



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

(PMN) ISSUED; (LONGITUDINAL BEAMS)

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY ALEXANDER BRIDGE NUMBER 010137 INSPECTION CYCLE 2 YRS
ROUTE SR1608 ACROSS GLADE CREEK M.P. 0

LOCATION 0.4 MI. W. JCT. SR1606

SUPERSTRUCTURE STEEL PLANK DECK ON I-BEAMS

SUBSTRUCTURE END & INTERIOR BENTS: STEEL CAPS ON STEEL PILES, TIM. BULKHEADS

SPANS 1@30'6", 1@30'0", 1@30'4"

LONGITUDE 81° 9' 55.6"

LATITUDE 35° 52' 58.4"

PRESENT CONDITION POOR

INVENTORY RATING

INSPECTION DATE 11/15/2010

OPERATING RATING

PRESENT POSTING Not Posted

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



SOUTH TO NORTH

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

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL Run Date: 12/03/2010

IDENTIFICATION							
(1) STATE NAME -NORTH CAROLINA	BRIDGE	010137		SUFFICIENCY RATING =		43.2	
(8) STRUCTURE NUMBER(FEDERAL)		000000000030137		STATUS =	Structurally Deficient		
INVENTORY ROUTE (ON/UNDER) - ON		131016080					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		12					
(3) COUNTY CODE	3	(4) PLACE CODE	00000				
(6) FEATURE INTERSECTED -	GLADE CREEK						
(7) FACILITY CARRIED	SR1608						
(9) LOCATION	0.4 MI. W. JCT. SR1606						
(11)MILEPOINT		0					
(16)LAT	35° 52' 58.4"	(17)LONG	81° 9' 55.6"				
(98)BORDER BRIDGE STATE CODE		PCT SHARE					
(99)BORDER BRIDGE STRUCTURE NO							
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION			
(43) STRUCTURE TYPE MAIN:	Steel			(112)NBIS BRIDGE SYSTEM -		YES	
TYPE -	Stringer Mutlibeam or Girder	CODE	302	(104)HIGHWAY SYSTEM	NON NHS Route	0	
(44) STRUCTURE TYPE APPR :				(26) FUNCTIONAL CLASS -	Local	09	
TYPE -		CODE	0	(100)STRAHNET HIGHWAY -	Not a STRAHNET Route	0	
(45) NUMBER OF SPANS IN MAIN UNIT		3		(101)PARALLEL STRUCTURE -	No Parallel Structure	N	
(46) NUMBER OF APPROACH SPANS		0		(102)DIRECTION OF TRAFFIC -	2-way Traffic	2	
(107)DECK STRUCTURE TYPE -	Corrugated Steel	CODE	6	(103)TEMPORARY STRUCTURE -	Not Temporary		
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(110)DESIGNATED NATIONAL NETWORK -	Not Part of	0	
(A) TYPE OF WEARING SURFACE -	Bituminous	CODE	6	(20) TOLL	On Free Road	3	
(B) TYPE OF MEMBRANE	- None	CODE	0	(31) MAINTAIN -	State Highway Agency	01	
(C) TYPE OF DECK PROTECTION -	None	CODE	0	(22) OWNER -	State Highway Agency	01	
				(37) HISTORICAL SIGNIFICANCE -	Not Eligible	5	
AGE AND SERVICE				CONDITION			
(27) YEAR BUILT		1979		(58) DECK		6	
(106)YEAR RECONSTRUCTED				(59) SUPERSTRUCTURE		4	
(42) TYPE OF SERVICE : ON -	Highway			(60) SUBSTRUCTURE		5	
UNDER - Waterway		CODE	15	(61) CHANNEL & CHANNEL PROTECTION		7	
(28) LANES: ON STRUCTURE	2 UNDER STRUCTURE			(62) CULVERTS		N	
(29) AVERAGE DAILY TRAFFIC		690					
(30) YEAR OF ADT	2009	(109) TRUCK ADT PCT	6 %				
(19) BYPASS OR DETOUR LENGTH		1 MI					
GEOMETRIC DATA				LOAD RATING AND POSTING			
(48) LENGTH OF MAXIMUM SPAN		31 FT		(31) DESIGN LOAD	Other or Unknown	0	
(49) STRUCTURE LENGTH		91 FT		(64) OPERATING RATING -	HS-13	124	
(50)CURB OR SIDEWALK: LEFT	0.0 FT RIGHT	0.0 FT		(66) INVENTORY RATING -	HS-8	114	
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		28.2 FT		(70) BRIDGE POSTING -	Posting Required	4	
(52) DECK WIDTH OUT TO OUT		28.2 FT		(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P	
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		20.0 FT		DESCRIPTION -	Posted for Load		
(33) BRIDGE MEDIAN -	No Median	CODE	0				
(34) SKEW	0° (35) STRUCTURE FLARED		NO				
(10) INVENTORY ROUTE MIN VERT CLEAR		99 FT 99 IN					
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		28.2 FT					
(53) MIN VERT CLEAR OVER BRIDGE RDWY		99 FT 99 IN					
(54) MIN VERT UNDERCLEAR REF	Not a Highway or Railroad						
(55) MIN LAT UNDERCLEAR RT REF	Not a Highway or Railroad	99.9 FT					
(56) MIN LAT UNDERCLEAR LT REF -		0.0 FT					
NAVIGATION DATA				APPRAISAL			
(38) NAVIGATION CONTROL -	No Navigational Control	CODE	0	(67) STRUCTURAL EVALUATION		4	
(111)PIER PROTECTION -	Not Applicable	CODE		(68) DECK GEOMETRY		5	
(39) NAVIGATION VERTICAL CLEARANCE		0		(69) UNDERCLEARANCES,VERTI & HORIZ		N	
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR				(71) WATERWAY ADEQUACY		7	
(40) NAVIGATION HORIZONTAL CLEARANCE		0		(72) APPROACH ROADWAY ALIGNMENT		7	
				(36) TRAFFIC SAFETY FEATURES		0000	
				(113)SCOUR CRITICAL BRIDGES		8	
				SCOUR PLAN OF ACTION			
				PROPOSED IMPROVEMENTS			
				(75) TYPE OF WORK -		CODE	
				(76) LENGTH OF STRUCTURE IMPROVEMENT		0 FT	
				(94) BRIDGE IMPROVEMENT COST			
				(95) ROADWAY IMPROVEMENT COST			
				(96) TOTAL PROJECT COST			
				(97) YEAR OF IMPROVEMENT COST ESTIMATE		20	
				(114)FUTURE ADT	1380	(115) YEAR FUTURE ADT	2025
				INSPECTIONS			
(38) NAVIGATION CONTROL -	No Navigational Control	CODE	0	(90) INSPECTION DATE		11/15/2010	
(111)PIER PROTECTION -	Not Applicable	CODE		(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(39) NAVIGATION VERTICAL CLEARANCE		0		A) FRACTURE CRIT DETAIL -	NO	A)	
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR				B) UNDERWATER INSP -	NO	B)	
(40) NAVIGATION HORIZONTAL CLEARANCE		0		C) OTHER SPECIAL INSP	NO	C)	
				SCOUR			

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 010137 COUNTY ALEXANDER ROUTE SR1608 OVER GLADE CREEK
 STRUCTURE TYPE STEEL PLANK DECK ON I-BEAMS
 ROUTE ORIENTATION S - N SPANS 1@30'6 ,1@30'0 ,1@30'4

EVALUATION CODE: 0-2 CRITICAL, 3 & 4 POOR, 5 & 6 FAIR, 7-9 GOOD

INSPECTION ITEM				ITEM 61				
DECK ITEMS			GRADES	45. CHANNEL & CHANNEL PROT.				
1. WEARING SURFACE			4	a. WATERWAY			7	
				b. ALIGNMENT			7	
				c. SCOUR			7	
				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			7	
	b. TIMBER			51. APPROACH SLABS				
	c. STEEL PLANK	3	6	52. PAINT SYSTEM CODE A			3	
	d. OPEN GRID			53. UTILITIES				
3. RAILING	a. CONCRETE			54. RESPONSE TO LIVE LOAD			6	
	b. TIMBER			55. ESTIMATED REMAINING LIFE			10	
	c. ALUMINUM							
	d. STEEL		7					
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS								
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			YES	
	b. MISC PREFAB			62. PRESENTLY POSTED			NO	
	c. COMPRESSION SEAL			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			8	
	d. STANDARD JOINTS			64. TOTAL SNOOPER INSP. TIME (HRS)			0	
	e. OPEN JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			0	
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)				7				
				70. SI&A GENERAL CONDITION RATINGS				
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				a. DECK	ITEM 58	6		
10. LONGITUDINAL BEAMS OR GIRDERS				4	b. SUPERSTRUCTURE	ITEM 59	4	
11. LONGITUDINAL JOIST OR STRINGERS					c. SUBSTRUCTURE	ITEM 60	5	
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S				7	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)				5	a. WATERWAY ADAQUACY	7		
16. DRAINAGE SYSTEM (ON STRUCTURE)				7	b. APPR. RDWY. ALIGNMENT	7		
17. MOVABLE SPAN MACHINERY								
					72. FIELD SCOUR EVALUATION			
					O			
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			LADDER		YES		
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	5		SPECIAL INSPECTION REQUESTED FOR				
	b. PILES, BRACING, AND BULKHEADS	6						
38. FOUNDATION PILES TYPE MATERIAL				NOTE				
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)				7				
40. FENDER SYSTEMS					80. INSPECTED BY:	NBY JL		
41. DRIFT				7	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 MAX FORD			
Assisted By RAP			
Item No.	Grade		
1	4	A.W.S.. PAVEMENT IS BROKEN ALONG SOUTH APPROACH, AND OVER PIER 1. TRANSVERSE CRACKS THROUGHOUT. PAVEMENT IS UNEVEN.	
2c	6	DECK PANELS ARE LOOSE IN SPAN A	
10	4	ALL BEAM ENDS ARE DETERIORATED, WITH LOSS OF SECTION AT BOTH ABUTMENTS, AND AT PIER 2, SEE LIST BELOW. AFFECTED AREAS ARE MAINLY LOWER +/- 3 INCHES OF WEB, AND BOTTOM FLANGE. SECTION LOSS EXTENDS FROM BEAM END, OUT AN AVERAGE OF 3 FEET. (PMN) ISSUED. SEE SKETCHES FOR DETAILS. SECTION LOSS; END OF BEAM 2 AT ABUT. A SECTION LOSS; END OF BEAM 3 AT ABUT. A SECTION LOSS; END OF BEAM 4 AT ABUT. A SECTION LOSS; END OF BEAM 5 AT ABUT. A SECTION LOSS; END OF BEAM 8 AT ABUT. A SECTION LOSS; END OF BEAM 9 AT ABUT. A SECTION LOSS; END OF BEAM 10 AT ABUT. A COMPLETE LOSS OF SECTION, WEB; END OF BEAM 6, SPAN A AT ABUT. A COMPLETE LOSS OF SECTION, WEB; END OF BEAM 2, SPAN B AT PIER 2 COMPLETE LOSS OF SECTION, WEB; END OF BEAM 9, SPAN C AT PIER 2 COMPLETE LOSS OF SECTION, WEB; END OF BEAM 10, SPAN C AT PIER 2 COMPLETE LOSS OF SECTION TO WEB AND BOTTM FLANGE; BEAM 2, SPAN C AT ABUT. B COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 8, SPAN C AT ABUT. B COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGR; BEAM 9, SPAN C AT ABUT. B COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 10, SPAN C AT ABUT. B	
15	5	RUST, SCALE AND +/- 1/16 INCH LOSS ON VISIBLE AREAS.	
52	3	PAINT SYSTEM HAS FAILED AT BEAM ENDS.	
37a	5	RUST, SCALE, AND AREAS OF 1/16 TO 1/8 INCH LOSS FROM THE LEADING EDGE, BACK APPROX. 1 INCH. STIFFENERS ARE DETERIORATED WITH AREAS OF 25 TO 70 PERCENT LOSS OF SECTION. SEE SKETCH	

