

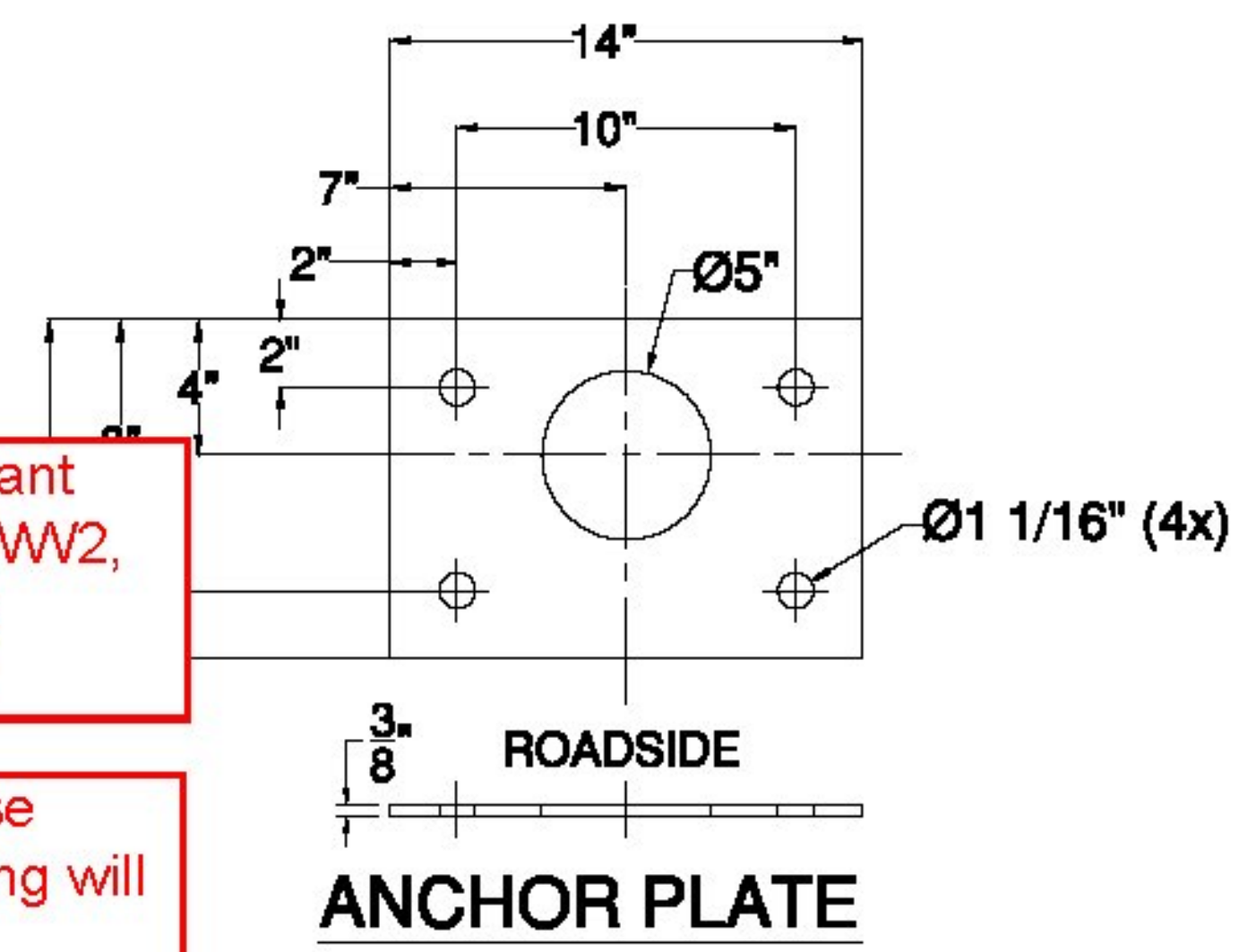
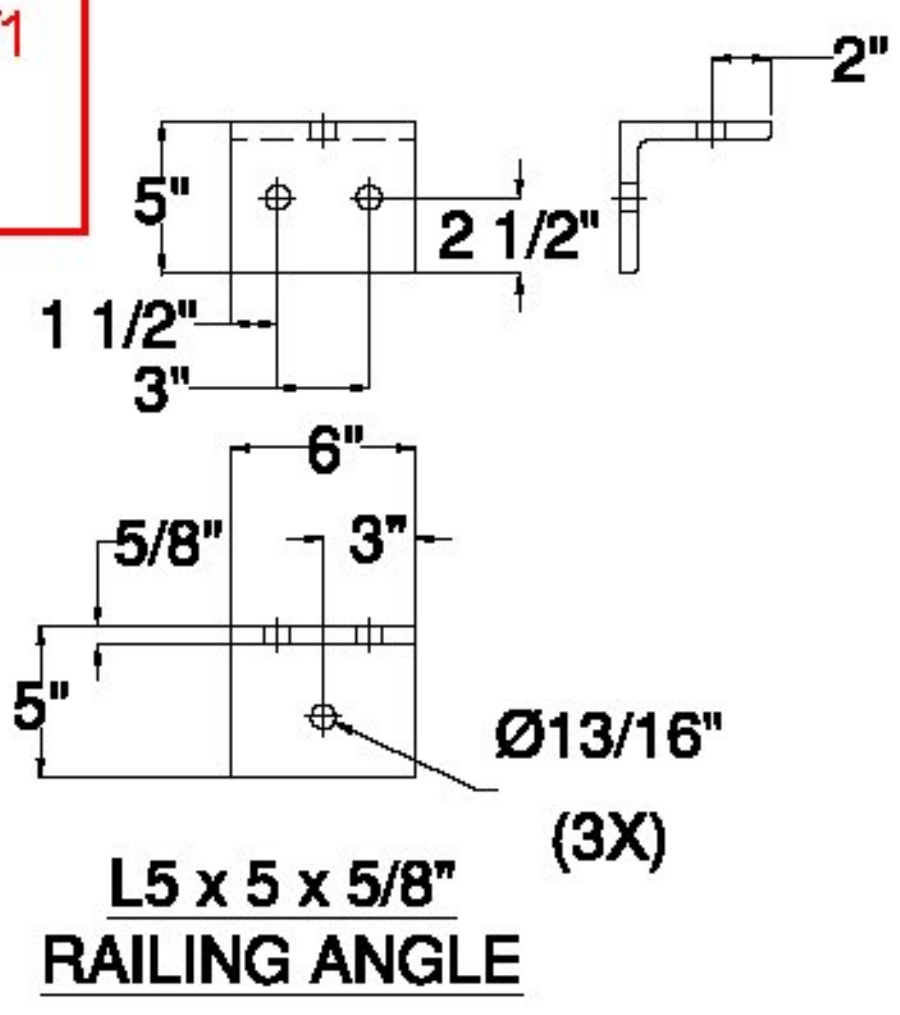
Verify once you check the first post off the bridge.

