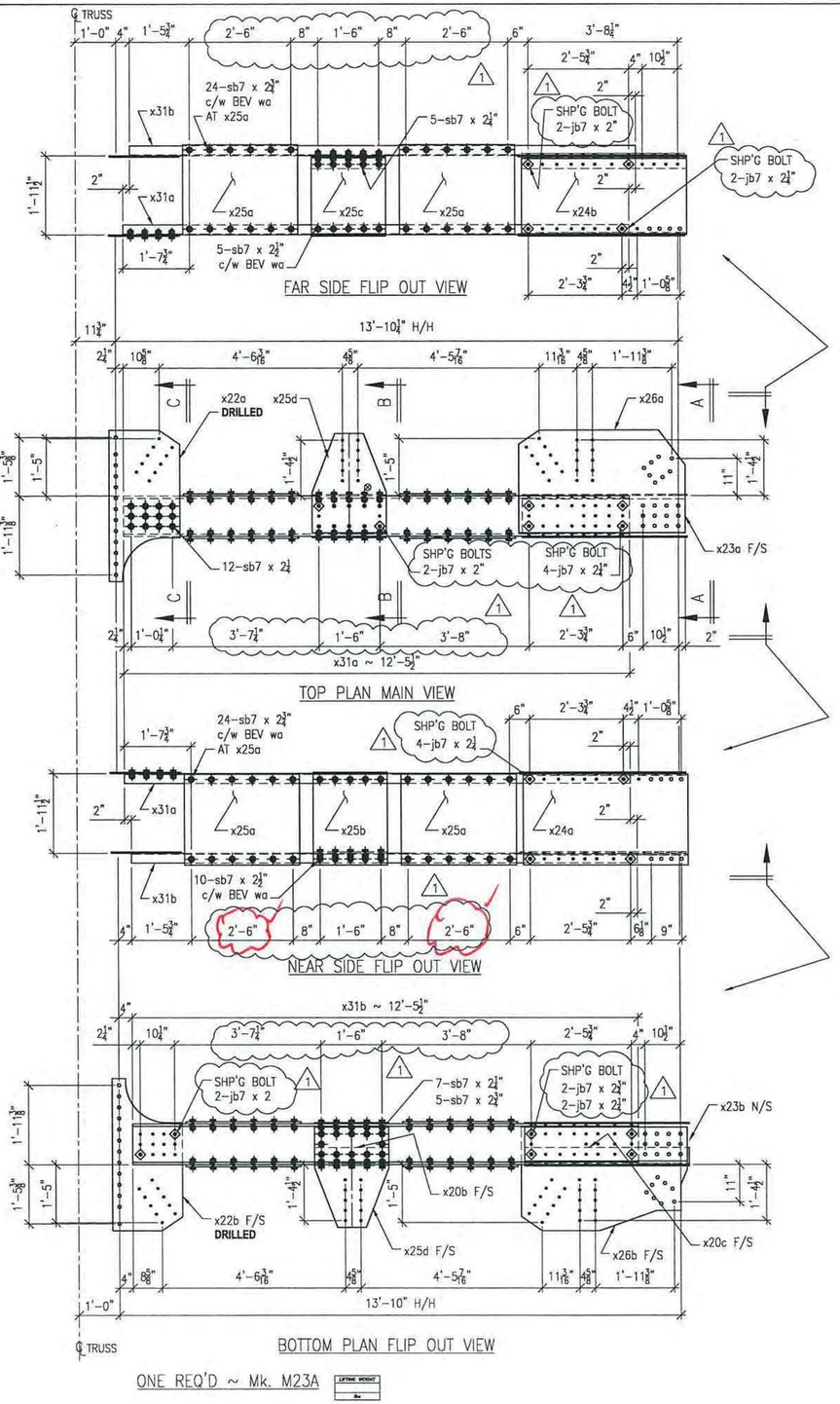
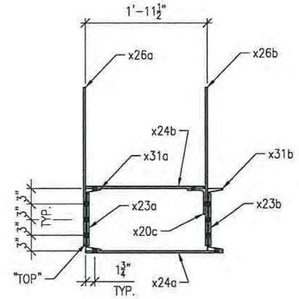
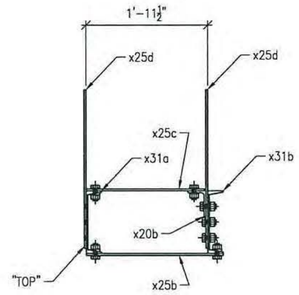
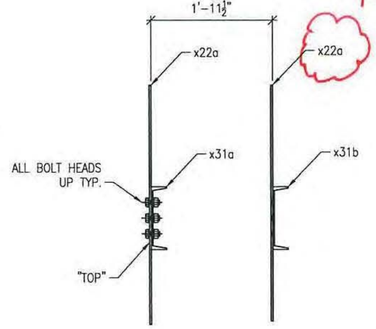




