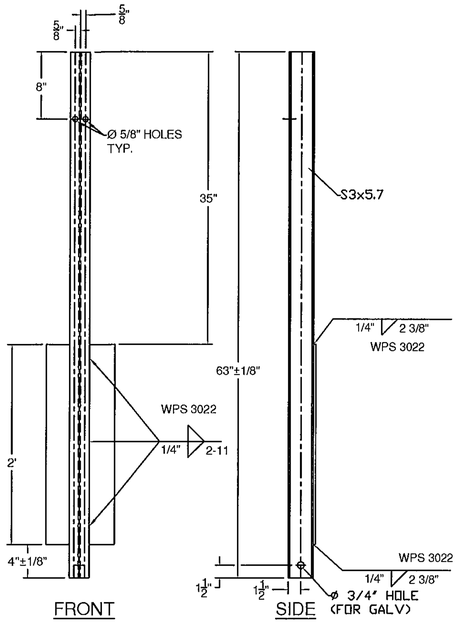
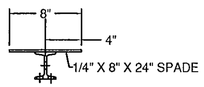
PLAN VIEW

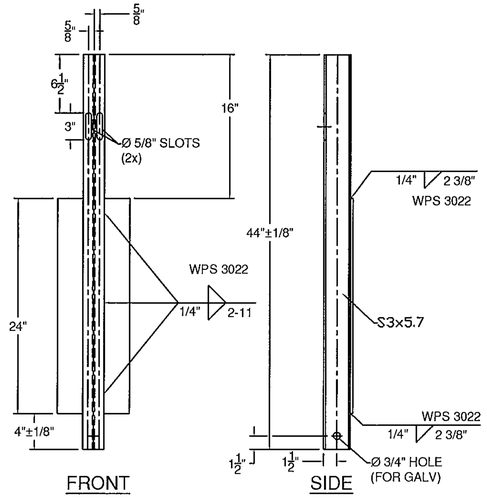
(ITEM # 1)



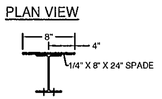
PLAN VIEW



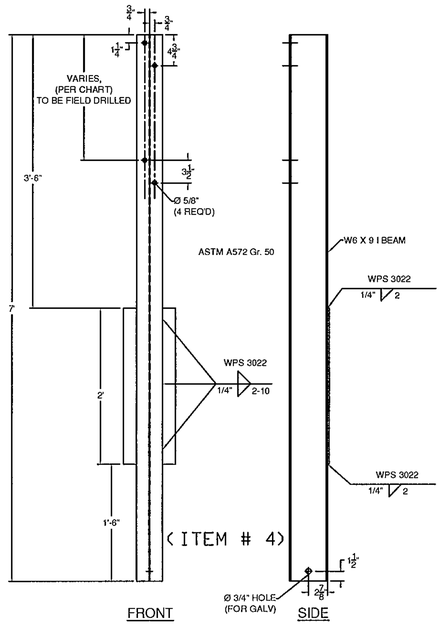
(ITEM # 3)



PLAN VIEW

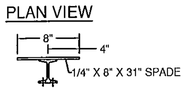


HOLE POSITION CHART	
POST	LENGTH
1	1'-6 11/16"
2	1'-6 1/4"
3	1'-5 3/4"
4	1'-5 1/4"

