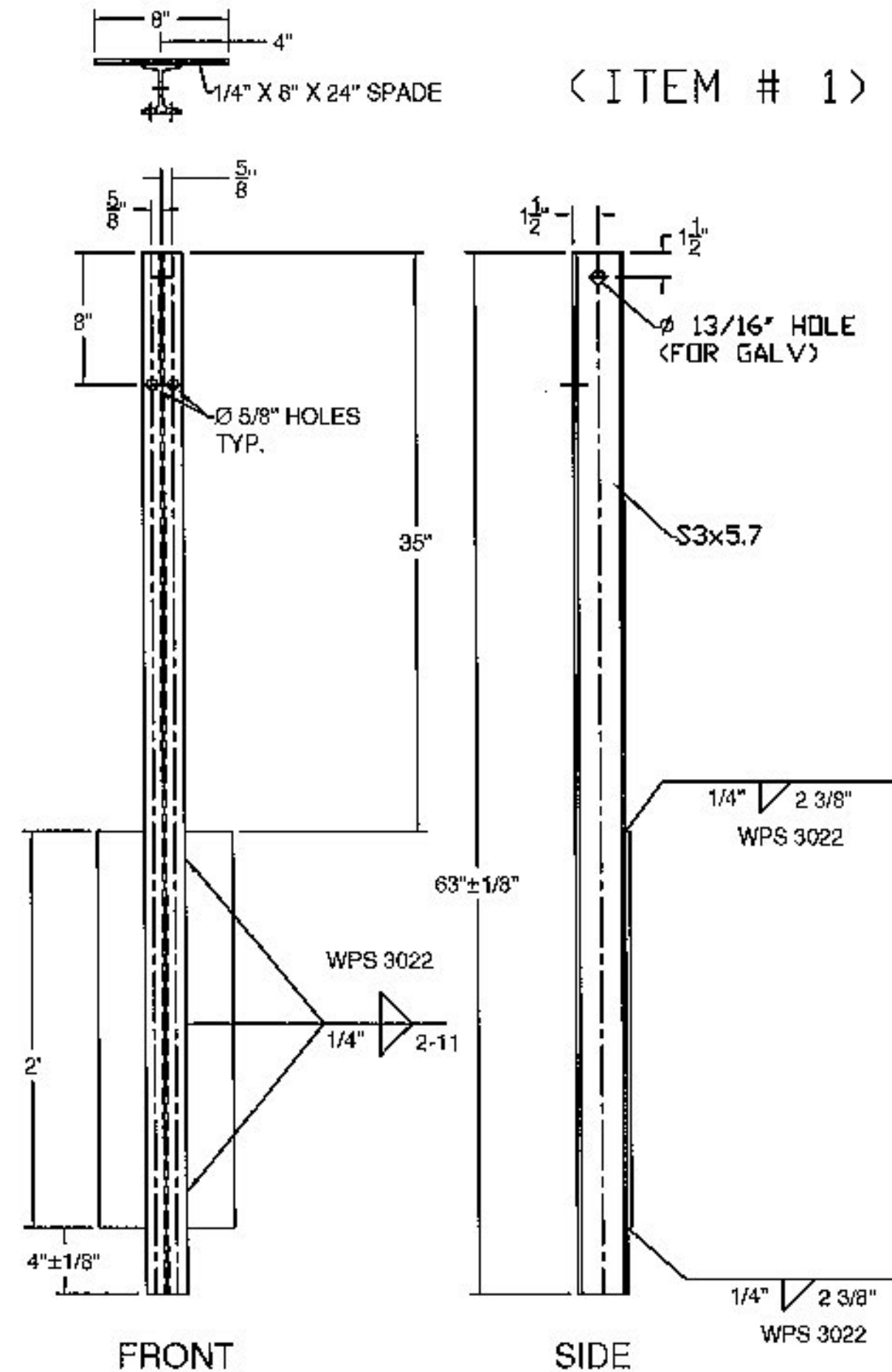
