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			P
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			G
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G
16. DRAINAGE SYSTEM (ON STRUCTURE)			
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		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	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)			
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		
51. APPROACH SLABS		
52. PAINT SYSTEM CODE		
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		20
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)		14
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		7

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		YES

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 **MD OSBORNE**

Assisted By **A KING**

Item No.	Grade	
10	**P**	IMAPCT DAMAGE INSPECTION WAS REQUESTED BY DIVISION BRIDGE MAINTENENCE ENGINEERFOR SPAN 3 OVER US 321 NB BEAM 6: POINT OF IMPACT ON BEAM 6 WAS 14'-1" FROM FACE OF BENT 3, FLANGE IS BENT UPWARD 2 3/4" WITH A GOUGE 7" X 1 1/2" X 1/16"+/- DEEP, INDENTIONS IN FLANGE 1" X 1/4" A 3 1/2" X 1/16", A 1" X 1/16" ALL IN THE DAMAGED AREA (DAMAGED AREA IS 3'-0"+/-). LIGHT GOUGES 1" X 12" X 1/64 & 1 1/2" X 12" X 1/64 AT 14'-5". BEAM 6 IS OUT OF PLUMB 3 1/2" +/- TO THE NORTH AT 14'-1" FROM FACE OF BENT 3. INDENTIONS IN FLANGE 1 1/2" X 1/16" AT 15'-1" FROM FACE OF BENT 3. THE NORTH SIDE OF BEAM 6, THE FLANGE IS BENT DOWNWARD 1 1/4" AT 14'-1" FROM FACE OF BENT 3. INDENTIONS IN FLANGE 2" X 1/16" AT 18'-3", A 9" X 1/16" AT 17'-10", A 1" X 1/16" AT 17'-5" FROM FACE OF BENT 2. (SEE PHOTOS) BEAM 4: POINT OF IMPACT ON BEAM 4 WAS 14'-6" FROM FACE OF BENT 3, GOUGES 12" X 1 1/4" X 1/64"+/- DEEP, AND 12" X 1/4" X 1/16"+/- DEEP AT POINT OF IMPACT, A INDENTION 1 1/4" X 1/16" ALL AT POINT OF IMPACT. LIGHT SCRAPES ARE ALONG THE BOTTOM OF FLANGE. (SEE PHOTO). BEAM 3: POINT OF IMPACT ON BEAM 3 WAS 14'-4" FROM FACE OF BENT 3, INDENTIONS IN FLANGE 1" X 1/32" AT POINT OF IMPACT.
12	**G**	CONNECTION PLATE OF INTERMEDIATE DIAPHRAGMS IN SPAN 3 DID NOT SHOW ANY DAMAGE DUE TO THE IMPACT.
15	**G**	BEARINGS & ANCHOR BOLTS IN SPAN 3DID NOT SHOW ANY INDICATION OF DAMAGE DUE TO THE IMPACT.
73f	**YES**	UT MACHINE,

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 170142 County CATAWBA Date: 08/06/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	42	DAMAGE TO BEAM 6 DAMAGE TO BEAM 6 AT 14'-1" GOUGE IN BEAM 6 AT 14'-1" BEAM 6 OUT OF PLUMB LOOKING AT BEAM 6	
3314	Maintain Steel Superstructure Components	LF	42	DAMAGE TO BEAM 6 AT 14'-1"	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 170142 County CATAWBA

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	42 LF

Location:		
Beams and Girders	Bent/Span No. 3	BEAM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/09/2012	MD OSBORNE	A KING

Details

DAMAGE TO BEAM 6 DAMAGE TO BEAM 6 AT 14'-1" GOUGE IN BEAM 6 AT 14'-1" BEAM 6 OUT OF PLUMB LOOKING AT BEAM 6

DAMAGE TO BEAM 6 AT 14'-1"

GOUGE IN BEAM 6 AT 14'-1"

BEAM 6 OUT OF PLUMB

LOOKING AT BEAM 6

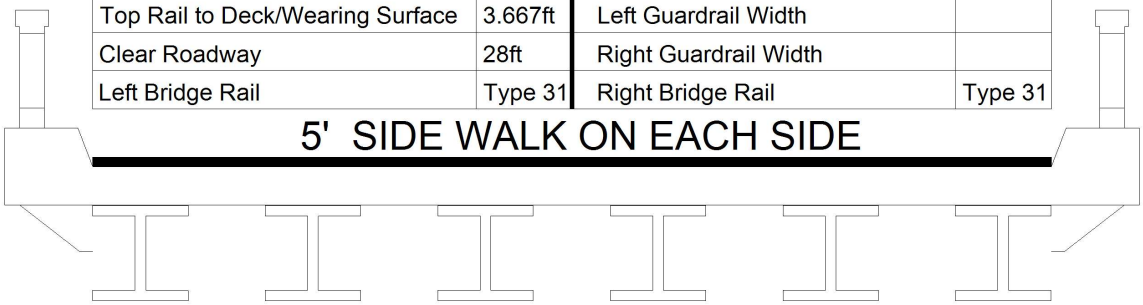
FLANGE ON BEAM 6 BENT DOWN

DAMAGE TO BEAM 4 AT 14'-6"

Bridge Inspection Field Sketch

VERIFIED 1/24/11 R.A. PIERCE, M. FORD

Deck Width/Out to Out	31.833ft	Wearing Surface	0.208ft
Between Rails	38.25ft	Median Width	
Curb Height	0.5ft	Median Height	
Top Rail to Deck/Wearing Surface	3.667ft	Left Guardrail Width	
Clear Roadway	28ft	Right Guardrail Width	
Left Bridge Rail	Type 31	Right Bridge Rail	Type 31



Measurements for Span #	1		
Deck Thickness	0.562	Left Overhang	5
Top of Rail to Bottom of Beam	7	Right Overhang	5

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	6ft	ALL SPANS SIMILAR
2	Steel I Beam	6ft	
3	Steel I Beam	6ft	
4	Steel I Beam	6ft	
5	Steel I Beam	6ft	
6	Steel I Beam		

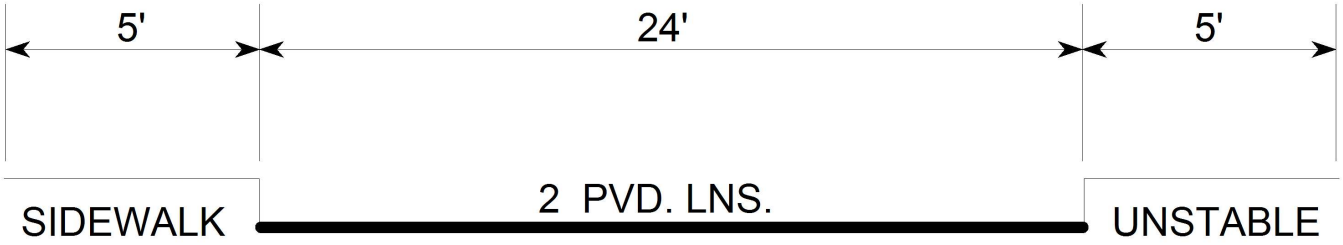
UTILITIES: 1 - 10" PIPE IN BAY # 4; 1 - 4" PIPE IN BAY # 5

Title	Description
SUPER.	DECK SECTION

Bridge No:	Drawn By:	Date:	File Name:
170142	RAP	03/27/2007	S0138002220

Bridge Inspection Field Sketch

VERIFIED 1/24/11 R.A. PIERCE, M. FORD



S.R. 1692

LOOKING EAST

Title	Description
APPR. RDWY.	APPR. RDWY.

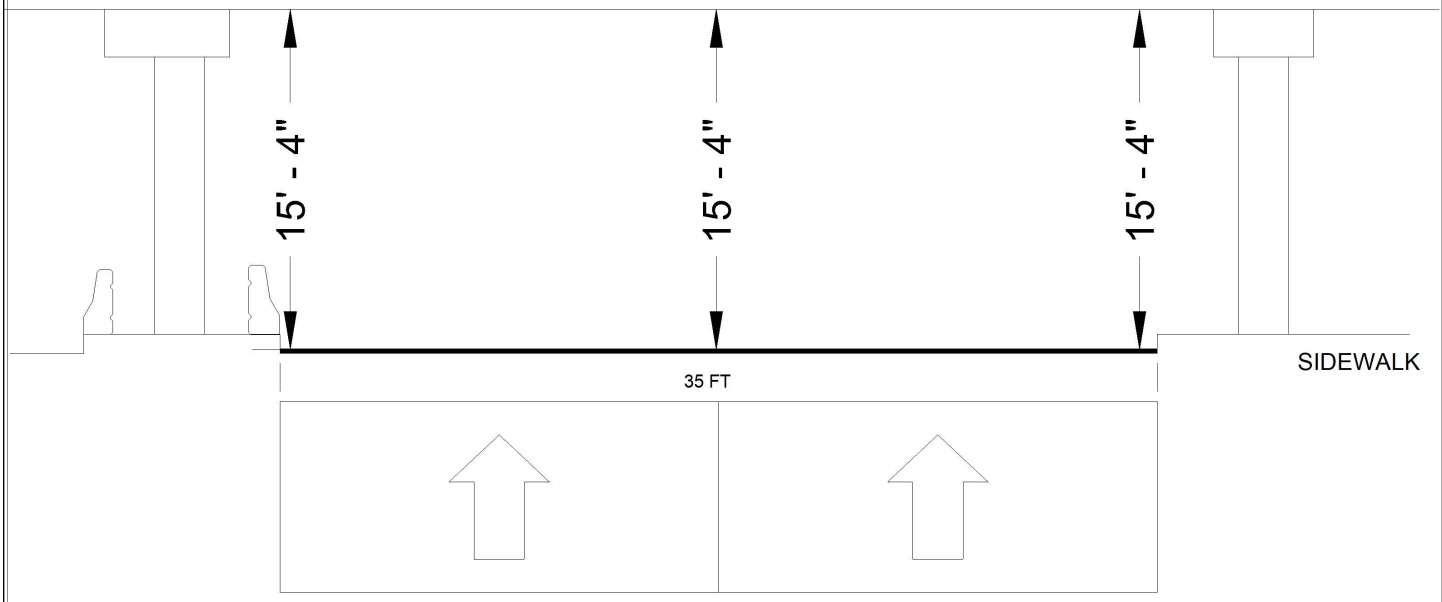
Bridge No:	Drawn By:	Date:	File Name:
170142	RAP	03/27/2007	S0138002221

Bridge Inspection Field Sketch

VERIFIED 1/24/11 R.A. PIERCE, M. FORD

MIN. & MAX. MIN. SAME FULL WIDTH: NO 10' BOX

S.R. 1692 SPAN # 3



U.S. 321 N.B.L.

LOOKING NORTH

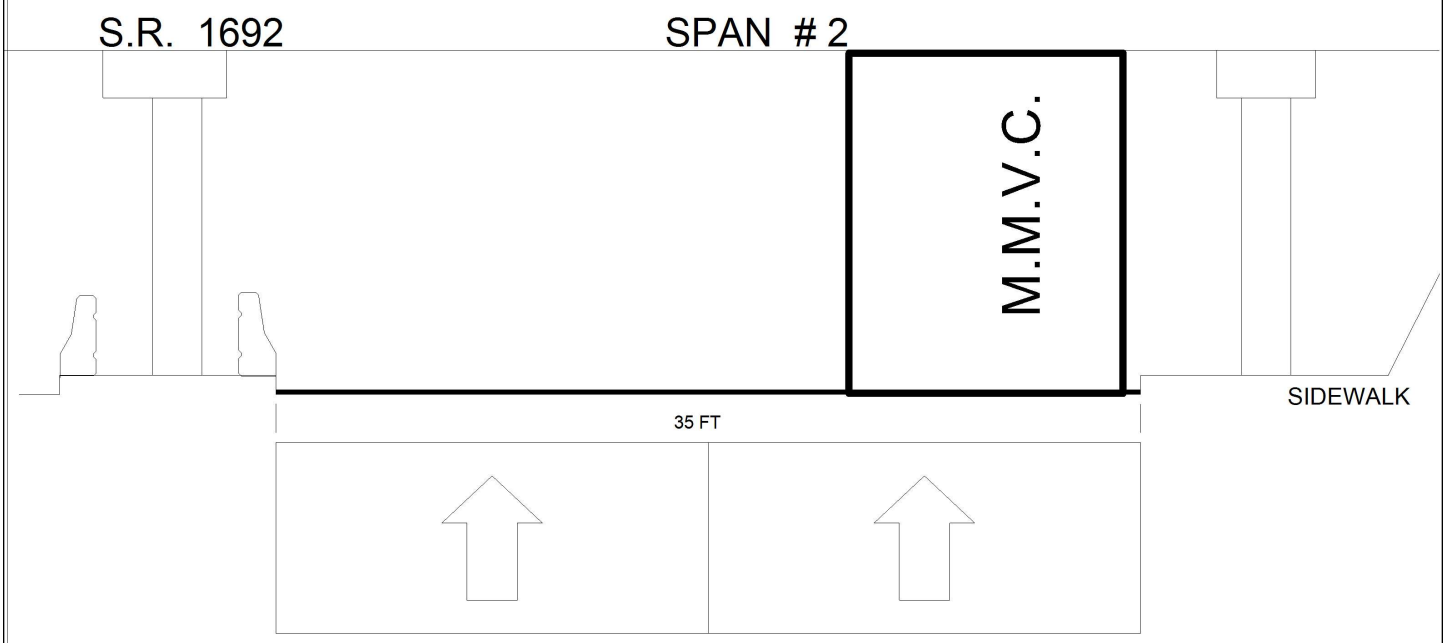
Roadway 1	Distance to Left Guardrail
	Distance to Right Guardrail
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 3 FT
	Distance to Right Toe of Slope
	Distance to Right Bent or Columns 3.25 FT
	Maximum Minimum Vertical Clearance 15.333 FT @ 17.5 Measured From RT. CURB AT C.L. on Beam No 6
	Minimum Vertical Clearance 15.333 FT @ 17.5 Measured From LT. CURB AT C.L. on Beam No 6

Title	**Description**
CLEARANCE 1	CLR. FOR SPAN # 3

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
170142	RAP	03/27/2007	S0138002222

Bridge Inspection Field Sketch

VERIFIED 1/24/11 R.A. PIERCE, M. FORD



U.S. 321 S.B.L.

