DEVELOPMENT OF 129 MW AC SOLAR PHOTOVOLTAIC PLANT -AT SCCL,Telangana

PROJECT NAME:	**STPP 10MW SOLAR PV PROJECT**
TITLE OF THE DRAWING:	**ARRAY LAYOUT**
DOCUMENT NO:	**BHEL-SECI-SD-SCCL10-DWG-ELE-003**

SL.NO	CONTENTS
1	ARRAY LAYOUT

4	29-05-2019	FOR APPROVAL			
3	27-05-2019	FOR APPROVAL	SP	PRV	PRV
REV NO.	DATE	STATUS	INITIALS	INITIALS	INITIALS
PROJECT:			PREPARED BY	CHECKED BY	APPROVED BY
DEVELOPMENT OF 129 MW-AC			DOC No:	BHEL-SECI-SD-SCCL10-DWG-ELE-003	
SOLAR PHOTOVOLTAIC PLANT -AT SCCL,Telangana			DOC Name:	ARRAY LAYOUT	

FIRST ANGLE PROJECTION

DRAWING NO. BHEL-SECI-SD-SCCL10-DWG-ELE-003

ALL DIMENSIONS ARE IN mm

NOTES:

1. Boundary as per KML file is also shown in separate layer.
2. THE HFL OF THE LAND IS 140m.

PV MODULE DETAILS					
BLOCK	MODULE MAKE	NO.OF MODULES	NO.OF TABLES	DC CAPACITY (KW)	MODULE WATTAGE
A	CHINT 330Wp	9000	225	2970	330 Wp
B	CHINT 330Wp	7800	195	2574	330Wp
C	CHINT 330Wp	6360	159	2098	330Wp
D	CHINT 330Wp	10200	255	3366	330Wp
TOTAL		33360	834	11008	330Wp

NOTES:

1. ARRAY LAYOUT DRAWING IS ONLY FOR DETAILS OF MMS TABLES IN THE PLANT, OTHER DETAILS SHOWN ARE TENTATIVE AND INDICATED TO SHOW CLEARANCES ONLY IN THE PLANT.
2. MAIN GATE CONSTRUCTION IS IN THE SCOPE OF SCCL, GATE LOCATION SHOWN IN THE DRAWING IS TENTATIVE.
3. SECURITY ROOM/ SECURITY CABIN WILL BE PROVIDED NEAR THE MAIN GATE AND AT STRATEGIC LOCATIONS
   Block A- 1 No Security cabin
   Block B- 2 Nos Security cabin
   Block C- 1 No Security Room
   Block D- 1 No Security cabin
4. 8M LEFT BETWEEN BOUNDARY AND ARRAY FOR CONSTRUCTION OF PERIPHERAL ROAD (2.5M), DRAINS AND OTHER UTILITIES
5. BOUNDARY OF BLOCK C AND D CHANGED DUE TO SITE CONDITIONS
6. CLEAR HEIGHT OF MCR AND IR ARE 5.3M & 5M RESPECTIVELY ABOVE GROUND LEVEL

1. 1. Objects considered for shadow pattern- LAs, dia 75mm pipe, LA-4, LA-9 height=11m, other LAs height = 7m
   MCR building height = 5.3m
   ICR building height = 5m
   Existing building height = 10m
2. For CR & IR shadow profile on equinox & solstice are superimposed and shown in array.
3. For electric pole and LA's clearance of 10m & 8M respectively is left unused due to shadow.
4. For transformer yard offset of 6M is left unused due to shadow (fencing height 3M).

NOTES:
1. TOTAL NUMBER OF TABLES - 834 NOS.
2. LENGTH OF TABLE IS 20.03M.
3. NUMBER OF MODULES IN EACH TABLE - 40 MODULES.
4. INTER ROW SPACING - 7.5M.
5. APPROACH ROAD - 5 M WIDTH
6. INTERNAL ROAD - 3.5 M WIDTH
7. PERIPHERAL ROAD - 2.5M WIDTH
8. MAINTENANCE PATHWAY - 1 M WIDTH
9. EXISTING BUILDING 'X' HEIGHT - 10M, MCR - 6M ICR - 6M
10. ALL DIMENSIONS ARE IN METERS.

