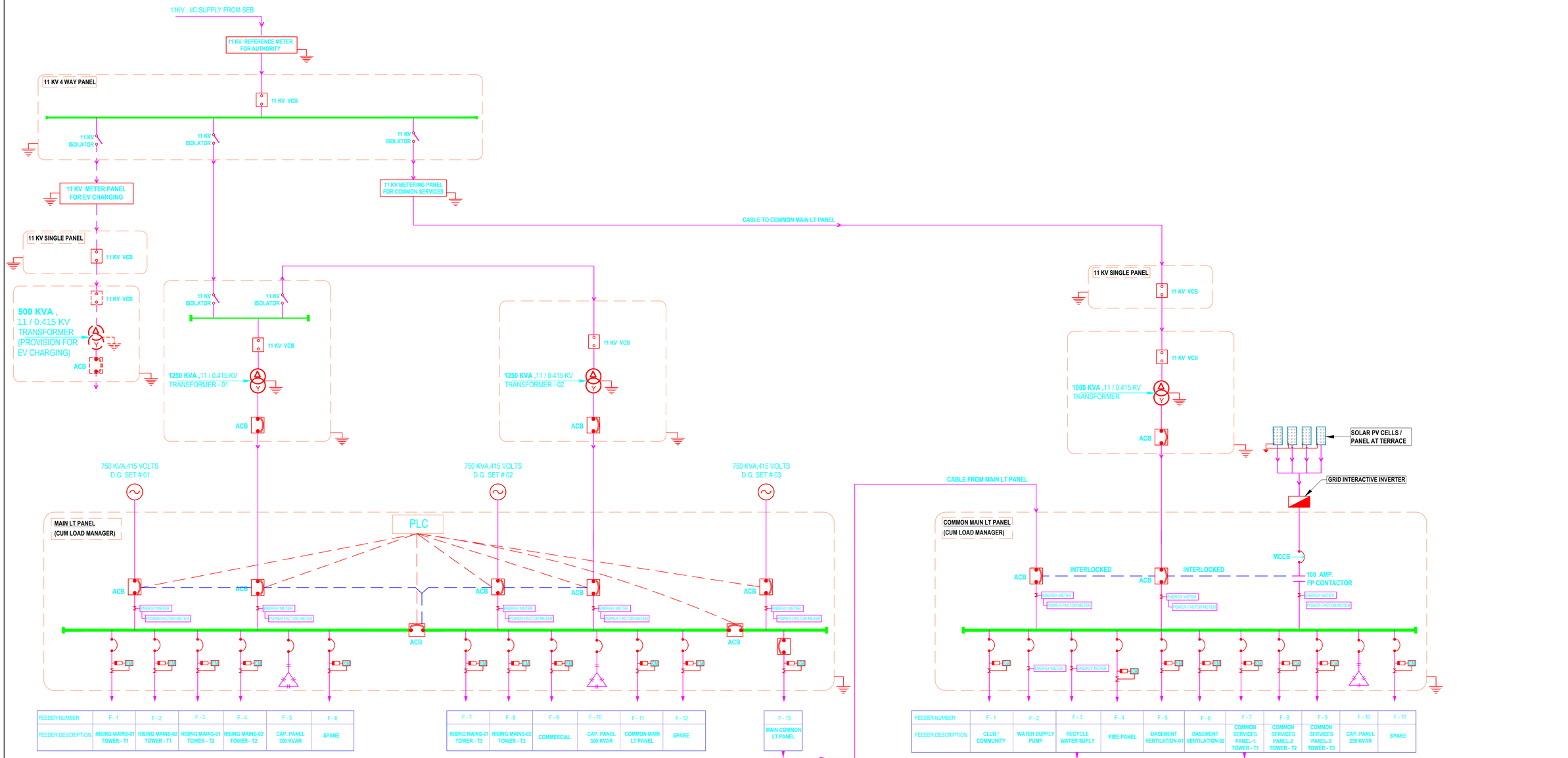

LEGENDS	
SYMBOLS	DESCRIPTION
	DG SET
	VCB CIRCUIT BREAKER
	AIR CIRCUIT BREAKER
	HRC FUSES
	MOULDED CASE CIRCUIT BREAKER
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	M.C.B. (MINIATURE CIRCUIT BREAKER)
EM	ENERGY METER
	ISOLATOR

