



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMP. REPAIR - SUPPLEMENTED ABUTMENT POST.

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY HAYWOOD BRIDGE NUMBER 430309 INSPECTION CYCLE 2 YRS
ROUTE SR1373 ACROSS ROGERS COVE CREEK M.P. 0

LOCATION .1 MI.N.JCT.SR1374

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE E.BTS:TIM.CAPS/TIM.POST&SILLS @ VAR. CENTERS

SPANS 1 @ 16'-6

LONGITUDE 82° 58' 14.61"

LATITUDE 35° 32' 5.04"

INSPECTION DATE 04/17/2013

PRESENT CONDITION FAIR

PRESENT POSTING SV 13 TTST 22 SV 13 TTST 22 PROPOSED POSTING

OTHER SIGNS PRESENT DELINEATORS [4] AND NARROW BRIDGE [2]



LOOKING NORTH

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: 05/08/2013

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	430309		SUFFICIENCY RATING =	21.86
(8) STRUCTURE NUMBER(FEDERAL)		00000000870309		STATUS =	Structurally Deficient
(5) INVENTORY ROUTE (ON/UNDER) - ON		31013730			
(2) STATE HIGHWAY DEPARTMENT DISTRICT		2			
(3) COUNTY CODE	87	(4) PLACE CODE	0		
(6) FEATURE INTERSECTED -	ROGERS COVE CREEK				
(7) FACILITY CARRIED	SR1373				
(9) LOCATION	.1 MI.N.JCT.SR1374				
(11)MILEPOINT		0			
(16)LAT	35° 32' 5.04"	(17)LONG	82° 58' 14.61"		
(98)BORDER BRIDGE STATE CODE		PCT SHARE			
(99)BORDER BRIDGE STRUCTURE NO					
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION	
(43) STRUCTURE TYPE MAIN:	Wood or Timber			(112)NBIS BRIDGE SYSTEM -	NO
TYPE -	Stringer Mutlibeam or Girder	CODE	702	(104)HIGHWAY SYSTEM	Is not on NHS 0
(44) STRUCTURE TYPE APPR :				(26) FUNCTIONAL CLASS -	Local 09
TYPE -		CODE	000	(100)STRAHNET HIGHWAY -	Not a STRAHNET Route 0
(45) NUMBER OF SPANS IN MAIN UNIT			1	(101)PARALLEL STRUCTURE -	No Parallel Structure N
(46) NUMBER OF APPROACH SPANS				(102)DIRECTION OF TRAFFIC -	2-way Traffic 2
(107)DECK STRUCTURE TYPE -	8	CODE		(103)TEMPORARY STRUCTURE -	Temporary Structure/Conditions T
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(110)DESIGNATED NATIONAL NETWORK -	Not on the National Network 0
(A) TYPE OF WEARING SURFACE -		CODE		(20) TOLL	On Free Road 3
(B) TYPE OF MEMBRANE -		CODE		(31) MAINTAIN -	State Highway Agency 01
(C) TYPE OF DECK PROTECTION -		CODE		(22) OWNER -	State Highway Agency 01
				(37) HISTORICAL SIGNIFICANCE -	Not Eligible 5
				CONDITION	
				(58) DECK	7
				(59) SUPERSTRUCTURE	7
				(60) SUBSTRUCTURE	3
				(61) CHANNEL & CHANNEL PROTECTION	7
				(62) CULVERTS	N
				LOAD RATING AND POSTING	
				(31) DESIGN LOAD	Unknown 0
				(63) OPERATING RATING METHOD -	Allowable Stress 2
				(64) OPERATING RATING -	HS-1 1
				(65) INVENTORY RATING METHOD -	Allowable Stress 2
				(66) INVENTORY RATING -	HS-1 1
				(70) BRIDGE POSTING -	Posting Required 0
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED	P
				DESCRIPTION -	Posted for Load
				APPRAISAL	
				(67) STRUCTURAL EVALUATION	3
				(68) DECK GEOMETRY	3
				(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	300
				(115) YEAR FUTURE ADT	2025
				INSPECTIONS	
				(90) INSPECTION DATE	04/17/2013
				(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	
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: 05/08/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
HAYWOOD	14	2	430309	17	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1373	ROGERS COVE CREEK

LOCATED :	BRIDGE NAME :	CITY :
.1 MI.N.JCT.SR1374		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	150 2000	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1954	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
	BMU	5.9451	TAN	105	ON 2	UNDER	0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT	HC 0 FT		6 FT		1		FT