LOOKING SOUTH

Roadway 1	Distance to Left Guardrail
	Distance to Right Guardrail
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 3 FT
	Distance to Right Toe of Slope
	Distance to Right Bent or Columns 4.083 FT
	Maximum Minimum Vertical Clearance 15.417 FT @ 10 Measured From RT. CURB on Beam No 6
	Minimum Vertical Clearance 15.25 FT @ 10 Measured From LT. CURB on Beam No 6

Title	**Description**
CLEARANCE 2	CLR. FOR SPAN # 2

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
170142	RAP	03/27/2007	S0138002223

LOOKING NORTH

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

IMPACT DAMAGE REPORT ON SPAN 2
RATINGS FOR SPAN 2 ITEMS ONLY
PRIORITY MAINTENANCE REQUESTED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY GASTON BRIDGE NUMBER 350149 INSPECTION CYCLE 0 YRS

ROUTE SR2093 ACROSS I85 M.P. 0

LOCATION 1.0 MI. N. JCT. NC273

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE E.BTS:RC CAP ON ROCK FOUNDATION,INT.BTS:RCP&B W/SPREAD FTGS.

SPANS 1@65'0, 2@75'0, 1@74'6 COMPOSITE

LONGITUDE 81° 2' 39.1" LATITUDE 35° 15' 28.9"

PRESENT CONDITION POOR INVENTORY RATING

INSPECTION DATE 05/21/2012 OPERATING RATING

PRESENT POSTING Not Posted PROPOSED POSTING

COMPUTER UPDATE ANALYSIS DATE

POSTING LETTER DATE SUFFICIENCY RATING

OTHER SIGNS PRESENT

LOOKING SOUTH

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

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 350149
(8) STRUCTURE NUMBER(FEDERAL) 000000000710149
(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' 26.1" (17)LONG 81° 2' 37.5"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

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

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 20000
(30) YEAR OF ADT 2010 (109) TRUCK ADT PCT 12%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 75 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 64.3 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 Not a Highway or Railroad 0 FT
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT
(56) MIN LAT UNDERCLEAR LT REF - 000 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 = 79
STATUS = Functionally Oboselete

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

CONDITION CODE

(58) DECK 7
(59) SUPERSTRUCTURE 7
(60) SUBSTRUCTURE 6
(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
(64) OPERATING RATING - HS-24 143
(65) INVENTORY RATING METHOD - Load Factor
(66) INVENTORY RATING - HS-14 126
(70) BRIDGE POSTING - Posting Required 4
(41) STRUCTURE OPEN, POSTED ,OR CLOSED P
DESCRIPTION - Posted for Load

APPRAISAL CODE

(67) STRUCTURAL EVALUATION 6
(68) DECK GEOMETRY 9
(69) UNDERCLEARANCES,VERTI & HORIZ 2
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0010
(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 40000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 08/24/2010
(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: _____ County: _____ 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

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: 06/07/2012

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 :

FUNC. CLASS : 14
SYST.ON : FA
SYST.UNDER : NFA
ADT & YR : 20000 2010
RAIL TYPE : LT 139 RT 139

BUILT : 1961
BY : SHC
PROJ : 8.16318
FED.AID PROJ : BP-5300K
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 CAP ON ROCK FOUNDATION,INT.BTS:RCP&B W/SPREAD FTGS.

SPANS : 1@65'0, 2@75'0, 1@74'6 COMPOSITE

BEAMS OR GIRDERS : 10LN@6'1 CT,SP1:W36X150EX,W33X130IN,#2-4:W36X170EX,W36X150IN

FLOOR : 6.75 RC,1.5 AWS
ENCROACHMENT :
DECK (OUT TO OUT) : 64.3 FT

CLEAR ROADWAY : 52 FT
BETWEEN RAILS : 62.2 FT
SIDEWALK OR CURB : LT 5.1 FT RT 5.1 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-14
OPE.RTG. : HS-24
CONTR.MEMBER : Entbm10(B)
POSTED : SV 41 TTST 41 DATE 05/10/2012

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

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 350149 COUNTY GASTON ROUTE SR2093 OVER I85
STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS
ROUTE ORIENTATION SPANS 1@65'0, 2@75'0, 1@74'6 COMPOSITE

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

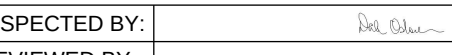
INSPECTION ITEM			GRADES
DECK ITEMS			
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			P
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			P
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			F
16. DRAINAGE SYSTEM (ON STRUCTURE)			
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		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	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)			
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		
51. APPROACH SLABS		
52. PAINT SYSTEM CODE		
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		12
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		YES
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		24
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		8

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		YES

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 MD OSBORNE

Assisted By A KING

Item No.	Grade	
10	P	IMPACT DAMAGE INSPECTION WAS REQUESTED BY DIVISION BRIDGE MAINTENANCE FOR SPAN 2 OVER I 85 SOUTH GIRDERS HAVE BEEN PAINTED SINCE THE IMPACT. 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) 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) 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'' & 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) 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) 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)

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 MD OSBORNE

Assisted By A KING

Item No.	Grade	
12	P	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/WAHERS 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)
15	F	BEARINGS AND ANCHOR BOLTS IN SPAN 2 DID NOT SHOW ANY DAMAGE DUE TO THE IMPACT.
61	YES	GIRDER #1 AND DIAPHRAGMS
73f	YES	UT MACHINE

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 350149 County GASTON Date: 05/21/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	1	CRACK (8" LONG) IN WELD OF COVER PLATE TO FLANGE @ 21'-2"	
3314	Maintain Steel Superstructure Components	LF	1	CRACK IN BOTTOM OF COVER PLATE IS 7" LONG. 3 3/4" REMAINS NOT CRACKED.	
3314	Maintain Steel Superstructure Components	LF	1	CRACK IN WELD IN COVER PLATE TO FLANGE IS 1 FOOT LONG @ 19'-11" FROM THE FACE OF BENT 3. GIRDER # 1, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	DIAPHRAGM BOLT OD GIRDER 9 DIAPHRAGM BOLT ON RIGHT SIDE OF GIRDER 9 IS NOT PULLED UP TIGHT @ 34'-7" FROM THE FACE OF BENT 1	
3314	Maintain Steel Superstructure Components	LF	1	DIAPHRAGM BOLT ON GIRDER NOT FULL THREAD BOLT # 2 ON LEFT SIDE OF DIAPHRAGM @ 16'-6" IS NOT FULLY THREADED. GIRDER # 2, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	3	CRACK IN GIRDER #1 COVER PLATE POINT OF IMPACT ON GIRDER # 1 WAS 19'-11" FROM THE FACE OF BENT 3. FLANGE AND COVER PLATE IS OUT OF PLACE. GIRDER # 1, SPAN 3 CRACK IN WELD IN COVER PLATE TO FLANGE IS 1 FOOT LONG @ 19'-11" FROM THE FACE OF BENT 3. GIRDER # 1, SPAN 3 CRACK IN BOTTOM OF COVER PLATE IS 7" LONG. 3 3/4" REMAINS NOT CRACKED. CRACK (8" LONG) IN WELD OF COVER PLATE TO FLANGE @ 21'-2"	
3314	Maintain Steel Superstructure Components	LF	3	STIFFNER ON GIRDER #3 NO WELD CONDITIONS FOUND IN GIRDER # 3, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	4	DIAPHRAGM BOLTS ON GIRDER #1 ARE LOOSE BOTTOM OF WEB IS BENT TO THE SOUTH (7/8") AT DIAPHRAGM @ 19'-4" FROM THE FACE OF BENT 3. GIRDER # 1, SPAN 3 FOUR DIAPHRAGM BOLTS ARE NOT TIGHT @ 19'-4" FROM THE FACE OF BENT 3. DIAPHRAGM BOLTS ARE LOOSE. FOUR HAVE NO WASHERS. GIRDER # 1, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	4	FOUR DIAPHRAGM BOLTS ARE NOT TIGHT @ 19'-4" FROM THE FACE OF BENT 3.	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 350149 County GASTON Date: 05/21/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	5	DIAPHRAGM ON GIRDER 10 BOTTOM OF DIAPHRAGM ON GIRDER 10 IS 2 1/2" AWAY FROM THE WEB @ 39'-11" FROM THE FACE OF BENT 1 DIAPHRAGM BRACE IS BENT (1 1/4") TO THE WEST @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10 DIAPHRAGM BOLT DOES NOT HAVE A FULL THREAD @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10 WASHERS BEHIND DIAPHRAGM @ 39'-11" FROM THE FACE OF BENT 1, FOR A BUILD UP OF 2 1/2". GIRDER 10	
3314	Maintain Steel Superstructure Components	LF	6	FLANGE AND COVER PLATE IS BENT UPWARD (1/2" +/-) @ 21'-10" INDENTION IS 12" LONG. GIRDER # 1	
3314	Maintain Steel Superstructure Components	LF	74	GIRDER 10 IS OUT OF PLUMB 4 1/4" AT 37'-5" FROM BENT 1 GIRDER 10 IS OUT OF PLUMB (4 1/4") @ 37'-5" FROM THE FACE OF BENT 1 LOOKING EAST AT GIRDER 10	
3314	Maintain Steel Superstructure Components	LF	75	GIRDER # 1 IS OUT OF PLUMB (1 7/8") IN THE DIRECTION OF TRAFFIC @ 20'-2" FROM THE FACE OF BENT 3.	
3314	Maintain Steel Superstructure Components	LF	75	GIRDER #1 IS OUT OF PLUMB GIRDER # 1 IS OUT OF PLUMB (1 7/8") IN THE DIRECTION OF TRAFFIC @ 20'-2" FROM THE FACE OF BENT 3. LOOKING AT GIRDER # 1 FROM BENT 3, SPAN 3	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 350149 County GASTON

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	4 LF

Location:		
Beams and Girders	Bent/Span No. 3	DIAPHRAGM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/08/2012	MD OSBORNE	A KING

Details

DIAPHRAGM BOLTS ON GIRDER #1 ARE LOOSE BOTTOM OF WEB IS BENT TO THE SOUTH (7/8") AT DIAPHRAGM @ 19'-4" FROM THE FACE OF BENT 3. GIRDER # 1, SPAN 3 FOUR DIAPHRAGM BOLTS ARE NOT TIGHT @ 19'-4" FROM THE FACE OF BENT 3. DIAPHRAGM BOLTS ARE LOOSE. FOUR HAVE NO WASHERS. GIRDER # 1, SPAN 3

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	75 LF

Location:		
Beams and Girders	Bent/Span No. 3	GIRDER

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/08/2012	MD OSBORNE	A KING

Details

GIRDER #1 IS OUT OF PLUMB GIRDER # 1 IS OUT OF PLUMB (1 7/8") IN THE DIRECTION OF TRAFFIC @ 20'-2" FROM THE FACE OF BENT 3. LOOKING AT GIRDER # 1 FROM BENT 3, SPAN 3

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 350149 County GASTON

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF

Location:		
Beams and Girders	Bent/Span No. 3	GIRDERS

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
05/08/2012	MD OSBORNE	A KING

Details

CRACK IN GIRDER #1 COVER PLATE POINT OF IMPACT ON GIRDER # 1 WAS 19'-11" FROM THE FACE OF BENT 3. FLANGE AND COVER PLATE IS OUT OF PLACE. GIRDER # 1, SPAN 3 CRACK IN WELD IN COVER PLATE TO FLANGE IS 1 FOOT LONG @ 19'-11" FROM THE FACE OF BENT 3. GIRDER # 1, SPAN 3 CRACK IN BOTTOM OF COVER PLATE IS 7" LONG. 3 3/4" REMAINS NOT CRACKED. CRACK (8" LONG) IN WELD OF COVER PLATE TO FLANGE @ 21'-2"

