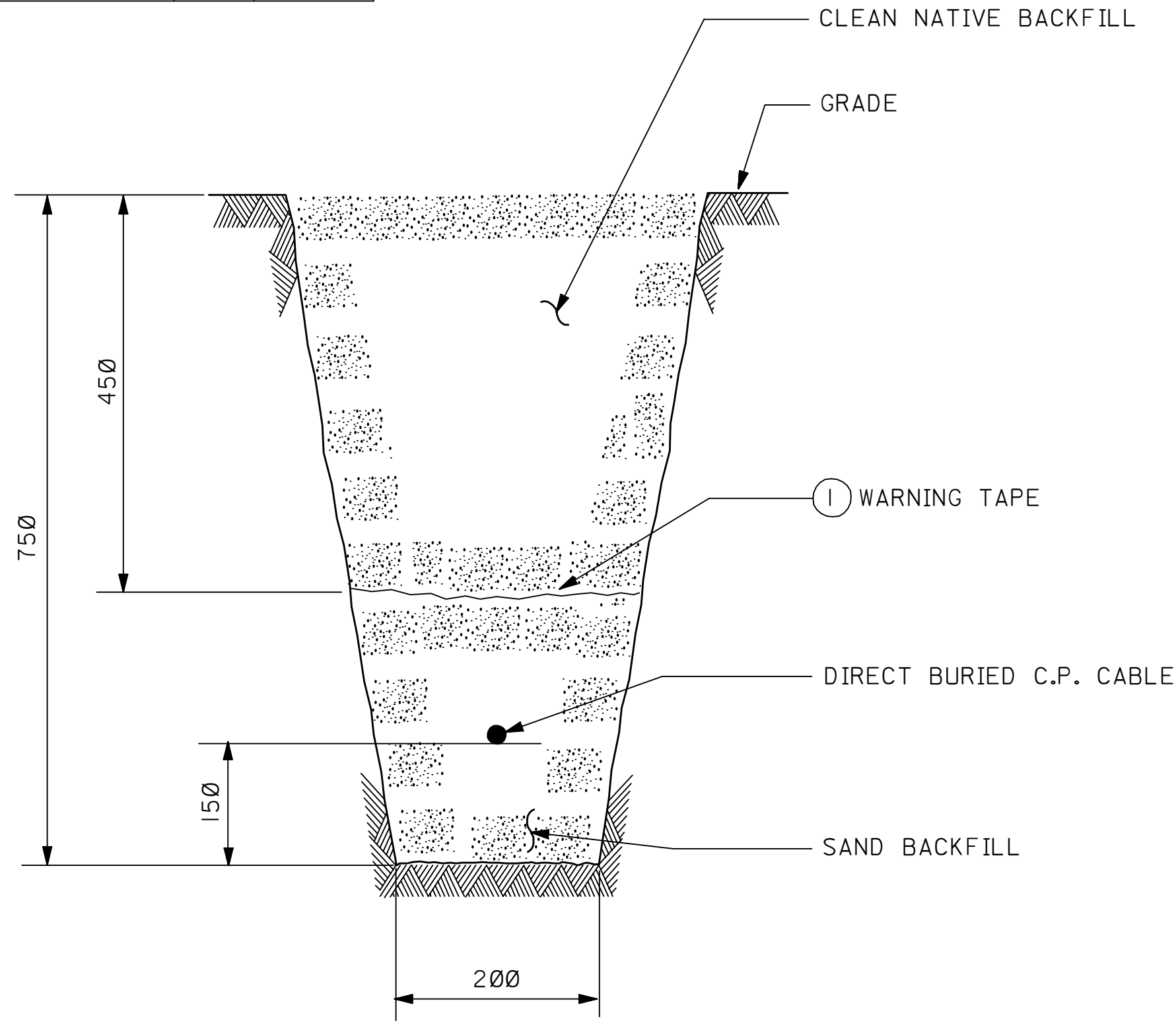
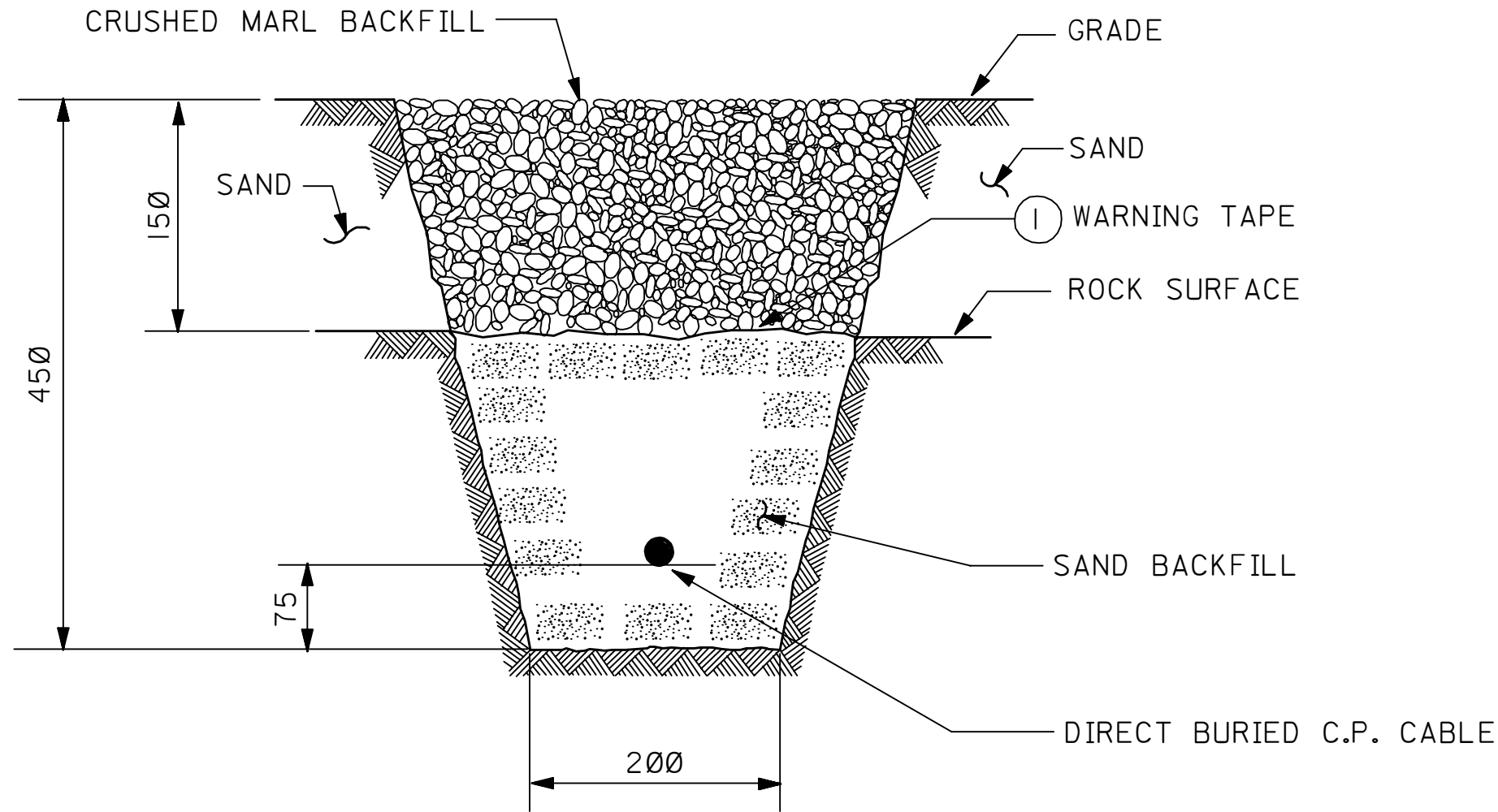
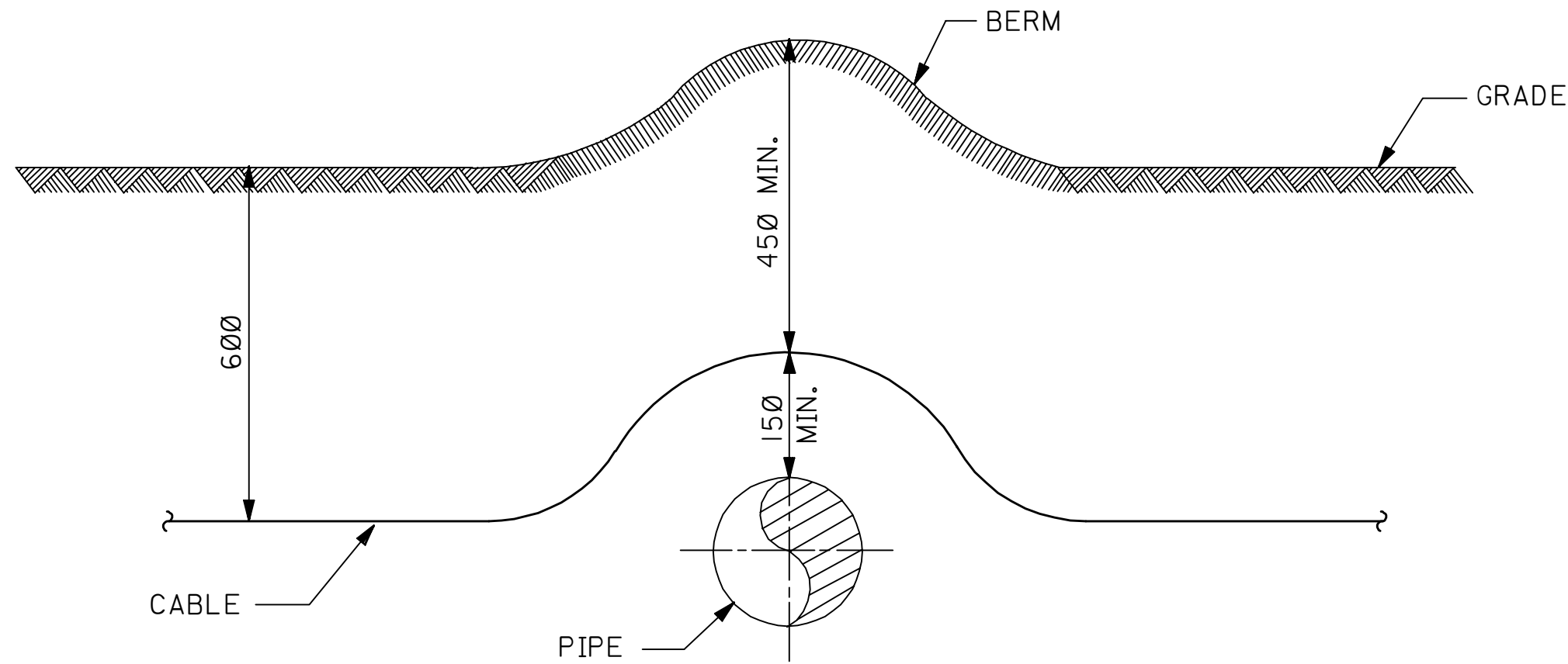




