



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRIDGE MANAGEMENT UNIT

ATTENTION

TEMP. REPAIR - REPLACED AREAS OF CONCRETE  
 TO CAPS AT INT. BENTS.

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY JACKSON BRIDGE NUMBER 490032 INSPECTION CYCLE 2 YRS  
 ROUTE NC116 ACROSS SAVANNAH CREEK M.P. 0

LOCATION 0.2 MI.S.JCT.SR1323

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:RC CAPS/H-PILES;INT.BTS:RC POST&BEAM

SPANS 1 @ 50'-8; 1 @ 50'; 1 @ 50'-8

LONGITUDE 83° 14' 20.0"

LATITUDE 35° 20' 30.0"

PRESENT CONDITION FAIR

INVENTORY RATING \_\_\_\_\_

INSPECTION DATE 01/17/2012

OPERATING RATING \_\_\_\_\_

PRESENT POSTING SV 26 TTST 31 SV 26 TTST 31

PROPOSED POSTING \_\_\_\_\_

COMPUTER UPDATE \_\_\_\_\_

ANALYSIS DATE \_\_\_\_\_

POSTING LETTER DATE \_\_\_\_\_

SUFFICIENCY RATING \_\_\_\_\_

OTHER SIGNS PRESENT DELINEATORS [4]



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: 02/16/2012

**IDENTIFICATION**

(1) STATE NAME -NORTH CAROLINA BRIDGE **490032**  
 (8) STRUCTURE NUMBER(FEDERAL) 00000000990032  
 (5) INVENTORY ROUTE (ON/UNDER) - ON 31001160  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 2  
 (3) COUNTY CODE 99 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED - SAVANNAH CREEK  
 (7) FACILITY CARRIED NC116  
 (9) LOCATION 0.2 MI.S.JCT.SR1323  
 (11)MILEPOINT 0  
 (16)LAT 35° 20' 16.0" (17)LONG 83° 14' 12.9"  
 (98)BORDER BRIDGE STATE CODE PCT SHARE  
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 14.23  
 STATUS = Structurally Deficient

**CLASSIFICATION** **CODE**

(112)NBIS BRIDGE SYSTEM - YES  
 (104)HIGHWAY SYSTEM Is not on NHS 0  
 (26) FUNCTIONAL CLASS - Major Collector 07  
 (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 - Temporary Structure/Conditions T  
 (110)DESIGNATED NATIONAL NETWORK - Not on the National Network 0  
 (20) TOLL On Free Road 3  
 (31) MAINTAIN - State Highway Agency 01  
 (22) OWNER - State Highway Agency 01  
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

**STRUCTURE TYPE AND MATERIAL**

(43) STRUCTURE TYPE MAIN: Steel  
 TYPE - Stringer Mutlibeam or Girder CODE 302  
 (44) STRUCTURE TYPE APPR :  
 TYPE - CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 3  
 (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 7  
 (59) SUPERSTRUCTURE 5  
 (60) SUBSTRUCTURE 4  
 (61) CHANNEL & CHANNEL PROTECTION 7  
 (62) CULVERTS N

**LOAD RATING AND POSTING** **CODE**

(31) DESIGN LOAD H 15 2  
 (63) OPERATING RATING METHOD - Load Factor  
 (64) OPERATING RATING - HS-1 101  
 (65) INVENTORY RATING METHOD - Load Factor  
 (66) INVENTORY RATING - HS-1 101  
 (70) BRIDGE POSTING - Posting Required 4  
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED P  
 DESCRIPTION - Posted for Load

**AGE AND SERVICE**

(27) YEAR BUILT 1951  
 (106)YEAR RECONSTRUCTED  
 (42) TYPE OF SERVICE : ON - Highway  
 UNDER - Waterway CODE 15  
 (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE  
 (29) AVERAGE DAILY TRAFFIC 5500  
 (30) YEAR OF ADT 2010 (109) TRUCK ADT PCT 7%  
 (19) BYPASS OR DETOUR LENGTH 2 MI

**APPRAISAL** **CODE**

(67) STRUCTURAL EVALUATION 4  
 (68) DECK GEOMETRY 2  
 (69) UNDERCLEARANCES,VERTI & HORIZ N  
 (71) WATERWAY ADEQUACY 7  
 (72) APPROACH ROADWAY ALIGNMENT 7  
 (36) TRAFFIC SAFETY FEATURES 0000  
 (113)SCOUR CRITICAL BRIDGES 8