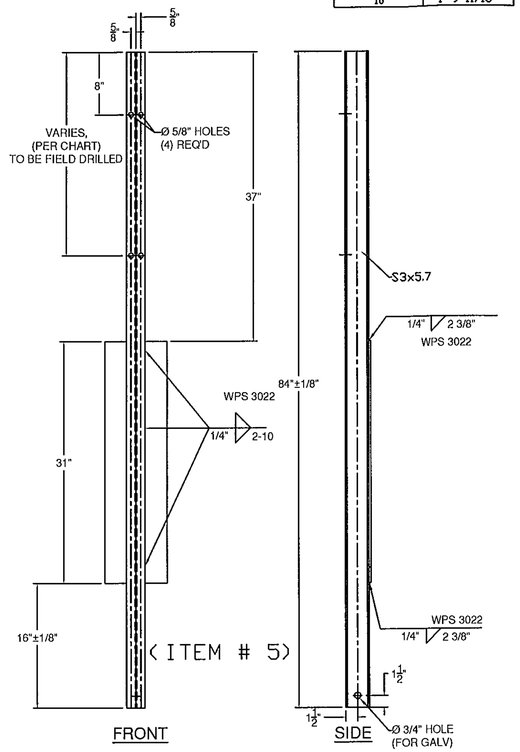


(ITEM # 4)

PLAN VIEW

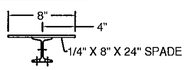


HOLE POSITION CHART	
POST	LENGTH
5	1'-11 9/16"
6	1'-11 1/16"
7	1'-10 5/8"
8	1'-10 1/8"
9	1'-9 7/16"
10	1'-9 11/16"

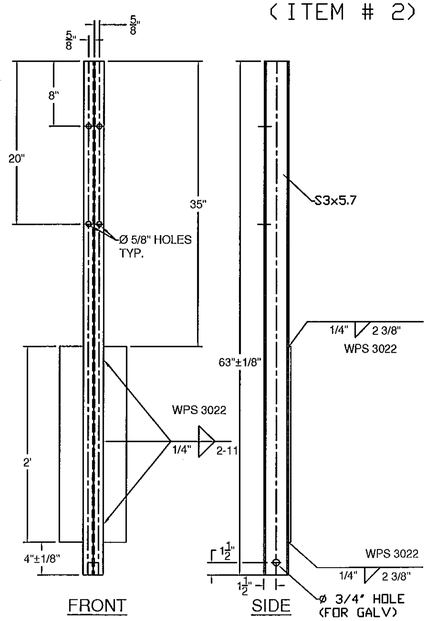


(ITEM # 5)

PLAN VIEW



(ITEM # 2)



BILL OF MATERIALS, WW2

ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	3	0013.57021	3' I-POST, PUNCH 8' W/SPD @ 63' LG	ASTM A572 Gr. 50
2	1	0013.57025	3' I-POST W/SPD @ 63', PUNCH 8', & 20'	ASTM A572 Gr. 50
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8' LG	ASTM A572 Gr. 50
4	4	-	W6X9 POST @ 7' W/SPD & Ø9/16' HOLES @ VARIOUS	ASTM A572 Gr. 50
5	6	-	3' I-POST, PUNCH 8' & VARIOUS', W/8X32' SPADE @ 7'	ASTM A572 Gr. 50
7	1	0033.00640	HSS 5X5 BENT TUBE SPLICE @ 27' LG W/ 1/4' SHIMS	A500 Gr. B / A572 Gr 50
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2'	ASTM A709 Gr. 50
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 26 3/4' LG - 25° ANGLE	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8' TRANS. TUBE B/O @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6' BB @ 9'-0" KICKBACK, W/ CAP & 13° ANGLE	A500 Gr. B / A36
16	1	-	6X6' BB @ 17'-11 1/2', DRILL 3' CC (W/ 700' CONVEX RAD.)	A500 Gr. B
17	1	-	6X6' BB TOP TRANS @ 24'-9 5/16' LG (W/ 700' CONVEX RAD.)	A500 Gr. B
18	1	-	6X6' BB BTM TRANS @ 25'-5' LG (W/700' CONVEX RAD.)	A500 Gr. B
19	19	0080.03355	3/8' X 7 1/2' BOLT, NUT, & 2 FW	A307, A563, F436
20	19	0080.04100	1/2' x 1-1/2' BOLT, NUT, & FW	A307, A563, F436
21	16	0080.04120	1/2' x 1-1/2' BOLT, NUT, & 2 FW	A307, A563, F436
23	10	0080.06340	3/4' X 7-1/2' BOLT, NUT, 2 FW	A325, A563, F436
23	8		3/4' LOCK WASHER	ASME B18.21.1
24	8	0080.06370	3/4' X 8' CARR BOLT, NUT, FW & LW	A307, A563, F436

