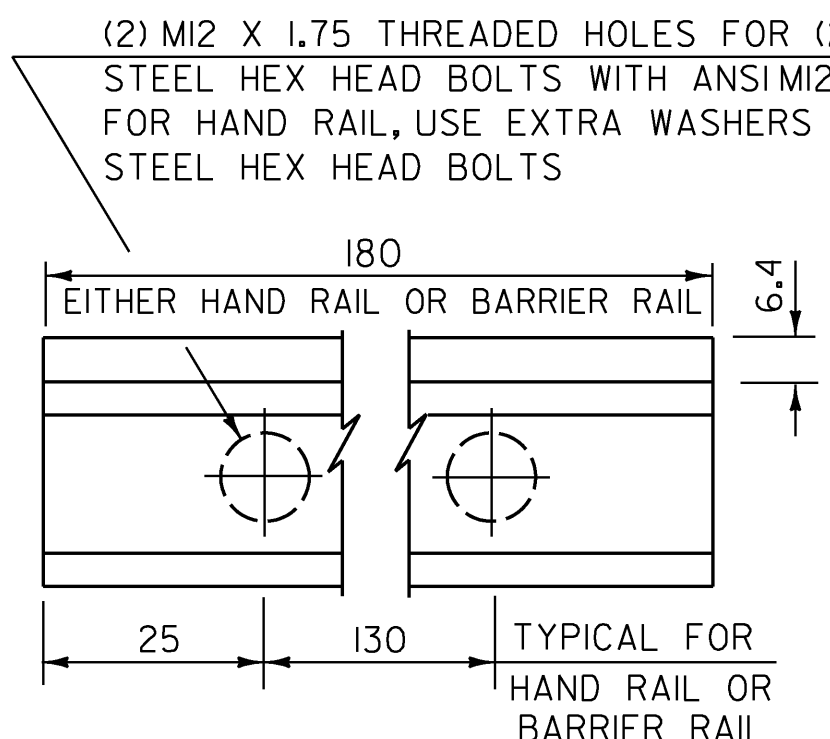
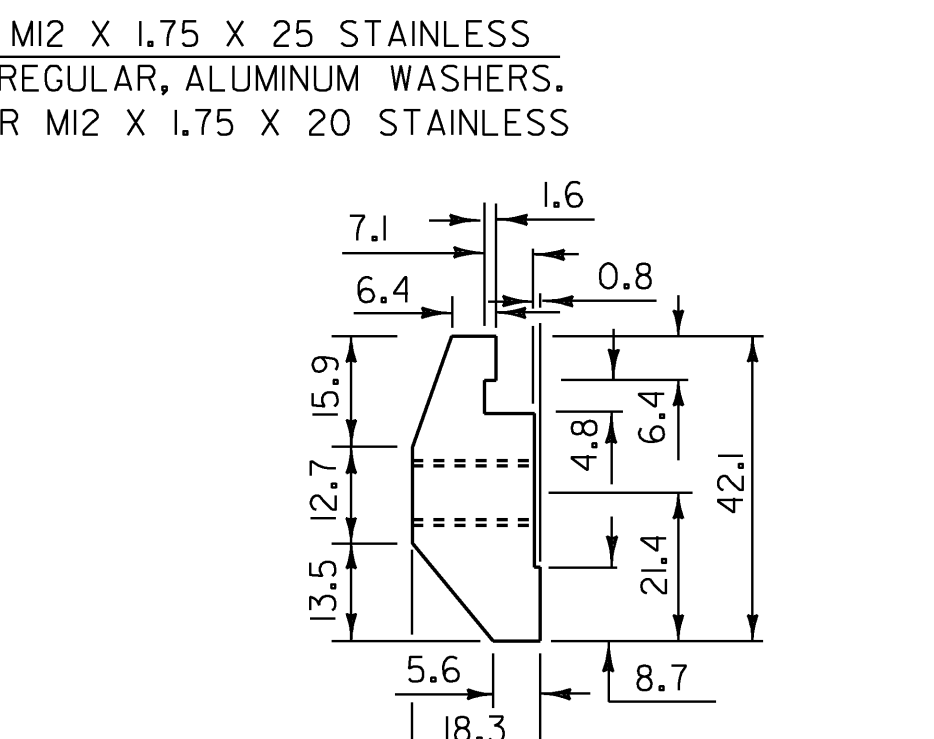


