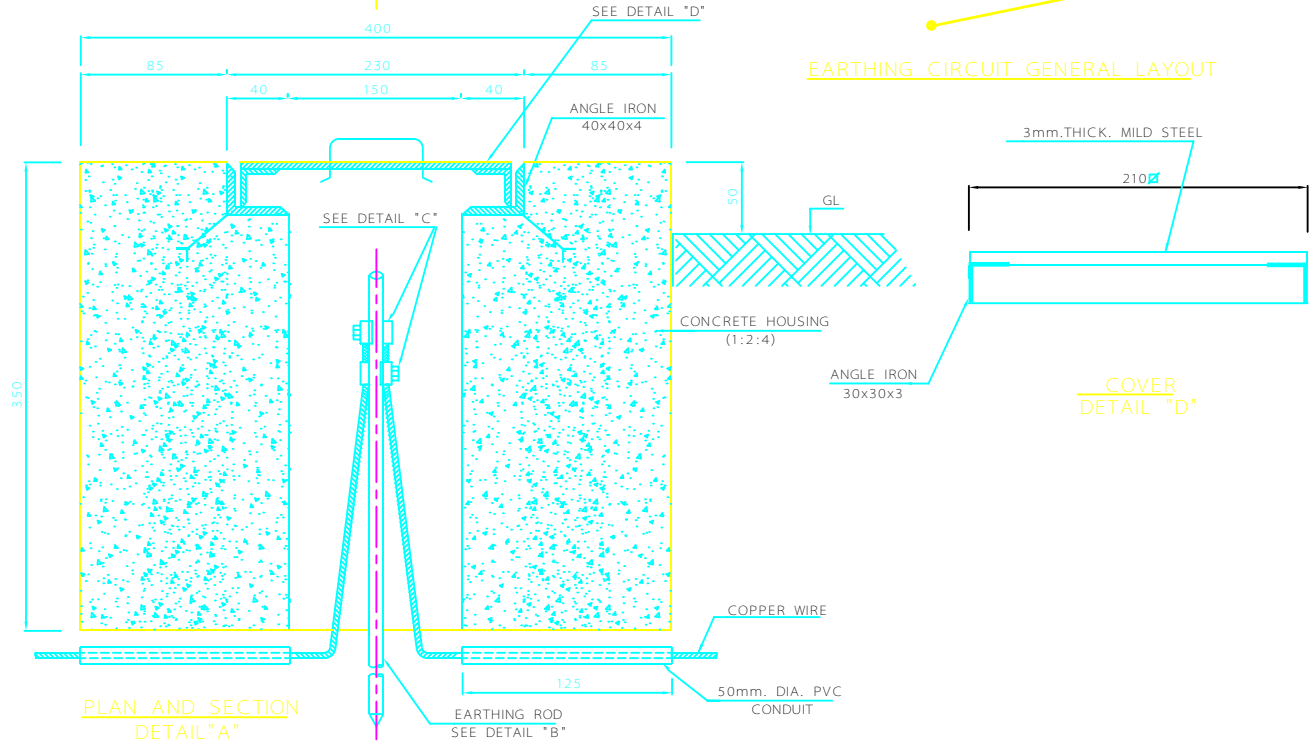


EARTHING CIRCUIT GENERAL LAYOUT




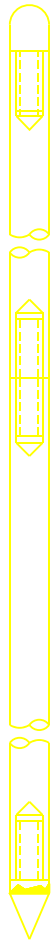
PLAN AND SECTION  
DETAIL "A"

COVER  
DETAIL "D"

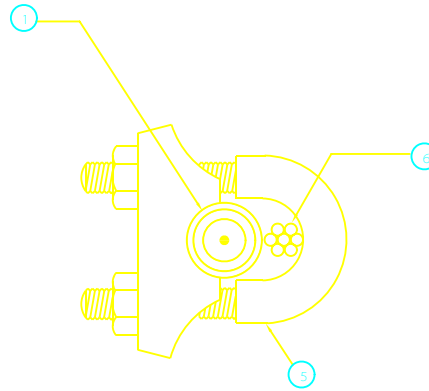
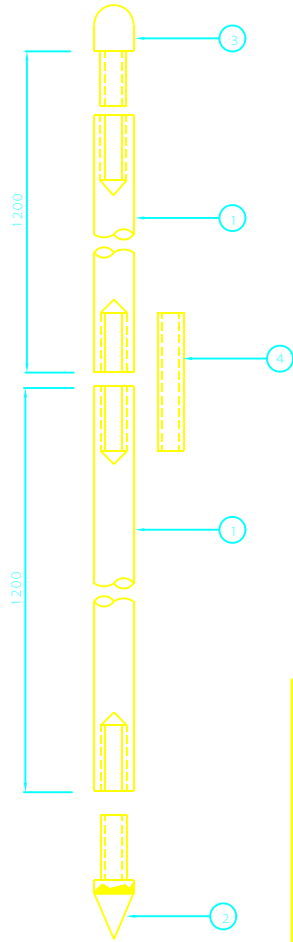
### NOTES

