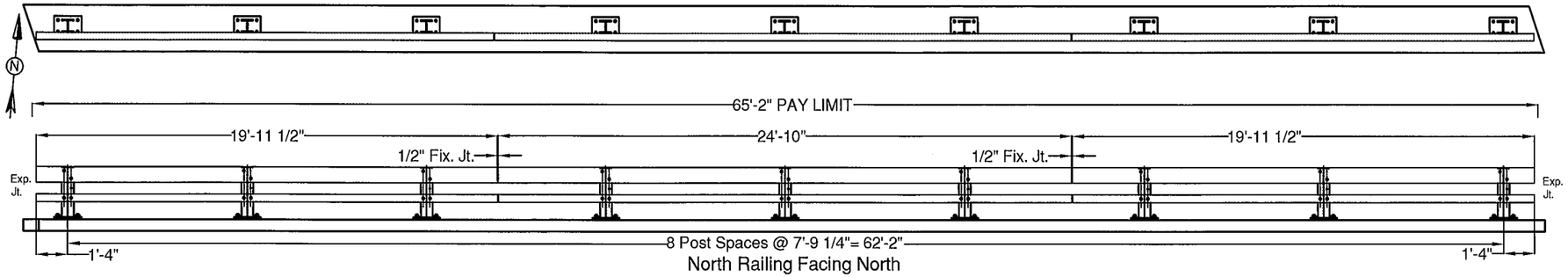
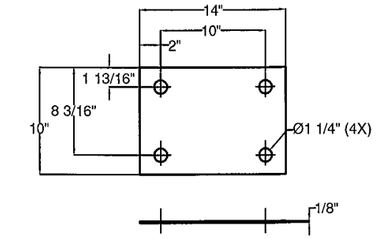
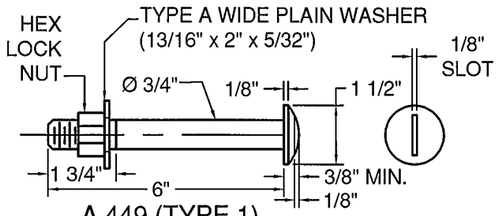


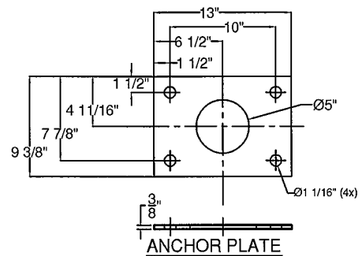
North Railing Facing North
(South Railing Facing South is Similar)