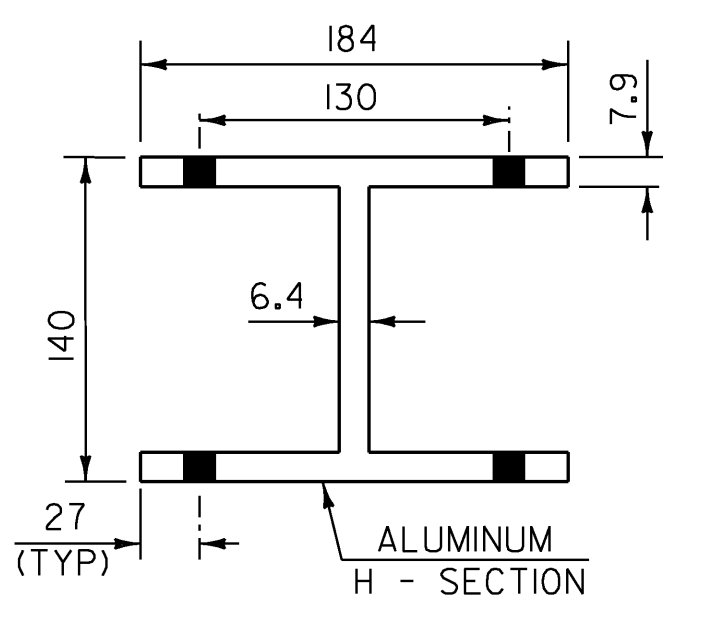
POST CONNECTION
HAND RAIL SECTION



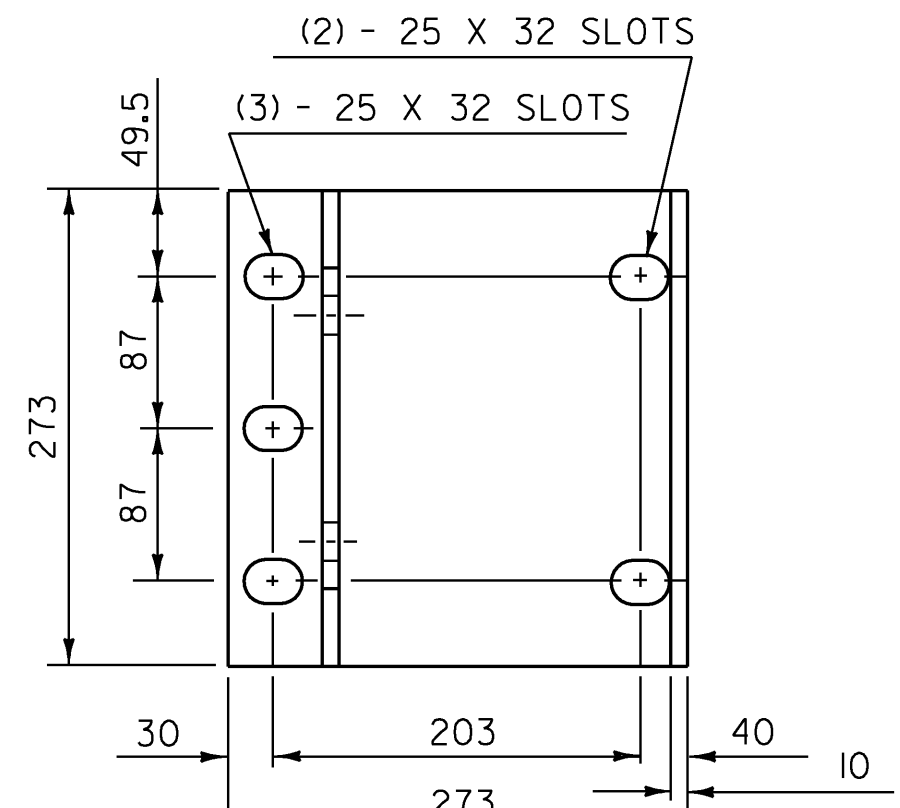
POST CONNECTION
ELEVATION



POST CONNECTION
BARRIER RAIL SECTION



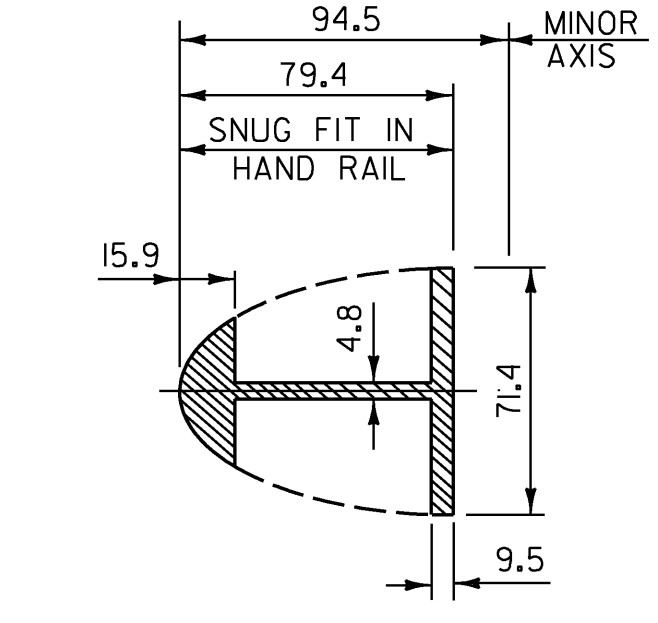
PLAN VIEW OF
OFFSET BLOCK
(TO BE USED ON
SUPERSTRUCTURE
ON CURB SIDE)



