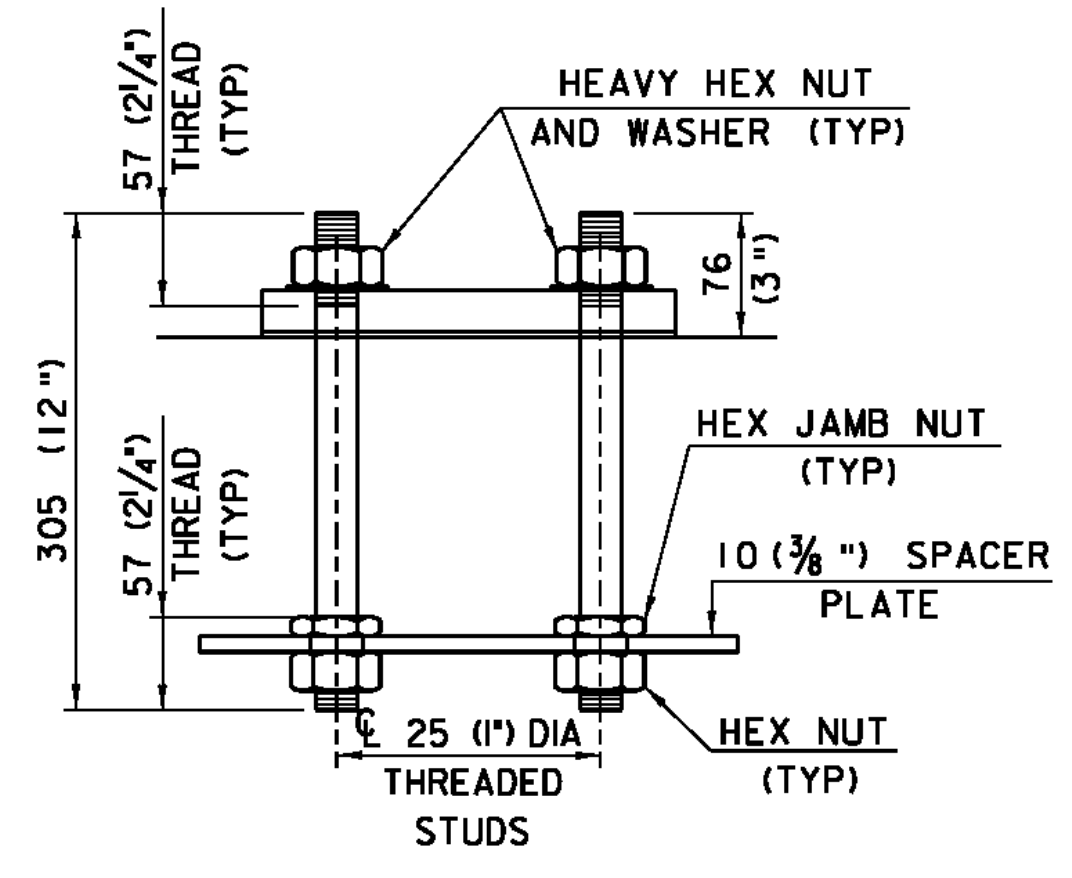