Please verify the first post off the bridge clears the backwall for WW1 and WW3 using this dimension

ALL RAIL COMPONENTS

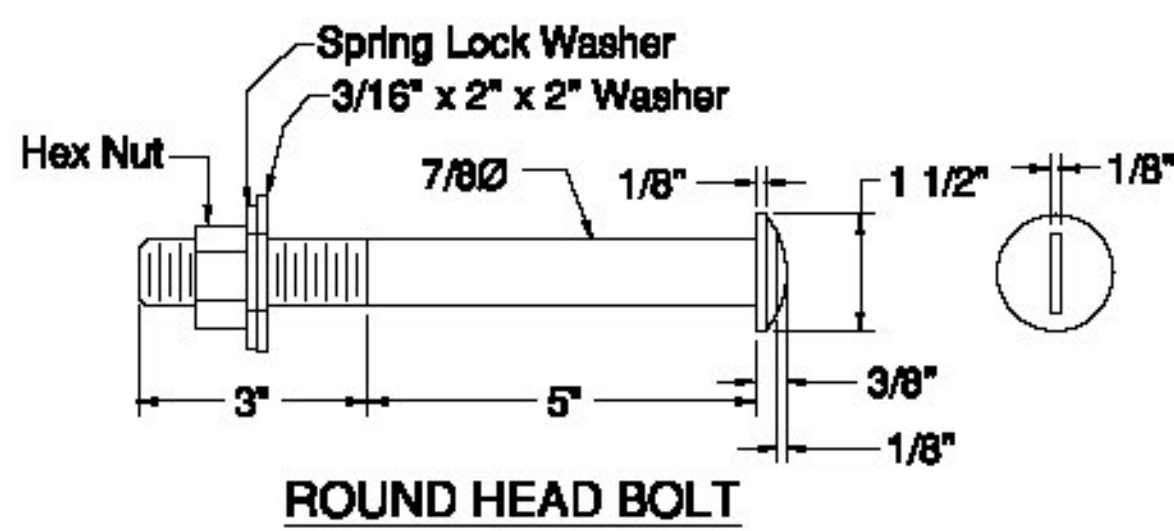
Very significant bending at WW2, where is the procedure?

