



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 350129 INSPECTION CYCLE 2 YRS

ROUTE S.C.L. RAILROAD ACROSS I85 M.P. 19000

LOCATION 0.2 MI. S. JCT. NC7

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE END BENTS:RC CAP & STEEL PILES,INTERIOR BENTS:RC POST & BEAM

SPANS 1@37'0, 2@66'7, 1@53'8, 1@45'4

LONGITUDE 81° 9' 42.80"

LATITUDE 35° 16' 24.13"

INSPECTION DATE 08/26/2014

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>



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	_____

LOOKING NORTH

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

Run Date: 08/27/2014

**IDENTIFICATION**

(1) STATE NAME -NORTH CAROLINA BRIDGE **350129**  
 (8) STRUCTURE NUMBER(FEDERAL) 00000000710129  
 (5) INVENTORY ROUTE (ON/UNDER) - ON 11000850  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 1  
 (3) COUNTY CODE 71 (4) PLACE CODE 25580  
 (6) FEATURE INTERSECTED - I85  
 (7) FACILITY CARRIED S.C.L. RAILROAD  
 (9) LOCATION 0.2 MI. S. JCT. NC7  
 (11) MILEPOINT 19  
 (16) LAT 35° 16' 24.13" (17) LONG 81° 9' 42.80"  
 (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 5  
 (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 1963  
 (106) YEAR RECONSTRUCTED  
 (42) TYPE OF SERVICE : ON - Railroad  
 UNDER - Highway CODE 21  
 (28) LANES: ON STRUCTURE 0 UNDER STRUCTURE 7  
 (29) AVERAGE DAILY TRAFFIC 102000  
 (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 67 FT  
 (49) STRUCTURE LENGTH 269 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 29° (35) STRUCTURE FLARED 0  
 (10) INVENTORY ROUTE MIN VERT CLEAR 19.333 FT  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 49.4 FT  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT  
 (54) MIN VERT UNDERCLEAR REF Highway 15.775 FT  
 (55) MIN LAT UNDERCLEAR RT REF Highway 5.75 FT  
 (56) MIN LAT UNDERCLEAR LT REF - 7 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 204000 (115) YEAR FUTURE ADT 2025

**INSPECTIONS**

(90) INSPECTION DATE 08/26/2014  
 (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: 350129

County: GASTON

Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Nuner of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1							Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade	STRAHNET Highway Designator	Direction of Traffic	
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	I 85 S RAMP	17000850	19.33	19	1	10085		11	1	25500	2012	24.5	H	19.25	12.5	13.92	9	0	1	1
3	I 85 S	11000850	17.67	19	1	10085		11	3	51000	2012	49.42	H	16	7	6.42	9	1	1	1
4	I 85 N	11000850	17.8	19	1	10085		11	3	51000	2012	48.75	H	15.78	5.75	7	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 : 350129                      LENGTH : 269 FEET

ROUTE CARRIED : S.C.L. RAILROAD                      FEATURE INTERSECTED : I85

LOCATED : 0.2 MI. S. JCT. NC7                      BRIDGE NAME :                      CITY : GASTONIA

FUNC. CLASS : 11                      SYST.ON : FA                      SYST.UNDER : NFA                      ADT & YR : 102000 2012                      RAIL TYPE : LT 0 RT 0

BUILT : 1963                      BY : SHC                      PROJ : 8.16361                      FED.AID PROJ : I-85-1(14)18                      DESIGN LOAD : Railroad

REHAB :                      BY :                      PROJ :                      ALIGNMENT : TAN                      SKEW : 61                      LANES : ON 0 UNDER 7

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/ PILE FOOTINGS

SPANS : 1@37', 2@66'-7", 1@53'-8", 1@45'-4"

BEAMS OR GIRDERS : 5 LINES 36" I-BEAMS @ 3'-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 RAMP	19.3330	19.25	24.50	13.9170	12.50
3	I 85 S	17.6670	16	49.4170	6.4170	7
4	I 85 N	17.80	15.7750	48.75	7	5.75

*Note: All measurements are in feet.*

REMARKS :

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 350129 COUNTY GASTON ROUTE S.C.L. RAILROAD OVER I85  
 STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS  
 ROUTE ORIENTATION SPANS 1@37'0, 2@66'7, 1@53'8, 1@45'4