SECTION A-A



SECTION B-B



SECTION C-C

BILL OF MATERIALS

SHOP BILL — MATERIAL ASTM A709-50 T2 U.N.O.

	LINE	SEQ	SHIPPING PCS	ASSEMBLY PCS	MARK	SHAPE	DESCRIPTION	LENGTH ft	LENGTH in	REMARKS (END, EDGE, DESIGN)	MATL GRADE	MATL REMARK	WEIGHT	HEAT NO
	1													
	2		ONE		M23A		ASSEMBLY							
	3			ONE	x31a	C	12 x 20.7	12	5 1/2	FLGs DRILLED				
	4			ONE	x31b	C	12 x 20.7	12	5 1/2	FLGs DRILLED				
	5													
1	6			ONE	x20b	L	5 x3 1/2 x 3/8	1	10					
	7			ONE	x20c	L	5 x3 1/2 x 3/8	4	0 7/8					
	8													
	9			ONE	x22a	PL	3/8 x 21	3	8 13/16	D.O.R. LENGTH	DRILLED			
	10			ONE	x22b	PL	3/8 x 20 3/4	3	8 13/16	D.O.R. LENGTH	DRILLED			
	11			ONE	x23a	PL	3/8 x 9 1/2	4	0 1/4	D.O.R. LENGTH				
	12			ONE	x23b	PL	3/8 x 9 1/2	4	0 1/4	D.O.R. LENGTH				
	13			ONE	x24a	PL	3/8 x 26 3/4	4	0 7/8	D.O.R. LENGTH				
	14			ONE	x24b	PL	3/8 x 22 3/8	4	0 7/8	D.O.R. LENGTH				
1	15			ONE	x25b	PL	3/8 x 22	2	2 3/4					
1	16			ONE	x25c	PL	3/8 x 22	1	10 5/8					
1	17			2	x25d	PL	3/8 x 22	2	5 1/2					
	18			ONE	x26a	PL	3/8 x 30 7/16	4	1 1/4	D.O.R. LENGTH				
	19			ONE	x26b	PL	3/8 x 30 7/16	4	1 1/4	D.O.R. LENGTH				
	20													
1	21			4	x25a	PL	5/8 x 26 3/4	2	10					
	22													
1	23			24	sb7-225	BOLT	7/8 ø		2 1/4	Ind/Pns	A325			
1	24			5	sb7-275	BOLT	7/8 ø		2 3/4	Ind/Pns	A325			
1	25			15	sb7-25	BOLT	7/8 ø		2 1/2	Ind 1 ws 1 bev ws	A325			
1	26			48	sb7-275	BOLT	7/8 ø		2 3/4	Ind 1 ws 1 bev ws	A325			
1	27			6	jb7-2	BOLT	7/8 ø		2	Ind 1 ws	A307			
1	28			12	jb7-225	BOLT	7/8 ø		2 1/4	Ind 1 ws	A307			
1	29			2	jb7-275	BOLT	7/8 ø		2 3/4	Ind 1 ws	A307			
	30											TOTAL lbs		

ALL HOLES TO BE PUNCHED U.N.O.