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF

Location:		
Beams and Girders	Bent/Span No. 3	GIRDER

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/08/2012	MD OSBORNE	A KING

Details

STIFFNER ON GIRDER #3 NO WELD CONDITIONS FOUND IN GIRDER # 3, SPAN 3

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 350149 County GASTON

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	1 LF

Location:		
Beams and Girders	Bent/Span No. 3	DIAPHRAGM

Priority Level	Status
Recommended	Routine Maintenance

Submitted Date:	Submitted By:	Assisted By:
05/08/2012	MD OSBORNE	A KING

Details

DIAPHRAGM BOLT ON GIRDER NOT FULL THREAD BOLT # 2 ON LEFT SIDE OF DIAPHRAGM @ 16'-6" IS NOT FULLY THREADED. GIRDER # 2, SPAN 3

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	5 LF

Location:		
Beams and Girders	Bent/Span No. 2	DIAPHRAGM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/21/2012	MD OSBORNE	A KING

Details

DIAPHRAGM ON GIRDER 10 BOTTOM OF DIAPHRAGM ON GIRDER 10 IS 2 1/2" AWAY FROM THE WEB @ 39'-11" FROM THE FACE OF BENT 1 DIAPHRAGM BRACE IS BENT (1 1/4") TO THE WEST @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10 DIAPHRAGM BOLT DOES NOT HAVE A FULL THREAD @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10 WASHERS BEHIND DIAPHRAGM @ 39'-11" FROM THE FACE OF BENT 1, FOR A BUILD UP OF 2 1/2". GIRDER 10

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 350149 County GASTON

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	74 LF

Location:		
Beams and Girders	Bent/Span No. 2	GIRDER

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/21/2012	MD OSBORNE	A KING

Details

GIRDER 10 IS OUT OF PLUMB 4 1/4" AT 37'-5" FROM BENT 1 GIRDER 10 IS OUT OF PLUMB (4 1/4") @ 37'-5" FROM THE FACE OF BENT 1 LOOKING EAST AT GIRDER 10

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	1 LF

Location:		
Beams and Girders	Bent/Span No. 2	DIAPHRAGM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
05/21/2012	MD OSBORNE	A KING

Details

DIAPHRAGM BOLT OD GIRDER 9 DIAPHRAGM BOLT ON RIGHT SIDE OF GIRDER 9 IS NOT PULLED UP TIGHT @ 34'-7" FROM THE FACE OF BENT 1

IMPACT ON GIRDER # 6 WAS 23'-6" FROM THE FACE OF BENT 1. INDENTIONS 2 1/2" X 1/16" & 4" X 1/16"

IMPACT ON GIRDER # 7 WAS 23'-11" FROM THE FACE OF BENT 1

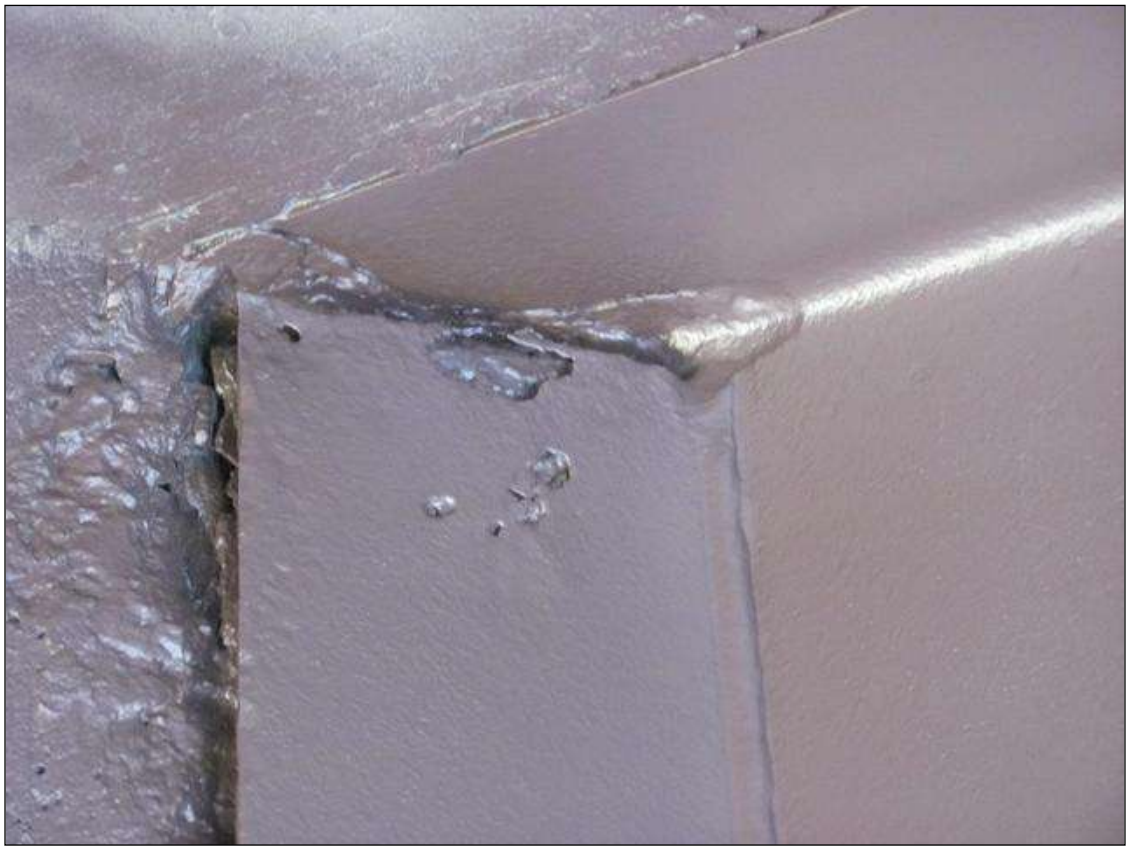
LADDER FOR PAINTERS IS AGAINST BENT # 1.

IMPACT ON GIRDER # 8 WAS 21'-6" FROM THE FACE OF BENT 1.

INDENTION (1'-7" X 1/16") IN COVER PLATE @ 19'-4" FROM THE FACE OF BENT 1. GIRDER 8

POINT OF IMPACT ON GIRDER 9 WAS 18'-0" FROM THE FACE OF BENT 1. INDENTIONS IN COVER PLATE

TOP OF DIAPHRAGM @ 13'-11" HAS PULLED AWAY FROM FLANGE 1/8". GIRDER 9



CONDITIONS FOUND IN GIRDER 8

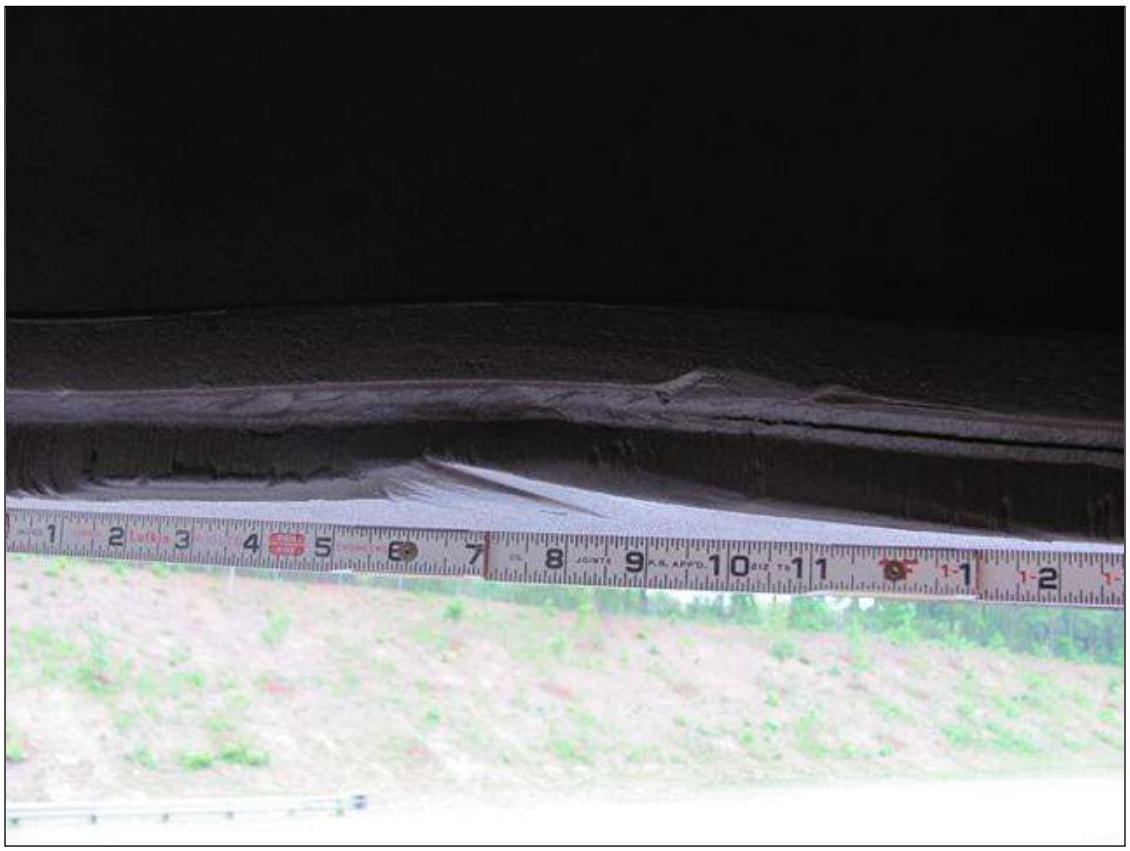
REPAIRS MADE TO DIAPHRAGM @ 16'-6" ON SOUTH SIDE OF GIRDER 9

BOLT # 2 ON LEFT SIDE OF DIAPHRAGM @ 16'-6" IS NOT FULLY THREADED. GIRDER 9

IMPACT ON GIRDER 10 WAS 19'-11" FROM THE FACE OF BENT 1.

CRACK IN WELD IN COVER PLATE TO FLANGE IS 1 FOOT LONG @ 19'-11" FROM THE FACE OF BENT 1 GIRDER 10

CRACK IN BOTTOM OF COVER PLATE IS 7" LONG. 3 3/4" REMAINS NOT CRACKED. GIRDER 10



FLANGE AND COVER PLATE IS BENT UPWARD (1/2" +/-) @ 21'-10" INDENTION IS 12" LONG. GIRDER # 10

CRACK 8" LONG IN WELD OF COVER PLATE TO FLANGE @ 21'-2" IN GIRDER 10

GIRDER 10 IS OUT OF PLUMB 1 7/8" IN THE DIRECTION OF TRAFFIC @ 20'-2" FROM THE FACE OF BENT 1.