**GEOMETRIC DATA**

(48) LENGTH OF MAXIMUM SPAN 51 FT  
 (49) STRUCTURE LENGTH 151 FT  
 (50)CURB OR SIDEWALK: LEFT 1 FT RIGHT 1 FT  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 24 FT  
 (52) DECK WIDTH OUT TO OUT 25.4 FT  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 19 FT  
 (33) BRIDGE MEDIAN - No Median CODE 0  
 (34) SKEW 45° (35) STRUCTURE FLARED 0  
 (10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 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

**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 11000 (115) YEAR FUTURE ADT 2025

**INSPECTIONS**

(90) INSPECTION DATE 01/17/2012  
 (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

**NAVIGATION DATA**

(38) NAVIGATION CONTROL - No Navigational Control CODE 0  
 (111)PIER PROTECTION - CODE  
 (39) NAVIGATION VERTICAL CLEARANCE 0  
 (116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT  
 (40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 02/16/2012

COUNTY : JACKSON      DIVISION : 14      DISTRICT : 2      STRUCTURE NUMBER : 490032      LENGTH : 151 FEET

ROUTE CARRIED : NC116      FEATURE INTERSECTED : SAVANNAH CREEK

LOCATED : 0.2 MI.S.JCT.SR1323      BRIDGE NAME :      CITY :

FUNC. CLASS : 07      SYST.ON : FA      SYST.UNDER : NFA      ADT & YR : 5500 2010      RAIL TYPE : LT 181 RT 181

BUILT : 1951      BY : SHPWC      PROJ : 9546      FED.AID PROJ :      DESIGN LOAD : H 15

REHAB :      BY :      PROJ :      ALIGNMENT : TAN      SKEW : 135      LANES : ON 2 UNDER

NAVIGATION : VC 0 FT      HC 0 FT      HT. CRN. TO BED : 16 FT      WATER DEPTH : 1 FT

SUPERSTRUCTURE : REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:RC CAPS/H-PILES;INT.BTS:RC POST&BEAM

SPANS : 1 @ 50'-8; 1 @ 50'; 1 @ 50'-8

BEAMS OR GIRDERS : 4 LINES 30 I-BEAMS @ 6'-9 CENTERS

FLOOR : 6.5 RC/2.5 AWS      ENCROACHMENT : UTILITY LINE      DECK (OUT TO OUT) : 25.4 FT

CLEAR ROADWAY : 24 FT      BETWEEN RAILS : 26.1 FT      SIDEWALK OR CURB : LT 1 FT RT 1 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-1      OPE.RTG. : HS-1      CONTR.MEMBER : Int.bms      POSTED : SV 26 TTST 31      DATE 10/08/2008

SYSTEM : Primary N.C. Route      GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 490032 COUNTY JACKSON ROUTE NC116 OVER SAVANNAH CREEK  
 STRUCTURE TYPE REINFORCED CONCRETE FLOOR ON I-BEAMS  
 ROUTE ORIENTATION S - N SPANS 1 @ 50'-8; 1 @ 50'; 1 @ 50'-8

