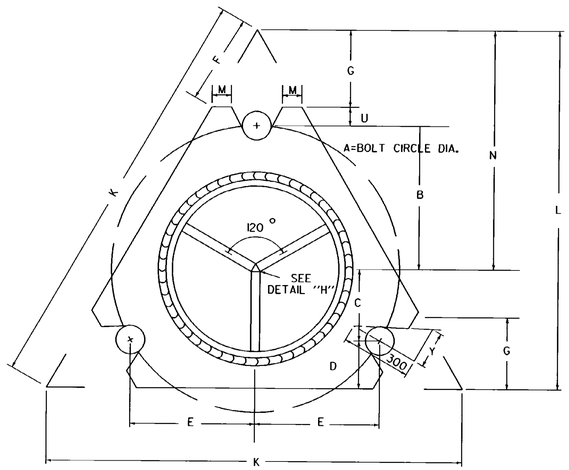
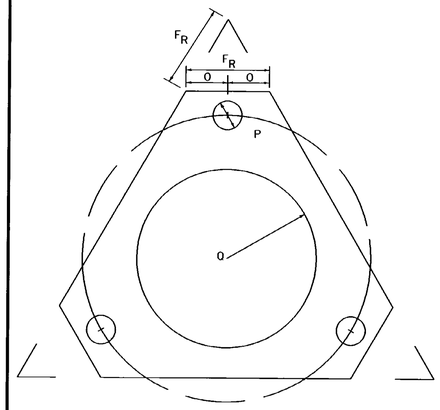


DETAILS OF MULTI-DIRECTIONAL SLIP BASE

TABLE A

PIPE SIZE	BOLT SIZE & TORQUE	WELD SIZE	t	Y	A	B	C	D	E	F	G	K	L	M	U	N
DN75	M16 X 2 X 85	10	16	175	180	90	45	30	78	57	50	260	225	11	10	150
DN90	T = 55 N • m															
DN100	M20 X 2.5 X 95	12	20	215	230	115	55	40	101	73	65	330	285	13	10	190
DN125	T = 100 N • m															

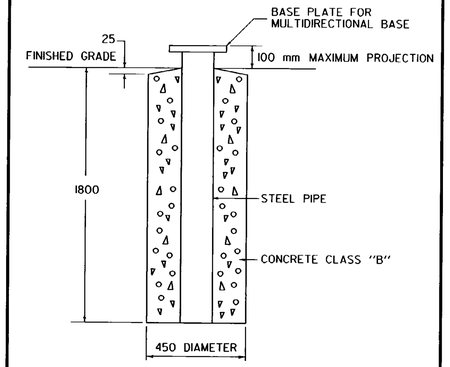


BOLT RETAINER PLATE

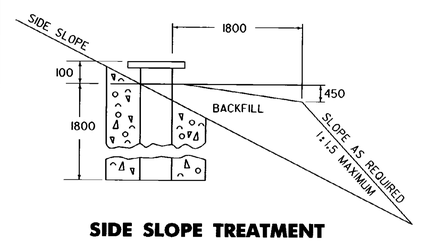
0.48-mm GALVANIZED STEEL

BOLT RETAINER PLATE SIMILAR IN DETAIL TO THE BASE PLATES WITH THE FOLLOWING EXCEPTIONS:

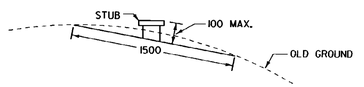
PIPE SIZE	F_R	O	P	Q
DN75	52	26	18	65
DN90				
DN100	68	34	22	75
DN125				



FOUNDATION DETAIL



SIDE SLOPE TREATMENT



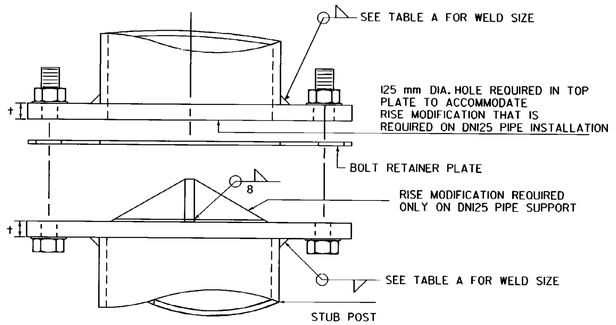
SEE GENERAL NOTE * 4.

