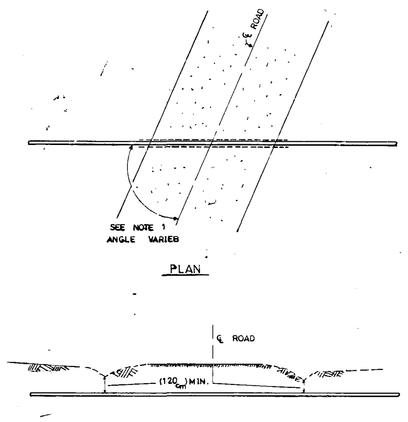
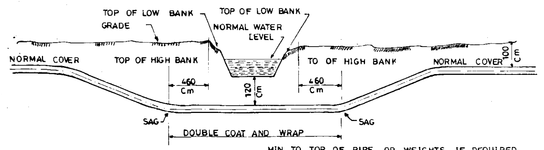
No.1 TYPICAL PIPELINE UNDERCROSSING GRAVEL OR DIRT ROAD



NOTE.

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

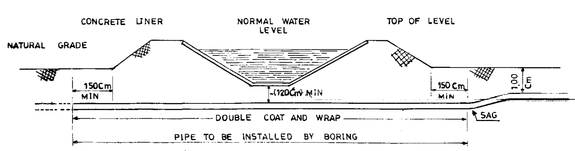
No.2 TYPICAL STREAM OR DITCH PIPELINE UNDERCROSSING



NOTE.

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

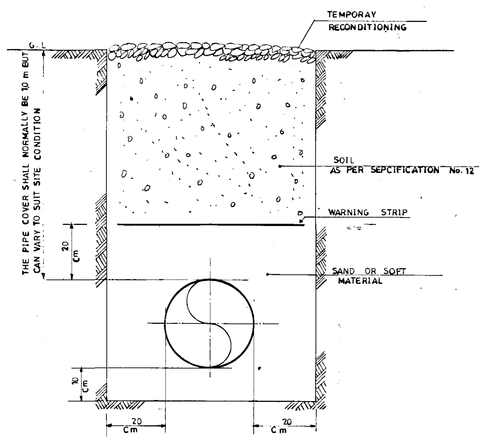
No.3 TYPICAL CONCRETE LINED CANAL UNDERCROSSING



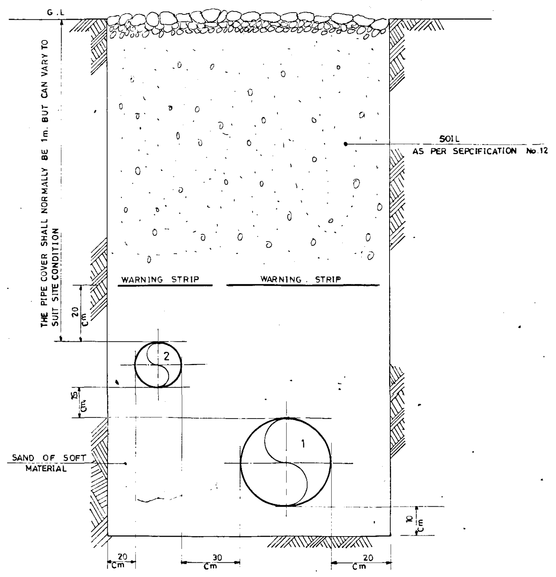
NOTE.

1. LIMITS OF BORING TO EXTEND (1.5 m) BEYOND TOE OF SLOPE ON EACH SIDE OF CANAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO CONCRETE LINER & LEVEES AND SHALL REPAIR ANY DAMAGE TO THE SATISIFACTION OF THE CANAL OWNER.
3. CONSTRUCTION POINT BETWEEN PRESENT CONCRETE AND REPLACED CONCRETE SHALL CONSIST OF JOINT FILLER OF MIXED ASPHALT AND MINERL FILLER COMPLYING WITH A.A. S.S.H.O. M.89 PENETRATION GRADE 40 TO 50.

