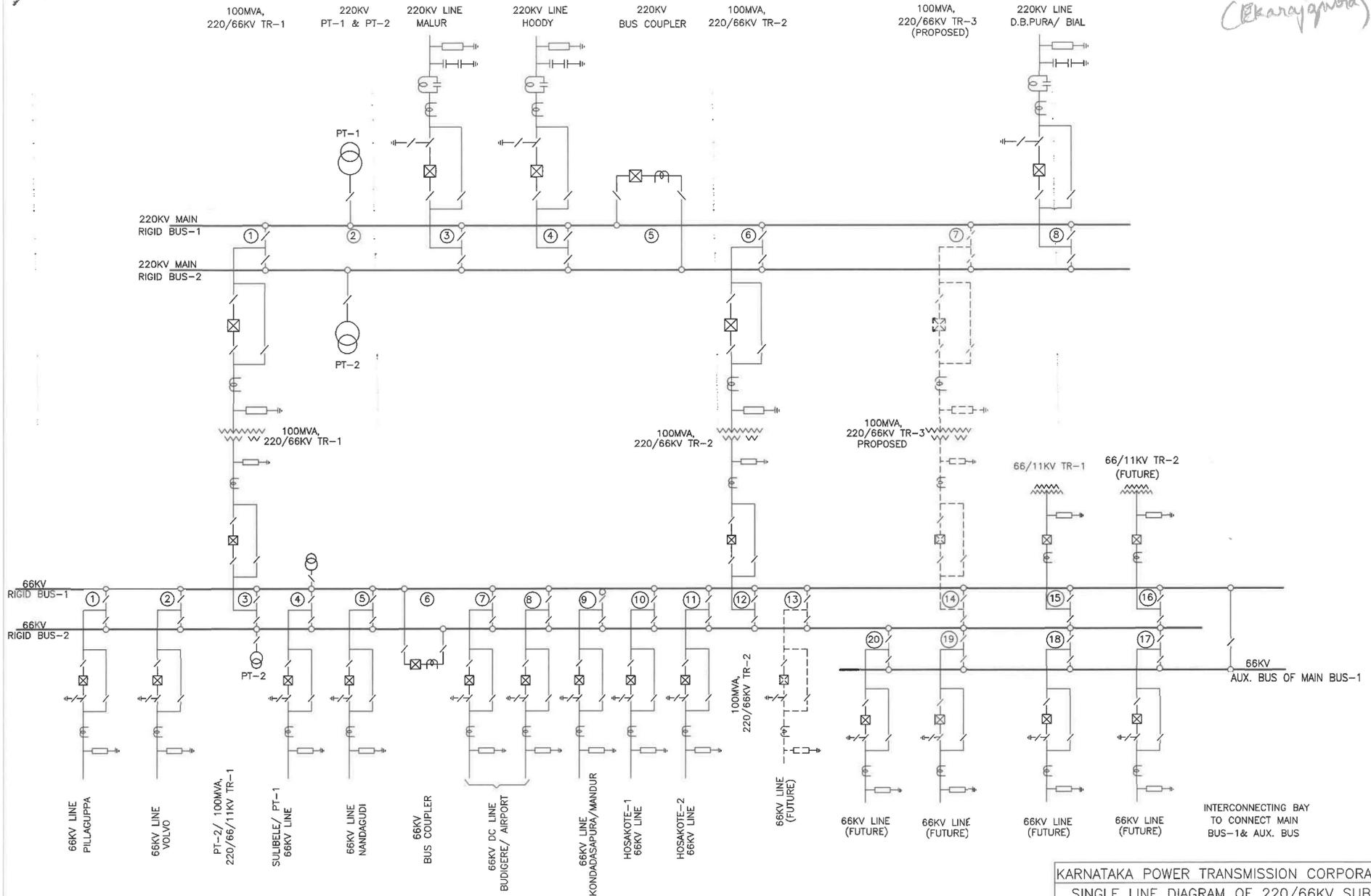


220KV Hosakote  
(Karakoram)

