

RECEIVED

CK'D BY _____ OK'D BY Rob Young

December 18, 2013

RESUBMIT Yes Rejected
BY Rob Young DATE 01/10/2014

UPDATE RAIL LENGTHS BASED ON FIXED SPLICE LOCATION RELATIVE TO POSTS

WEST RAILING FACING WEST (EAST RAILING SIMILAR)

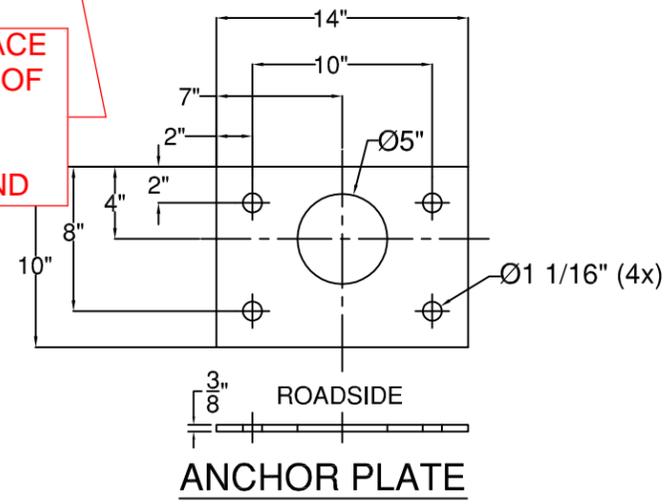
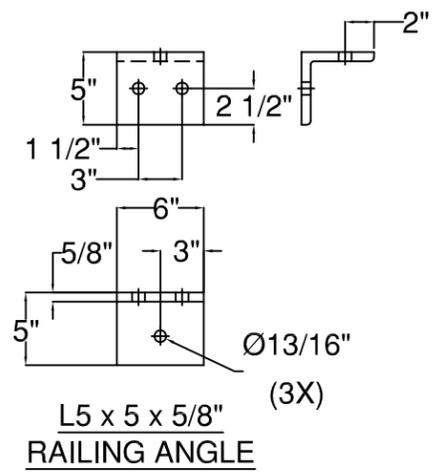
1'-6" IS A FIXED DIMENSION

T-Y-JIN INTERNATIONAL

No Exception Taken
Make Correction as Noted
Submit Specified Item
Revise and Resubmit as Noted
Rejected

Checking is for general compliance with the design concept of the project and general compliance with the information given in the contract documents only. Any action shown is not an approval and is subject to the requirements of the plans and specifications. Any action shown on a specific item shall not indicate the checking of an assembly of which the item is a component. Contractor is solely responsible for: dimensions which shall be confirmed and correlated at the job site, fabrication processes, techniques of construction, safety precautions, and coordination of its work with that of all other trades and the satisfactory performance of its work.

Reviewed By: *[Signature]* (SOSH CLUND) Date: 12/20/2013



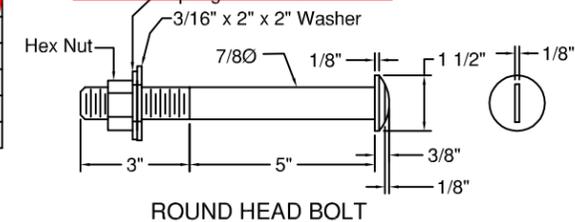
GENERAL NOTES:

- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE ST SPECIFICATIONS.
- 2) PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS
- 3) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
- 4) RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPER STRUCTURE EXPANSION JOINTS. EXPANSION WIDTH SHALL BE 4" @ 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
- 5) RETROREFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE A .063" ALUMINUM BACKING WHITE OR YELLOW REFLECTOR. WHITE IS TO BE INSTALLED ON THE DRIVERS RIGHT, FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVERS LEFT.
- 6) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
- 7) 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.
- 8) ALL POST SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POST IS 8' 3".
- 9) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
- 10) 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.
- 11) THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

1'-4 1/2" ALONG FACE OF RAIL TO BACK OF ABUTMENT, THIS END. 10 1/2" AT THE OPPOSITE END

ALL RAIL COMPONENTS

ASME D18.2 PER STD SPEC 732.03(c)