No.4 TRENCH CROSS SECTION BASIC GRID OR DISTRIBUTION NETWORK



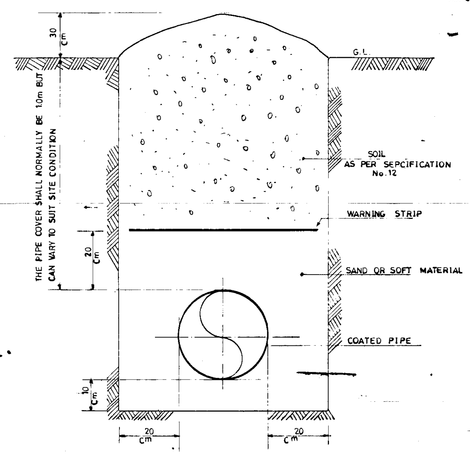
No.5 TRENCH CROSS SECTION BASIC GRID AND DISTRBUTION PIPELINE IN THE SAME TRENCH FOR PIPE LINE UP TO 12"



NOTE.

1. PIPELINE WITH DESIGN PRESSURE 50, 250 PSIG AND O.D 6, 12"
2. PIPELINE WITH DESIGN PRESSURE 60 PSIG AND O.D 2, 6"

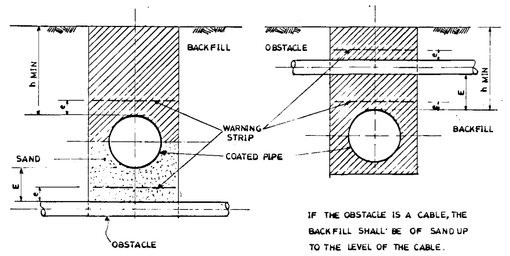
No.6 TRENCH CROSS SECTION BASIC GRID (RING) OR DISTRIBUTION NETWORK



NOTE.

1. THIS DRAWING IS APPLICABLE TO N.I.G.C PRIVATE RIGHT OF WAY.
2. HIGH WAY RIGHT OF WAY

No.7 VICINITY OF UNDER GROUND UTILITIES



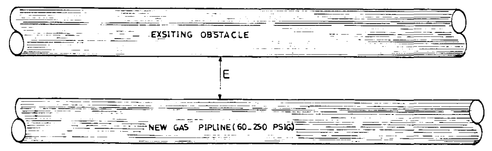
h = MINIMUM HEIGHT OF BACKFILL IN SPECIFICATIONS

e = MINIMUM PERMISSIBLE DISTANCE TANGENTS OF OBSTACLE OR OF THE PIPELINE AND WARNING DEVICE e = 0.20 M

E = MINIMUM PERMISSIBLE DISTANCE BETWEEN TANGENTS OF THE OBSTACLE AND THE PIPELINE

1. IF THE OBSTACLE IS A TELCOMMUNICATION CABLE OR A METAL PIPELINE OR OTHER WISE, FOR NON-INFLAMMABLES, E = 0.40 M
2. IF THE OBSTACLE IS AN ELECTRIC ENERGY TRANSMISSION CABLE REFER TO N.I.G.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 = 0.40 M OR THE DIAMETER OF LARGER PIPE.

