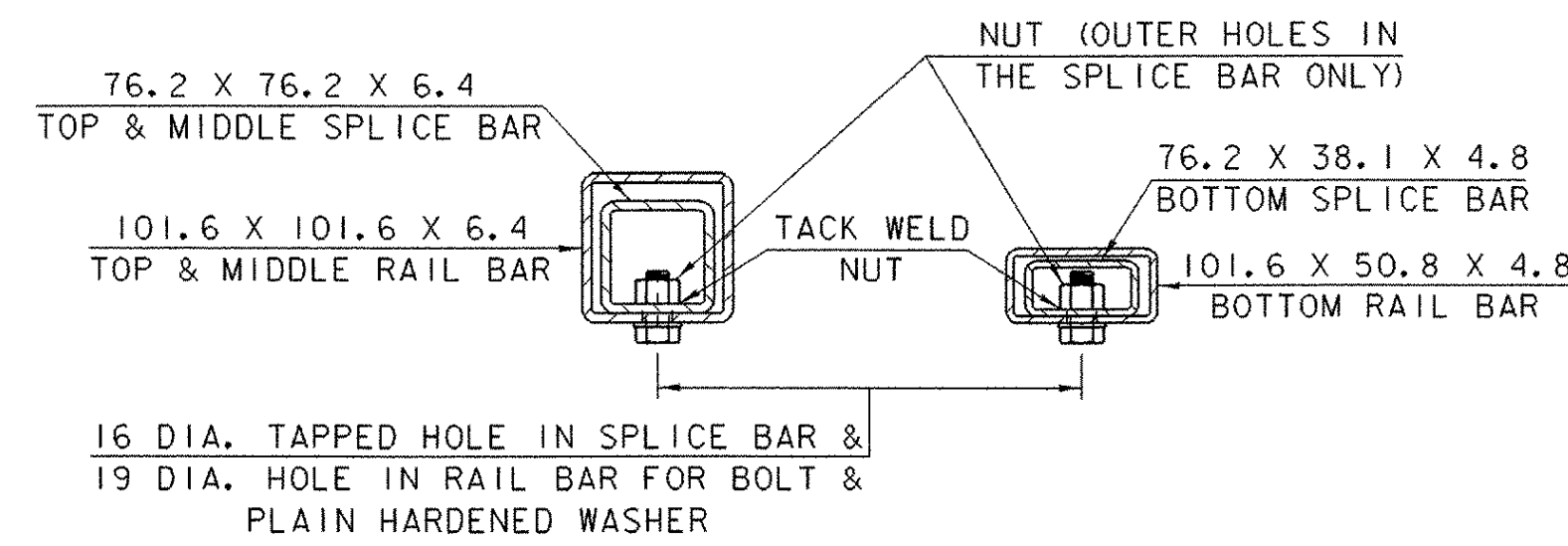
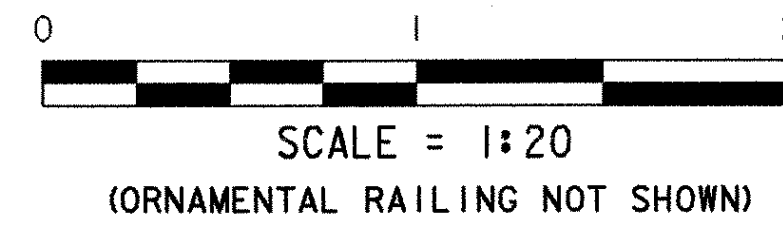
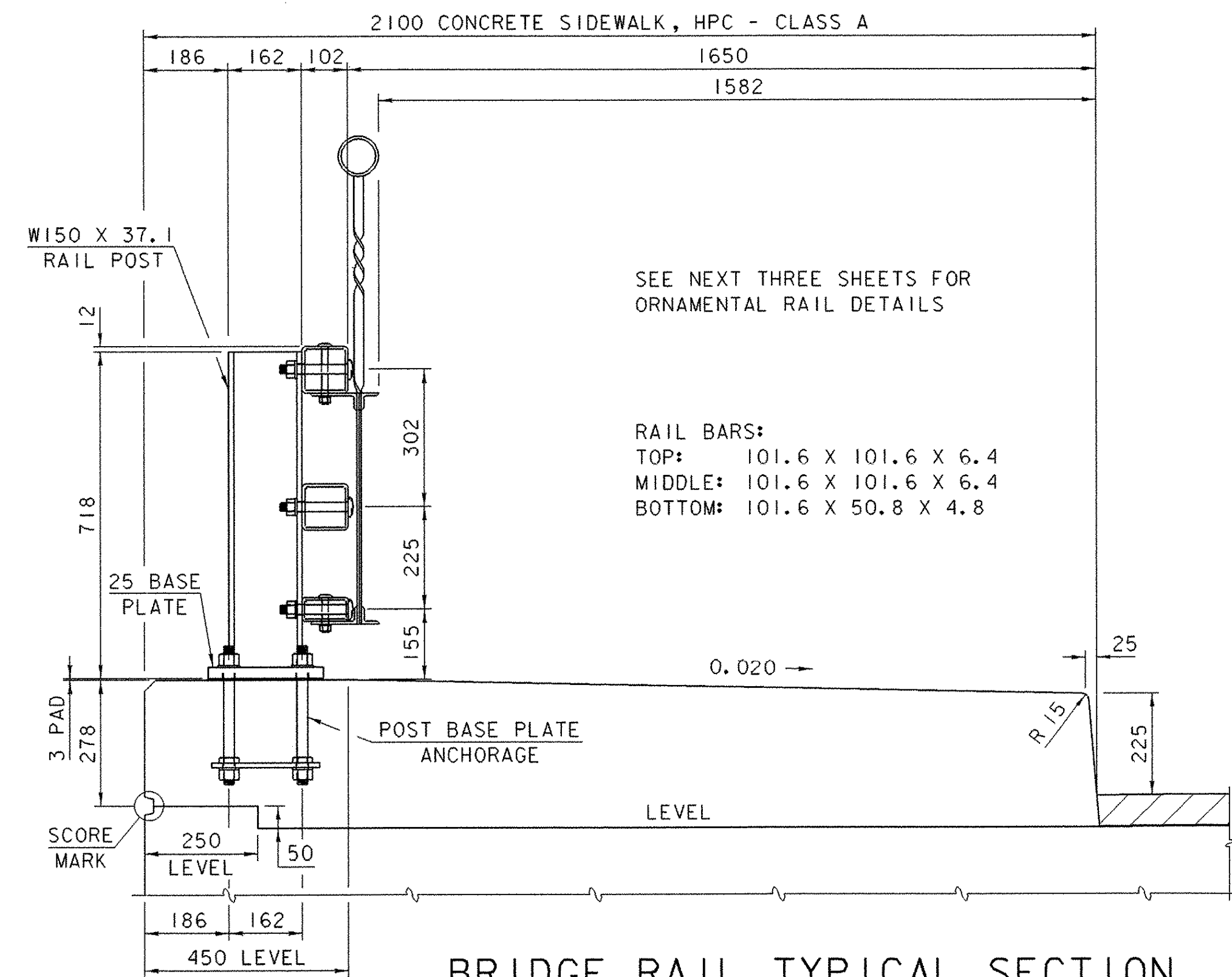
