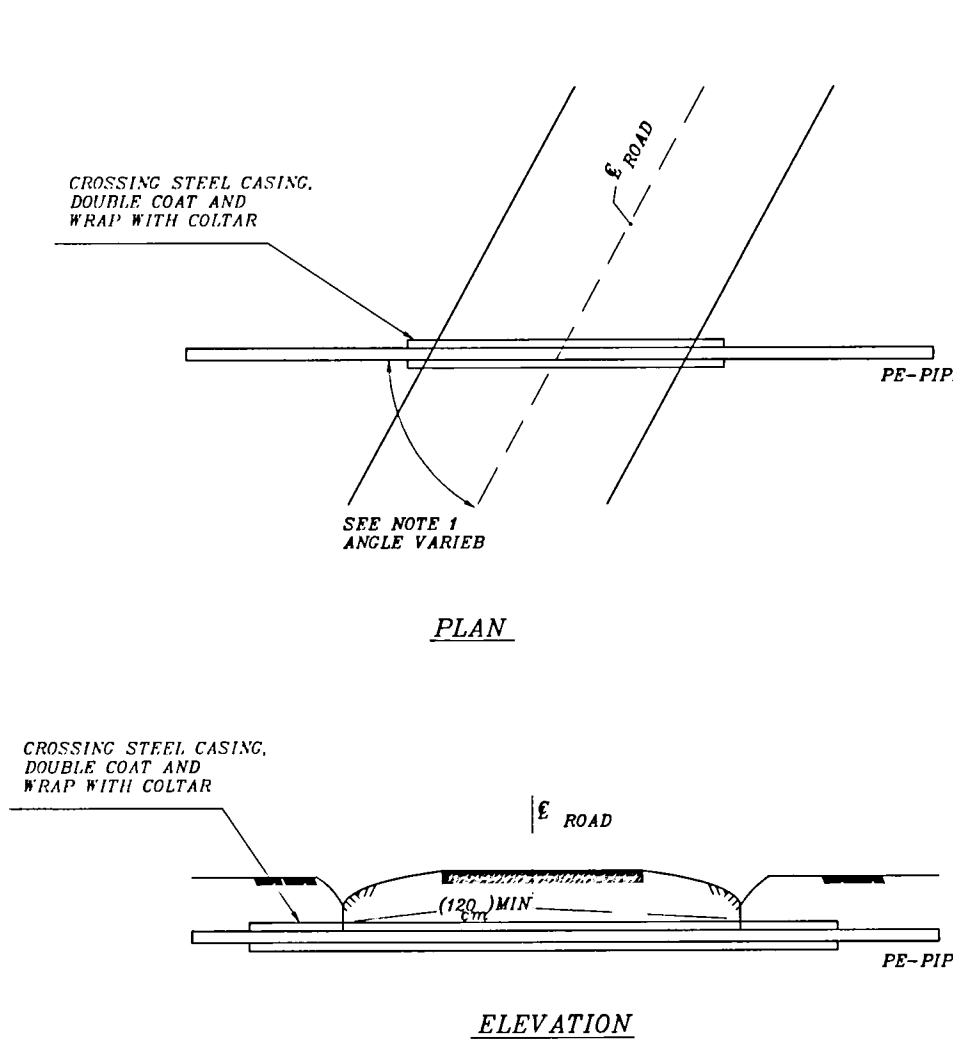
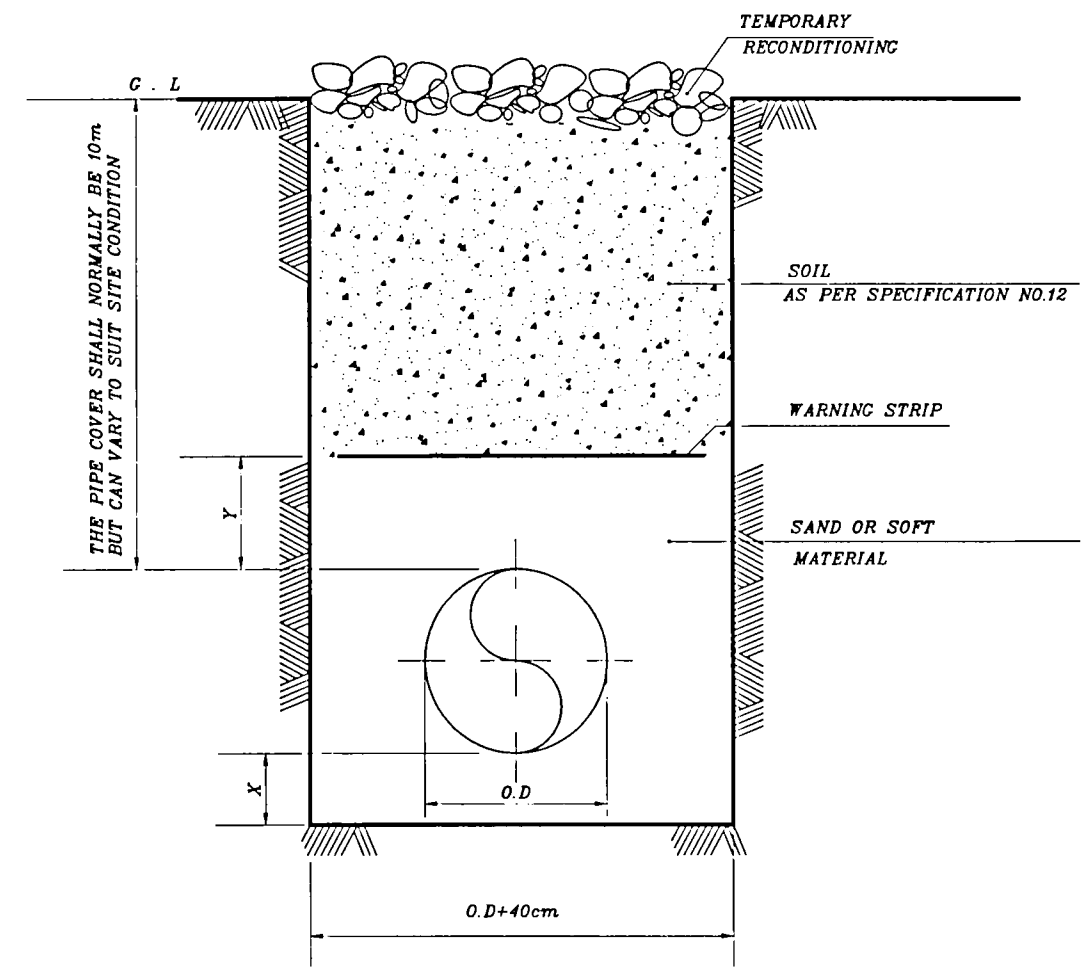