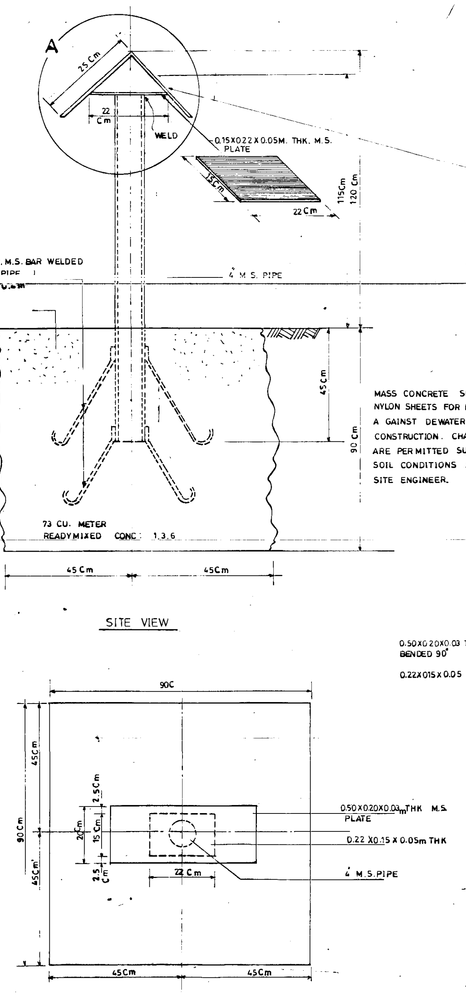
No.8 VICINITY OF PARALLEL UNDER GROUND UTILITES ALMOST AT SAME DEPTH

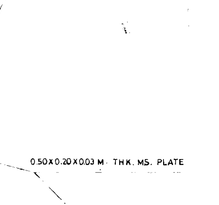


E = MINMUM PERMISSIBLE DISTANCE BETWEEN OBSTACLE AND NEW GAS PIPELINE

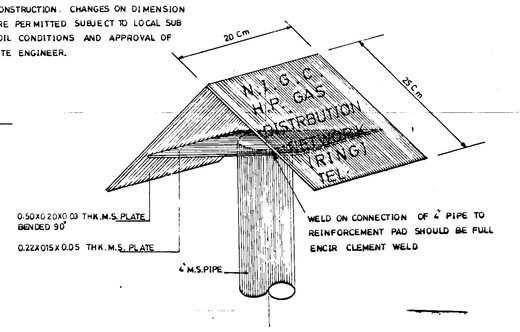
1. IF THE OBSTACLE IS A TELCOMMUNACATION CABLE OR METAL PIPELINE OR OTHER WISE, FOR NON INFLAMMABLES, E = 0.50M.
2. IF THE OBSTACLE IS AN ELECTIC ENERJY TRANSMISSION CABLE REFER TO N.I.G.C SAFETJ REGULATION STANDARD.
3. IF THE OBSTACLE IS METAL GAS PIPELINE FOR INFLAMMABLES A WITH DESIGN PRESSURE 60, 250 PSIG, E = 0.60 M OR THE DIAMETER OF LARGER PIPE

No.9 TYPICAL GAS-LINE MARKER



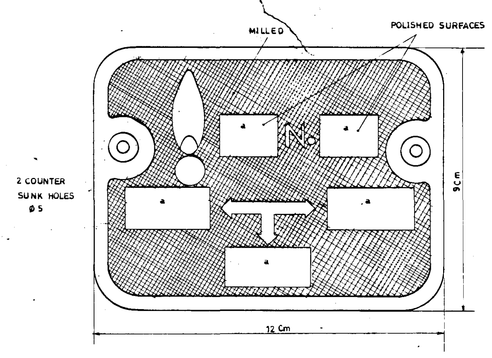


MASS CONCRETE SEPARATED BY NYLON SHEETS FOR PROTECTION A GAINST DEWATERING DURING CONSTRUCTION. CHANGES ON DIMENSION ARE PERMITTED SUBJECT TO LOCAL SUB SOIL CONDITIONS AND APPROVAL OF SITE ENGINEER.



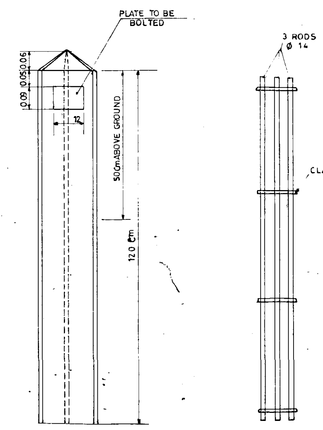
DETAIL 'A'

