

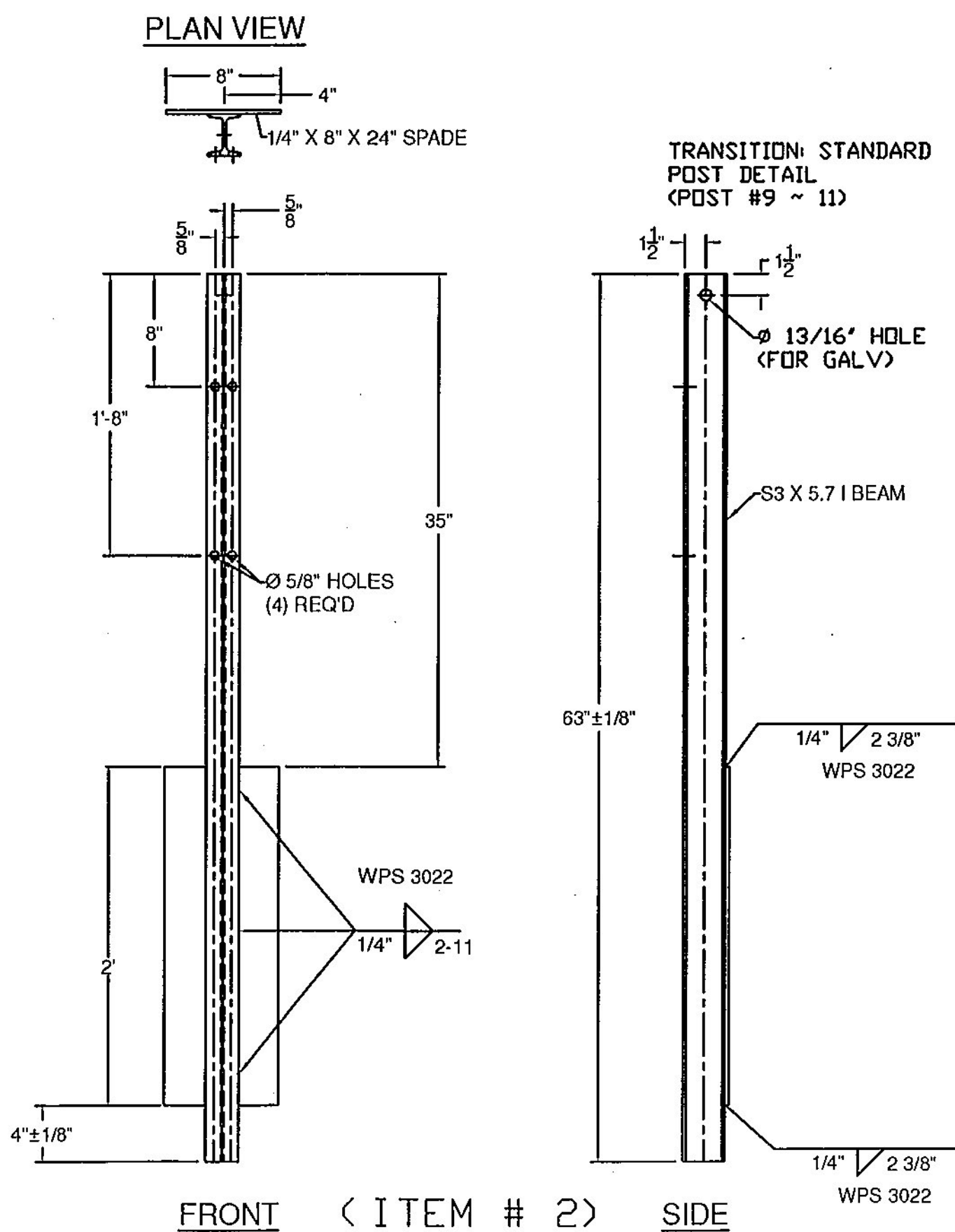