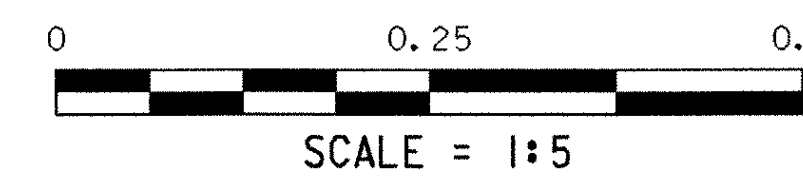
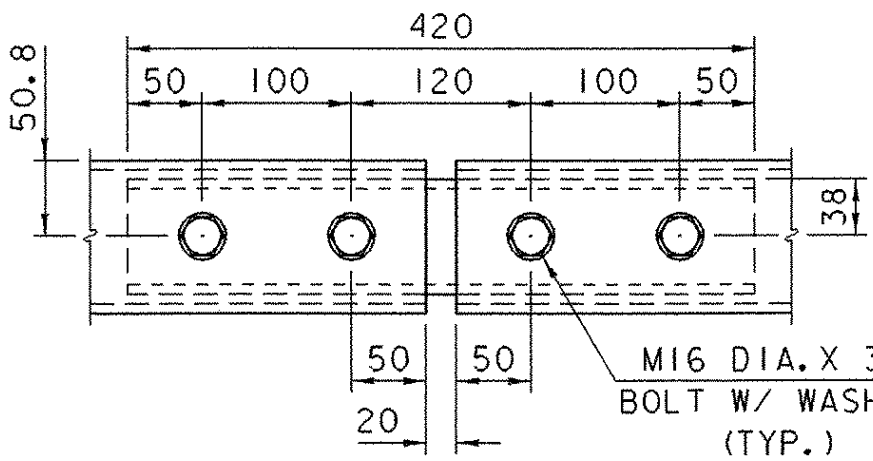