NO.1 TYPICAL PIPELINE UNDERCROSSING
GRAVEL OR DIRT ROAD

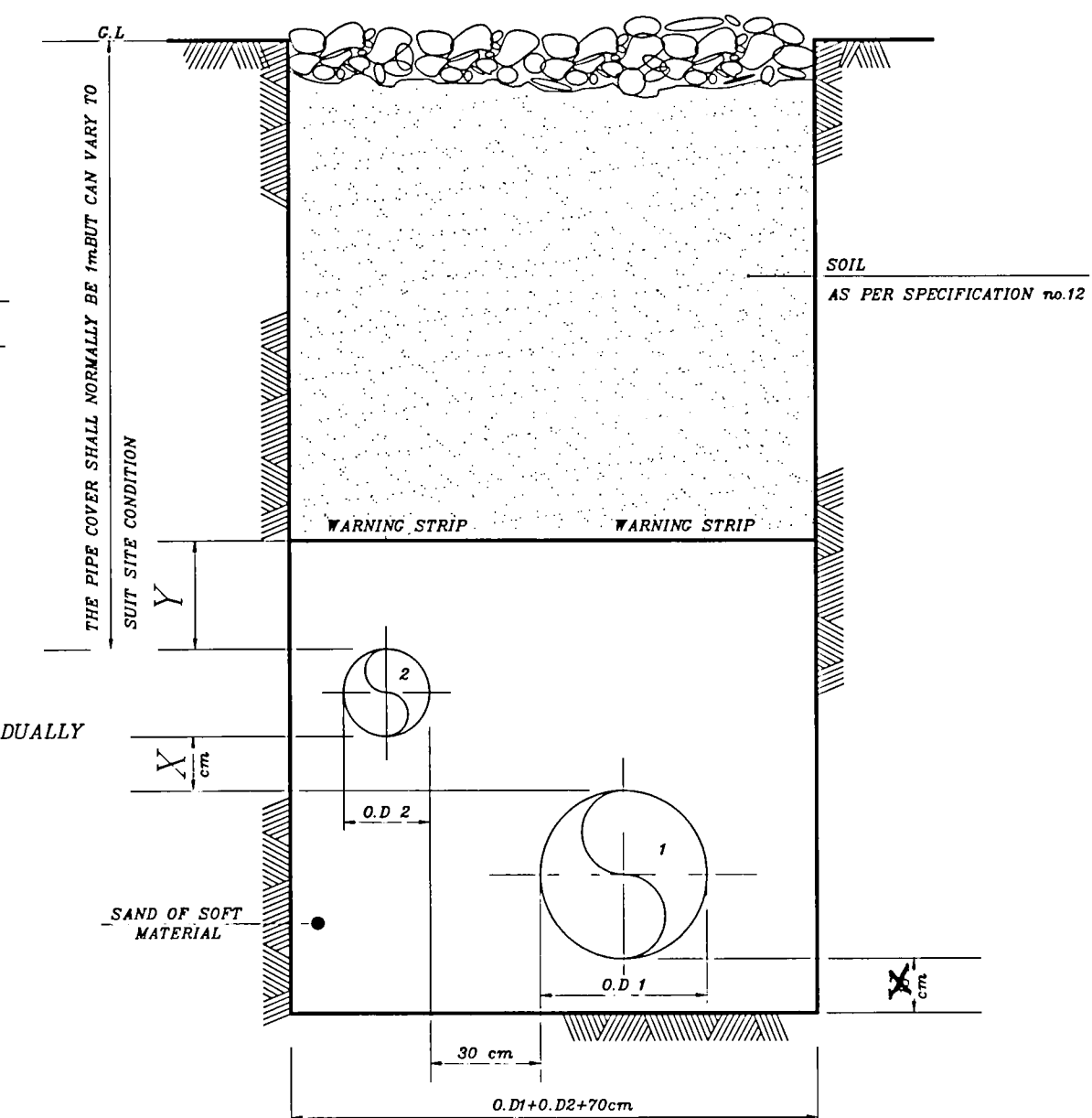


NOTE
1 - PIPE LINE CROSSING AS REASONABLY TO RIGHT ANGLES (90°) TO ROAD AS POSSIBLE

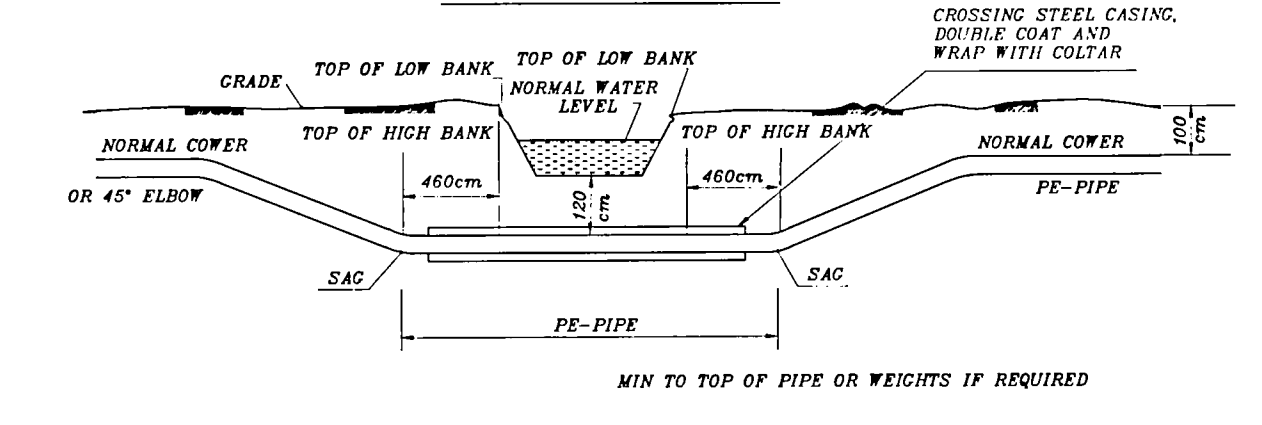
NO.4 TRENCH CROSS SECTION
BASIC GRID OR DISTRIBUTION NETWORK



NO.5 TRENCH CROSS SECTION
BASIC GRID AND DISTRIBUTION PIPELINE IN THE SAME TRENCH FOR PIPELINE UP TO 250mm

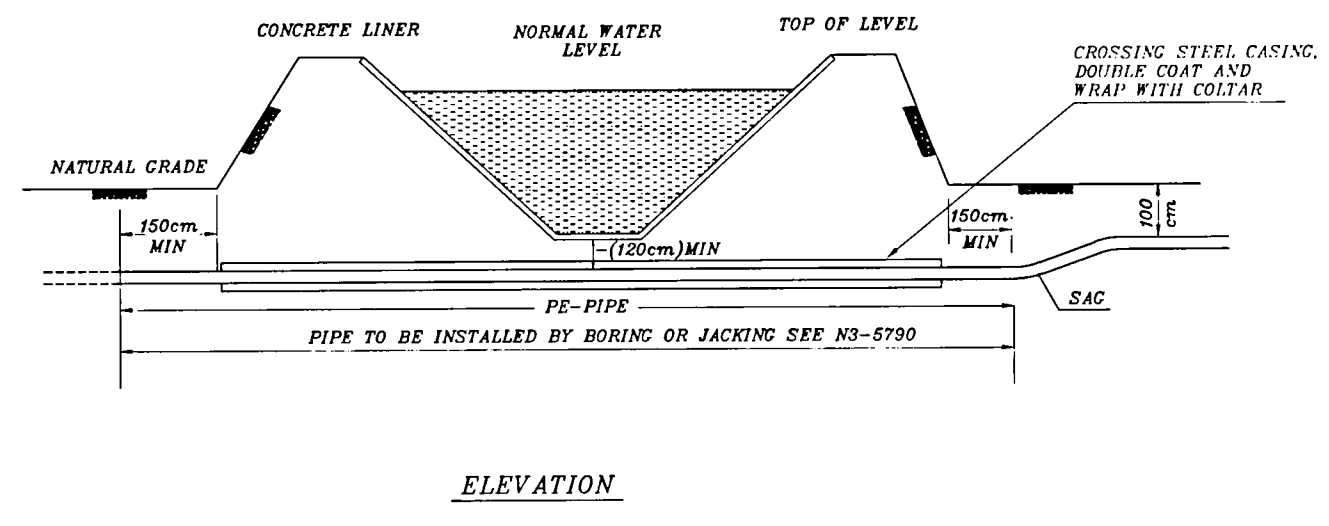


NO.2 TYPICAL STREAM OR DITCH PIPELINE UNDERCROSSING

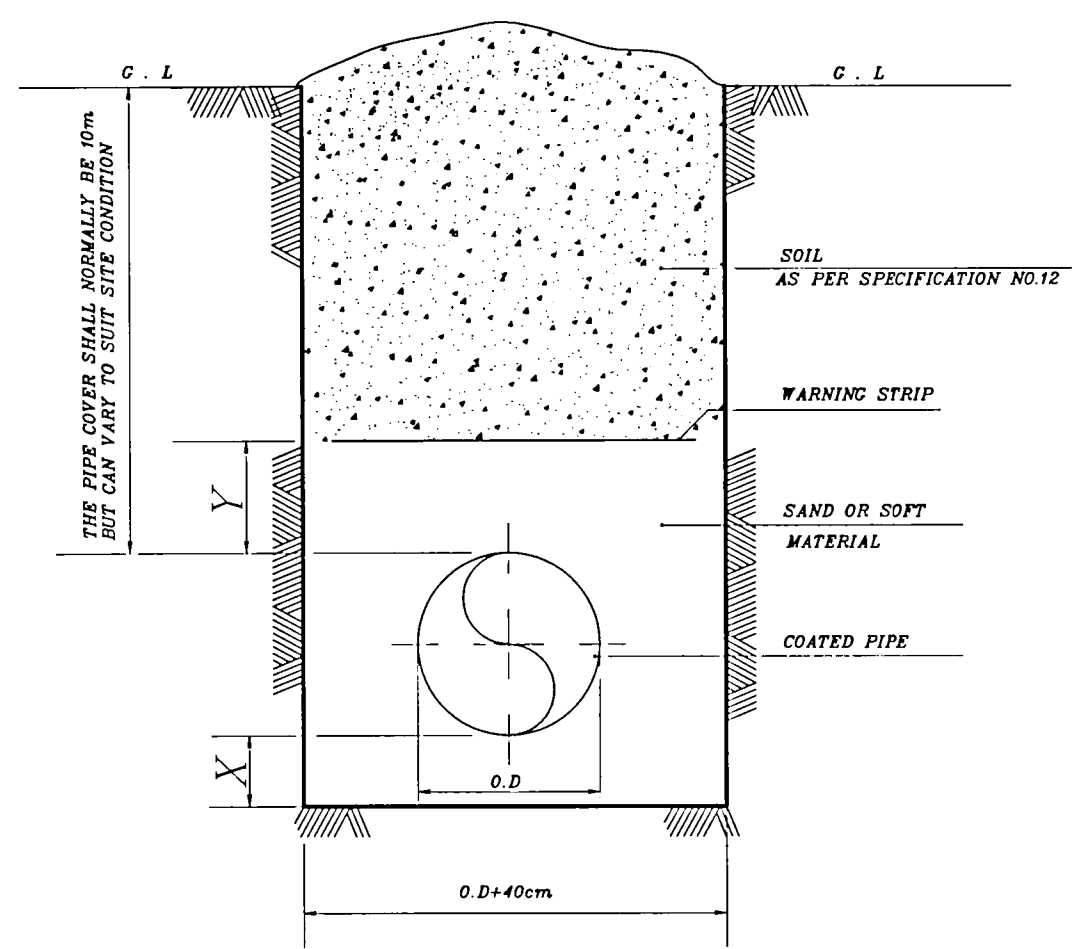


NOTE