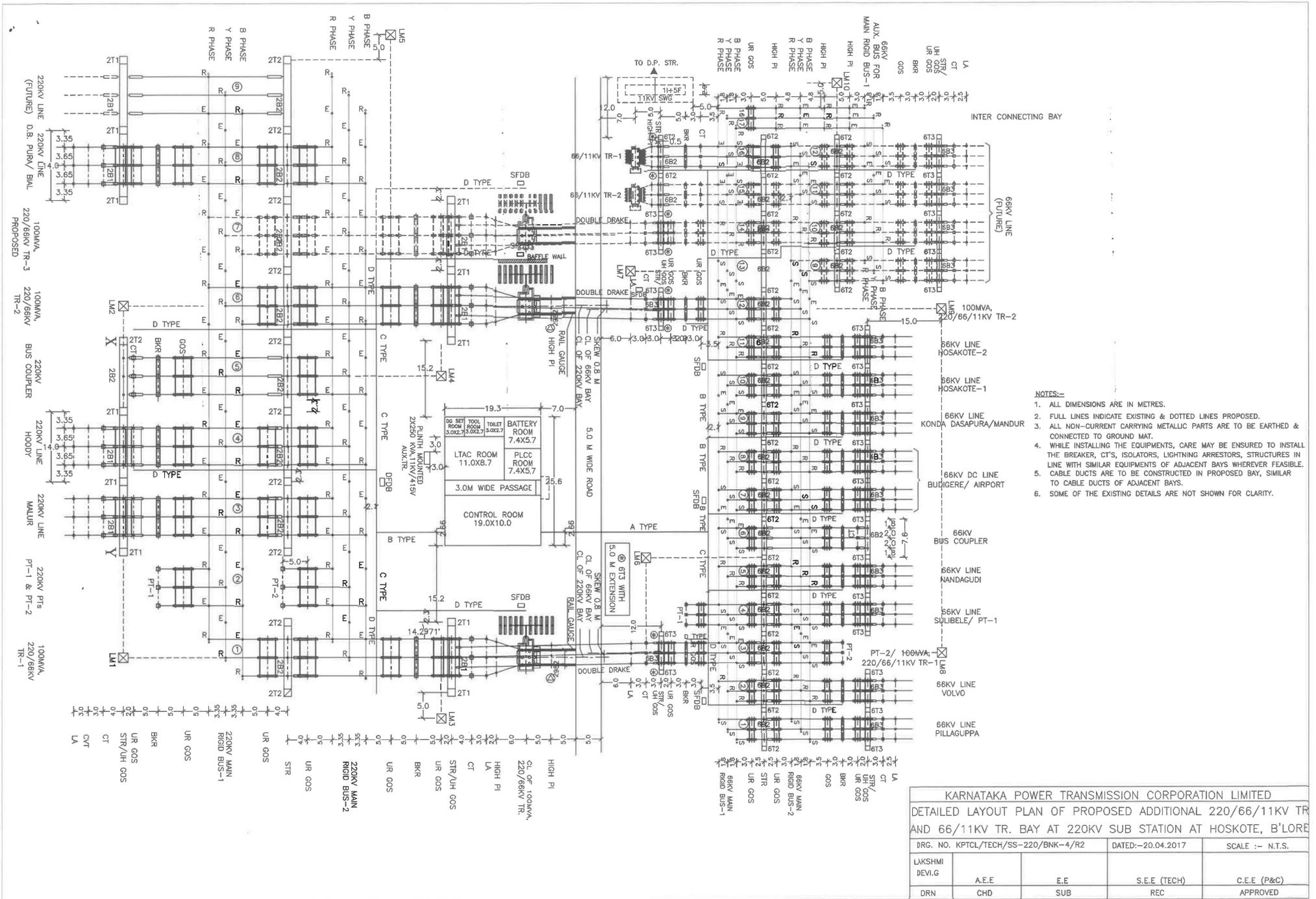


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

SINGLE LINE DIAGRAM OF 220/66KV SUB STATION AT HOSKOTE

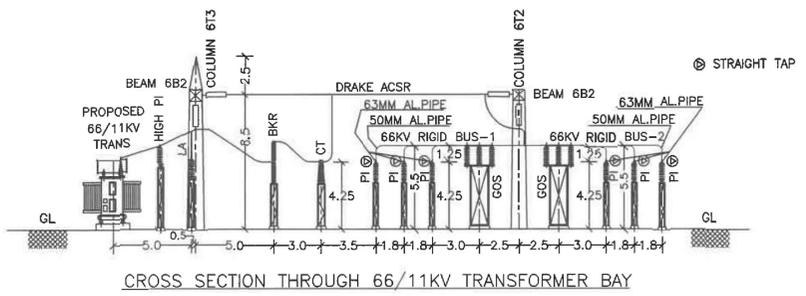
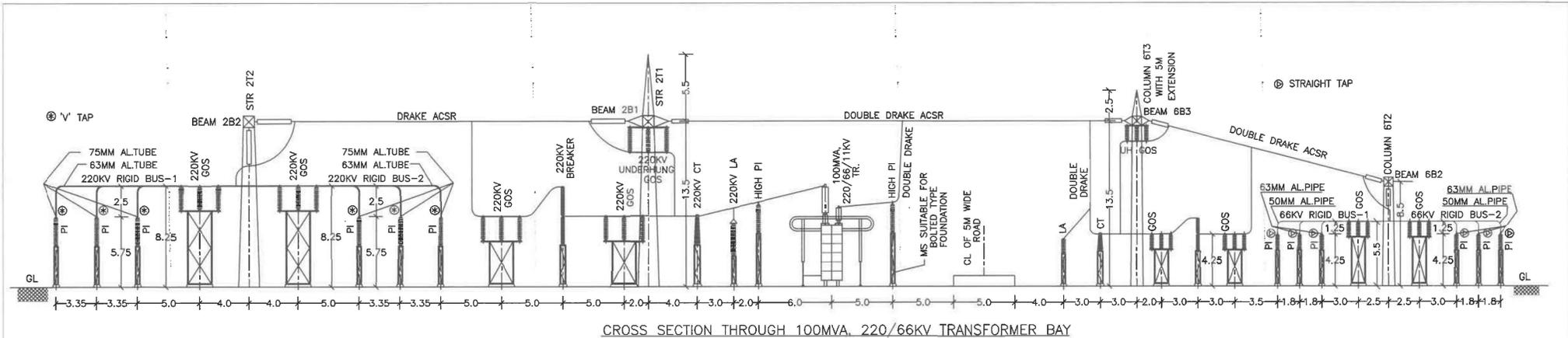
DRG.NO.KPTL/TECH/SS-220/HKT-1/R2 DATE:-20.04.2017 SCALE :- N.T.S

