



NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BRIDGE MANAGEMENT UNIT

ATTENTION

VERTICAL CLR. CHECKED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GASTON BRIDGE NUMBER 350138 INSPECTION CYCLE 2 YRS
 ROUTE SOUTHERN RR ACROSS I85 M.P. 22800

LOCATION 0.4 MI. E. JCT. SR2339

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE EBTS:RC CAP & STEEL PILES, INTBNTS: 4 COLUMN, RC POST & BEAM

SPANS 1@51'8, 1@59'6, 1@54'5, 1@51'0

LONGITUDE 81° 5' 56.11"

LATITUDE 35° 15' 39.07"

INSPECTION DATE 08/21/2014

PRESENT CONDITION CLEARANCE ONLY

PRESENT POSTING Not Posted

PROPOSED POSTING _____

OTHER SIGNS PRESENT NONE

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



LOOKING NORTH

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: 08/27/2014

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **350138**
 (8) STRUCTURE NUMBER(FEDERAL) 00000000710138
 (5) INVENTORY ROUTE (ON/UNDER) - ON 11000850
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 1
 (3) COUNTY CODE 71 (4) PLACE CODE 39480
 (6) FEATURE INTERSECTED - I85
 (7) FACILITY CARRIED SOUTHERN RR
 (9) LOCATION 0.4 MI. E. JCT. SR2339
 (11) MILEPOINT 22.8
 (16) LAT 35° 15' 39.07" (17) LONG 81° 5' 56.11"
 (98) BORDER BRIDGE STATE CODE PCT SHARE
 (99) BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 0
 STATUS = Functionally Obsolete

CLASSIFICATION **CODE**

(112) NBIS BRIDGE SYSTEM - NO
 (104) HIGHWAY SYSTEM Is on the NHS 1
 (26) FUNCTIONAL CLASS - Arterial - Interstate 11
 (100) STRAHNET HIGHWAY - Interstate STRAHNET Route 1
 (101) PARALLEL STRUCTURE - No Parallel Structure N
 (102) DIRECTION OF TRAFFIC - 2-way Traffic 2
 (103) TEMPORARY STRUCTURE -
 (110) DESIGNATED NATIONAL NETWORK - On the National Network 1
 (20) TOLL On Free Road 3
 (31) MAINTAIN - Railroad 27
 (22) OWNER - Railroad 27
 (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 N
 (59) SUPERSTRUCTURE N
 (60) SUBSTRUCTURE N
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

LOAD RATING AND POSTING **CODE**

(31) DESIGN LOAD Railroad 8
 (63) OPERATING RATING METHOD - No Rating Analysis or Evaluatic 5
 (64) OPERATING RATING - HS- 0
 (65) INVENTORY RATING METHOD - No Rating Analysis or Evaluatic 5
 (66) INVENTORY RATING - HS- 0
 (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 - Railroad
 UNDER - Highway CODE 21
 (28) LANES: ON STRUCTURE 0 UNDER STRUCTURE 6
 (29) AVERAGE DAILY TRAFFIC 119000
 (30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 16%
 (19) BYPASS OR DETOUR LENGTH 2 MI

APPRAISAL **CODE**

(67) STRUCTURAL EVALUATION 9
 (68) DECK GEOMETRY 2
 (69) UNDERCLEARANCES, VERTI & HORIZ 3
 (71) WATERWAY ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 0
 (36) TRAFFIC SAFETY FEATURES NNNN
 (113) SCOUR CRITICAL BRIDGES N

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 60 FT
 (49) STRUCTURE LENGTH 217 FT
 (50) CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 0 FT
 (52) DECK WIDTH OUT TO OUT 0 FT
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 0 FT
 (33) BRIDGE MEDIAN - No Median CODE 0
 (34) SKEW 0° (35) STRUCTURE FLARED 0
 (10) INVENTORY ROUTE MIN VERT CLEAR 16.583 FT
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 46.5 FT
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
 (54) MIN VERT UNDERCLEAR REF Highway 16.083 FT
 (55) MIN LAT UNDERCLEAR RT REF Highway 6.583 FT
 (56) MIN LAT UNDERCLEAR LT REF - 3.333 FT

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 238000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 08/21/2014
 (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: 350138