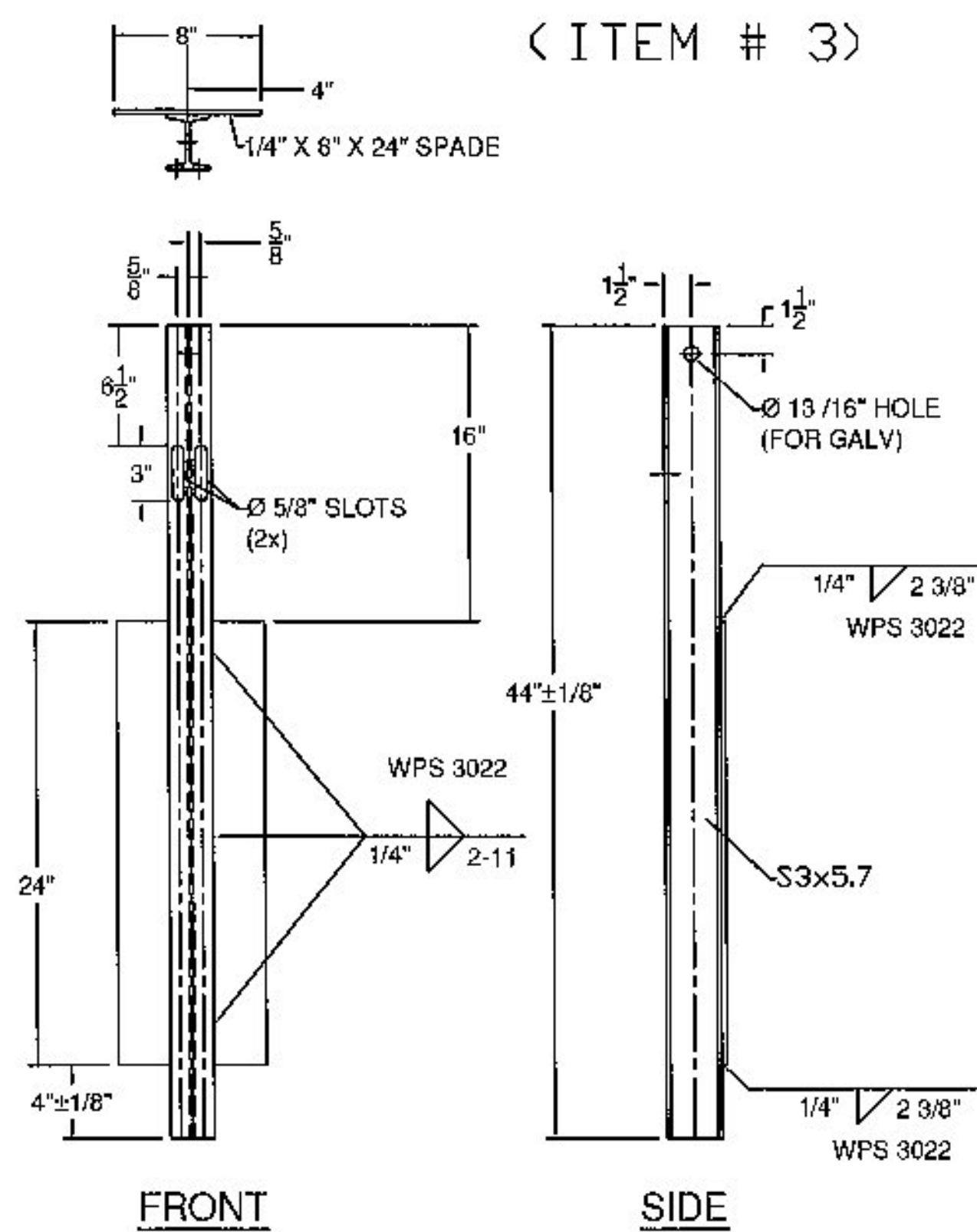