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 MAX FORD			
Assisted By RAP			
Item No.	Grade		
37b	6	RUST AND SCALE ALONG TOP OF PILES AND BOTTOM FLANGE OF CAPS.	
54	6	DECK PANELS ARE LOOSE IN SPAN A, NOTICABLE MOVEMENT.	
61	YES	PMN ISSUED FOR STEEL BEAMS, (SECTION LOSS)	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

Date: 11/15/2010

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	320	A.W.S.. PAVEMENT IS BROKEN ALONG SOUTH APPROACH, AND OVER PIER 1. TRANSVERSE CRACKS THROUGHOUT. PAVEMENT IS UNEVEN.	
3308	Maint. Of Steel Plate Bridge Joints	LF	31	STEEL PLANK DECK PANELS ARE LOOSE IN SPAN A	
 3314	Maintain Steel Superstructure Components	LF	2	COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 8, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	2	COMPLETE LOSS OF SECTION, WEB; END OF BEAM 2, SPAN B AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	2	COMPLETE LOSS OF SECTION, WEB; END OF BEAM 9, SPAN C AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	3	COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 10, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	3	COMPLETE LOSS OF SECTION, WEB; END OF BEAM 10, SPAN C AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	3	SECTION LOSS; END OF BEAM 6 AT ABUT. A (AREA OF COMPLETE LOSS IN WEB) SEE ATTACHED SKETCH FOR DETAILS...	
 3314	Maintain Steel Superstructure Components	LF	4	COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 2, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

Date: 11/15/2010

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3314	Maintain Steel Superstructure Components	LF	5	COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGR; BEAM 9, SPAN C AT ABUT. B	
 3314	Maintain Steel Superstructure Components	LF	40	SEE ATTACHED SKETCH FOR DETAILS... LOSS OF SECTION TO BEAM ENDS AT BOTH ABUTMENTS; SEE (7) PHOTOS AND (1) GENERAL DETAIL SKETCH. (AREAS OF COMPLETE LOSS ARE INCLUDED ON SEPERATE (PMN'S). AREAS SHOWN ARE AS FOLLOWS: SECTION LOSS; END OF BEAM 2 AT ABUT. A SECTION LOSS; END OF BEAM 3 AT ABUT. A SECTION LOSS; END OF BEAM 4 AT ABUT. A SECTION LOSS; END OF BEAM 5 AT ABUT. A SECTION LOSS; END OF BEAM 8 AT ABUT. A SEE ATTACHED SKETCH FOR DETAILS... SECTION LOSS; END OF BEAM 9 AT ABUT. A SECTION LOSS; END OF BEAM 10 AT ABUT. A SKETCH OF SECTION LOSS TO BEAM ENDS AT BOTH ABUTMENTS GENERAL CONDITION SKETCH; LOSS OF SECTION AT END OF BEAMS. AREAS OF COMPLETE LOSS WILL BE PROVIDED SEPERATELY.	
3354	Maintain Steel Substructure Components	LF	56	LOSS OF SECTION ALONG LEADING EDGE OF BOTH FLANGES OF BOTH ABUTMENT CAPS. STIFFENERS ARE DETERIORATED. SEE SKETCH.	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF
Location:		
Beams and Girders	Bent/Span No. 1	END OF BEAM 6 AT ABUT. A
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
SECTION LOSS; END OF BEAM 6 AT ABUT. A (AREA OF COMPLETE LOSS IN WEB) SEE ATTACHED SKETCH FOR DETAILS...		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF
Location:		
Beams and Girders	Bent/Span No. 2	BEAM 2, SPAN B AT PIER 2
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION, WEB; END OF BEAM 2, SPAN B AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF
Location:		
Beams and Girders	Bent/Span No. 3	BEAM 10, SPAN C AT PIER 2
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION, WEB; END OF BEAM 10, SPAN C AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF
Location:		
Beams and Girders	Bent/Span No. 3	BEAM 8 AT ABUT. B
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 8, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF
Location:		
Beams and Girders	Bent/Span No. 3	BEAM 10 AT ABUT. B
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 10, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	40 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM ENDS AT BOTH ABUTMENTS
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
LOSS OF SECTION TO BEAM ENDS AT BOTH ABUTMENTS; SEE (7) PHOTOS AND (1) GENERAL DETAIL SKETCH. (AREAS OF COMPLETE LOSS ARE INCLUDED ON SEPERATE (PMN'S). AREAS SHOWN ARE AS FOLLOWS: SECTION LOSS; END OF BEAM 2 AT ABUT. A SECTION LOSS; END OF BEAM 3 AT ABUT. A SECTION LOSS; END OF BEAM 4 AT ABUT. A SECTION LOSS; END OF BEAM 5 AT ABUT. A SECTION LOSS; END OF BEAM 8 AT ABUT. A SEE ATTACHED SKETCH FOR DETAILS... SECTION LOSS; END OF BEAM 9 AT ABUT. A SECTION LOSS; END OF BEAM 10 AT ABUT. A SKETCH OF SECTION LOSS TO BEAM ENDS AT BOTH ABUTMENTS GENERAL CONDITION SKETCH; LOSS OF SECTION AT END OF BEAMS. AREAS OF COMPLETE LOSS WILL BE PROVIDED SEPERATELY.		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	4 LF
Location:		
Beams and Girders	Bent/Span No. 3	END OF BEAM 2 AT ABUT. B
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 2, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF
Location:		
Beams and Girders	Bent/Span No. 3	END OF BEAM 9, SPAN C AT PIER 2
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION, WEB; END OF BEAM 9, SPAN C AT PIER 2 SEE ATTACHED SKETCH FOR DETAILS...		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 010137

County ALEXANDER

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	5 LF
Location:		
Beams and Girders	Bent/Span No. 3	BEAM 9 AT ABUT. B
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/18/2010	MAX FORD	ROBERT PIERCE
Details		
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGR; BEAM 9, SPAN C AT ABUT. B SEE ATTACHED SKETCH FOR DETAILS...		



A.W.S.. PAVEMENT IS BROKEN ALONG SOUTH APPROACH, AND OVER PIER 1. TRANSVERSE CRACKS THROUGHOUT. PAVEMENT IS UNEVEN.



SECTION LOSS; END OF BEAM 2 AT ABUT. A



SECTION LOSS; END OF BEAM 3 AT ABUT. A



SECTION LOSS; END OF BEAM 4 AT ABUT. A



SECTION LOSS; END OF BEAM 5 AT ABUT. A



SECTION LOSS; END OF BEAM 6 AT ABUT. A (AREA OF COMPLETE LOSS IN WEB)



SECTION LOSS; END OF BEAM 8 AT ABUT. A



SECTION LOSS; END OF BEAM 9 AT ABUT. A



SECTION LOSS; END OF BEAM 10 AT ABUT. A



COMPLETE LOSS OF SECTION, WEB; END OF BEAM 2, SPAN B AT PIER 2



COMPLETE LOSS OF SECTION, WEB; END OF BEAM 9, SPAN C AT PIER 2



COMPLETE LOSS OF SECTION, WEB; END OF BEAM 10, SPAN C AT PIER 2



COMPLETE LOSS OF SECTION TO WEB AND BOTTM FLANGE; BEAM 2, SPAN C AT ABUT. B



COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 8, SPAN C AT ABUT. B



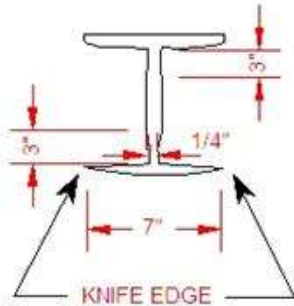
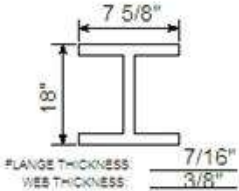
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGR; BEAM 9, SPAN C AT ABUT. B



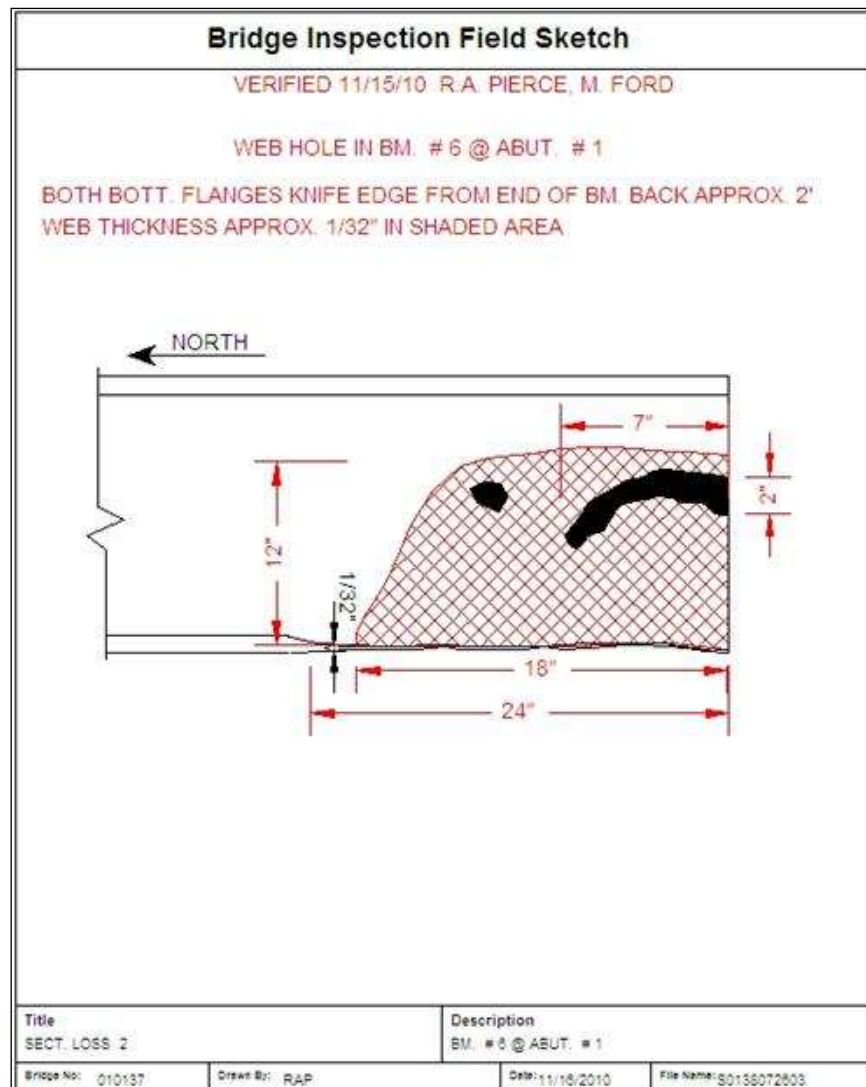
COMPLETE LOSS OF SECTION TO WEB AND BOTTOM FLANGE; BEAM 10, SPAN C AT ABUT. B



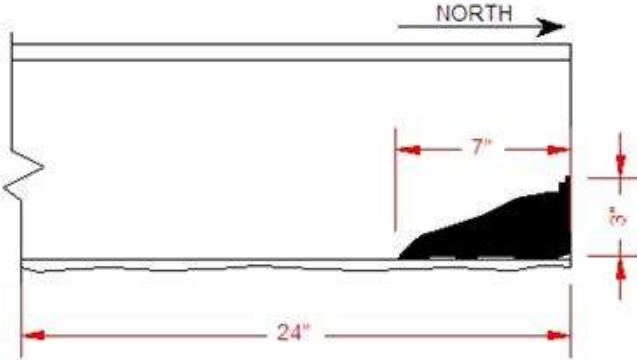
RUST, SCALE, AND AREAS OF 1/16 TO 1/8 INCH LOSS FROM THE LEADING EDGE, BACK APPROX. 1 INCH.
STIFFENERS ARE DETERIORATED WITH AREAS OF 25 TO 70 PERCENT