SUPERSTRUCTURE :	TIMBER FLOOR ON TIMBER JOISTS
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SUBSTRUCTURE :	E.BTS:TIM.CAPS/TIM.POST&SILLS @ VAR. CENTERS
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SPANS :	1 @ 16'-6
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BEAMS OR GIRDERS :	10 LINES 6X12 TIMBER JOISTS @ 2' CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/2 AWS		19.833 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
18.833 FT	19.5 FT	LT .3 FT RT .3 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-1	HS-1	Int.jsts	SV 13	22	09/11/2006

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. 430309 COUNTY HAYWOOD ROUTE SR1373 OVER ROGERS COVE CREEK
 STRUCTURE TYPE TIMBER FLOOR ON TIMBER JOISTS
 ROUTE ORIENTATION S - N SPANS 1 @ 16'-6

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			50. APPROACH ROADWAY CONDITION			G
	b. TIMBER	1	G	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		G	55. ESTIMATED REMAINING LIFE			10
	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			YES
	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				b. SUPERSTRUCTURE	ITEM 59	7	
11. LONGITUDINAL JOIST OR STRINGERS			G	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)				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		F	USE OF INSP. ACCESSIBILITY EQUIPMENT			
	b. PILES, POST, SILLS, & BRACING		F	SNOOPER (CODE S, 4, OR N)	HRS	NO	
	c. BULKHEADS, WING'S, & TIE BACKS		F	LADDER		NO	
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS			BUCKET TRUCK			NO
	b. ABUT. & BENT COL'S BREASTWALLS			BOAT			NO
	c. ABUT. & INT. BENT PILES			OTHER			NO
	d. BACKWALLS, WING'S, RETAIN. WALLS						
	e. ABUT. & BENT FOOTINGS & SILLS						
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:	[Signature]		
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		
1	G	WEARING SURFACE; ADDITIONAL ASPHALT WEARING SURFACE HAS BEEN PLACED SINCE PREVIOUS INSP. AND IS IN GOOD CONDITION AT THIS TIME.	
35a	F	TIMBER ABUTMENT CAPS; ALL TIMBERS ARE WEATHERED WITH SCATTERED AREAS OF DECAY UP TO 2" DEEP X 2" ROUND - MAINLY TO ENDS. AREA OF DECAY ON UPSTREAM END OF CAP AT ABUTMENT 2 IS DEEPER IT EXTENDS 1'-4" IN DEPTH. [SEE PHOTO].	
35b	F	TIMBER POST; SEVERAL HAVE BEEN SUPPLEMENTED SOMETIME IN THE PAST. [SEE DATA WORKSHEET]. THESE ARE CONSIDERED TEMP. REPAIRS. ALL ORIGINAL TIMBERS ARE WEATHERED WITH SCATTERED AREAS OF LIGHT TO MOD. 2" TO 3" DEEP DECAY. THESE POST HAVE BEEN SUPPLEMENTED. ALL SUPPLEMENT POST ARE IN GOOD CONDITION AT THIS TIME.	
35c	F	TIMBER BULKHEAD; ALL TIMBERS ARE WEATHERED WITH SCATTERED AREAS OF 1" DEEP DECAY TO A FEW TIMBERS AT BOTH ABUTMENTS 1 AND 2. NO PROBLEMS DUE TO CONDITION AS YET. PRI. MAINT. ISSUED LAST INSP. DUE TO COMPLETE DECAY TO TIMBERS AT ABUTMENT 2 HAS BEEN REPAIRED WITH PLACEMENT OF NEW TIMBERS AT THESE LOCATIONS. REPAIRS ARE HOLDING WELL AT THIS TIME.	
61	NO	PROMPT ACTION ISSUED; PRI. MAINT. ISSUED LAST INSP. DUE TO AREAS OF COMPLETE DECAY TO BULKHEAD TIMBERS AT ABUTMENT 2 HAS BEEN REPAIRED WITH PLACEMENT OF NEW TIMBERS AT THESE LOCATIONS. REPAIRS ARE WORKING WELL AT THIS TIME.	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 430309

County HAYWOOD

Date: 04/17/2013

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3344	Repair / Replace Timber Substructure Components	LF	20	AREA OF 1'-4" DEEP DECAY TO UPSTREAM END OF CAP AT ABUTMENT 2.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



AREA OF DECAY TO CAP ABUTMENT 2 ON UPSTREAM SIDE.