1 - THIS DRAWING APPLICABLE TO ALL STREAM OR DITCH CROSSING NOT SHOWN INDIVIDUALLY DESIGNED ON OTHER ACCOMPANYING DRAWINGS
2 - WEIGHTS TO BE INSTALLED AS DIRECTED BY COMPANY
3 - ALL NEW CONSTRUCTION TO BE DONE BY CONTRACTOR

NO.3 TYPICAL CONCRETE LINED CANAL UNDERCROSSING

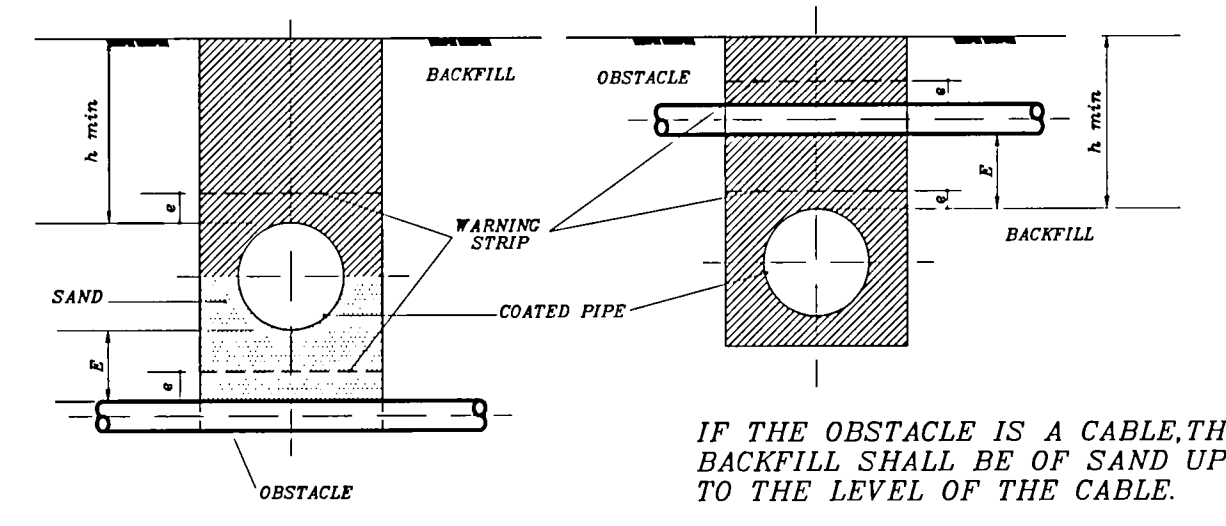


NO.6 TRENCH CROSS SECTION
BASIC GRID (RING) OR DISTRIBUTION NETWORK



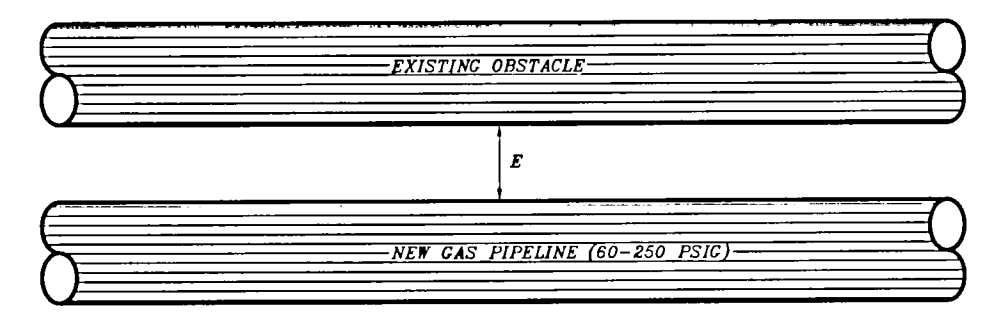
NOTE
1 - THIS DRAWING IS APPLICABLE TO N.I.C.C PRIVATE RIGHT OF WAY
2 - HIGH WAY RIGHT OF WAY
3 - XBY ACCORDING TO ICS-C+DN-01(1) ICS-C-PL-100 LAST EDITION.