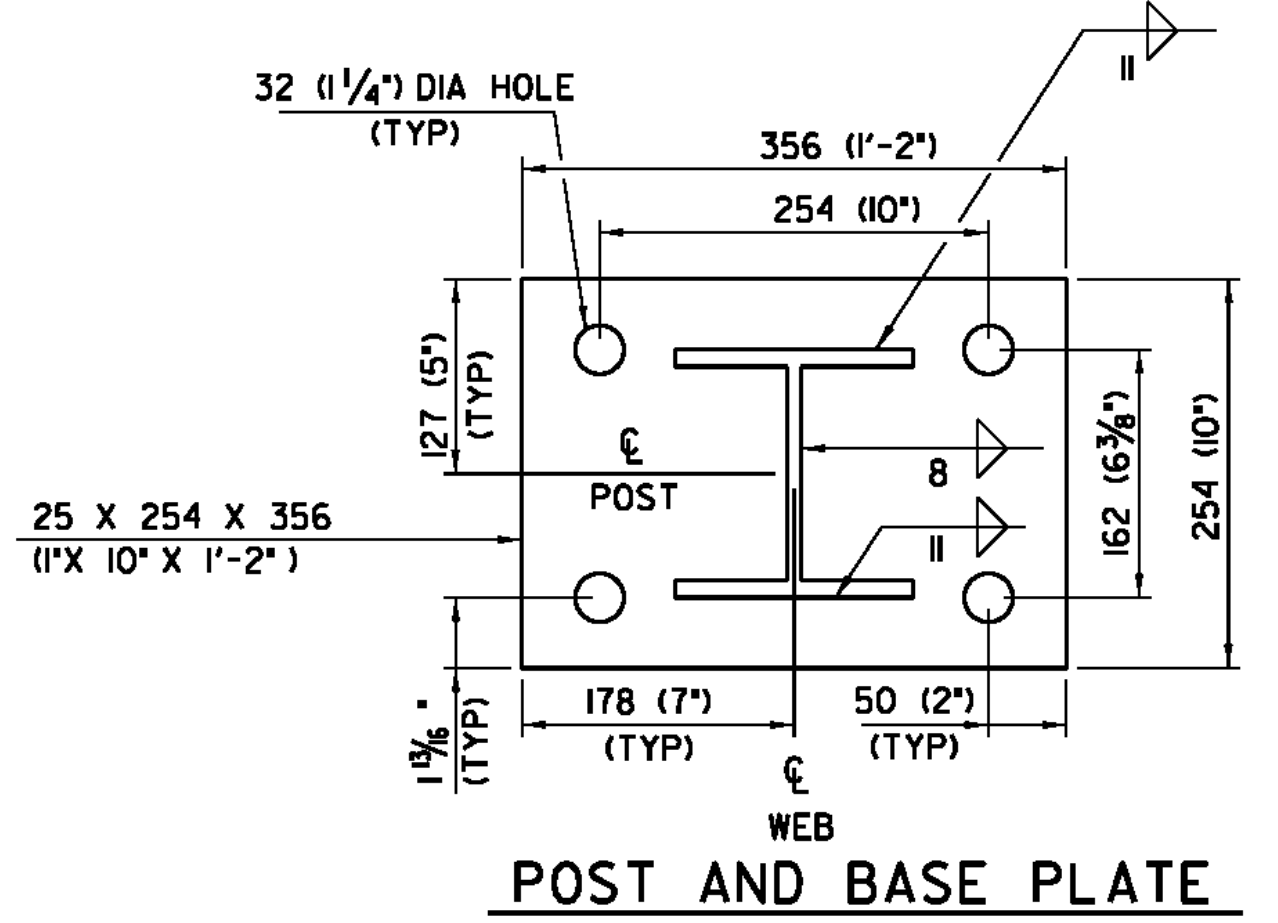