ITEM #	QTY	PART #	DESCRIPTION	ASTM DESIGNATION
1	34	0033.03610	W6x25, THREE RAIL POST @ 2'-9" DA DN 1 1/4x10x1'-2" B.P.	A572 Gr. 50
2	4	0033.91052	HSS 3' X 5' X 1/4" RAIL @ 21'-9 3/4"	A500 Gr. B
3	2	0033.91053	HSS 3' X 5' X 1/4" RAIL @ 23'-11 1/2"	A500 Gr. B
4	4	0033.91054	HSS 3' X 5' X 1/4" RAIL @ 29'-11 1/2"	A500 Gr. B
5	8	0033.91055	HSS 6' X 6' X 3/16" RAIL @ 23'-9 3/4"	A500 Gr. B
6	4	0033.91056	HSS 6' X 6' X 3/16" RAIL @ 23'-11 1/2"	A500 Gr. B
7	8	0033.91057	HSS 6' X 6' X 3/16" RAIL @ 29'-11 1/2"	A500 Gr. B
8	8	0033.00840	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
9	16	0033.00640	HSS 5' X 5' X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
10	34	0033.00220	3/8" X 10" X 14" ANCHOR PLATES (END POST)	A572 Gr. 50
11	34	0033.90050	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
12	136	0042.21013	Ø 1" X 13" ANCHOR STUDS, W/ 2 1/4" THD. EACH END	A449 Gr. 1, CLASS 8.8
13	272	0080.18901	Ø 1" HEAVY HEX NUTS	A563
14	272	0080.18911	Ø 1" FLAT WASHERS	F436
15	136	0080.18905	Ø 1" HEX JAM NUTS	A563
16	136	0080.07500	Ø 7/8" X 8" ROUND HEAD BOLT, NUT, SQ. WASHER, L.W.	A449, A563, F436, ASME B18.21.1
17	34	0080.06400	Ø 3/4" X 8" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME B18.21.1
18	68	0080.06140	Ø 3/4" X 2-3/4" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME B18.21.1
19	64	0080.06340	Ø 3/4" X 7-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
20	32	0080.06255	Ø 3/4" X 4-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
21	34	0033.00500	L5" X 5" X 5/8" RAILING ANGLE @ 6"	A572 Gr. 50
22	TBD		DELINEATORS - NOT SHOWN	(SUPPLIED BY CUSTOMER)