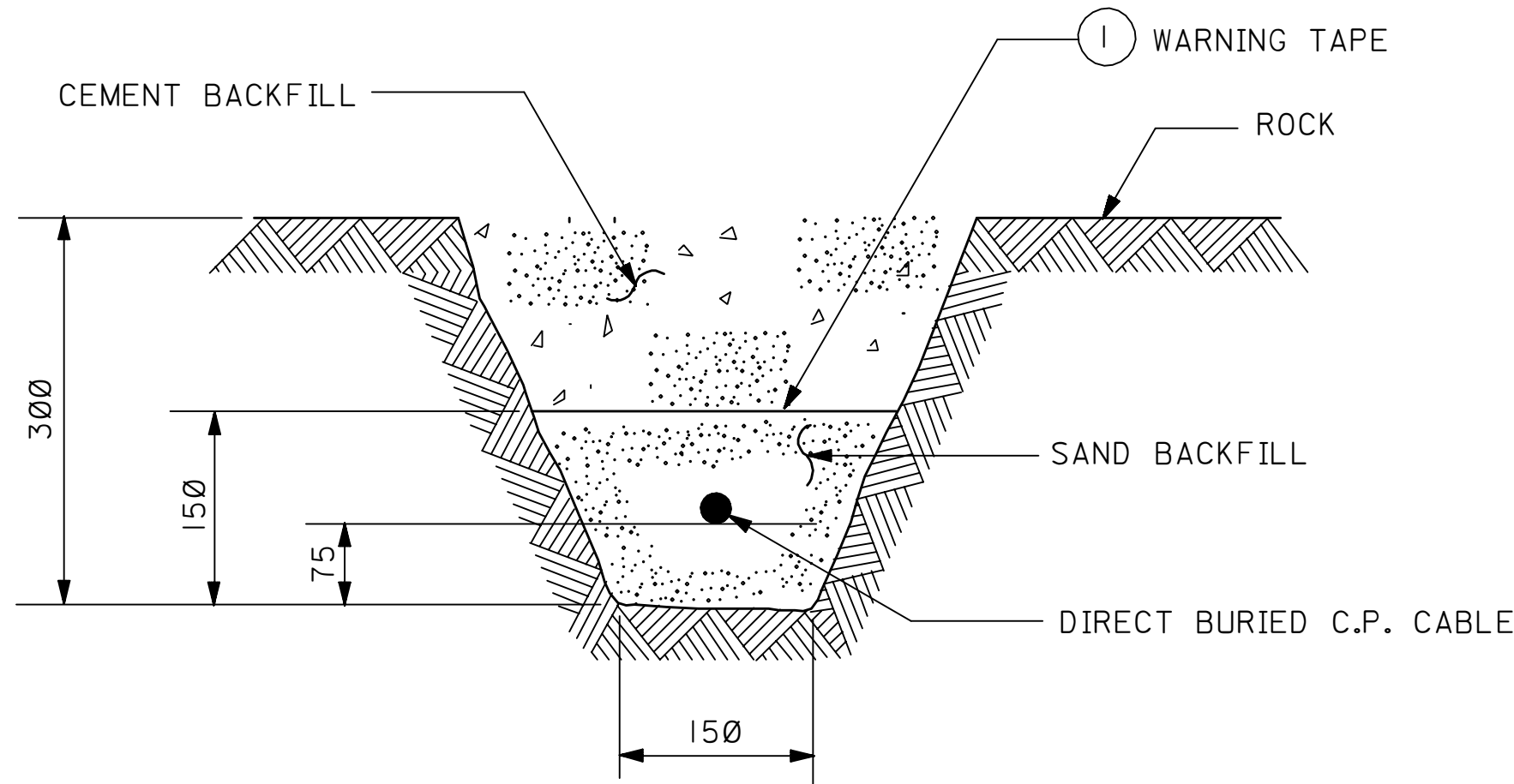
DETAIL-1
SAND OR SUBKHA INSTALLATION



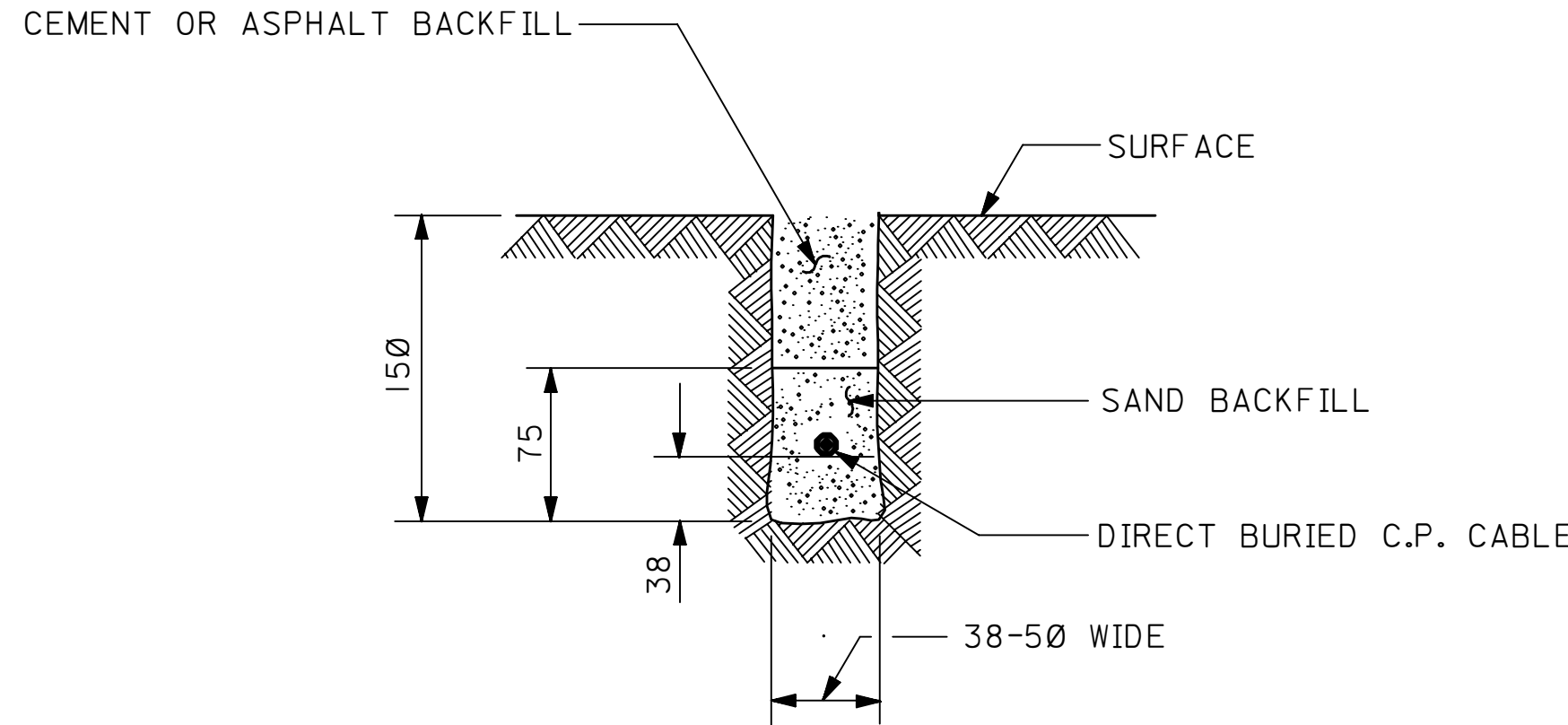