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>JW Rich 2/20/16</i>
41. DRIFT		81. REVIEWED BY:	

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways	<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>	

# **BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS**

Bridge: 350129

County GASTON

Date: 08/26/2014

**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

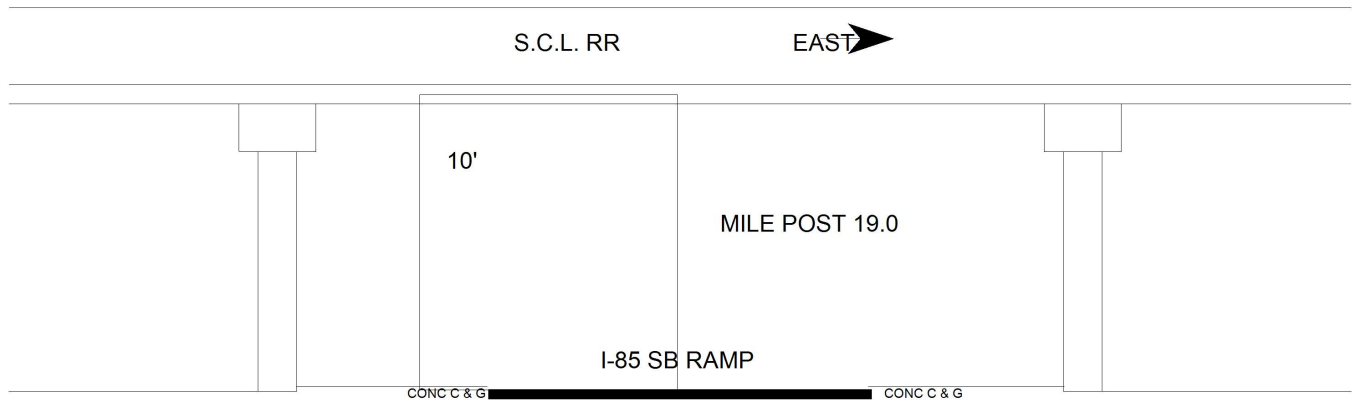


Critical Finding Item



Priority Maintenance Level Not Determined

# Bridge Inspection Field Sketch



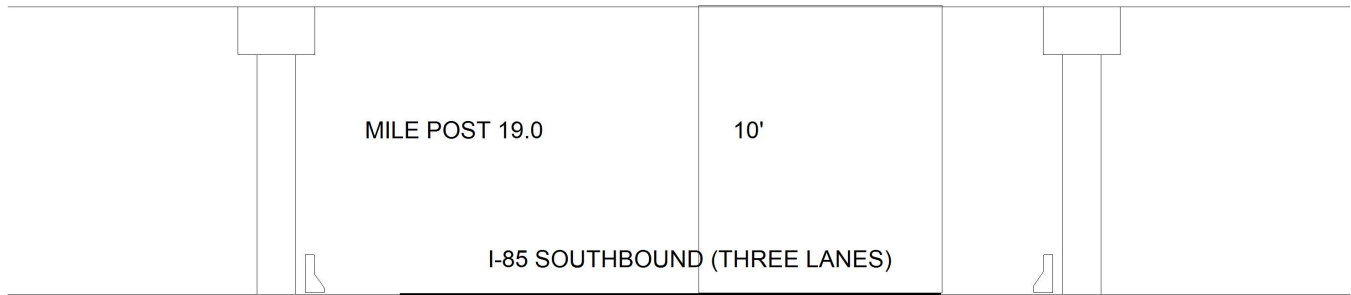
Roadway	20.5ft Wide	1 Paved Lanes	All Lanes SouthBound
Left Shoulder	13.917ft Wide		
Right Shoulder	12.5ft Wide		
Left Turn Lane(s)			
Right Turn Lane(s)			
Distance to Left Bent	13.917ft		
Distance to Left Toe of Slope			
Distance to Right Bent	12.5ft		
Distance to Right Toe of Slope			
Max. Min. Vertical Clearance	19.333ft	10ft from Left edge of road	at beam # 5
Minimum Vertical Clearance	19.25ft	0ft from Left edge of road	at beam # 5