LAKSHMI DEVI.G	A.E.E	F.E	S.E.E (TECH)	C.E.E (P&C)
DRN	CHD	SUB	REC	APPROVED



- NOTES:-
1. ALL DIMENSIONS ARE IN METRES.
  2. FULL LINES INDICATE EXISTING & DOTTED LINES PROPOSED.
  3. ALL NON-CURRENT CARRYING METALLIC PARTS ARE TO BE EARTHED & CONNECTED TO GROUND MAT.
  4. WHILE INSTALLING THE EQUIPMENTS, CARE MAY BE ENSURED TO INSTALL THE BREAKER, CT'S, ISOLATORS, LIGHTNING ARRESTORS, STRUCTURES IN LINE WITH SIMILAR EQUIPMENTS OF ADJACENT BAYS WHEREVER FEASIBLE.
  5. CABLE DUCTS ARE TO BE CONSTRUCTED IN PROPOSED BAY, SIMILAR TO CABLE DUCTS OF ADJACENT BAYS.
  6. SOME OF THE EXISTING DETAILS ARE NOT SHOWN FOR CLARITY.

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED			
DETAILED LAYOUT PLAN OF PROPOSED ADDITIONAL 220/66/11KV TR AND 66/11KV TR. BAY AT 220KV SUB STATION AT HOSKOTE, B'LORE			
DRG. NO.	KPTCL/TECH/SS-220/BNK-4/R2	DATED:-	20.04.2017
SCALE	:- N.T.S.		
LAKSHMI	A.E.E	E.E	S.E.E (TECH)
DEVLG			C.E.E (P&C)
DRN	CHD	SUB	REC
			APPROVED



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED				
CROSS SECTION THROUGH ADDITIONAL 220/66/11KV TR. & 66/11KV TR. BAY AT 220KV SUB-STATION AT HOSKOTE, BANGALORE				
DRG. NO. KPTCL/SS-220/ BNK-5/R2			DATE:- 20.04.2017	
			SCALE:- NTS	
LAKSHMI DEVLG	A.E.E	E.E	S.E (TECH)	C.E.E (P&C)
DRN	CHD	SUB	REC	APPROVED

# REVISED EARTHMAT FOR THE PROPOSED 220 KV STATION @ HOSKOTE, BAGALORE RURAL DISTRICT.

**IMPORTANT**

\* NOT TO SCALE

\* THE NO OF CAST IRON PIPE ELECTRODES SHALL BE PROVIDED AS PER GUIDELINES (ITEM 2, 4, 5 & 12 OF GUIDELINES)  
 \* BEFORE EXECUTION PLEASE CAREFULLY GO THROUGH THE ENCLOSED GUIDELINES \*