Bridge Inspection Field Sketch			
VERIFIED 11/15/10 R.A. PIERCE, M. FORD			
SECTION LOSS TO BM. FLANGES @ ABUTS.			
BM. # 2 - 5, 7 - 10 @ ABUT. # 1; 3 - 7, 11, 12 @ ABUT. # 2			
REMAINING SECT. ON TOP FLANGES: 1/4"			
TOP FL. LOSS EXTENDS FROM END OF BM. BACK APPROX. 5'			
BOTT. FL. LOSS EXTENDS FROM END OF BM. BACK APPROX. 2'			
			
			
SCALE: N.T.S.		ORIGINAL SECTION	
Title SECT. LOSS 1		Description BOTT. FL. SECT. LOSS	
Bridge No: 010137	Drawn By: RAP	Date: 11/19/08	File Name: S0136001513

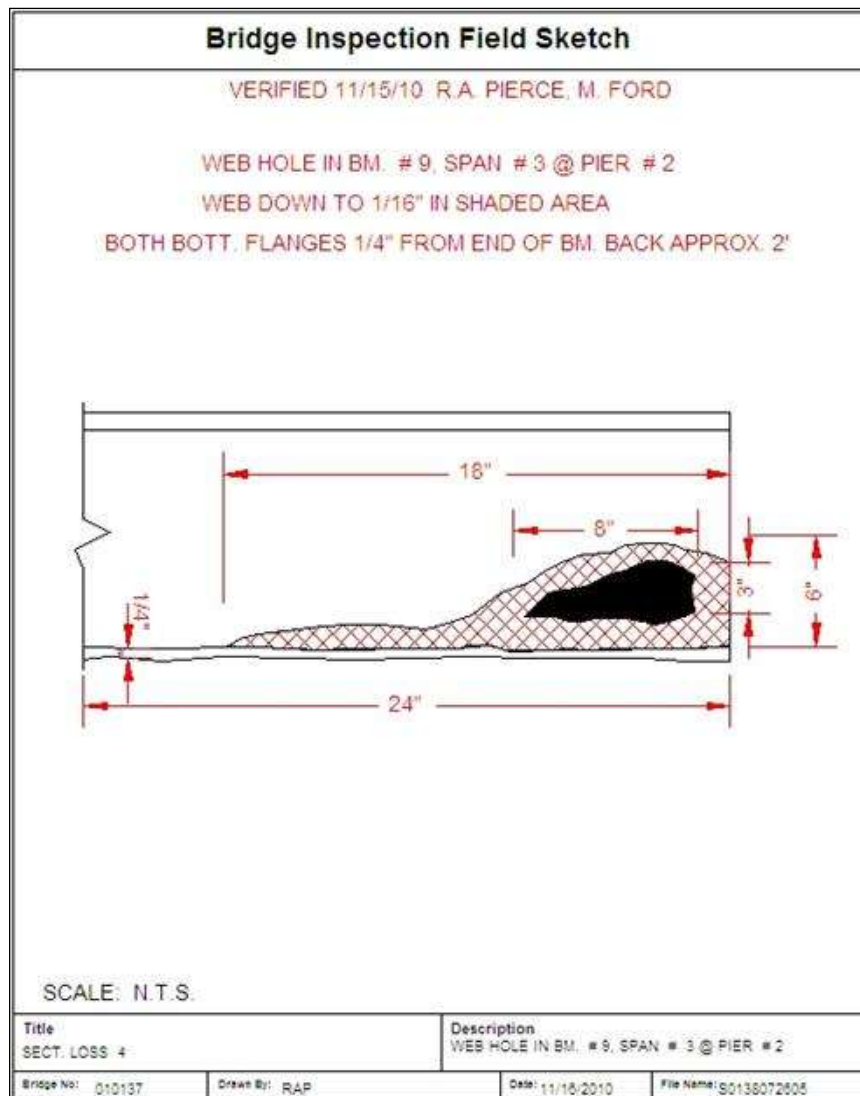
GENERAL CONDITION SKETCH; LOSS OF SECTION AT END OF BEAMS. AREAS OF COMPLETE LOSS WILL BE PROVIDED SEPERATELY.



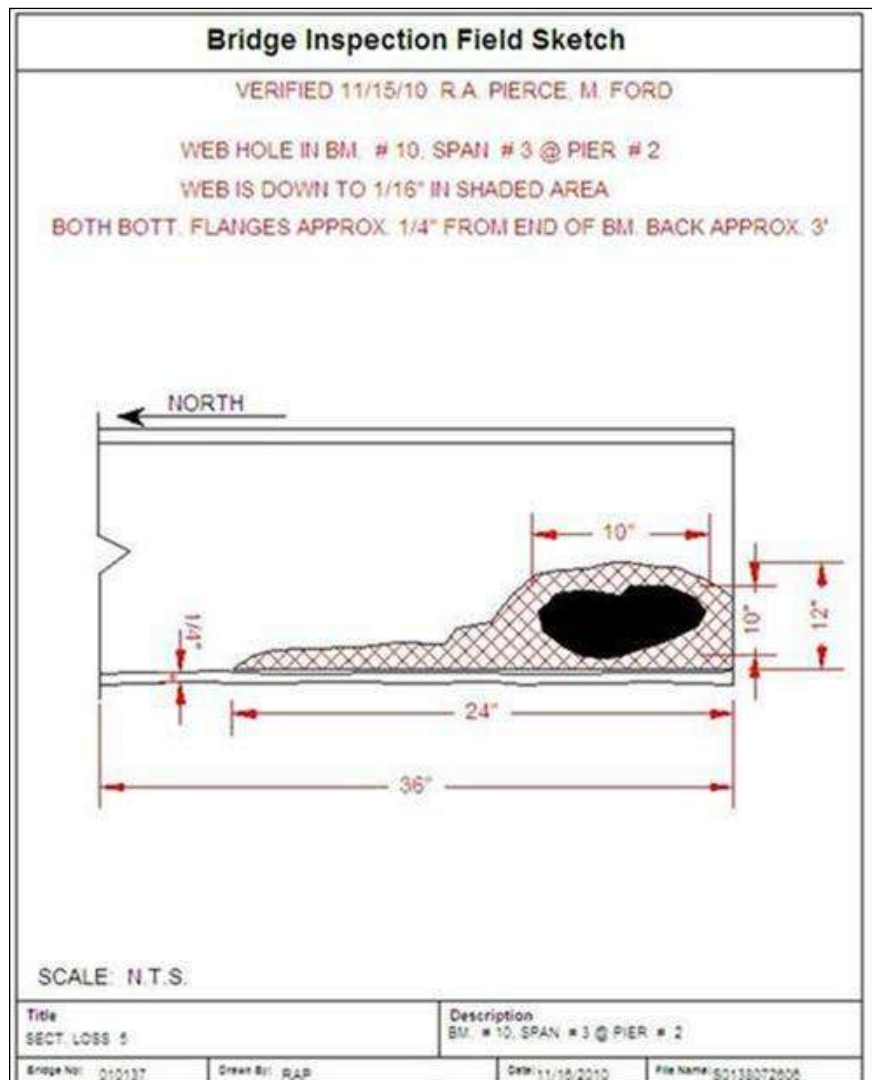
SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 6 AT ABUT. A

Bridge Inspection Field Sketch			
VERIFIED 11/15/10 R.A. PIERCE, M. FORD			
WEB HOLE IN BM. # 2, SPAN # 2 @ PIER # 2 BOTH BOTT. FLANGES 5/16" FROM END OF BM. BACK APPROX. 2'			
			
SCALE: N.T.S.			
Title SECT. LOSS 3		Description BM. # 2, SPAN # 2 @ PIER # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/15/2010	File Name: S0135072504

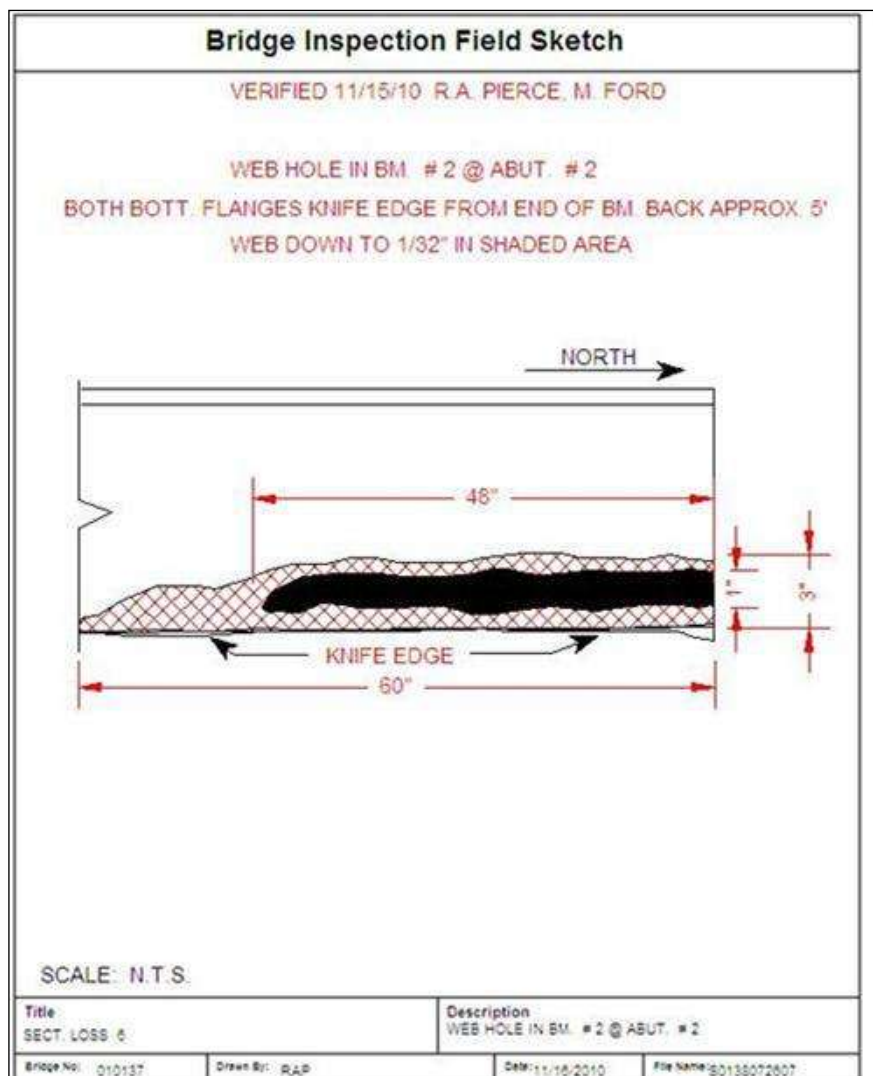
SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 2, SPAN B AT PIER 2