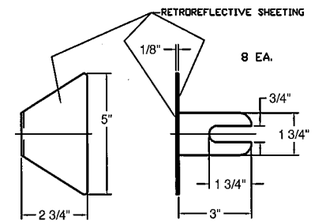
1/8" PREFORMED BEARING PAD



A 449 (TYPE 1)
ROUND HEAD BOLT

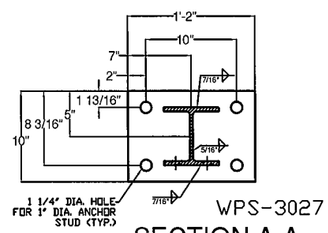


ANCHOR PLATE
SECTION B-B

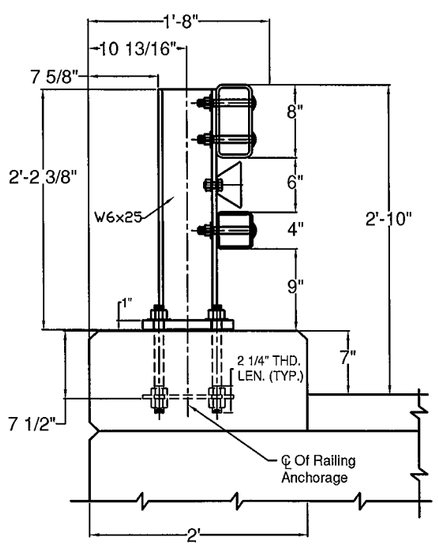


DELINEATOR DETAIL

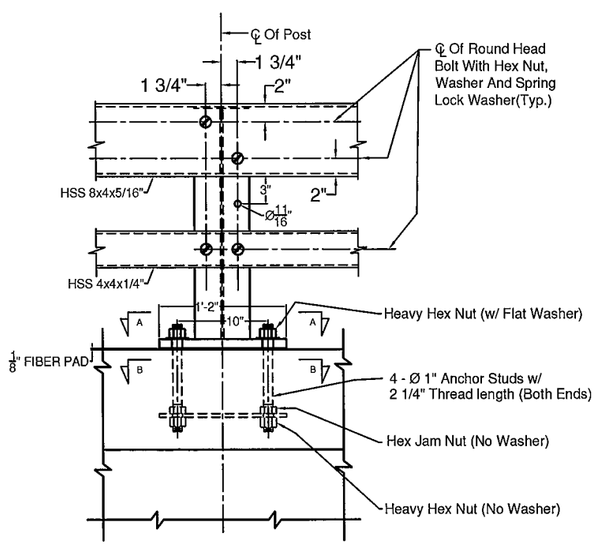
BILL OF MATERIAL			
QTY	PART #	DESCRIPTION	ASTM DESIGNATION
18	0033.90344	TWO RAIL POST @ 2'-2 3/8" O.A.	A572 Gr. 50
4	0033.91123	4" X 4" X 1/4" RAIL @ 19'-11 1/2"	A500 Gr. B
2	0033.91124	4" X 4" X 1/4" RAIL @ 24'-10"	A500 Gr. B
4	0033.91125	4" X 8" X 1/4" RAIL @ 19'-11 1/2"	A500 Gr. B
2	0033.91126	4" X 8" X 5/16" RAIL @ 24'-10"	A500 Gr. B
4	0033.90052	3" X 3" X 5/16" FIX. SPL. TUBE @ 1'-8"	A500 Gr. B
4	0033.90033	3" X 7" X 3/8" FIX. SPL. TUBE @ 1'-8"	A500 Gr. B, A36
18	0033.00299	3/8" X 9 3/8" X 13" ANCHOR PLATES	A36
18	0033.00052	1/8" FIBER PAD @ 10" X 14" (S-360A)	AASHTO M251
72	0042.21012	ø 1" X 12" ANCHOR STUDS W/ 2 1/2" THREADED ENDS	A449 Gr. 1
144	0080.18901	ø 1" HEAVY HEX NUTS	A563
72	0080.18905	ø 1" HEX JAM NUTS	A325
72	0080.18911	ø 1" FLAT WASHERS	F436
72	0080.06290	ø 3/4" X 6" ROUND HEAD BOLT, NUT, FLAT WASHER, L.W.	A449, A563, ASME B18.21.1
32	0080.05045	ø 5/8" X 1 3/4" HEX BOLT, & F.W.	A307
4	-	ALUMINUM DELINEATERS	SUPPLIED BY FRL



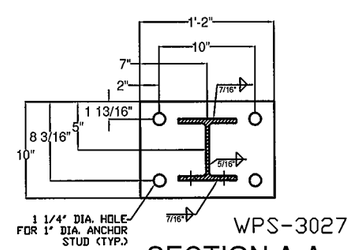
WPS-3027
SECTION A-A



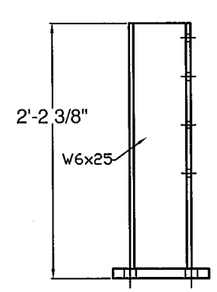
Typical Post Section

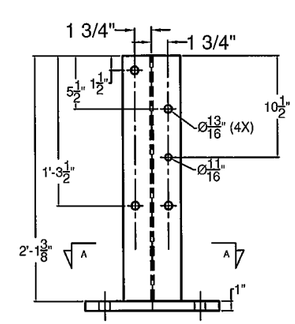


Typical Post Elevation



WPS-3027
SECTION A-A





NOTES
I. ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
2. PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3. ALL POSTS SHALL BE SET NORMAL TO GRADE.
4. SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE RAIL POSTS AND PREFERABLY TO AT LEAST FOUR POSTS.
5. RAIL TUBE EXPANSION JOINTS SHALL PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPERSTRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4" AT 45°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
6. HOLES IN RAILS FOR RAIL TUBE ATTACHMENT WILL BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
7. RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
8. RAIL TUBES SHALL BE ATTACHED USING 3/4" FULL DIAMETER BODY ASTM A 449 (TYPE I) ROUND HEAD BOLTS INSERTED THROUGH THE RACE OF THE TUBE. HOLES IN POSTS SHALL BE 1/16" LARGER THAN THE BOLT SIZE:
9. ANY BENDING OF RAIL SHALL BE DONE AT A 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 TO THE EXPANSION JOINT RECESS POUR, IF ONE IS USED.
II. SEE STANDARD DRAWING G-I 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 SHALL BE INCIDENTAL TO OTHER ITEMS.
12. THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

ITEM #: 525.33

SHEET 1 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

ROCHESTER, BRF 0162 (17) VT RTE 73 (MAJOR COLLECTOR), BRIDGE NO : 16, OVER CORPORATION BROOK
TOWN OF ROCHESTER, COUNTY OF WINDSOR, VT