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	16.58	22.80	1	10085		11	3	59500	2012	46.5	H	16.25	3.33	7.17	9	1	1	1
3	I 85 N	11000850	16.17	22.80	1	10085		11	3	59500	2012	45.92	H	16.08	6.58	3.33	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: 08/27/2014

COUNTY : GASTON DIVISION : 12 DISTRICT : 1 STRUCTURE NUMBER : 350138 LENGTH : 217 FEET

ROUTE CARRIED : SOUTHERN RR FEATURE INTERSECTED : I85

LOCATED : 0.4 MI. E. JCT. SR2339 BRIDGE NAME : CITY : LOWELL

FUNC. CLASS : 11 SYST.ON : FA SYST.UNDER : NFA ADT & YR : 119000 2012 RAIL TYPE : LT 139 RT 139

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

REHAB : BY : PROJ : ALIGNMENT : TAN SKEW : 90 LANES : ON 0 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/H-PILES; INT.BTS: RC POST & BEAM

SPANS : 1@51'-8, 1@59'-6, 1@54'-5, 1@51'

BEAMS OR GIRDERS : 13 LINES 36 I-BEAMS @ 2'-6 CENTERS

FLOOR : ENCROACHMENT : DECK (OUT TO OUT) : 0 FT

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

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS- OPE.RTG. : HS- CONTR.MEMBER : POSTED : SV TTST DATE

SYSTEM : Primary Interstate GREEN LINE ROUTE : U

UNDER ROUTES AND CLEARANCES

Span	Route Description	Vertical Clearances		Horizontal Clearances		
		MMVC	MVC	Total	Left	Right
2	I 85 S	16.5830	16.25	46.50	7.1670	3.3330
3	I 85 N	16.1670	16.0830	45.9160	3.3330	6.5830

Note: All measurements are in feet.

REMARKS :

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 350138 COUNTY GASTON ROUTE SOUTHERN RR OVER I85
 STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS
 ROUTE ORIENTATION SPANS 1@51'8, 1@59'6, 1@54'5, 1@51'0

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		45. CHANNEL & CHANNEL PROT.	a. WATERWAY
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58			b. ALIGNMENT
a. CONCRETE			c. SCOUR
b. TIMBER			d. SLOPE PROT., RIP-RAP, DIKES, ETC.
c. STEEL PLANK			50. APPROACH ROADWAY CONDITION
d. OPEN GRID		51. APPROACH SLABS	
3. RAILING		52. PAINT SYSTEM	CODE
a. CONCRETE		53. UTILITIES	
b. TIMBER		54. RESPONSE TO LIVE LOAD	
c. ALUMINUM		55. ESTIMATED REMAINING LIFE	
d. STEEL			
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)		60. REGULATORY SIGN NOTICE ISSUED	
6. DECK EXP JTS. OR DEVICES. NO. OF EACH		61. PROMPT-ACTION NOTICE ISSUED	
a. STEEL PL OR FINGER		62. PRESENTLY POSTED	
b. MISC PREFAB		63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)	2
c. COMPRESSION SEAL		64. TOTAL SNOOPER INSP. TIME (HRS)	
d. STANDARD JOINTS		65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)	
e. OPEN JOINTS			
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)		70. SI&A GENERAL CONDITION RATINGS	
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59		a. DECK	ITEM 58
10. LONGITUDINAL BEAMS OR GIRDERS		b. SUPERSTRUCTURE	ITEM 59
11. LONGITUDINAL JOIST OR STRINGERS		c. SUBSTRUCTURE	ITEM 60
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S		d. CHANNEL & CHANNEL PROT.	ITEM 61
13. END DIAP'S, CURTAIN WALLS, & CONN'S		71. SI&A FIELD APPRAISAL RATINGS	
14. FLOOR BEAMS AND CONNECTIONS		a. WATERWAY ADAQUACY	
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)		b. APPR. RDWY. ALIGNMENT	
16. DRAINAGE SYSTEM (ON STRUCTURE)			
17. MOVABLE SPAN MACHINERY		72. FIELD SCOUR EVALUATION	
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)		USE OF INSP. ACCESSIBILITY EQUIPMENT	
35. TIM SUB STR.		SNOOPER (CODE S, 4, OR N)	HRS
a. ABUT. & INT. BENT CAPS & RISERS		LADDER	
b. PILES, POST, SILLS, & BRACING		BUCKET TRUCK	
c. BULKHEADS, WING'S, & TIE BACKS		BOAT	
36. CONC SUB STR.		OTHER	
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.		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)			
40. FENDER SYSTEMS		80. INSPECTED BY:	<i>Jed Ad 2/20/10</i>
41. DRIFT		81. REVIEWED BY:	