NO.7 VICINITY OF UNDER GROUND UTILITIES



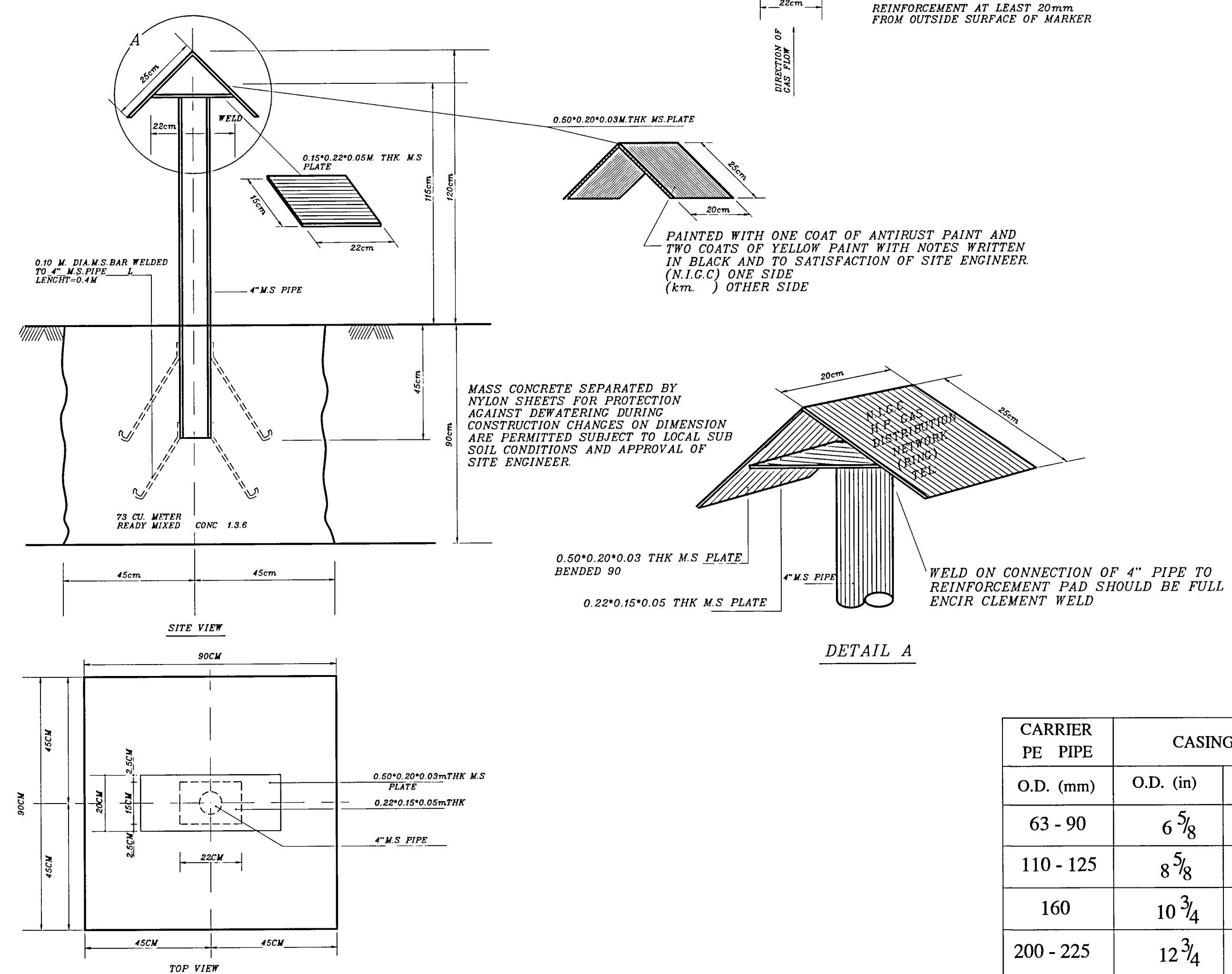
h = MINIMUM HEIGHT BACKFILL IN SPECIFICATIONS
e = MINIMUM PERMISSIBLE DISTANCE TANGENTS OF OBSTACLE OR OF THE PIPELINE AND WARNING DEVICE e=0.20M
E = MINIMUM PERMISSIBLE DISTANCE BETWEEN TANGENTS OF THE OBSTACLE AND THE PIPELINE
1 - IF THE OBSTACLE IS A TELECOMMUNICATION CABLE OR A METAL PIPELINE OR OTHER WISE FOR NON-INFLAMMABLES E = 0.40M
2 - IF THE OBSTACLE IS AN ELECTRIC ENERGY TRANSMISSION CABLE REFER TO N.I.C.C SAFETY REGULATION STANDARD
3 - IF THE OBSTACLE IS METAL PIPELINE FOR INFLAMMABLES
a. WITH DESIGN PRESSURE (250-1050 PSIG) E=0.90M OR THE DIAMETER OF LARGER PIPE
b. WITH DESIGN PRESSURE (60 PSIG) E=0.40M OR THE DIAMETER OF LARGER PIPE