BOTTOM OF WEB IS BENT TO THE SOUTH 7/8" AT DIAPHRAGM @ 19'-4" FROM THE FACE OF BENT 1. GIRDER 10

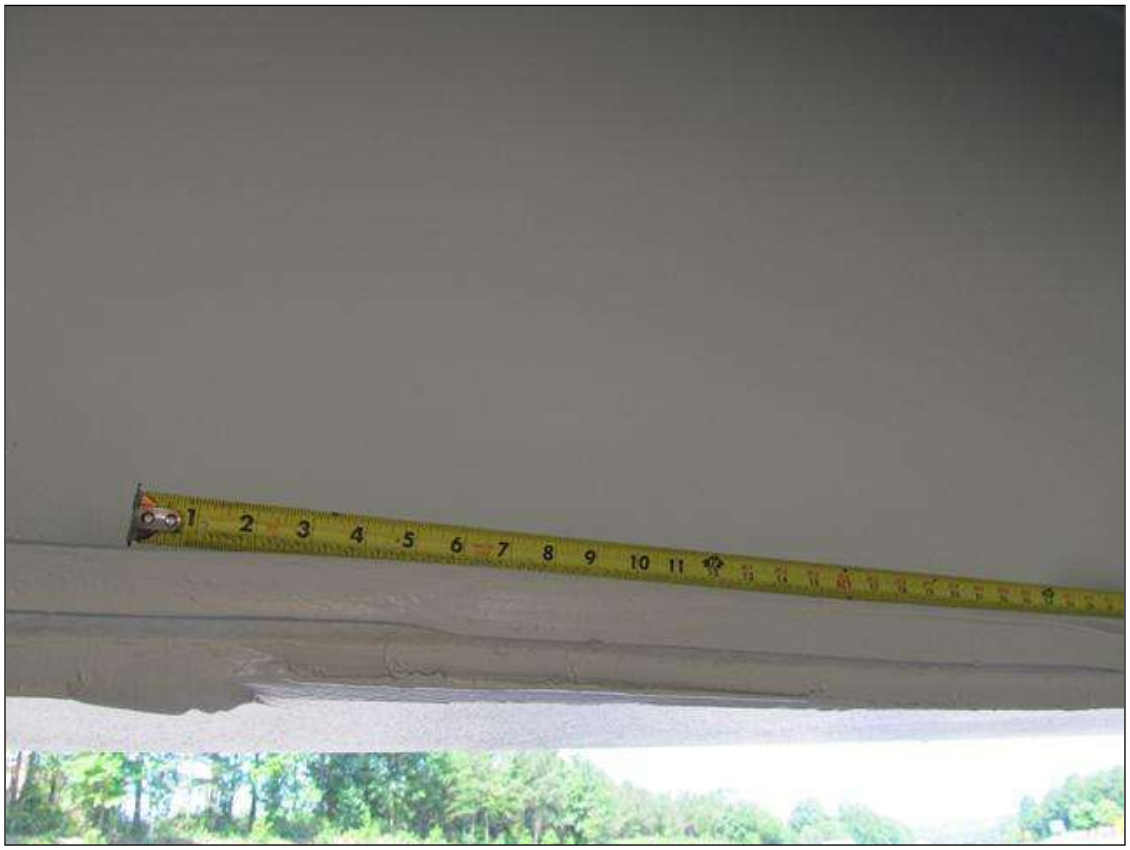
FOUR DIAPHRAGM BOLTS ARE NOT TIGHT @ 19'-4" FROM THE FACE OF BENT 1. GIRDER 10

DIAPHRAGM BOLTS ARE LOOSE. FOUR HAVE NO WASHERS. GIRDER 10

LOOKING AT GIRDER 10 FROM BENT 1

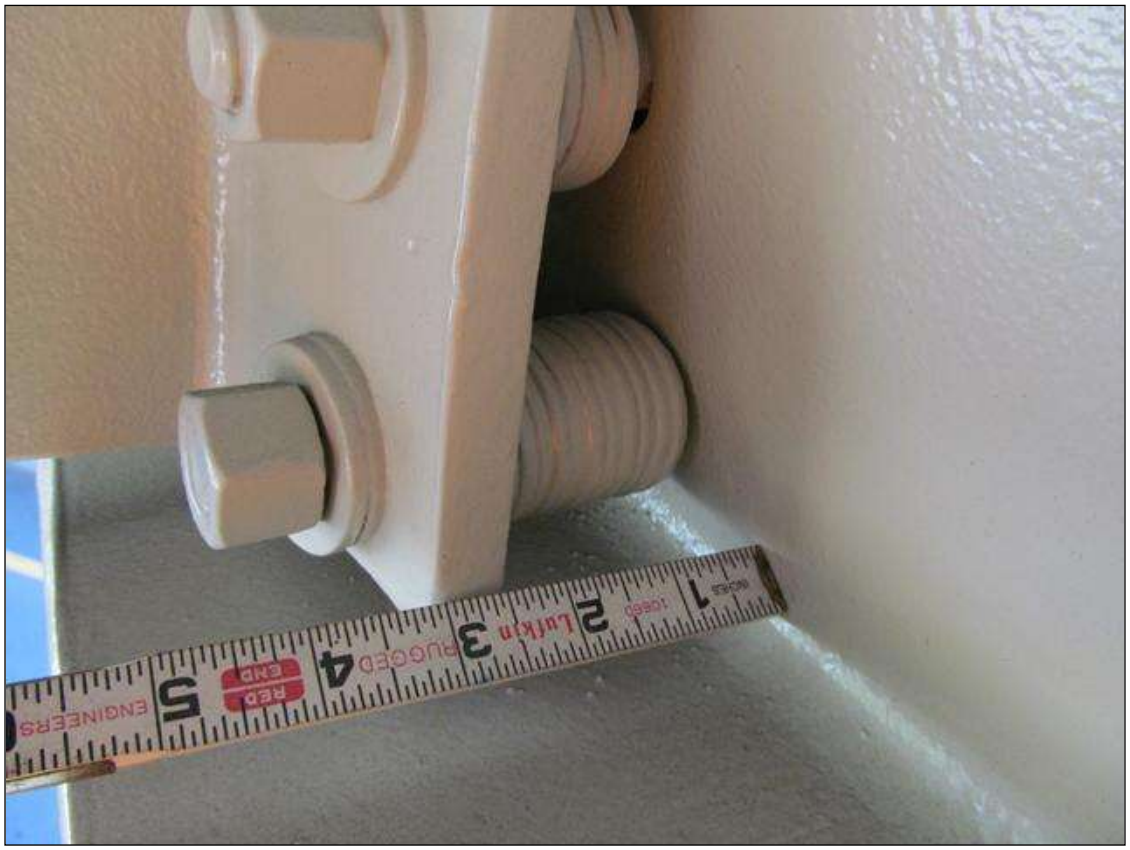
POINT OF IMPACT, IN MIDDLE LANE, ON GIRDER 9 IS 36'-6" FROM THE FACE OF BENT 1. INDENTION IN COVER PLATE IS 5" X 1/16".

DIAPHRAGM BOLT ON RIGHT SIDE OF GIRDER 9 IS NOT PULLED UP TIGHT @ 34'-7" FROM THE FACE OF BENT 1



POINT OF IMPACT ON GIRDER 10 IS 38'-2" FROM THE FACE OF BENT 1. INDENTIONS IN COVER PLATE (17" X 1/2") & FLANGE (24" X 5/8")

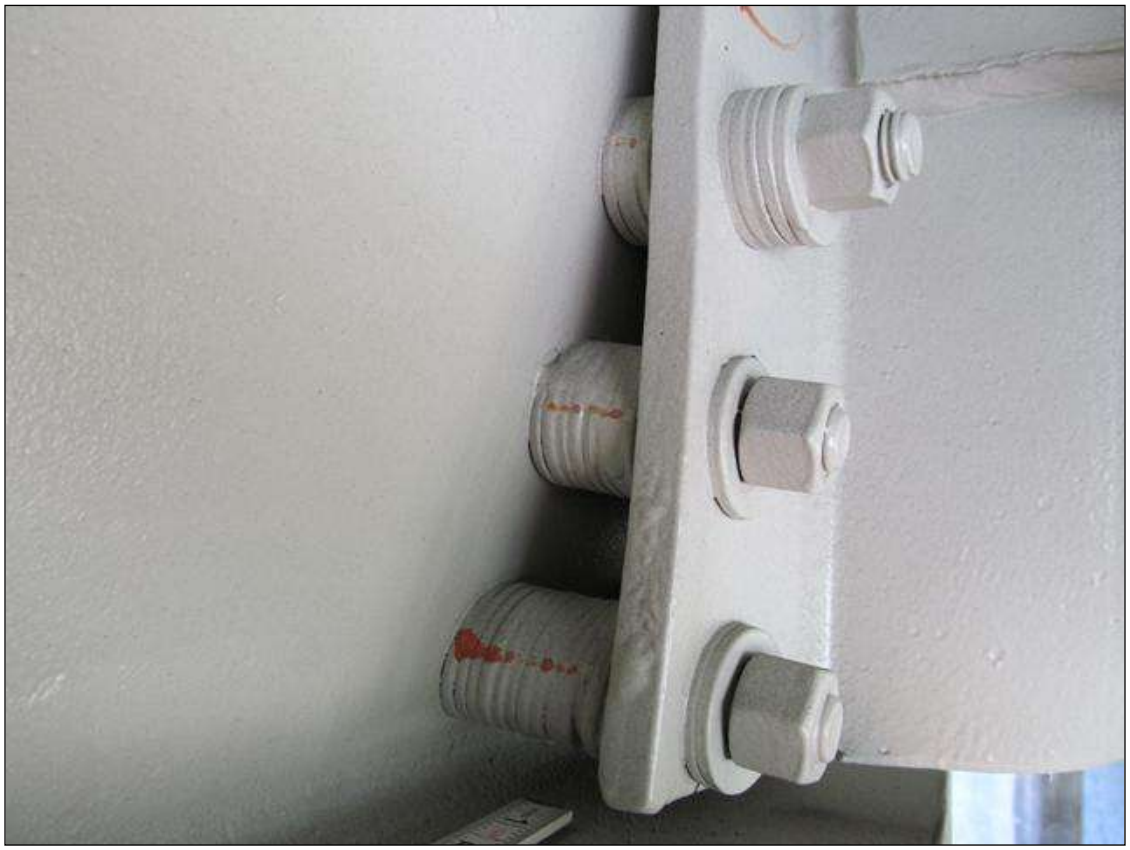
INDENTION (7" X 5/8") IN COVER PLATE @ 35'-7" FROM THE FACE OF BENT 1. GIRDER 10



BOTTOM OF DIAPHRAGM ON GIRDER 10 IS 2 1/2" AWAY FROM THE WEB @ 39'-11" FROM THE FACE OF BENT 1

DIAPHRAGM BRACE IS BENT (1 1/4") TO THE WEST @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10

DIAPHRAGM BOLT DOES NOT HAVE A FULL THREAD @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10

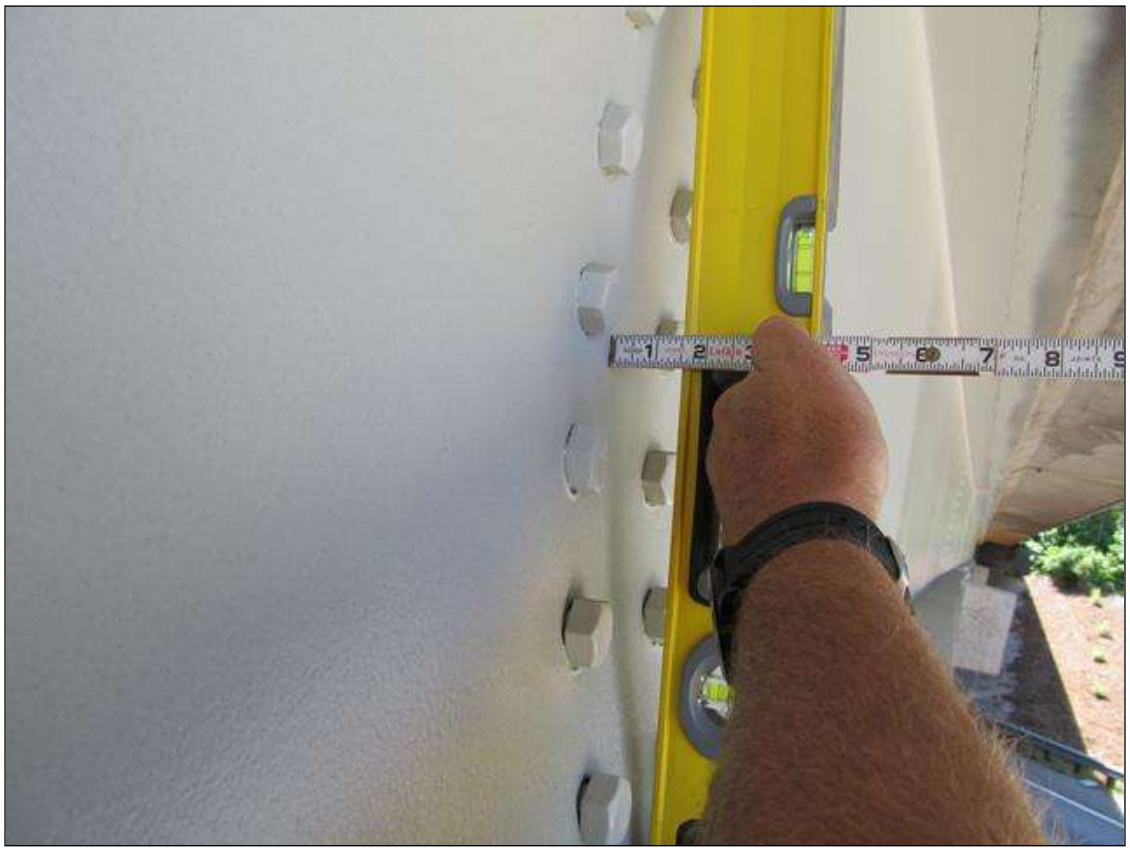


WASHERS BEHIND DIAPHRAGM @ 39'-11" FROM THE FACE OF BENT 1, FOR A BUILD UP OF 2 1/2". GIRDER 10

BOTTOM OF DECK ABOVE DIAPHRAGM @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10

GIRDER 10 IS OUT OF PLUMB (4 1/4") @ 37'-5" FROM THE FACE OF BENT 1

INDENTION (2'-10" X 1/4") IN FLANGE OF GIRDER 10 @ 43'-1" FROM THE FACE OF BENT 1 AND COVER PLATE (7" X 1/16")



1 1/2" BOW IN GIRDER 10 WEB @ 39'-11" FROM THE FACE OF BENT 1

14 DIAPHRAGM BOLTS WITHOUT WASHERS AND 8 WITH WASHERS @ 39'-11" FROM THE FACE OF BENT 1. GIRDER 10

LOOKING EAST AT GIRDER 10

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		

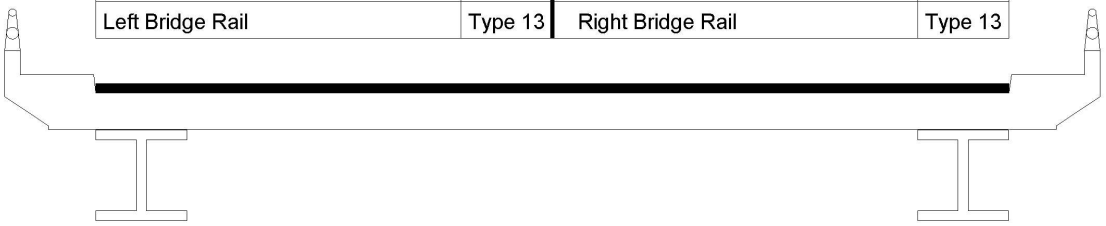
VERIFIED 8-24-2010 BY DELVIN ADAMS

Title	Description
APPROACH ROADWAY	APPROACH ROADWAY

Bridge No:	Drawn By:	Date:	File Name:
350149	DJA	8/20/2008	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