LAND:-

AREA	SQ.M.	HECTARE	ACRE
BLOCK A	73484.6036	7.3484	18.16
BLOCK B	65095.2135	6.5095	16.09
BLOCK C & D	102427.3047	10.2427	25.31

NALLAH CO-ORDINATES

POINT	EASTING	NORTHING
N1	348767.8971	2082711.559
N2	348780.3047	2082794.054
N3	348707.1434	2082962.738
N4	348848.6826	2083120.408
N5	349511.1498	2083116.400

METALLED ROAD CO-ORDINATES

POINT	EASTING	NORTHING
R1	348604.8829	2082906.645
R2	348835.9251	2083176.0804
R3	348845.0574	2083167.6192
R4	348925.5928	2083314.4522
R5	348953.6310	2083388.4254
R6	348984.5725	2083386.7352

MCR Coordinates		
POINT	E	N
A	348749.3041	2083305.679
B	348759.8041	2083305.679
C	348759.8041	2083269.671
D	348749.3041	2083269.671

IR Coordinates		
POINT	E	N
A	348996.6891	2083196.5832
B	349004.1891	2083196.5832
C	349004.1891	2083176.5832
D	348996.6891	2083176.5832

ROAD C/L COORDINATES - BLOCK A		
S.No	EASTING	NORTHING
1	348928.5851	2083223.4269
2	348954.7261	2083225.2596
3	348936.0605	2083168.7024
4	348999.8960	2083169.8768
5	348999.8960	2083174.5661

ROAD C/L COORDINATES - BLOCK B		
S.No	EASTING	NORTHING
1	349153.9805	2083065.6608
2	349149.9389	2083065.6265

ROAD C/L COORDINATES - BLOCK C&D		
S.No	EASTING	NORTHING
1	348754.4853	2083314.4278
2	348754.4078	2083307.9228

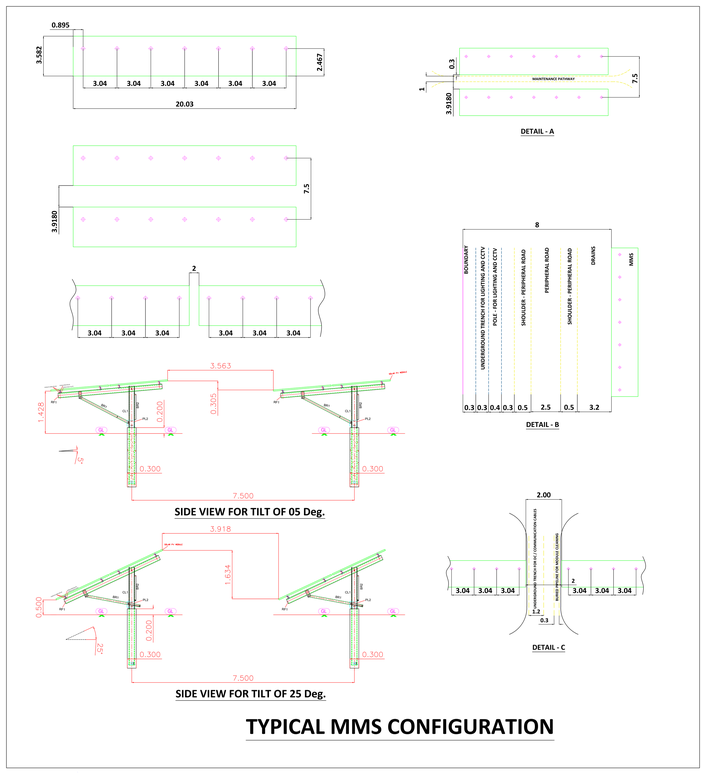
MAIN GATES C/L COORDINATES			
S.No	EASTING	NORTHING	BLOCK
1	348964.2276	2083228.6593	A
2	349153.3493	2083065.6554	B
3	348754.4585	2083313.9368	C&D

LIGHTNING ARRESTOR LOCATION COORDINATES		
S.No	EASTING	NORTHING
1	348877.6880	2083026.1713
2	348951.6125	2083213.8252
3	349094.3762	2083040.7022
4	349038.3492	2083236.0661
5	349126.6426	2083222.1987
6	349317.4556	2083225.8053
7	348583.4987	2083310.1420
8	348651.3712	2083270.1158
9	348770.8200	2083244.7538
10	348866.3659	2083311.8234
11	348668.2796	2083419.0744
12	348701.0618	2083488.8932
13	348769.4374	2083485.8625
14	348804.3931	2083404.0071