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways	FIELD INSPECTION REPORT <u>Bridge Inspeccion & Analysis</u>	
Team Leader DEREK RICKUS		
Assisted By EAP		
Item No.	Grade	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 350138

County GASTON

Date: 08/21/2014

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
0	No Maintenance Required	NA	0	VERTICAL CLR. ONLY	

Key



Priority Maintenance Item

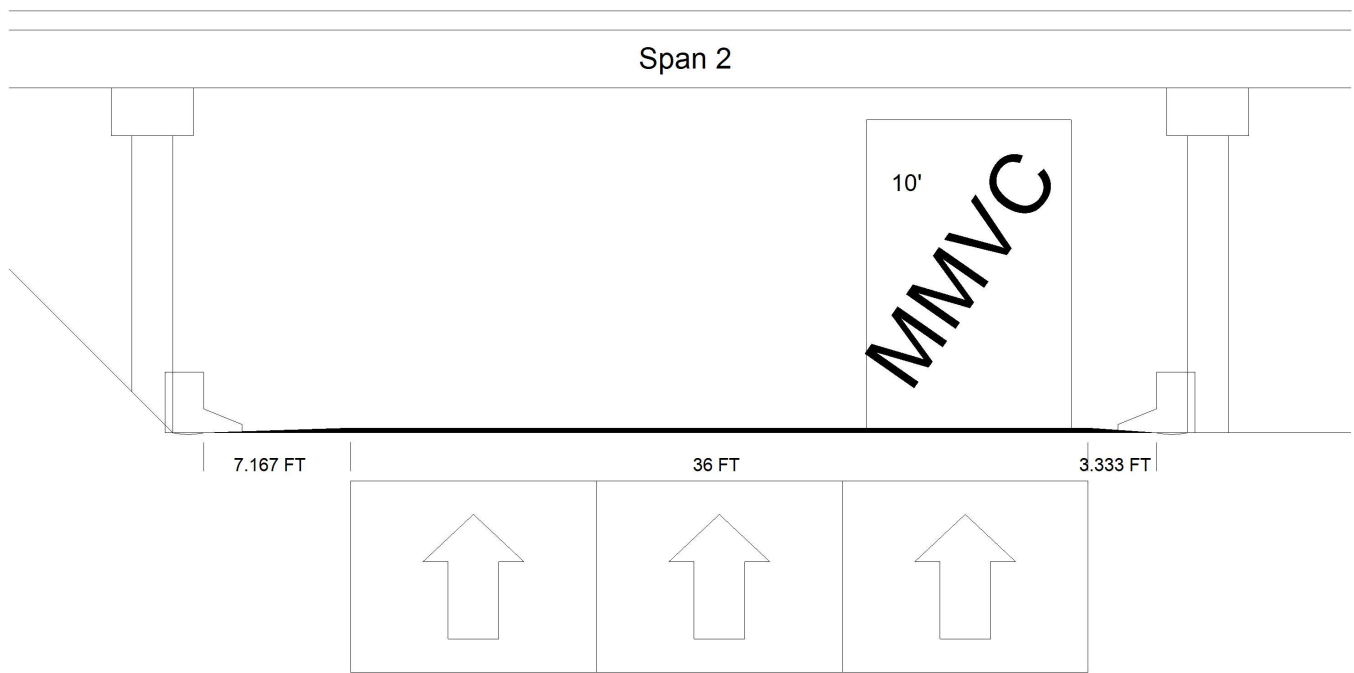


Critical Finding Item



Priority Maintenance Level Not Determined

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	South
Distance to Left Rail	7.167FT	Distance to Right Rail	3.333FT
Distance to Left Toe of Slope	8.667FT	Distance to Left Bent	8.667FT
Distance to Right Toe of Slope	15.833FT	Distance to Right Bent	4.833FT
MMVC	16.583 Ft at Beam 1, 10 FT from RIGHT EDGE OF ROADWAY		
MVC	16.25 Ft at Beam 1, 0 FT from LEFT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 8/21/2014