ITEM #: 525.335

F.R. LAFAYETTE, CAVENDISH

SHEET 1 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

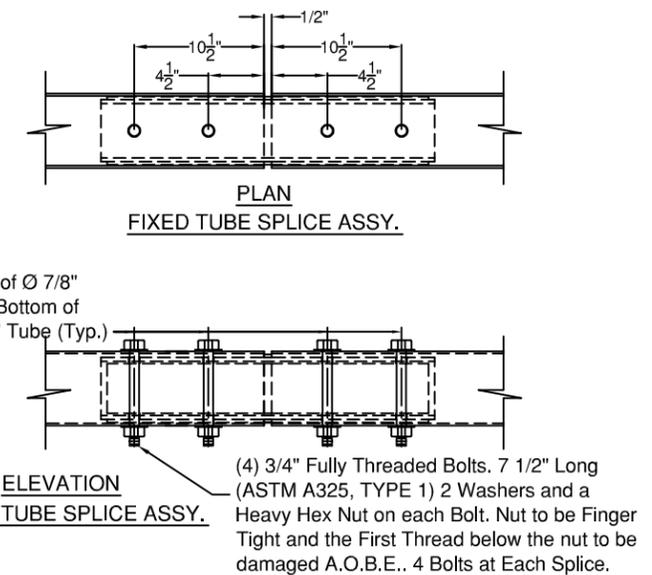
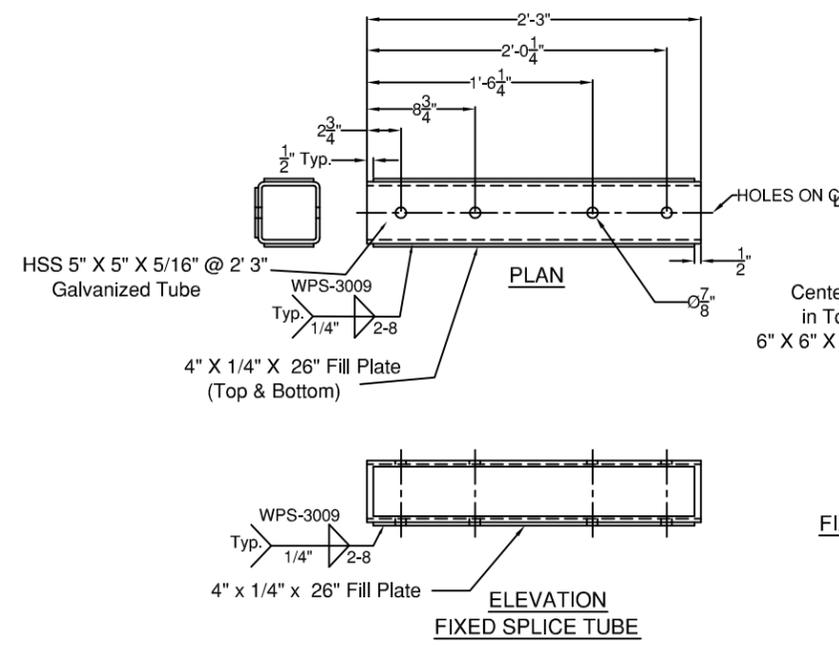
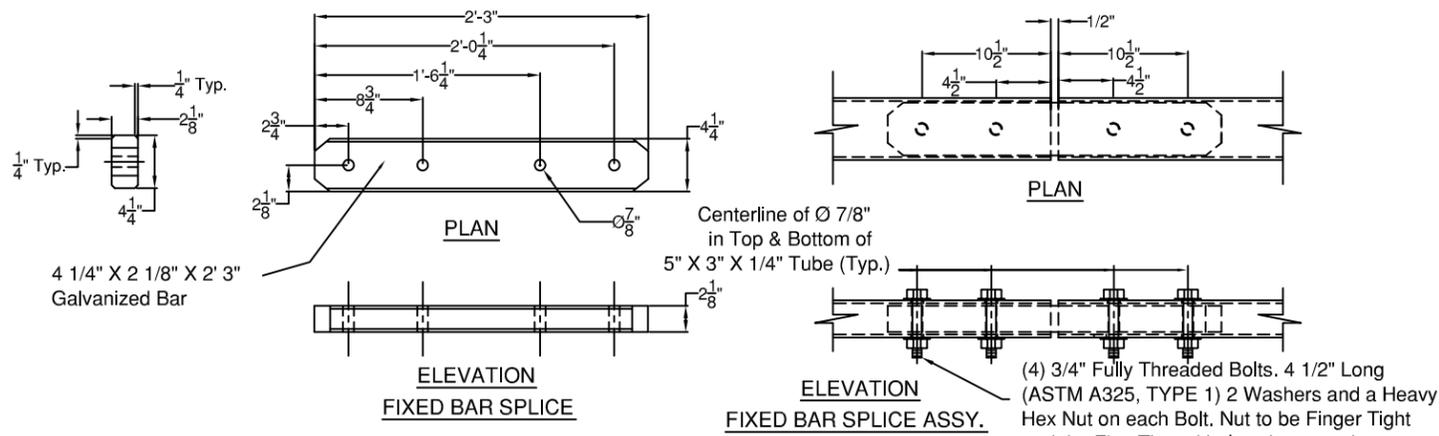
CAVENDISH, ER BRF 0416 (13), ROUTE VT 131, OVER TWENTY MILE STREAM
VERMONT

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

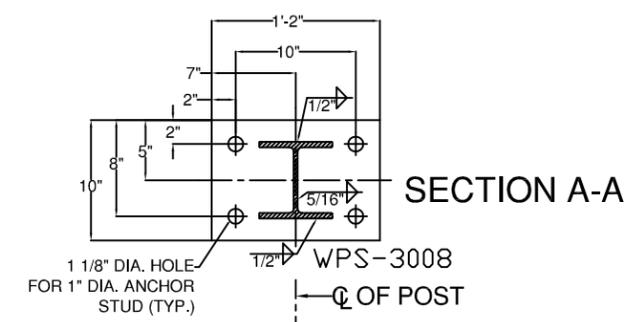
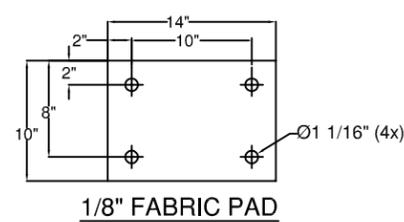
ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

DRAWN	E.P.	11/13/13
CHECKED	D.L.	11/20/13
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. F.R. LAFAYETTE, CAVENDISH		

