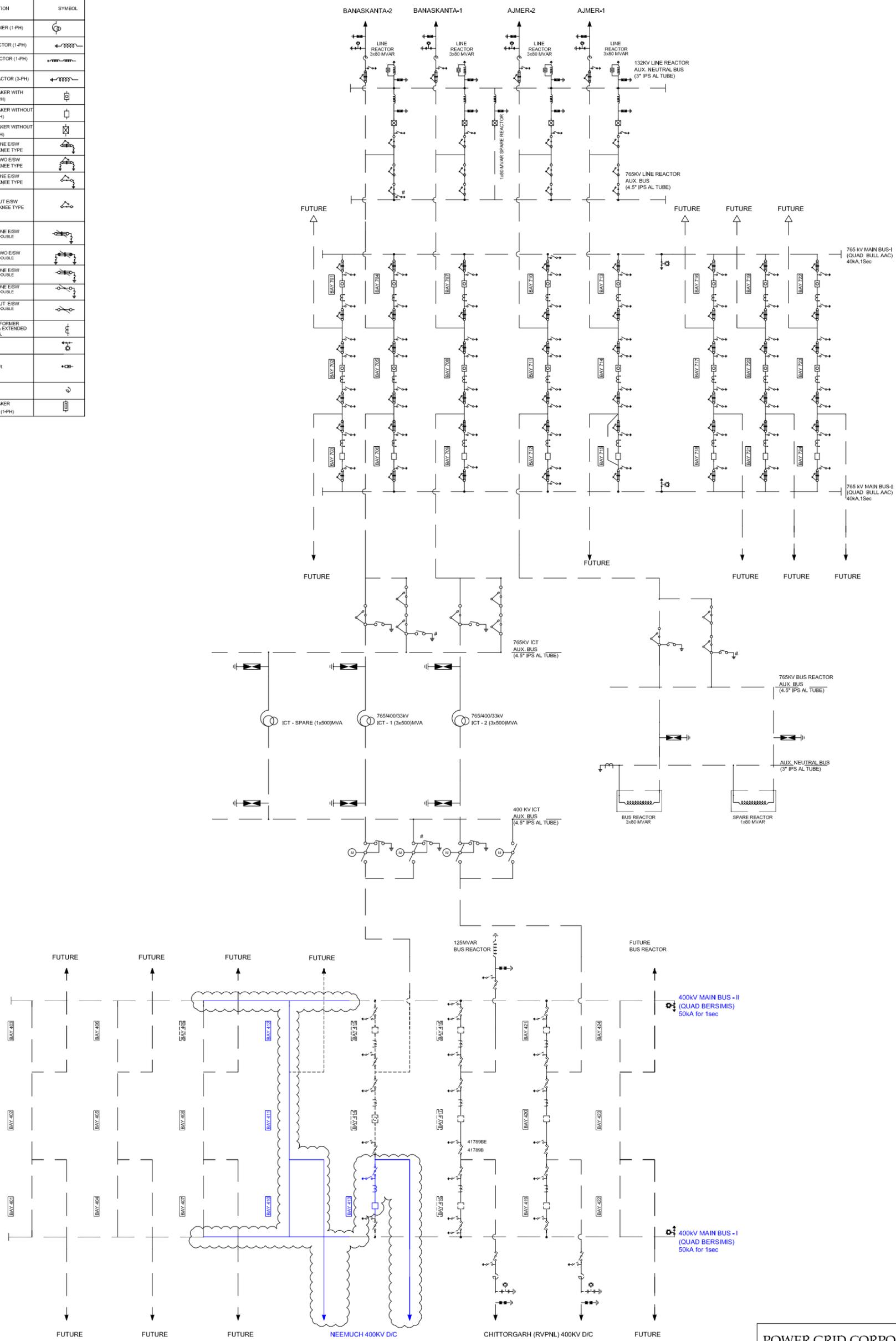