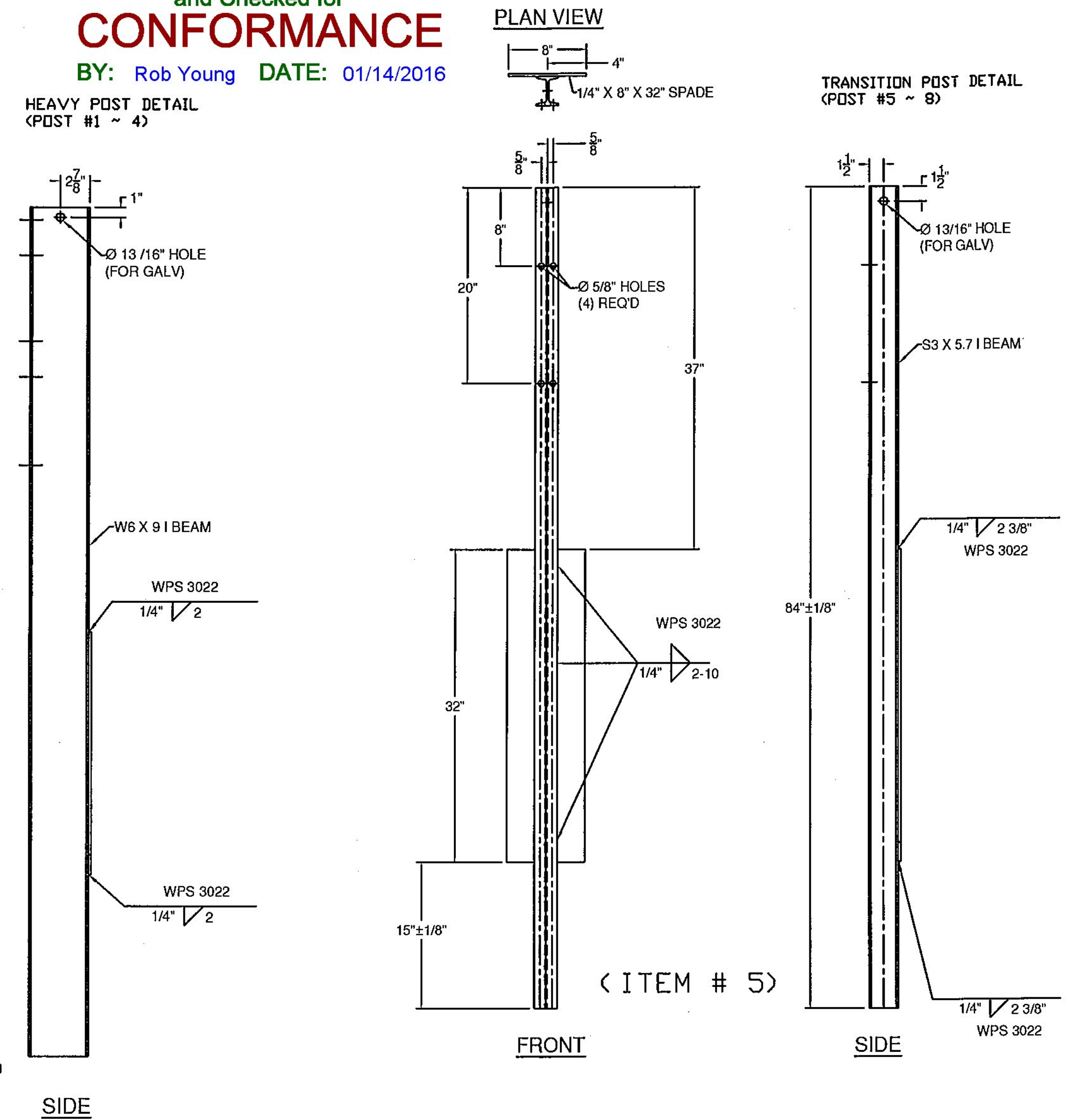
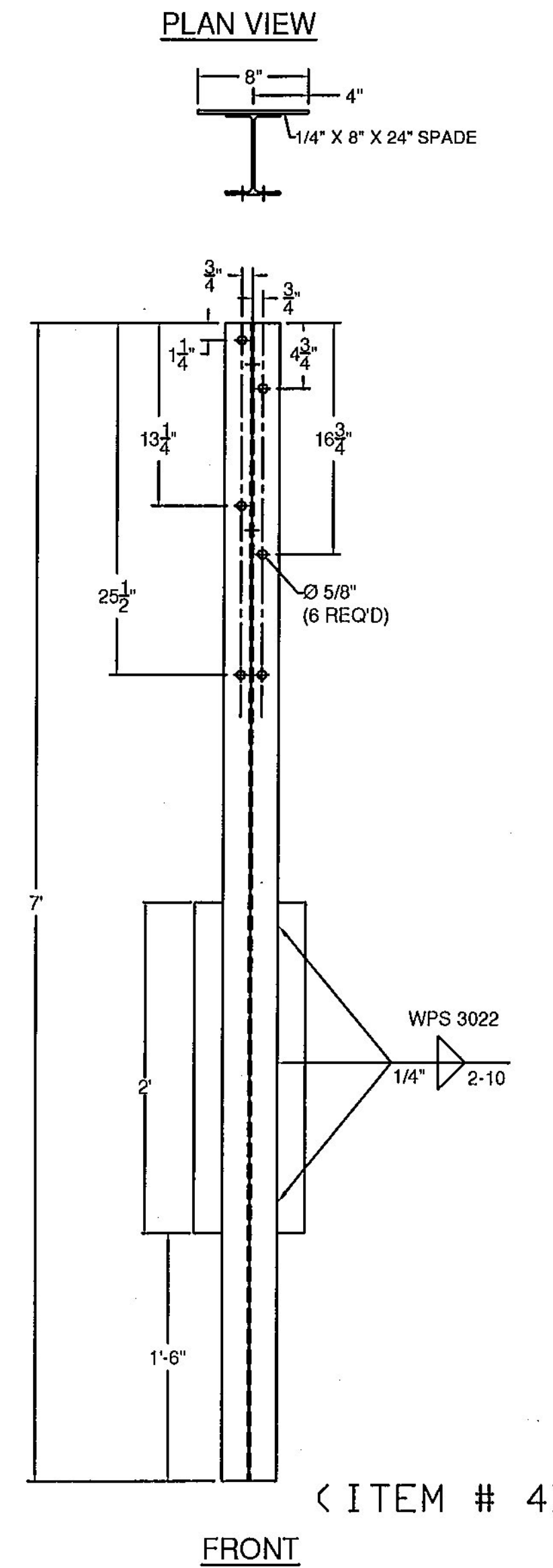