project
"DIVYANSH GREEN HEIGHTS"
AT PLOT No. - 09, CHOROSIA ESTATE OF SECTOR PI-I & II, GREATER NOIDA

title
ELECTRICAL DRAWING

subtitle
MAINS SCHEMATIC DIAGRAM

drawing released for
- [x] APPROVAL
- [ ] ADVANCE COPY
- [ ] GREEN SUBMISSION
- [ ] CONSTRUCTION

drg. no. DIV / ELEC / EXT / 02
scale N.T.S. @ A1
date January, 2025
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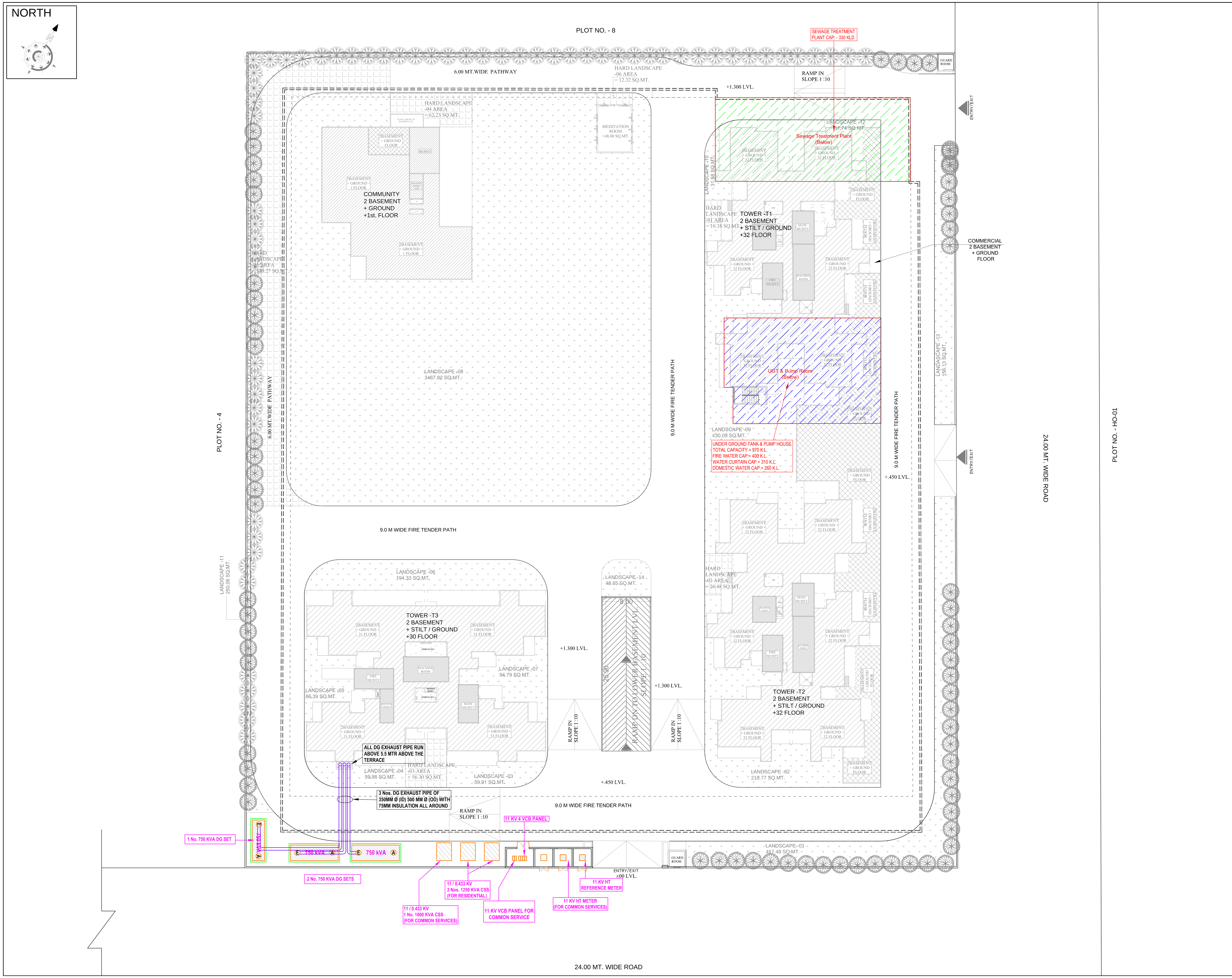
rev. no.	date	revision
R0	31.01.2025	ISSUED FOR APPROVAL.