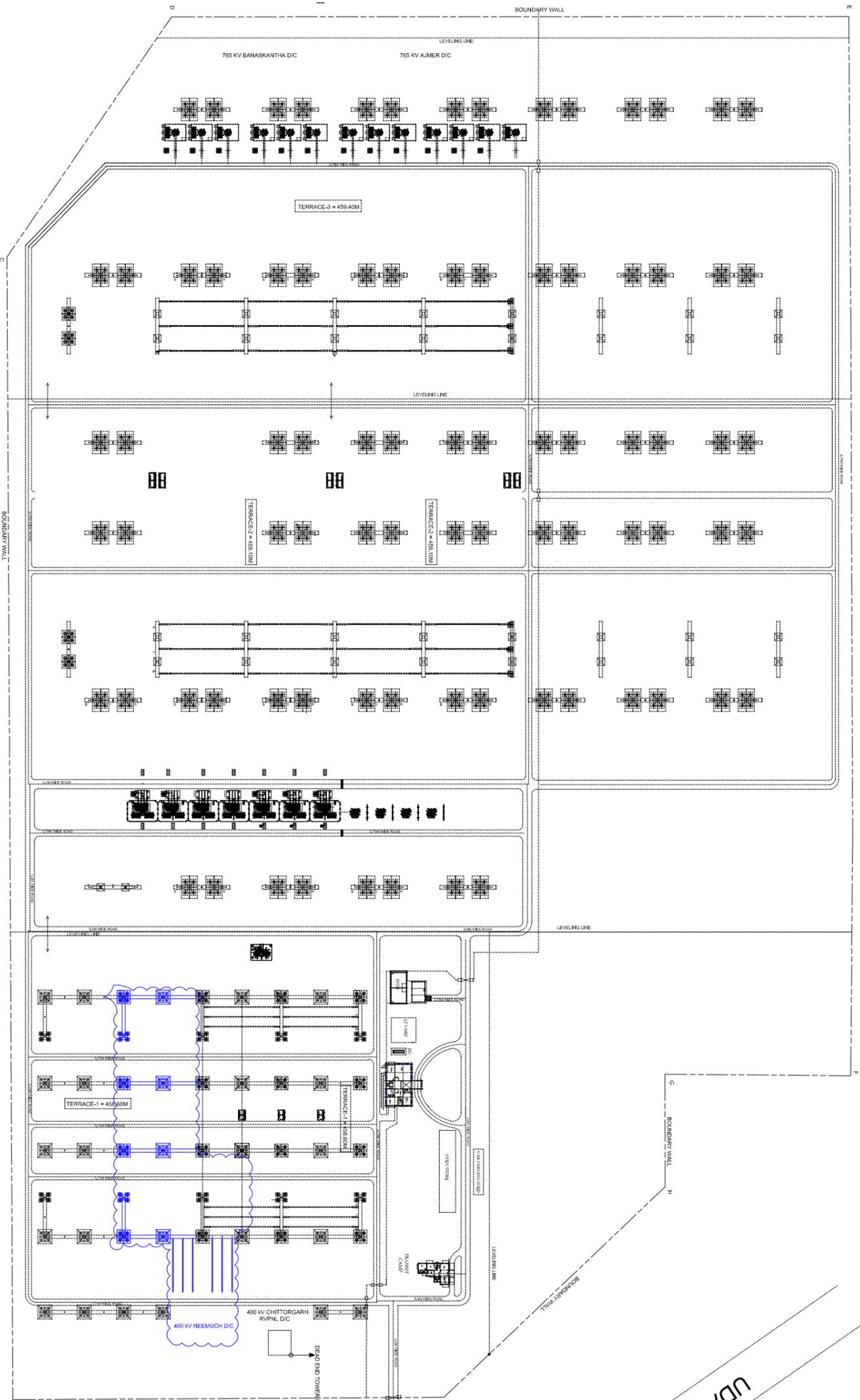