Title

SPAN #2 OVER I-85 SB

Description

SPAN #2 UNDERCLEARANCE

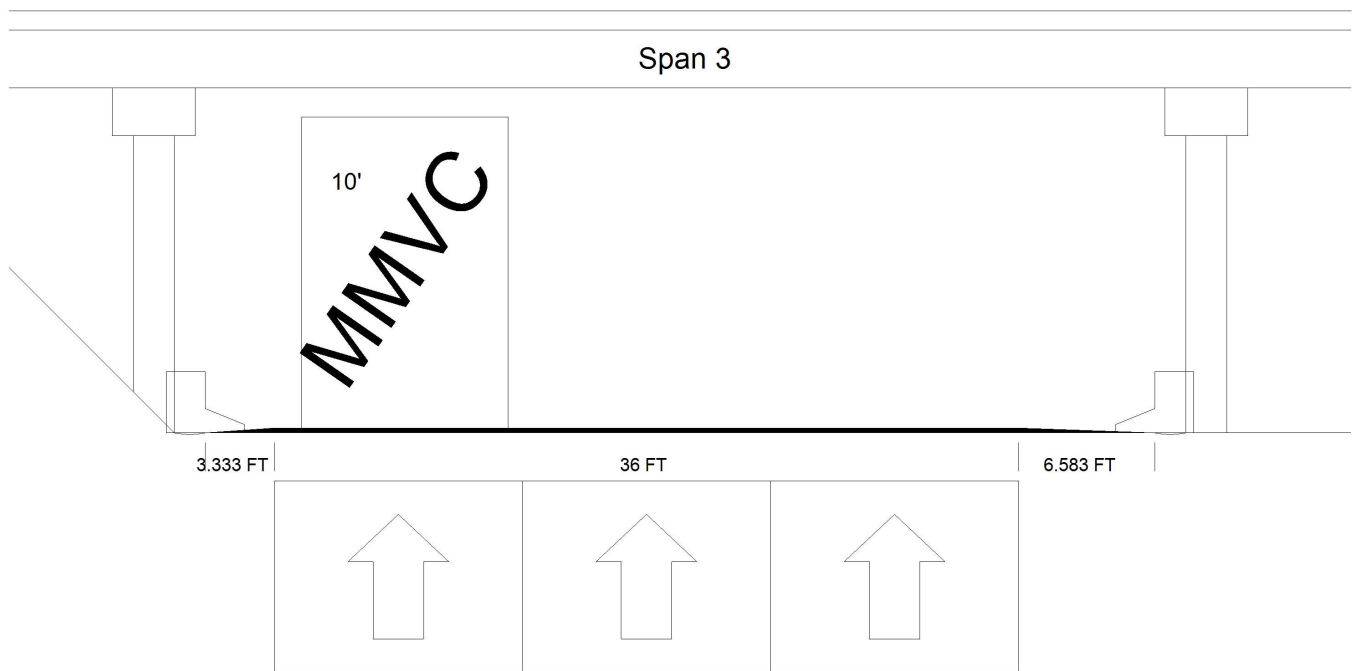
Bridge No: 350138

Drawn By: DJA

Date: 8/21/2008

File Name: S0146030530

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	North
Distance to Left Rail	3.333FT	Distance to Right Rail	6.583FT
Distance to Left Toe of Slope	4.833FT	Distance to Left Bent	4.833FT
Distance to Right Toe of Slope	19.083FT	Distance to Right Bent	8.083FT
MMVC	16.167 Ft at Beam 1, 10 FT from LEFT EDGE OF ROADWAY		
MVC	16.083 Ft at Beam 1, 0 FT from RIGHT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 8-21-2014

Title

SPAN #3 OVER I-85 NB

Description

SPAN #3 UNDERCLEARANCE

Bridge No: 350138

Drawn By: DJA

Date: 8/21/2008

File Name: S0146030531



LOOKING NORTH



LOOKING SOUTH