BILL OF MATERIALS, WW3

ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	1	0013.57021	3' I-POST, PUNCH 8' W/SPD @ 63' LG	ASTM A572 Gr. 50
2	1	0013.57025	3' I-POST W/SPD @ 63', PUNCH 8', & 20'	ASTM A572 Gr. 50
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8' LG	ASTM A572 Gr. 50
4	4	-	W6X9 POST @ 7' W/SPD & Ø9/16' HOLES @ VARIOUS	ASTM A572 Gr. 50
5	6	-	3' I-POST, PUNCH 8' & VARIOUS', W/8X31' SPADE @ 7'	ASTM A572 Gr. 50
7	1	0033.00640	HSS 5X5 BENT TUBE SPLICE @ 27' LG W/ 1/4' SHIMS	A500 Gr. B / A572 Gr 50
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2'	ASTM A709 Gr. 50
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 26 3/4' LG - 27° ANGLE	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8' TRANS. TUBE B/O @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6' BB @ 9'-0" KICKBACK, W/ CAP & 13° ANGLE	A500 Gr. B / A36
16	1	0054.18000	6X6' BB @ 23'-11 1/2', DRILL 3' CC	A500 Gr. B
17	1	-	6X6' BB TOP TRANS @ 24'-9 5/16' LG	A500 Gr. B
18	1	-	6X6' BB BTM TRANS @ 25'-5' LG	A500 Gr. B
19	17	0080.03355	3/8' X 7 1/2' BOLT, NUT, & 2 FW	A307, A563, F436
20	17	0080.04100	1/2' x 1-1/2' BOLT, NUT, & FW	A307, A563, F436
21	16	0080.04120	1/2' x 1-1/2' BOLT, NUT, & 2 FW	A307, A563, F436
23	10	0080.06340	3/4' X 7-1/2' BOLT, NUT, 2 FW	A325, A563, F436
23	8		3/4' LOCK WASHER	ASME B18.21.1
24	8	0080.06370	3/4' X 8' CARR BOLT, NUT, FW & LW	A307, A563, F436

HARDWARE NOTES

ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM # 10) TO POST
21	BOLT BLOCK-OUTS (ITEM # 13) TO HEAVY POST (ITEM # 4)
23	SPLICE TUBING (ITEM #'S 7 & 12), & (4) PER PARAPET WALL CONNECTION
24	BOLT RAIL (ITEMS #'S 17, & 18 TO BLOCK-OUTS (ITEM # 13)

Vermont Agency of Transportation

RECEIVED

CK'D BY SC, RF OK'D BY G. Laroche

April 8, 2016

RESUBMIT No Approved

BY K. Higgins DATE 04/11/2016

900.620 SPECIAL PROVISION (GUARDRAIL ITEM #: APPROACH SECTION TO CONCRETE BRIDGE RAIL)

SHEET 6 OF 12

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

TOLERANCE UNLESS OTHERWISE NOTED:
FRACTIONS = ± 1/16"
ANGLES = ± 1/2°
DIAMETERS = ± 1/32"

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.

ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
TOWN OF CLARENDON, RUTAND COUNTY, VT.

R	NO.	DATE	DESCRIPTION	BY
E	1	3/10/16	REVISED PER 2/23/16 MARK-UP	E.P.
V	2	4/8/16	REVISED PER 3/22/16 MARK-UP	E.P.

R	NO.	DATE	DESCRIPTION	BY
E				
V				

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
email: dlong@elderlee.com / epeek@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

CERTIFIED FABRICATOR

ORTHOGRAPHIC PROJECTION

DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	.
SCALE	SCHEMATIC	
DRAWING NO.	FRL - CLARENDON - T	