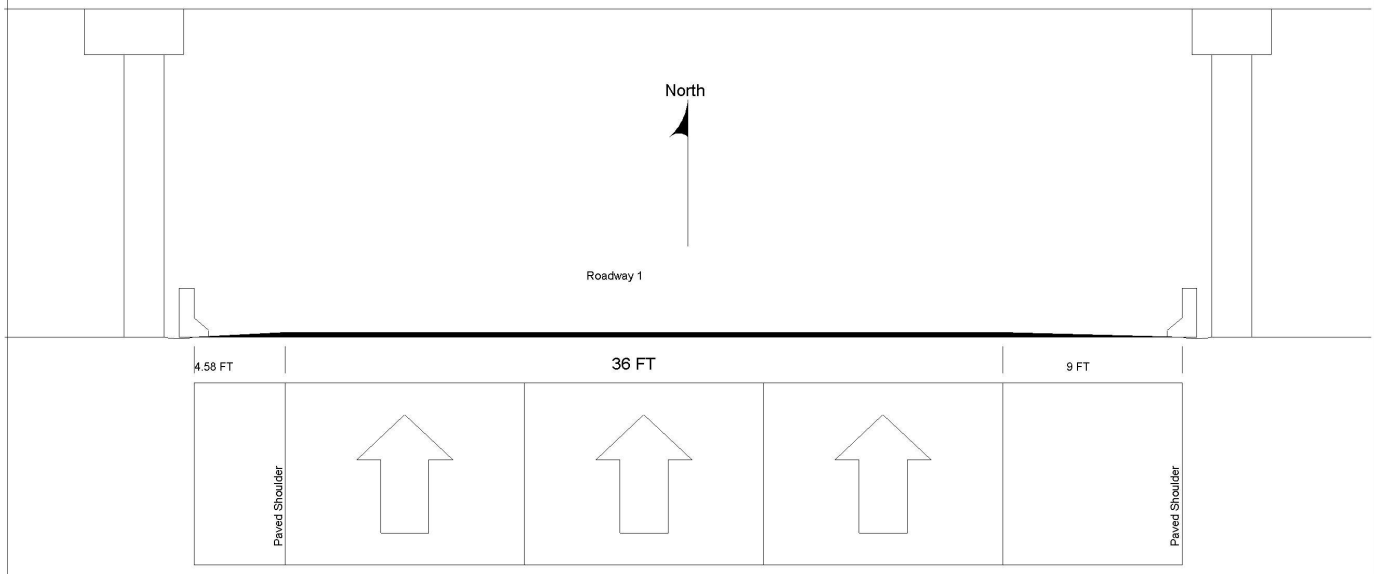
Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	6.08ft	SEE PLANS FOR BEAM SIZE
2	Steel I Beam	6.08ft	SEE PLANS FOR BEAM SIZE
3	Steel I Beam	6.08ft	SEE PLANS FOR BEAM SIZE
4	Steel I Beam	6.08ft	SEE PLANS FOR BEAM SIZE
5	Steel I Beam	5.00ft	SEE PLANS FOR BEAM SIZE
6	Steel I Beam	6.08ft	SEE PLANS FOR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

VERIFIED 8-24-2010 BY DELVIN ADAMS

Title	Description
DECK DIMENSIONS	TYPICAL SECTION

Bridge No:	Drawn By:	Date:	File Name:
350149	DJA	8/20/2008	S0298000779

Bridge Inspection Field Sketch



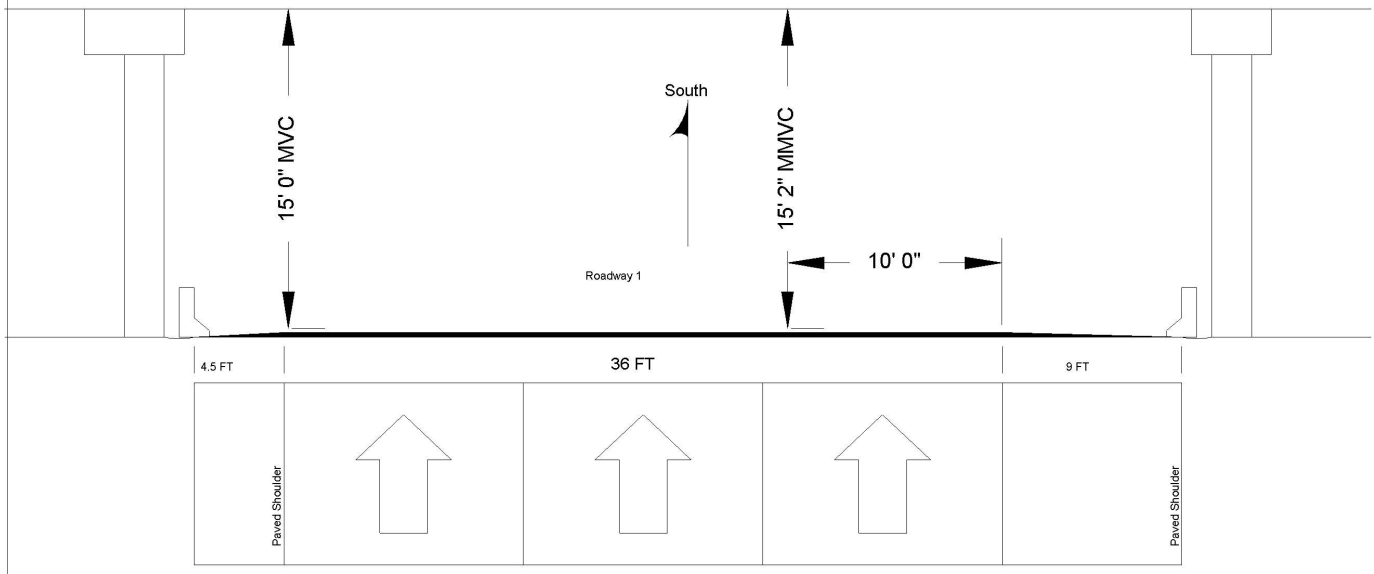
Roadway 1	Distance to Left Guardrail 4.58 FT
	Distance to Right Guardrail 9 FT
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 6.08 FT
	Distance to Right Toe of Slope
	Distance to Right Bent or Columns 10.5 FT
	Maximum Minimum Vertical Clearance 16.92 FT @ 10 Measured From LEFT EDGE OF ROADWAY on Beam No 10
	Minimum Vertical Clearance 16.583 FT @ 0 Measured From RIGHT EDGE OF ROADWAY on Beam No 10

VERIFIED 8-24-2010 BY DELVIN ADAMS

Title	**Description**
SPAN #2 OVER I-85 NORTHBOUND	SPAN #2 UNDERCLEARANCE

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
350149	DJA	8/20/2008	S0298000780

Bridge Inspection Field Sketch



Roadway 1	Distance to Left Guardrail 4.5 FT
	Distance to Right Guardrail 9 FT
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 6 FT
	Distance to Right Toe of Slope
	Distance to Right Bent or Columns 10.5 FT
	Maximum Minimum Vertical Clearance 15.17 FT @ 10 Measured From RIGHT EDGE OF ROADWAY on Beam No 10
	Minimum Vertical Clearance 15 FT @ 0 Measured From LEFT EDGE OF ROADWAY on Beam No 10

VERIFIED 8-24-2010 BY DELVIN ADAMS

Title	**Description**
SPAN #3 OVER I-85 SOUTHBOUND	SPAN #3 UNDERCLEARANCE

Bridge No: 350149	**Drawn By:** DJA	**Date:** 8/20/2008	**File Name:** S0298000781

LOOKING SOUTH

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

IMPACT DAMAGE REPORT ON SPAN 3
RATINGS FOR SPAN 3 ITEMS ONLY
PRIORITY MAINTENANCE REQUESTED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY IREDELL BRIDGE NUMBER 480104 INSPECTION CYCLE 0 YRS

ROUTE I40 EBL ACROSS US64,NC90 M.P. 148000

LOCATION 0.1 MI. S. JCT. SR1006

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS, APPROACH SLABS

SUBSTRUCTURE EBTS:RC CAPS ON PPC PILES, INTBTS:RC POST&BEAM ON PILE FTGS

SPANS 1@56'0 , 1@70'0 , 1@64'0 , 1@50'0 , COMPOSITE

LONGITUDE 80° 56' 92.24" LATITUDE 35° 47' 37.64"

PRESENT CONDITION POOR INVENTORY RATING

INSPECTION DATE 07/25/2012 OPERATING RATING

PRESENT POSTING Not Posted PROPOSED POSTING

COMPUTER UPDATE ANALYSIS DATE

POSTING LETTER DATE SUFFICIENCY RATING

OTHER SIGNS PRESENT LOW CLEARANCE

LOOKING NORTH

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

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 480104
(8) STRUCTURE NUMBER(FEDERAL) 000000000970104
(5) INVENTORY ROUTE (ON/UNDER) - ON 11000400
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 97 (4) PLACE CODE 64740
(6) FEATURE INTERSECTED - US64,NC90
(7) FACILITY CARRIED I40 EBL
(9) LOCATION 0.1 MI. S. JCT. SR1006
(11)MILEPOINT 148
(16)LAT 35° 47' 37.64" (17)LONG 80° 56' 92.24"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

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

AGE AND SERVICE

(27) YEAR BUILT 1960
(106)YEAR RECONSTRUCTED 1985
(42) TYPE OF SERVICE : ON - Overpass - Interchange
UNDER - Highway CODE 61
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 5
(29) AVERAGE DAILY TRAFFIC 21250
(30) YEAR OF ADT 2011 (109) TRUCK ADT PCT 16%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 69 FT
(49) STRUCTURE LENGTH 240 FT
(50)CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 28 FT
(52) DECK WIDTH OUT TO OUT 31.5 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 28 FT
(33) BRIDGE MEDIAN - No Median CODE 1
(34) SKEW 44° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 28 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 13.833 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 16 FT
(56) MIN LAT UNDERCLEAR LT REF - 5 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 = 63
STATUS = Functionally Obsolete

CLASSIFICATION CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is on the NHS 1
(26) FUNCTIONAL CLASS - Arterial - Interstate 11
(100)STRAHNET HIGHWAY - Interstate STRAHNET Route 1
(101)PARALLEL STRUCTURE - Right Parallel Structure R
(102)DIRECTION OF TRAFFIC - 1-way Traffic 1
(103)TEMPORARY STRUCTURE -
(110)DESIGNATED NATIONAL NETWORK - On the National Network 1
(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 5
(59) SUPERSTRUCTURE 5
(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
(64) OPERATING RATING - HS-35 163
(65) INVENTORY RATING METHOD - Load Factor
(66) INVENTORY RATING - HS-21 138
(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 3
(69) UNDERCLEARANCES,VERTI & HORIZ 3
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 7
(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 46000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 04/10/2012
(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: 480104 County: IREDELL 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	US 64 EBL	21000640	14.5830	148	1	2		14	2	8750	2011	29	H	14.50	5	6	9	1	1	1
3	US 64 WBL	21000640	13.9170	148	1			14	3	8750	2011	45	H	13.8330	16	5	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: 08/29/2012

COUNTY : IREDELL | DIVISION : 12 | DISTRICT: 2 | STRUCTURE NUMBER : 480104 | LENGTH : 240 FEET

ROUTE CARRIED : I40 EBL | FEATURE INTERSECTED : US64,NC90

LOCATED : 0.1 MI. S. JCT. SR1006 | BRIDGE NAME : | CITY : STATESVILLE

FUNC. CLASS : 11 | SYST.ON : FA | SYST.UNDER : NFA | ADT & YR : 21250 2011 | RAIL TYPE : LT 333 RT 333

BUILT : 1960 | BY : SHC | PROJ : 8.16377 | FED.AID PROJ : I-809 | DESIGN LOAD : HS 20 + MOD

REHAB : 1985 | BY : DOH | PROJ : | ALIGNMENT : TAN | SKEW : 46 | LANES : ON 2 UNDER 5

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

SUPERSTRUCTURE : REINFORCED CONCRETE DECK ON I-BEAMS, APPROACH SLABS

SUBSTRUCTURE : EBTS:RC CAPS ON PPC PILES, INTBTS:RC POST&BEAM ON PILE FTGS

SPANS : 1@56'0 , 1@70'0 , 1@64'0 , 1@50'0 , COMPOSITE

BEAMS OR GIRDERS : 4 LINES OF I-BEAMS @ 8'0 CTS,SP#1:36 EXT,33 INT,SP#2-4:36

FLOOR : 7 1/4 RC SLAB | ENCROACHMENT : | DECK (OUT TO OUT) : 31.5 FT

CLEAR ROADWAY : 28 FT | BETWEEN RAILS : 28 FT | SIDEWALK OR CURB : LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-21 | OPE.RTG. : HS-35 | CONTR.MEMBER : Intbm(D) | POSTED : SV TTST DATE

