



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY HAYWOOD BRIDGE NUMBER 430102 INSPECTION CYCLE 2 YRS
ROUTE SR1173 ACROSS PLOTT CREEK M.P. 0

LOCATION .1 MI.E.JCT.SR1175

SUPERSTRUCTURE RC FLOOR ON GIRDERS & I-BEAMS

SUBSTRUCTURE ABUTMENTS:REINFORCED CONCRETE

SPANS 1 @ 20'

LONGITUDE 83° 0' 57.20"

LATITUDE 35° 28' 46.09"

INSPECTION DATE 02/11/2013

PRESENT CONDITION FAIR

PRESENT POSTING Not Posted NOT POSTED

PROPOSED POSTING

OTHER SIGNS PRESENT DELINEATORS [4]



LOOKING EAST

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

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

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

Run Date: 03/15/2013

IDENTIFICATION			
(1) STATE NAME -NORTH CAROLINA	BRIDGE	430102	SUFFICIENCY RATING = 62.02
(8) STRUCTURE NUMBER(FEDERAL)	00000000870102		STATUS = Functionally Obsolete
(5) INVENTORY ROUTE (ON/UNDER) - ON	31011730		
(2) STATE HIGHWAY DEPARTMENT DISTRICT	2		
(3) COUNTY CODE 87 (4) PLACE CODE	0		
(6) FEATURE INTERSECTED - PLOTT CREEK			
(7) FACILITY CARRIED SR1173			
(9) LOCATION .1 MI.E.JCT.SR1175			
(11)MILEPOINT	0		
(16)LAT 35° 28' 46.09" (17)LONG 83° 0' 57.20"			
(98)BORDER BRIDGE STATE CODE	PCT SHARE		
(99)BORDER BRIDGE STRUCTURE NO			
STRUCTURE TYPE AND MATERIAL			
(43) STRUCTURE TYPE MAIN: Concrete			
TYPE - Tee Beam	CODE 104		
(44) STRUCTURE TYPE APPR :			
TYPE -	CODE 000		
(45) NUMBER OF SPANS IN MAIN UNIT	1		
(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	1950		
(106)YEAR RECONSTRUCTED			
(42) TYPE OF SERVICE : ON - Highway			
UNDER - Waterway	CODE 15		
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE	0		
(29) AVERAGE DAILY TRAFFIC	2400		
(30) YEAR OF ADT 2010 (109) TRUCK ADT PCT	6%		
(19) BYPASS OR DETOUR LENGTH	3 MI		
GEOMETRIC DATA			
(48) LENGTH OF MAXIMUM SPAN	19 FT		
(49) STRUCTURE LENGTH	20 FT		
(50)CURB OR SIDEWALK: LEFT 1.5 FT RIGHT	1.5 FT		
(51) BRIDGE ROADWAY WIDTH CURB TO CURB	24 FT		
(52) DECK WIDTH OUT TO OUT	27 FT		
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)	18 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		
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		
CLASSIFICATION			
(112)NBIS BRIDGE SYSTEM -			NO
(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 - 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			
(58) DECK			7
(59) SUPERSTRUCTURE			5
(60) SUBSTRUCTURE			5
(61) CHANNEL & CHANNEL PROTECTION			7
(62) CULVERTS			N
LOAD RATING AND POSTING			
(31) DESIGN LOAD Unknown			0
(63) OPERATING RATING METHOD - Load Factor			
(64) OPERATING RATING - HS-28			150
(65) INVENTORY RATING METHOD - Load Factor			
(66) INVENTORY RATING - HS-17			130
(70) BRIDGE POSTING - No Posting Required			5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED DESCRIPTION - Open, No Restriction			A
APPRAISAL			
(67) STRUCTURAL EVALUATION			5
(68) DECK GEOMETRY			2
(69) UNDERCLEARANCES,VERTI & HORIZ			N
(71) WATERWAY ADEQUACY			7
(72) APPROACH ROADWAY ALIGNMENT			8
(36) TRAFFIC SAFETY FEATURES			0000
(113)SCOUR CRITICAL BRIDGES			U
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 4800 (115) YEAR FUTURE ADT 2025			
INSPECTIONS			
(90) INSPECTION DATE			02/11/2013
(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			

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 03/15/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
HAYWOOD	14	2	430102	20	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1173	PLOTT CREEK

LOCATED :	BRIDGE NAME :	CITY :
.1 MI.E.JCT.SR1175		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
16	FA	NFA	2400 2010	LT 9 RT 9

