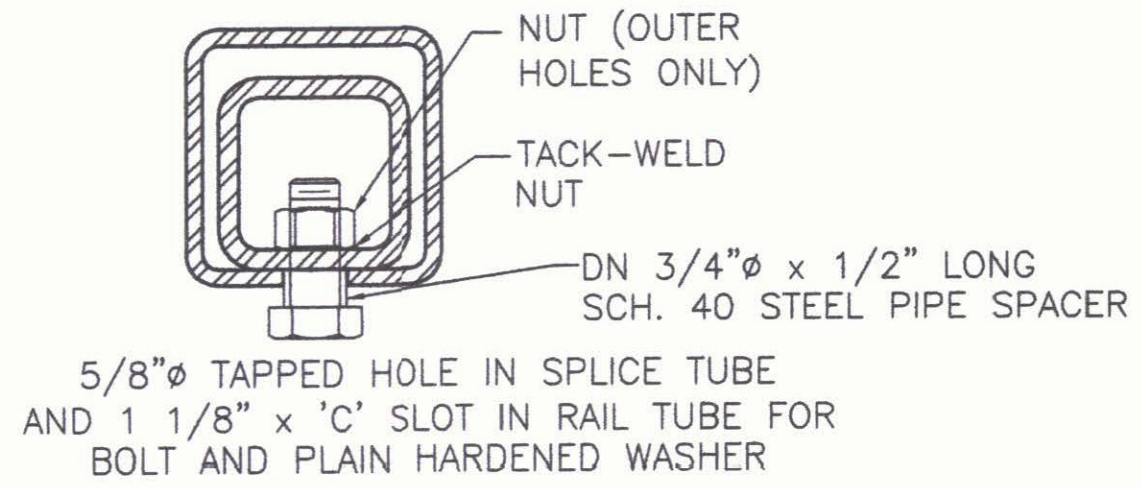
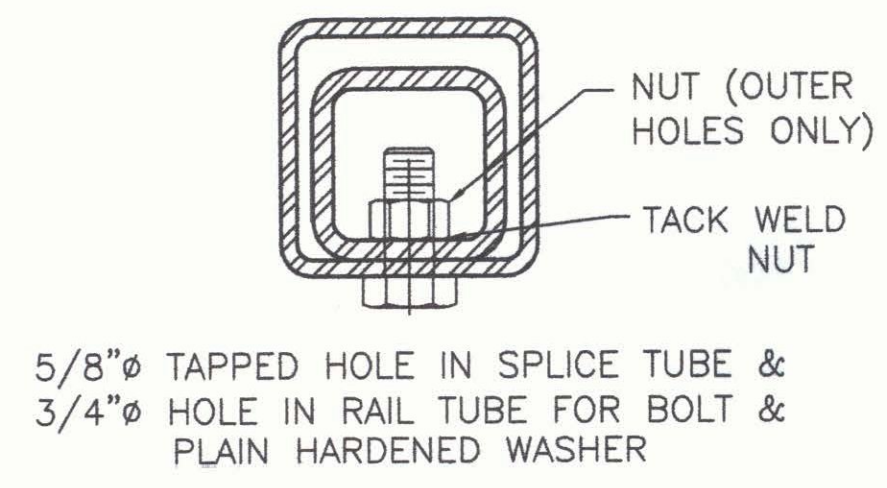