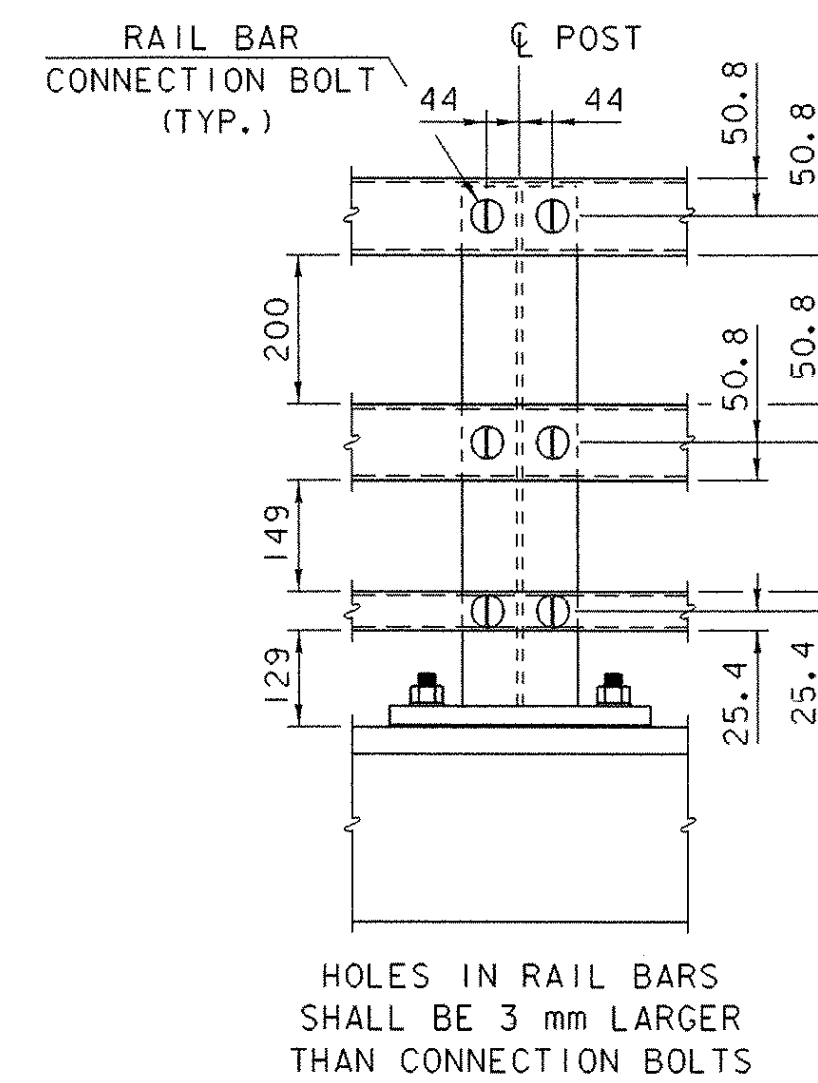
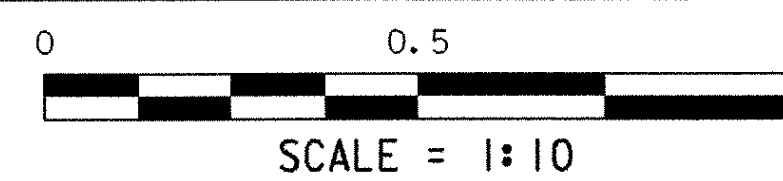
BRIDGE RAIL ELEVATION