NORTH
PLOT NO. - 8
PLOT NO. - 4
PLOT NO. - HO-01
24.00 MT. WIDE ROAD
24.00 MT. WIDE ROAD
6.00 MT.WIDE PATHWAY
6.00 MT.WIDE PATHWAY
SEWAGE TREATMENT PLANT CAP. - 330 KLD
Sewage Treatment Plant (Below)
RAMP IN SLOPE 1 :10
+1.300 LVL.
COMMUNITY 2 BASEMENT + GROUND +1st. FLOOR
TOWER -T1 2 BASEMENT + STILT / GROUND +32 FLOOR
COMMERCIAL 2 BASEMENT + GROUND FLOOR
ENTRY/EXIT
LANDSCAPE -08 3467.82 SQ.MT.
9.0 M WIDE FIRE TENDER PATH
UGT & Pump Room (Below)
LANDSCAPE -09 430.09 SQ.MT.
UNDER GROUND TANK & PUMP HOUSE
TOTAL CAPACITY = 970 K.L.
FIRE WATER CAP.= 400 K.L.
WATER CURTAIN CAP.= 310 K.L.
DOMESTIC WATER CAP.= 260 K.L.
+.450 LVL.
LANDSCAPE -13 156.13 SQ.MT.
LANDSCAPE -11 250.06 SQ.MT.
LANDSCAPE -06 194.33 SQ.MT.
LANDSCAPE -14 48.65 SQ.MT.
TOWER -T3 2 BASEMENT + STILT / GROUND +30 FLOOR
LANDSCAPE -07 94.79 SQ.MT.
LANDSCAPE -05 66.39 SQ.MT.
RAMP DN TO LOWER BASEMENT LVL SLOPE 1 :10
TOWER -T2 2 BASEMENT + STILT / GROUND +32 FLOOR
ALL DG EXHAUST PIPE RUN ABOVE 5.5 MTR ABOVE THE TERRACE
3 Nos. DG EXHAUST PIPE OF 350MM Ø (ID) 500 MM Ø (OD) WITH 75MM INSULATION ALL AROUND
LANDSCAPE -04 59.98 SQ.MT.
LANDSCAPE -03 59.91 SQ.MT.
LANDSCAPE -02 216.77 SQ.MT.
LANDSCAPE -01 417.49 SQ.MT.
11 KV 4 VCB PANEL
1 No. 750 KVA DG SET
750 KVA
750 KVA
2 No. 750 KVA DG SETS
11 / 0.433 KV 2 Nos. 1250 KVA CSS (FOR RESIDENTIAL)
11 / 0.433 KV 1 No. 1000 KVA CSS (FOR COMMON SERVICES)
11 KV VCB PANEL FOR COMMON SERVICE
11 KV HT METER (FOR COMMON SERVICES)
11 KV HT REFERENCE METER
ENTRY/EXIT ±00 LVL.
GUARD ROOM

rev. no.	date	revision
..	..	..