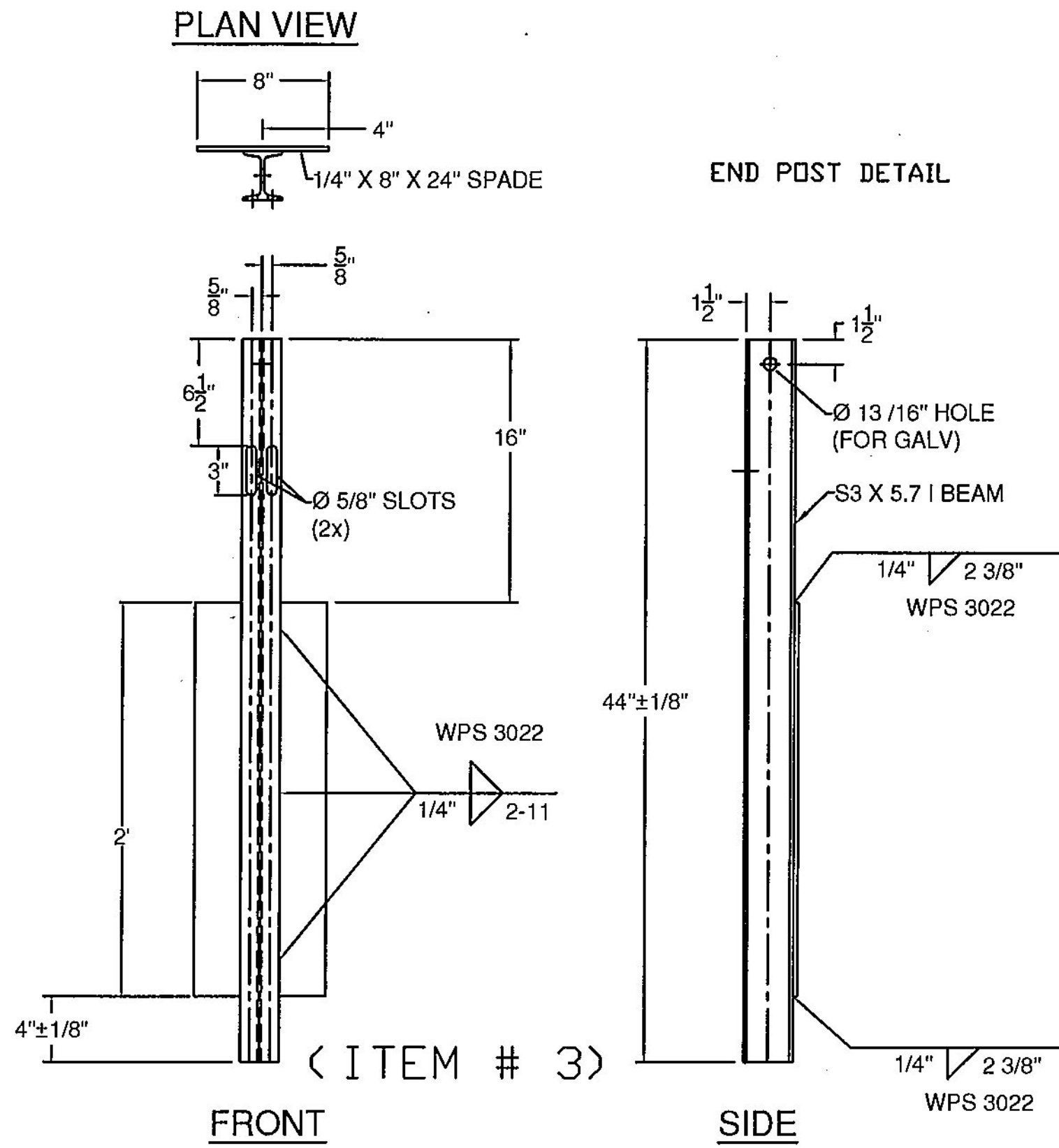