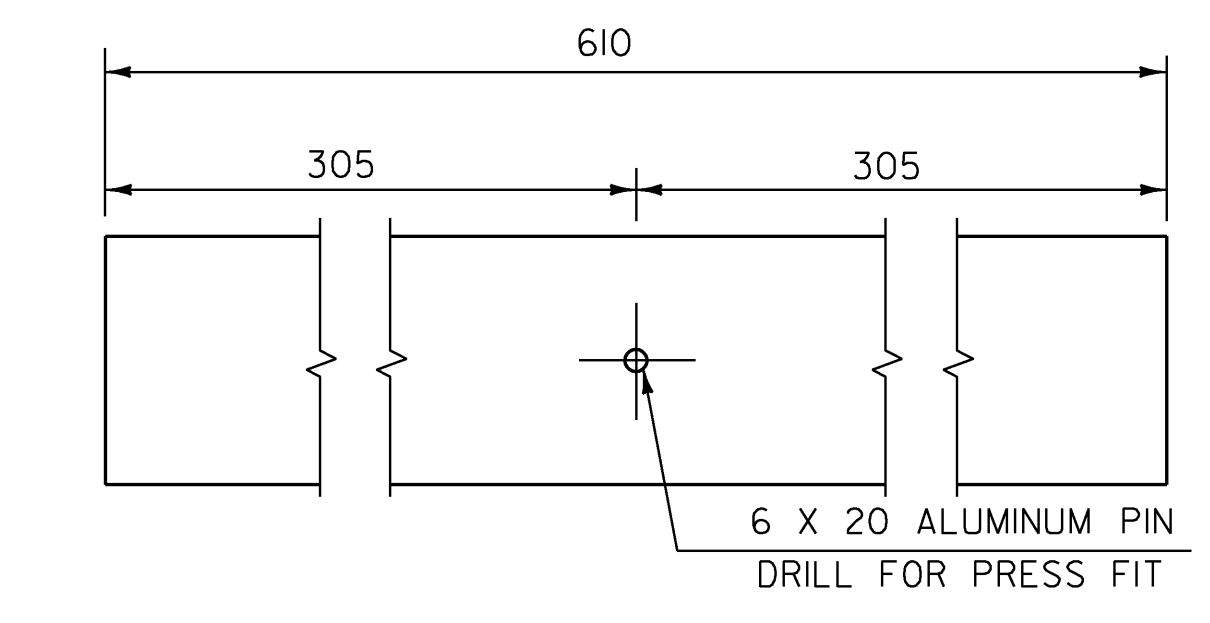
POST BASE
PLAN

NOTES

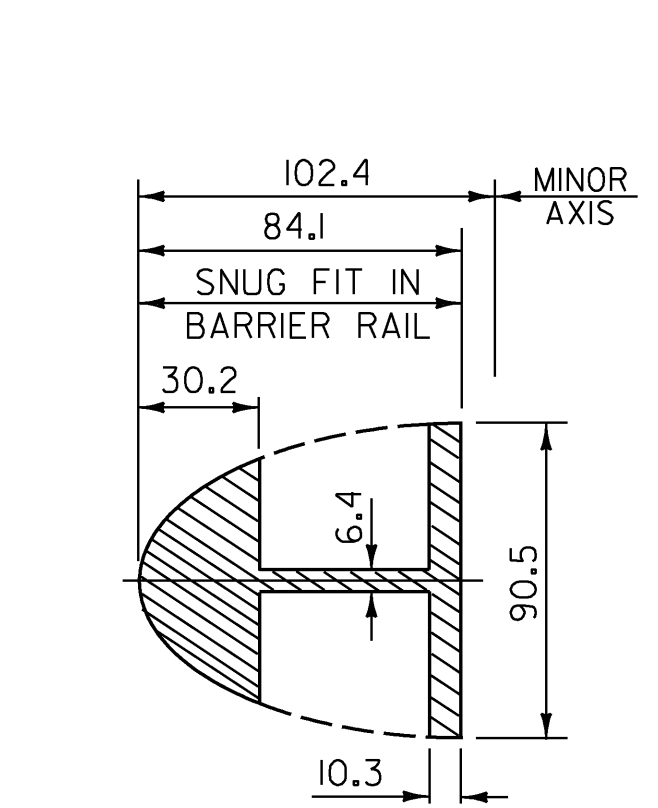
- ANCHOR BOLTS, WASHERS & HEAVY HEXAGONAL NUTS MAY BE ANY OF THE FOLLOWING:
 - ASTM F 568M, CLASS 8.8 GALVANIZED.
 - AASHTO M 164M GALVANIZED, OR
 - BOLTS AND WASHERS OF STAINLESS STEEL ASTM F 738M, CLASS A1-70, CONDITION CW, ALLOY TYPE 304 WITH STAINLESS STEEL NUTS OF ASTM F 836M, CLASS A1-70, CONDITION CW, ALLOY TYPE 304.
- ALUMINUM POSTS, POST BASES, SPLICE BARS, CONNECTION BARS, RAILS AND BALUSTER FRAMES SHALL CONFORM TO ASTM B 221M ALLOY 6061-T6 OR ALLOY 6351-T5. MINIMUM YIELD STRENGTH $F_y = 240$ MPa.
- ALUMINUM BALUSTER TUBES SHALL CONFORM TO ASTM B 210M ALLOY 6061-T5 OR 6063-T5.
- ALUMINUM RAIL AND CAPS SHALL CONFORM TO ASTM B 26/B 26M ALLOY 356-T6.
- THE POST, RAIL AND OFFSET CONNECTION BOLTS AND WASHERS SHALL CONFORM TO ASTM F 738M, CLASS A1-50, CONDITION AF, ALLOY TYPE 304. NUTS FOR THESE BOLTS SHALL CONFORM TO ASTM 836M, CLASS A1-50, CONDITION AF, ALLOY TYPE 304.
- SET SCREWS FOR ATTACHING BALUSTERS TO RAILING SHALL CONFORM TO ASTM F 880M, CLASS A1-70, CONDITION CW, ALLOY TYPE 304.
- RIVETS SHALL BE COLD DRIVEN HIGH BUTTON HEAD "CONE POINT", CONFORMING TO ASTM B 316/B 316M ALLOY 6061-T6.
- THE ANCHOR PLATE FOR THE POST ANCHOR ASSEMBLY SHALL BE AASHTO M 183M/M 183 STRUCTURAL STEEL.
- WELDING SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 506.10 USING THE GMAW-INERT GAS PROCESS AND AWS ER 5356 ELECTRODE WIRE.