SL.NO.	DESCRIPTION	SYMBOL
1	AUTO TRANSFORMER (1-PH)	
2	80MVAR BUS REACTOR (1-PH)	
3	80MVAR LINE REACTOR (1-PH) WITH NGR.	
4	125MVAR BUS REACTOR (3-PH)	
5	SF6 CIRCUIT BREAKER WITH CR, WITH CSD (3-PH)	
6	SF6 CIRCUIT BREAKER WITHOUT CR, WITH CSD (3-PH)	
7	SF6 CIRCUIT BREAKER WITHOUT CR, WITH CSD (1-PH)	
8	ISOLATOR WITH ONE E/SW (3 PH) VERTICAL KNEE TYPE	
9	ISOLATOR WITH TWO E/SW (3 PH) VERTICAL KNEE TYPE	
10	ISOLATOR WITH ONE E/SW (1 PH) VERTICAL KNEE TYPE	
11	ISOLATOR WITHOUT E/SW (1 PH) VERTICAL KNEE TYPE	
12	ISOLATOR WITH ONE E/SW (3 PH) HORIZONTAL DOUBLE BREAK TYPE	
13	ISOLATOR WITH TWO E/SW (3 PH) HORIZONTAL DOUBLE BREAK TYPE	
14	ISOLATOR WITH ONE E/SW (3 PH) HORIZONTAL DOUBLE BREAK TYPE	
15	ISOLATOR WITH ONE E/SW (1 PH) HORIZONTAL DOUBLE BREAK TYPE	
16	ISOLATOR WITHOUT E/SW (1 PH) HORIZONTAL DOUBLE BREAK TYPE	
17	CURRENT TRANSFORMER (1 PH.) WITH 120% EXTENDED CURRENT RATINGS.	
18	CVT - (1 PH.)	
19	SURGE ARRESTER	
20	WAVE TRAP	
21	SF6 CIRCUIT BREAKER FOR NGR BYPASS (1-PH)	