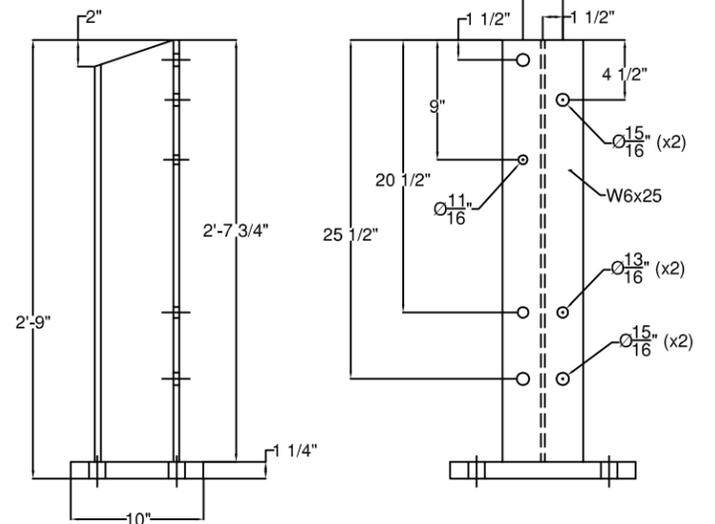
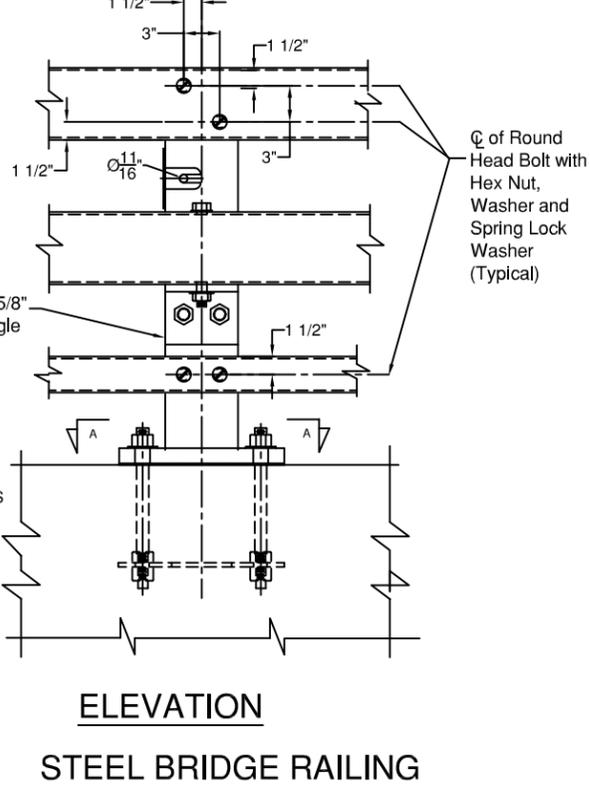
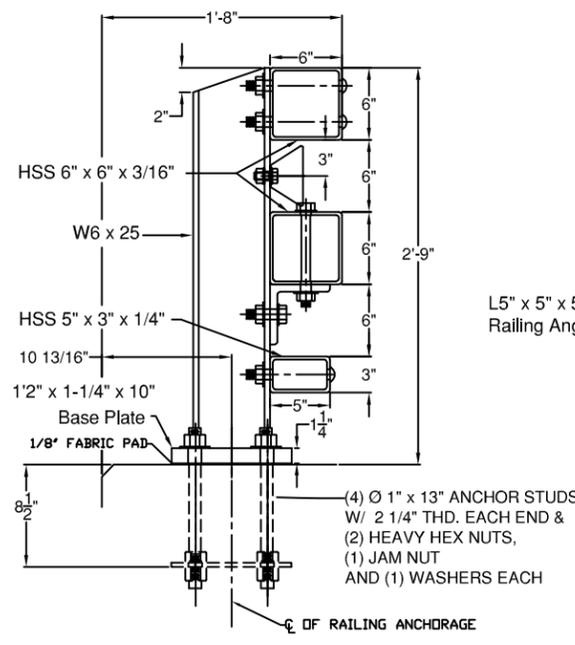
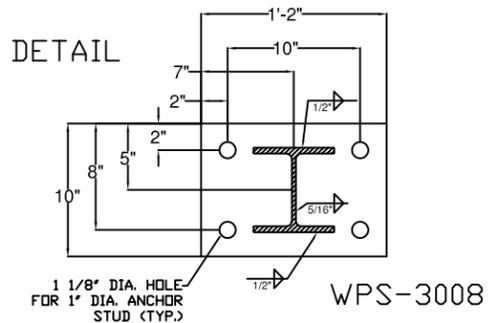
SPLICE BAR - FIXED



SPLICE TUBE - FIXED



BRIDGE POST DETAIL



ITEM #: 525.335

F.R. LAFAYETTE, CAVENDISH

SHEET 2 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

CAVENDISH, ER BRF 0416 (13), ROUTE VT 131, OVER TWENTY MILE STREAM

VERMONT

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

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

CERTIFIED FABRICATOR

DRAWN	E.P.	11/13/13
CHECKED	D.L.	11/20/13
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. F.R. LAFAYETTE, CAVENDISH		