PLAN VIEW



PLAN VIEW



SHOP DRAWING REVIEW

REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

REJECTED REVISE AND RESUBMIT APPROVED AS NOTED

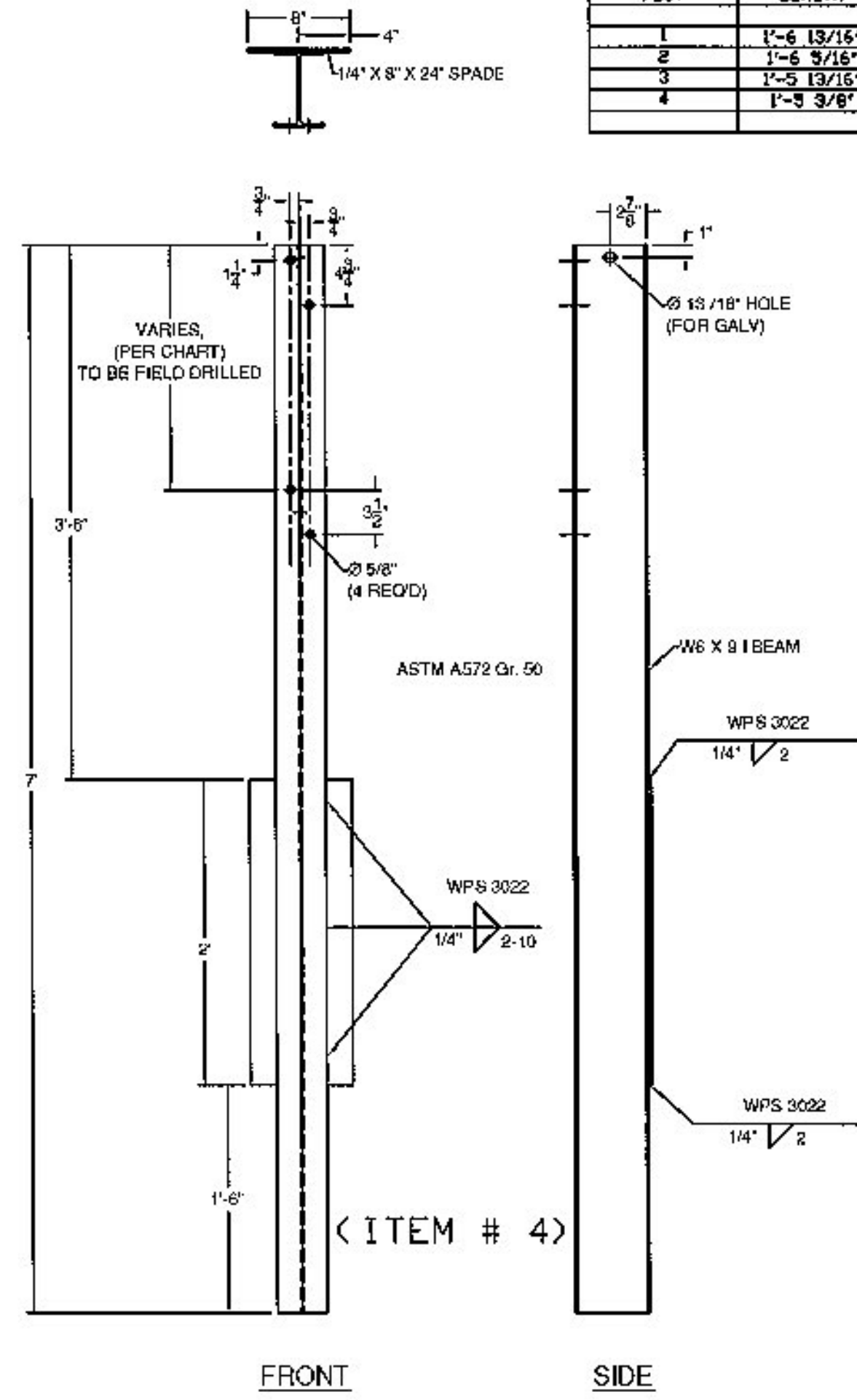
CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING THEIR WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING THEIR WORK IN A SAFE AND SATISFACTORY MANNER.