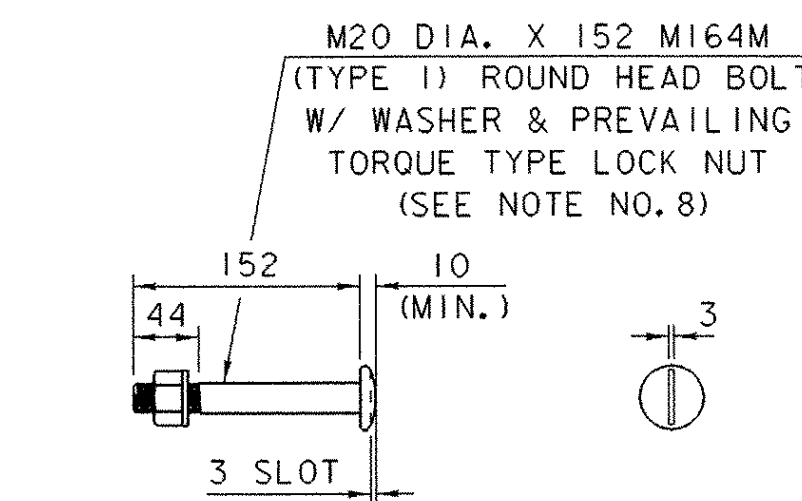
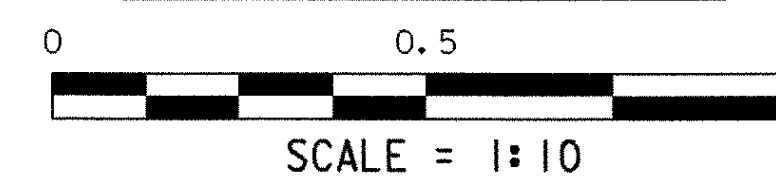
RAIL SPLICE BAR DETAILS