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1950	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :	UNDER
			TAN	135	ON 2	0

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT	8 FT	1 FT

SUPERSTRUCTURE :	RC FLOOR ON GIRDERS & I-BEAMS
------------------	-------------------------------

SUBSTRUCTURE :	ABUTMENTS:REINFORCED CONCRETE
----------------	-------------------------------

SPANS :	1 @ 20'
---------	---------

BEAMS OR GIRDERS :	4 LNS.16 RC GIRDERS & 6 LNS.12 I-BEAMS @ VAR. CTS.
--------------------	--

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
8 RC/4 AWS		27 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
24 FT	24 FT	LT 1.5 FT RT 1.5 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-17	HS-28	int bm	SV		

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

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 430102 COUNTY HAYWOOD ROUTE SR1173 OVER PLOTT CREEK
 STRUCTURE TYPE RC FLOOR ON GIRDERS & I-BEAMS
 ROUTE ORIENTATION W - E SPANS 1 @ 20'

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	
					c. SCOUR	G	
					d. SLOPE PROT., RIP-RAP, DIKES, ETC.		
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE	1	G	50. APPROACH ROADWAY CONDITION			G
	b. TIMBER			51. APPROACH SLABS			
	c. STEEL PLANK			52. PAINT SYSTEM			CODE
	d. OPEN GRID			53. UTILITIES			
3. RAILING	a. CONCRETE			54. RESPONSE TO LIVE LOAD			G
	b. TIMBER			55. ESTIMATED REMAINING LIFE			14
	c. ALUMINUM						
	d. STEEL						
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G				
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				60. REGULATORY SIGN NOTICE ISSUED			NO
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER			61. PROMPT-ACTION NOTICE ISSUED			NO
	b. MISC PREFAB			62. PRESENTLY POSTED			NO
	c. COMPRESSION SEAL			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			4
	d. STANDARD JOINTS			64. TOTAL SNOOPER INSP. TIME (HRS)			
	e. OPEN JOINTS			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				d. CHANNEL & CHANNEL PROT.	ITEM 61	7	
13. END DIAP'S, CURTAIN WALLS, & CONN'S							
14. FLOOR BEAMS AND CONNECTIONS				71. SI&A FIELD APPRAISAL RATINGS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G	a. WATERWAY ADAQUACY		7	
16. DRAINAGE SYSTEM (ON STRUCTURE)			G	b. APPR. RDWY. ALIGNMENT		8	
17. MOVABLE SPAN MACHINERY							
				72. FIELD SCOUR EVALUATION			L
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)							
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS			USE OF INSP. ACCESSIBILITY EQUIPMENT			
	b. PILES, POST, SILLS, & BRACING			SNOOPER (CODE S, 4, OR N)		HRS	NO
	c. BULKHEADS, WING'S, & TIE BACKS		G	LADDER			NO
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS		F	BUCKET TRUCK			NO
	b. ABUT. & BENT COL'S BREASTWALLS		F	BOAT			NO
	c. ABUT. & INT. BENT PILES			OTHER			NO
	d. BACKWALLS, WING'S, RETAIN. WALLS		F				
	e. ABUT. & BENT FOOTINGS & SILLS		F				
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS			SPECIAL INSPECTION REQUESTED FOR			
	b. PILES, BRACING, AND BULKHEADS						
38. FOUNDATION PILES TYPE MATERIAL				NOTE			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)							
40. FENDER SYSTEMS				80. INSPECTED BY:	John R. G. 10/10		
41. DRIFT			G	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 Inspection & Analysis</u>	
Team Leader BARRY FOXX			
Assisted By DAVID SANDERS			
Item No.	Grade		
2a	G	CONCRETE FLOOR; TOPSIDE - COVERED WITH ASPHALT WEARING SURFACE - NO VISIBLE PROBLEMS. UNDERSIDE - A FEW 1/8" WIDE DIAG. AND LONG. TYPE CRACKS WHERE FORM BOARDS HAVE BEEN REMOVED. VERY LITTLE CHANGE IN PAST SEVERAL INSPS.	
10	F	GIRDERS; HEAVY AREAS OF 1" DEEP HONEY-COMB SCATTERED THROUGHOUT WITH REINF. EXPOSED. A COUPLE OF 1/2" TO 1 1/2" DEEP X 6" LONG X 2" HIGH SPALLS AND/OR DETER. AREAS. NO PROBLEMS DUE TO CONDITIONS AS YET.	
36a	F	CAPS,BREASTWALLS AND FOOTINGS; 1/8" TO 1/4" DIAG. TYPE CRACKS BEGINS IN VISIBLE PORTION OF FOOTING AND EXTENDS ENTIRE HT. OF ABUTMENT 2. [SEE PHOTO]. CRACK IS JUST DOWNSTREAM OF BEAM 1 AT CAP. FOOTINGS ARE LIGHT TO MOD. DETER. UP TO 1" DEEP WHERE VISIBLE. NO CHANGE IN PAST SEVERAL INSPS.	
36b	F	BREASTWALLS; SEE PREVIOUS ITEM FOR ADDITIONAL INFORMATION.	
36d	F	CURTAIN WALLS; CURTAIN WALLS BETWEEN BEAMS - GOOD CONDITION. AREAS BETWEEN GIRDERS AT BOTH ABUTMENTS HAVE NO CURTAIN WALLS WITH AREAS CONSISTING OF LARGE ROCK AND LOOSE DIRT ATOP CAPS. [SEE REP. PHOTO].	
36e	F	FOOTINGS; SEE ITEM 36a FOR ADDITIONAL INFORMATION.	
45b	G	ALIGNMENT; STREAM BED HAS BEEN DUGOUT ON DOWNSTREAM SIDE OF BRIDGE SINCE PREVIOUS INSP. NO PROBLEMS DUE TO CONDITION.	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 430102