- UNLESS OTHERWISE SPECIFIED, ANCHOR BOLTS SHALL BE CAST INTO THE CONCRETE AS DETAILED.
- WHENEVER FEASIBLE, BARRIER RAIL AND HAND RAIL SECTIONS SHALL BE FULL LENGTH SECTIONS (12 m ±) AND WHEN PRACTICAL SHALL BE ATTACHED TO THREE POSTS. RAILS SHALL BE SPLICED AT EACH DECK JOINT AND INTERMITTENTLY AS REQUIRED. SPLICES SHALL OCCUR WITHIN THE SAME PANEL.
- ENDS OF RAILS SHALL BE CUT SQUARE AND GROUND FREE OF BURRS OR RAGGED EDGES. EXPOSED ENDS SHALL BE CAPPED.
- THE CONCRETE CONTACT SURFACE AT THE POST BASE SHALL BE BUSH HAMMERED AND/OR SHIMMED AS REQUIRED FOR PROPER POST ALIGNMENT. POST HEIGHT ADJUSTMENTS LESS THAN 6 mm SHALL BE WITH 2-mm AND 3-mm SHIMS. CORRECTIONS EXCEEDING 6 mm SHALL BE WITH EPOXY MORTAR CONFORMING WITH SECTION 525. FABRIC BEARING PADS AND ANY REQUIRED SHIMS OR EPOXY MORTAR ARE INCIDENTAL TO THE UNIT PRICE BID FOR THE RAILING.
- SHIMS AND 3-mm FABRIC BEARING PADS SHALL BE 273 mm SQUARE WITH SLOTTED HOLES SIZED AND LOCATED THE SAME AS THE POST BASE DETAIL. FABRIC BEARING PADS SHALL CONFORM TO SUBSECTION 731.01 OR 731.02, SHIM MATERIAL SHALL BE ASTM B 209M ALLOY 1100-0.
- EXTRUDED SECTIONS ARE DETAILED TO COMPLY WITH CURRENT AASHTO-AGC-ARTBA STANDARDS. MINOR VARIATIONS OF THE DETAILS SHOWN MAY BE CONSIDERED PROVIDING THEY DO NOT REDUCE THE STRENGTH CAPACITY OF THE RAIL SYSTEM.
- ALUMINUM WASHERS SHALL BE ASTM B209M ALLOY ACLAD 2024-T4.
- OFFSET BLOCKS AND ALUMINUM APPROACH RAIL POSTS SHALL CONFORM TO ASTM SPECIFICATION B 308/ B 308M.