DETAIL-2
SAND AND ROCK INSTALLATION



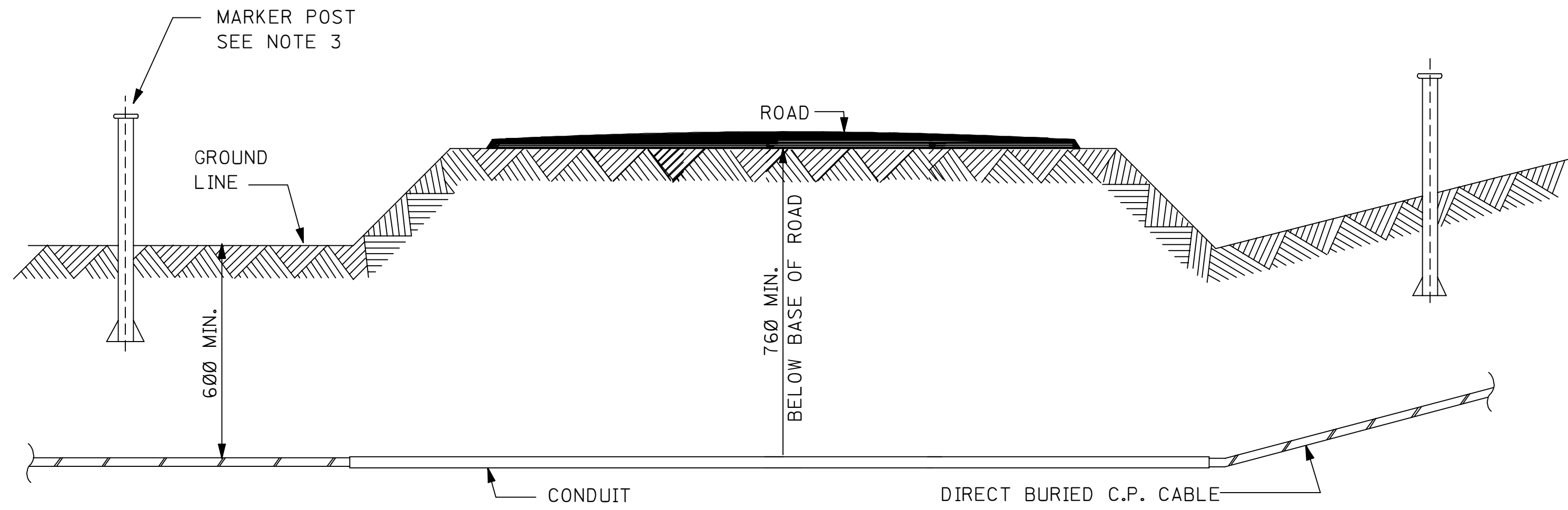
DETAIL-3
PIPELINE CROSSING DETAILS