County HAYWOOD

Date: 02/11/2013

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3350	Maint R C Wings and Walls	SF	60	ROCK AND DIRT SIT ATOP CAP AT BOTH ABUTMENTS IN SEVERAL LOCATIONS THESE AREAS SHOULD BE REPLACED WITH A MORE STABLE BACKWALL. LARGE CRACK IN WALL AT ABUTMENT 2.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



CRACK IN BREASTWALL ABUTMENT 1 ON DOWNSTREAM SIDE.



REP. OF LOOSE ROCK ATOP OF ABUTMENTS. PHOTO WAS TAKEN OF ABUTMENT 1.

Structure Data Worksheet

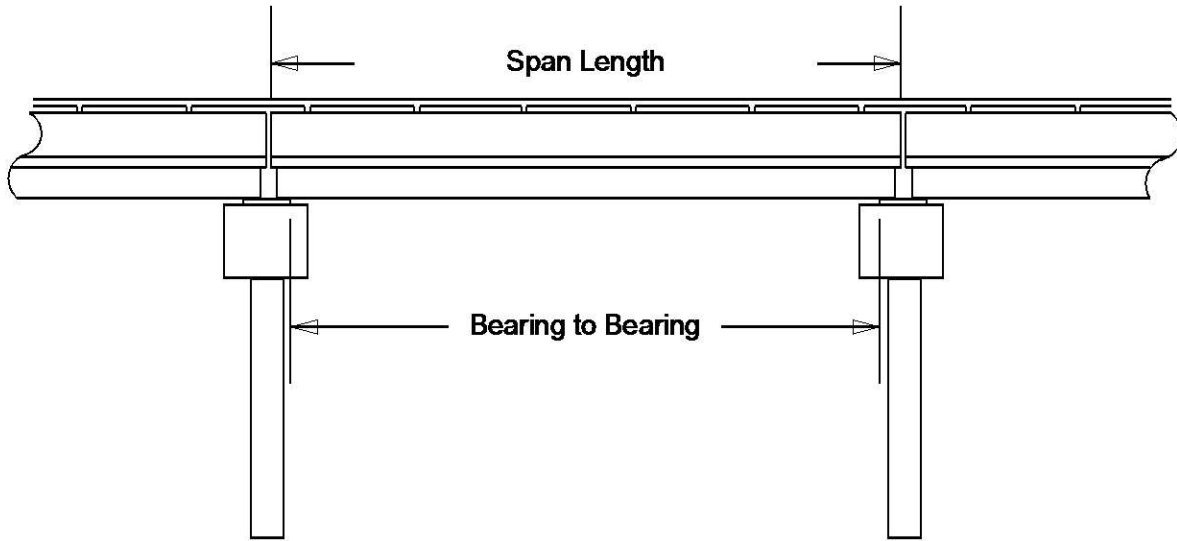
Spans

County: HAYWOOD

Structure No: 430102

Date: 02/11/2013

Inspected By: WBF



Span No	Span Length	Bearing to Bearing	Comments
1	20.0	18.5	

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 430102 County: HAYWOOD Date: 02/11/2013 By: WBF