- 1- ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE NOTED.
- 2- THE CABLE TO ROD CONNECTION SHALL BE MADE USING "U"CLAMP AND THE CONNECTION SHALL BE PROPERLY INSULATED BY WRAPPING WITH PRESSURE SENSITIVE ELECTRICAL ADHESIVE TAPE
- 3- ALL CONNECTIONS AND JOINTS MUST BE THOROUGHLY PROTECTED TO PREVENT ANY MOISTURE INGRESS.
- 4- EARTH PIT TO BE MADE OF CONCRETE MIX 1:2:4 BY DRY VOLUME.
- 5- THE COVER FOR THE EARTH PIT WOULD CONSIST OF THE FOLLOWING:
  - 5.1- 3cm.x3cm. ANGLE IRON SHALL BE USED TO FRAME THE COVER.
  - 5.2- COVER PLATE SHALL BE 3mm.THICK. MILD STEEL.
  - 5.3- THE COVER HANDLE SHALL BE MADE USING 10mm DIA. CARBON STEEL ROD.
- 6- THE WHOLE METALLIC SURFACES OF ITEM 5 ABOVE SHALL BE PAINTED WITH FOLLOWING PROCEDURE:
  - A) SURFACE PREPARATION TO Sa 2 1/2
  - B) ONE RED LEAD PRIMER (70 MICRONS) TO IPS-M-TP-115.
  - C) ONE INTERMEDIATE COAT OF ALKYD PAINT (100 MICRONS, AT LEAST) TO IPS-M-TP-130
  - D) ONE FINISHING COAT OF ALKYD PAINT (100 MICRONS) TO IPS-M-TP-130, COLOR LIGHT GREY TO BS 381C No. 631. (TOTAL THICKNESS OF PAINTING 270 MICRONS, AT LEAST).
- 7- EARTH SYMBOL SHALL BE PRINTED ON PIT'S COVER.
- 8- THE CABLE BETWEEN EARTHING ROD AND TRANSFORMER/RECTIFIER GROUND CONNECTION SHALL BE SINGLE CORE 35sqmm. COPPER CONDUCTOR.
- 9- C.P. EQUIPMENT WILL BE CONNECTED USING A SPLIT BOLT CABLE CONNECTOR 35sqmm. (IPS-M-TP-750/12).THE EARTHING CABLE BEING ONLY STRIPPED ON 5cm. THE CONNECTIONS WILL BE CAREFULLY INSULATED WITH SPLICING KIT (IPS-M-TP-750/11).
- 10- THE TOTAL RESISTANCE OF EARTHING SYSTEM SHALL NOT EXCEED 5 OHMS. IF GREATER THAN 5 OHMS, SUPPLEMENTAL EARTHING ROD AND PIT SHALL BE INSTALLED AT THE DISTANCE OF MORE THAN A TOTAL LENGTH OF THE ELECTRODE RODS(COUPLED) AND CONNECTED TOGETHER BY GROUNDING CONNECTION, UNTIL AN ACCEPTABLE VALUE IS OBTAINED.
- 11- IN THE CASE OF AN EQUIPOTENTIAL BOND TO AN EXISTING GROUNDING, THE CABLE WILL BE IDENTICAL TO THAT INDICATED HERE ABOVE (SEE NOTE B).

C			
B			
A			
REV	DESCRIPTION	DATE	
IRANIAN PETROLEUM STANDARDS 			
NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
CATHODIC PROTECTION SYSTEM EARTHING SYSTEM (TYPICAL)			
DATE	DRAWING No.	SHEET	REV.
	IPS-D-TP-717	1/2	



EARTHING ROD AND ACCESSORIES  
DETAIL "B"



CABLE - ROD CONNECTION  
DETAIL "C"

MATERIAL LIST (FOR TWO PIT SYSTEM)

ITEM	MATERIALS	QTY.	SPECIFICATION
1	EXTENSIBLE EARTH ROD, HARD DRAWN COPPER, 15mm. DIA., 1200mm. LENGTH, WITH INTERNAL THREADS.	4	BS 2874 GRADE C10
2	DRIVING TIP, NITRIDING STEEL SUITABLE FOR 15mm. DIA. INTERNAL THREADED ROD.	2	BS 970 (PART 2) GRADE 905 M39
3	DRIVING CAP, TOOL STEEL (STEEL CONTAINING TUNGSTEN), SUITABLE FOR 15mm. DIA. INTERNAL THREADED ROD.	2	BS 4659 GRADE B01
4	COUPLING SCREW, PHOSPHOR - BRONZE - COPPER ALLOY, SUITABLE FOR 15mm. DIA. INTERNAL THREADED ROD.	2	BS 2874
5	CONDUCTOR CLAMP "U" BOLT C/W NUTS OF PHOSPHOR - BRONZE - COPPER ALLOY.	5	BS 2874
6	EARTHING WIRE, HARD DRAWN STRANDED COPPER CONDUCTOR, SINGLE CORE, 35 SQ. mm.	20m	

NOTES

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS   
NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

CATHODIC PROTECTION SYSTEM  
EARTHING SYSTEM

DATE	DRAWING No.	SHEET	REV.
	IPS - D - TP - 717	2	2