SYSTEM : Primary Interstate | GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

Span	Route Description	Vertical Clearances		Horizontal Clearances		
		MMVC	MVC	Total	Left	Right
2	US 64 EBL	14.5830	14.50	29	6	5
3	US 64 WBL	13.9170	13.8330	45	5	16

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 480104 COUNTY IREDELL ROUTE I40 EBL OVER US64,NC90
STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS, APPROACH SLABS
ROUTE ORIENTATION SPANS 1@56'0 , 1@70'0 , 1@64'0 , 1@50'0 , COMPOSITE

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

INSPECTION ITEM			GRADES
DECK ITEMS			
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			P
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			P
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			F
16. DRAINAGE SYSTEM (ON STRUCTURE)			
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		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	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)			
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		
51. APPROACH SLABS		
52. PAINT SYSTEM CODE		
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		30
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		YES
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		17
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		7

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		YES

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 MD OSBORNE

Assisted By A KING

Item No.	Grade	
10	P	IMPACT DAMAGE INSPECTION WAS REQUESTED BY TOPSIDE BRIDGE INSPECTION FOR SPAN 3 OVER US 64 BEAM 4:(NBL) POINT OF IMPACT ON BEAM 4 IN NBL WAS 33'-10" FROM FACE OF BENT 3, GOUGE IN FLANGE 1 1/2" X 1" X 1/2" AN INDENTION IN FLANGE 12" X 1/4" AND INDENTION IN COVER 12" X 1/2" ALL AT THE POINT OF IMPACT. INDENTIONS IN FLANGE FROM 33'-10" TO 24'-4". INDENTION IN COVER PLATE 8" X 1/16" AT 36'-3", 2" X 1/4" AT 36'-0", A 16" X 1/2" AT 32'-0", A 5'-0" X 1/2" AT 27'-2", A 48" X 3/4" AT 23'-0", A 1" X 1/4" AT 21'-8", A 3" X 1/16" AT 20'-10", A 2 1/2" X 1/16" AT 18'-7", A 1" X 1/16" AT 14'-7", A 3" X 1/16" AT 12'-9" 1 1/2" X 1/16" AT 34'-6", A 3" X 1/16" AT 35'-2", A 2 1/2" X 1/16" AT 35'-6", A 4" X 1/16" AT 35'-11", A3" X 1/16" AT 38'-5", ALL FROM FACE OF BENT 3. INDENTIONS IN FLANGE 13" X 1/4" AT 21'-2", A 5" X 1/2" AT 27'-2", A 2" X 1/4" AT 24'-9", A 1" X 1/4" AT 21'-11", A 1 1/2" X 1/16" AT 12'-9", A 2" X 1/16" AT 36'-2", A 1 1/2" X 1/16" AT 38'-3" ALL FROM FACE OF BENT 3. BEAM 4 IS 1 7/8" OUT OF PLUMB TO THE NORTH AT 30'-0" FROM BENT 3. THE WEB HAS A 17" X 11" AREA THAT IS BENT IN 1 1/2" AT 30'-4" AND A 9" X 16" AREA THAT IS BENT IN 1 1/4" AT 28'-6" BOTH FROM BENT 3. COVER PLATE AND FLANGE IS DAMAGED ON THE OUTSIDE FROM 22'-6" TO 34'-0" FROM FACE OF BENT 3. INDENTIONS IN COVER PLATE 2" X 1/16" AT 24'-2", A4" X 1/16" AT 20'-0", A 4" X 1/16" AT 19'-0", A 1" X 1/16" AT 18'-1", A 16" X 1/4" & 2" X 3/4" AT 16'-2' ALL FROM FACE OF BENT 2. INDENTIONS IN FLANGE 25" X 1/4" AT 8'-0", A 35" X 1/16" AT 13'-10",A 14" X 1/16 AT 16'-2',,A 1" X 1/16" AT 20'-0" ALL FROM FACE OF BENT 2 (SBL) POINT OF IMPACT ON BEAM 4 IN SBL WAS 19'-1" FROM FACE OF BENT 2, INDENTION IN FLANGE 31" X 1/4" AND IN COVER PLATE 37" X 1/4"" AT POINT OF IMPACT. BEAM 4 HAS IMPACT DAMAGE FROM 15'-6" TO 29'-8" FROM FACE OF BENT 2. BEAM 4 IS OUT OF PLUMB 1/2" AT 19'-1" IN THE DIRECTION OF TRAFFIC FROM BENT 2.INDENTIONS IN COVER PLATE 4" X 1/16" AT 29'-6", A 1 1/2" X 1/16" AT 28'-1", A 33" X 1/32" AT 25'-11", A 7" X 1/16" AT 25'-1", A 1 1/2" X 1/4" AT AT 22'-9", A 1 1/2" X 1/4" AT 21'-4", A 14" X 1/4" AT 21'-0", A 2" X 1/16"AT 16'-6", A 6" X 1/16" AT 16'-0", A 2 1/2" X 1/16" AT 10'-2"ALL FROM FACE OF BENT 2. INDENTIONS IN FLANGE 12" X 1/16" AT 29'-8", A2 1/2" X 1/32" AT 26'-10", A 6" X 1/16" AT 25'-2", A2" X 1/16" AT 22'-4", A 8" X 1/4" AT 21'-0", A 7" X 1/4" AT 17'-8", A 3" X 1/16" AT 8'-11" ALL FROM FACE OF BENT 2. INDENTIONS IN FLANGE COVER PLATE 14" X 1/4" AT 27'-6", A 14" X 1/16" AT 23'-3", A 1" X 1/4" AT 23'-0", A 2" X 1/4" AT 21'-11", A 3" X 1/4" AT 21'-6", A 6" X 1/4" AT 20'-2", A 14" X 1/32" AT 19'-3", A 9" X 1/4" AT 18'-5", A 1" X 1/16" AT 17'-4", A 2 1/2" X 1/16" AT 17'-0" ALL FROM FACE OF BENT 1. INDENTIONS IN FLANGE 5" X 1/32" AT 23'-0", A 2" X 1/16" AT 21'-9", A 6" X 1/4" AT 19'-7", A 2" X 1/2" AT 19'-4" ALL FROM FACE OF BENT 1.(SEE PHOTOS) Note: More details for this item are on attached sheets
12	P	CONNECTION PLATE OF INTERMEDIATE DIAPHRAGMS DIAPHRAGM ON BEAM 4 HAS IMPACT DAMAGE AT 20'-4" FROM FACE OF BENT 3, A 11" CRACK IN THE BOTTOM, A 2 1/2" CRACK IN THE BOTTOM WELD TO BRACKET, A 4" CRACK IN THE TOP AND 3 1/2" CRACK ON THE BOTTOM AT 20'-4", DIAPHRAGM IS BENT 4 1/2" TO THE EAST. DIAPHRAGM AT 37'-4" FROM BENT 3 HAS A 6" CRACK IN THE BOTTOM, AND 3" CRACK IN THE TOP. AND 2" CRACK IN THE BOTTOM. DIAPHRAGM AT 37'-4" IS BENT 3/4" OUT OF PLUMB TO THE EAST. A CRACK IS IN THE BOTTOM WELD AND RUNS TO THE TOP PART. THERE IS A 3/4" BEND IN THE DIAPHRAGM 4'-0" FROM BEAM 4 (SEE PHOTOS)

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 MD OSBORNE

Assisted By A KING

Item No.	Grade	
15	F	BEARINGS AND ANCHOR BOLTS IN SPAN 3 DID NOT SHOW ANY INDICATION OF DAMAGE DUE TO THE IMPACT.
61	YES	DIAPHRAGMS ON BEAM 4 BEAM 4
73f	YES	CLIMBING VEST UT MACHINE

State of North Carolina Dept. of Transportation Division of Highways	FIELD INSPECTION REPORT	

Item No.	Extended Field Inspection Notes
10	BEAM 3: (NBL) POINT OF IMPACT ON BEAM 3 WAS 33'-3" FROM FACE OF BENT 3, AN INDENTION IN FLANGE COVER PLATE 13" X 1/4" AT POINT OF IMPACT. INDENTION IN FLANGE COVER PLATE 4" X 1/4" & 1/2" X 1/4" AT 35'-1", A 1" X 1/16" AT 29'-0", A 1" X 1/16" AT 29'-9", A 1" X 1/16" AT 22'-4" A 6" X 1/4" AT 23'-2" ALL FROM FACE OF BENT 3. INDENTION IN FLANGE 1 1/2" X 1/4" AT 36'-7" FROM FACE OF BENT 3. INDENTION IN FLANGE COVER PLATE 8" X 1/4" AT 15'-5", 12" X 1/16" AT 13'-0", A 5" X 1/16" AT 14'-5" ALL FROM FACE OF BENT 2. INDENTIONS IN FLANGE 8" X 1/4" AT 15'-5", A 6" X 1/16" AT 12'-4", A 4" X 1/16", A 4" X 1/16" AT 10'-0", 16" X 1/16" AT 8'-4", 6" X 1/16" AT 6'-11" ALL FROM FACE OF BENT 2. SCATTERED MARKS ON WEB OF BEAM. (SBL) POINT OF IMPACT ON BEAM 3 WAS 20'-2" FROM FACE OF BENT 2, AN INDENTION IN FLANGE COVER PLATE 7" X 1/4" INDENTION IN FLANGE 2 1/2" X 1/4" AND 1 1/2" X 1/4" ALL AT POINT OF IMPACT. INDENTIONS IN COVER PLATE 3" X 1/2" AT 21'-7", A 1" X 1/16" AT 22'-1", A 1 1/2' X 1/16" AT 21'-11", A 14" X 1/4" AT 34'-4" ALL FROM BENT 2. INDENTION IN FLANGE 8" X 1/16" AT 23'-6" FROM BENT 2. GOUGE IN COVER PLATE 8" X 1" X 1/32" AT 20'-4" FROM BENT 2. INDENTIONS IN FLANGE COVER PLATE 6" X 1/32" AT 21'-11", A 1 1/2" X 1/4" AT 21'-5", A 20" X 1/4" AT 16'-9" ALL FROM FACE OF BENT 1. (SEE PHOTOS) BEAM 2:(NBL) POINT OF IMPACT ON BEAM 2 WAS 34'-2" FROM FACE OF BENT 3, AN INDENTION IN FLANGE COVER PLATE 3" X 1/4" AND 4" X 1/2", INDENTIONS IN FLANGE 2 1/2" X 1/4" AND 1" X 1/16" ALL AT POINT OF IMPACT. INDENTIONS IN FLANGE 1" X 1/16" AT 28'-5" FROM FACE OF BENT 3. (SBL) POINT OF IMPACT ON BEAM 2 IN SBL WAS 21'-6" FROM FACE OF BENT 3, AN INDENTION IN FLANGE COVER PLATE 5 1/2" X 1/2" AND IN FLANGE 1 1/4" X 1/16" FROM FACE OF BENT 2. INDENTIONS IN COVER PLATE 2" X 1/4" AT 22'-6" FROM BENT 2. INDENTIONS IN COVER PLATE 1" X 1/16" AT 16'-3", A 2" X 1/4" AT 25'-7" FROM FACE OF BENT 1 (SEE PHOTOS)