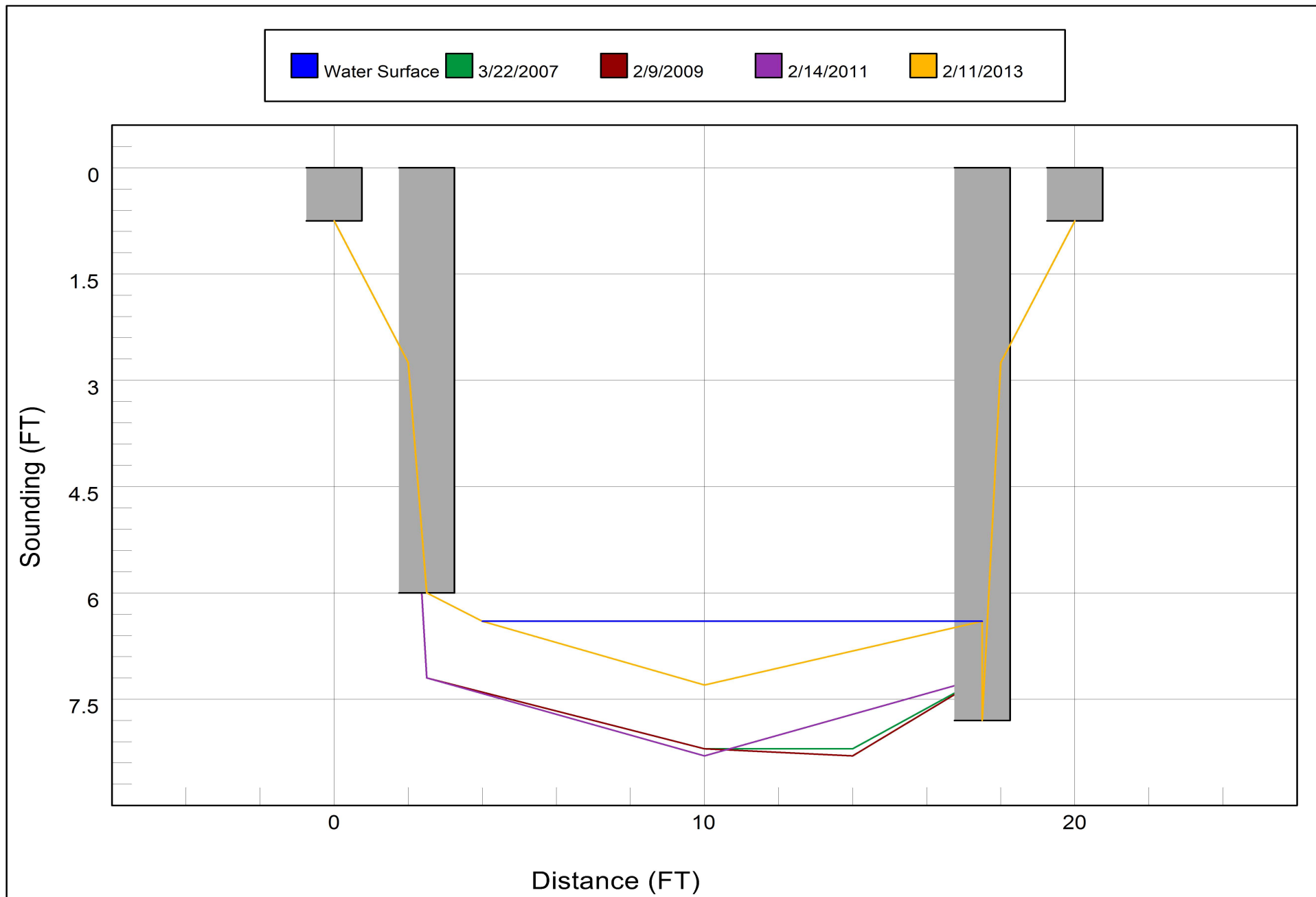
Record sounding from top of rail. Other location if needed: _____

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	0.75	FILL FACE ABUTMENT 1	0	0.8	FILL FACE ABUTMENT 1
2	2.75	Top of Cap			
2.5	6	STREAM FACE ABUTMENT 1	2.5	6	STREAM FACE ABUTMENT 1
4	6.4	Water Surface/Water Edge (WSWE)			
10	7.3				
17.5	6.4	Water Surface/Water Edge (WSWE)	17.5	6.9	STREAM FACE ABUTMENT 2
17.5	7.8	STREAM FACE ABUTMENT 2			
18	2.75	Top of Cap			
20	0.75	FILL FACE ABUTMENT 2	20	0.8	FILL FACE ABUTMENT 2