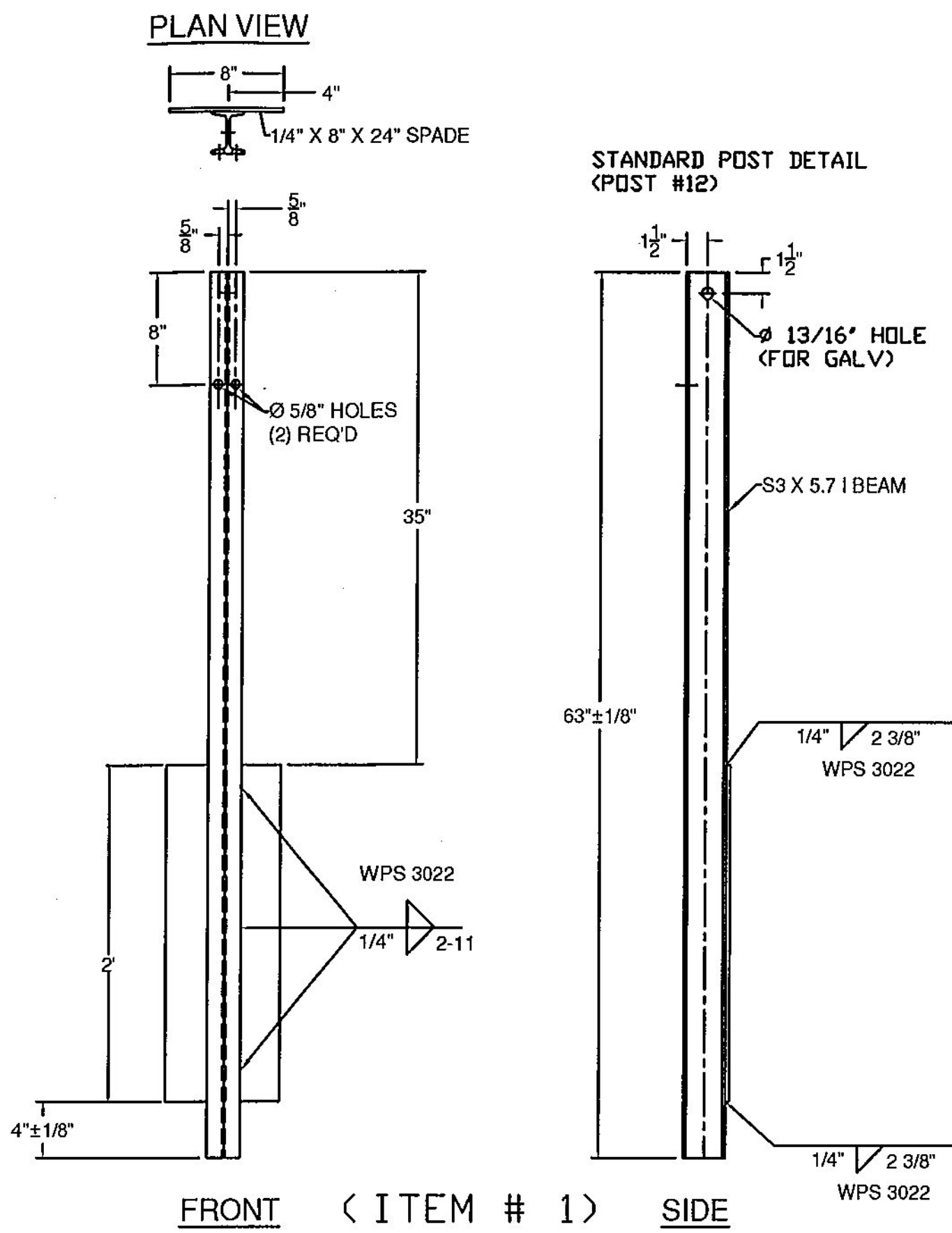
RECEIVED