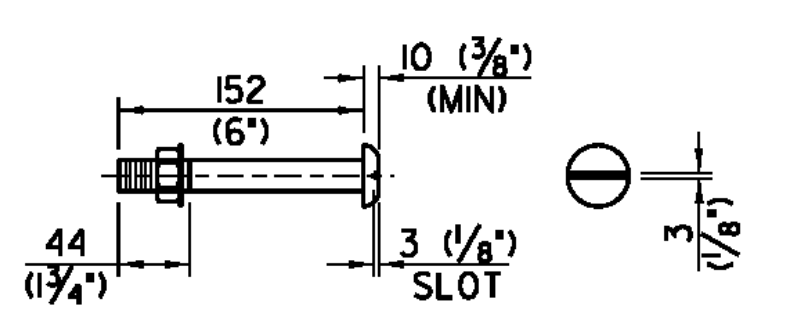
BRIDGE RAILING ELEVATION



RAIL POST ANCHORAGE

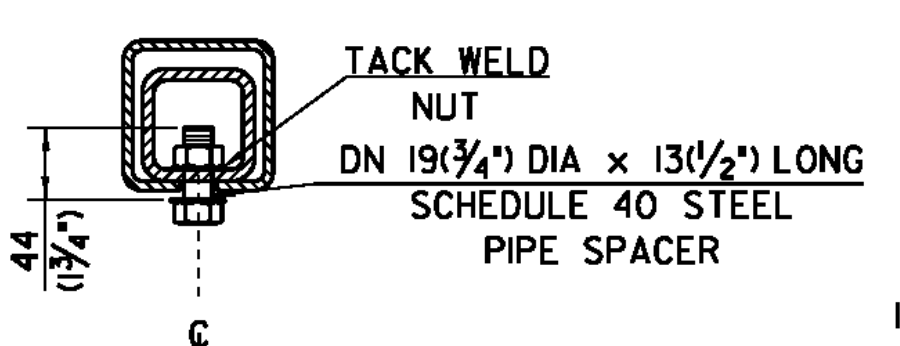


POST AND BASE PLATE



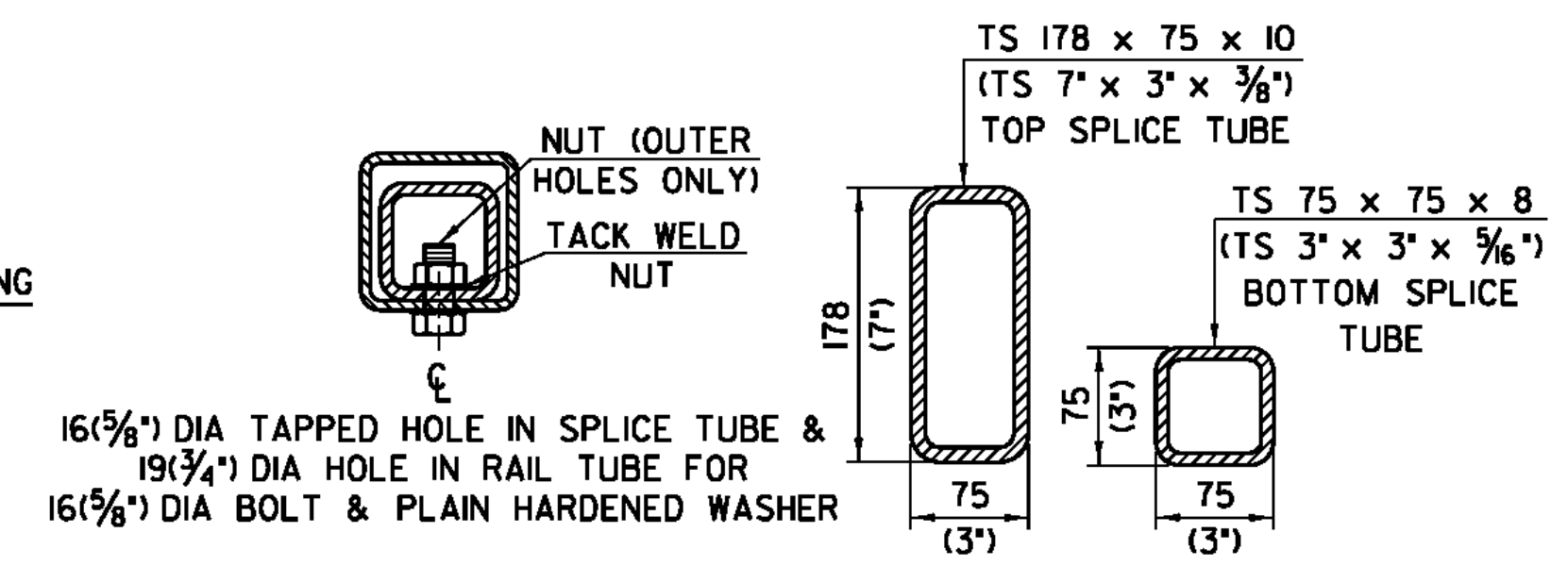
19 (3/4) DIA M164 (TYPE 1) ROUND HEAD BOLT