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

Bridge I&A Form 1(82)H		<h1 style="margin: 0;">FIELD INSPECTION REPORT</h1> <p style="margin: 0;"><u>Bridge Inspection &amp; Analysis</u></p>	
<b>State of North Carolina</b> <b>Dept. of Transportation</b> <b>Division of Highways</b>			
Team Leader <b>BARRY FOXX</b>			
Assisted By <b>DAVID SANDERS</b>			
Item No.	Grade		
1	G	WEARING SURFACE; 1/4" WIDE CRACKING ABOVE INT. BENTS WHERE JOINTS WERE PAVED OVER MENTIONED IN A PREVIOUS REPORT HAVE BEEN SEALED.	
2a	G	CONCRETE DECK; TOPSIDE - COVERED WITH ASPHALT WEARING SURFACE. NO PROBLEMS VISIBLE. UNDERSIDE - A COUPLE OF SHALLOW POPOUTS 1/2" DEEP X 4" ROUND WITH EFFLOR. SEEPAGE PRESENT. NO CHANGE SINCE PREVIOUS INSP.	
6d	G	STANDARD EXPANSION JOINTS; PAVED OVER WITH CRACKING MENTIONED IN A PREVIOUS REPORT HAVING BEEN SEALED.	
10	F	LONG. BEAMS AND PAINT SYSTEM; SCATTERED AREAS OF UP TO 1/16" DEEP LOSS OF SECTION TO FLANGES AND LOWER 3" OF WEBS AT SCATTERED LOCATIONS BENEATH NEW AREAS OF SPOT PAINTING THAT HAS BEEN PLACED SOMETIME IN THE PAST.	
13	F	END DIAPHS; AREAS OF SPALLING MENTIONED IN PREVIOUS REPORTS HAVE PATCHED SOMETIME IN THE PAST WORKING WELL AT THIS TIME.	
15	G	BEARING PLATES; UP TO 1/16" LOSS OF SECTION TO PLATES AT SCATTERED LOCATIONS WITH SPOT PAINT HAVING BEEN PLACED AT THESE AREAS SOMETIME IN THE PAST.	
52	F	PAINT SYSTEM; SEE ITEM 10 FOR ADDITIONAL INFORMATION.	
36a	F	END AND INT. BENT CAPS; CRACKS HAVE BEEN SEALED AND SPALLS HAVE BEEN PATCHED SOMETIME IN THE PAST. WORKING WELL AT THIS TIME. THESE REPAIRS ARE CONSIDERED TEMP.	
38	G	FOUNDATION PILES; STEEL H-PILES AT END BENTS ARE NOT VISIBLE GRADED AS FOUNDATION PILES.	
50	G	APPROACH ROADWAY CONDITION; NORTH APPROACH HAS A 1/2" TO 1" WIDE CRACK BETWEEN END OF BRIDGE AND APPROACH. [SEE PHOTO]. ALL OTHER AREAS OF APPROACH ROADWAYS ARE IN GOOD CONDITION AT THIS TIME.	

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

Bridge: 490032

County JACKSON

Date: 01/17/2012

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
2816	Asphalt Surface Repair or Replacement	SY	1	1/2" TO 1" WIDE CRACK AT NORTH END OF BRIDGE BETWEEN END AND APPROACH.	

## Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined

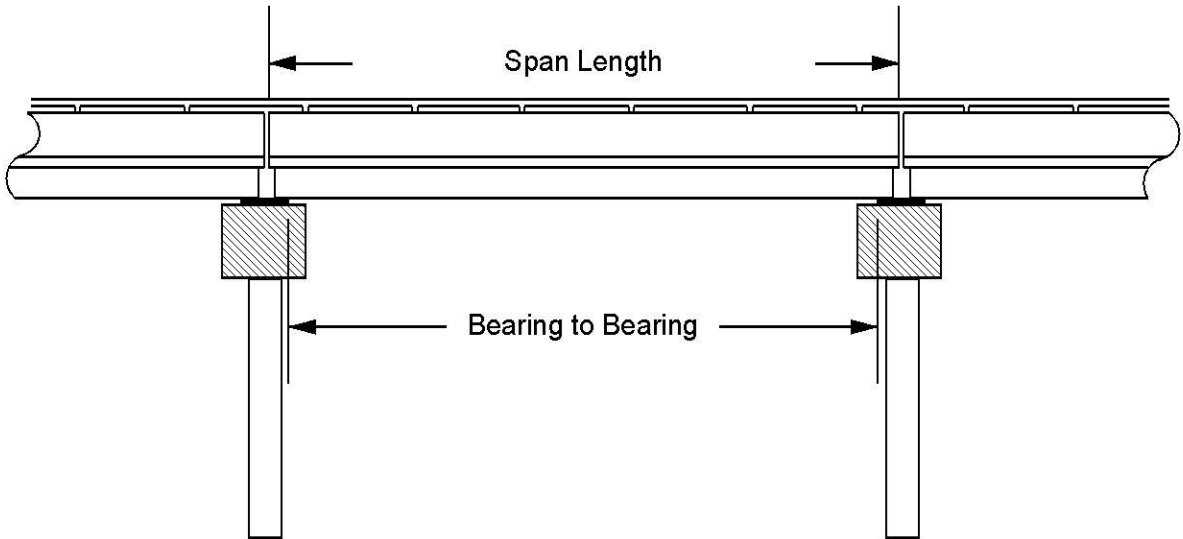


CRACK IN ASPHALT WEARING SURFACE ABOVE END BENT 2.