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 2/11/2013



Roadway	17.5ft Wide	2 Paved Lanes	Looking East
Left Shoulder	2ft Wide		2ft Unpaved
Right Shoulder	2ft Wide		2ft Unpaved
Left Guardrail			
Right Guardrail			

Title

APPROACH ROADWAY

Description

APPROACH ROADWAY

Bridge No: 430102

Drawn By: DAVID SANDERS

Date: 2/11/2013

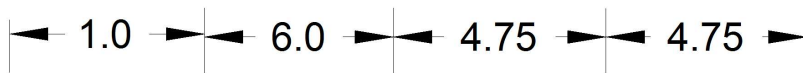
File Name: S0118076476

Bridge Inspection Field Sketch

DRILLED HOLES IN THE BOTTOM FLANGE OF THE FOLLOWING BEAMS.
ALL HOLES ARE .0573.

MEASUREMENTS ARE GIVEN FROM C/L OF BEARING AT ABUTMENT 1.

BEAMS 4,5 AND 6



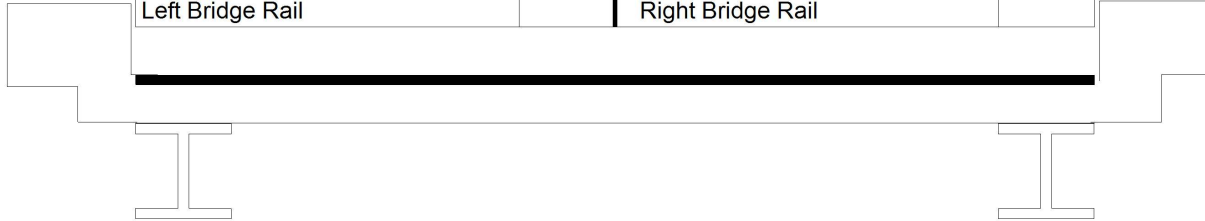
VERIFIED BY DAVID SANDERS 2/11/2013

Title		Description	
BEAM HOLES		BEAM HOLES	
Bridge No: 430102	Drawn By: DAVID SANDERS	Date: 2/11/2013	File Name: S0118076477

Bridge Inspection Field Sketch

NO RAILS ON BRIDGE

Deck Width/Out to Out	27ft	Wearing Surface	0.333ft
Between Rails	24ft	Median Width	
Curb Height	0.667ft	Median Height	
Top Rail to Deck/Wearing Surface	0.667ft	Left Guardrail Width	
Clear Roadway	24ft	Right Guardrail Width	
Left Bridge Rail		Right Bridge Rail	



Measurements for Span #	1		
Deck Thickness	0.583	Left Overhang	0.75
Top of Rail to Bottom of Beam	2.75	Right Overhang	0.75

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	1.9583ft	IBEAMS ARE 1.0 HIGH WITH .5417 FLANGE
2	Steel I Beam	1.9167ft	WIDTH AND .0313 FLANGE AND .0208 WEBS.
3	Steel I Beam	1.4167ft	
4	RC Deck Girder	4.8333ft	CONCRETE GIRDERS ARE 1.0 WIDE X 1.333
5	RC Deck Girder	4.75ft	HIGH.
6	RC Deck Girder	4.9167ft	
7	RC Deck Girder	1.1667ft	
8	Steel I Beam	2.25ft	
9	Steel I Beam	2.25ft	
10	Steel I Beam		

ABUTMENTS ARE CONCRETE

Title

SUPER

Description

SUPER

Bridge No: 430102

Drawn By: DAVID SANDERS

Date: 2/11/2013

File Name: S0118076478

VERIFIED BY DAVID SANDERS 2/11/2013



LOOKING WEST



LOOKING DOWNSTREAM FROM TOP OF BRIDGE.



LOOKING UPSTREAM FROM TOP OF BRIDGE.



LOOKING EAST



DOWNSTREAM



REP. OF ABUTMENTS 1 AND 2. PHOTO WAS TAKEN OF ABUTMENT 2.



REP. OF UNDERSIDE WITH BEAMS.



REP. OF UNDERSIDE WITH GIRDERS.



UPSTREAM