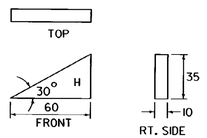
GENERAL NOTES

1. THE STEEL PIPE SHALL BE MANUFACTURED TO ASTM A 501 OR ASTM A 53, TYPES E OR S, GRADE B AND SHALL BE GALVANIZED AS PER ASTM A 153.
2. THE MATERIAL FOR THE MULTIDIRECTIONAL SLIP BASE ASSEMBLY SHALL CONFORM TO AASHTO M 270/M 270M, GRADE 250 STEEL, AND BE GALVANIZED AS PER ASTM A 153.
3. THE BOLTS, NUTS AND CIRCULAR WASHERS SHALL CONFORM TO ASTM A 325M. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS PER ASTM A 123.
4. ALL DIMENSIONS REFERRING TO STUB HEIGHT IN THE VARIOUS TABLES AND FOUNDATION DETAILS SHALL BE ADJUSTED AS REQUIRED TO RESULT IN A TOTAL STUB HEIGHT WHICH IS NOT MORE THAN 100 mm ABOVE A 1500-mm CHORD ALIGNED RADIALLY TO THE CENTERLINE OF THE HIGHWAY AND CONNECTING ANY POINT, WITHIN THE LENGTH OF THE CHORD, ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE.

CONSTRUCTION METHOD

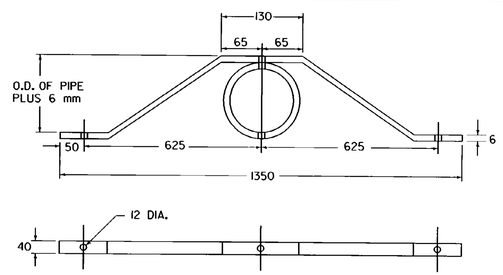
HOLES FOR POST FOOTINGS MAY BE AUGERED OR DUG. IF THE MATERIAL IS FIRM AND IF ALL DISTURBED SOIL AROUND THE CIRCUMFERENCE OF THE AUGERED HOLE IS REMOVED, THE HOLES MAY BE LEFT WITH EARTH SIDES. IF NOT, A SUITABLE FORM APPROVED BY THE ENGINEER SHALL BE USED. CORRUGATED METAL CULVERT PIPE OR PAPER FORMS, MANUFACTURED FOR USE AS CONCRETE COLUMN FORMS, WILL BE ACCEPTABLE. THE STUB SHALL BE EXTENDED TO THE BOTTOM OF THE HOLE AND SET ON A CONCRETE PAD FOOTING TO SUPPORT THE POST SO THE POST SHALL BE HELD SECURELY IN PLACE AT THE BOTTOM. THIS MAY BE DONE BY EMBEDDING THE POST AND CONCRETE BLOCK FOOTING IN WET CONCRETE, AND ALLOWING THE CONCRETE TO SET WITH THE POST SECURED IN POSITION; PLUMBED AND PROPERLY BRACED. THE REMAINDER OF THE FOOTING MAY THEN BE POURED. THE TIME BETWEEN POURS FOR THE CURING OF THE CONCRETE SHALL BE AS DETERMINED BY THE ENGINEER. THE FORM SHALL BE LEFT IN PLACE AND THE HOLE BACKFILLED AND COMPACTED AS DIRECTED BY THE ENGINEER. NO PART OF THE FORM SHALL SHOW ABOVE THE GROUND LINE WHEN THE WORK IS COMPLETED.





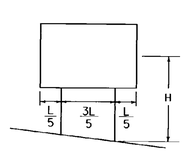
DETAIL "H"

3 REQUIRED
MOUNTED 120° APART
RISE MODIFICATION REQUIRED
ONLY FOR DN125 PIPE SUPPORT

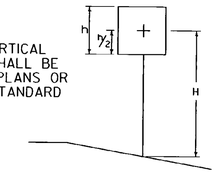


SIGN SUPPORT BRACE

(REQUIRED WHEN INSTALLING 3 ASSEMBLY FRAME AS SHOWN ON STANDARD E-123M)



HORIZONTAL AND VERTICAL SIGN CLEARANCES SHALL BE AS SHOWN ON THE PLANS OR THE APPROPRIATE STANDARD SHEET.



POST SELECTION CHART DETAIL

POST SELECTION CHART

SIGN AREA (m^2) x H (m) $\leq S_V$ (SELECTION VALUE)

POST SIZE	MASS kg/m	S_V	DESIGN CRITERIA
DN75	11.3	8.57	WIND SPEED = 100 km/h (10-YEAR MEAN RECURRENCE INTERVAL)
DN90	13.6	11.90	WIND PRESSURE = 760 Pa
DN100	16.1	15.99	STEEL MIN YIELD Fy = 250 MPa
DN125	21.8	27.15	ALLOWABLE STRESS = (1.4)0.66 Fy

OTHER STDS. REQUIRED:

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS

JUNE 13, 1997 - ORIGINAL APPROVAL DATE

APPROVED

DIRECTOR OF ENGINEERING

DIRECTOR OF CONSTRUCTION AND MAINTENANCE

TUBULAR STEEL SIGN POST

VERMONT AGENCY OF TRANSPORTATION

AASHTO Metric STANDARD E-163M