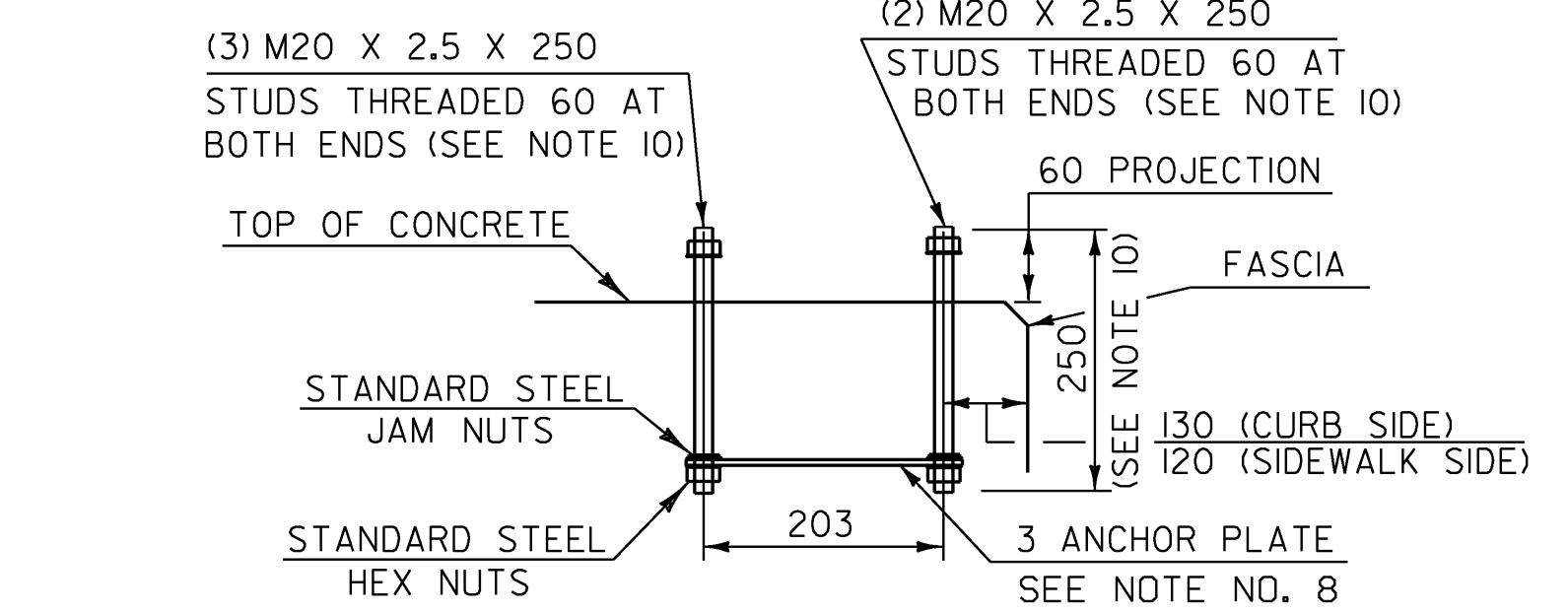
HAND RAIL
SPLICE SECTION



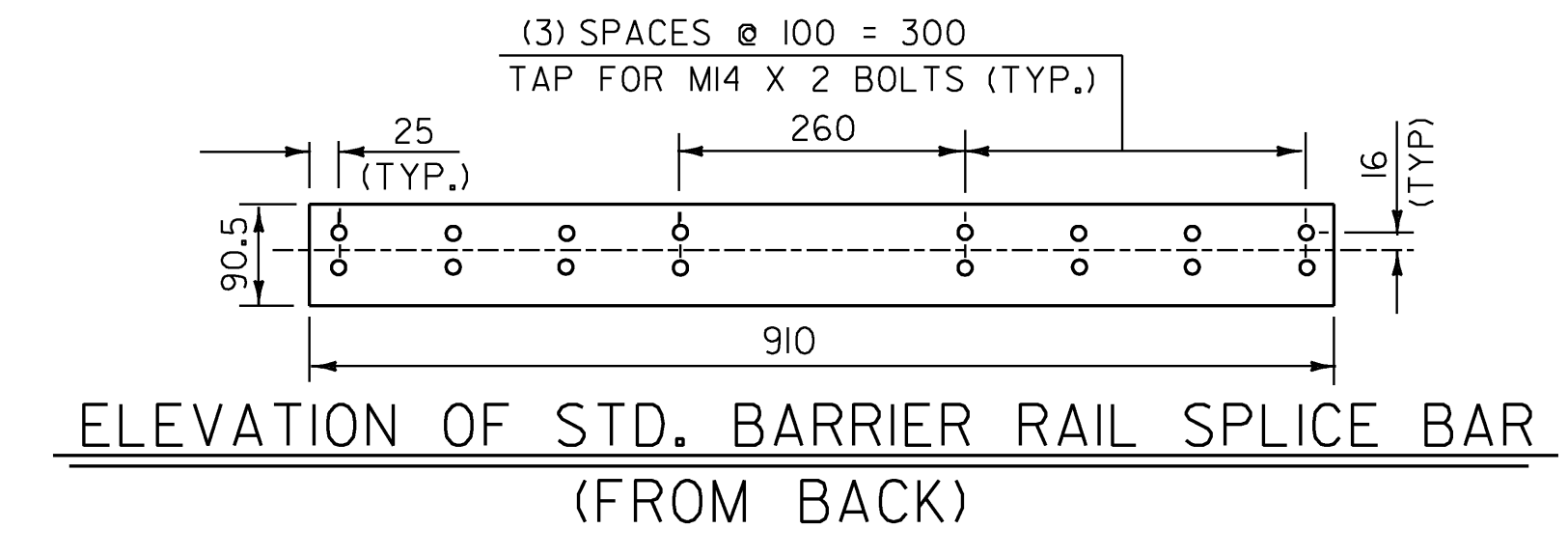
ELEVATION OF
HAND RAIL SPLICE BAR



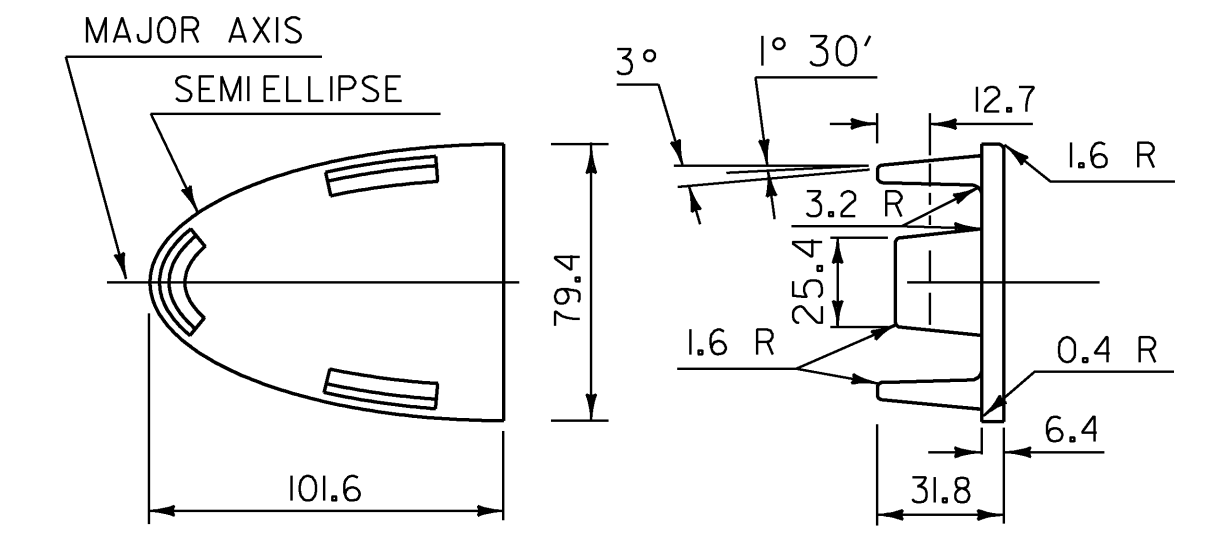