NO.8 VICINITY OF PARALLEL UNDER GROUND UTILITIES
ALMOST AT SAME DEPTH

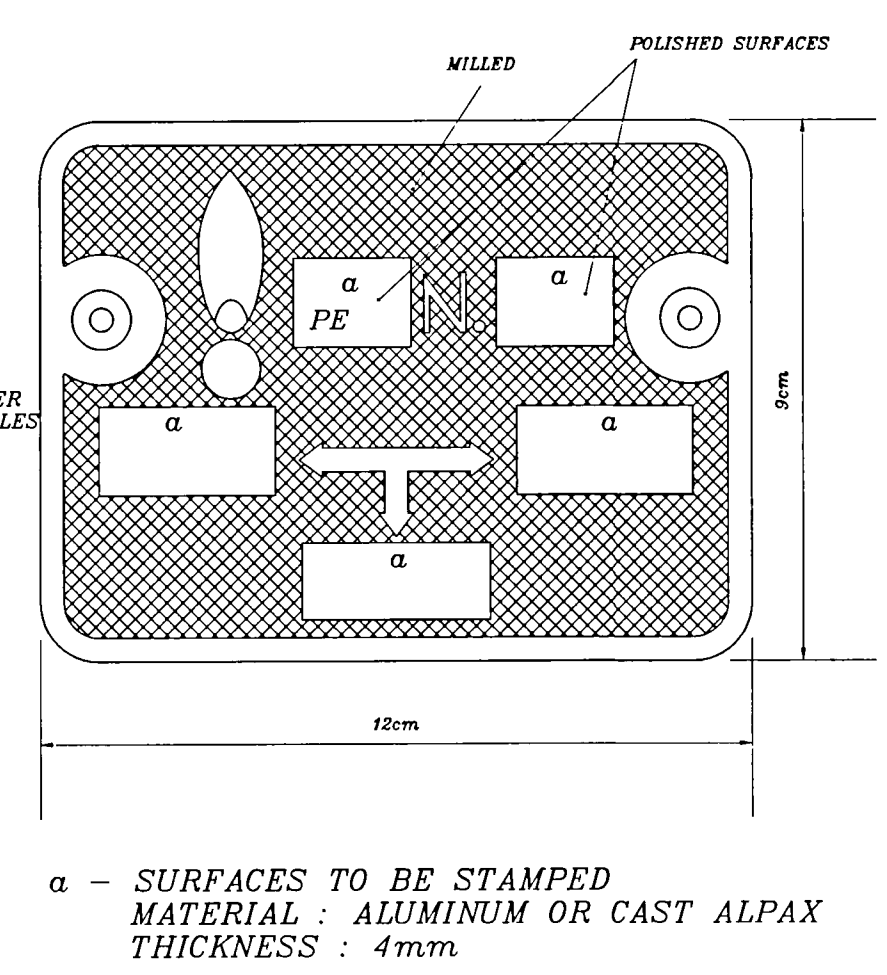


E = MINIMUM PERMISSIBLE DISTANCE BETWEEN OBSTACLE AND NEW GAS PIPELINE
1 - IF THE OBSTACLE IS A TELECOMMUNICATION CABLE OR METAL PIPELINE OR OTHER WISE FOR NON INFLAMMABLES E=0.50M
2 - IF THE OBSTACLE IS AN ELECTRIC ENERGY TRANSMISSION CABLE REFER TO N.I.C.C SAFETY REGULATION STANDARD
3 - IF THE OBSTACLE IS METAL GAS PIPELINE FOR INFLAMMABLES A WITH DESIGN PRESSURE 60-250 PSIG, E=0.60M OR THE DIAMETER OF LARGER PIPE

