

Date: 18.10.2019

Client: SAMSUNG OVERSEAS LTD.

Project: PROPOSED LAYOUT CUM DEMARCATION PLAN FOR AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA (DDJAY) LAND MEASURING 14.84375 ACRES AT SECTOR-5, VILLAGE RATTANGARH, TEHSIL SHAHABAD, DISTRICT KURUKSHETRA FOR M/S.

SAMSUNG OVERSEAS LTD.

Ref: For load calculation ref, DHBVN sales circular No. D-16/ 2017 Dt. 12/04/2017

ELECTRICAL LOAD DETAIL

Sr. No.	Area Description	RESIDENTIAL (B- CLASS CATEGORY FOR KURUKSHETRA)						
		Area (Sq. Mtr.)	Area (Marla) 1 Marla =25.293Sq. Mtr.	Qty. plots	Connected Load/Unit (KW) as per DHBVN sales circular	Connected load Total (KW)	Diversity Factor	Total Max. Demand (KW)
1 .	Type-A (Plot)	133.60	5.28	1	8	8	0.4	3
2 .	Type-B (Plot)	125.32	4.95	1	8	8	0.4	3
3 .	Type-C (Plot)	125.22	4.95	4	8	32	0.4	13
4 .	Type-D (Plot)	123.01	4.86	2	8	16	0.4	6
5 .	Type-E (Plot)	121.45	4.80	1	8	8	0.4	3
6 .	Type-F (Plot)	119.81	4.74	48	8	384	0.4	154
7 .	Type-G (Plot)	119.66	4.73	17	8	136	0.4	54
8 .	Type-H (Plot)	118.68	4.69	9	8	72	0.4	29
9 .	Type-J (Plot)	116.27	4.60	16	8	128	0.4	51
10 .	Type-K (Plot)	115.76	4.58	1	8	8	0.4	3
11 .	Type-L (Plot)	113.40	4.48	36	8	288	0.4	115
12 .	Type-M (Plot)	112.90	4.46	29	8	232	0.4	93
13 .	Type-N (Plot)	112.00	4.43	76	8	608	0.4	243
14 .	Type-P (Plot)	89.85	3.55	1	6	6	0.4	2
15 .	Type-Q (Plot)	85.54	3.38	18	6	108	0.4	43
				TOTAL PLOTS	260	TOTAL LOAD	2034 kW	814 kW

COMMERCIAL AREA LOAD

Sr. No.	Area Description	Area (acers)	Area (Sq.mtr) 1 Acers =4046.86 Sq.mtr	Qty. plots	Connected Load/Unit (KW) @ 16kW/sq. mtr.	Connected load Total (KW)	Diversity Factor	Total Max. Demand (KW)
1	Commercial Area	0.45	1821.5	1	291	291	0.6	175
					TOTAL LOAD	291 kW		175 kW

UTILITY LOADS

Sr. No.	Area Description	Area (acers)	Area (Sq.mtr)			Connected load Total (KW)	Diversity Factor	Total Max. Demand (KW)
1	STP		Assumed load			30	0.5	15
2	External Lighting		Assumed load			12	0.5	6
3	Plumbing		Assumed load			30	0.5	15
					TOTAL LOAD	72 kW		36 kW

COMMUNITY AREA LOAD

Sr. No.	Area Description	Area (acers)	Area (Sq.mtr) 1 Acers =4046.86 Sq.mtr	Qty. plots		Connected load Total (KW)	Diversity Factor	Total Max. Demand (KW)
1	Community area	1.48	6009.3	1		100	0.5	50
					TOTAL LOAD	100 kW		50 kW

NOTE: Direct 11kV supply feeder to be provided at the entry gate of community centre with a non extensible RMU