\* ALL DIMENSIONS ARE IN METER

## SALIENT DESIGN FEATURES

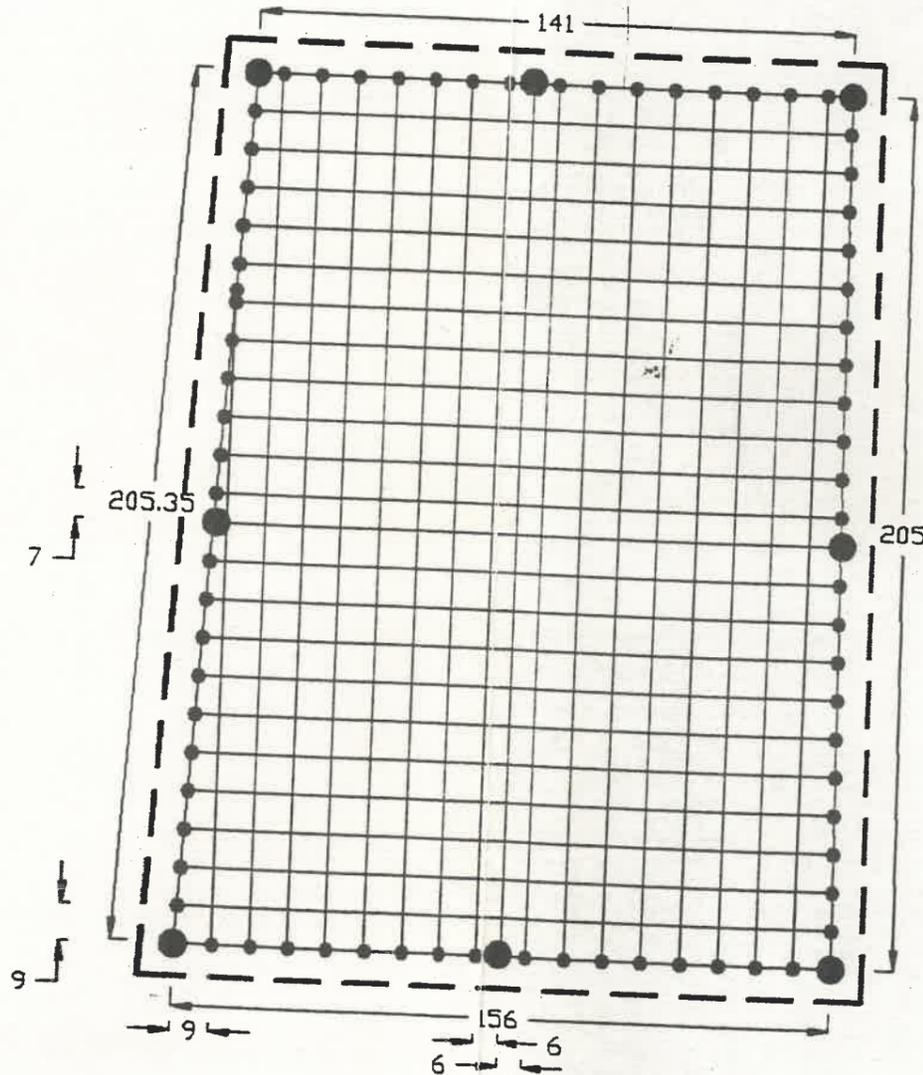
AREA COVERED BY EARTHMAT IN SQ MTR	30443
DEPTH OF BURIAL OF EARTHMAT IN MTR	0.9
SPACING BETWEEN MAT CONDUCTOR (M.S. FLAT) IN MTR	9
SIZE OF EARTHMAT CONDUCTOR (M.S.FLAT) IN MM	50 X 6 MM

**SPREADING OF GRANITE METAL JELLY OF SIZE 20/25 MM TO A HEIGHT OF 100 MM OVER THE EQUIPMENT BAYS ONLY.**

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

(AS PER THE LAYOUT DRAWING NO. DRAWING ENCLOSED TO ABOVE REFERENCE)

1. Excavation, formation, refilling	3658	Cmtr.
2. Material for formation of earthmat as per specification	8210	Mtr.
a) M.S. Flat 50 X 6 MM	74	No.
b) MS Round rods 25 mm dia, 1.05 Mt. long	9809	Mtr.
c) G.I. Flats 50 X 6 MM for earth connection	101	No.
d) Cast iron pipe electrodes of 100 mm Id, 13 mm thick, 2.75 mtr. long		
e) Spreading of Granite metal jelly of size 20/25 mm size to a height of 100 mm		Equip. Bays only