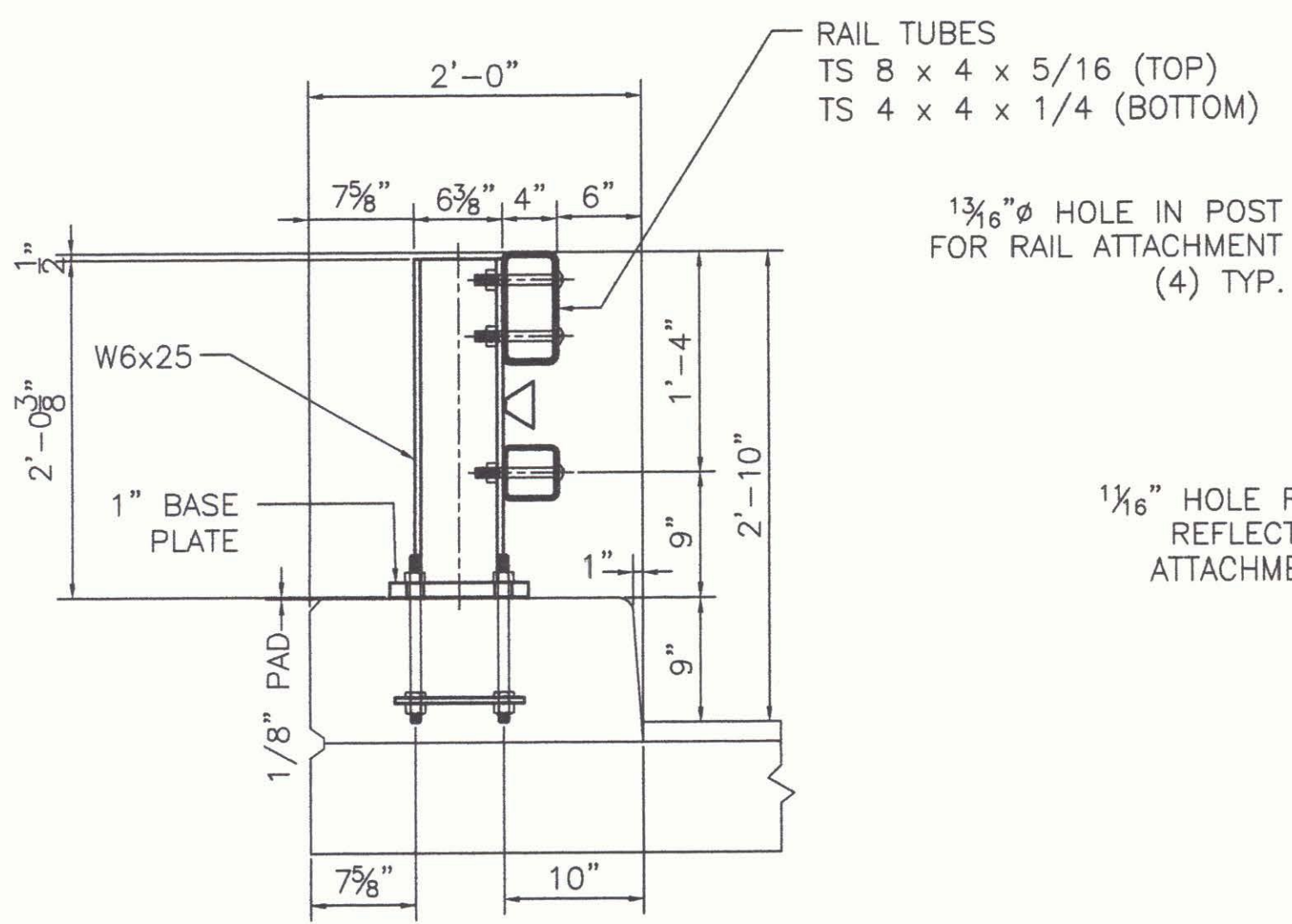
BRIDGE RAILING ELEVATION



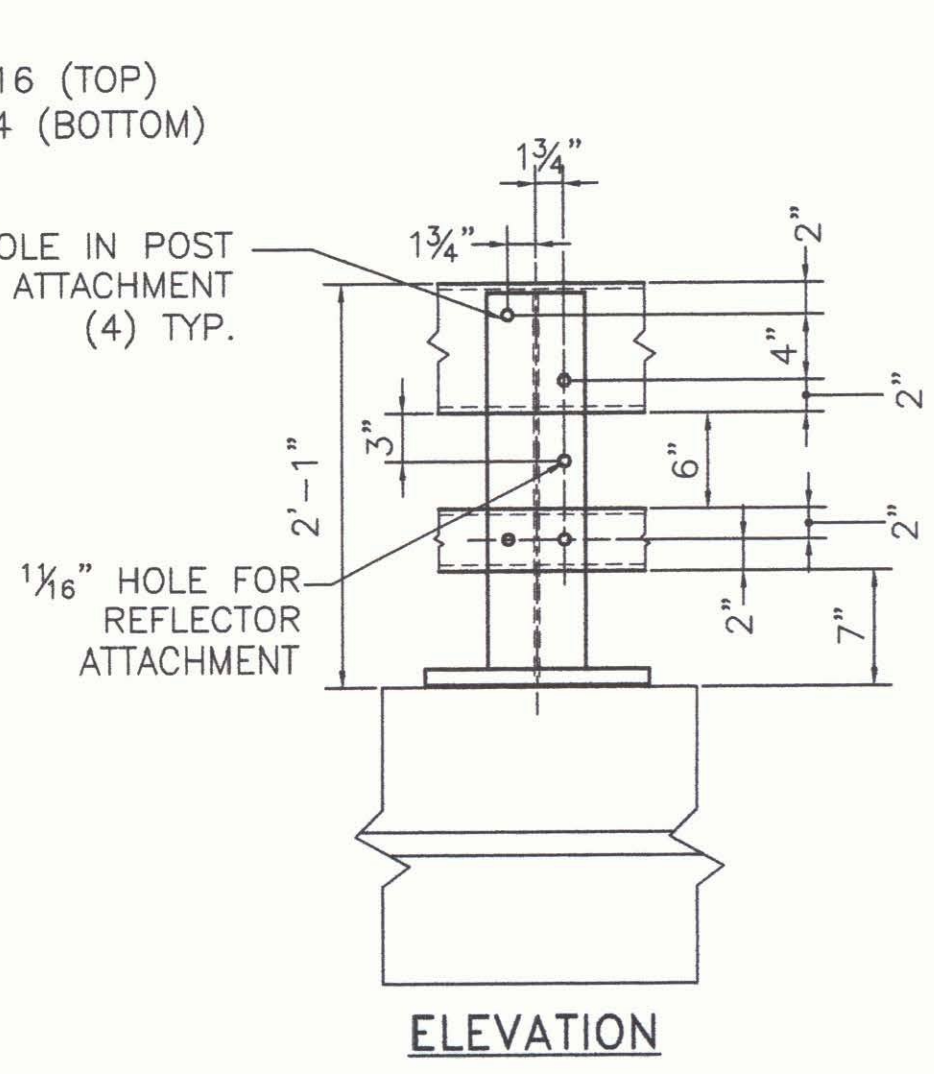
EXPANSION JOINT SECTION
FOR DETAILS NOT SHOWN, SEE "RAIL TUBE SPLICE SECTION."