No.10 VALVE INDICATOR PLATE



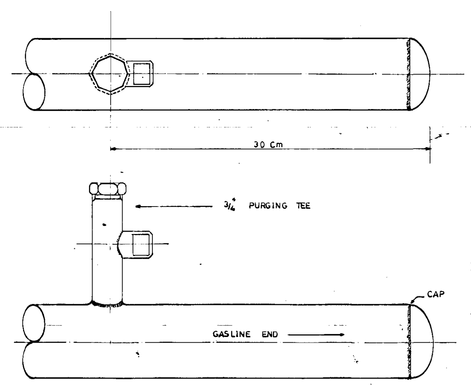
a. SURFACES TO BE STAMPED
MATERIAL : ALUMINUM OR CAST ALPAX
THICKNESS : 4 mm

No.11 TYPICAL MARKERS



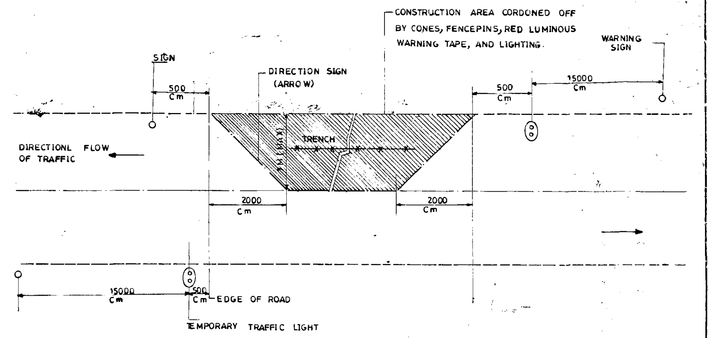
REINFORCEMENT AT LEAST 20mm FROM OUTSIDE SURFACE OF MARKER

No.12 TYPICAL INSTALLATION OF A PURGING POINT



1. A WELD ON ¾ PURGING TEE IS TO BE FITTED ADJACENT TO ALL CAPS.

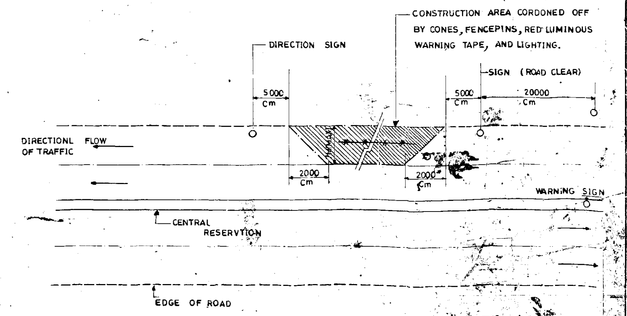
No.13 SPACING AND ARRANGEMENT OF ROAD SIGNS FOR GAS PIPELINE CONSTRUCTION (SINGLE CARRIAGEWAY ROAD)



NOTE

FOR TRANCH WORK CONSTRUCTED ACROSS THE CARRIAGE WAY THE EATENT OF THE WORKS SHOULD BE LIMITED TO HALF OF THE ROADS WIDTH

No.14 SPACING AND ARRANGEMENT OF ROAD SIGNS FOR GAS PIPELINE CONSTRUCTION DUAL OR MULTIPLE LANE CARRIAGEWAY ROAD



REV.	DESCRIPTION	DRAWN	CHECK	APP	DATE
F					
E					
D					
C					
B					
A					

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 (GRAVAL OR DIRT ROAD, STREAM, CANAL) TRENCH CROSS SECTION, VICINITY OF UNDER GROUND UTIL TIES, PIPELINE MARKER, INDICATOR PLATE INSTALLATION OF A PURGING POINT AND SPACING FOR ROAD SIGN

DRAWN	CHECKED	BUD. REF.	SCALE	DRAWING No.	REV.
A.G.	M. BOLOORI			SM. 6021	
DESIGNED	DES. CHECK.	APPROVED	DATE		
N.I.G.C.	M. GHAYECHI, E. SHOKRIAN	F. SANAVDAJI	BAH. 63		