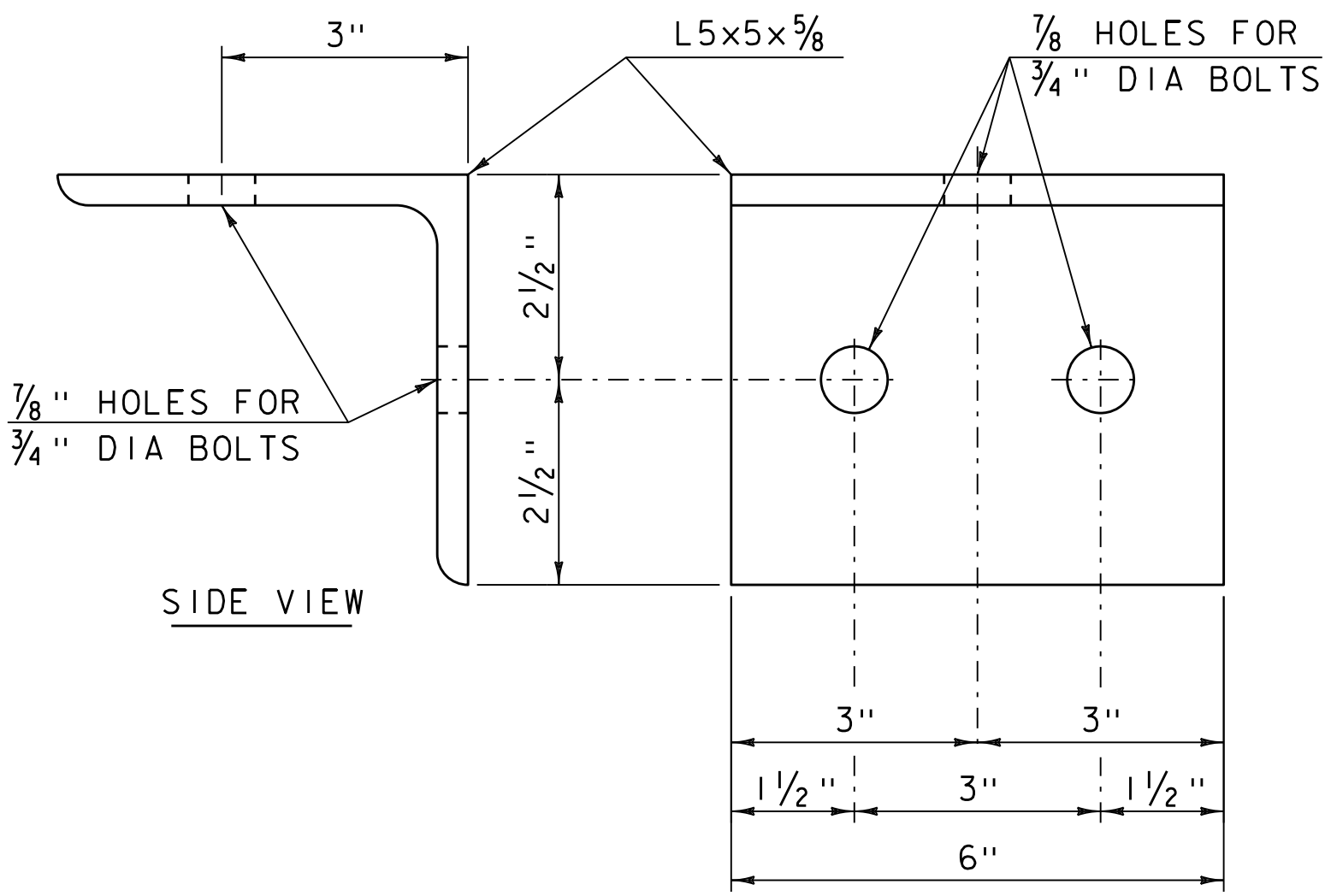