Please advise where painting will be done.



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) 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 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.
- 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.
- 12) ALL BRIDGE RAILINGS, APPROACH RAILINGS, AND GUARDRAIL SHALL BE PAINTED BLACK (COLOR CHIP #27038) EXCEPT HARDWARE AND ANCHORAGE CAST IN CONCRETE.



ITEM #	QTY	PART #	DESCRIPTION	ASTM DESIGNATION
1	17	0033.03610	W6x25, THREE RAIL POST @ 2'-9" OA ON 1 1/4x10x1'-2" B.P.	A572 Gr. 50
2	2	0033.91046	HSS 3" X 5' X 1/4" RAIL @ 21'-5 3/4"	A500 Gr. B
3	1	0033.91047	HSS 3" X 5' X 1/4" RAIL @ 23'-11 1/2"	A500 Gr. B
4	2	0033.91048	HSS 3" X 5' X 1/4" RAIL @ 29'-11 1/2"	A500 Gr. B
5	4	0033.91049	HSS 6" X 6" X 3/16" RAIL @ 23'-5 3/4"	A500 Gr. B
6	2	0033.91050	HSS 6" X 6" X 3/16" RAIL @ 23'-11 1/2"	A500 Gr. B
7	4	0033.91051	HSS 6" X 6" X 3/16" RAIL @ 29'-11 1/2"	A500 Gr. B
8	4	0033.00840	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
9	8	0033.00640	HSS 5" X 5" X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
10	17	0033.00220	3/8" X 10" X 14" ANCHOR PLATES (END POST)	A572 Gr. 50
11	17	0033.90050	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
12	68	0042.21013	Ø 1" X 13" ANCHOR STUDS, W/ 2 1/4" THD. EACH END	A449 Gr. 1, CLASS 8.8
13	136	0080.18901	Ø 1" HEAVY HEX NUTS	A563
14	136	0080.18911	Ø 1" FLAT WASHERS	F436
15	68	0080.18905	Ø 1" HEX JAM NUTS	A563
16	68	0080.07500	Ø 7/8" X 8" ROUND HEAD BOLT, NUT, SQ. WASHER, L.W.	A449, A563, F436, ASME B18.21.1
17	17	0080.06400	Ø 3/4" X 8" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME B18.21.1
18	34	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	32	0080.06340	Ø 3/4" X 7-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
20	16	0080.06255	Ø 3/4" X 4-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
21	17	0033.00500	L5" X 5" X 5/8" RAILING ANGLE @ 6"	A572 Gr. 50
22	N/A		DELINEATORS	(SUPPLIED BY CUSTOMER)

ITEM #: 525.335

F.R. LAFAYETTE, BRISTOL

SHEET 1 OF 3

APPROVED BY:

BRIDGE RAIL DETAILS SHEET  
BRISTOL, BRO 1445 (32), SOUTH STREET, BRIDGE #31  
TOWN OF BRISTOL, ADDISON COUNTY, VERMONT

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

ELDERLEE, INC.  
OAKS CORNERS, NEW YORK 14518  
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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, BRISTOL		