SEE NOTE 9



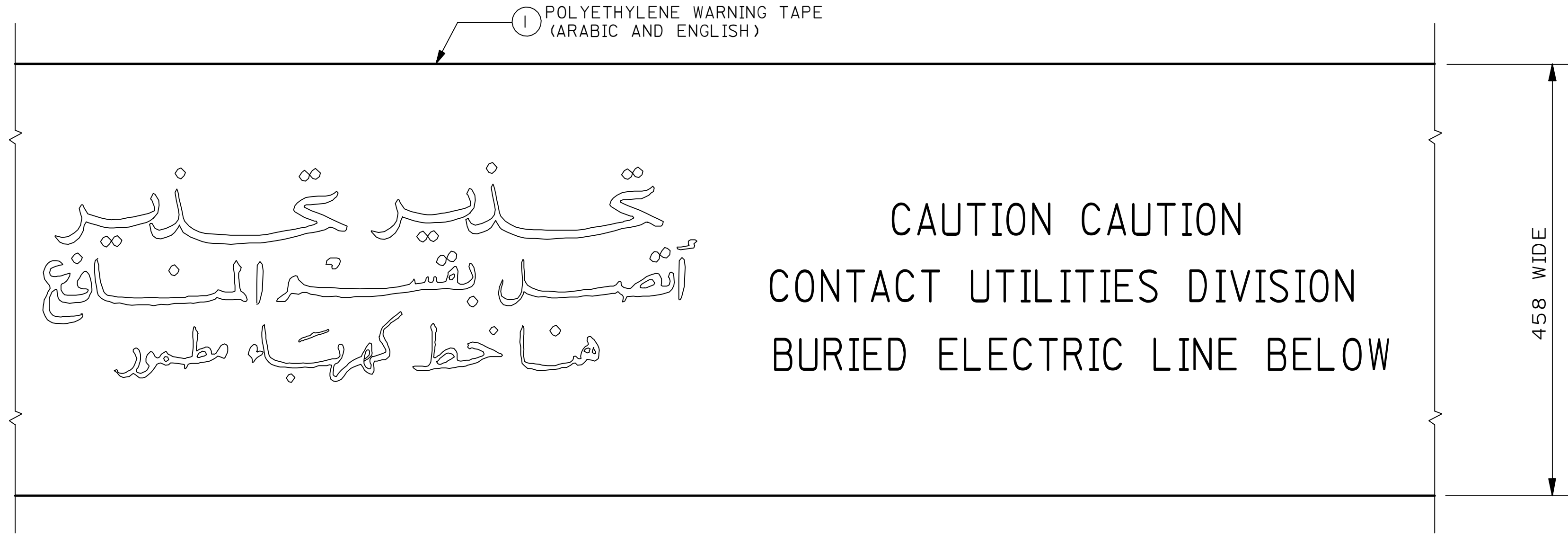
DETAIL-4
ROCK INSTALLATION



DETAIL-5
CONCRETE OR ASPHALT INSTALLATION
SINGLE SAW CUT



DETAIL-6
ROAD CROSSING DETAILS
SEE NOTE 10



MATERIAL LIST			
CODE	AMS NUMBER	UNIT	DESCRIPTION
I	21-568-222	RO	TAPE: WARNING, POLYETHYLENE

- NOTES:
- THE BOTTOM OF THE CABLE TRENCH SHALL BE FREE OF SHARP STONES AND EDGES.