NO.9 TYPICAL GAS LINE MARKER

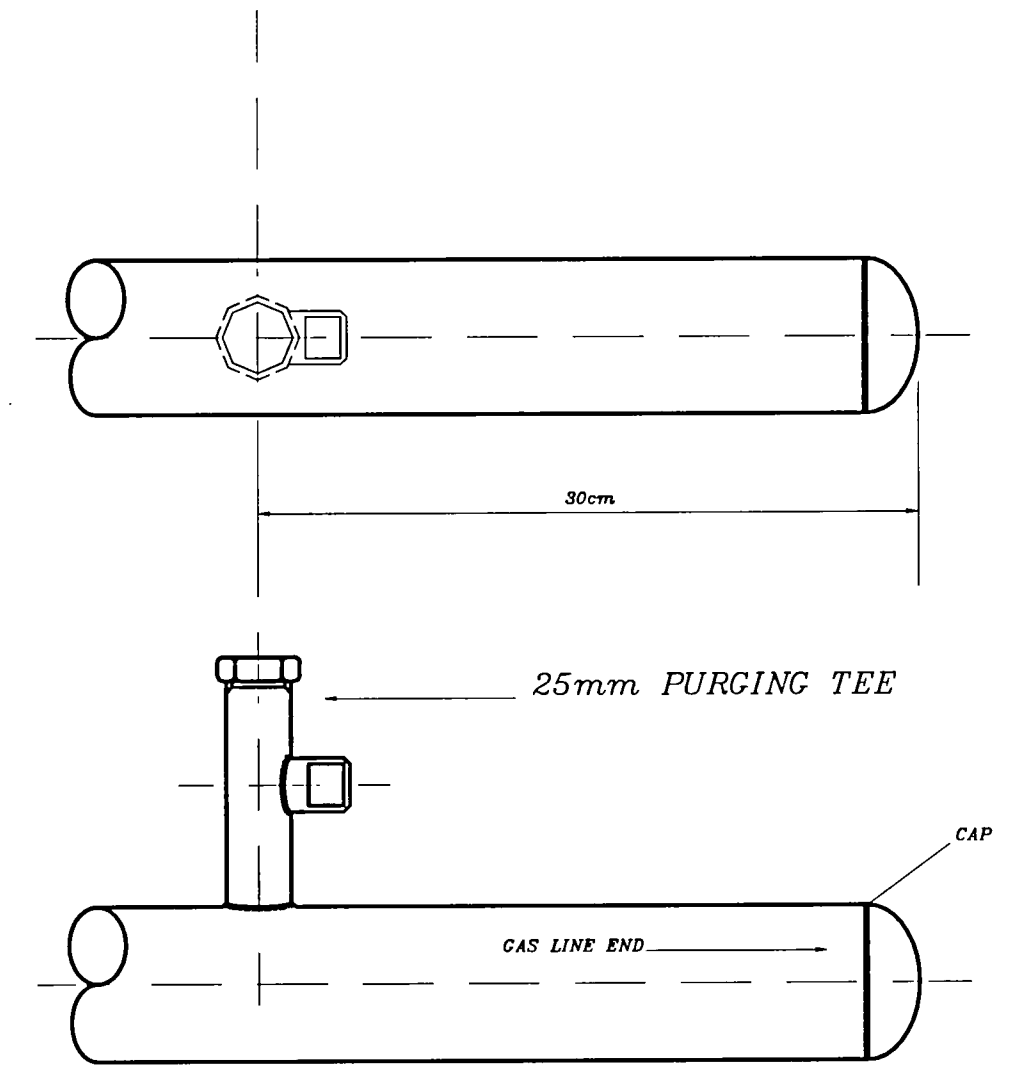


NO.10 VALVE INDICATOR PLATE



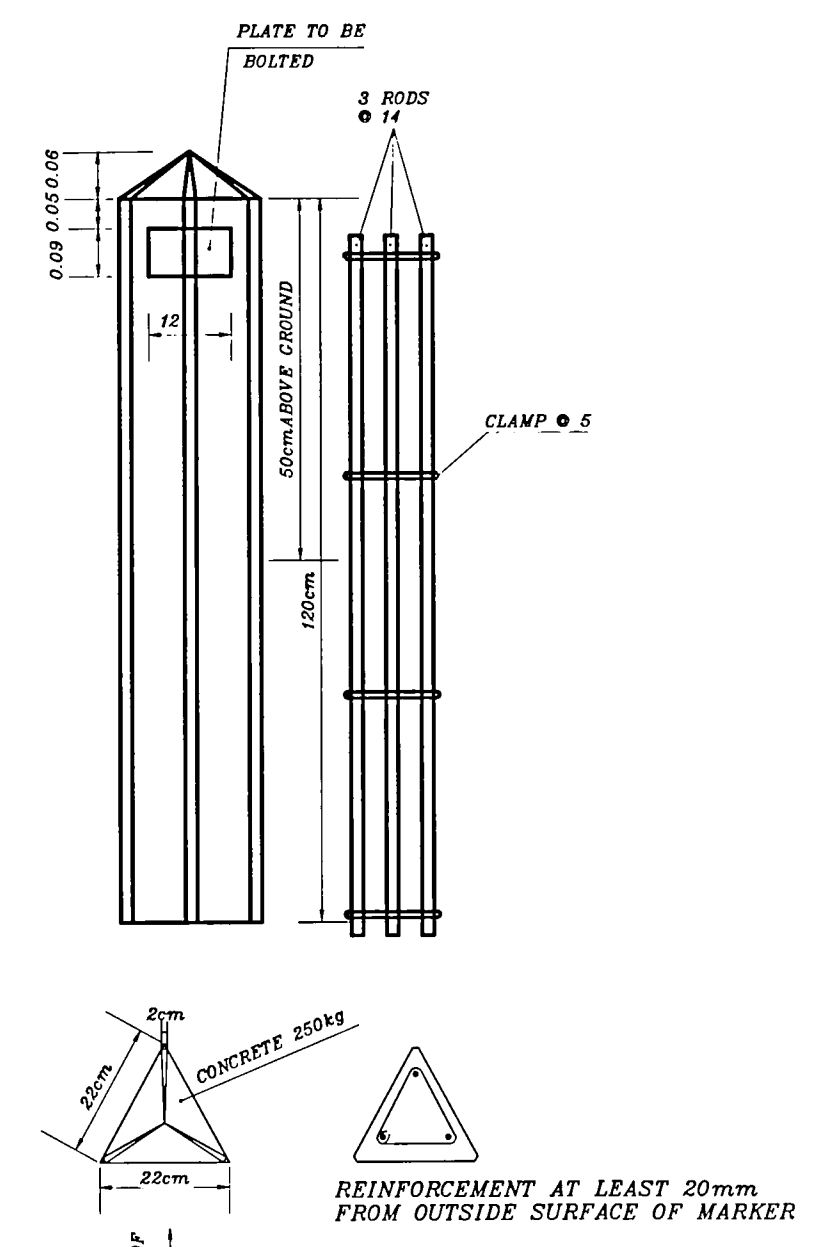
a - SURFACES TO BE STAMPED MATERIAL : ALUMINUM