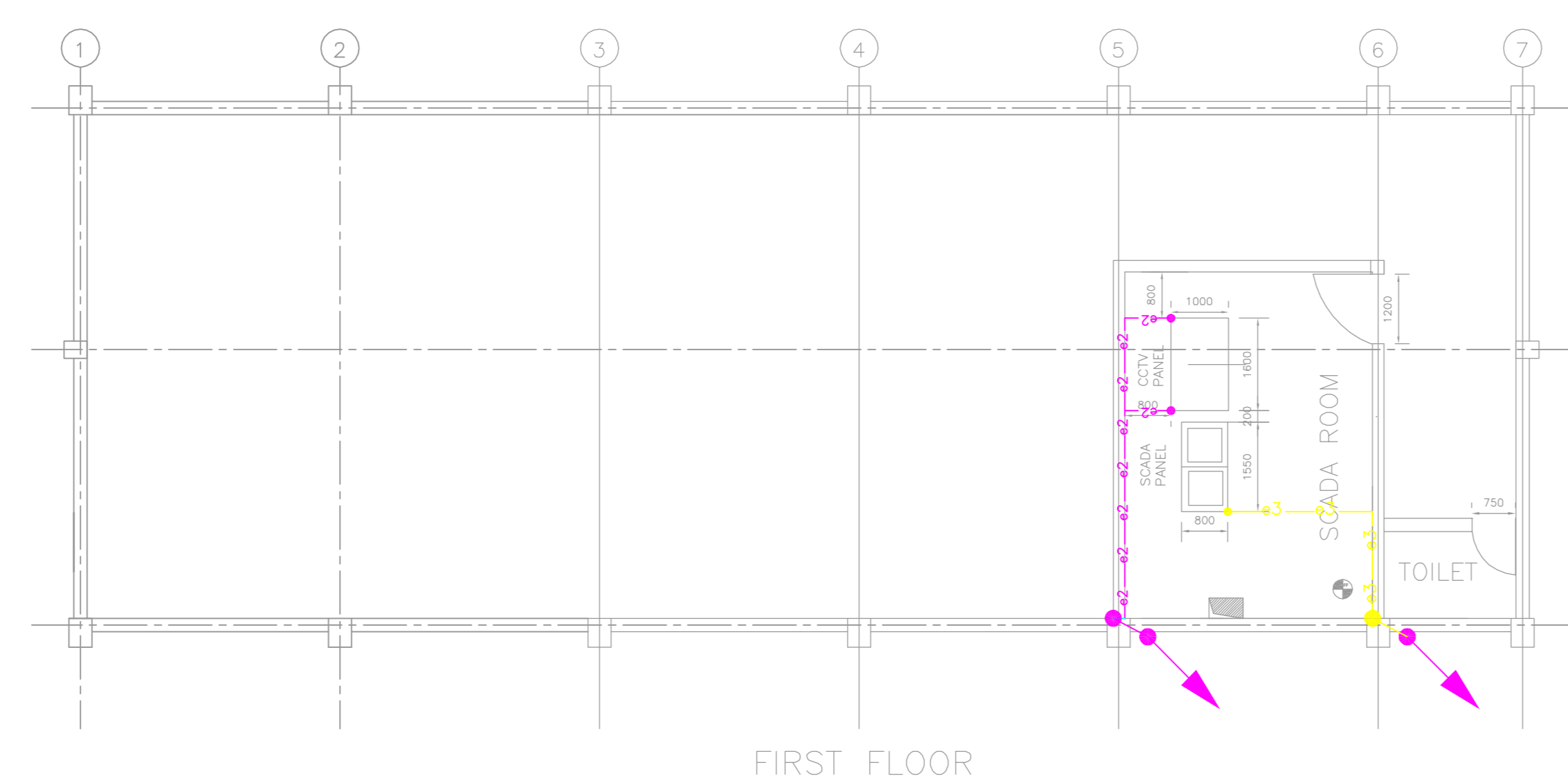


CMCS ROOM GROUND FLOOR



CMCS ROOM FIRST FLOOR

BILL OF MATERIAL

SYMBOL	TYPE OF EQUIPMENT TO BE EARTHED	EARTH SIZE	QTY.
(BURIED IN SOIL) (EMBEDDED IN CONCRETE)	MAIN EARTH GRID	40mm DIA MS ROD	360 MTRS.
—e1—e1—e1—e1—	AUXILIARY MAT, AUXILIARY TRANSFORMER BODY EARTHING, HT PANEL EARTHING	65x8 G.I. STRIP	80 MTRS.
—e2—e2—e2—e2—	EARTHING OF LT PANEL (UPSDB, BATTERY CHAREGR, ACDB, CCTV), AUX TRAF0 NEUTRAL	50x6 G.I. STRIP	50 MTRS.
—e3—e3—e3—e3—	EARTHING OF SCADA SYSTEM	Cu 1Cx16 sq.mm	10 MTRS.
EP	40mm DIA, 3000mm LONG MS ROD ELECTRODE IN TREATED EARTH PIT (ELECTRICAL)	—	10 NOS.
EE	40/25mm DIA, 3000mm LONG CU ROD GI PIPE ELECTRODE IN CHEMICAL TREATED EARTH PIT (ELECTRICAL)#	—	1 NO.
EP CT	40/25mm DIA, 3000mm LONG CU ROD GI PIPE ELECTRODE IN CHEMICAL TREATED EARTH PIT (ELECTRICAL)#	—	10 NOS.
↗	UP CONDUCTORS	—	—
↘	DOWN CONDUCTORS	—	—
↕	RISERS	—	6 NOS.

Electrode sizes are indicative, shall be as per the final vendor.

* EP1(CT), EP2(CT), EP3(CT), EP4(CT) ARE CONNECTED TO NEUTRAL OF AUX. TRANSFORMERS.

NOTES:

- ALL DIMENSIONS ARE IN MM AND ELEVATIONS & CO-ORDINATES ARE IN METRES, UNLESS OTHERWISE SPECIFIED ELSE WHERE IN THIS DRAWING.
- THIS DRAWING SHALL BE REFERRED FOR EARTHING DETAILS ONLY. ROUTING OF EARTHING CONDUCTOR IS INDICATIVE ONLY AND SHALL SUIT SITE CONDITIONS TO CLEAR OTHER INTERFERENCES.
- ENTIRE EARTHING INSTALLATION SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH I.S. 3043.
- THE EARTHING SYSTEM SHALL ALSO COMPLY WITH THE REQUIREMENTS OF INDIAN ELECTRICITY RULES AND ACTS.
- ALL JOINTS AND TAPPINGS OF G.I. CONDUCTORS SHALL BE WELDED TYPE. ALL WELDED JOINTS SHALL BE PROTECTED BY TWO COATS OF BITUMEN AND COVERED WITH HESSIAN.
- ALL RISERS FROM MAIN EARTH MAT SHALL BE OF 65x8mm G.I. STRIP.