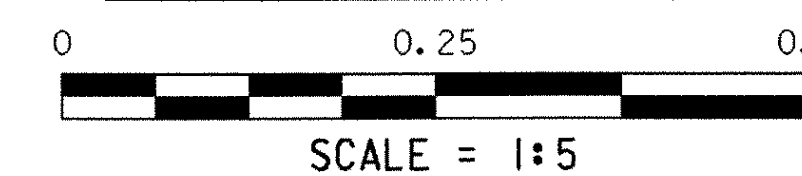
BRIDGE RAIL TYPICAL SECTION



POST ELEVATION



RAIL BAR CONNECTION BOLT



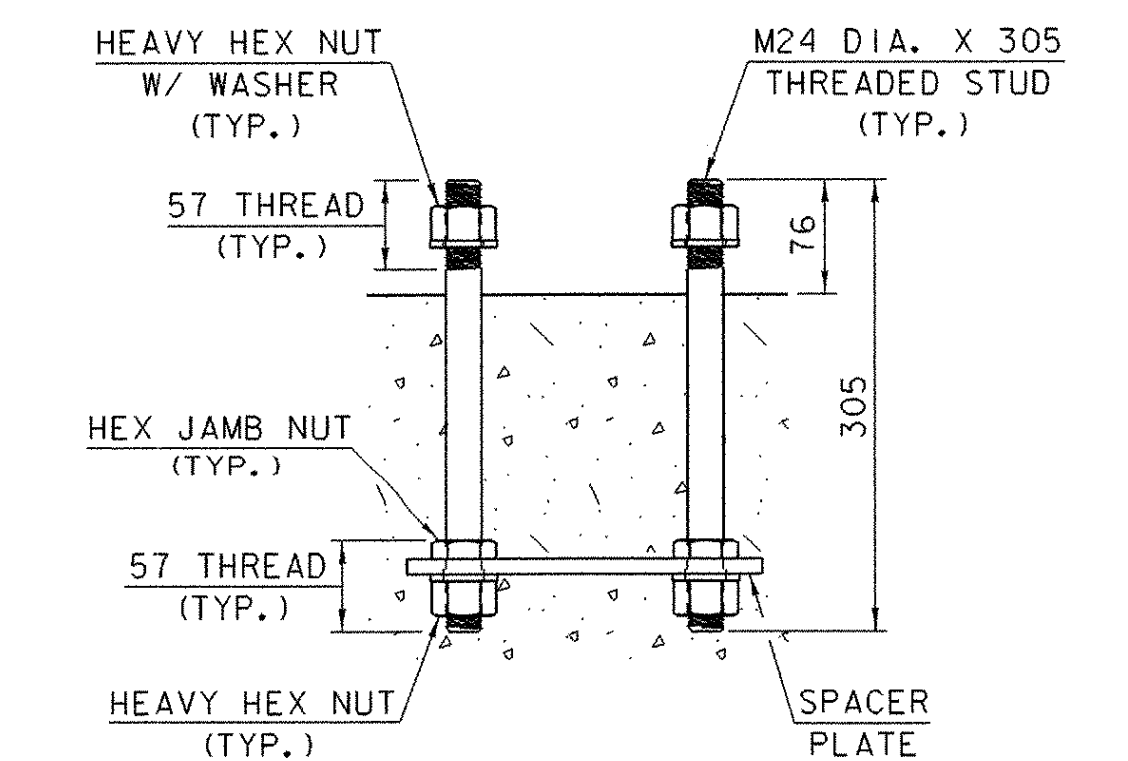
NOTE: ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED.

