

TYPICAL PANEL ELEVATION
1:10

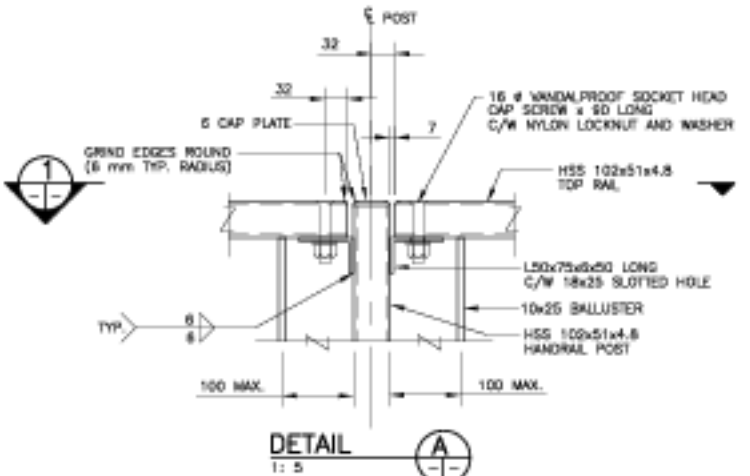
HANDRAIL PANEL SCHEDULE							
PANEL TYPE	NO. REQ'D.	(A)	(B)	(C)	(D)	(E)	(F)
H1	71	2400	2336	20	106	88	88

COMPONENTS (PER PANEL)

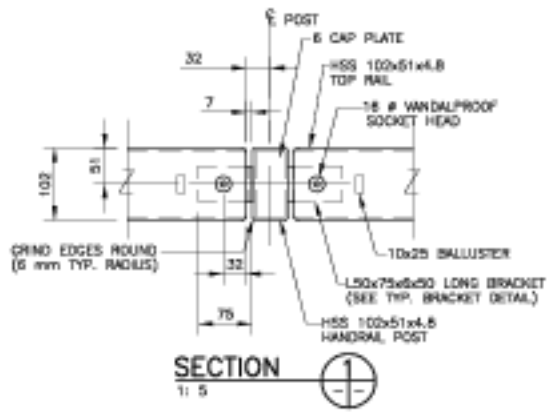
- HSS 102x51x4.8 TOP RAIL
- PLATE 100x16 BOTTOM RAIL
- 10x25 BALLUSTERS (SEE C VALUE FOR NO. REQ'D.)

HANDRAIL POST SCHEDULE		
POST TYPE	NO. REQ'D.	COMPONENTS (PER POST)
P1	68	INTERMEDIATE POST • HSS 102x51x4.8 • 2-150x75x5 TOP BRACKET C/W 1-16 # WANDALPROOF SOCKET HEAD CAP SCREWS • 1-NYLON LOCK NUT • 1-PLATE WASHER EACH ANGLE BRACKET
P2R	3	• 2-150x75x5 BOTTOM BRACKET C/W 1-16 # HEX BOLT x 30 LG. • 1-NYLON LOCK NUT (HEX) • 2-PLATE WASHERS EACH ANGLE BRACKET
P2L	3	• 1-200x150x13 BASE PLATE • 1-280x170x13 PERMANENT TEMPLATE • 4-16 # ANCHOR BOLTS C/W 2-NUTS AND 1-WASHER

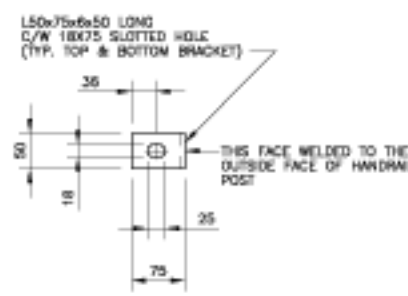
NOTE:
END POST COMPONENT TYPE P2R & P2L REQUIRED-1 ANGLE BRACKET TOP & BOTTOM ON ONE SIDE ONLY.