GLD Consulting Engineers
340 Commercial Street
Manchester, NH 03102
603-666-2222

Job Number: 120121
Reviewed by: **SRB**
Date: 3/23/2015

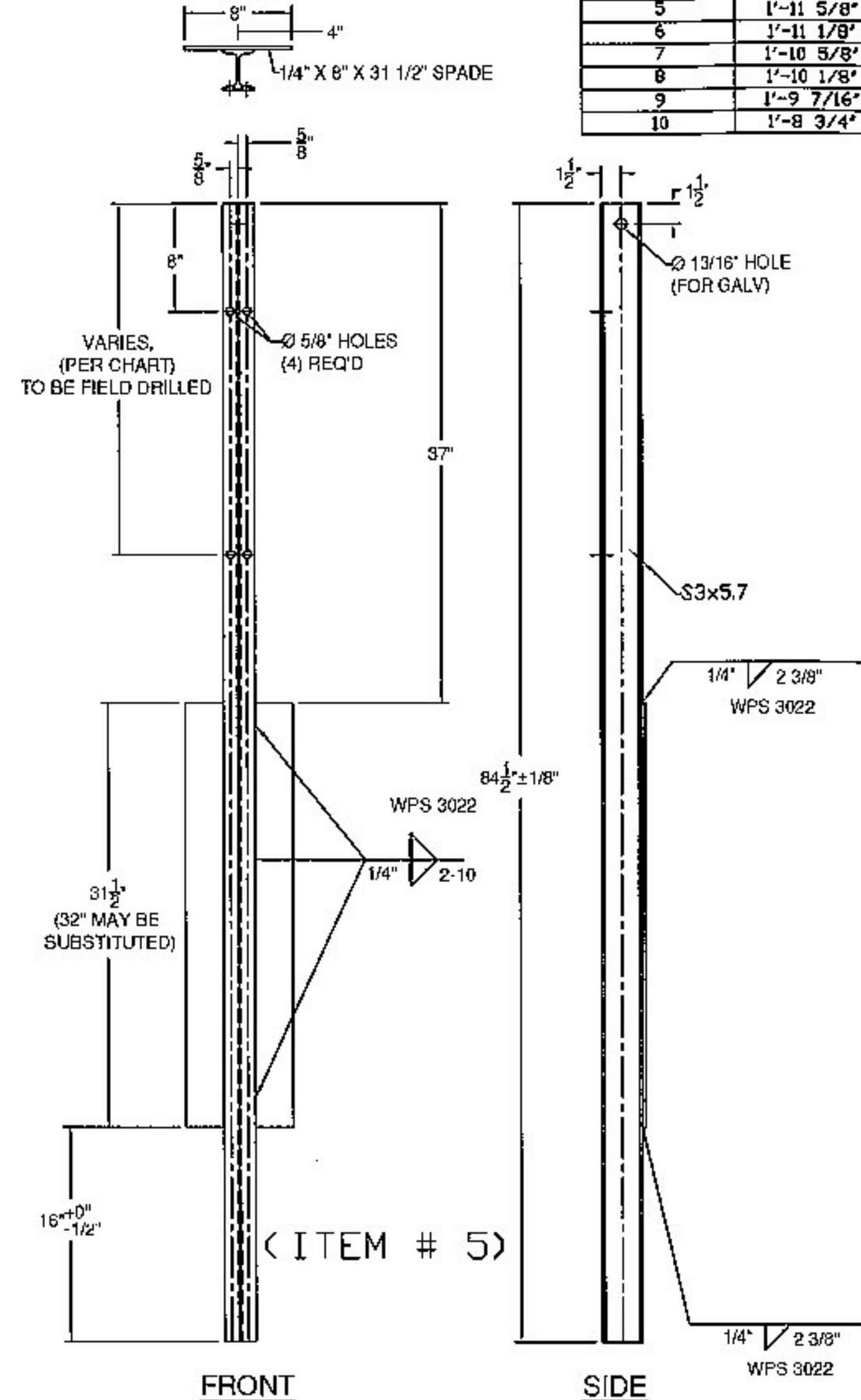
Vermont Agency of Transportation
RECEIVED
ON: February 25, 2015
and Checked for
CONFORMANCE
BY: Rob Young DATE: 03/23/2015