NOTES

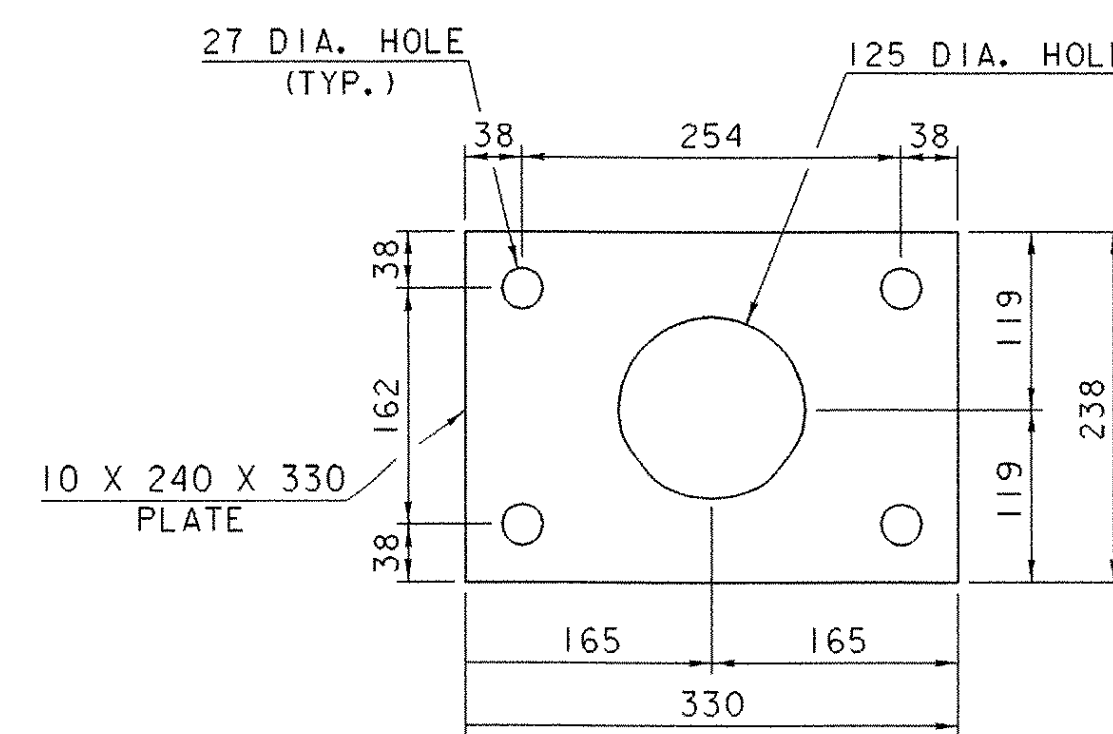
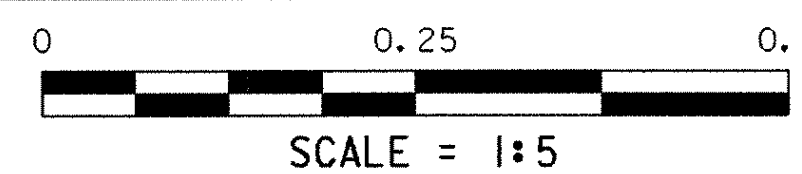
1. ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 525 - RAILINGS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732 - RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1.6 mm RADIUS AND BE FREE OF BURRS.
4. RAIL POSTS SHALL BE SET NORMAL TO GRADE.
5. SECTIONS OF RAIL BAR SHALL BE ATTACHED TO A MINIMUM OF TWO [2] RAIL POSTS AND PREFERABLY TO AT LEAST FOUR [4] POSTS.
6. ALL RAILING PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SUBSECTION 506.15 AND PAINTED BLACK, COLOR CHIP #27038 IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 513.
7. RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
8. RAIL BARS SHALL BE ATTACHED USING M20 FULL DIAMETER BODY AASHTO M164M (TYPE 1) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE BAR. HOLES IN POSTS SHALL BE 2 mm LARGER THAN THE BOLT SIZE.
9. ANY BENDING OF RAIL SHALL BE BY SHOP PROCEDURE ONLY.
10. THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS INCLUDING WELDING PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH THE PROVISION OF 506.04, DRAWINGS AND PROCEDURES. ALL WELDING SHALL CONFORM WITH SECTION 506.10.
11. THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING ON THESE DETAILS.
12. HOLES IN RAILS FOR RAIL BAR ATTACHMENT MAY BE FIELD DRILLED. THE HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH BLACK PAINT.

