

# EARTHMAT FOR THE PROPOSED 132-110/11 KV STATION (UPGRADATION OF EXISTING 33KV SUB-STATION) @ BOMMANAHALLI IN HANGAL (T), HAVERI (D)

## IMPORTANT

\* NOT TO SCALE

\* THE NO OF CAST IRON PIPE ELECTRODES SHALL BE PROVIDED AS PER GUIDELINES

\* BEFORE EXECUTION PLEASE CAREFULLY GO THROUGH THE ENCLOSED GUIDELINES \*

\* ALL DIMENSIONS ARE IN METER

## SALIENT DESIGN FEATURES

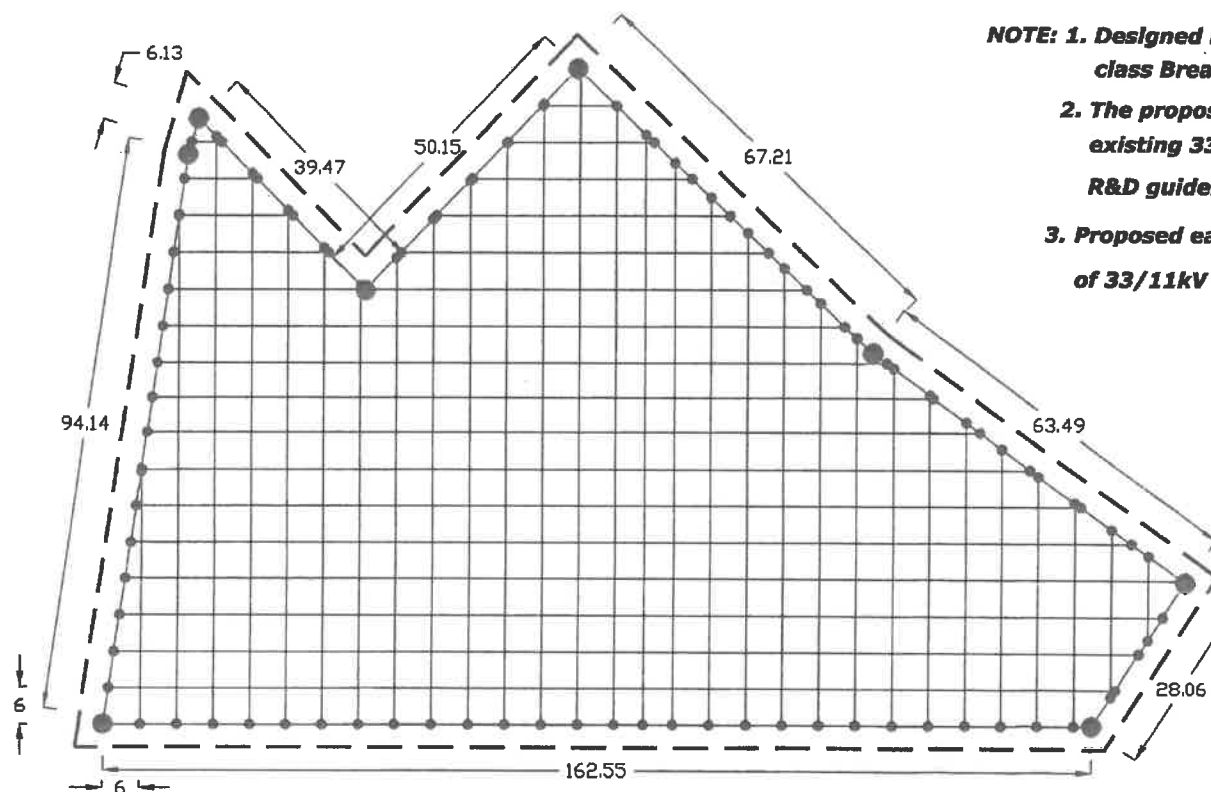
AREA COVERED BY EARTHMAT IN SQ MTR	12326
DEPTH OF BURIAL OF EARTHMAT IN MTR	0.9
SPACING BETWEEN MAT CONDUCTOR (M.S. FLAT) IN MTR	6
SIZE OF EARTHMAT CONDUCTOR (M.S.FLAT) IN MM	75 X 12 MM

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

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

REF: Letter no.: 10069-76 dated: 31.08.2024 (Drg. no.: KPTCL/TECH/SS-132/874-A dated: 06.08.2024) of the CEE, P&C.

1.Excavation,formation,refilling	2300	Cmtr.
2.Material for formation of earthmat as per specification		
a)M.S.Flat 75 X 12 MM	5163	Mtr.
b)MS Round rods 40 mm dia,1.075 Mt. long	102	No.
c)G.I.Flats 75 X 12 MM for earth connection	2010	Mtr.
d)Cast iron pipe electrodes of 100 mm Id,13 mm thick,2.75 mtr.long	56	No.
e)Spreading of Granite metal jelly of size 20/25 mm size to a height of 100 mm	1233	Cmtr.



**NOTE: 1. Designed by considering fault current of 40kA i.e., 132kV class Breaker STC with 0.75 grid factor.**

**2. The proposed earthmat of area 12326 sq.m (excluding existing 33kV sub-station area) shall be laid duly observing R&D guidelines.**

**3. Proposed earthmat is independent of the existing earthmat of 33/11kV sub-station.**

— — — 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

• ADDITIONAL C.I.PIPE ELECTRODES PROPOSED (Minimum spacing of 5.5m shall be maintained between any two electrodes)

**R & D CENTRE, K P T C L**

DRG NO. SEE/R&D/EEE/KCO-169/2024-25/F-107(6) Dtd. 17-9-2024

S. Anurag 20/9/2024 AEEE	S. Anurag 20/9/24 EEE	S. Anurag 20.9.2024 SEE
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