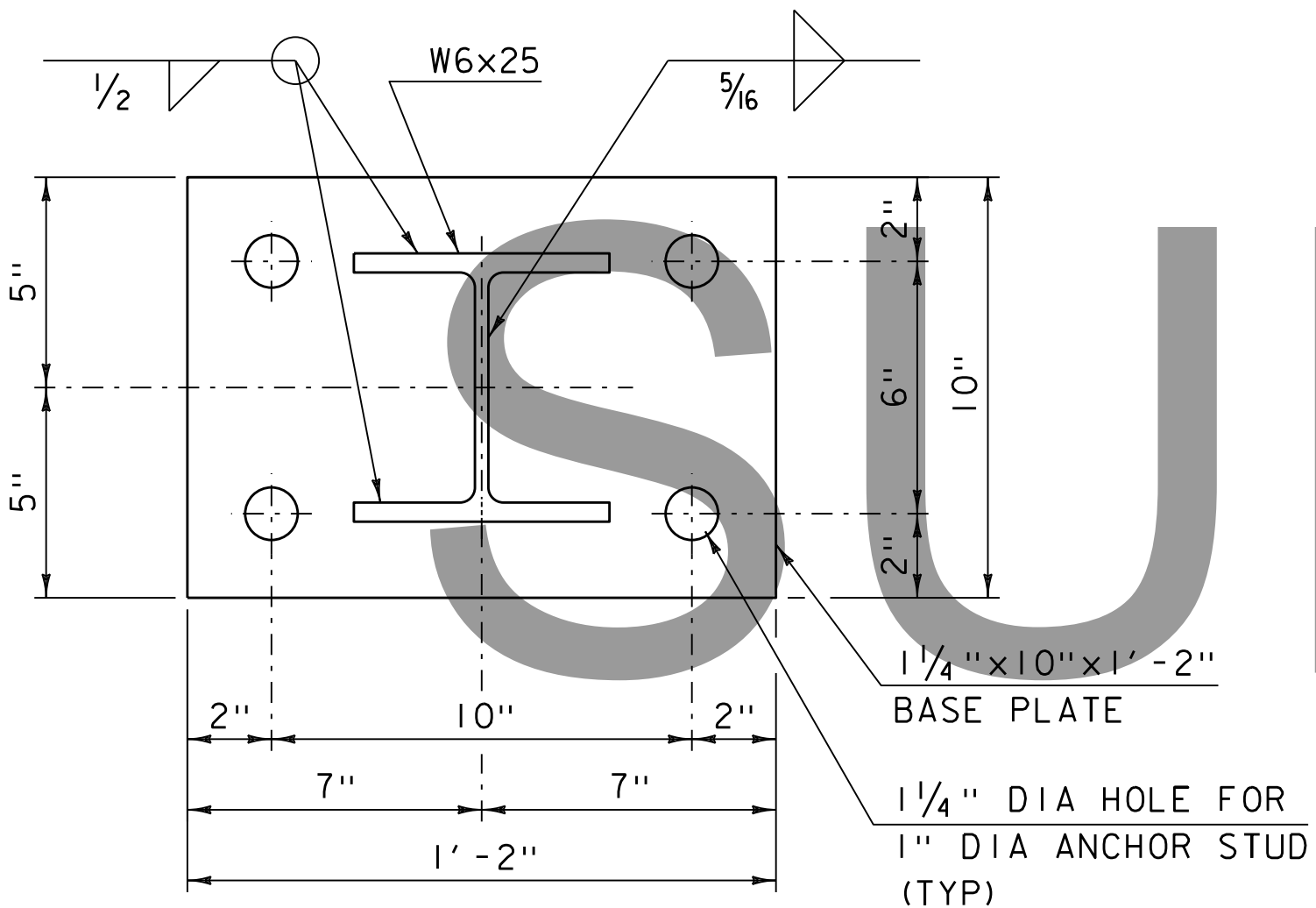