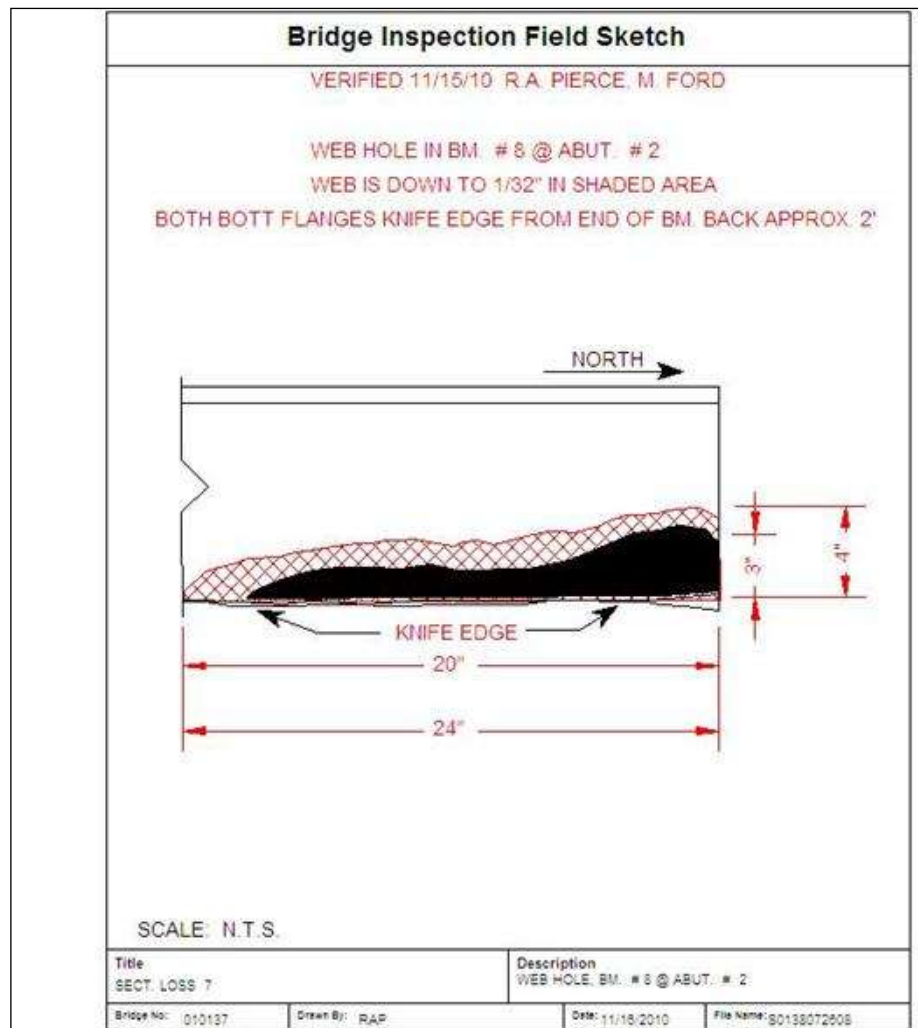
SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 9, SPAN C AT PIER 2



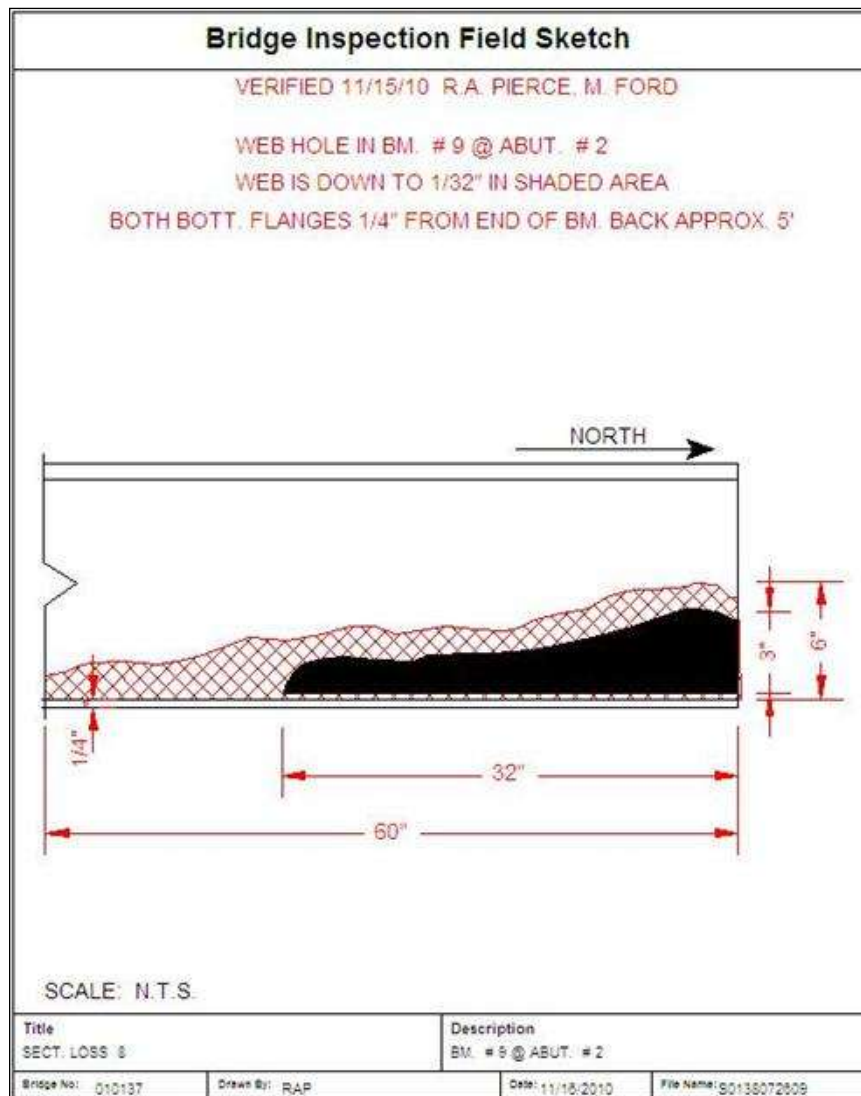
SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 10, SPAN C AT PIER 2



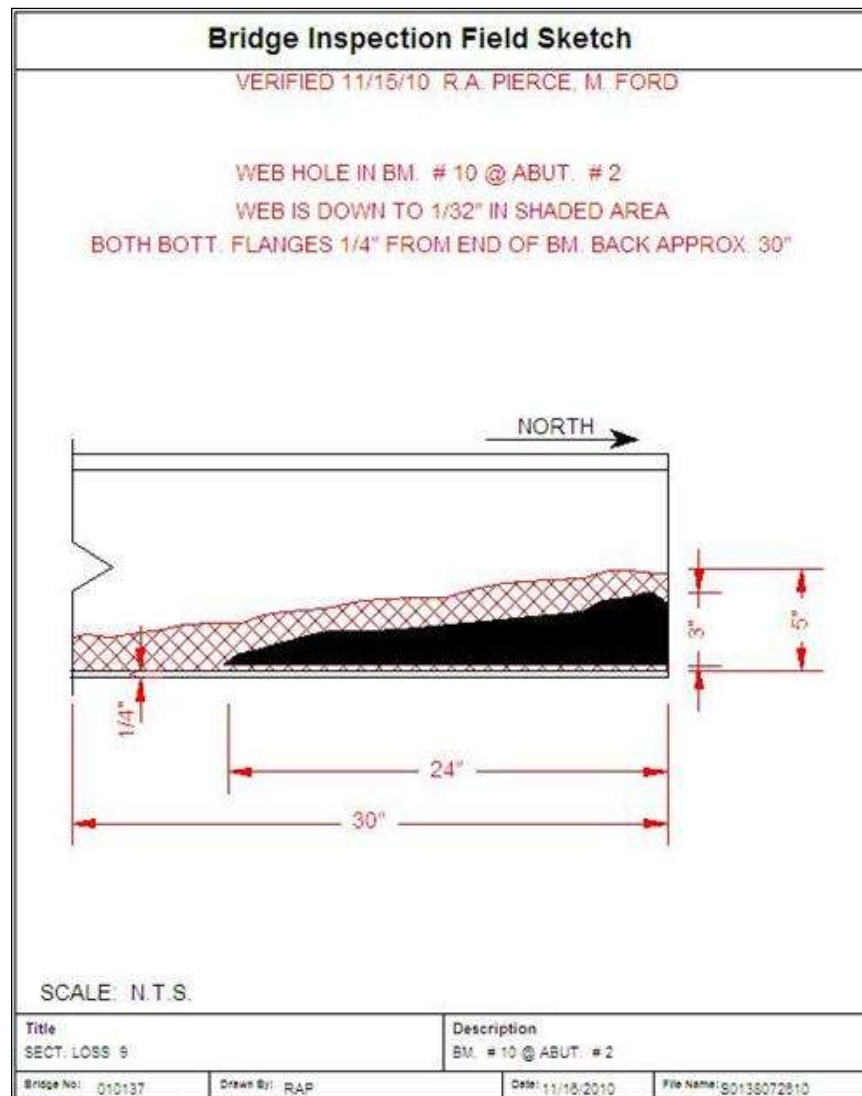
SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 2 AT ABUT. B



SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 8, AT ABUT. B



SKETCH; AREA OF COMPLETE LOSS TO WEB OF BEAM 9 AT ABUT. B



SKETCH; AREA OF COMPLETE LOSSTO WEB OF BEAM 10 AT ABUT. B

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

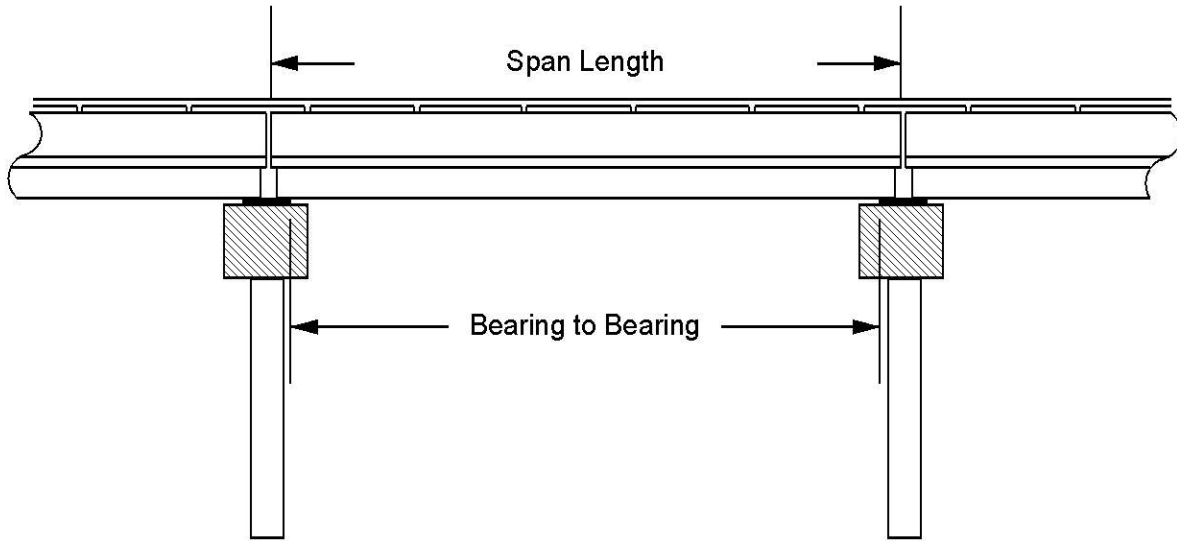
Run Date: 12/03/2010

COUNTY :	DIV :	DIST :	STRUCTURE NUMBER :	LENGTH :		
ALEXANDER	12	2	010137	91	FEET	
ROUTE CARRIED :		FEATURE INTERSECTED :				
SR1608		GLADE CREEK				
LOCATED :		BRIDGE NAME :		CITY :		
0.4 MI. W. JCT. SR1606						
FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :		
09	NFA	NFA	690 2009	LT 253 RT 253		
BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :		
1979	BMU	6.782109		Other or Unknown		
REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :	
			TAN	90	ON 2 UNDER	
NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :	
VC	0.0	FT	HC	0.0	FT	17 FT
1			FT			
SUPERSTRUCTURE : STEEL PLANK DECK ON I-BEAMS						
SUBSTRUCTURE : END & INTERIOR BENTS:STEEL CAPS ON STEEL PILES,TIM.BULKHEADS						
SPANS : 1@30'6", 1@30'0", 1@30'4"						
BEAMS OR GIRDERS : 12 LINES OF W18X50 I-BEAMS @ 2'5 3/8" CENTERS						
FLOOR :		ENCROACHMENT :		DECK (OUT TO OUT) :		
STL.PLK,2" AWS				28.2 FT		
CLEAR ROADWAY :		BETWEEN RAILS :		SIDEWALK OR CURB :		
28.2 FT		28.2 FT		LT 0.0 FT RT 0.0 FT		
VERT.CL.OVER :		VERT.CL.UNDER :		HOR.CL.UNDER :		
99 FT 99 IN		00 FT 00 IN		0.0 FT		
INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :		POSTED :		
HS-8	HS-13	I.Bs7& 11SpC		SV 15	TTST 19	DATE 12/02/2010
SYSTEM :				GREEN LINE ROUTE :		
Secondary S.R. Route				N		
2ND OPENING :		3RD OPENING :		4TH OPENING :		5TH OPENING :
REMARKS :						

Structure Data Worksheet

Spans

County: ALEXANDER Structure No: 010137 Date: 11/15/2010 Inspected By: MF



Span No	Span Length	Bearing to Bearing	Comments
1	30.5	29.25	
2	30	29.5	
3	30.333	29.25	

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 010137 County: ALEXANDER Date: 11/15/2010 By: MF

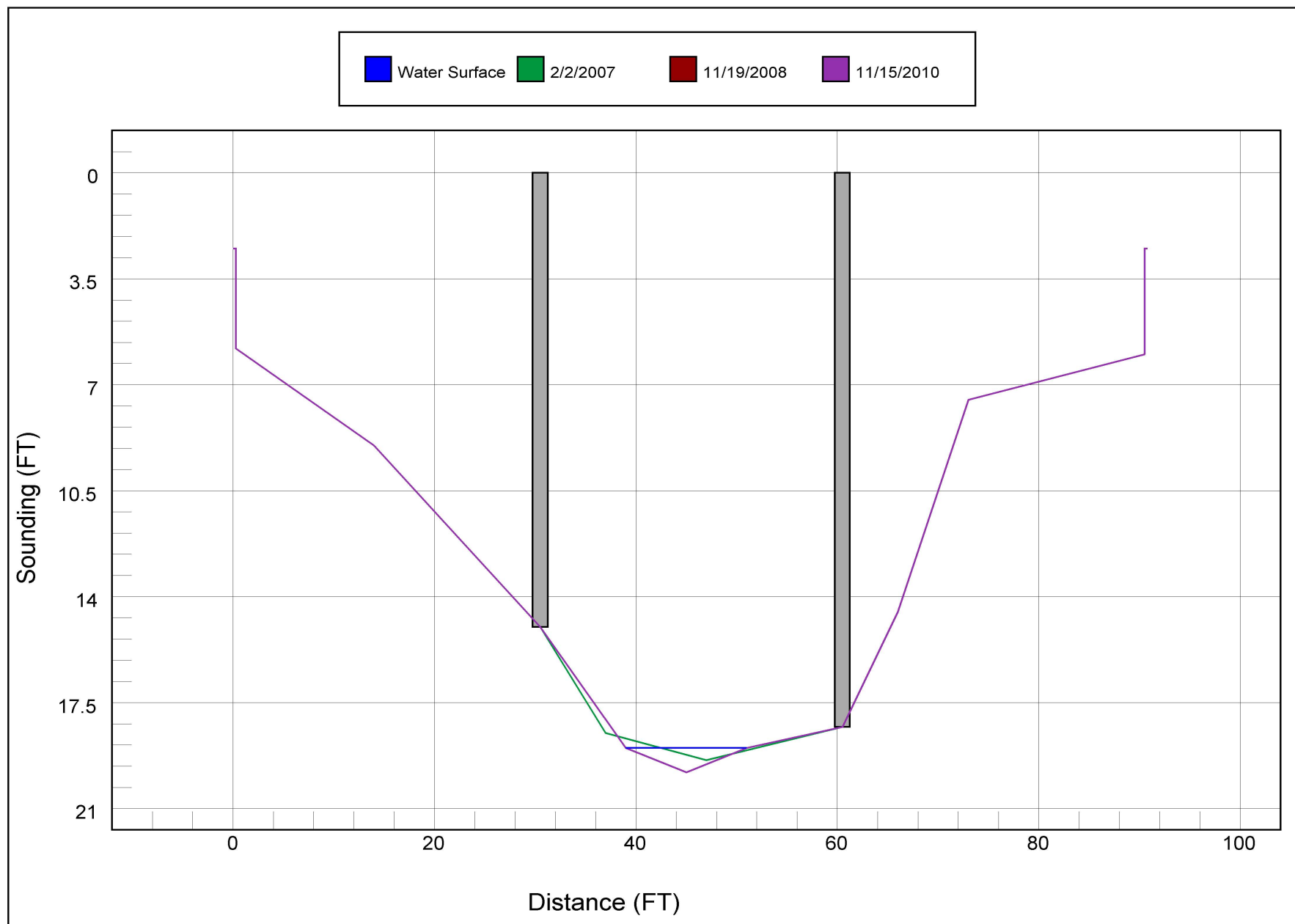
Record sounding from top of rail. Other location if needed: _____

Distance from Highwater Mark to top of rail: _____ Location of Highwater Mark: _____

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	2.5	TOP OF FILLFACE			
0.28	2.5	TOP OF FILLFACE			
0.29	4.3	TOP OF CAP			
0.3	5.8	FACE OF ABUT	0.3	6	FACE OF ABUT
14	9	SLOPE			
30.5	15	PIER 1	30.5	18.6	PIER 1
39	19	WSWE			
45	19.8	BED			
51	19	WSWE			
60.5	18.3	PIER 2	60.5	15.3	PIER 2
66	14.5	SLOPE			
73	7.5	SLOPE			
90.5	6	FACE OF ABUT	90.5	6	FACE OF ABUT
90.51	4.3	TOP OF CAP			
90.52	2.5	TOP OF FILLFACE			
90.8	2.5	TOP OF FILLFACE			

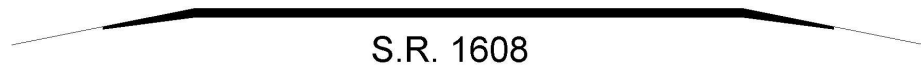
STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD



S.R. 1608

LOOKING NORTH

Roadway	20.0ft Wide	2 Paved Lanes	Looking North
Left Shoulder	6ft Wide		6.0ft Unpaved
Right Shoulder	6ft Wide		6.0ft Unpaved
Left Guardrail			
Right Guardrail			

Title
APPR. RDWY.

Description
APPR. RDWY.

Bridge No: 010137

Drawn By: RAP

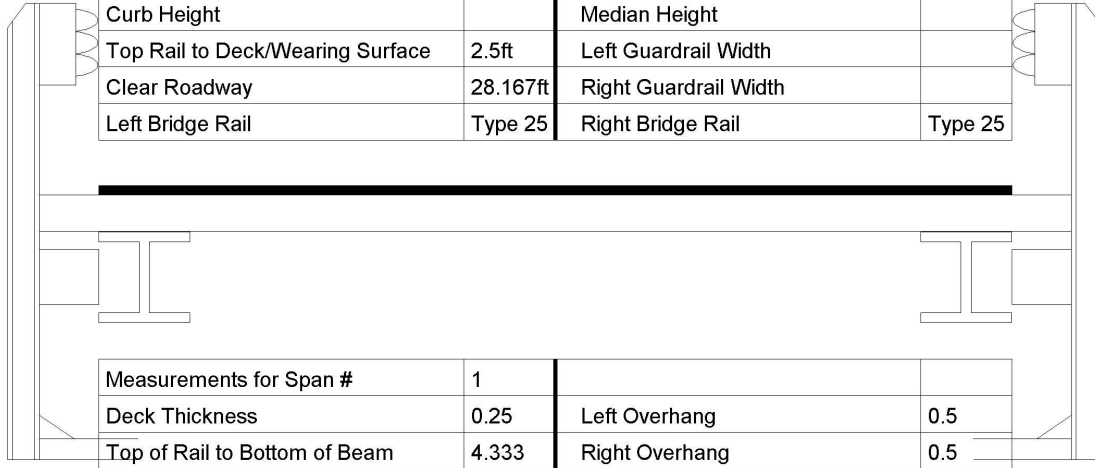
Date: 11/19/08

File Name: S0000000885

Bridge Inspection Field Sketch

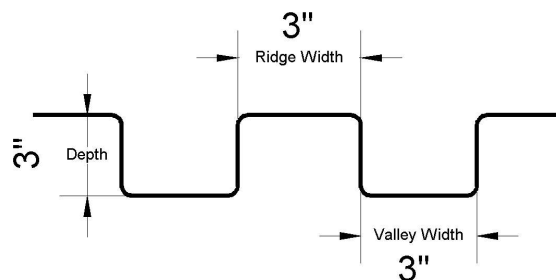
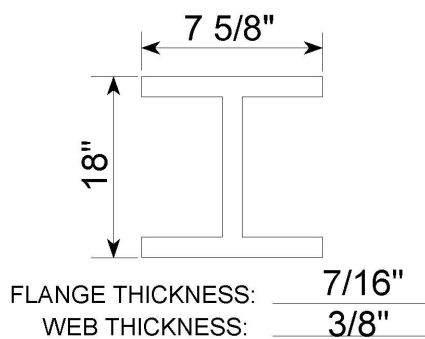
VERIFIED 11/15/10 R.A. PIERCE, M. FORD

Deck Width/Out to Out	28.167ft	Wearing Surface	0.167ft
Between Rails	28.167ft	Median Width	
Curb Height		Median Height	
Top Rail to Deck/Wearing Surface	2.5ft	Left Guardrail Width	
Clear Roadway	28.167ft	Right Guardrail Width	
Left Bridge Rail	Type 25	Right Bridge Rail	Type 25



Measurements for Span #	1		
Deck Thickness	0.25	Left Overhang	0.5
Top of Rail to Bottom of Beam	4.333	Right Overhang	0.5

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.448ft	ALL SPANS SIMILAR
2	Steel I Beam	2.448ft	
3	Steel I Beam	2.448ft	
4	Steel I Beam	2.448ft	
5	Steel I Beam	2.448ft	
6	Steel I Beam	2.448ft	
7	Steel I Beam	2.448ft	
8	Steel I Beam	2.448ft	
9	Steel I Beam	2.448ft	
10	Steel I Beam	2.448ft	
11	Steel I Beam	2.448ft	
12	Steel I Beam		