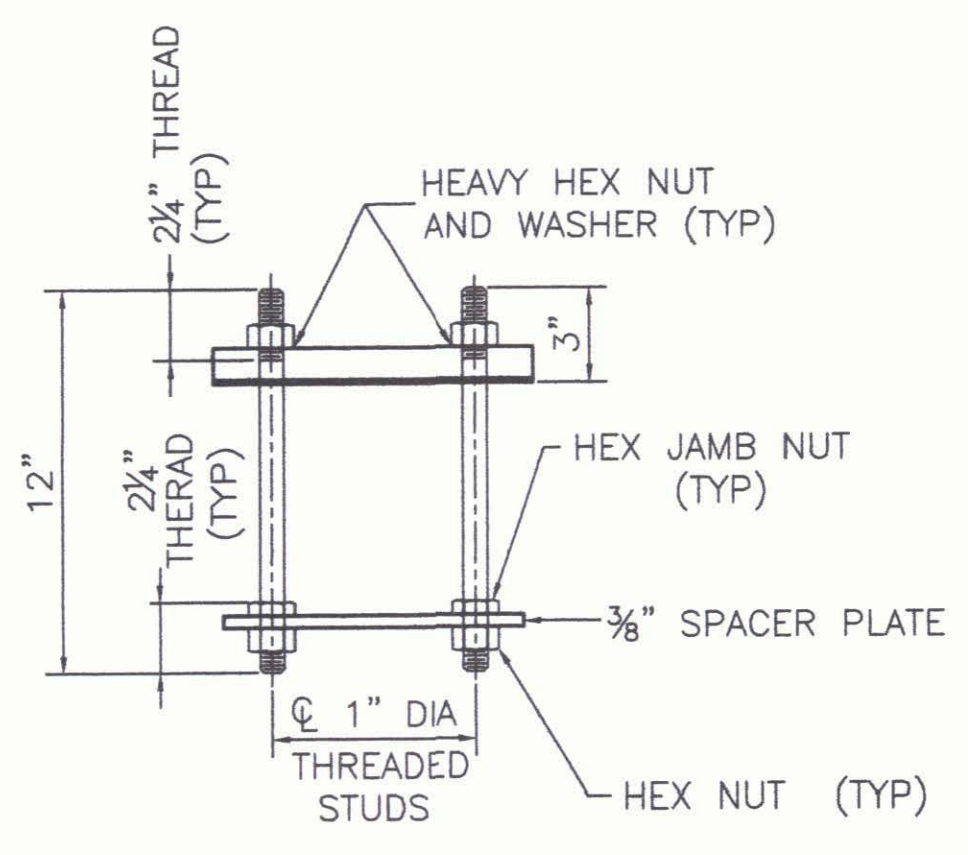
RAIL TUBE SPLICE SECTION



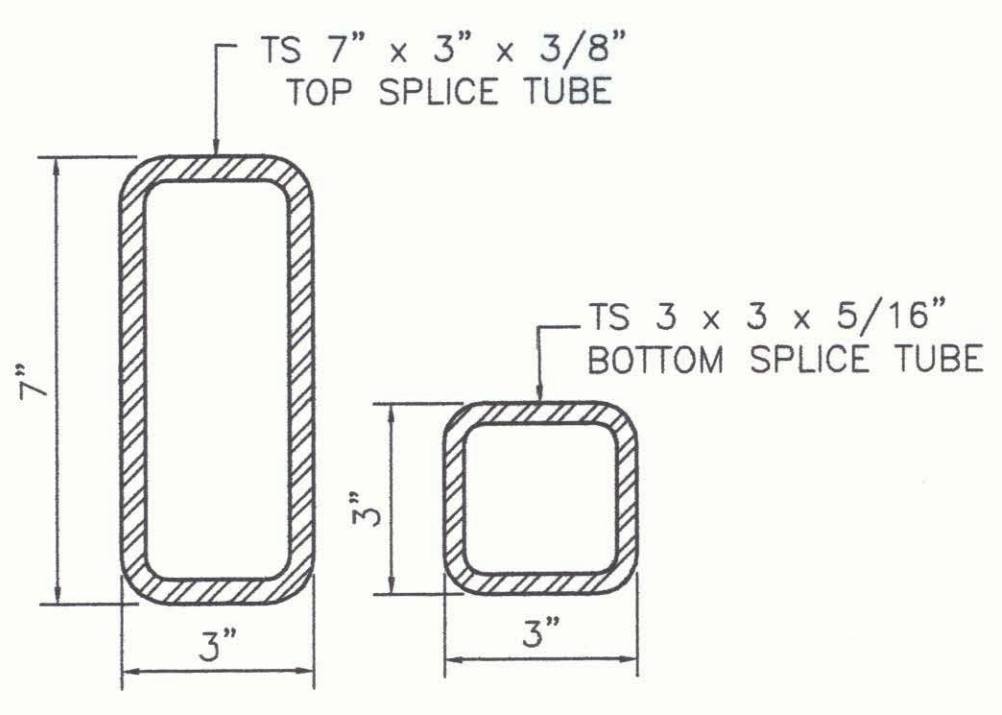
TYPICAL SECTION



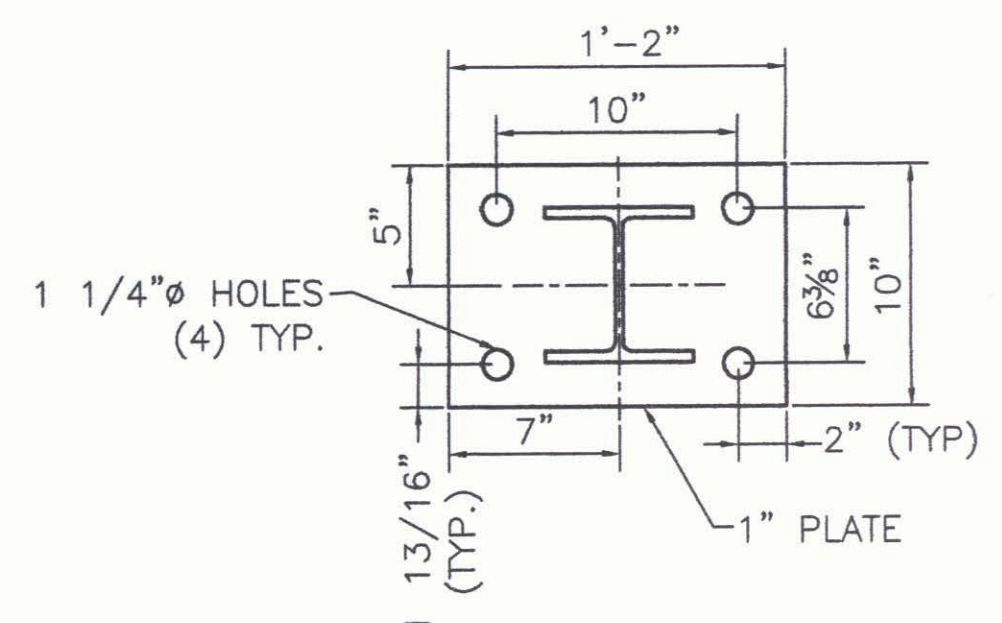
ELEVATION



