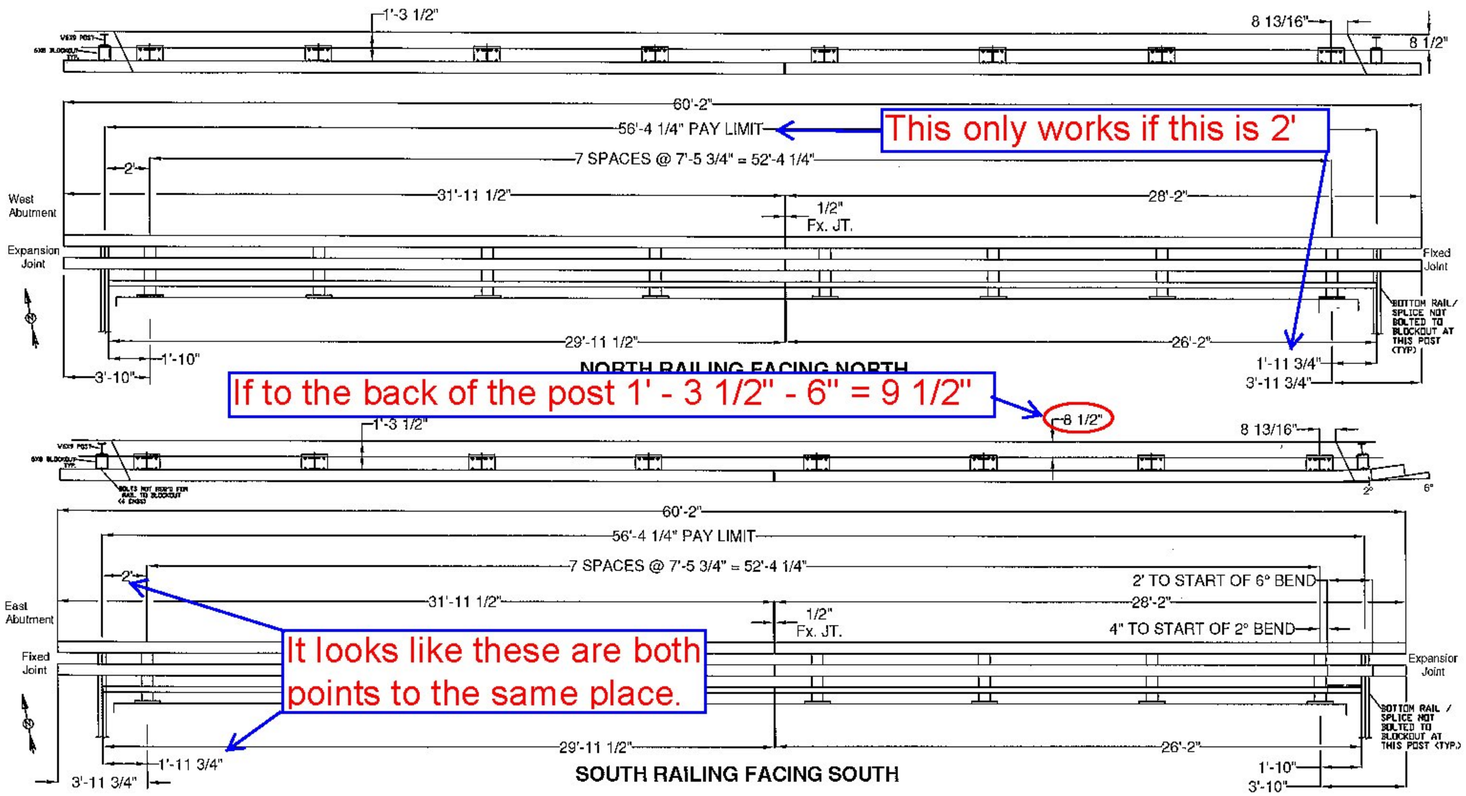
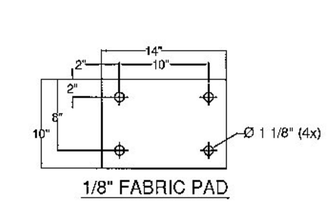
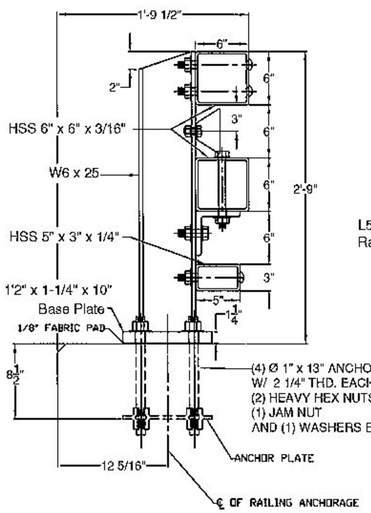
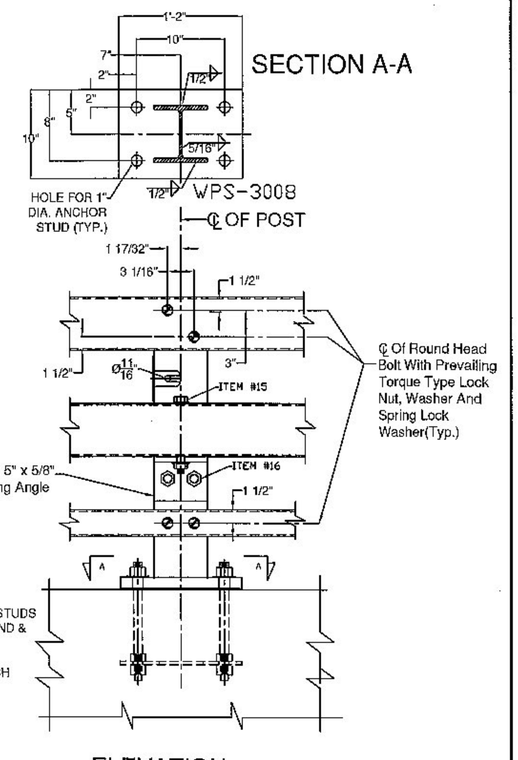