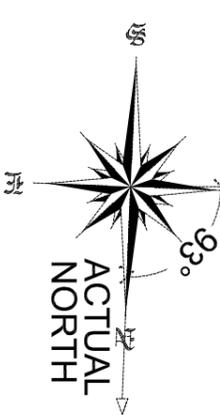


POWER GRID CORPORATION OF INDIA LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)	
CLEARED BY DGM Sr.GM CGM ED	PROJECT: Transmission system for evacuation of power from Neemuch SEZ SUBSTATION: 765/400KV CHITTORGARH S/S (EXTN.) TITLE: SINGLE LINE DIAGRAM
DATE DRAWN NOV 2021	CHKD. DRG.NO. C/JENG/18C3/765KV/CHITTORGARH/EXTN/SLD
	REV. 0



Location	Existing	Proposed
A	421098.00	2722416.00
B	421288.00	2722331.00
C	420800.00	2721794.00
D	420625.00	2721699.57
E	420337.00	2721898.00
F	420794.00	2722450.00
G	420864.00	2722320.00
H	420912.00	2722498.00

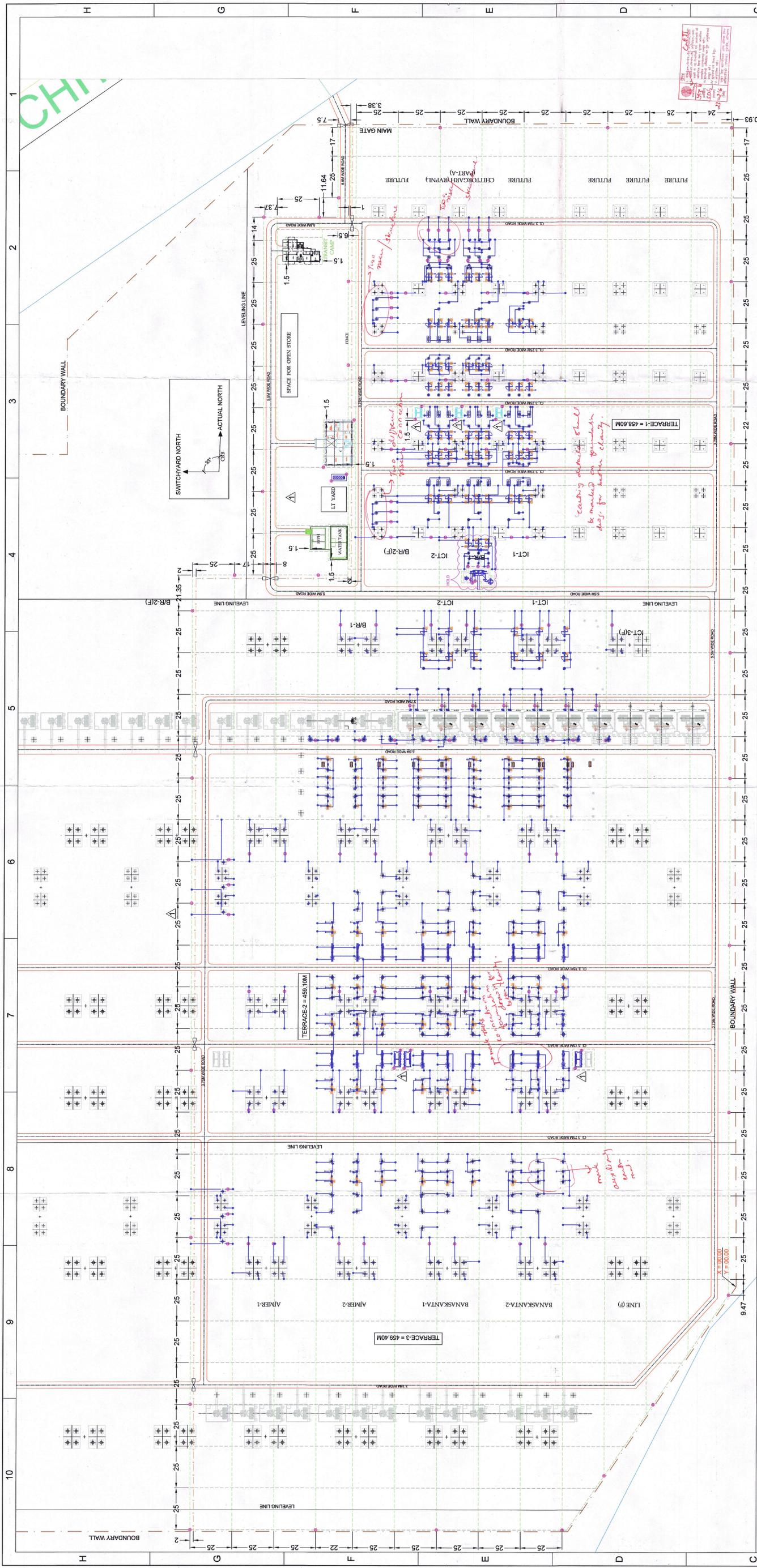
UDAIPUR --- NH 76 --- CHITTORGARH



SWITCHYARD NORTH

POWER GRID CORPORATION OF INDIA LIMITED
 IN GOVERNMENT OF INDIA, NEW DELHI

CLEARER BY PROJECT: Transmission system for evacuation of power from Narmada SDC
 SUBSTATION: 765/400KV CHITTORGARH(S/430KV)
 S/C No: 765/400KV CHITTORGARH(S/430KV)
 DATE DRAWN: 01/01/2023
 TITLE: GENERAL ARRANGEMENT
 Dwg No: 765/400KV CHITTORGARH(S/430KV)
 REV: 0



LEGEND:

- PRESENT SCOPE
- FUTURE / NOT IN TECHNICAL SCOPE
- MAIN EARTH MAT (40 DIA MS ROD)
- FENCE
- BOUNDARY WALL
- 40mm Ø ROD ELECTRODE WITH TEST LINK
- PIPE ELECTRODE
- RISER CONNECTION
- AUXILIARY EARTH MAT (40 DIA MS ROD)

MAIN EARTH MAT QTY.

LOA SL. NO.	ITEM DESCRIPTION	LOA QTY.	ACTUAL QTY.
Q	40mm DIA MS ROD FOR MAIN EARTH MAT	35 KM.	24.5 KM.