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 480104 County IREDELL Date: 07/25/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	1	BOTTOM OF DIAPHRAGM @ BEAM 4 HAS A 3 1/2" CRACK. BEAM 4,	
3314	Maintain Steel Superstructure Components	LF	1	BOTTOM WELD OF DIAPHRAGM HAS A 3" CRACK. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	CRACK 2 1/2" LONG IN BOTTOM WELD AT DIAPHRAGM TO BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,	
3314	Maintain Steel Superstructure Components	LF	1	CRACK (2") IN BOTTOM OF DIAPHRAGM. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	CRACK (3") IN TOP OF DIAPHRAGM. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	CRACK (6 1/2") IN BOTTOM OF DIAPHRAGM BRACKET. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	CRACK (6") IN BOTTOM OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	CRACK 11" LONG AT THE BOTTOM OF DIAPHRAGM BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,	
3314	Maintain Steel Superstructure Components	LF	1	CRACK IN BOTTOM WELD OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	1	DIAPHRAGM IS BENT 4 1/2" TO THE EAST @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,	
3314	Maintain Steel Superstructure Components	LF	1	TOP OF DIAPHRAGM @ BEAM 4 HAS A 4" CRACK. BEAM 4,	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 480104 County IREDELL Date: 07/25/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	8	CRACK IN DIAPHRAGM CRACK 11" LONG AT THE BOTTOM OF DIAPHRAGM BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, CRACK 2 1/2" LONG IN BOTTOM WELD AT DIAPHRAGM TO BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, DIAPHRAGM IS BENT 4 1/2" TO THE EAST @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, TOP OF DIAPHRAGM @ BEAM 4 HAS A 4" CRACK. BEAM 4, BOTTOM OF DIAPHRAGM @ BEAM 4 HAS A 3 1/2" CRACK. BEAM 4, BOTTOM WELD OF DIAPHRAGM HAS A 3" CRACK. BEAM 4, SPAN 3 CRACK (6") IN BOTTOM OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 CRACK (3") IN TOP OF DIAPHRAGM. BEAM 4, SPAN 3 CRACK (2") IN BOTTOM OF DIAPHRAGM. BEAM 4, SPAN 3 CRACK (6 1/2") IN BOTTOM OF DIAPHRAGM BRACKET. BEAM 4, SPAN 3 DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3, IS OUT OF PLUMB (3/4") TO THE EAST. BEAM 4, SPAN 3 CRACK IN BOTTOM WELD OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 DIAPHRAGM IS BENT (3/4") UPWARD AT 4'-0" FROM BEAM 4 @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	8	DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3, IS OUT OF PLUMB (3/4") TO THE EAST. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	63	DAMAGE TO BEAM 4 BEAM 4 IS OUT OF PLUMB (1 7/8") TO THE NORTH @ 30'-0" FROM THE FACE OF BENT 3. BEAM 4, WEB OF BEAM 4 IS BENT (1 1/2") INWARD @ 30'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 WEB OF BEAM 4 IS BENT (1 1/4") INWARD @ 28'-6" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	63	POINT OF IMPACT ON BEAM 2 IS 34'-2" FROM THE FACE OF BENT 3. BEAM 2, SPAN 3	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 480104 County IREDELL Date: 07/25/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	63	POINT OF IMPACT ON BEAM 3 IS 33'-3" FROM THE FACE OF BENT 3. BEAM 3, SPAN 3	
3314	Maintain Steel Superstructure Components	LF	63	POINT OF IMPACT ON BEAM 4 IS 33'-10" FROM THE FACE OF BENT 3. GOUGE IN FLANGE (1 1/2" W X 1" L X 1/2" D). INDENTION IN FLANGE (12" X 1/4").	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 480104 County IREDELL

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	8 LF

Location:

Beams and Girders Bent/Span No. 3 DIAPHRAGM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/25/2012	MD OSBORNE	A KING

Details

CRACK IN DIAPHRAGM CRACK 11" LONG AT THE BOTTOM OF DIAPHRAGM BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, CRACK 2 1/2" LONG IN BOTTOM WELD AT DIAPHRAGM TO BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, DIAPHRAGM IS BENT 4 1/2" TO THE EAST @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4, TOP OF DIAPHRAGM @ BEAM 4 HAS A 4" CRACK. BEAM 4, BOTTOM OF DIAPHRAGM @ BEAM 4 HAS A 3 1/2" CRACK. BEAM 4, BOTTOM WELD OF DIAPHRAGM HAS A 3" CRACK. BEAM 4, SPAN 3 CRACK (6") IN BOTTOM OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 CRACK (3") IN TOP OF DIAPHRAGM. BEAM 4, SPAN 3 CRACK (2") IN BOTTOM OF DIAPHRAGM. BEAM 4, SPAN 3 CRACK (6 1/2") IN BOTTOM OF DIAPHRAGM BRACKET. BEAM 4, SPAN 3 DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3, IS OUT OF PLUMB (3/4") TO THE EAST. BEAM 4, SPAN 3 CRACK IN BOTTOM WELD OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 DIAPHRAGM IS BENT (3/4") UPWARD AT 4'-0" FROM BEAM 4 @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 480104 County IREDELL

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	63 LF

Location:		
Beams and Girders	Bent/Span No. 3	BEAM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/25/2012	MD OSBORNE	A KING

Details

DAMAGE TO BEAM 4 BEAM 4 IS OUT OF PLUMB (1 7/8") TO THE NORTH @ 30'-0" FROM THE FACE OF BENT 3. BEAM 4, WEB OF BEAM 4 IS BENT (1 1/2") INWARD @ 30'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3 WEB OF BEAM 4 IS BENT (1 1/4") INWARD @ 28'-6" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

POINT OF IMPACT ON BEAM 4 IS 33'-10'' FROM THE FACE OF BENT 3.

AN INDENTION IN FLANGE FROM 33'-10'' TO 24'-4'' FROM THE FACE OF BENT 3. BEAM 4,

INDENTION (16" X 1/2") IN COVER PLATE @ 32'-0" FROM THE FACE OF BENT 3. BEAM 4,

INDENTION (48" X 3/4") IN COVER PLATE @ 23'-0" FROM THE FACE OF BENT 3. BEAM 4,

BEAM 4 IS OUT OF PLUMB (1 7/8") TO THE NORTH @ 30'-0" FROM THE FACE OF BENT 3. BEAM 4,

WEB OF BEAM 4 IS BENT (1 1/2") INWARD @ 30'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

WEB OF BEAM 4 IS BENT (1 1/4") INWARD @ 28'-6" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

LOOKING AT BEAM 4 FROM BENT 3. BEAM 4 FLANGE AND COVER IS DAMAGED

MARKS ON BOTTOM OF COVER PLATE ON BEAM 4 FROM 22'-6" TO 34'-0"

CRACK 11" LONG AT THE BOTTOM OF DIAPHRAGM BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,

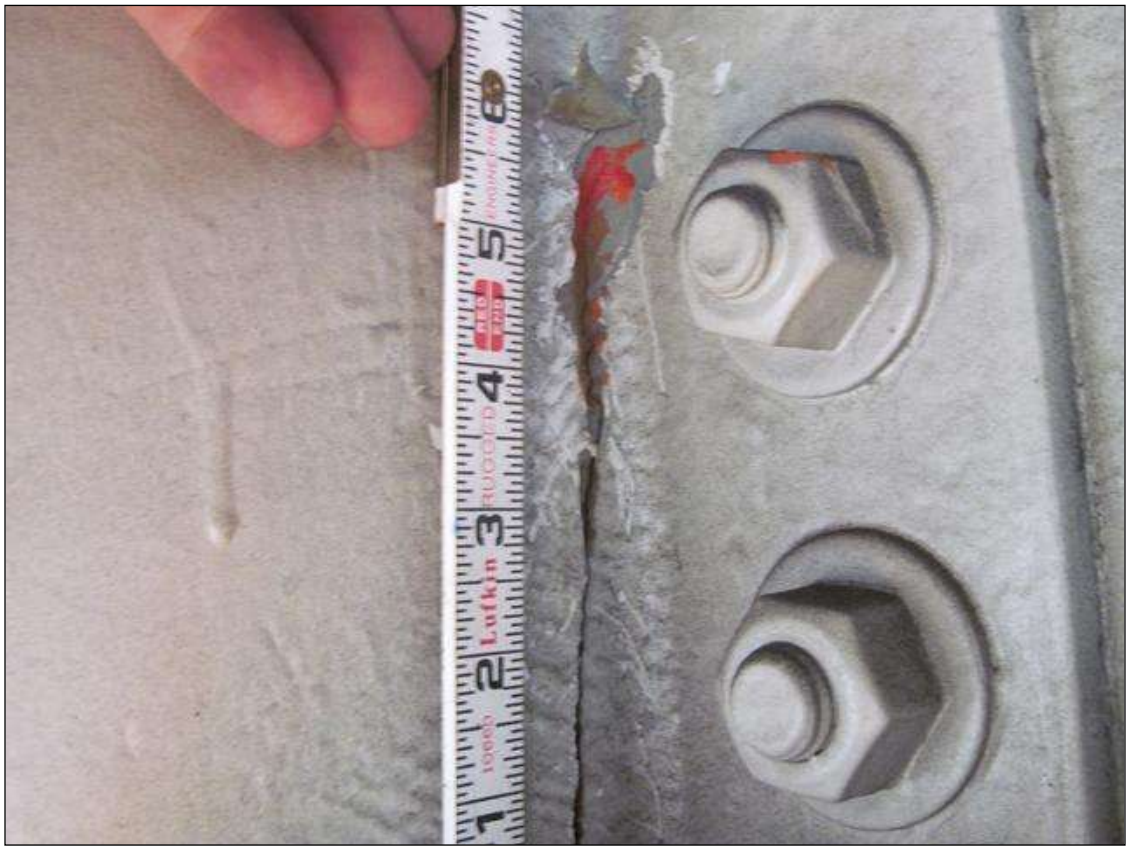
CRACK 2 1/2" LONG IN BOTTOM WELD AT DIAPHRAGM TO BRACKET @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,

DIAPHRAGM IS BENT 4 1/2" TO THE EAST @ 20'-4" FROM THE FACE OF BENT 3. BEAM 4,

TOP OF DIAPHRAGM @ BEAM 4 HAS A 4" CRACK. BEAM 4,

BOTTOM OF DIAPHRAGM @ BEAM 4 HAS A 3 1/2" CRACK. BEAM 4,

BOTTOM WELD OF DIAPHRAGM HAS A 3" CRACK. BEAM 4, SPAN 3



CRACK (6") IN BOTTOM OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

CRACK (3'') IN TOP OF DIAPHRAGM. BEAM 4, SPAN 3

CRACK (2'') IN BOTTOM OF DIAPHRAGM. BEAM 4, SPAN 3

CRACK (6 1/2") IN BOTTOM OF DIAPHRAGM BRACKET. BEAM 4, SPAN 3

DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3, IS OUT OF PLUMB (3/4") TO THE EAST. BEAM 4, SPAN 3

CRACK IN BOTTOM WELD OF DIAPHRAGM @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

DIAPHRAGM IS BENT (3/4") UPWARD AT 4'-0" FROM BEAM 4 @ 37'-4" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

INDENTIONS IN COVER PLATE ON NORTH SIDE OF BEAM 4 @ 36'-3" FROM THE FACE OF BENT 3. BEAM 4, SPAN 3

POINT OF IMPACT ON BEAM 3 IS 33'-3" FROM THE FACE OF BENT 3. BEAM 3, SPAN 3

INDENTION (1/2" X 1/4") IN COVER PLATE @ 35'-1" FROM THE FACE OF BENT 3. BEAM 3, SPAN 3

INDENTION (6" X 1/4") IN COVER PLATE @ 23'-2" FROM THE FACE OF BENT 3. BEAM 3, SPAN 3

POINT OF IMPACT ON BEAM 2 IS 34'-2" FROM THE FACE OF BENT 3. BEAM 2, SPAN 3

INDENTION (13" X 1/4") IN FLANGE ON BEAM 4 @ 21'-2" FROM THE FACE OF BENT 2. BEAM 4, SPAN 3

MARKS ON WEB HAVE BEEN PAINTED OVER. BEAM 4, SPAN 3

INDENTIONS IN FLANGE AND COVER PLATE @ 16'-2" FROM THE FACE OF BENT 2. BEAM 4, SPAN 3

INDENTION (8" X 1/4") IN COVER PLATE @ 15'-5" FROM THE FACE OF BENT 2. BEAM 3, SPAN 3

INDENTION IN FLANGE (8" X 1/4") AND COVER PLATE (5" X 1/16") @ 14'-5" FROM THE FACE OF BENT 2. BEAM 3, SPAN 3

MARKS ON WEB @ 14'-0'' FROM THE FACE OF BENT 2. BEAM 3, SPAN 3

POINT OF IMPACT ON BEAM 2 @ 21'-6'' FROM THE FACE OF BENT 2. BEAM 2, SPAN 2

POINT OF IMPACT ON BEAM 3 @ 20'-2" FROM THE FACE OF BENT 2. BEAM 3, SPAN 2

POINT OF IMPACT ON BEAM 4 @ 19'-1" FROM THE FACE OF BENT 2. BEAM 4, SPAN 2

TOP AND BOTTOM OF DIAPHRAGM BRACKET IS BENT UP TO 2" TO THE EAST. OUT OF PLUMB @ 18'-2" FROM THE FACE OF BENT 2. BEAM 4, SPAN 2

LOOKING AT DIAPHRAGM AND BEAM 4, SPAN 2

MARKS AND SCRAPES ON COVER PLATE TO BEAM 4, SPAN 2

Bridge Inspection Field Sketch

VERIFIED 4/10/12 R.A. PIERCE, M. FORD

I - 40 E.B.L.

LOOKING EAST

Roadway	24ft Wide	2 Paved Lanes	Looking East
Left Shoulder	2ft Wide	2ft Paved	
Right Shoulder	2ft Wide	2ft Paved	
Left Guardrail	2ft from road		
Right Guardrail	2ft from road		

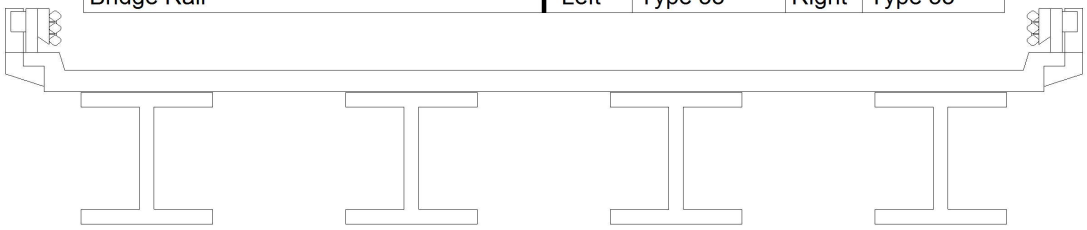
Title	**Description**
APPR. RDWY.	APPR. RDWY.