Structure Data Worksheet

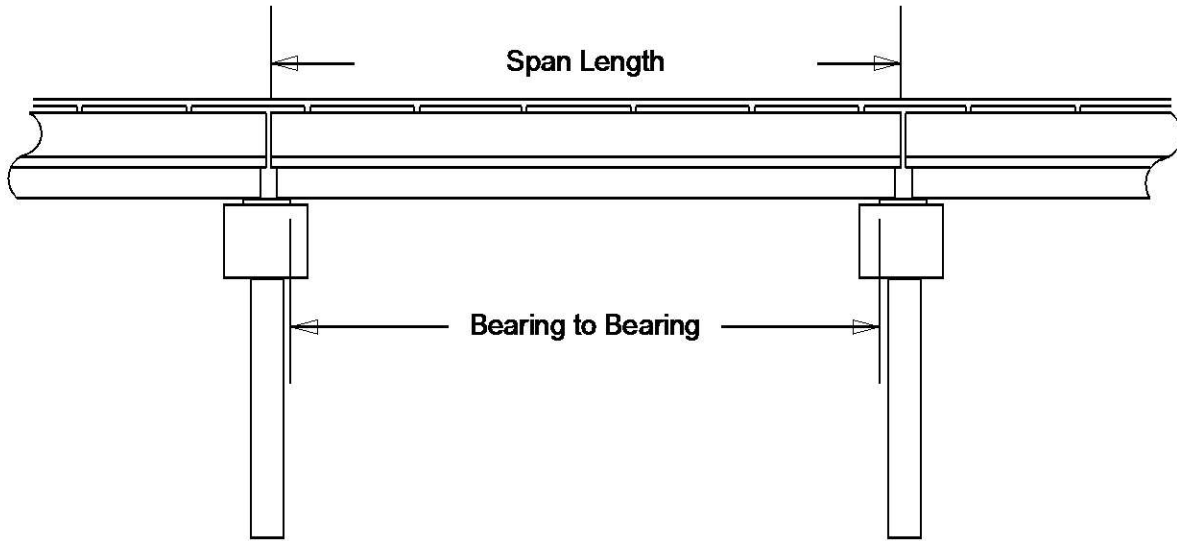
Spans

County: HAYWOOD

Structure No: 430309

Date: 04/17/2013

Inspected By: WBF



Span No	Span Length	Bearing to Bearing	Comments
1	16.5	15.1667	NON NBIS STRUCTURE.

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 430309 County: HAYWOOD Date: 04/17/2013 By: WBF

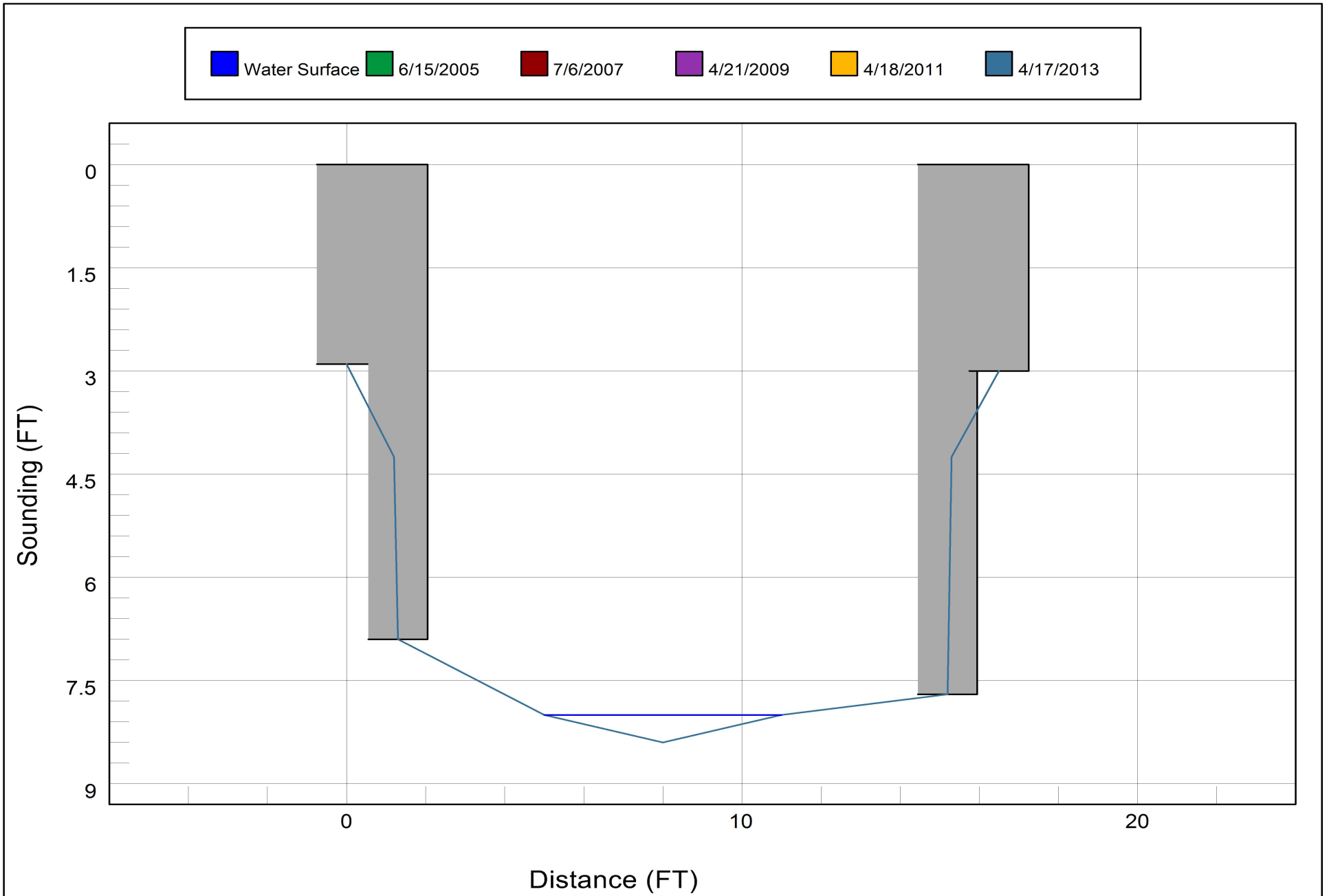
Record sounding from top of rail. Other location if needed: _____