ON: January 7, 2016

and Checked for

CONFORMANCE

BY: Rob Young DATE: 01/14/2016



GENERAL NOTES:

- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
- 2) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
- 3) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
- 4) BOX BEAM TUBE AND STEEL POST MATERIALS, DIMENSION SIZES AND NOTES SHALL BE THE SAME AS THOSE OF THE BRIDGE RAIL, UNLESS OTHERWISE NOTED.
- 5) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT. RADII GREATER THAN 16' TO BE CURVED ON A TUBE BENDING MACHINE, RADII EQUAL OR LESS THAN 16' TO BE "PIE CUT" AND WELDED. CURVED RAILING WILL HAVE AN 18" LENGTH ON EACH END STRAIGHT TO ACCOMADATE SPLICES. "PIE CUTS ARE LOCATED SO AS TO NOT CONFLICT WITH POST FASTENING HOLES. PIE CUTS WILL BE WELDED ACCORDING TO PROCEDURE WPS-3026.

BILL OF MATERIALS (EACH CORNER)

ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	3	0013.57021	S3 X 5.7 POST, PUNCH 8" W/SPD @ 63' LG	ASTM A572 Gr. 50
2	3	0013.57025	S3 X 5.7 POST, PUNCH 8", & 20" W/SPD @ 63' LG	ASTM A572 Gr. 50
3	2	0013.57060	S3 X 5.7 END POST W/SPD @ 3'-8" LG	ASTM A572 Gr. 50
4	4	0013.09001	W6 X 9 POST @ 7' W/SPD & 5/8" HOLES	ASTM A572 Gr. 50
5	4	0013.57010	S3 X 5.7 POST, PUNCH 8" & 20", W/8X32" SPADE @ 7'	ASTM A572 Gr. 50
6	1	0033.80403	3 X 5" BTM TRANS RAIL W/5'-0" KB, EXP END	A500 Gr. B
7	1	0033.00640	HSS 5X5 TUBE SPLICE @ 27' LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr 50
8	2	0033.00730	HSS 5x5 EXP TUBE SPLICE @ 36" LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr 50
9	1	0033.00930	BR EXP BAR SPLICE 2-1/8" X 4-1/4" @ 36" LG	ASTM A36
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
12	1	0054.00074	HSS 5 X 5 X 5/16" DBL BEND TUBE SPL @ 27' LG,	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6 X 8 X 1/4" TRANS. TUBE B/D @ 6" LG	A500 Gr. B
14	3	0054.00565	6 X 8 X 1/4" TRANS. TUBE B/D @ 3" LG	A500 Gr. B
15	1	0054.09000	6 X 6 X 3/16" BB @ 9'-0" KICKBACK, W/ CAP, & 13" MITER	A500 Gr. B / A36
*16A	1	T.B.D.	6 X 6 X 3/16" BB @ 9'-0" (THIS PAY ITEM), DRILL 3" CC, 620' CONVEX	A500 Gr. B
*16B	1	T.B.D.	6 X 6 X 3/16" BB @ 9'-0" (THIS PAY ITEM), DRILL 3" CC, 650' CONCAVE	A500 Gr. B
*17A	1	T.B.D.	6 X 6 X 3/16" BB TOP TRANS @ 20'-9 5/8" LG W/EXP END, 620' CONVEX	A500 Gr. B
*17B	1	T.B.D.	6 X 6 X 3/16" BB TOP TRANS @ 20'-9 5/8" LG W/EXP END, 650' CONCAVE	A500 Gr. B