BARRIER RAIL
SPLICE SECTION



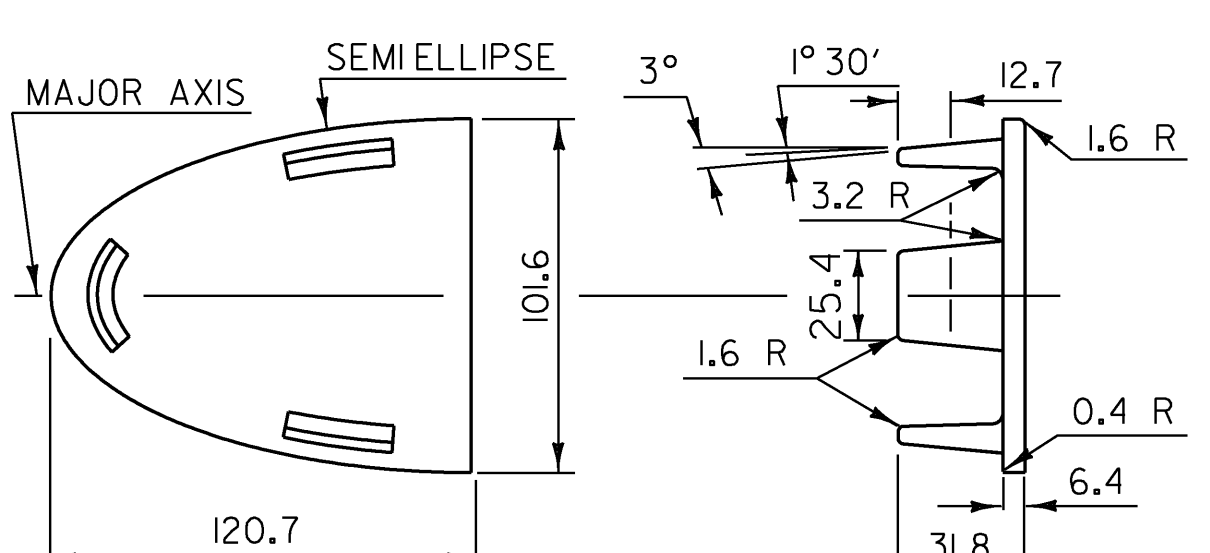
POST ANCHOR ASSEMBLY



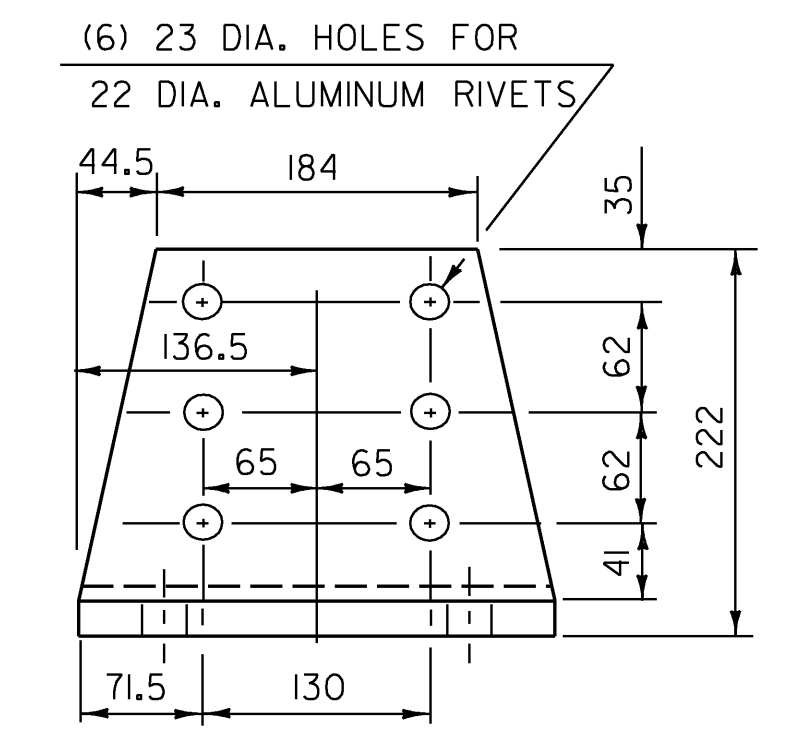
ELEVATION OF STD. BARRIER RAIL SPLICE BAR
(FROM BACK)