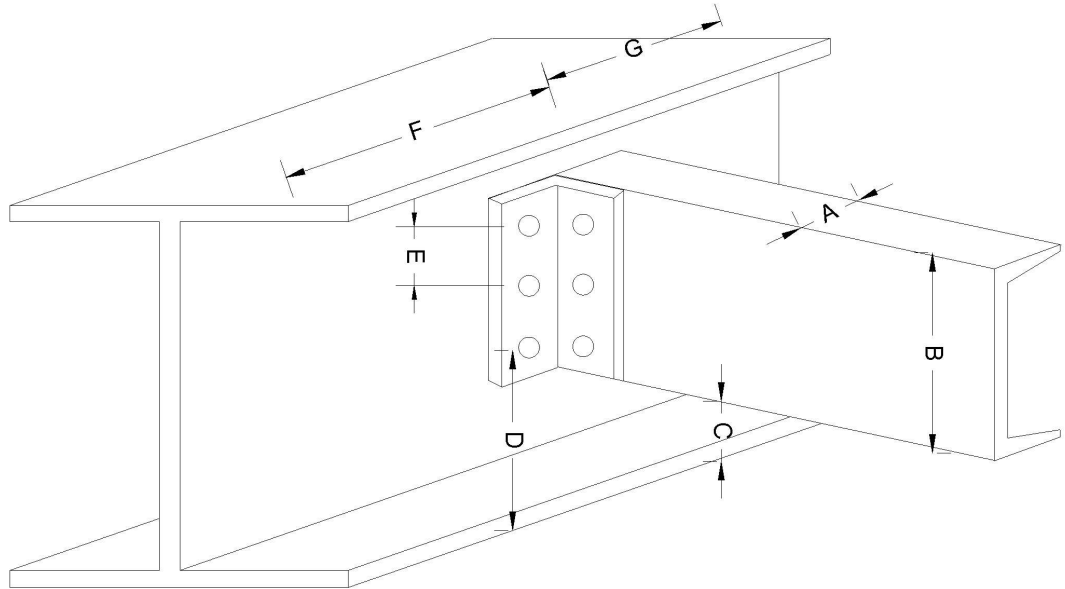
Title SUPER.		Description DECK SECTION	
Bridge No: 010137	Drawn By: RAP	Date: 11/19/08	File Name: S0000000886

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

SPAN: ALL

LOCATION: MID - SPAN



3 BOLTS

SPAN	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	DIM. G	BOLT SIZE
ALL	2 5/8"	10"	6 1/4"	3 1/4"	2 1/2"	15'	15'	3/4"

Title
DIAPH.

Description
DIAPH.

Bridge No: 010137

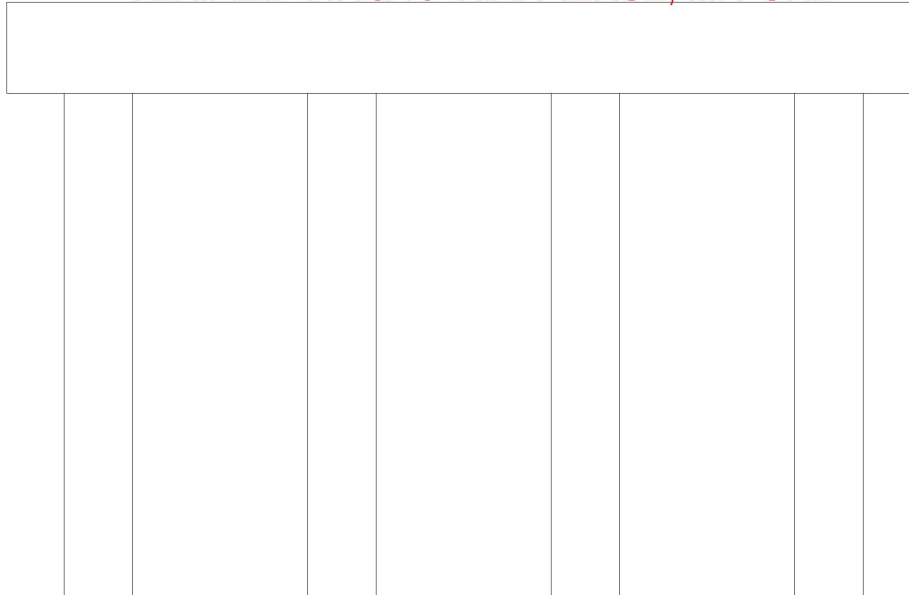
Drawn By: RAP

Date: 11/19/08

File Name: S0000000887

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	30.167ft Long	1.0ft Wide	0.979ft High
Left Overhang	2.333ft	Lt Cap/Beam Overhang	1.5ft
Right Overhang	2.333ft	Rt Cap/Beam Overhang	1.5ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Steel	Pile Bent	8.5		1	0.979	Vertical
2	Steel	Pile Bent	8.5		1	0.979	Vertical
3	Steel	Pile Bent	8.5		1	0.979	Vertical
4	Steel	Pile Bent			1	0.979	Vertical

ABUT. # 2 BM. OUT SAME AS ABUT. # 1

Title

SUBST.

Description

ABUTS.

Bridge No: 010137

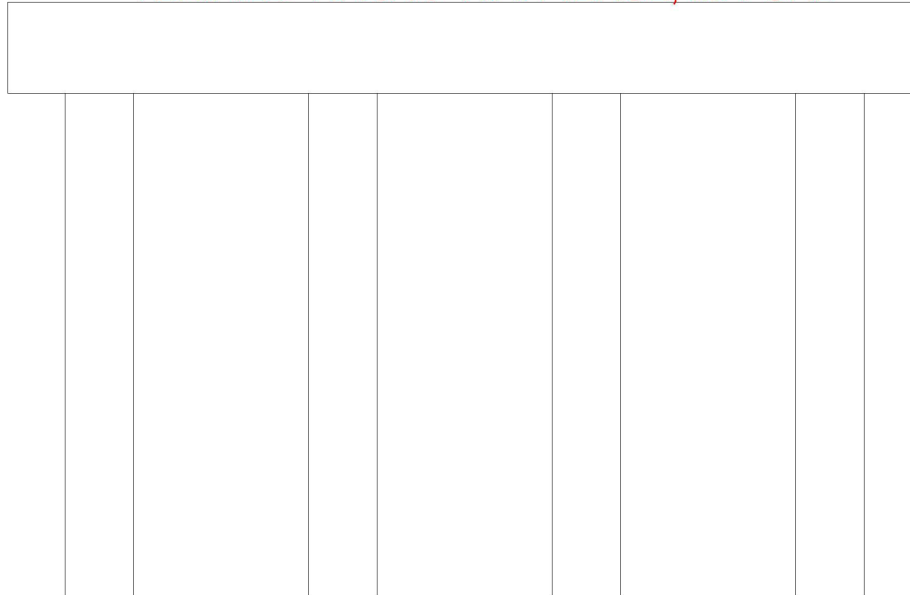
Drawn By: RAP

Date: 11/19/08

File Name: S0000000888

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD



Bent #	1	Bents 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	30.167ft Long	1ft Wide	0.979ft High
Left Overhang	2.333ft	Lt Cap/Beam Overhang	1.5ft
Right Overhang	2.333ft	Rt Cap/Beam Overhang	1.5ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Steel	Pile Bent	8.5		1	0.979	Vertical
2	Steel	Pile Bent	8.5		1	0.979	Vertical
3	Steel	Pile Bent	8.5		1	0.979	Vertical
4	Steel	Pile Bent	8.5		1	0.979	Vertical

PIER # 2 BM. OUT SAME AS PIER # 1

Title SUBST. 2		Description PIERS	
Bridge No: 010137	Drawn By: RAP	Date: 11/19/08	File Name: S0000000889

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

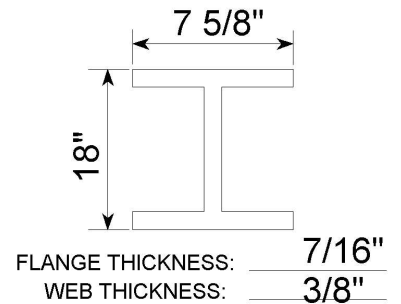
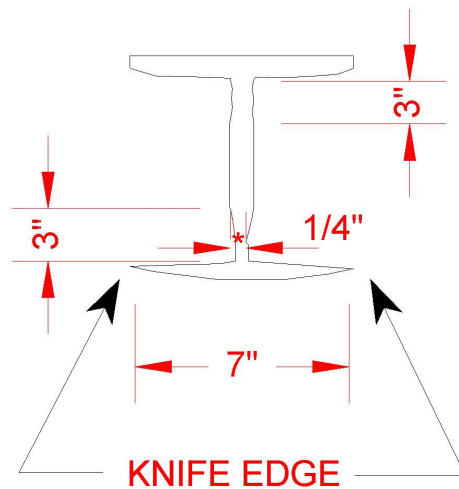
SECTION LOSS TO BM. FLANGES@ ABUTS.

BM. # 2 - 5, 7 - 10 @ ABUT. # 1; 3 - 7, 11, 12 @ ABUT. # 2

REMAINING SECT. ON TOP FLANGES: 1/4"

TOP FL. LOSS EXTENDS FROM END OF BM. BACK APPROX. 5'

BOTT. FL. LOSS EXTENDS FROM END OF BM. BACK APPROX. 2'



ORIGINAL SECTION

SCALE: N.T.S.

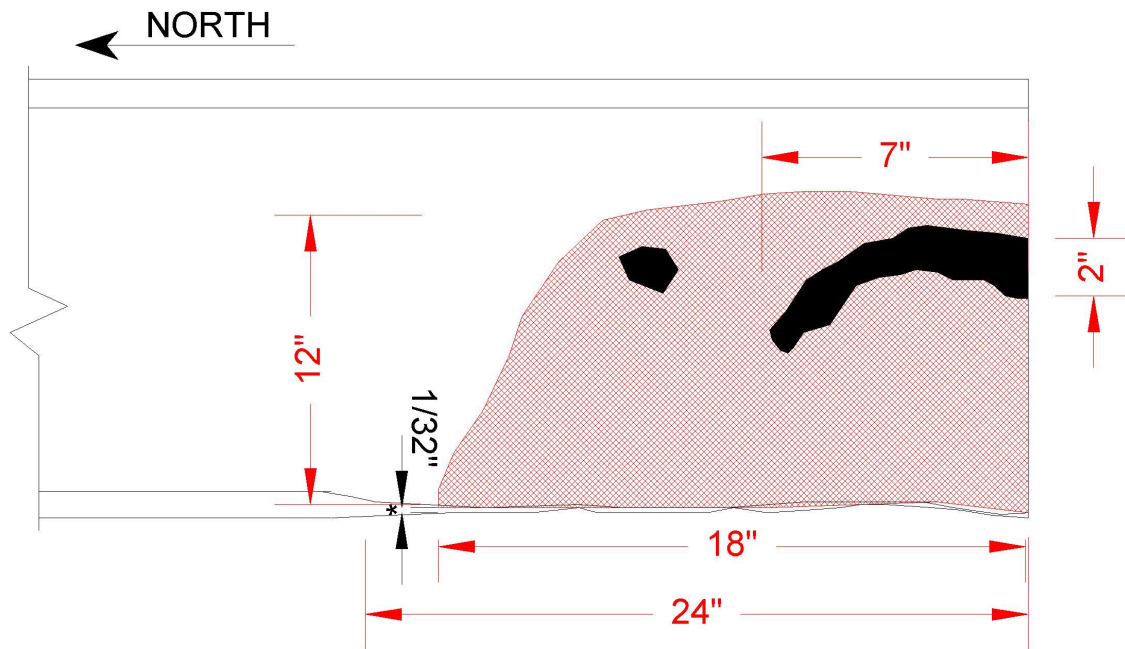
Title		Description	
SECT. LOSS 1		BOTT. FL. SECT. LOSS	
Bridge No: 010137	Drawn By: RAP	Date: 11/19/08	File Name: S0138001913