project
"DIVYANSH GREEN HEIGHTS"
AT PLOT No. - 09, CHOROSIA ESTATE
OF SECTOR PI-I & II, GREATER NOIDA

title
LAYOUT PLAN

subtitle
ELECTRICAL SETTING-OUT PLAN

drawing released for
- ■ SUBMISSION
- □ APPROVAL
- □ ADVANCE COPY
- □ CONSTRUCTION

drg. no. DGH / 25B01 / ES - 05	drawn by Prem Saini
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Electrical load Calculation -"DIVYANSH GREEN HEIGHTS"						
SUMMARY LOAD SHEET (POWER BACKUP @ 3.0 kVA @ 70% diversity)						
Sl.no	**Substation**	**Number of Units**	**Load in KVA**	**Selection of Transformer.**	**Essential load in KVA**	**Selection of DG set**
1	Normal Load for Residential	514	1620	2 nos 1250 KVA.	1200	3 nos. 750 KVA.
2	Commercial		70			
3	Common Services		520	1 nos. 1000 KVA	580	
Total		**514**	**2610**		**1780**	

Residential Electrical Load Calculation - "DIVYANSH GREEN HEIGHTS"													
S.no	**Description**		**No. of unit**		**Load per Unit**				**Total Load**				
	Tower - T1 (2B+G+31)		**No. of Tower**		**=**	**1**	**nos.**						
1	FLAT-1 (2BHK)	(99 sq M @ 50 W/sqM = 4.94 KW)	1	units	@	4.9	KW		=	5	KW		
2	FLAT-1 (3BHK)	(102 sq M @ 50 W/sqM = 5.12 KW)	2	units	@	5.1	KW		=	10	KW		
3	FLAT-2 & 5 (3BHK)	(104 sq M @ 50 W/sqM = 5.22 KW)	3	units	@	5.2	KW		=	16	KW		
4	FLAT-3 (3BHK)	(97 sq M @ 50 W/sqM = 4.85 KW)	32	units	@	4.8	KW		=	155	KW		
5	FLAT-4 (3BHK)	(104 sq M @ 50 W/sqM = 5.19 KW)	32	units	@	5.2	KW		=	166	KW		
6	FLAT-6 (3BHK)	(97 sq M @ 50 W/sqM = 4.85 KW)	30	units	@	4.9	KW		=	146	KW		
7	FLAT-1, 2, 5 (3BHK)	(104 sq M @ 50 W/sqM = 5.22 KW)	92	units	@	5.2	KW		=	480	KW		
8	FLAT-6 (1BHK)	(70 sq M @ 50 W/sqM = 3.49 KW)	4	units	@	3.5	KW		=	14	KW		
	Tower - T2 (2B+G+31)		**No. of Tower**		**=**	**1**	**nos.**						
9	FLAT-1 (2BHK)	(95 sq M @ 50 W/sqM = 4.73 KW)	1	units	@	4.7	KW		=	5	KW		
10	FLAT-2 (2BHK)	(93 sq M @ 50 W/sqM = 4.63 KW)	1	units	@	4.6	KW		=	5	KW		
11	FLAT-1, 2 (3BHK)	(104 sq M @ 50 W/sqM = 5.22 KW)	64	units	@	5.2	KW		=	334	KW		
12	FLAT-3 (3BHK)	(97 sq M @ 50 W/sqM = 4.86 KW)	32	units	@	4.9	KW		=	156	KW		
13	FLAT-4 (3BHK)	(104 sq M @ 50 W/sqM = 5.19 KW)	32	units	@	5.2	KW		=	166	KW		
14	FLAT-5 (3BHK)	(104 sq M @ 50 W/sqM = 5.20 KW)	32	units	@	5.2	KW		=	166	KW		
15	FLAT-6 (3BHK)	(97 sq M @ 50 W/sqM = 4.85 KW)	31	units	@	4.9	KW		=	150	KW		
16	FLAT-6 (1BHK)	(70 sq M @ 50 W/sqM = 3.49 KW)	3	units	@	3.5	KW		=	10	KW		

Residential Electrical Load Calculation - "DIVYANSH GREEN HEIGHTS"