MATERIALS

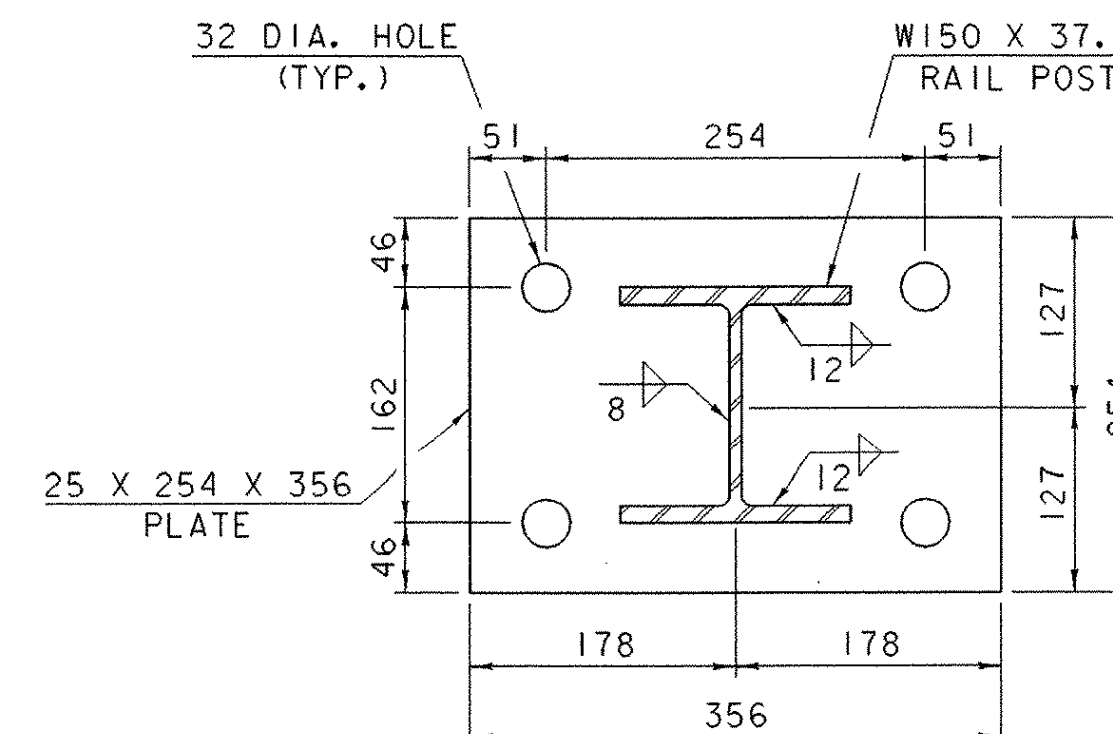
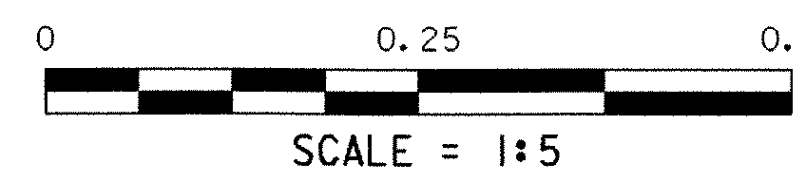
- RAIL BARS..... ASTM A500, GRADE B OR ASTM A501
 RAIL POSTS..... ASTM A709/A709M, GRADE 345
 ALL OTHER SHAPES & PLATES..... ASTM A709/A709M, GRADE 250
 ANCHOR STUDS..... ASTM F568M, CLASS 8.8
 ALL OTHER BOLTS [UNLESS NOTED]..... AASHTO M164M, TYPE 1
- NUTS FOR AASHTO M164M BOLTS SHALL COMPLY WITH AASHTO M291M. NUTS FOR ANCHOR BOLTS SHALL COMPLY WITH AASHTO M291M.
- WASHERS SHALL COMPLY WITH AASHTO M293M (ASTM F436M) SPECIFICATION.
- 3 mm PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02.