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 6 @ ABUT. # 1

BOTH BOTT. FLANGES KNIFE EDGE FROM END OF BM. BACK APPROX. 2'
WEB THICKNESS APPROX. 1/32" IN SHADED AREA



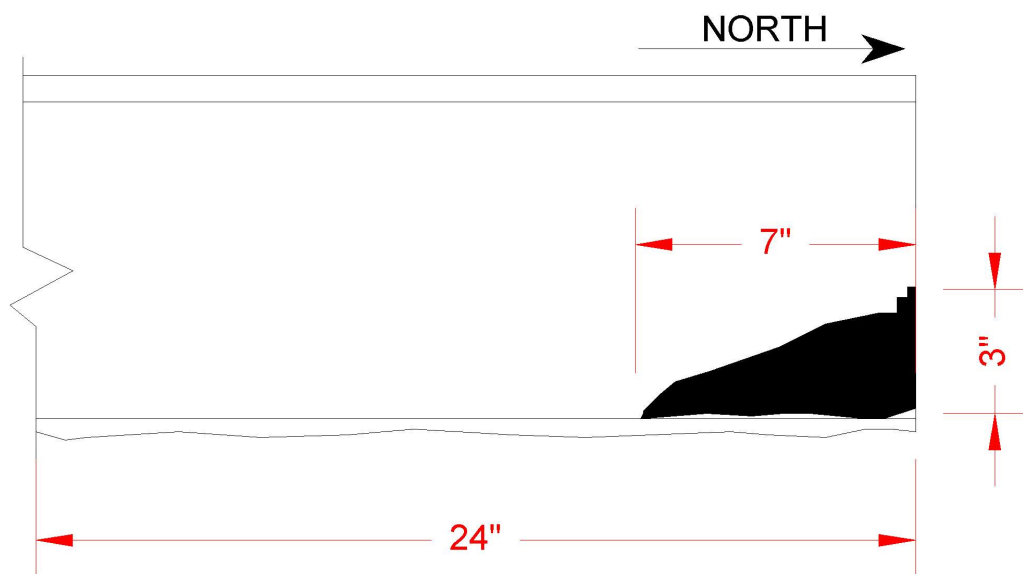
SCALE: N.T.S.

Title		Description	
SECT. LOSS 2		BM. # 6 @ ABUT. # 1	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072603

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 2, SPAN # 2 @ PIER # 2
BOTH BOTT. FLANGES 5/16" FROM END OF BM. BACK APPROX. 2'



SCALE: N.T.S.

Title SECT. LOSS 3		Description BM. # 2, SPAN # 2 @ PIER # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072604

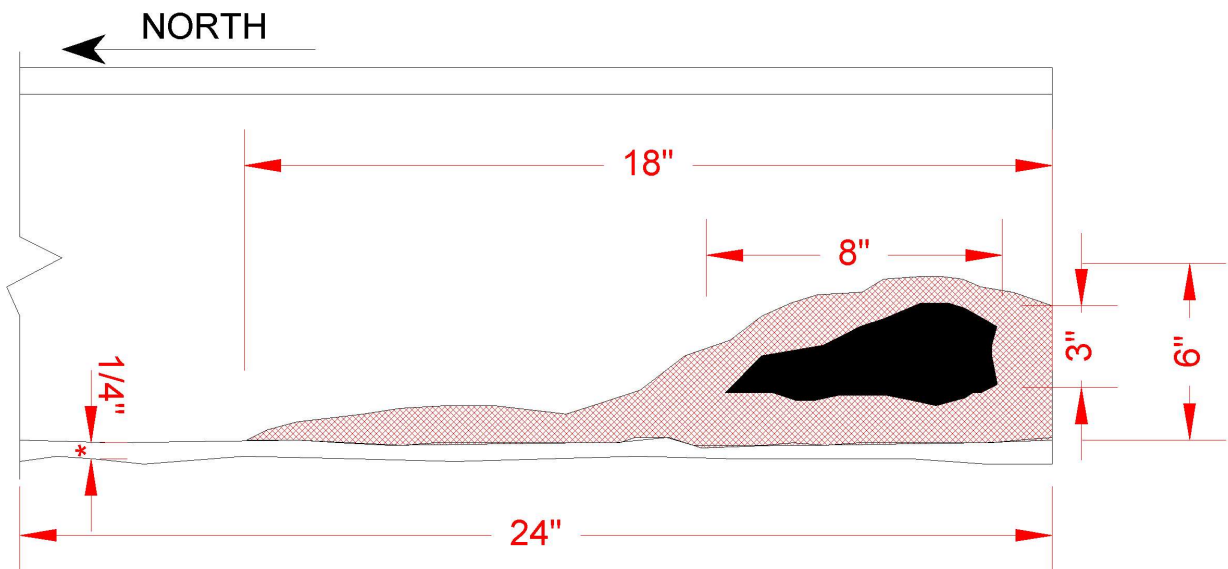
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 9, SPAN # 3 @ PIER # 2

WEB DOWN TO 1/16" IN SHADED AREA

BOTH BOTT. FLANGES 1/4" FROM END OF BM. BACK APPROX. 2'



SCALE: N.T.S.

Title		Description	
SECT. LOSS 4		WEB HOLE IN BM. # 9, SPAN # 3 @ PIER # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072605

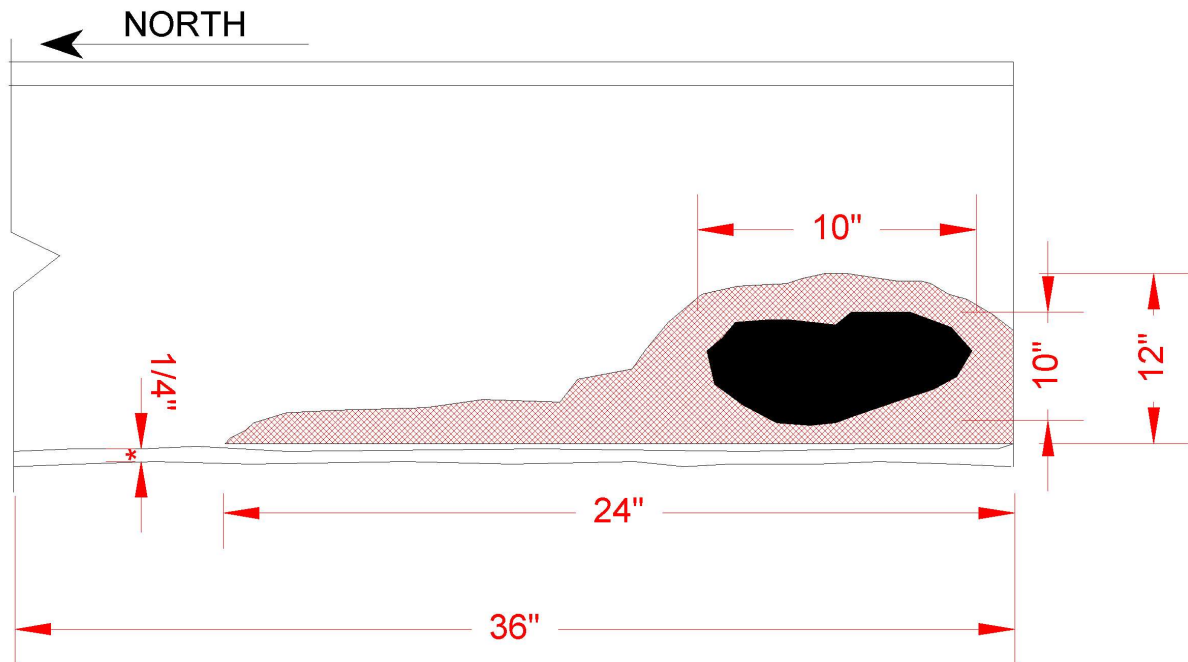
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 10, SPAN # 3 @ PIER # 2

WEB IS DOWN TO 1/16" IN SHADED AREA

BOTH BOTT. FLANGES APPROX. 1/4" FROM END OF BM. BACK APPROX. 3'



SCALE: N.T.S.

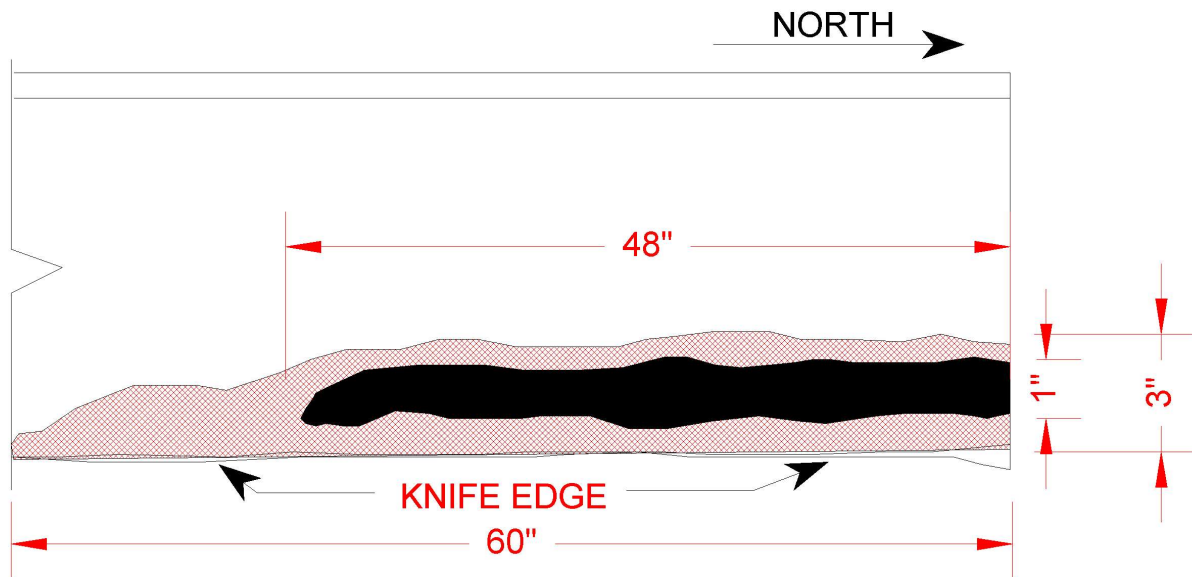
Title		Description	
SECT. LOSS 5		BM. # 10, SPAN # 3 @ PIER # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072606

Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 2 @ ABUT. # 2

BOTH BOTT. FLANGES KNIFE EDGE FROM END OF BM. BACK APPROX. 5'
WEB DOWN TO 1/32" IN SHADED AREA



SCALE: N.T.S.

