IMPORTANT

* BEFORE EXECUTION PLEASE CAREFULLY GO THROUGH THE ENCLOSED GUIDELINES *

* ALL DIMENSIONS ARE IN METER

NOT TO SCALE

SALIENT DESIGN FEATURES

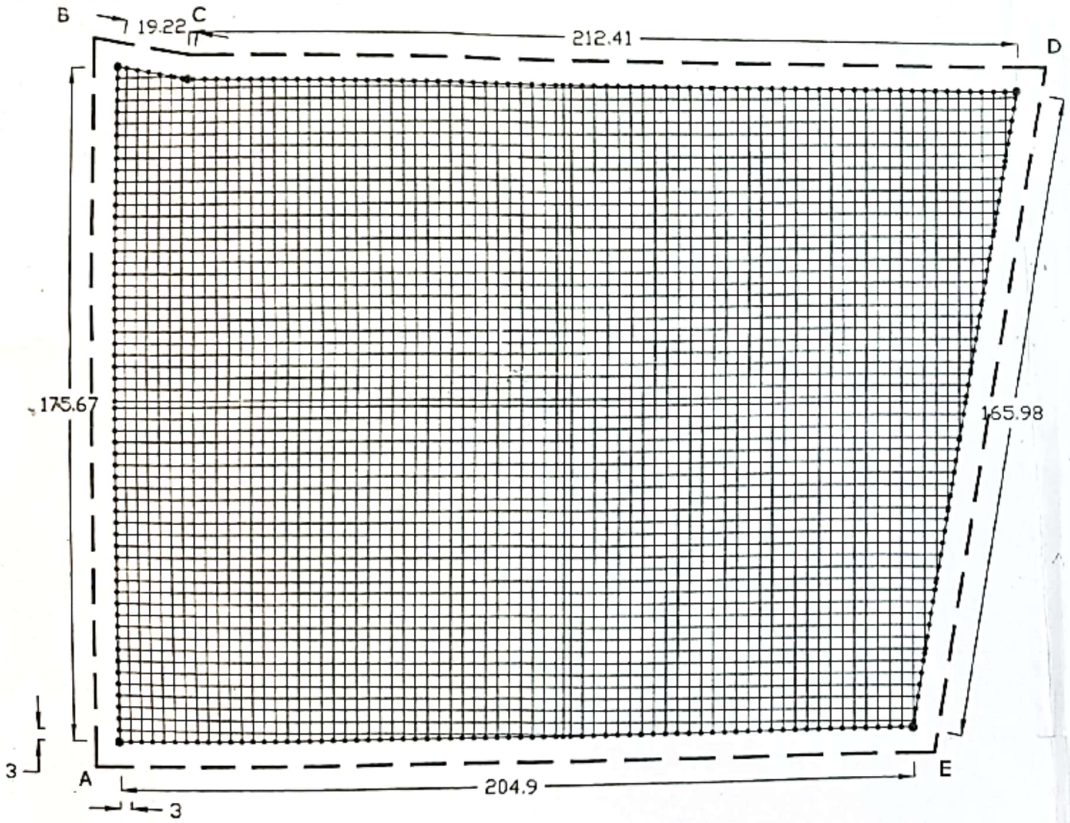
AREA COVERED BY EARTHMAT IN SQ MTR	37227
DEPTH OF BURIAL OF EARTHMAT IN MTR	0.9
SPACING BETWEEN MAT CONDUCTOR (M.S. FLAT) IN MTR	3
SIZE OF EARTHMAT CONDUCTOR (M.S.FLAT) IN MM	75 X 12 MM

SPREADING OF GRANITE METAL JELLY OF SIZE 20/25 MM TO A HEIGHT OF 100 MM OVER THE ENTIRE EARTH MAT AREA.

BILL OF MATERIALS (APPROXIMATE QUANTITY) FOR EARTHMAT FORMATION & FENCING.

(AS PER THE LAYOUT DRAWING NO.KPTCL/TECH/SS-220/BYDG-4 DTD:16.10.2023)

1.Excavation,formation,refilling	11764	Cmtr.
2.Material for formation of earthmat as per specification		
a)M.S.Flat 75 X 12 MM	26404	Mtr.
b)MS Round rods 25 mm dia,1.05 Mt. long	270	No.
c)G.I.Flats 75 X 12 MM for earth connection	10086	Mtr.
d)Cast iron pipe electrodes of 100 mm Id,13 mm thick,2.75 mtr.long	114	No.
e)Spreading of Granite metal jelly of size 20/25 mm size to a height of 100 mm	3723	Cmtr.
f) Deep bore electrodes of 40mm dia, 10 Mtr long	20	Nos.



NOTE:

1. EARTHMAT DESIGNED FOR BREAKER CAPACITY OF 50 KA.
2. TRANSFORMER CAPACITY:
   3 X 100 MVA, 220/110 KV VOLTAGE CLASS +
   1 X 10 MVA, 110/11 KV VOLTAGE CLASS.
3. 'ABCDEA' INDICATES PROPOSED EARTHMAT OF AREA 37227 SQ MTR WITH 75 X 12 MM MS FLAT AT 3 MTR SPACING.
4. PROPOSED 20 Nos DEEP BORE ELECTRODES OF 40 MM DIA 10 MTR LONG,20 MTR SPACING SHALL BE MAINTAINED BETWEEN ANY TWO ELECTRODES.
5. PROPOSED EARTHMAT SHALL BE EXECUTED DULY OBSERVING R&D GUIDELINES.

— — FENCE SHALL BE AT A MINIMUM DISTANCE OF 1.5 METERS AWAY FROM THE PERIPHERY OF THE STATION EARTHMAT

• 25 MM DIA M.S. ROUND RODS OF LENGTH ONE METER TO BE DRIVEN AS SHOWN

● C.I.PIPE ELECTRODES PROPOSED (MIN. 5.5 MTR SPACING SHALL BE MAINTAINED BETWEEN ANY TWO ELECTRODES)

R & D CENTRE, K P T C L		
DRG NO. SEE/R&D/EEE/KCO-116/F-106(5) Dtd. 28-09-2023		
6/12/23	6/12/23	6/12/2023
AEEE	EEE	SEE

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