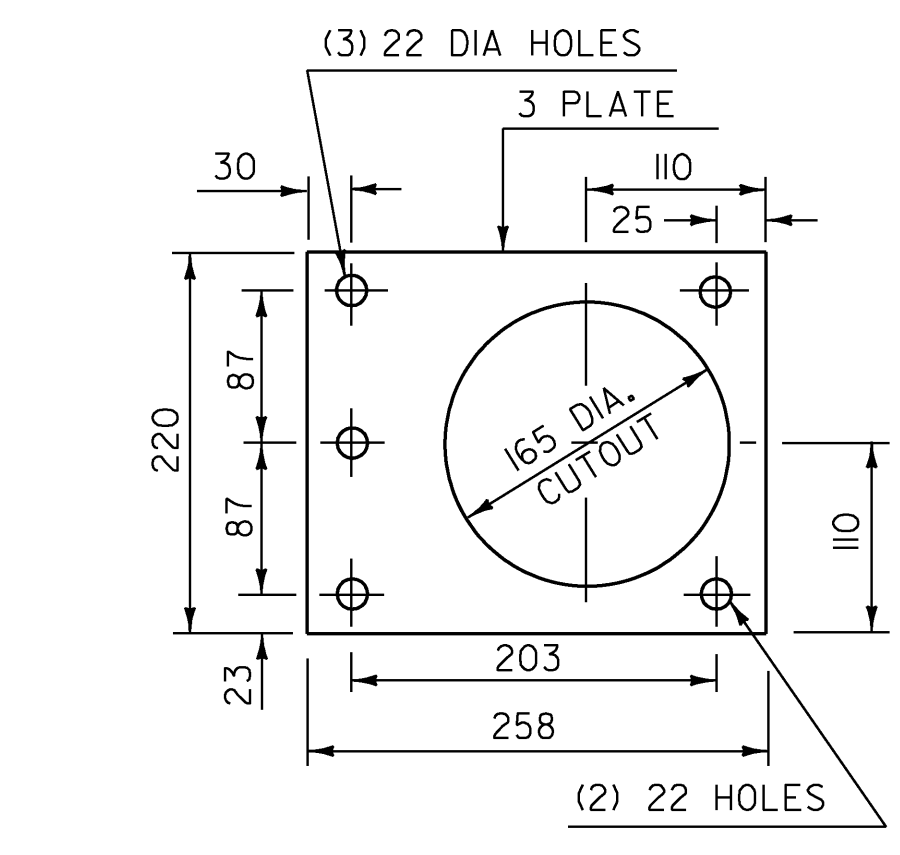
HAND RAIL END CAP



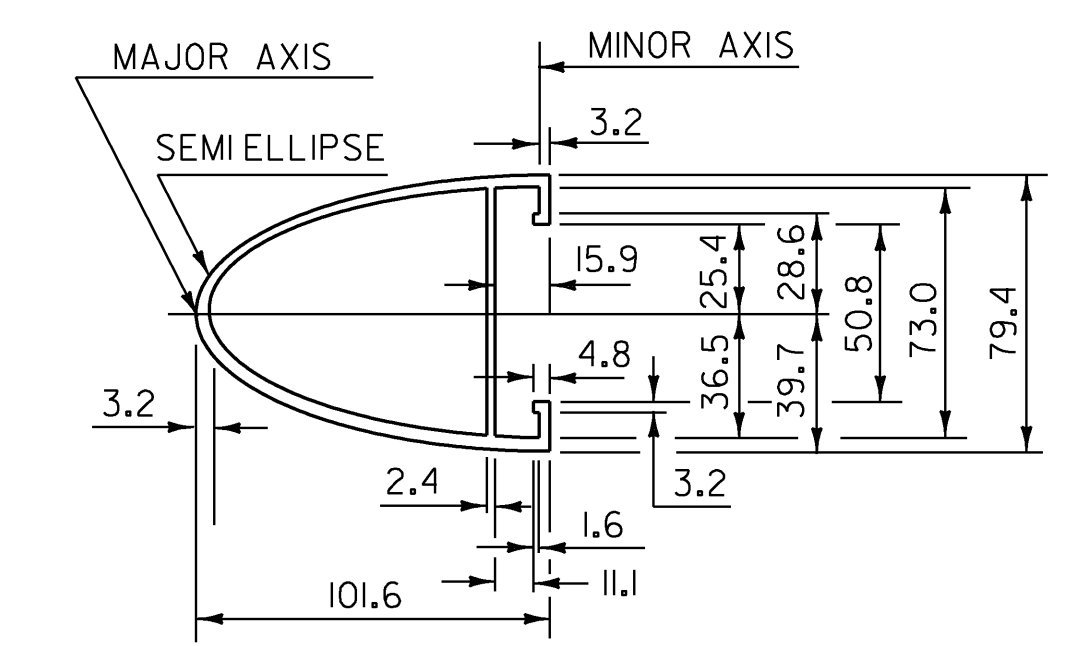
BARRIER RAIL END CAP



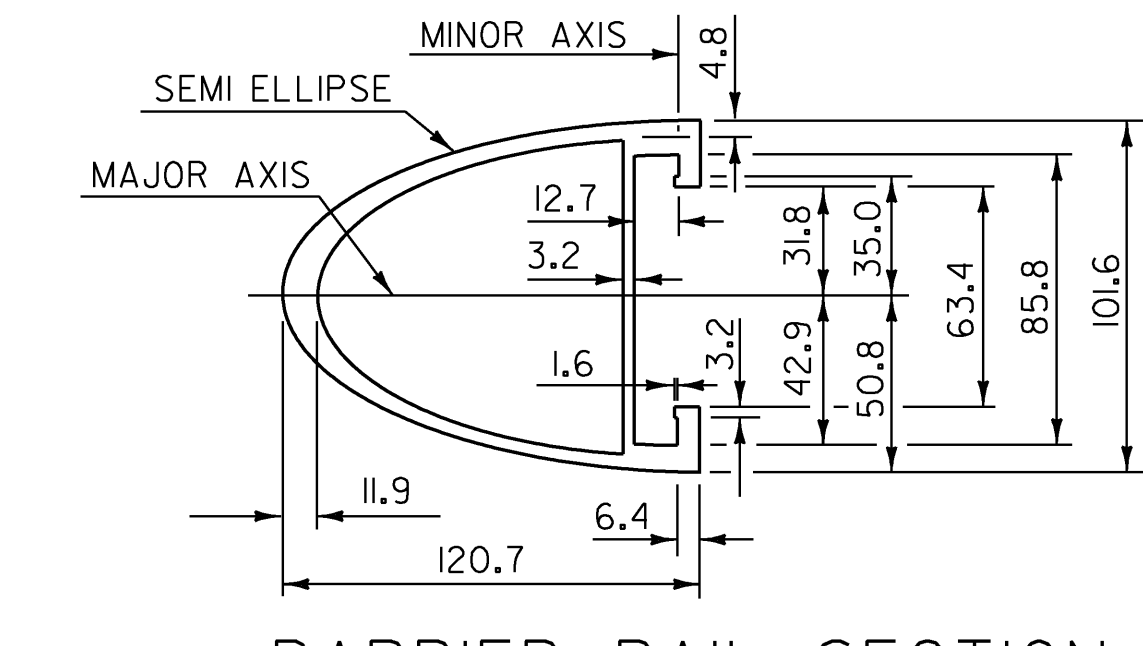
POST BASE
FRONT ELEVATION



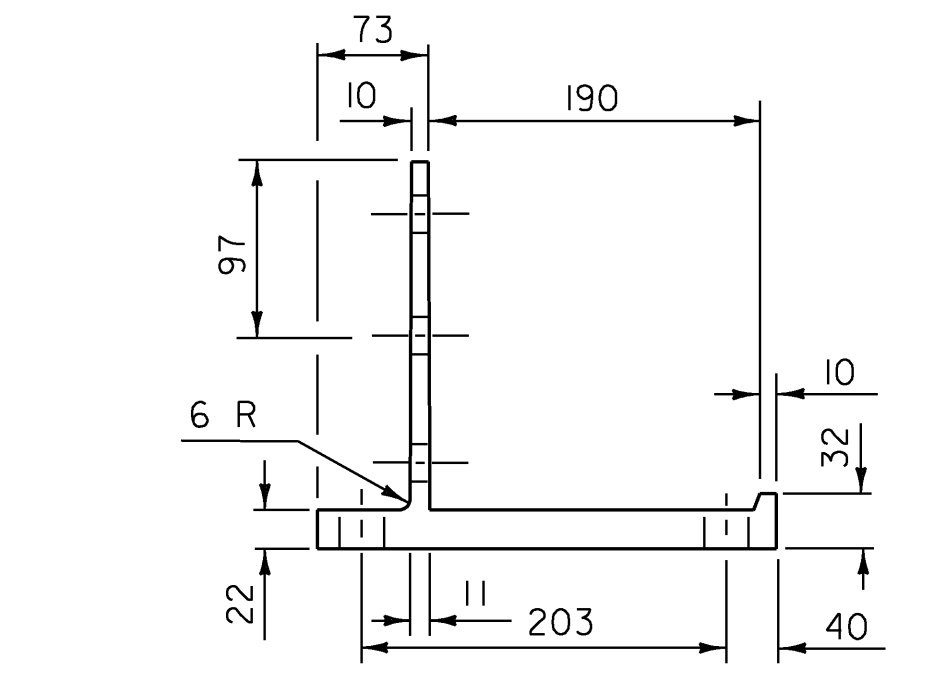
ANCHOR PLATE



HAND RAIL SECTION



BARRIER RAIL SECTION
(SEE SHEET 28 FOR ELEVATION
OF BARRIER RAIL)



POST BASE
SECTION

engineering planning management development

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of HARDWICK	Bridge No. 67
Highway No. VT 15	Log Sta. Surv. Sta.
VT 15 OVER COOPER BROOK ALUMINUM RAILING DETAILS 3	
Designed By A.P. GUYETTE	Drawn By P.G. JARVIS
Checked By E. P. DETRICK	Bridge Design Supervisor J.W. TUCKER
Date 11/08	Date 11/08
PROJECT HARDWICK	PROJECT NO. BHF 030-2 (18) S
I.G.C. Info. DGN\$SPEC\$	
Bridge Sheet No.	Sheet 30 of 38