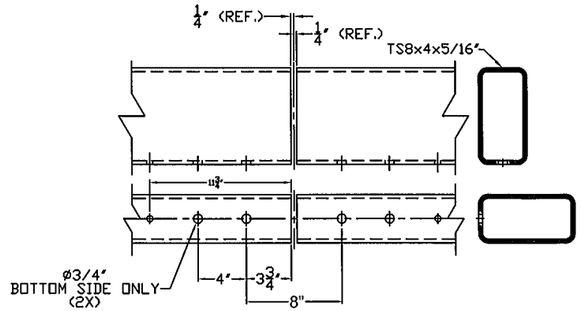
REV	NO.	DATE	DESCRIPTION	BY	REV	NO.	DATE	DESCRIPTION	BY

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

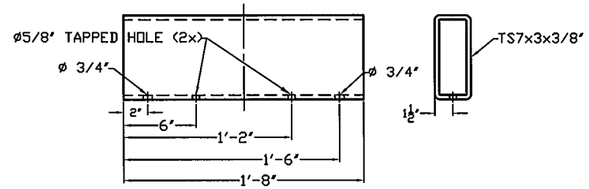
AISC CERTIFIED FABRICATOR

DRAWN	E.P.	5/6/14
CHECKED	D.L.	5/6/14
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO.	FR L - ROCH-BR16	

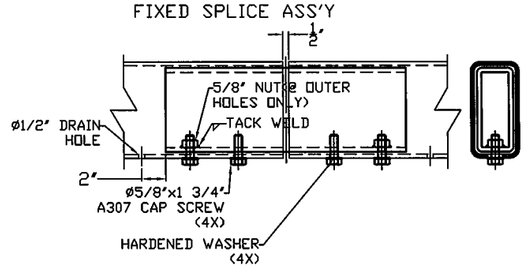
FIXED SPLICE TUBE DETAIL



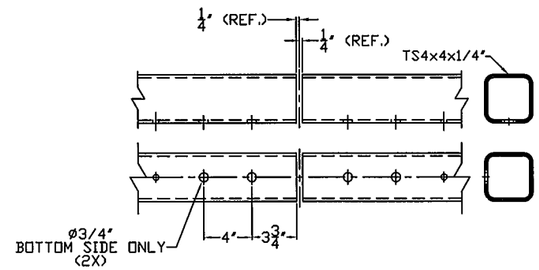
SPLICE FOR: TS8x4x5/16"



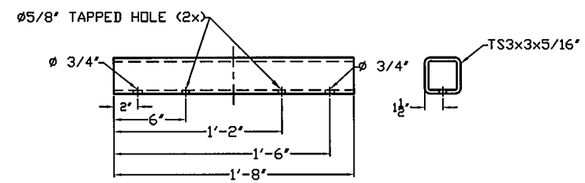
FIXED SPLICE ASS'Y



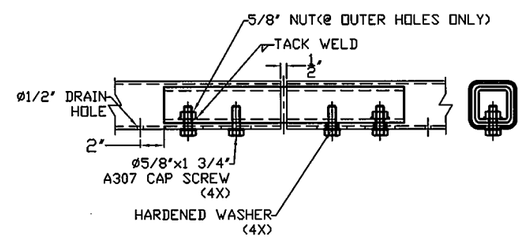
FIXED SPLICE TUBE DETAIL



SPLICE FOR: TS4x4x1/4"



FIXED SPLICE ASS'Y



ITEM #: 525.33

SHEET 2 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

ROCHESTER, BRF 0162 (17) VT RTE 73 (MAJOR COLLECTOR), BRIDGE NO : 16, OVER CORPORATION BROOK
TOWN OF ROCHESTER, COUNTY OF WINDSOR, VT

REV	NO.	DATE	DESCRIPTION	BY	REV	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

CERTIFIED FABRICATOR

DRAWN	E.P.	5/6/14
CHECKED	D.L.	5/6/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	FR L - ROCH-BR16	

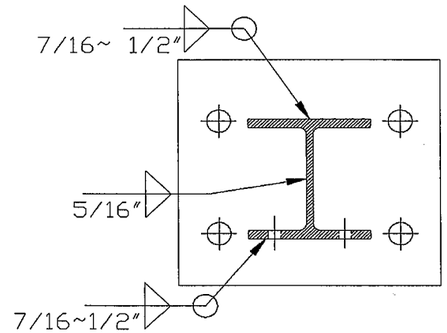
WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE#1

Material Specification	A572 GRD. 50 /A992-06a
Welding Process	FCAW
Manual or Machine	SEMAUTOMATIC
Position of Welding	FLAT/HORIZONTAL
Filler Metal Specification	A5.20
Filler Metal Classification	E70 LINCOLN OUTERSHEILD
Flux	N/A
Shielding Gas	CO 2 Dew Point -40DEG F Flow Rate 50 CFM (45 TO 63 CFM)
Single or Multiple Pass	SINGLE
Single or Multiple Arc	N/A
Welding Current	DC
Polarity	DCEP
Welding Progression	STRINGER
Root Treatment	PER D1.5
Preheat and Interpass Temperature	PER D1.5
Postheat Temperature	NONE
Heat Input	Min Max

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current Amperes	Welding Current Volts	Travel speed	Joint detail
1	3/32	390	27	12	
Variable	LIMITS	351 TO 429	25 TO 29	11 TO 13	



This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3027

Revision No.

Contractor Elderlee, Inc.

Authorized By RANDY SCOTT

Date 4/4/2014