PLAN VIEW



POST	LENGTH
1	1'-6 13/16"
2	1'-6 9/16"
3	1'-5 13/16"
4	1'-5 3/8"

PLAN VIEW



POST	LENGTH
5	1'-11 5/8"
6	1'-11 1/8"
7	1'-10 5/8"
8	1'-10 1/8"
9	1'-9 7/16"
10	1'-8 3/4"

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 ACCOMMODATE SPLICES. "PIE CUTS" ARE LOCATED SO AS TO NOT CONFLICT WITH POST FASTENING HOLES. PIE CUTS WILL BE WELDED ACCORDING TO PROCEDURE WPS-3026.
- 6) ALL STEEL COMPONENTS SHALL BE COATED BLACK IN ACCORDANCE WITH ASTM D7803 FOLLOWING GALVANIZING.

Break all edges to a 1/16 inch radius prior to galvanizing.

BILL OF MATERIALS, EACH OF 3 CORNERS				
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' & HOLES @ VARIOUS	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 & 5/8" 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 TUBE SPLICE @ 27' LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr 50
Δ8	1	-	5X5 DBL TUBE WALL CONNECTION, 12X25X1" W/ STUDS (APPROACH)	PER COMPONENT BOM
Δ9	1	-	5X5 DBL TUBE WALL CONNECTION, 12X25X1" W/ STUDS (TRAILING)	PER COMPONENT BOM
10	18	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
11	1	0054.00052	DWY BB SHELF ANGLES @ 4-1/2"	ASTM A36
12	1	-	HSS 5X5 DBL BEND TUBE SPL @ 27' LG, W/ VARIOUS ANGLE	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8' TRANS. TUBE B/D @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6' BB @ 9'-0" KICKBACK, W/ CAP	A500 Gr. B / A36
*16	1	0054.18000	6X6' BB @ 9'-0" +, DRILL 3' CC	A500 Gr. B
*17	1	-	6X6' BB TOP TRANS @ 24'-9 1/4' LG.	A500 Gr. B
*18	1	-	6X6' BB BTM TRANS @ 25'-5 1/2' LG.	A500 Gr. B
19	18	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 & LW	A307, A563, F436
23	8	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563, F436
24	2	0080.06400	3/4" X 8", NUT, 2 FW & LW	A325, A563, F436
25	8	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563, F436

* W2 - ITEMS 16, 17, & 18 - FACE OF RAIL TO HAVE 14'-0" CONVEX RADIUS
Δ ITEM # 8 FOR W2, ITEM # 9 FOR W1 & 3

HARDWARE NOTES	
ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM # 10 & 11) TO POST
21	BOLT BLOCK-OUTS (ITEM # 13) TO HEAVY POST (ITEM # 4)
23	SPLICE TUBING (ITEM #'S 7 & 12), & PARAPET WALL CONNECTION (ITEM #7 OR 8)
24	DOUBLE BEND SPLICE & RAIL (ITEMS # 12 & 18) TO SHELF ANGLE & POST (ITEMS # 11 & 2)
25	BOLT RAIL (ITEMS #'S 17, & 18 TO BLOCK-OUTS (ITEM # 13)

ITEM #: 621.72

SHEET 2 OF 5

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

Galvanized 2-Rail Box Beam Guardrail Approach Section

EM14-277, VT ROUTE 114 (MAJOR COLLECTOR) BRIDGE #13
PROJECT: BURKE BRIDGE 0289 (13), TOWN OF BURKE, CALEDONIA COUNTY, VT

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

R	NO.	DATE	DESCRIPTION	BY	R	NO.	DATE	DESCRIPTION	BY
E					E				

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

DRAWN	E.P.	2/16/17
CHECKED	D.L.	2/20/15
APPROVED	M.V.	
SCALE	SCHMATIC	
DRAWING NO.	FR L - BURKE-T	