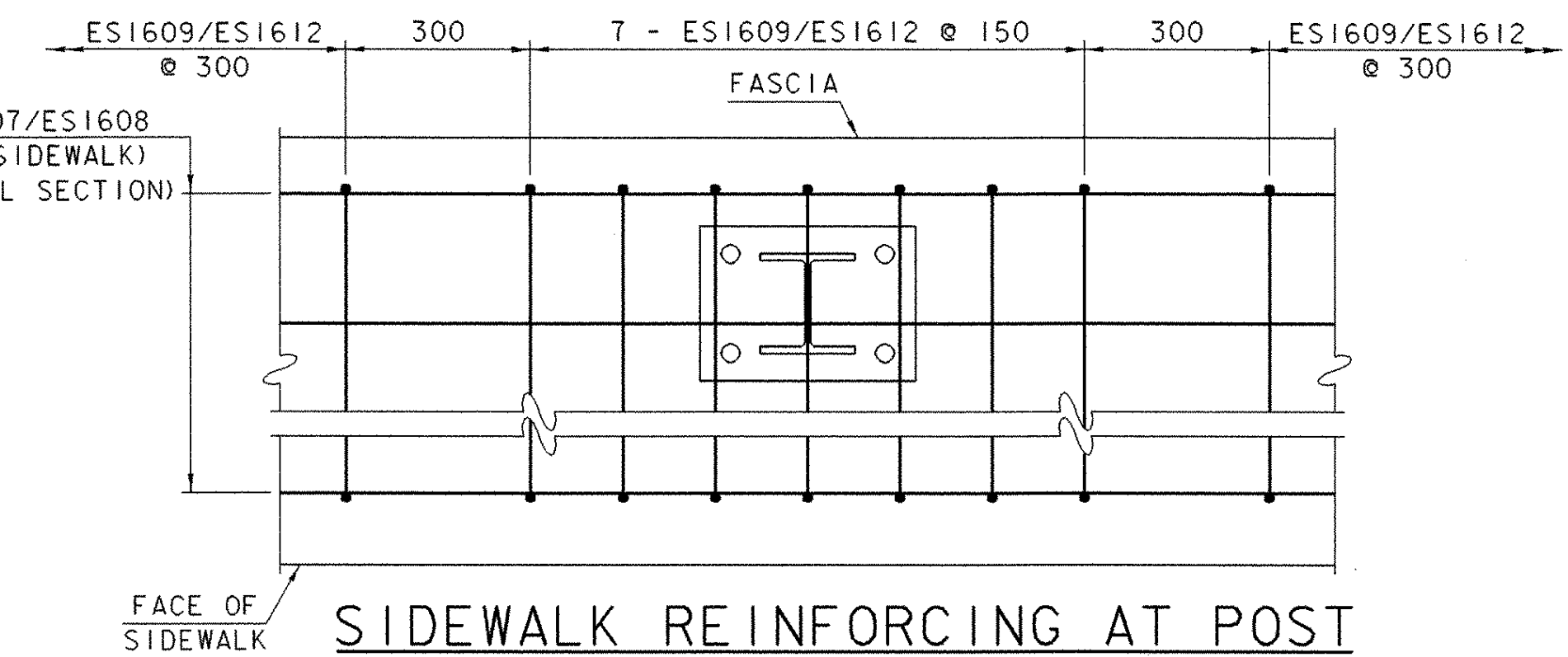
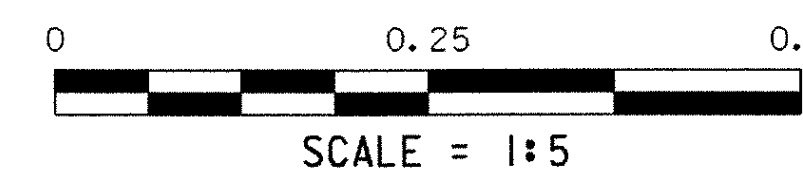
POST BASE PLATE ANCHORAGE



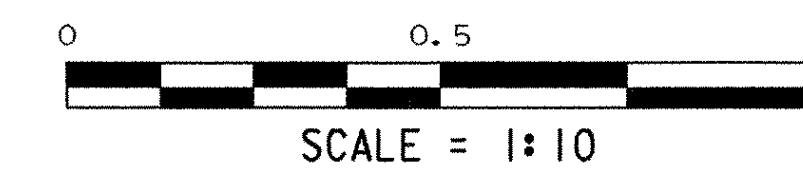
SPACER PLATE



POST BASE PLATE



SIDEWALK REINFORCING AT POST



BRIDGE RAIL DETAILS

PROJECT NAME:	BRATTLEBORO	FILE NAME:	94j078\structures\sj078brdli	PLOT DATE:	06-FEB-2003
PROJECT NUMBER:	BRO 2000 (17)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	T. SUMNER
				SHEET	48 OF 71