- ALL RISERS OF 65x8mm G.I. STRIP SHALL BE PROTECTED BY TWO COATS OF BITUMINOUS PAINT/BITUMEN ON THE EXPOSED PORTION.
- MAIN EARTH GRID CONDUCTORS SHALL BE LAID AT A DEPTH OF 600mm BELOW GROUND LEVEL. WHERE THESE CONDUCTORS FOUL WITH UNDERGROUND PIPING, SAME SHALL BE LAID AT A DEPTH OF MINIMUM 300mm.
- DISTANCE BETWEEN EARTH PIT TO EARTH PIT SHALL BE MAINTAINED NOT LESS THAN 6000mm OR TWICE THE LENGTH OF THE ELECTRODE AND 1500mm AWAY FROM WALL.
- FOR EQUIPMENT, SUITABLE EARTH CONDUCTOR SHALL BE LAID FROM EARTH BAR TO INDIVIDUAL ELECTRICAL EQUIPMENT, EARTH CONDUCTOR SIZE AS DESCRIBED IN BOM.
- QUANTITY OF GI STRIPS AND RISERS USED FOR EARTHING MAY VARY BY 20% BASED ON SITE CONDITIONS.
- ALL STRUCTURAL COLUMNS SHALL BE CONNECTED TO AUXILIARY EARTH MAT THROUGH NEAREST RISERS.
- EARTH BAR AND EARTH PIT LOCATION MAY BE SHIFTED BY SITE ENGINEER AS PER SITE CONDITIONS.

REFERENCE DRAWINGS:-

5714-004-P4-PVC-F-085 REV-00

TENDER PURPOSE ONLY

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DEETRIMENTAL TO THE INTEREST OF THE COMPANY

GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HY0230261

REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED									
ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD	ZONE		CHG/APPD									
1			2			3			4			5			6			7			8			9			10			11			12			13			14			15			16		

PROJECT : 50 MWp SOLAR POWER PLANT (P4 BLOCK)

CUSTOMER : NTPC- MANDSAUR MP

	NAME	SIGN	DATE	ND/DF
	CHD. KUSH ANAND		29.06.16	VAR.
	CHD. ABU MALICK		29.06.16	NA
APPD. LK PATTANAIK		29.06.16		

DEPT. P/353 OR P/354

UNTL. DIMS OR ENR

SCALE: 1 : 90

WEIGHT: NA

REF. TO ASSY. DRG. NA

ITEM NO. NA

NO. OF SHT. 05

DRAWING NO. PY-LJ-0M086-2001-01

TITLE: EARTHING LAYOUT & SCHEME

CHD CODE: N.A.

SHT. No 01

NO. OF SHT. 05