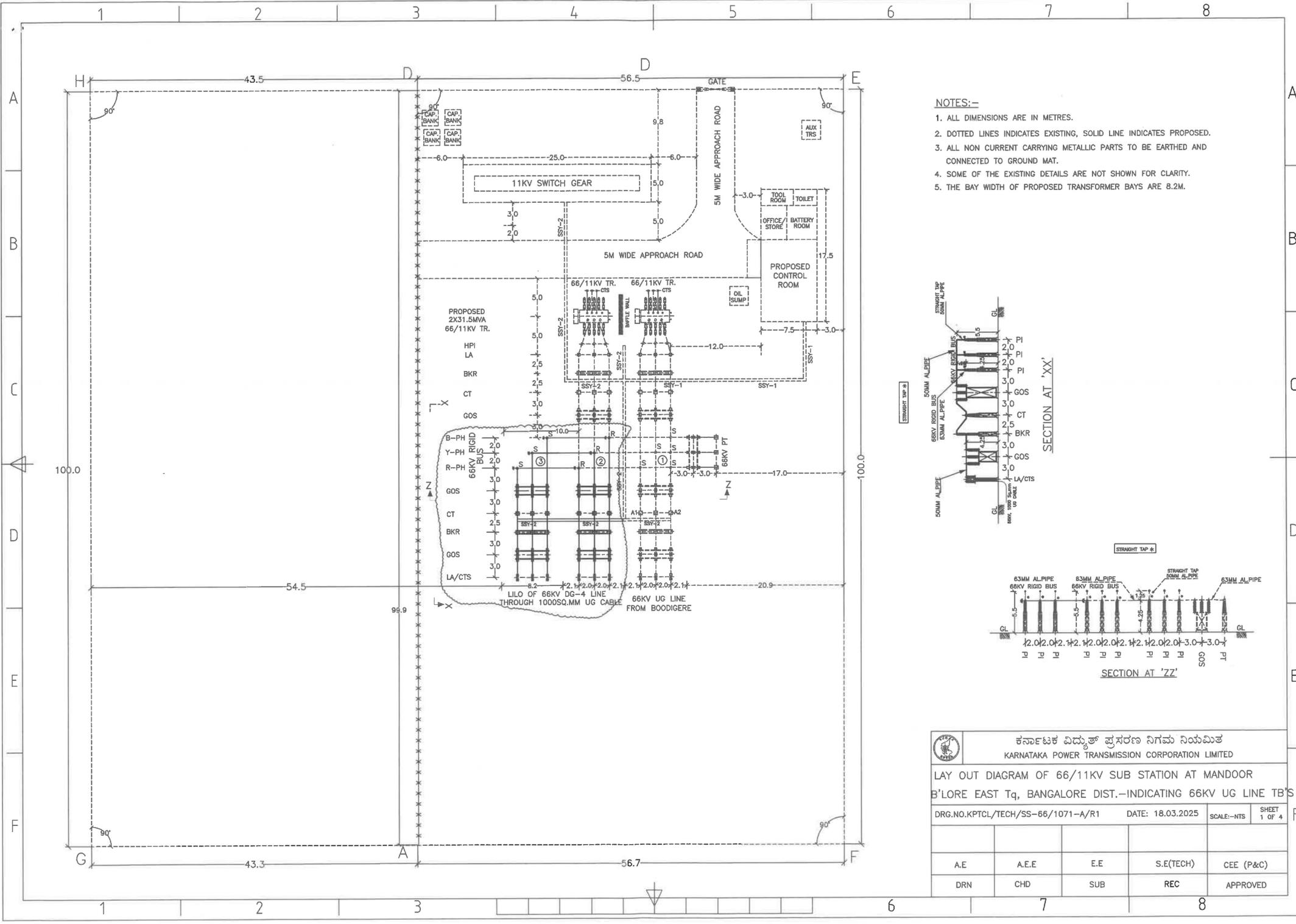


--- FENCE SHALL BE AT A MINIMUM DISTANCE OF 1.5 METERS AWAY FROM THE PERIPHERY OF THE STATION EARTHMAT

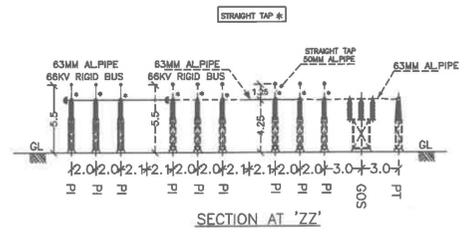
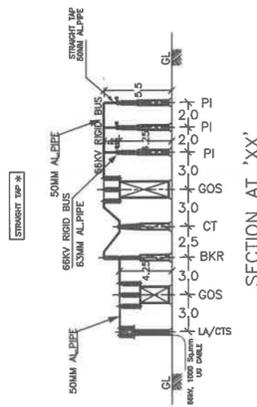
- 25 MM DIA M.S. ROUND RODS OF LENGTH ONE METER TO BE DRIVEN AS SHOWN
- ADDITIONAL C.I. PIPE ELECTRODES PROPOSED (REF. ENCLOSED SKETCH)

REVISION-1 Dtd. 8-10-2007	SUPERCEDES EARLIER DESIGN SENT VIDE LETTER NO SEE/R&D/F-4(1)/810-13/DTD:06-05-2006
<b>R &amp; D CENTRE, K P T C L</b>	
DRG NO. SEE/R&D/F4 (1) Dtd. 8-10-2007	
<i>Btd</i> 8/10/07	<i>V. Lakshminarayana</i> 8/10/07
AEEE	SEE





- NOTES:-**
1. ALL DIMENSIONS ARE IN METRES.
  2. DOTTED LINES INDICATES EXISTING, SOLID LINE INDICATES PROPOSED.
  3. ALL NON CURRENT CARRYING METALLIC PARTS TO BE EARTHED AND CONNECTED TO GROUND MAT.
  4. SOME OF THE EXISTING DETAILS ARE NOT SHOWN FOR CLARITY.
  5. THE BAY WIDTH OF PROPOSED TRANSFORMER BAYS ARE 8.2M.



ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಪ್ರಸಾರಣ ನಿಗಮ ನಿಯಮಿತ KARNATAKA POWER TRANSMISSION CORPORATION LIMITED				
LAY OUT DIAGRAM OF 66/11KV SUB STATION AT MANDOOR B'LORE EAST Tq, BANGALORE DIST.-INDICATING 66KV UG LINE TB'S				
DRG.NO.KPTCL/TECH/SS-66/1071-A/R1		DATE: 18.03.2025		SCALE:-NTS SHEET 1 OF 4
A.E	A.E.E	E.E	S.E(TECH)	CEE (P&C)
DRN	CHD	SUB	REC	APPROVED

# EARTHMAT FOR THE PROPOSED 66/11 KV STATION @ MANDUR IN BANGALURU EAST TALUK, BANGALURU URBAN DISTRICT.

**IMPORTANT**

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

\* NOT TO SCALE

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

\* ALL DIMENSIONS ARE IN METER

## SALIENT DESIGN FEATURES

AREA COVERED BY EARTHMAT IN SQ MTR	4258
DEPTH OF BURIAL OF EARTHMAT IN MTR	0.9
SPACING BETWEEN MAT CONDUCTOR (M.S. FLAT) IN MTR	2
SIZE OF EARTHMAT CONDUCTOR (M.S.FLAT) IN MM	75 X 8 MM

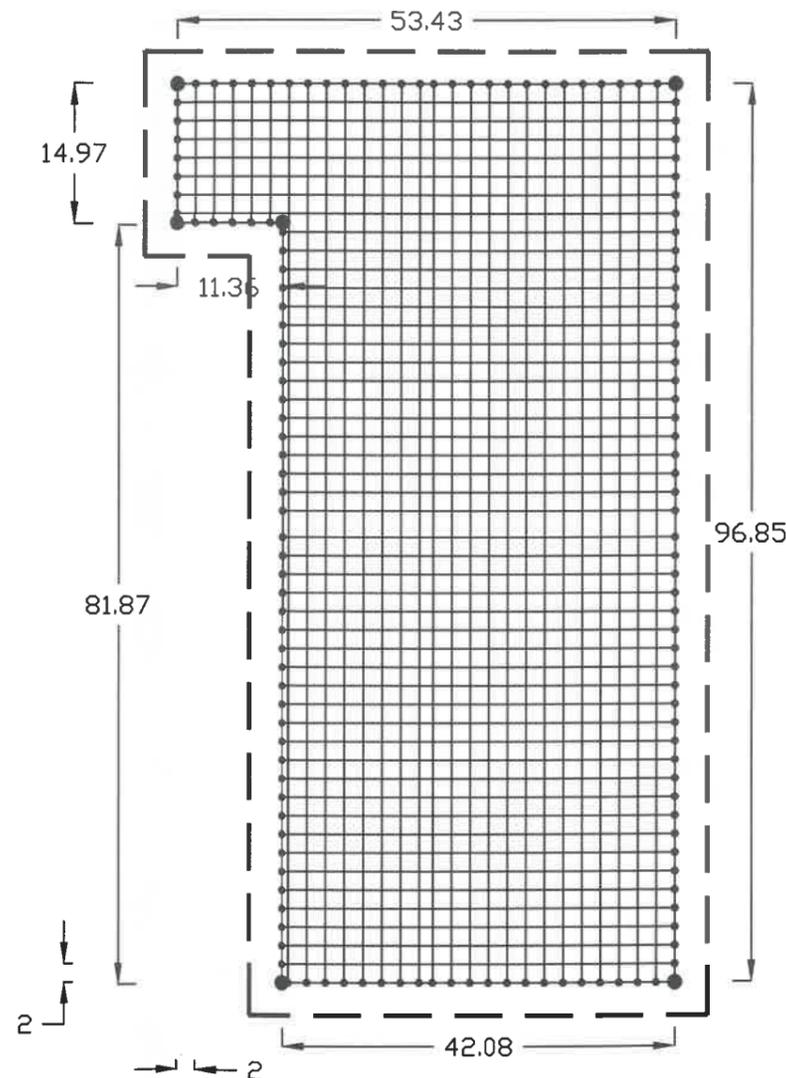
**SPREADING OF GRANITE METAL JELLY OF SIZE 20/25 MM TO A HEIGHT OF 100 MM OVER THE ENTIRE EARTH MAT AREA.**

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

REF: Layout drawing no.: KPTCL/TECH/SS-66/1071-A dated: 20.05.2022 of the CEE, P&C

1.Excavation,formation,refilling	2102	Cmtr.
2.Material for formation of earthmat as per specification		
a)M.S.Flat 75 X 8 MM	4719	Mtr.
b)MS Round rods 25 mm dia,1.05 Mt. long	148	No.
c)G.I.Flats 75 X 8 MM for earth connection	840	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	426	Cmtr.