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

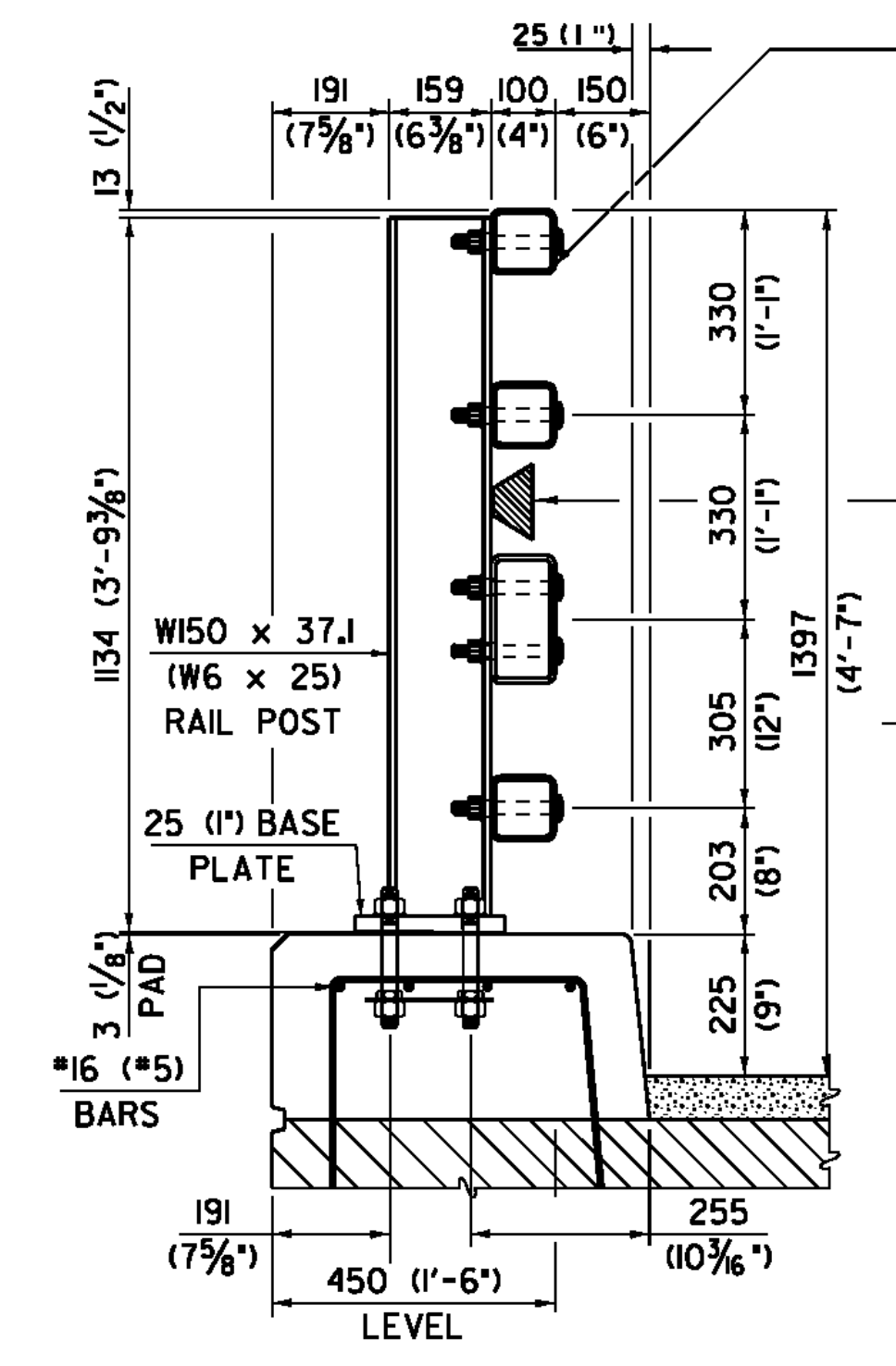


EXPANSION JOINT SECTION