OR CAST ALPAX THICKNESS : 4mm

NO.12 TYPICAL INSTALLATION OF A PURGING POINT

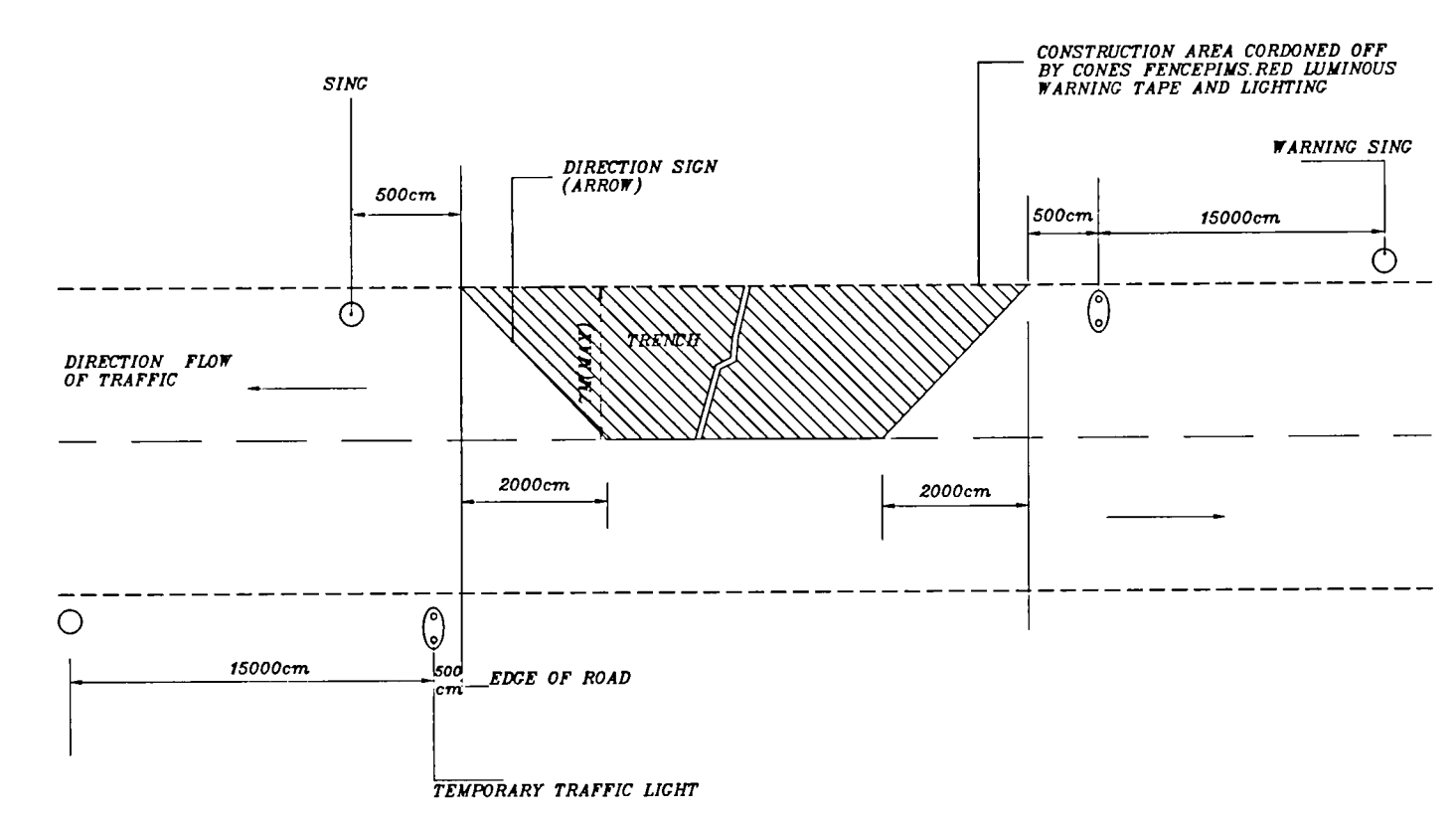


1 - A WELD ON 25mm PURGING TEE IS TO BE FITTED ADJACENT TO ALL CAPS.