DETAIL A
1:5

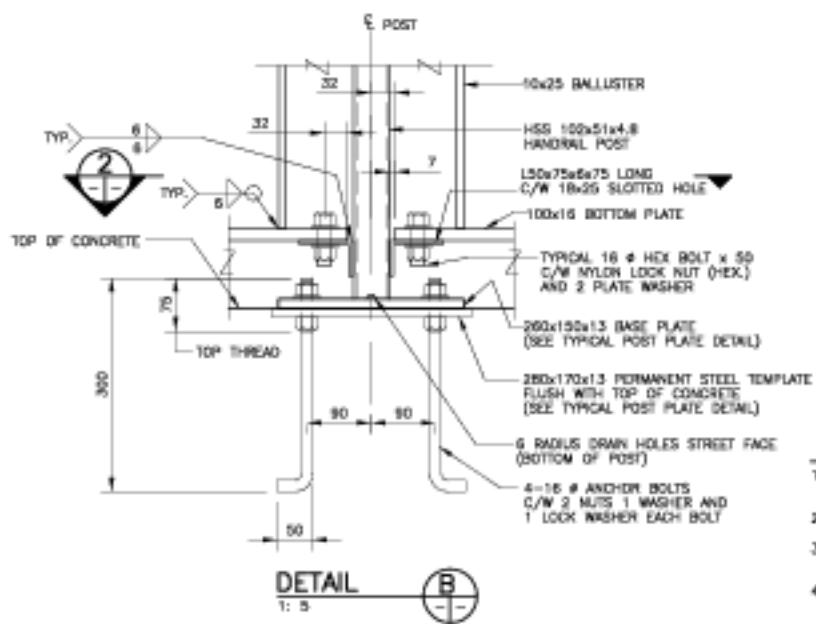


SECTION 1
1:5

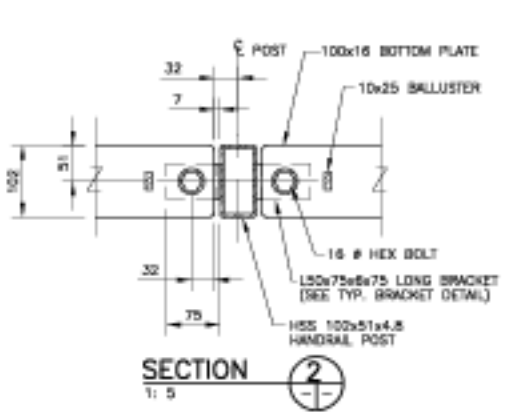


TYPICAL BRACKET DETAIL
1:10

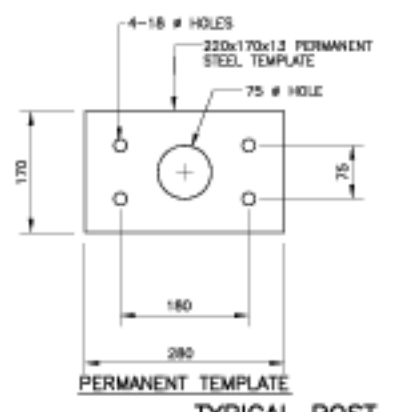
DRAWING REDUCED
NOT TO SCALE



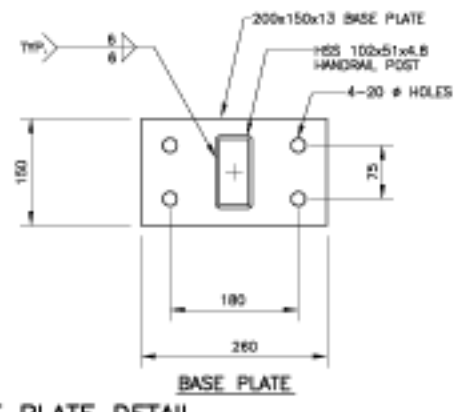
DETAIL B
1:5



SECTION 2
1:5

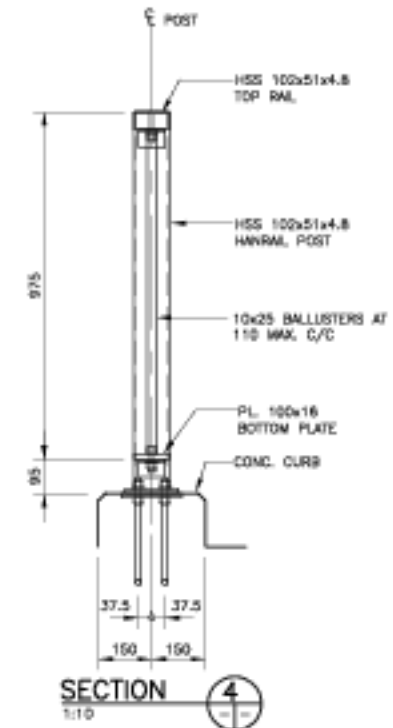


PERMANENT TEMPLATE



BASE PLATE

TYPICAL POST BASE PLATE DETAIL
1:10



SECTION 4
1:10

- NOTES:
1. STRUCTURAL STEEL GRADE 300 W EXCEPT HSS GRADE 350 W.
 2. BOLTS GRADE A307 OR BETTER
 3. ALL MATERIALS HOT-DIP GALVANIZED AFTER FABRICATION.
 4. GRIND ALL EXPOSED SHARP EDGES SMOOTH AND ROUNDED.
 5. ANCHOR BOLTS GALVANIZED AFTER THREADING AND GALVANIZED NUTS SIZED AS NECESSARY.

NO.	REV/S	DATE	BY	CHK
2				
1				
NS				

DESIGNED BY: NSB
 CHECKED BY: NSB
 DRAWN BY: RWA
 REVIEWED BY: ASD
 HYP. SCALE: AS SHOWN
 ORIGINAL SIGNED BY: D. A. NEPHEK
 DATE: APRIL 2007

DILLON CONSULTING
 ENGINEER'S SEAL
 PROVINCE OF MANITOBA
 ORIGINAL STAMPED BY
 R.A. WIEBE
 06/11/07
 REGISTERED PROFESSIONAL ENGINEER
 ENGINEER'S SEAL
 PROVINCE OF MANITOBA
 ORIGINAL STAMPED BY
 A.S. DERAJ
 06/11/07
 REGISTERED PROFESSIONAL ENGINEER
 CONSULTANT PROJECT NO.
 06-7122-2000

THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT
 2007 CAPITAL PROGRAM
 ANNABELLA STREET UNDERPASS
 RETAINING WALL REHABILITATION
 AND ROADWORKS
 CITY DRAWING NUMBER
 U223-07-11
 SHEET 11 OF 12
 BID OPP NO.
 291-2007
 PEDESTRIAN HANDRAIL DETAILS