METERING YARD COORDINATES		
S.No	EASTING	NORTHING
A	348639.3730	2083213.7055
B	348646.0937	2083209.3658
C	348638.4953	2083197.6046
D	348631.7786	2083201.9443

BOUNDARY CO-ORDINATES

SI NO	EASTING	NORTHING	POINT	BLOCK
1	348972.0739	2083304.0536	1	A
2	349029.3579	2083305.5746	2	
3	349169.0000	2083300.5483	3	
4	349265.4199	2083297.0816	4	
5	349344.0459	2083275.6216	5	
6	349482.7019	2083270.8656	6	
7	349482.7639	2083156.9006	7	
8	349219.0000	2083156.0701	8	
9	348916.1579	2083155.1166	9	
10	348791.5134	2082907.1459	1	B
11	348766.3534	2082948.9076	2	
12	348773.0371	2082977.1934	3	
13	348849.1868	2083065.7330	4	
14	348881.9690	2083089.9226	5	
15	348979.5101	2083095.5744	6	
16	349154.1990	2083094.0484	7	
17	349149.3637	2082904.3265	8	
18	348672.1105	2083578.4437	1	C & D
19	348843.1908	2083560.4347	2	
20	348855.9229	2083427.1635	3	
21	348915.4457	2083427.0057	4	
22	348920.2803	2083321.4660	5	
23	348808.8762	2083321.8937	6	
24	348808.9969	2083397.6521	7	
25	348618.5165	2083398.5437	8	
26	348616.6975	2083321.1779	9	
27	348616.9506	2083315.5589	10	
28	348916.4184	2083311.9947	11	
29	348900.2481	2083266.3629	12	
30	348802.5467	2083145.8059	13	
31	348665.8065	2083210.8015	14	
32	348685.8616	2083238.0024	15	
33	348671.7773	2083247.6454	16	
34	348638.6575	2083196.3543	17	
35	348541.2833	2083236.2873	18	
36	348550.7619	2083442.8749	19	
37	348551.8534	2083446.0000	20	
38	348652.7483	2083572.8336	21	



TYPICAL MMS CONFIGURATION

LEGEND:-

- TENTATIVE DRAIN LAYOUT
- SHADOW PROFILE
- DC CABLE LINE
- HT CABLE LINE
- SOAK PIT & SEPTIC TANK
- INTERNAL ROAD
- WEATHER MONITORING SYSTEM
- PIPING LAYOUT
- SECURITY CABIN
- LIGHTNING ARRESTOR
- APPROACH ROAD
- SECURITY ROOM
- PROPOSED STORAGE YARD
- METERING YARD
- MAIN GATE
- WATER TANK
- BOUNDARY LINE
- NALLAH
- OTHER TREE
- CONTOUR
- EXISTING BUILDING
- ELECTRIC POST
- CULVERT
- WATER BODY
- WATER TANK
- ELECTRIC STATION
- WOODEN AREA
- COMPOUND WALL
- TBM
- LIGHTING AND CCTV TRENCH
- METALLED ROAD
- MAINTENANCE PATHWAY
- PERIPHERAL ROAD

REV.	DATE	ALTERED / CHECKED / APPROVED	REVISED AS PER COMMENTS.
04	290519	ALTERED SAN, CHECKED SP, APPROVED PR	REVISED AS PER COMMENTS.
03	270519	ALTERED SAN, CHECKED SP, APPROVED PR	REVISED AS PER COMMENTS.
02	030519	ALTERED SAN, CHECKED SP, APPROVED PR	REVISED AS PER COMMENTS.
01	190419	ALTERED SAN, CHECKED SP, APPROVED PR	REVISED AS PER COMMENTS.
00		ALTERED, CHECKED, APPROVED	FIRST ISSUE

	NAME	SIGN	DATE
DRAWN	SAN		110419
CHECKED	SP		110419
APPROVED	PR		110419

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PROJECT : 10MW SOLAR POWER PROJECT STPP
CUSTOMER : SCCL
CONSULTANT : SECI

BHARAT HEAVY ELECTRICALS LIMITED.
ELECTRONICS DIVISION, BANGALORE

TITLE: ARRAY LAYOUT

No. OF SHEETS 01 | SHEET No. 01 | REV 04

BHEL DRG. No. BHEL-SECI-SD-SCCL10-DWG-ELE-003

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