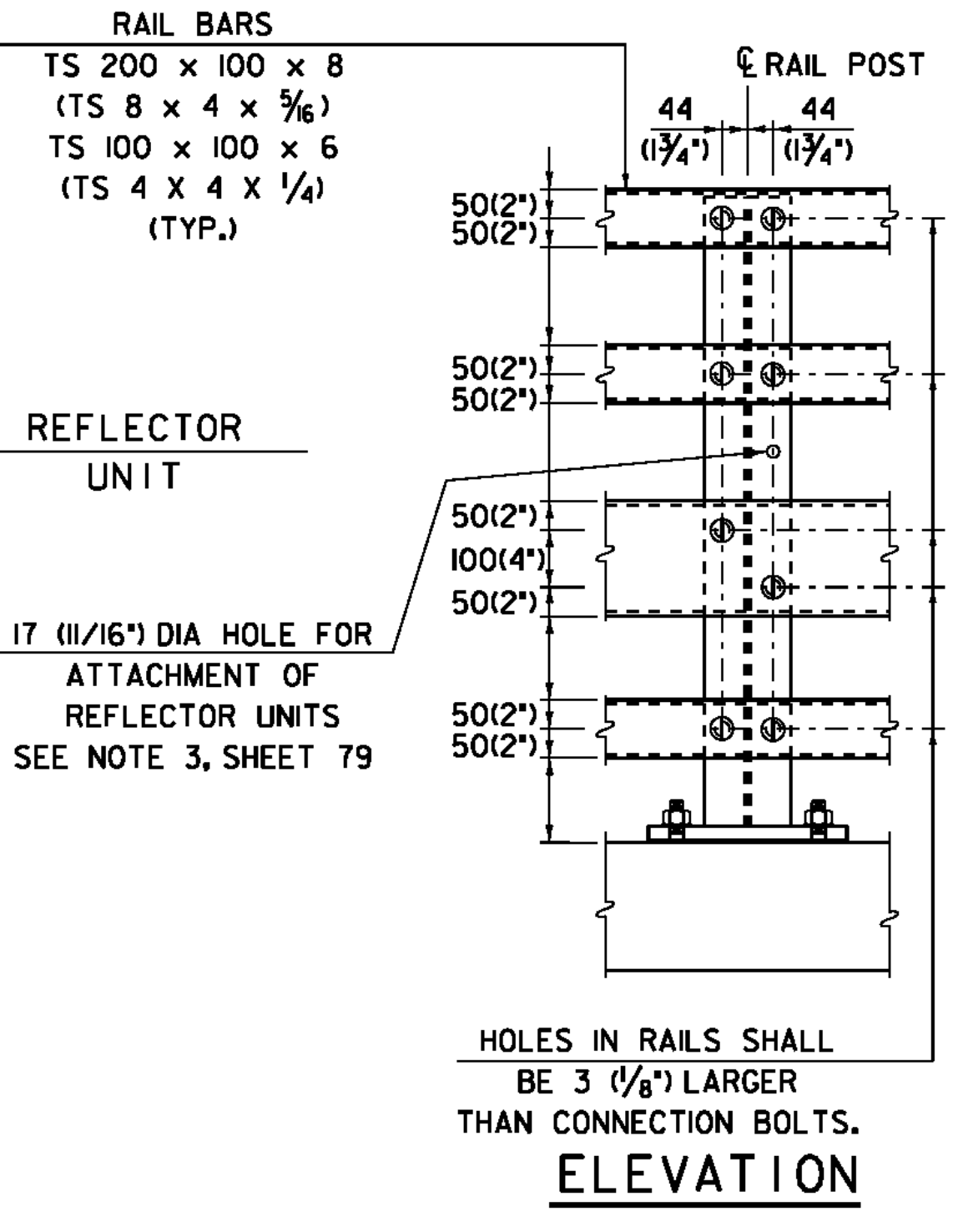
FOR DETAILS NOT SHOWN,
SEE "RAIL TUBE SPLICE SECTION."