**NOTE: Designed by considering fault current of 40kA (66kV class breaker STC) with 0.5 grid factor.**



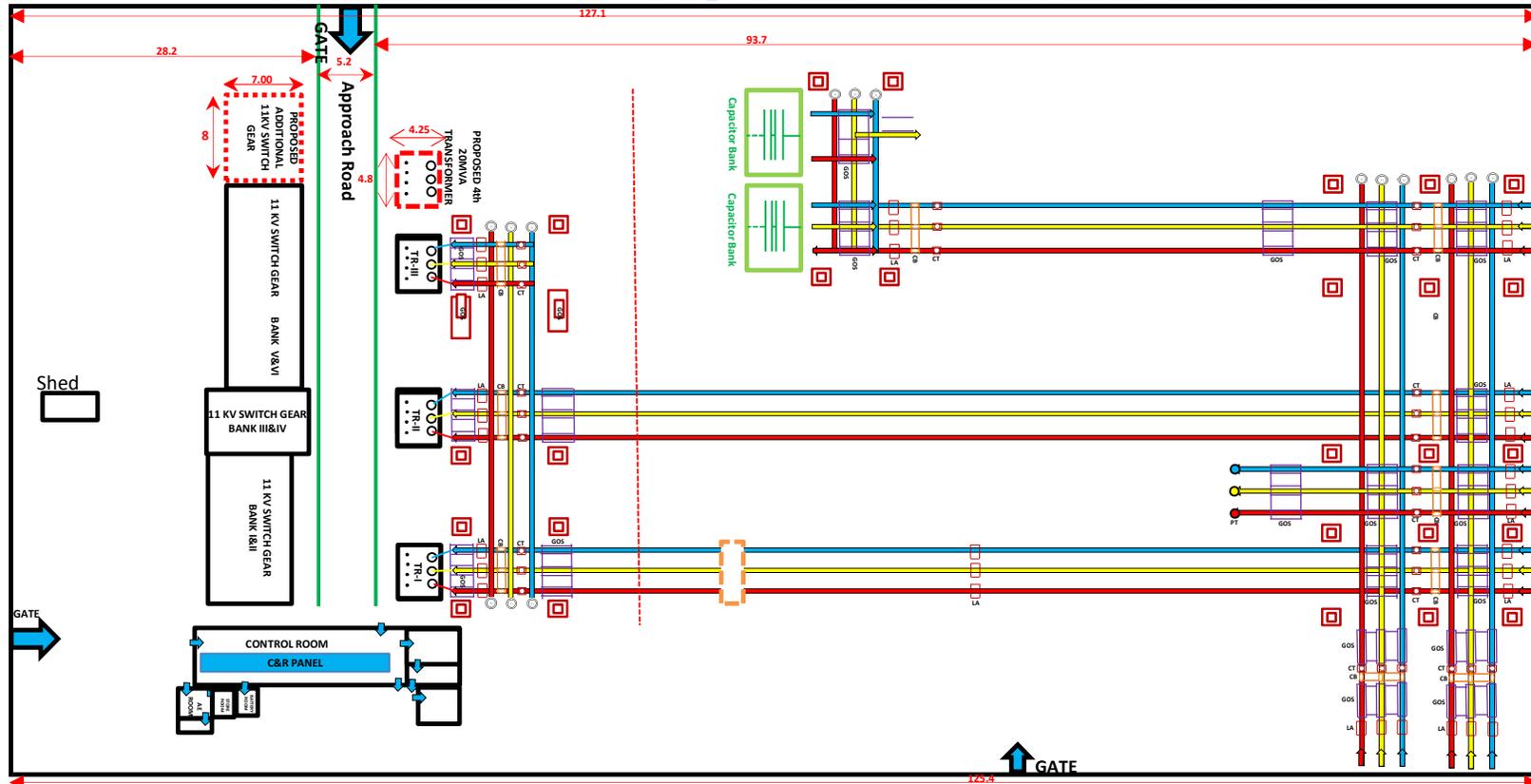
- — FENCE SHALL BE AT A MINIMUM DISTANCE OF 1.5 METERS AWAY FROM THE PERIPHERY OF THE STATION EARTHMAT
- 25 MM DIA M.S. ROUND RODS OF LENGTH ONE METER TO BE DRIVEN AS SHOWN
- ADDITIONAL C.I.PIPE ELECTRODES PROPOSED (Minimum spacing of 5.5m shall be maintained between any two electrodes)

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

DRG NO. SEE/R&D/EEE/KCO-169/2022-23/F-10(33) Dtd. 20-5-2022

S. Anusha 20/5/2022	S. Anusha 20/5/2022	[Signature]
<b>AEEE</b>	<b>EEEE</b>	<b>SEE</b>

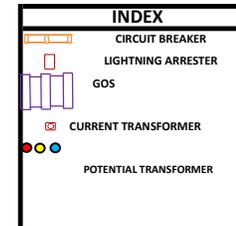
# LAYOUT DIAGRAM OF 66/11KV HOSKOTE MUSS



NOTE: ALL THE DIMENSIONS ARE IN METERS

Assistant Executive Engineer(E),  
Nodal officer, KPTCL,  
Ekarajapura, Hoskote.