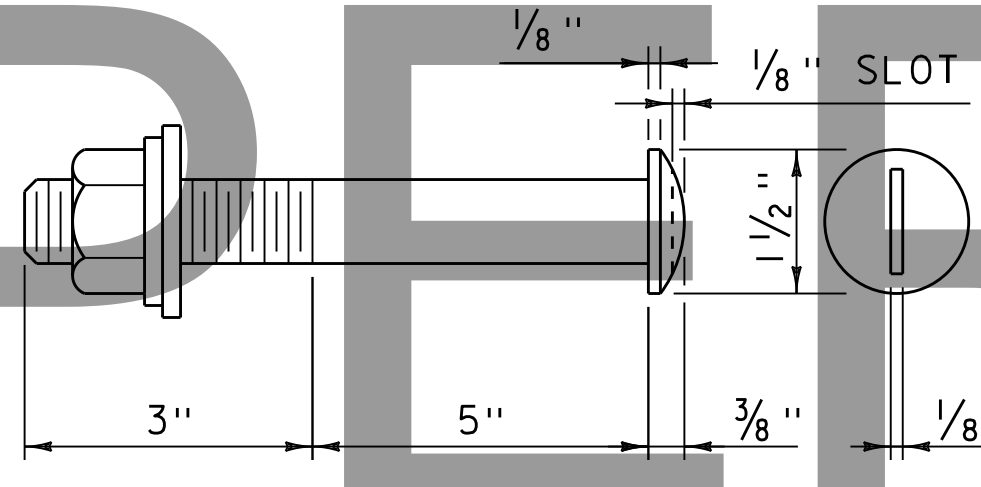
RAILING POST ANCHORAGE



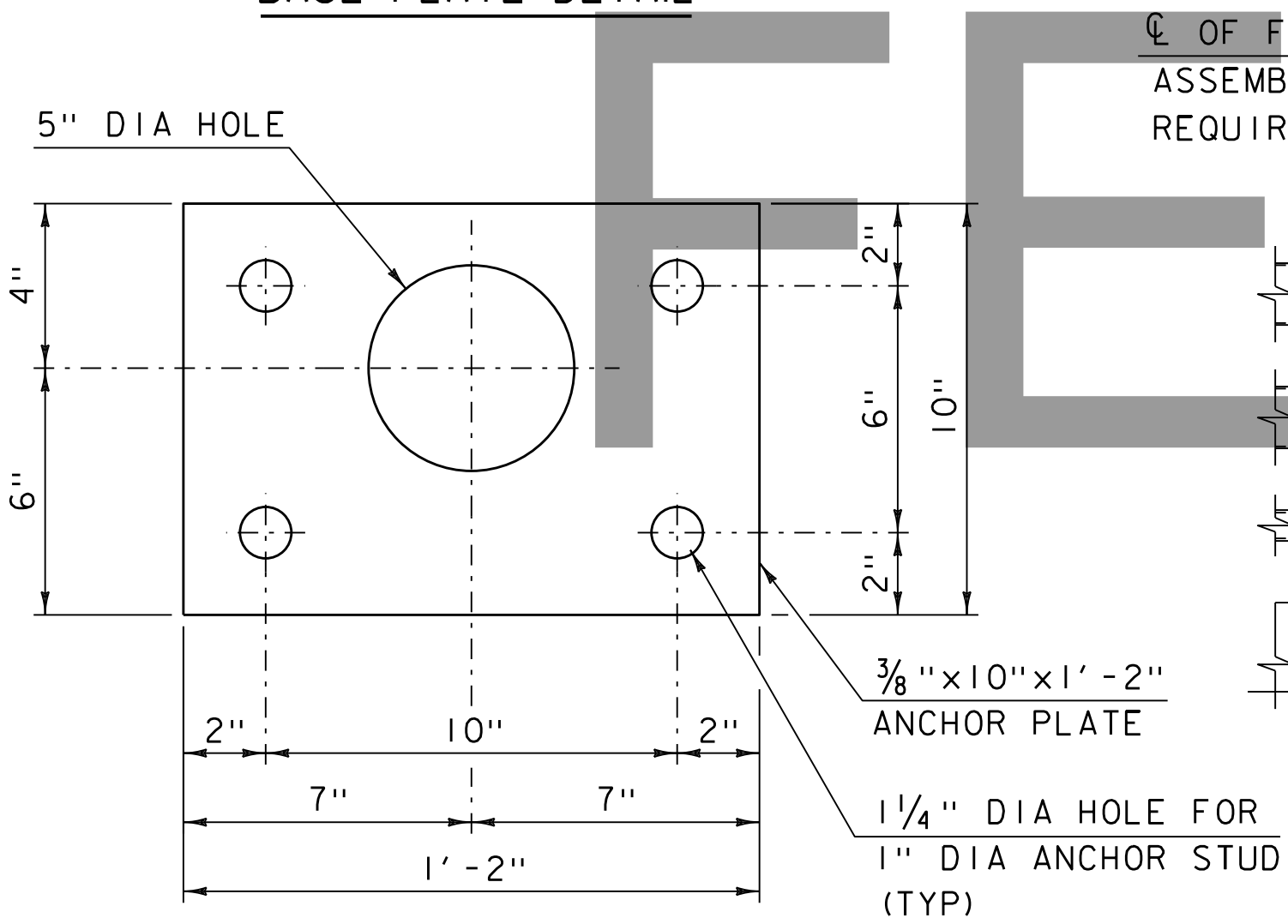
RAILING ANGLE DETAILS



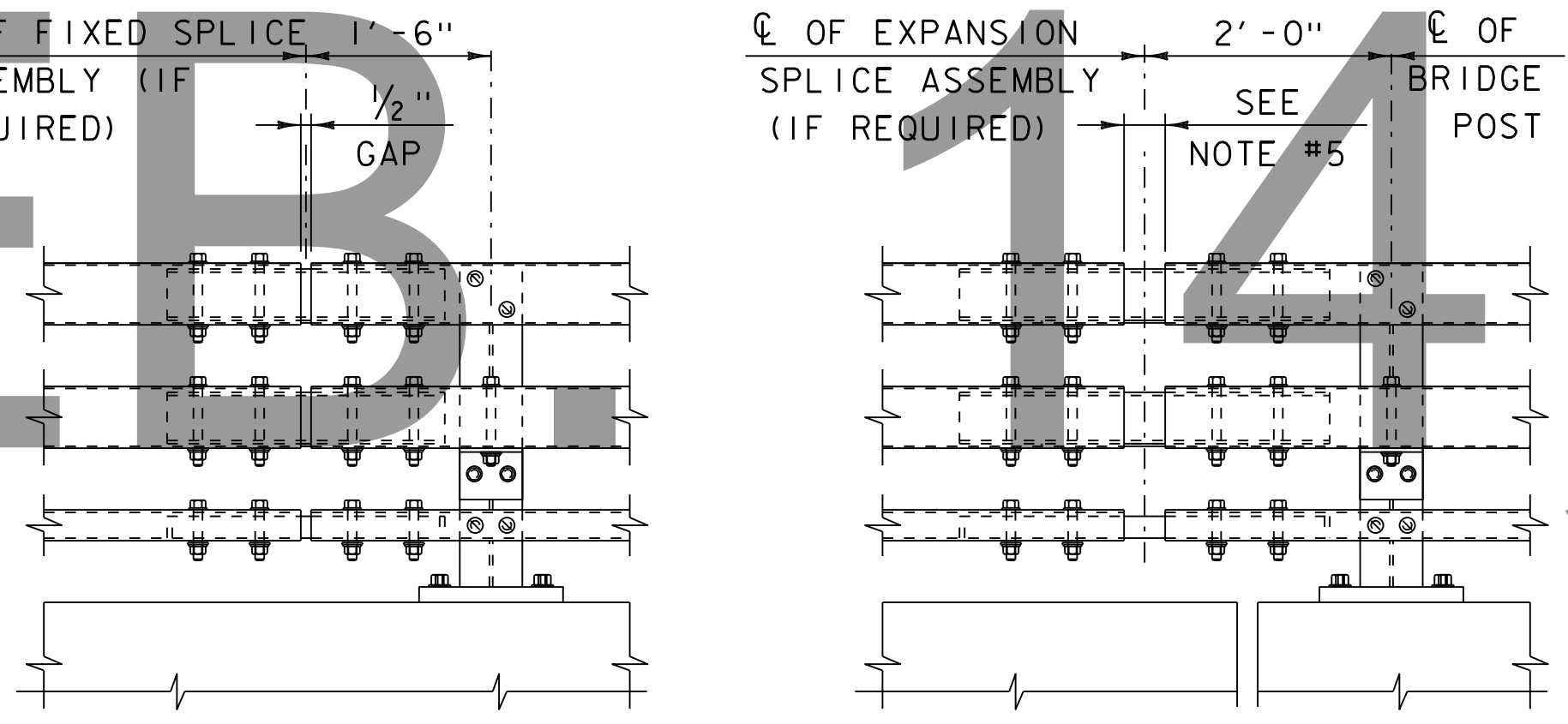
BASE PLATE DETAIL



ROUND HEAD BOLT DETAIL  
7/8" DIA ROUND HEAD BOLT (A449 TYPE 1), W/ HEX NUT, WASHER AND SPRING LOCK WASHER

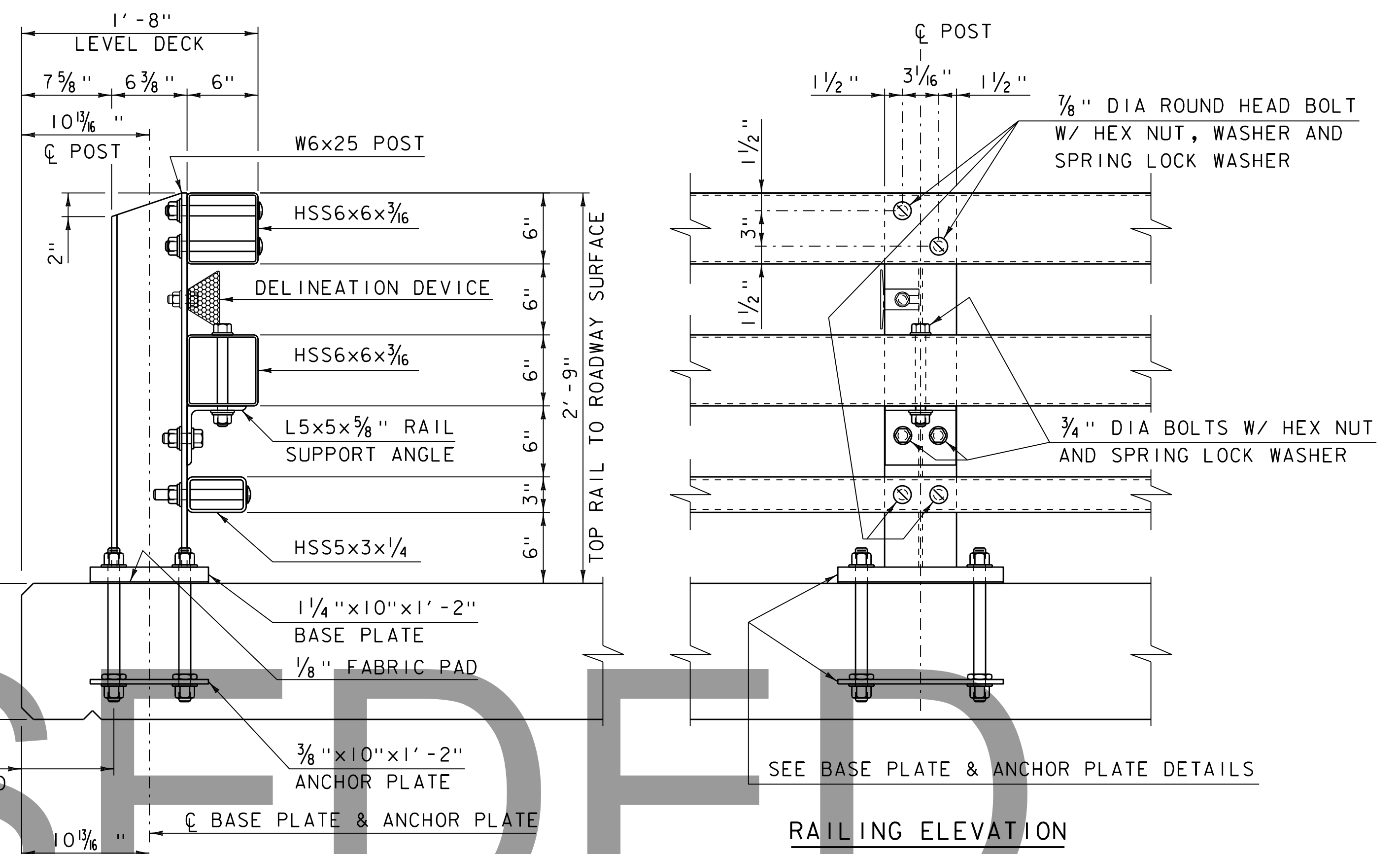


ANCHOR PLATE DETAIL



RAILING SPLICE DETAIL ELEVATION

A RAILING EXPANSION SPLICE IS REQUIRED IN ANY POST SPACING THAT CONTAINS A SUPERSTRUCTURE EXPANSION JOINT



RAILING SECTION

RAILING ELEVATION

NOTES:

- ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
- PRIOR TO GALVANIZING, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