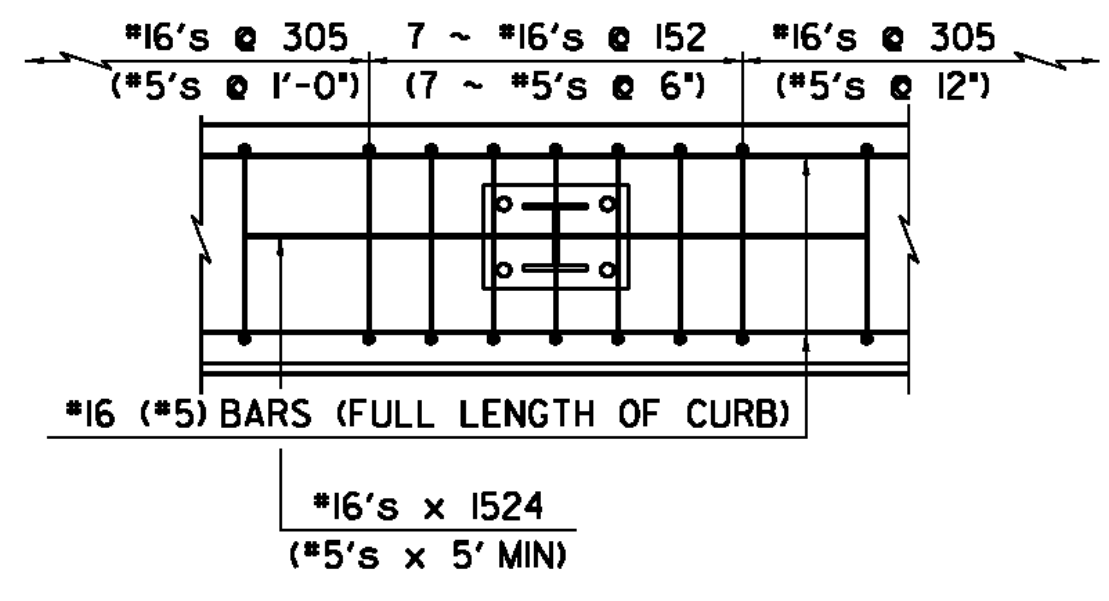
RAIL TUBE SPLICE SECTION



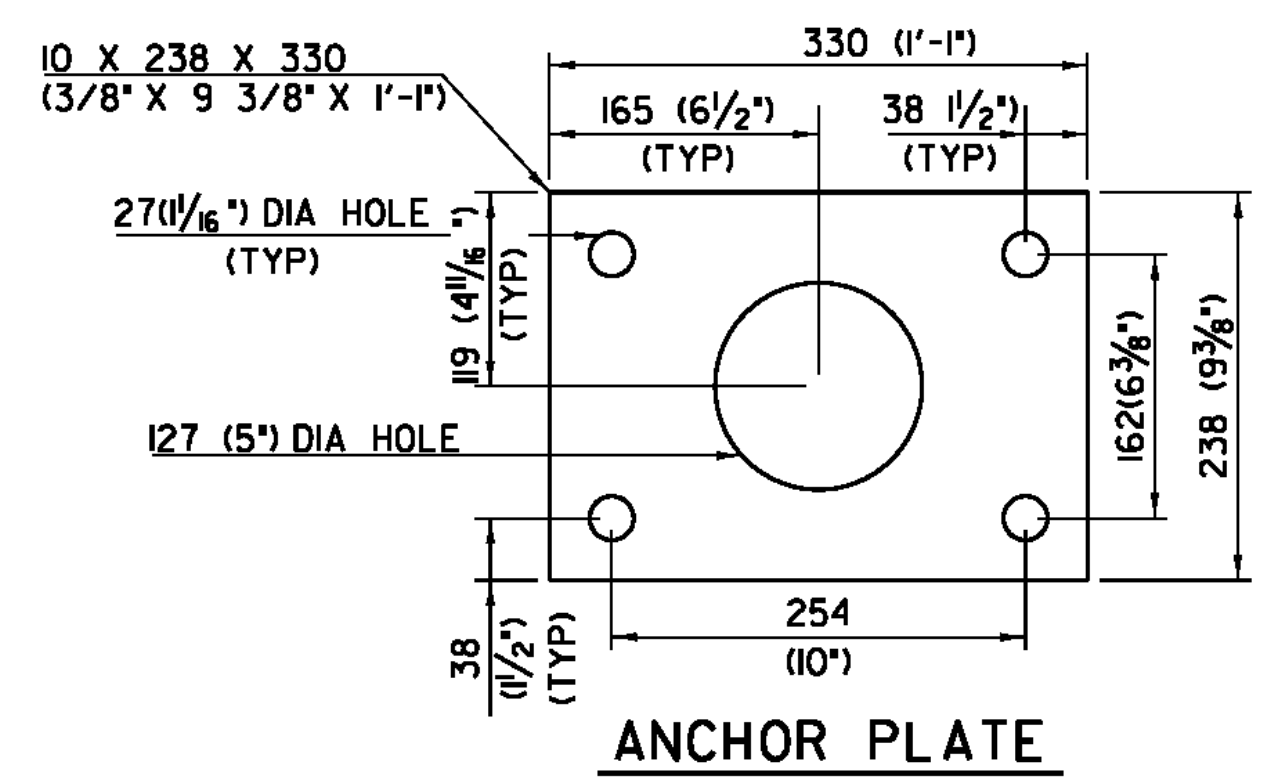
TYPICAL SECTION



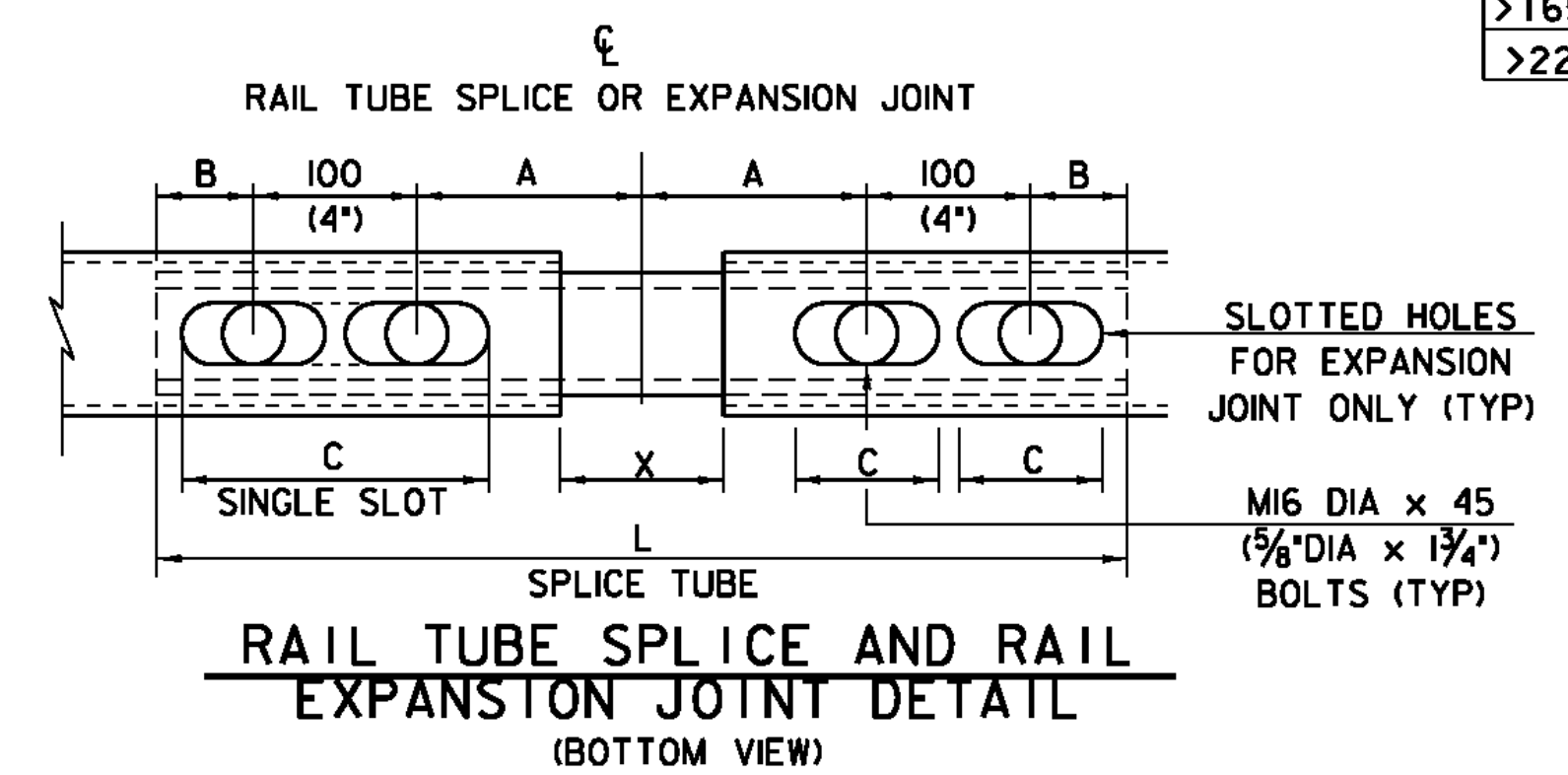
ELEVATION



CURB REINFORCING PLAN



ANCHOR PLATE



RAIL TUBE SPLICE AND RAIL EXPANSION JOINT DETAIL (BOTTOM VIEW)

NOTES

- ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 525 - RAILINGS OF THE STANDARD SPECIFICATION FOR CONSTRUCTION.
- TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732.
- ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 2 mm (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 JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE "X" AT 7°C (45°F) AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
- RAIL POSTS ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