NET CONTRACT DEMAND FROM STATE ELECTICITY BOARD

RESIDENTIAL DEMAND LOAD 814 kW
 COMMERCIAL AREA DEMAND LOAD 175 kW
 UTILITY DEMAND LOAD 36 kW
 COMMUNITY AREA DEMAND LOAD 50 kW
 TOTAL DEMAND LOAD 1074 kW

kVA DEMAND FOR ENTIRE PLOTTED COLONY FROM STATE ELECTICITY BOARD @ 0.9 P.F 1194 kVA

TRANSFORMER CALCULATION (FOR RESIDENTIAL, COMMERCIAL, UTILITY)

RESIDENTIAL DEMAND LOAD 814 kW
 COMMERCIAL AREA DEMAND LOAD 175 kW
 UTILITY DEMAND LOAD 36 kW
 TOTAL DEMAND LOAD 1024 kW
 REQUIRED KVA RATING @ 0.9 POWER FACTOR & 80% LOADING 1423 kVA

SUGGESTED TRANSFORMER CAPACITY 1500 kVA

Sr. No.	Feedar Pillar		Plot Type Category																Plot Nos.	Connected Load	Demand Load@0.4 Diversity	Total kW	Current (A)
			A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q						
1	F.P-1L	1 to 12														1	11	12 Nos.	72 kW	28.8 kW	61.6 kW	107.184	
2	F.P-2	12A to 24	1													4	7	12 Nos.	82 kW	32.8 kW			
3	F.P-3L	25 to 38								14								14 Nos.	112 kW	44.8 kW	89.6 kW	155.904	
4	F.P-4	43 to 56						14										14 Nos.	112 kW	44.8 kW			
5	F.P-5L	57 to70						14										14 Nos.	112 kW	44.8 kW	89.6 kW	155.904	
6	F.P-6	71 to 84						14										14 Nos.	112 kW	44.8 kW			
7	M.P-7L	85 to 91, 101 to 104		1	4			6										11 Nos.	88 kW	35.2 kW	76.8 kW	133.632	
8	M.P-8	39 to 42, 92 to 100					1		3	9								13 Nos.	104 kW	41.6 kW			
9	M.P-9L	105 to 119												15				15 Nos.	120 kW	48.0 kW	96.0 kW	167.04	
10	M.P-14	120 to 134										1		14				15 Nos.	120 kW	48.0 kW			
11	M.P-10L	135 to 146											12					12 Nos.	96 kW	38.4 kW	76.8 kW	133.632	
12	M.P-11	159 to 170											12					12 Nos.	96 kW	38.4 kW			
13	M.P-12L	171 to 182													12			12 Nos.	96 kW	38.4 kW	76.8 kW	133.632	
14	M.P-13	195 to 206													12			12 Nos.	96 kW	38.4 kW			
15	M.P-15L	207 to 218													12			12 Nos.	96 kW	38.4 kW	76.8 kW	133.632	
16	M.P-16	231 to 242													12			12 Nos.	96 kW	38.4 kW			
17	M.P-17L	147 to 158											12					12 Nos.	96 kW	38.4 kW	76.8 kW	133.632	
18	M.P-18	183 to 194													12			12 Nos.	96 kW	38.4 kW			
19	M.P-19L	252 to 260				1					8							9 Nos.	72 kW	28.8 kW	57.6 kW	100.224	
20	M.P-20	243 to 251				1					8							9 Nos.	72 kW	28.8 kW			
21	M.P-21	219 to 230													12			12 Nos.	96 kW	38.4 kW	38.4 kW	66.816	
	Total No. of Plots		1	1	4	2	1	48	17	9	16	1	36	29	76	1	18	260 Nos.					

DETAILS OF PLOTS

Sr. No.	Plot No.	Plot Type	Plot Quantity
1	1	P	1
2	2 to 19	Q	18
3	20 to 23	N	4
4	24	A	1
5	25 to 41	G	17
6	42	E	1
7	43 to 90	F	48
8	91	B	1
9	92 to 100	H	9
10	101 to 104	C	4
11	105 to 133	M	29
12	134	K	1
13	135 to 170	L	36
14	171 to 242	N	72
15	243	D	1
16	244 to 259	J	16
17	260	D	1