Assistant Engineer(E),  
66/11kV substation, KPTCL,  
Hoskote.



Executive Engineer (E),  
TL&SS Division, KPTCL,  
BIAL Begur.



**ADDITIONAL EARTHMAT FOR THE EXISTING 66 KV STATION @ HOSKOTE, BANGALORE DISTRICT.**

**IMPORTANT**

\* THE NO OF CAST IRON PIPE ELECTRODES SHALL BE PROVIDED AS PER GUIDELINES (ITEM 2, 4, 5 & 12 OF GUIDELINES)

BTP

\* NOT TO SCALE

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

\* ALL DIMENSIONS ARE IN METER

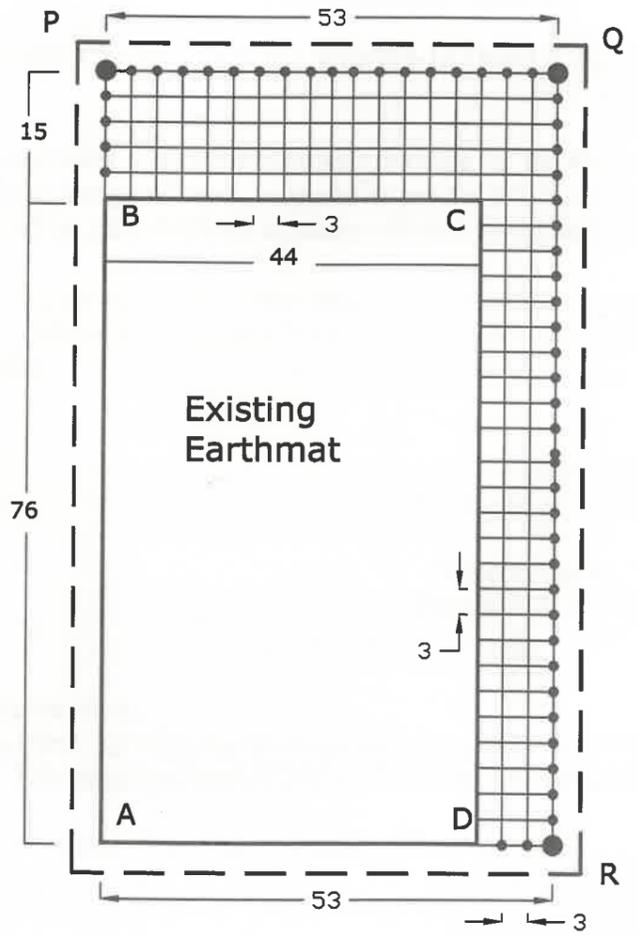
**SALIENT DESIGN FEATURES**

AREA COVERED BY EARTHMAT IN SQ MTR	1479
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	50 X 8 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.**

	ERR		
1. Excavation, formation, refilling	1671	Cmtr.	
2. Material for formation of earthmat as per specification			
a) M.S. Flat 50 X 8 MM	1070	Mtr.	
b) MS Round rods 25 mm dia, 1.05 Mt. long	52	No.	
c) G.I. Flats 50 X 8 MM for earth connection		Mtr.	
d) Cast iron pipe electrodes of 100 mm Id, 13 mm thick, 2.75 mtr. long	6	No.	
e) Spreading of Granite metal jelly of size 20/25 mm size to a height of 100 mm	15	Cmtr.	



**NOTE :**

- "ABCD" EXISTING EARTHMAT AREA OF 76 MTS X 44 MTS AS PER T.O DESIGN DATED 26-11-1994.
- "BPQRD" PROPOSED EARTHMAT FOR AN AREA OF 1479 SQ, MTS.
- THE EXISTING FENCE SHALL BE SHIFTED SUITABLY AND SHALL BE AT A MINIMUM DISTANCE OF 1.5 MTS. AWAY FROM THE PERIPHERY OF THE STATION EARTHMAT.

- 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 (REF. ENCLOSED SKETCH)

<b>R &amp; D CENTRE, K P T C L</b>		
DRG NO. SEE/R&D/F11 (2) Dtd. 29-1-2009		
AEEE	EEE 09	SEE