Title SECT. LOSS 6		Description WEB HOLE IN BM. # 2 @ ABUT. # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072607

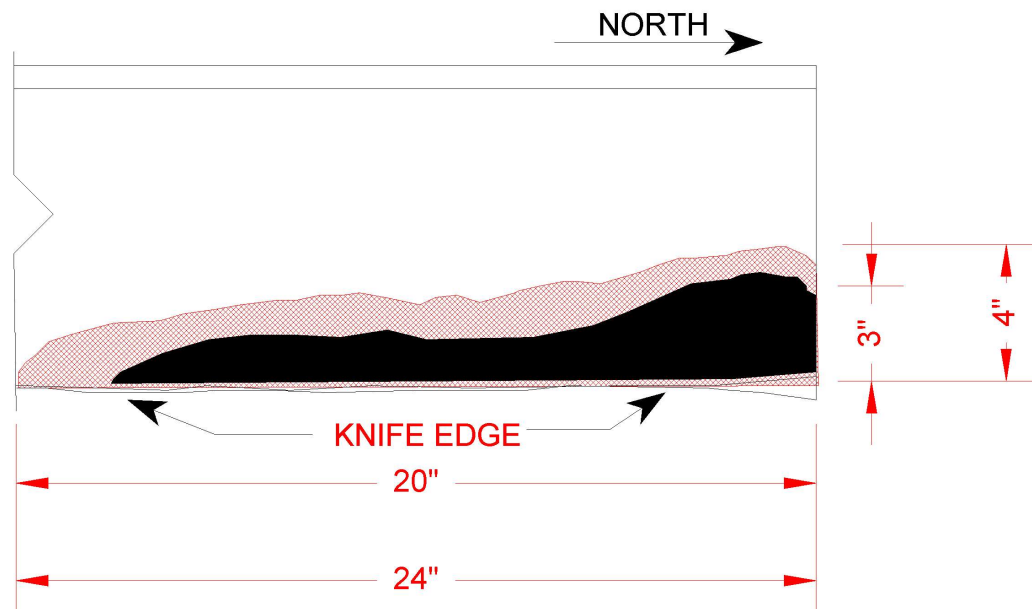
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 8 @ ABUT. # 2

WEB IS DOWN TO 1/32" IN SHADED AREA

BOTH BOTT FLANGES KNIFE EDGE FROM END OF BM. BACK APPROX. 2'



SCALE: N.T.S.

Title

SECT. LOSS 7

Description

WEB HOLE, BM. # 8 @ ABUT. # 2

Bridge No: 010137

Drawn By: RAP

Date: 11/16/2010

File Name: S0138072608

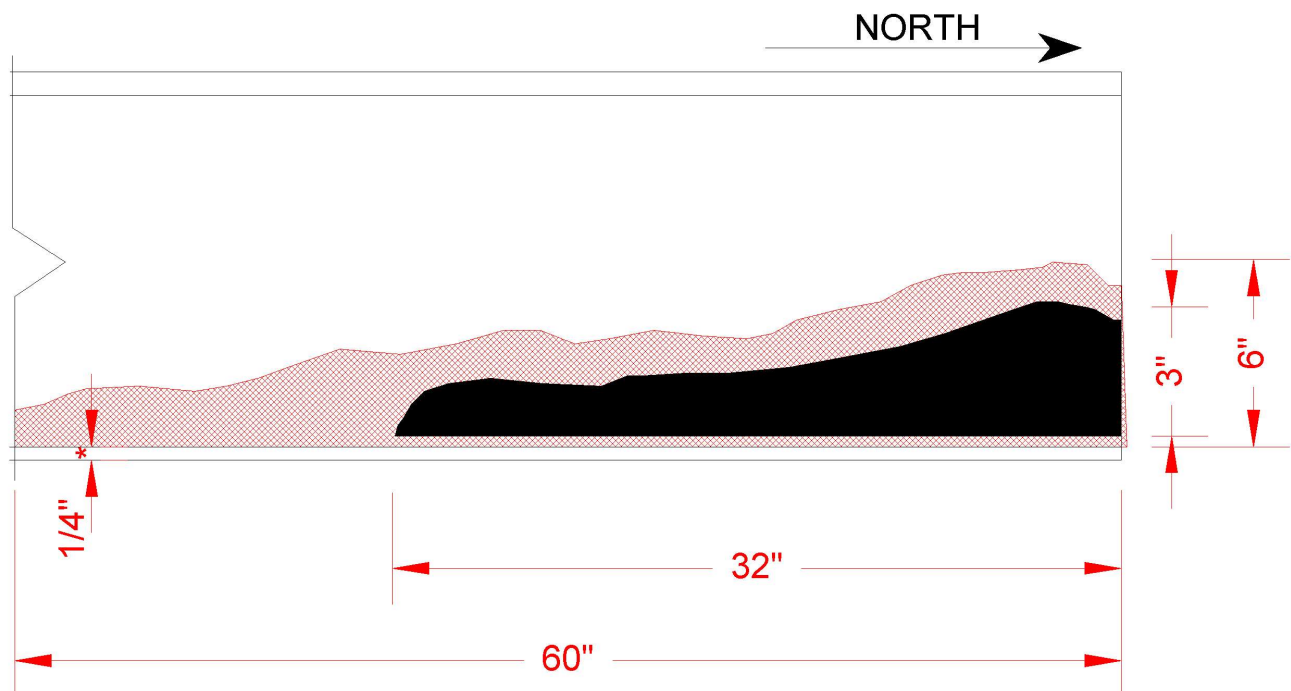
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 9 @ ABUT. # 2

WEB IS DOWN TO 1/32" IN SHADED AREA

BOTH BOTT. FLANGES 1/4" FROM END OF BM. BACK APPROX. 5'



SCALE: N.T.S.

Title		Description	
SECT. LOSS 8		BM. # 9 @ ABUT. # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072609

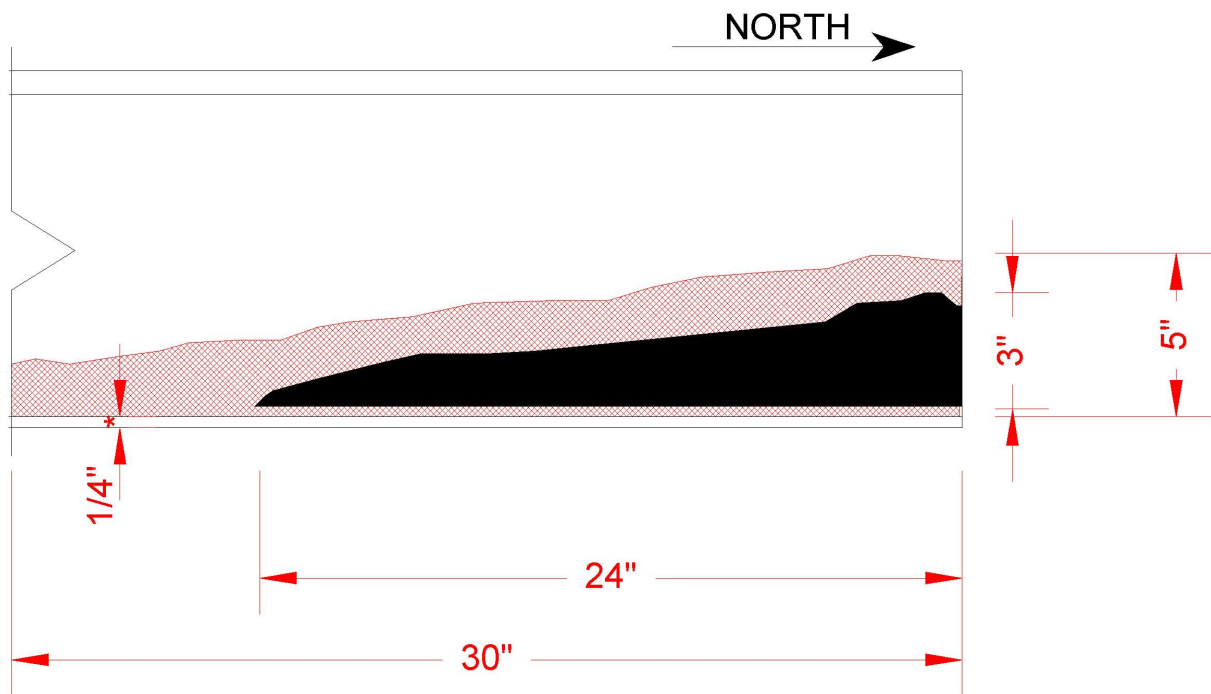
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

WEB HOLE IN BM. # 10 @ ABUT. # 2

WEB IS DOWN TO 1/32" IN SHADED AREA

BOTH BOTT. FLANGES 1/4" FROM END OF BM. BACK APPROX. 30"



SCALE: N.T.S.

Title		Description	
SECT. LOSS 9		BM. # 10 @ ABUT. # 2	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072610

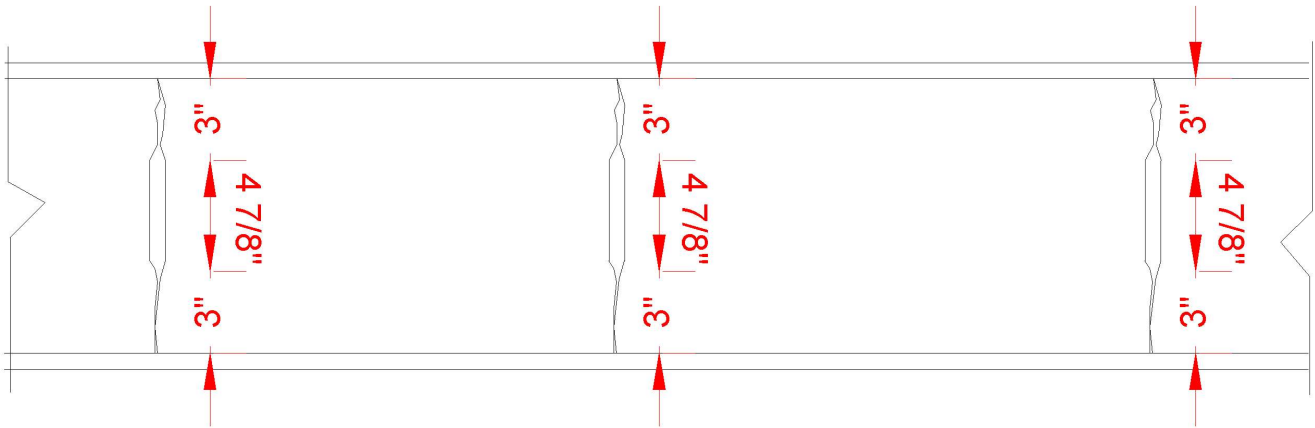
Bridge Inspection Field Sketch

VERIFIED 11/15/10 R.A. PIERCE, M. FORD

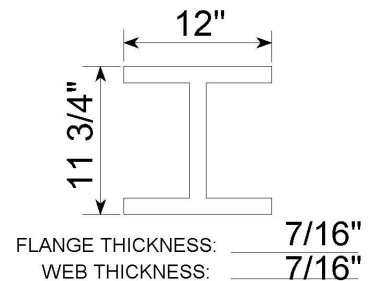
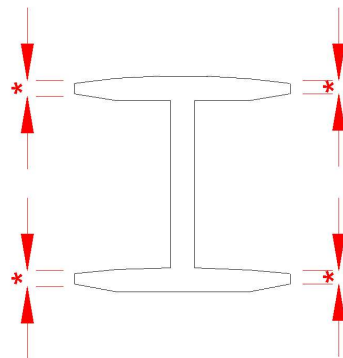
SECT. LOSS ON CAP FLANGES & STIFFENERS

TOP & BOTT. 3" OF STIFFENERS DOWN TO KNIFE EDGE

UP TO 1/8" SECT. LOSS ON LEADING EDGE OF CAP FLANGES



* LEADING EDGE OF CAP FLANGES DOWN TO 5/16"



SCALE: N.T.S.

ORIGINAL SECTION

Title		Description	
SECT. LOSS 10		CAPS	
Bridge No: 010137	Drawn By: RAP	Date: 11/16/2010	File Name: S0138072611



SOUTH TO NORTH



UPSTREAM



DOWNSTREAM



LOOKING SOUTH



ABUT. B



NORTH FACE OF PIER 1 AND ABUT. A



EAST PROFILE



WEST PROFILE