# Structure Data Worksheet

*Spans*

County: JACKSON      Structure No: 490032      Date: 01/17/2012      Inspected By: WBF



Span No	Span Length	Bearing to Bearing	Comments
1	50' 8"	SEE PLANS	
2	50'	SEE PLANS	
3	50' 8"	SEE PLANS	



# Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 490032 County: JACKSON Date: 01/17/2012 By: WBF

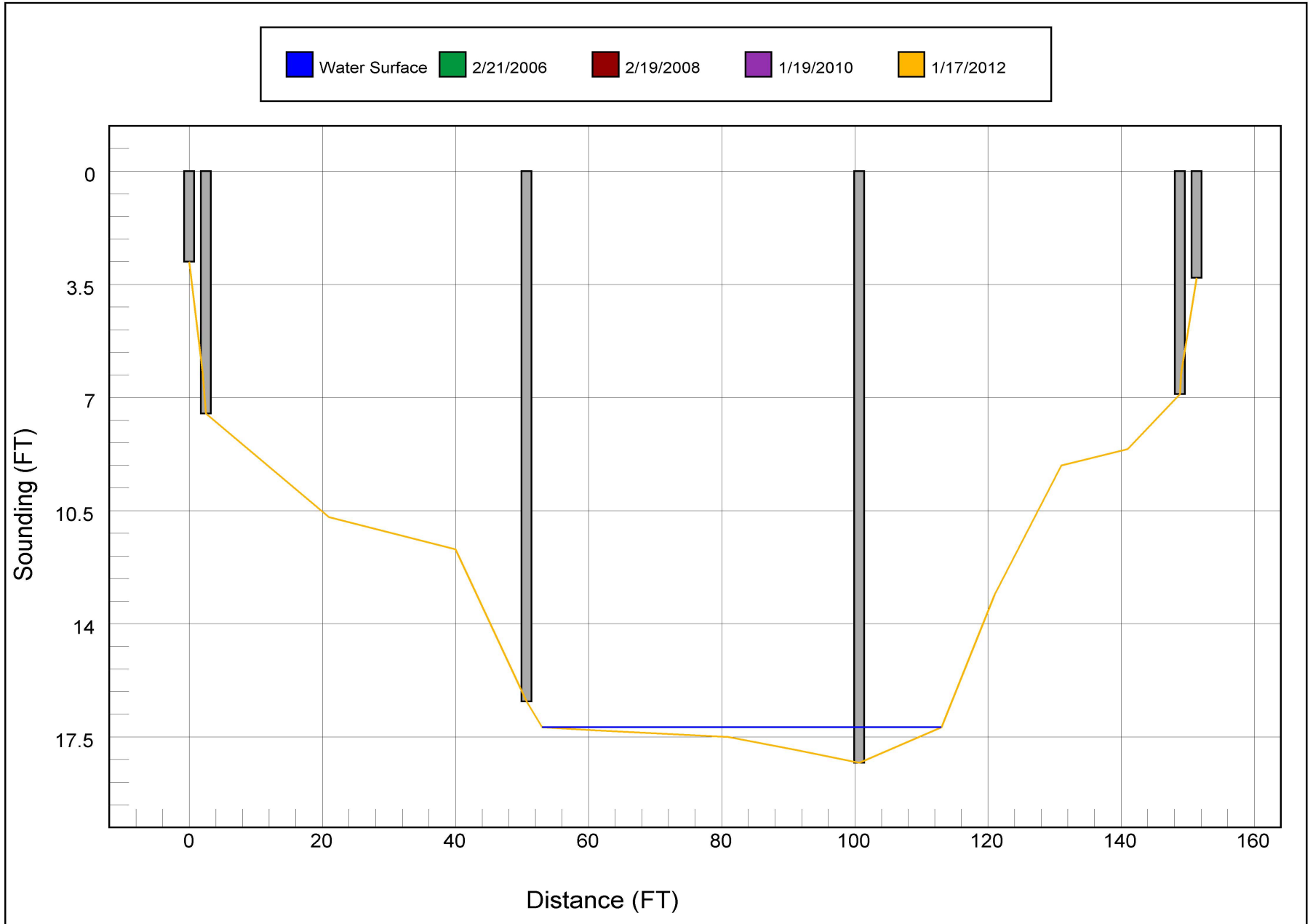
Record sounding from top of rail. Other location if needed: \_\_\_\_\_

Distance from Highwater Mark to top of rail: \_\_\_\_\_ Location of Highwater Mark: NOT DETECTED