VERIFIED BY DEREK RICKUS ON 8/26/2014

<b>Title</b> S.C.L. RAILROAD OVER I-85 RAMP	<b>Description</b> SPAN 2 OVER SB RAMP
<b>Bridge No:</b> 350129	<b>Drawn By:</b> DCR
<b>Date:</b> 8/28/08	<b>File Name:</b> S0146030352



# Bridge Inspection Field Sketch



Roadway	36ft Wide	3 Paved Lanes	All Lanes SouthBound
Left Shoulder	6.417ft Wide		Guardrail: 6.417ft from road
Right Shoulder	7ft Wide		Guardrail: 7ft from road
Left Turn Lane(s)			
Right Turn Lane(s)			
Distance to Left Bent	7.917ft		
Distance to Left Toe of Slope			
Distance to Right Bent	8.5ft		
Distance to Right Toe of Slope			
Max. Min. Vertical Clearance	17.667ft	10ft from Right edge of road	at beam # 5
Minimum Vertical Clearance	16ft	0ft from Left edge of road	at beam # 5

VERIFIED BY DEREK RICKUS ON 8/26/2014

**Title**

S.C.L. RAILROAD OVER I-85 SB

**Description**

SPAN 3 OVER I-85 SOUTHBOUND

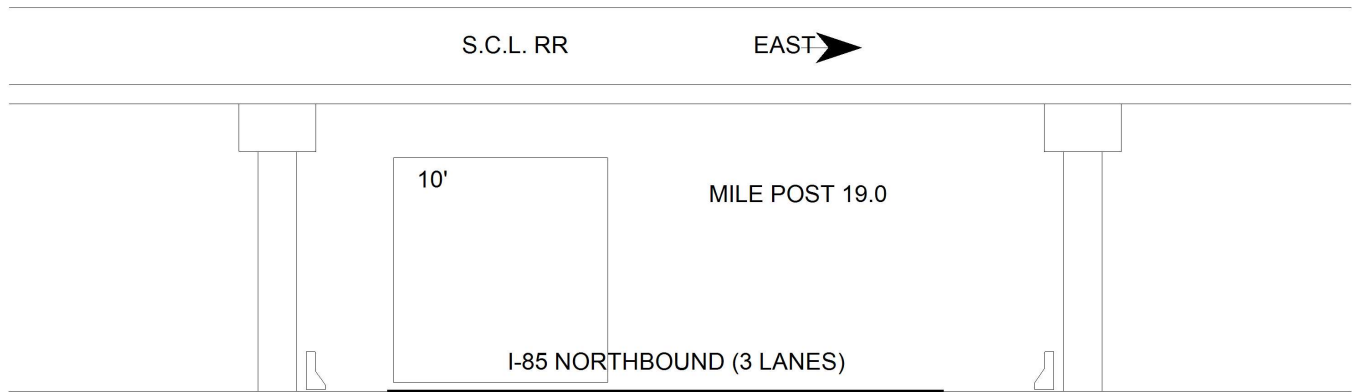
Bridge No: 350129

Drawn By: DCR

Date: 8/28/08

File Name: S0146030353

# Bridge Inspection Field Sketch



Roadway	36ft Wide	3 Paved Lanes	All Lanes NorthBound
Left Shoulder	7ft Wide		Guardrail: 7ft from road
Right Shoulder	5.75ft Wide		Guardrail: 5.75ft from road
Left Turn Lane(s)			
Right Turn Lane(s)			
Distance to Left Bent	8.5ft		
Distance to Left Toe of Slope			
Distance to Right Bent	7.25ft		
Distance to Right Toe of Slope			
Max. Min. Vertical Clearance	17.8ft	10ft from Left edge of road	at beam # 5
Minimum Vertical Clearance	15.775ft	0ft from Right edge of road	at beam # 5

VERIFIED BY DEREK RICKUS ON 8/26/2014

**Title**

S.C.L. RAILROAD OVER I-85 NB

**Description**

SPAN 4 OVER I-85 NORTHBOUND

Bridge No: 350129

Drawn By: DCR

Date: 8/28/08

File Name: S0146030354



LOOKING SOUTH



LOOKING NORTH