TEEC'S REF DRAWING:

- ELECTRICAL LAYOUT PLAN: DRG NO. 0712CH CHTR SUBS SWD E DRG 27.001, REV.2
- EARTHING DESIGN CALCULATION: DRG NO. 0712CH CHTR SUBS SWD E DRG 27.001, REV.4

Dr. no. (change) earthy details (sec. SE, avoc)

NOTES:

- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- SIZE OF MAIN EARTH MAT CONDUCTOR IS 40mm Ø MS ROD & SPACING OF MAIN EARTH MAT IS 25 METERS.
- DEPTH OF MAIN EARTH MAT IS 600mm BELOW THE F.O.L.
- SOIL TO BE PROTECTED BY CRUSHED ROCK LAYER OF 100mm THICK FROM F.O.L.
- 40mm DIA ROD ELECTRODE WITH TEST LINK AS PER APPD. DRG. SHALL BE PROVIDED FOR LA, CVT, PEAK TOWER.
- EARTHING CONDUCTOR RUNNING BELOW CABLE TRENCH, DRAINS, ROADS & RAIL WILL BE LAID 300mm BELOW THE BOTTOM OF ABOVE SAID ITEMS.
- THIS DRG. IS ONLY SYMBOLIC REPRESENTATION OF EARTHING CONDUCTOR LAYOUT. AT SITE SHALL BE LAID IN SUCH A MANNER SO THAT IT DOES NOT FOUL WITH ANY FOUNDATION, BUILDING ETC.
- EQUIPMENT EARTHING CONNECTION ARE DIAGRAMATIC ONLY. AND IT SHALL BE DONE AS PER ACTUAL SITE CONDITIONS & APPROVED EARTHING DETAILS.
- ALL EARTHING SHALL BE DONE IN ACCORDANCE WITH IS:3043 UNLESS OTHERWISE STATED IN THE TECHNICAL SPECIFICATION.
- THE WELDING JOINTS OF THE EARTH MAT WILL BE PROTECTED WITH AN ANTI-CORROSION PAINT IN THE CABLE TRENCHES WILL BE PAINTED AS PER SPECIFICATION.
- EARTHING CONDUCTORS AROUND CIR & DG BUILDING WILL BE LAID AT A MINIMUM DISTANCE OF 1.5M FROM OUTER BOUNDARY OF THE BUILDING.
- AUXILIARY EARTH MAT & RISER QTY WILL BE GIVEN IN THE EARTHING BOQ.
- ALL EQUIPMENT STRUCTURES, TOWER STRUCTURES METALLIC STARS SHALL BE CONNECTED TO NEAREST EARTHING GRID BY ATLEAST TWO EARTHING LEADS.

Estimation of MS Rod / GI Pipe Electrode (40 mm Dia, 3000 mm Long) for 765/400KV CHITTORGARH SUB UNDER POOL

Equip/Area	Qty (Nos)	M.S. Rod Electrode with Test Link (Un Treated Type)	G.I. Pipe Electrode in Treated Earth PH
125MVAR 400KV BUS REACTOR	1	0	2
600KVA 25/20KV LT	2	0	4
DG (500 KVA)	1	0	2
CRB Corner	2	0	0
765KV AC KIOBK	39	38	0
400KV AC KIOBK	3	6	0
765KV Tower with Peak	39	38	0
400KV Tower with Peak	3	6	0
765KV LA	11	11	0
400KV LA	18	18	0
765KV CVT	6	6	0
400KV CVT	12	12	0
72.8KV VT	3	3	0
TOTAL	3	100	8

CUSTOMER: POWER GRID CORPORATION OF INDIA LTD.

TECHNO ELECTRIC & ENGG. CO. LTD.

SUPPLY: CC-CS481-NR/ISS-2692/11G/10NOA-16537-DT:24.04.2015

ERECTON: CC-CS481-NR/ISS-2692/11G/10NOA-16538-DT:24.04.2015

PROJECT: 765/400KV CHITTORGARH (NEW) SUBSTATION AND EXTENSION OF 400KV CHITTORGARH (RVPN) SUBSTATION ASSOCIATED WITH GREEN ENERGY CORRIDORS: ISTS PART-A

SUBSTATION: 765/400KV CHITTORGARH (NEW) SUBSTATION

DRG. TITLE: EARTH-MAT LAYOUT

DRG. NO.: 0712CH CHTR SUBS SWD E DRG 27.001

SCALE: NTS

JOB NO.: 0712CH

SHEET: 1 OF 1

DATE: 18.02.16

REV: 0

DESCRIPTION: SECOND SUBMISSION (AS PER COMMENT DATE: 18.02.16)

PREP.: P.M. R.D/S.D.

CHKD.: P.M. R.D/S.D.

APPD.: S.D.

SIGN.: S.D.