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	2.8	FILL FACE END BENT 1	0	3.5	FILL FACE END BENT 1
2	6.25	Top of Cap			
2.5	7.5	STREAM FACE END BENT 1	2.5	8.2	STREAM FACE END BENT 1
21	10.7				
40	11.7				
50.667	16.4	C/L INT. BENT 1	50.667	18.3	C/L INT. BENT 1
53	17.2	Water Surface/Water Edge (WSWE)			
61	17.3				
71	17.4				
81	17.5				
91	17.9				
100.667	18.3	C/L INT. BENT 2	100.667	18	C/L INT. BENT 2
113	17.2	Water Surface/Water Edge (WSWE)			
121	13.1				
131	9.1				
141	8.6				
148.833	6.9	STREAM FACE END BENT 2	148.833	8.3	STREAM FACE END BENT 2
149	6.25	Top of Cap			
151.333	3.3	FILL FACE END BENT 2	151.333	3.1	FILL FACE END BENT 2

### STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



# Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 1/17/2012



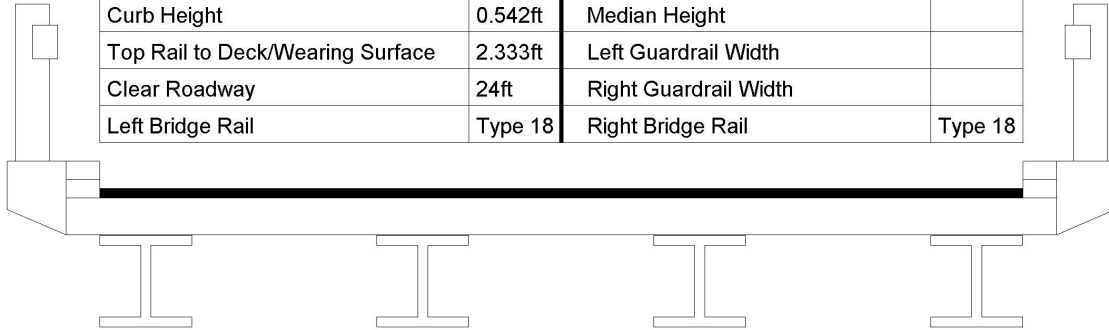
Roadway	18.667ft Wide	2 Paved Lanes	Looking North
Left Shoulder	2ft Wide		2ft Unpaved
Right Shoulder	2ft Wide		2ft Unpaved
Left Guardrail			
Right Guardrail			

<b>Title</b>		<b>Description</b>	
APPROACH ROADWAY		APPROACH ROADWAY	
<b>Bridge No:</b> 490032	<b>Drawn By:</b> DAVID SANDERS	<b>Date:</b> 1/17/2012	<b>File Name:</b> S0118000980

# Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 1/17/2012

Deck Width/Out to Out	25.417ft	Wearing Surface	0.208ft
Between Rails	26.083ft	Median Width	
Curb Height	0.542ft	Median Height	
Top Rail to Deck/Wearing Surface	2.333ft	Left Guardrail Width	
Clear Roadway	24ft	Right Guardrail Width	
Left Bridge Rail	Type 18	Right Bridge Rail	Type 18



Measurements for Span #	3		
Deck Thickness	0.542	Left Overhang	2.583
Top of Rail to Bottom of Beam	6.25	Right Overhang	2.583

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	6.75ft	<b>30" I-BEAMS AT 6'-9" CENTERS.</b>
2	Steel I Beam	6.75ft	
3	Steel I Beam	6.75ft	
4	Steel I Beam		

**E.BTS;RC CAPS/H-PILES;INT.BTS;RC POST&BEAM**

**.3333 PVC UTILITY LINE ALONG BOTTOM FLANGE OF BEAM 1.**



<b>Title</b> SUPER		<b>Description</b> SUPER	
<b>Bridge No:</b> 490032	<b>Drawn By:</b> DAVID SANDERS	<b>Date:</b> 1/17/2012	<b>File Name:</b> S0118000981



LOOKING SOUTH - BRIDGE IS POSTED SV 26 TTST 31 TONS.



LOOKING UPSTREAM FROM TOP OF BRIDGE.



LOOKING DOWNSTREAM FROM TOP OF BRIDGE.



LOOKING NORTH



NAMEPLATE



REP. OF END BENTS 1 AND 2. PHOTO WAS TAKEN OF END BENT 1.



REP. OF UNDERSIDE FOR SPANS 1, 2, AND 3. PHOTO WAS TAKEN OF SPAN 1.



REP. OF INT. BENTS 1 AND 2. PHOTO WAS TAKEN OF INT. BENT 1.





UTILITY ON DOWNSTREAM SIDE.



DOWNSTREAM



UPSTREAM



TEMP. REPAIR TO CAP INT. BENT 2.