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	2.9	FILL FACE ABUTMENT 1	0	2.9	FILL FACE ABUTMENT 1
1.2	4.25	Top of Cap			
1.3	6.9	STREAM FACE ABUTMENT 1	1.3	6.6	STREAM FACE ABUTMENT 1
5	8	Water Surface/Water Edge (WSWE)			
8	8.4				
11	8	Water Surface/Water Edge (WSWE)			
15.2	7.7	STREAM FACE ABUTMENT 2	15.2	6.3	STREAM FACE ABUTMENT 2
15.3	4.25	Top of Cap			
16.5	3	FILL FACE ABUTMENT 2	16.5	2.9	FILL FACE ABUTMENT 2

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 4/17/2013



Roadway	17.5ft Wide	2 Paved Lanes	Looking North
Left Shoulder	1ft Wide		1ft Unpaved
Right Shoulder	1ft Wide		1ft Unpaved
Left Guardrail			
Right Guardrail			

Title

APPROACH ROADWAY

Description

APPROACH ROADWAY

Bridge No: 430309

Drawn By: DAVID SANDERS

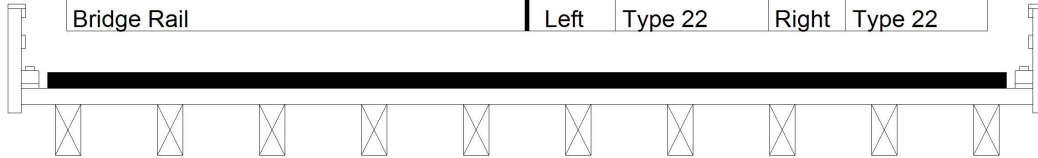
Date: 4/17/2013

File Name: S0118000176

Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS ON 4/17/13.

Deck Width/Out to Out	19.833ft	Between Rails	19.5ft
Clear Roadway	18.833ft	Wearing Surface	0.313ft
Median Width		Median Height	
Curb Height		Left 0.5ft	Right 0.5ft
Sidewalk Width		Left	Right
Clear Roadway (Rail to Median)		Left	Right
Guardrail Width		Left 0.5ft	Right 0.5ft
Top of Rail to Deck/Wearing Surface		Left 2.667ft	Right 2.667ft
Bridge Rail		Left Type 22	Right Type 22



Measurements for Span #	1		
Deck Thickness	0.312	Left Overhang	0.917
Top of Rail to Bottom of Beam	4.25	Right Overhang	0.917