NO.11 TYPICAL MARKERS

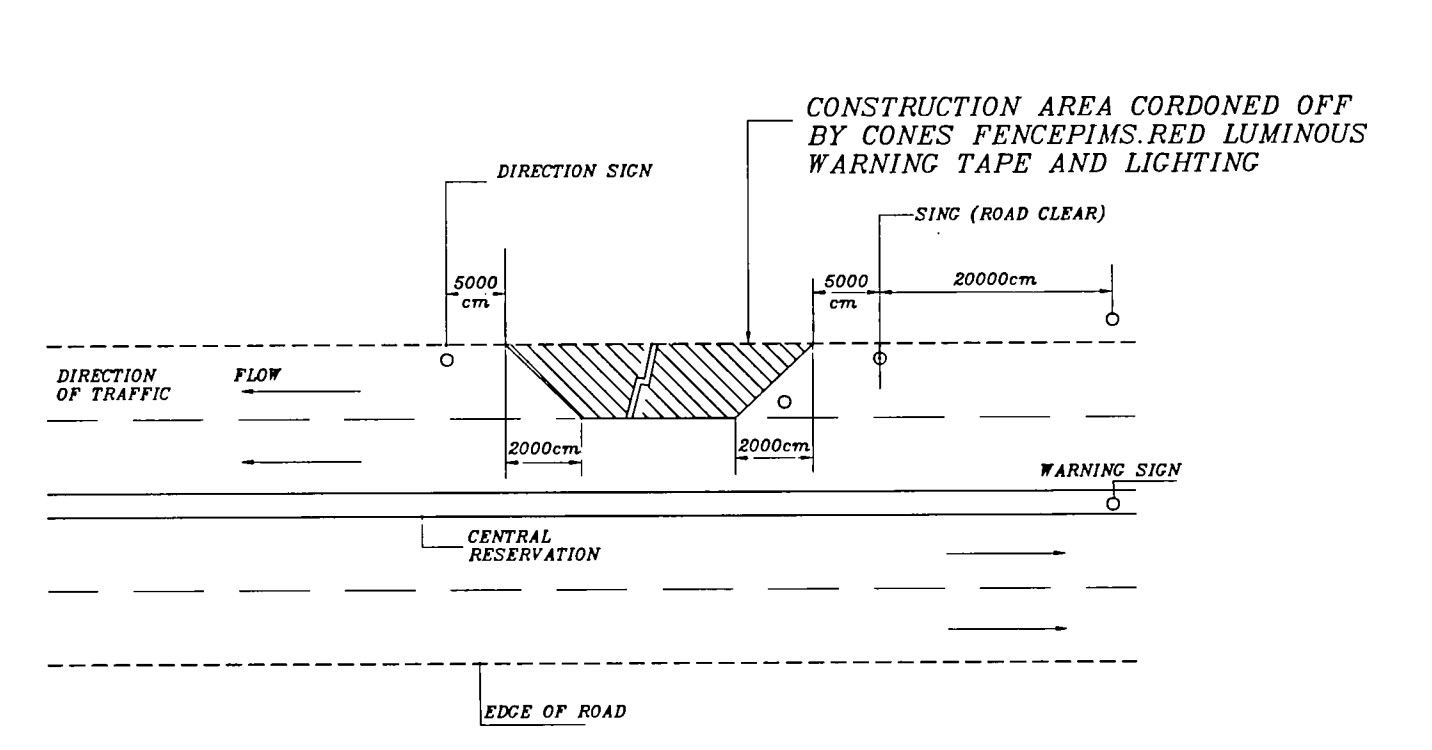


NO.13 SPACING AND ARRANGEMENT OF ROAD SIGNS FOR GAS PIPELINE CONSTRUCTION (SINGLE CARRIAGEWAY ROAD)



NOTE FOR TRENCH WORK CONSTRUCTED ACROSS THE CARRIAGE WAY THE EXTENT OF THE WORKS SHOULD BE LIMITED TO HALF OF THE ROAD WIDTH

NO.14 SPACING AND ARRANGEMENT OF ROAD SIGNS FOR GAS PIPELINE CONSTRUCTION (DUAL OR MULTIPLE LINE CARRIAGEWAY ROAD)



CARRIER PE PIPE	CASING PIPE		INSULATOR SPACE FOR CASING PIPE
O.D. (mm)	O.D. (in)	TH. (in)	METER
63 - 90	6 5/8	0.172	3.0
110 - 125	8 5/8	0.188	3.0
160	10 3/4	0.219	3.0
200 - 225	12 3/4	0.250	3.0

EDIT TABLE ADD NOTE NO.3					
ADD CASING TABLE					
PIPELINE UNDER CROSSING WITH CASING					
NO CONSTRUCTION PERMITTED UNLESS THE DRAWING IS APPROVED	NATIONAL IRANIAN GAS COMPANY				
ENGINEERING AND TECHNICAL SERVICES AFFAIRS					
GAS DISTRIBUTION NETWORK					
STANDARD DRAWING FOR PIPELINE UNDER CROSSING/GRAVEL OR DIRT ROAD STREAM/CANAL/TRENCH CROSS SECTION VICINITY OF UNDER GROUND UTILITIES PIPELINE MARKER INDICATOR PLATE INSTALLATION OF A PURGING POINT AND SPACING FOR ROAD SIGN					
DRAWN	DES. CHECK	APPROVED	SCALE	DRAWING NO	REV
O.FARIDI	S.ROGHAYEH	F.SAMANDAJI		PE-SM-6021	C
DESIGNED	A.FAGHMI		DATE		
N.I.C.C	F.SHAMSI	A.MOJIBATI	REV. 65		