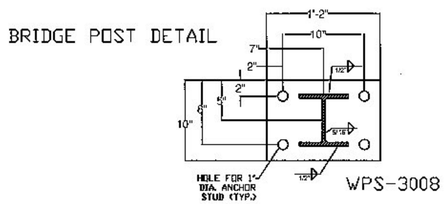


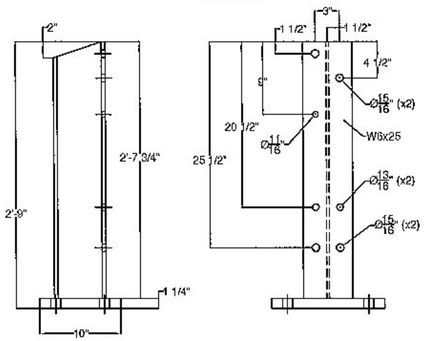
SECTION

ELEVATION

STEEL BRIDGE RAILING

BRIDGE POST DETAIL





BILL OF MATERIAL

ITEM #	QTY	PART #	DESCRIPTION	ASTM DESIGNATION
1	16	0033.03610	W6x25, THREE RAIL POST @ 2'-9" OA ON 1 1/4x10x1'-2" B.P.	A572 Gr. 50
2	4	0013.900025	W6x9, POST @ 7'-0"	A572 Gr. 50
3	2	0033.900030	HSS 3" X 5" X 1/4" RAIL @ 29'-11 1/2"	A500 Gr. B
4	1	0033.900031	HSS 3" X 5" X 1/4" RAIL @ 26'-2"	A500 Gr. B
5	1	0034.900010	HSS 3" X 5" X 1/4" RAIL @ 26'-2" W/ PARTIAL RAD.	A500 Gr. B
6	4	0033.900032	HSS 6" X 6" X 3/16" RAIL @ 31'-11 1/2"	A500 Gr. B
7	2	0033.900033	HSS 6" X 6" X 3/16" RAIL @ 26'-2"	A500 Gr. B
8	2	0034.900011	HSS 6" X 6" X 3/16" RAIL @ 26'-2" W/ PARTIAL RAD.	A500 Gr. B
9	8	0054.00563	HSS 6" X 6" X 3/16" @ 6" BLOCK-OUT	A500 Gr. B
10	4	0054.00565	HSS 6" X 6" X 3/16" @ 3" BLOCK-OUT	A500 Gr. B
11	2	0033.00840	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
12	4	0033.00640	HSS 5" X 5" X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
13	16	0033.00220	3/8" X 10" X 14" ANCHOR PLATES	A36
14	16	0033.90050	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
				A449
				A563 DH
				F436
				A563 DH
				A449, A563 DH, F436, ASME D18.2
				A325, A563 DH, F436, & ASME D18.2
				A325, A563 DH, F436, & ASME D18.2
				A325, A563 DH, & F436
				A325, A563 DH, & F436
				A572 Gr. 50
				A307
				A307
				(SUPPLIED BY CUSTOMER)

GENERAL NOTES:

1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
2) PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3) ALL POST SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POST IS 8' 3".
4) SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE POSTS AND PREFERABLY TO AT LEAST 4 POSTS.
5) RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPER STRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4"@ 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
6) STD. SPLICE HOLES ONLY IN BRIDGE RAIL TUBES. REST TO BE DRILLED BY CUSTOMER. FIELD DRILLED HOLES TO BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
7) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
8) SEE STANDARD DRAWING G-1 FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL BE INSTALLED AT 30 FOOT SPACING OR THE NEAREST POST. WHITE IS TO BE INSTALLED ON THE DRIVER'S RIGHT. FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVER'S LEFT. PAYMENT FOR DELINEATORS SHALL BE INCIDENTAL TO OTHER ITEMS.
9) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
10) THE MINIMUM DISTANCE FROM THE POST TO AN EXPANSION JOINT SHALL BE DETERMINED BY THE MINIMUM EDGE DISTANCE OF 5" FROM ANY ANCHOR STUD TO THE END OF THE SLAB, OR THE EXPANSION JOINT RECESS POUR, IF ONE IS USED.
11) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
12) THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

Vermont Agency of Transportation

RECEIVED

F RL4WALDEN 4-23-2015 - comments.pdf

CK'D BY CLB OK'D BY HIS

April 23, 2015

RESUBMIT NO Approved AsNoted

BY Carolyn Carlson DATE 4/29/2015

ITEM #: 525.335

SHEET 1 OF 2

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

BRIDGE RAIL DETAILS SHEET

ROUTE VT 15 (MINOR ARTERIAL), BRIDGE # 83
TOWN OF WALDEN, COUNTY OF CALEDONIA, VT.

R E V	NO.	DATE	DESCRIPTION	BY
	1	4/16/15	Revised Per 4/1/15 Markup	E.P.

R E V	NO.	DATE	DESCRIPTION	BY

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

AISC CERTIFIED FABRICATOR

DRAWN	E.P.	2/20/15
CHECKED	D.L.	2/23/15
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO.	F.R. LaFAYETTE-WALDEN	