- RAIL TUBES SHALL BE ATTACHED USING 75 mm (3") FULL DIAMETER BODY AASHTO M164M (TYPE 1) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE TUBE. HOLES IN POSTS SHALL BE 2 mm (1/16") LARGER THAN THE BOLT SIZE.
- HOLES IN RAILS FOR RAIL TUBE ATTACHMENT MAY BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO ERECTION.
- ANY BENDING OF RAIL SHALL BE DONE AT A FABRICATOR PLANT, ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
- THE FABRICATOR SHALL SUBMIT FABRICATION DRAWINGS INCLUDING WELDING PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH SECTION 105.

MATERIALS

3 mm (1/8") PAD SHALL COMPLY WITH SUBSECTION 731.01 OR 731.02.

SPLICE TABLE					
T	A	B	C	L	X
N/A	100 (4")	50 (2")	--	508 (20")	19 (3/4")
EXPANSION JOINT TABLE					
< 100 (4")	100 (4")	50 (2")	64 (2 1/2")	508 (20")	64 (2 1/2")
> 100 (4") < 165 (6 1/2")	140 (5 1/2")	60 (2 3/8")	89 (3 1/2")	603 (23 3/4")	100 (4")
> 165 (6 1/2") < 229 (9")	163 (6 1/2")	86 (3 3/8")	229 (9")	705 (27 3/4")	127 (5")
> 229 (9") < 330 (13")	216 (8 1/2")	111 (4 3/8")	279 (11")	857 (33 3/4")	179 (7")

T = TOTAL MOVEMENT AT RAIL EXPANSION JOINT AS SHOWN ON THE CONTRACT PLANS. SEE NOTE 6.
* = SINGLE SLOT

ALL DETAILS NOT TO SCALE

PROJECT: STOCKBRIDGE	PROJECT NO. # BRF 022-1 (20)
DESIGN FILE NAME: 85e039\Structures\de039rail.dgn	PLOT DATE: 08-APR-2010
IPARM FILE NAME: de039rail2m.i	DRAWN BY: H. I. SALLS
DESIGNED BY: H. I. SALLS	CHECKED BY: R. S. YOUNG
SQUAD LEADER: C. P. WILLIAMS	SHEET: 78 OF 139
RAILING DETAIL 1	