- ALL POSTS SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POSTS IS 8'-3".
- SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE POSTS AND PREFERABLY TO AT LEAST 4 POSTS.
- RAIL TUBE EXPANSION JOINTS SHALL BE 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" @ 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
- HOLES IN RAILS FOR TUBE ATTACHMENT MAY BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
- BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
- 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 SHALL BE INCIDENTAL TO OTHER ITEMS.
- ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
- IN LIEU OF CVN TESTING THE RAIL TUBES PER 732.03, RAIL TUBES MAY BE TESTED IN ACCORDANCE WITH ASTM E436 - "DROP WEIGHT TEAR TESTING OF FERRITIC STEELS", EXCEPT AS MODIFIED BELOW. THE TESTS SHALL BE DONE AFTER ALL GALVANIZING AND ASSOCIATED OPERATIONS HAVE BEEN PERFORMED ON THE RAIL TUBE. THE TESTING SHALL BE CONDUCTED AT A TEMPERATURE OF 0°F, WITHOUT REMOVING THE GALVANIZING, ON 2"x9" SPECIMENS SUPPORTED TO ACHIEVE A 7" SPAN. THE PERCENT SHEAR WILL BE DETERMINED BY TESTING NINE (9) SPECIMENS, THREE (3) FROM EACH OF THREE (3) SIDES NOT CONTAINING A WELD. THE SHEAR AREAS OF THE THREE SPECIMENS FROM THE SIDE WITH THE LOWEST AVERAGE SHEAR AREA WILL BE DISREGARDED AND THE FINAL AVERAGE BASED ON THE REMAINING SIX SPECIMENS. IF THE AVERAGE PERCENT SHEAR AREA FALLS BELOW 50 THE MATERIAL REPRESENTED BY THESE TESTS SHALL BE REJECTED.
- 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.

REV.	DATE	DESCRIPTION
0	AUG. 9, 2010	ORIGINAL APPROVAL
2	FEB. 10, 2014	REVISED NOTE 2
3	FEB. 2, 2017	BORDER UPDATE, MISC. REVISIONS
4	APR. 7, 2020	ADJUSTED ANCHOR PLATE BOLT HOLES
5	FEB. 17, 2022	ADDED DWTT NOTE
OTHER STANDARDS REQUIRED: G-1, S-364C		
VTRANS AND FHWA APPROVAL ON FILE WITH CONTRACT ADMINISTRATION		

## BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM



STANDARD  
S-364A