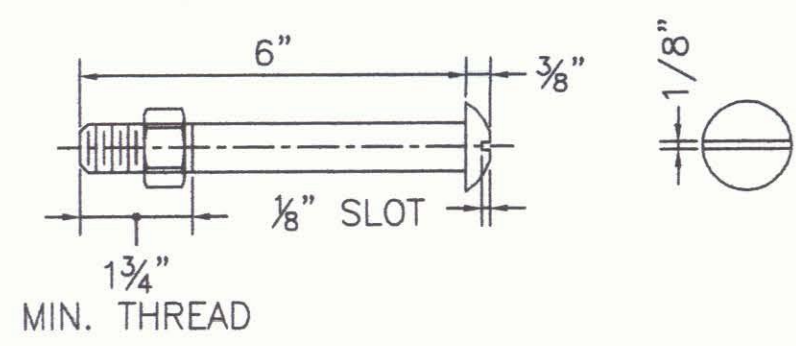
RAIL POST ANCHORAGE



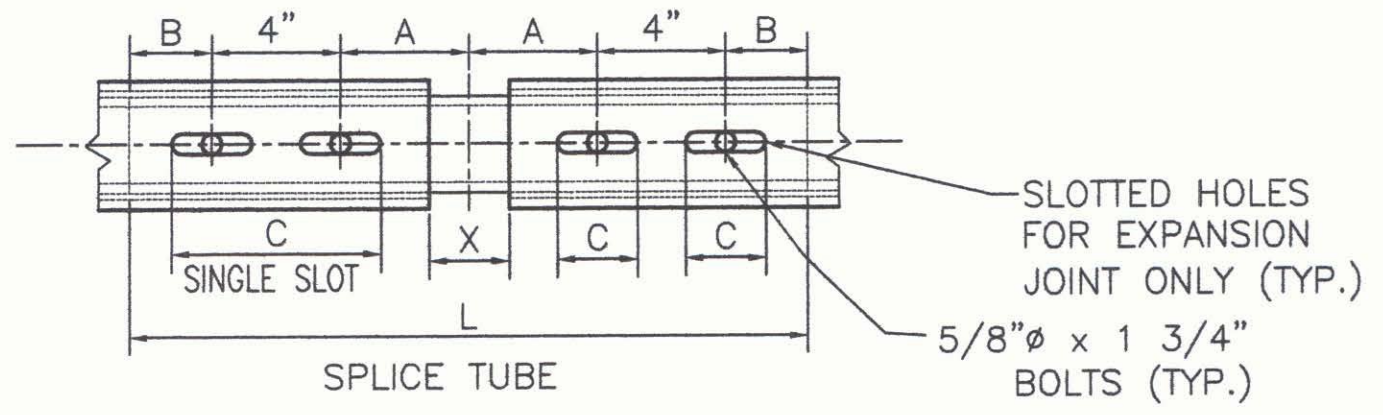
RAIL TUBE SPLICE SECTION



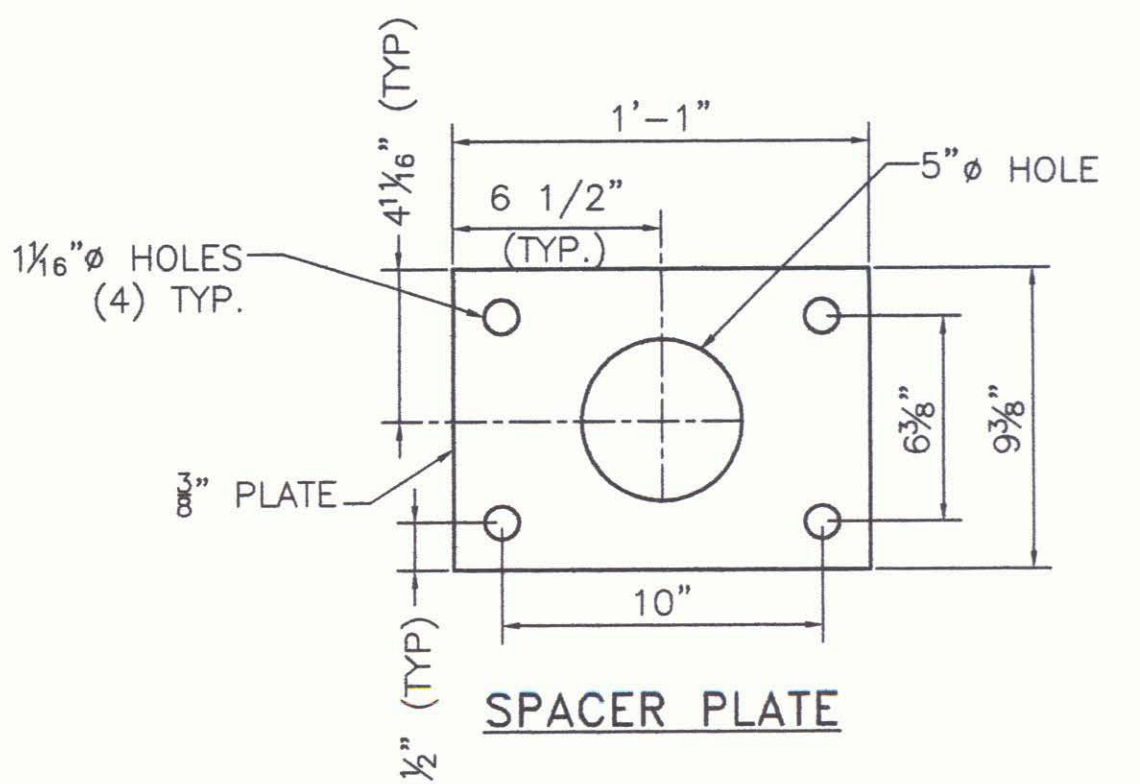
POST AND BASE PLATE



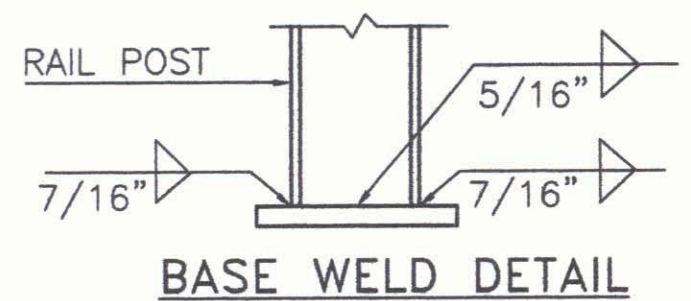
(WITH WASHER AND PREVAILING TORQUE TYPE LOCK NUT)
(SEE NOTE #8)
ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED.