Beam Number	Beam Type	Spacing	Comments
1	Timber (Rectangular)	2.0ft	JOIST ARE .4896 WIDE X .9792 HIGH.
2	Timber (Rectangular)	2.0ft	
3	Timber (Rectangular)	2.0ft	
4	Timber (Rectangular)	2.0ft	
5	Timber (Rectangular)	2.0ft	
6	Timber (Rectangular)	2.0ft	
7	Timber (Rectangular)	2.0ft	
8	Timber (Rectangular)	2.0ft	
9	Timber (Rectangular)	2.0ft	
10	Timber (Rectangular)	ft	

Title

SUPER

Description

SUPER

Bridge No: 430309

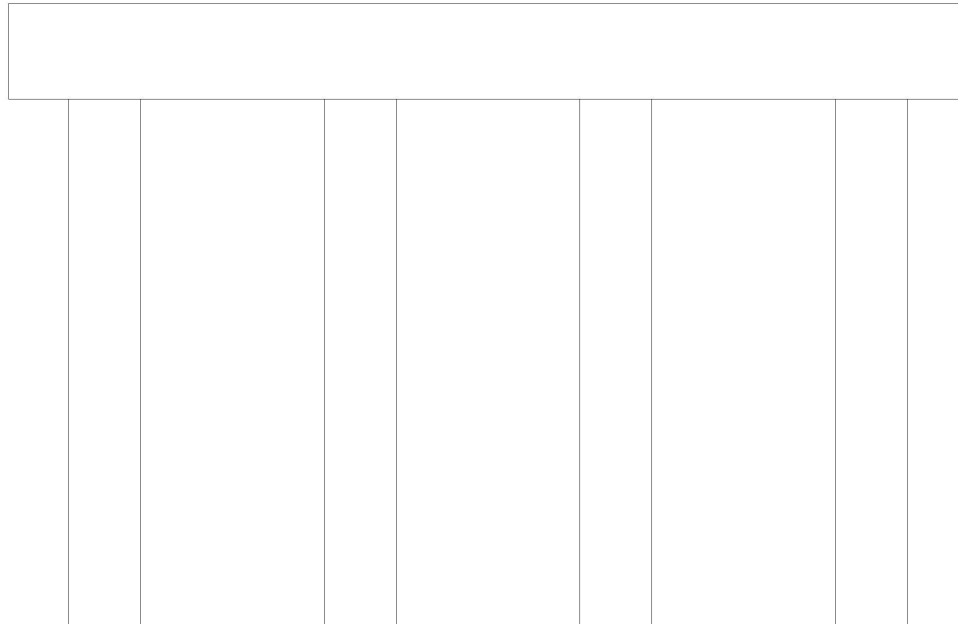
Drawn By: DAVID SANDERS

Date: 4/17/2013

File Name: S0118000177

Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 4/17/2013



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	20ft Long	0.833ft Wide	0.979ft High
Left Overhang	1ft	Lt Cap/Beam Overhang	.6667ft
Right Overhang	1ft	Rt Cap/Beam Overhang	1.6667ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	6.0		.8333	.8333	Vertical
2	Wood or Timber	Post and Sills	6.0		.8333	.8333	Vertical
3	Wood or Timber	Post and Sills	6.0		.8333	.8333	Vertical
4	Wood or Timber	Post and Sills			.8333	.8333	Vertical

NOTES; SUPPLEMENT POST HAVE BEEN PLACED ON THE DOWNSTREAM SIDE OF POST 1 AT BOTH ABUTMENTS AND THE UPSTREAM SIDE OF POST 3 AND 4 AT BOTH ABUTMENTS. CENTERS BETWEEN SUPPLEMENT AND ORIGINALS ARE .9167.

ALL POST - ORIGINALS AT ABUTMENT 2 HAS A .25 X .6667 AT VARIOUS LENGTHS NAILED TO THEIR STREAM FACE AND TO CAP ABOVE THEM.

ALL SUPPLEMENT POST ARE .8333 X .9792.
CAP OVERHANGS ARE 2.0 AT ABUTMENT 2.

Title		Description	
SUBSTRUCTURE		SUBSTRUCTURE	
Bridge No: 430309	Drawn By: DAVID SANDERS	Date: 4/17/2013	File Name: S0118000178



LOOKING SOUTH - BRIDGE IS POSTED SV 13 TTST 22 TONS.



LOOKING UPSTREAM FROM TOP OF BRIDGE.



LOOKING DOWNSTREAM FROM TOP OF BRIDGE.



LOOKING NORTH



DOWNSTREAM



ABUTMENT 1 - TEMP. REPAIR TO POST 1, 3, AND 4.



ABUTMENT 2 - TEMP. REPAIR TO POST 1, 3, AND 4.



UNDERSIDE



UPSTREAM