 - ALL CABLES SHALL BE CENTERED IN A RUBBLE FREE CUSHION OF SUFFICIENT CLEAN SAND TO AVOID DAMAGE TO CABLE INSULATION.
 - CABLE ROUTES SHALL BE IDENTIFIED WITH CABLE MARKINGS IN ACCORDANCE WITH STANDARD DRAWING AB-036351 & AB-036273.
 - MULTIPLE CP CONDUCTORS MAY BE RUN IN THE SAME TRENCH. CP REMOTE MONITORING INSTRUMENTATION WIRING CAN ALSO BE INSTALLED IN THE SAME TRENCH AS THE CP CONDUCTORS.
 - ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - CABLE INSTALLATION MUST COMPLY WITH APPLICABLE 'SAES-X' STANDARD.
 - WHEN INSTALLING CATHODIC PROTECTION CABLES ON A WELL PAD, AND WITHIN 60 METERS OF THE WELL HEAD, INSTALL CABLES ACCORDING TO DETAIL 1.
 - CABLE INSTALLATION BENEATH THE PIPELINE IS ACCEPTABLE PROVIDED A MINIMUM 300 mm CLEARANCE IS MAINTAINED BETWEEN THE PIPELINE AND THE CABLE.
 - FOR POSITIVE & NEGATIVE CP CABLES AT ROAD CROSSING, USE MIN. 2-INCH SCH. 80 PVC CONDUIT TO PROTECT CATHODIC PROTECTION CABLE INSULATION. EITHER INSTALL BUSING ENDS AT PVC CONDUIT ENDS OR CHAMFER ENDS OF PVC CONDUIT.
 - FOR NEW CONSTRUCTION IN PLANT AREAS, INSTALL CP CABLES ACCORDING TO STANDARD DRAWING AD-036874. FOR EXISTING ASPHALT OR CONCRETE INSTALLATIONS, INSTALL CP CABLES PER DETAIL 5 OF THIS DRAWING.
 - CATHODIC PROTECTION CABLE INSTALLATION BY PLOWING SHALL BE ALLOWED ONLY IN SAND OR SUBKHA SOILS.

REFERENCE DRAWINGS

MARKER PLATE DETAILS CATHODIC PROTECTION	AB-036351
SURFACE MARKER UNDERGROUND ELEC. CABLE	AB-036273
STANDARD SIGN "UNDERGROUND ELECTRIC CABLE"	AB-036326
DIRECT BURIED CABLE & CONDUIT	AD-036874

DRAWING RESPONSIBILITY: CATHODIC PROTECTION STANDARDS COMMITTEE					
06	APR99	EDSD WED	REVISED NOTES & DIMENSIONS ON POLYETHYLENE WARNING TAPE		
05	AUG95	ESSO RLO	ADDED NOTE-10.	ORIG. SIGNED	ORIG. SIGNED
04	MAY94	ESSO RCR	ADDED NOTE 9 & REVISED DIMENSIONS ON PIPELINE CROSSING DETAILS.	ORIG. SIGNED	ORIG. SIGNED
03	JUN92	ESSO EFE	DRAWING DIGITIZED INTO CADD DATABASE WITHOUT CHANGES & ADD NOTE # 8	ORIG. SIGNED	ORIG. SIGNED
REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT. APPD.
		JD/EWO			
SAUDI ARABIAN OIL COMPANY					
DRAWN BY <u>A.B.M.S.</u> CHECKED BY _____ SCALE: <u>NONE</u>					
DATE STARTED _____ DATE COMPLETED _____					
OPR'G. DEPT. _____ ENG. DEPT. _____					
APP'D. FOR CONST. _____					
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED			CERTIFIED BY _____ DATE _____		
CATHODIC PROTECTION					
INSTALLATION DETAILS					
DIRECT BURIED CABLE					
STD. DWG.				METRIC	
PLANT NO.	INDEX	DRAWING NUMBER		SHT. NO.	REV. NO.
9900	X	AA-036675		001	06