RAIL TUBE SPLICE AND RAIL EXPANSION JOINT DETAIL



SPACER PLATE



BASE WELD DETAIL

SPLICE TABLE					
T	A	B	C	L	X
N/A	4"	2"	--	20"	3/4"
EXPANSION JOINT TABLE					
<4"	4"	2"	2 1/2"	20"	2 1/2"

T = TOTAL MOVEMENT BETWEEN BRIDGE EXPANSION JOINTS. SEE NOTE 5

REVISIONS		
No.	Remarks	Date

NOTES:

- ALL RAILINGS AND MATERIALS SHALL CONFORM TO THE PROVISION OF SECTION 525, "MATERIAL RAILINGS" OF THE STANDARD SPECIFICATION FOR CONSTRUCTION.
- PRIOR TO GALVANIZING, ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF BURRS.
- RAIL POSTS SHALL BE SET NORMAL TO GRADE.
- SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO (2) RAIL POSTS AND PREFERABLY TO AT LEAST FOUR (4) POSTS.
- RAIL TUBE EXPANSION JOINT SHALL BE PROVIDED IN ANY RAIL BAY SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE "X" AT 45°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
- ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111M/M 111, EXCEPT HARDWARE, WHICH SHALL MEET THE REQUIREMENTS OF AASHTO M232M/M 232.
- RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
- RAIL TUBES SHALL BE ATTACHED USING 3/4" FULL DIAMETER BODY AASHTO M164 (TYPE 1) ROUND HEAD BOLT INSERTED THROUGH THE FACE OF THE TUBE. HOLES IN POSTS SHALL BE 1/16" LARGER THAN THE BOLT SIZE.
- HOLES IN RAILS FOR RAIL TUBE ATTACHMENT SHALL BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO ERECTION.
- IF THERE IS A CONFLICT BETWEEN THE DETAILS SHOWN ON THIS SHEET AND THE DESIGN, THE REQUIREMENTS OF THE DESIGN DRAWINGS SHALL BE FOLLOWED.
- ANY BENDING OF RAIL SHALL BE BY SHOP PROCEDURE ONLY.
- THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING WELDING PROCEDURES TO THE STRUCTURES ENGINEER FOR APPROVAL IN ACCORDANCE WITH SUBSECTION 525.03. ALL WELDING SHALL CONFORM WITH SUBSECTION 506.10.
- RAIL POSTS AND BASE PLATES SHALL BE TESTED FOR IMPACT PROPERTIES IN ACCORDANCE WITH ASTM A-370 CHARPY IMPACT TESTING USING TYPE A SPECIMEN.
- REFLECTORS AND REFLECTOR HARDWARE PROVIDED BY OTHERS.

MATERIALS

RAIL TUBES.....ASTM A500, GRADE B OR ASTM A501
RAIL POSTS AND BASE PLATES.....ASTM A709/A709M, GRADE 50
ALL OTHER SHAPES AND PLATES.....ASTM A709/A709M, GRADE 36
ANCHOR STUDS.....ASTM A449
ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164, TYPE 1

NUTS FOR AASHTO M164 BOLTS AND FOR ANCHOR STUDS SHALL COMPLY WITH AASHTO M291 (ASTM A563).

WASHERS SHALL COMPLY WITH AASHTO M293 (ASTM F436) SPECIFICATIONS.

1/8" PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02.

HIGHWAY SAFETY CORP
GLASTONBURY, CT
860-633-9445

ITEM 525.33 BRIDGE RAILING - NETC 2 RAIL
US RT 5 OVER I-91, BRIDGE 19A
TOWN OF PUTNEY COUNTY OF WINDHAM, VT
PROJECT NUMBER: IM 091-1(31)

CERTIFIED FABRICATOR

GEN. CONTRACTOR: F.R. LAFAYETTE, INC.
SUB CONTRACTOR: F.R. LAFAYETTE, INC.

SCALE: NONE SIZE: D

DATE: 6/7/2010

DRWN: MHM CHECKED: PAR

SHEET NO. 3 of 4
JOB NO. 1752