Bridge No: 480104	**Drawn By:** RAP	**Date:** 08/29/2006	**File Name:** S0318000294

Bridge Inspection Field Sketch

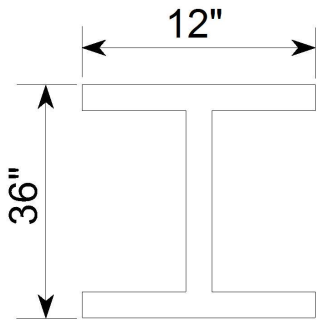
VERIFIED 4/10/12 R.A. PIERCE, M. FORD

Deck Width/Out to Out	31.5ft	Between Rails				28ft
Clear Roadway	28ft	Wearing Surface				
Median Width		Median Height				
Curb Height		Left	.75ft	Right	.75ft	
Sidewalk Width		Left		Right		
Clear Roadway (Rail to Median)		Left		Right		
Guardrail Width		Left	2.667ft	Right	2.667ft	
Top of Rail to Deck/Wearing Surface		Left	2.583ft	Right	2.583ft	
Bridge Rail		Left	Type 33	Right	Type 33	



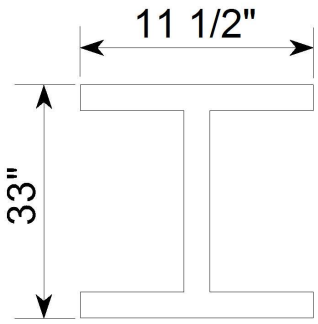
Measurements for Span #	4		
Deck Thickness	.625	Left Overhang	3.75
Top of Rail to Bottom of Beam	6.208	Right Overhang	3.75

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	8.0ft	
2	Steel I Beam	8.0ft	
3	Steel I Beam	8.0ft	
4	Steel I Beam	ft	



FLANGE THICKNESS: 7/8"
WEB THICKNESS: 1/2"

BM. # 1 & 4



FLANGE THICKNESS: 3/4"
WEB THICKNESS: 1/2"

BM. # 2 & 3

Title	Description
SUPER.	DECK SECTION

Bridge No:	Drawn By:	Date:	File Name:
480104	RAP	08/29/2006	S0318000295

Bridge Inspection Field Sketch

VOID

Title	Description
VOID	VOID

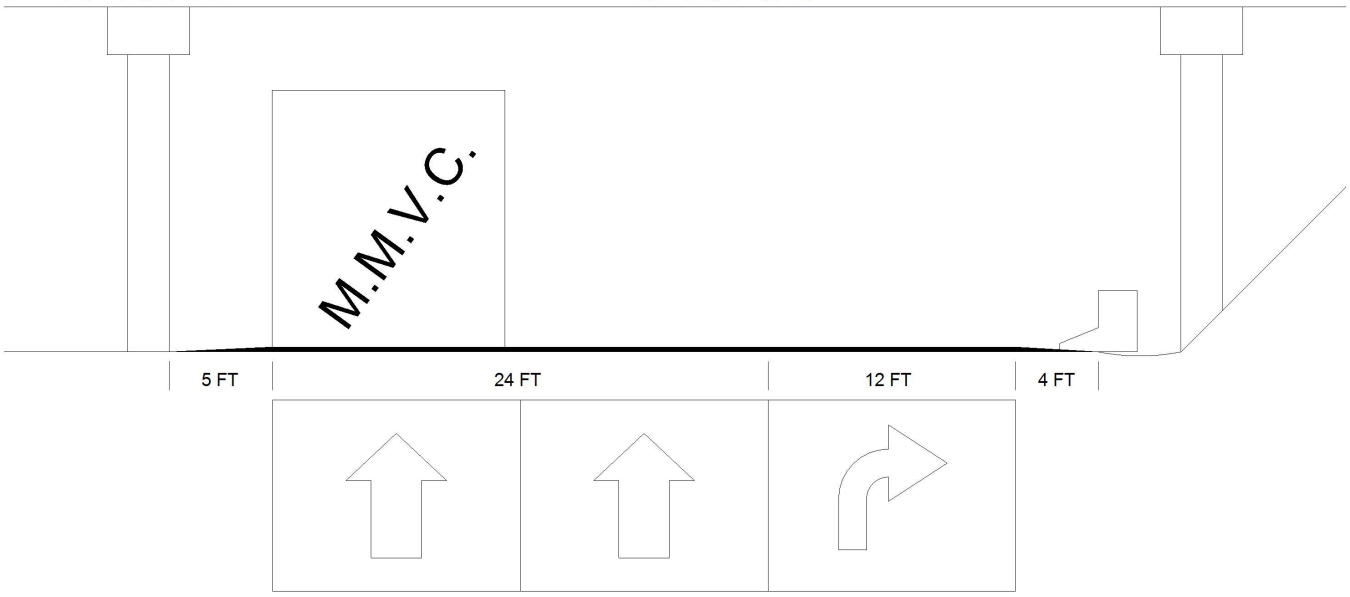
Bridge No:	Drawn By:	Date:	File Name:
480104	CJS	08/29/2006	S0318000298

Bridge Inspection Field Sketch

VERIFIED 4/10/12 R.A. PIERCE, M. FORD

EAST

I - 40 E.B.L. SPAN # 3



U.S. 64 / N.C. 90 W.B.L. RAMP

LOOKING WEST

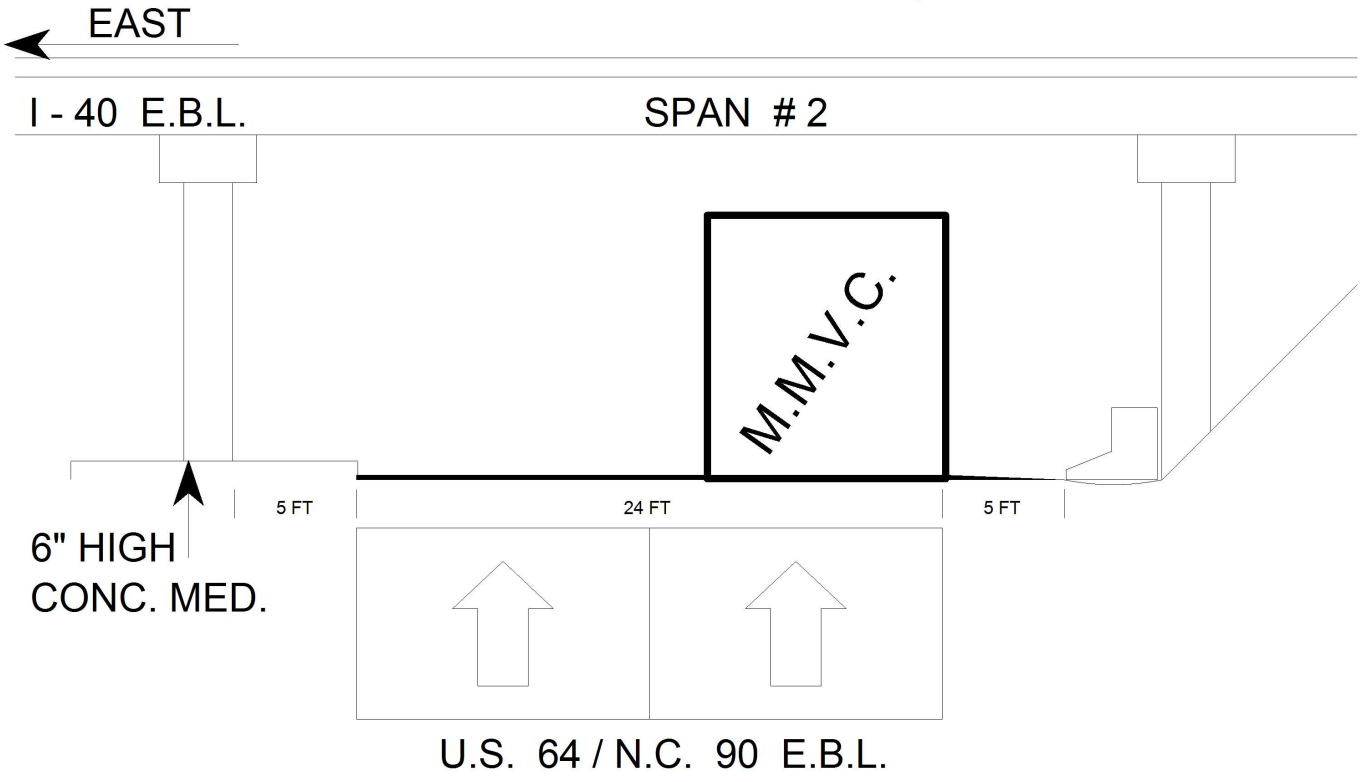
Roadway 1		Direction of Traffic	West
Distance to Left Rail		Distance to Right Rail	16FT
Distance to Left Toe of Slope		Distance to Left Bent	5FT
Distance to Right Toe of Slope	20FT	Distance to Right Bent	18FT
MMVC	13.917 Ft at Beam 4, 10 FT from LT. EDGE OF RDWY.		
MVC	13.833 Ft at Beam 4, 0 FT from RT. EDGE OF RAMP		

Title	**Description**
CLEARANCE 2	CLR. FOR SPAN # 3

Bridge No: 480104	**Drawn By:** RAP	**Date:** 09/03/2006	**File Name:** S0318000317

Bridge Inspection Field Sketch

VERIFIED 4/10/12 R.A. PIERCE, M. FORD



LOOKING EAST

Roadway 1		Direction of Traffic	East
Distance to Left Rail		Distance to Right Rail	5FT
Distance to Left Toe of Slope		Distance to Left Bent	6FT
Distance to Right Toe of Slope	9FT	Distance to Right Bent	7FT
MMVC	14.583 Ft at Beam 4, 10 FT from RT. EDGE OF RDWY.		
MVC	14.5 Ft at Beam 4, 0 FT from LT. EDGE OF RDWY.		

Title	**Description**
CLEARANCE 1	CLR. FOR SPAN # 2.

Bridge No: 480104	**Drawn By:** RAP	**Date:** 09/03/2006	**File Name:** S0318000318

Bridge Inspection Field Sketch

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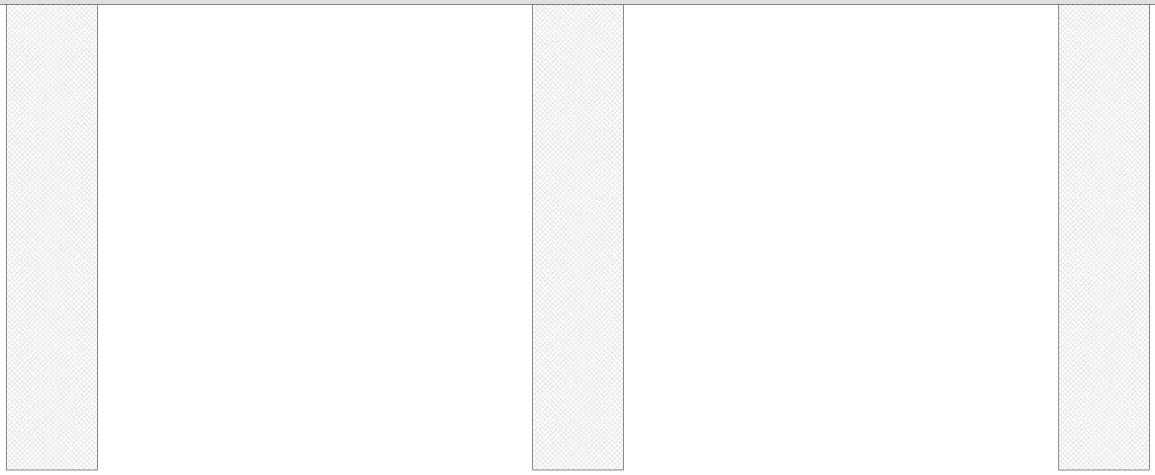

Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
37.000 ft.	2.500 ft.	2.500 ft.	4.000 ft.	4.000 ft.	1.859 ft.	1.859 ft.

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	14.5 ft.	2.5 ft.			Vertical	No	No	No	No
2	Concrete	14.5 ft.	2.5 ft.			Vertical	No	No	No	No
3	Concrete		2.5 ft.			Vertical	No	No	No	No

ABUTS.: R.C. CAP ON P.P.C. PILES

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

Title	**Description**
PIERS	PIERS

Bridge No: 480104	**Drawn By:** RAP	**Date:** 9/11/2008	**File Name:** S0230000020

LOOKING NORTH

LOOKING SOUTH