*18A	1	T.B.D.	6 X 6 X 3/16" BB BTM TRANS @ 21'-4 5/8" LG W/EXP END, 620' CONVEX	A500 Gr. B
*18B	1	T.B.D.	6 X 6 X 3/16" BB BTM TRANS @ 21'-4 5/8" LG W/EXP END, 650' CONCAVE	A500 Gr. B
19	18	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW	A307, A563 DH, F436
20	19	0080.04100	1/2" x 1-1/2" BOLT, NUT, & FW	A307, A563 DH, F436
21	22	0080.04120	1/2" x 1-1/2" BOLT, NUT, 2 FW & LW	A307, A563 DH, F436
22	4	0080.06255	3/4" X 4-1/2" BOLT, NUT, 2 FW	A325, A563 DH, F436
23	12	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563 DH, F436
24	6	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563 DH, F436
25	2	0080.06400	3/4" X 8" BOLT, NUT, 2 FW, & LW	A325, A563 DH, F436

* ITEM #'S 16, 17, & 18 - WW 1 & 3 TO HAVE 620' CONVEX RADIUS, WW 2 & 4 TO HAVE 650' CONCAVE RADIUS

ITEM #	FUNCTION	APPROVED
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)	X
20	BOLT SHELF ANGLE (ITEM #'S 10 & 11) TO POST	
21	BOLT BLOCK-OUTS (ITEM #'S 13 & 14) TO HEAVY POST	
22	(4) PER SPLICE BAR (ITEM #9)	
23	(4) PER SPLICE TUBING (ITEM #'S 7 & 8)	
24	BOLT RAIL (ITEMS #'S 6,17, & 18 TO BLOCK-OUTS (ITEM #'S 13 & 14) (WHERE FASTENED)	
25	BOLT DOUBLE BEND SPLICE TUBE (ITEM #12) TO RAIL (ITEM #11) & KICKBACK (ITEM #15)	

APPLICABLE NOTES IN THE BRIDGE RAIL DRAWING SHALL ALSO BE APPLICABLE ON THESE DRAWINGS

Date: 1/13/16
 By: *John E. King*
 This review by Stantec Consulting Services Inc. is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that Stantec Consulting Services Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor. Submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawing or of his responsibility for meeting all requirements of the Contract Documents. The contractor is responsible for dimensions to be confirmed and controlled at the job site, for information that pertains solely to the fabrication processes or to techniques of construction and installation and for coordination of the work of all subcontractors.

SHEET 2 OF 5

ITEM #: 621.725
 STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET
 VERMONT ROUTE 106 (MAJOR COLLECTOR, RURAL), BRIDGE # 24
 TOWN OF WOODSTOCK, COUNTY OF WINDSOR, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	12/29/15	Revised Per 12/18/15 Markup	E.P.				

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

DRAWN: E.P. 11/30/15
 CHECKED: D.L. 11/30/15
 APPROVED: SCALE SCHEMATIC
 DRAWING NO. F.R. LAFAYETTE-WOODSTOCK 21