ALL CHANNEL FLANGES TO BE DRILLED TYP.

LEGEND:

℄ = CENTERLINE
CTR'D = CENTERED
C/C = CENTER TO CENTER
FLG = FLANGE
TOP = TOP
BTM = BOTTOM
RDFH = RUNNING DIMENSIONS FROM HERE
= FIELD BOLTS (QUANTITY) DIAMETER x LENGTH
ø = ALTERNATE HOLE DIAMETER
TYP = TYPICAL
N/S = NEAR SIDE
F/S = FAR SIDE
B/S = BOTH SIDES
BTS = BOLT TO SHIP
1 SHP'G BOLT = SHIPPING BOLT
◇ = SHIPPING BOLT
D.O.R. = DIRECTION OF ROLL
T2 = CHARPY V-NOTCH TESTING REQUIRED
F2 = FRACTURE CRITICAL MATERIAL
⊠ = FIELD DRILLED HOLE
⊠ = FIELD DRILLED HOLE

PAINT NOTES:

1. ALL ITEMS THIS SHEET TO RECEIVE UPPER STEEL PAINT SYSTEM PER GN1.
2. CLEAN AND PRIME BOLTED PARTS PRIOR TO ASSEMBLY.
3. PRIMER ONLY, WITHIN 3" FROM ALL OPEN HOLES, (A307) SHIPPING BOLTS AND NUTS OR TO NEAREST EDGE OR PERPENDICULAR SURFACE (WHICHEVER IS LESS) UNLESS SPECIFICALLY NOTED OTHERWISE.
4. ALL TORQUED BOLTS TO RECEIVE COMPLETE PAINT SYSTEM NOTED. NO PAINT ON (A307) SHIPPING BOLTS AND NUTS.

NOTES:

1. FOR GENERAL NOTES SEE DRAWING GN1.
2. ALL BOLTS THIS SHEET TO BE FULLY TORQUED UNLESS NOTED AS (A307) SHIPPING BOLTS.
3. INSTALL WASHER UNDER HEAD OF BOLT AS WELL AS NUT. ADDITIONAL WASHER IS NOT REQUIRED FOR (A307) SHIPPING BOLTS.
4. ALL HOLES MARKED "⊠" OR "⊠" ARE TO BE FIELD DRILLED HOLES. DO NOT SHOP DRILL.

1

ALL DIMENSIONS HAVE BEEN FIELD VERIFIED
BY:_____ DATE:_____

NO.	DATE	BY	REVISION
1	04/04/12	PG	REVISED TO SUIT BATTEN BOLT SPACING CHANGE AND BOLTS REVISED TO A325 BLACK ISSUED FOR FINAL APPROVAL
B	03/15/12	RC	NOTES UPDATED AND BOLTS REVISED TO A325 GALV
A	03/02/12	RC	FOR APPROVAL

☐ EXCEPTION TAKEN ☒ MAKE CORRECTIONS NOTED
☐ REJECTED ☐ REVISE AND RESUBMIT
☐ SUBMIT SPECIFIED ITEM

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

DATE 4/12/12 BY CHA

1

STS STEEL, INC.
ENGINEERS * FABRICATORS * ERECTORS
PH: (518) 370-2693 FAX: (518) 370-2696

DRAWING TITLE
UPPER STEEL (TS2)

PROJECT No. US RT 2 BRIDGE No 24	FEDERAL AID No.
ENGINEER :	CHA
CUSTOMER :	Harrison & Burrowes Bridge Constructors, Inc.
PROJECT :	RICHMOND, VT – TRUSS BRIDGE REHAB
	RICHMOND, VT

HOLES:	15/16"ø U.N.O.	PAINT:	PER SPEC	DATE:	03/01/12
BOLTS:	A325 U.N.O.	DR.BY:	RC	JOB NO.	1156
WELDS:	AWS D1.5	CHK.BY:	BH	DWG NO.	23

℄
1