S.no	Description		No. of unit		Load per Unit				Total Load		
	Tower - T3 (2B+G+31)		**No. of Tower**		**=**	**1**	**nos.**				
17	Flat 1		30	units	@	8.2	KW		=	247	KW
	(164 sq M @ 50 W/sqM =	8.22 KW)									
18	Flat 2		30	units	@	8.2	KW		=	247	KW
	(165 sq M @ 50 W/sqM =	8.23 KW)									
19	Flat 3		31	units	@	7.1	KW		=	221	KW
	(143 sq M @ 50 W/sqM =	7.14 KW)									
20	Fkat 4		31	units	@	7.3	KW		=	225	KW
	(145 sq M @ 50 W/sqM =	7.26 KW)									
							Total Load		**=**	**2923**	**KW**
							By taking Overall Diversity factor	**50**	**%** **=>**	**1462**	**KW**
							By taking Power factor	**0.90**		**=>**	**1620**	**KVA**
Total Electrical Load (A) = 1620 KVA											
	Commercial Load (B)										
21	Commercial		565	sqm	@	150	W/sqM		=	85	KW
							Total Load		**=**	**85**	**KW**
							By taking Overall Diversity factor	**75**	**%** **=>**	**64**	**KW**
							By taking Power factor	**0.90**		**=>**	**70**	**KVA**
Electrical Load (B) = 70 KVA											
							Total Electrical Load (A + B)			**=>**	**1690**	**KVA**
							Transformer Loading	**80**	**%** **=>**	**2113**	**KVA**
Recommended Transformers = 2 nos. 1250 KVA.											

Common Electrical Load Calculation - "DIVYANSH GREEN HEIGHTS"

S.no	Description	No. of unit		Load per Unit				Total Load		
	COMMON SERVICES - TOWERS									
	Tower - T1 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
1	Elevator	4	nos	@	18	KW		=	72	KW
2	Common Lights	1	towers	@	5	KW		=	5	KW
	Tower - T2 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
3	Elevator	4	nos	@	18	KW		=	72	KW
4	Common Lights	1	towers	@	5	KW		=	5	KW
	Tower - T3 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
5	Elevator	4	nos	@	18	KW		=	72	KW
6	Common Lights	1	towers	@	5	KW		=	5	KW
	COMMON SERVICES									
7	Club / Community / Swining Pool							=	140	KW
8	Water supply pumps & Tubewells							=	50	KW
9	Sewage Treatment Plant							=	40	KW
10	External / Gate / Landscape lighting	1	Job	@	10	KW		=	10	KW
11	Basement Lighting	25928	Sq M	@	0.7	W/sq.m		=	18	KW
12	Basement Ventilation	181.496	KW	@	30	%		=	54	KW
13	Fire Pumps (only jockey pumps have been considered)	2	set	@	18.5	KW		=	37	KW
						Total Load		**=**	**581**	**KW**
						By taking Overall Diversity factor	**80**	**%** **=>**	**464**	**KW**
						By taking Power factor	**0.90**	**=>**	**520**	**KVA**
						Transformer Loading	**80**	**%** **=>**	**650**	**KVA**
Recommended Transformers = 1 No. 1000 KVA (Considering Full Fire Load).										
Calculation for DG sets										
						By taking Power factor	**0.80**	**=>**	**580**	**KVA**
Total Electrical Load = 580 KVA										
						DG Loading	**85**	**%** **=>**	**682**	**KVA**
Recommended DG sets = 1 No. 750 KVA.										

Essential Load Calculation - "DIVYANSH GREEN HEIGHTS"

AT PLOT No. - 09, CHOROSIA ESTATE OF SECTOR PI-I & II, GREATER NOIDA.

S.no	Description	No. of unit		Load per Unit				Total Load		
	Tower - T1 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
1	FLAT-1 (2BHK)	1	units	@	3.0	KVA		=	3	KVA
2	FLAT-2 (2BHK)	1	units	@	3.0	KVA		=	3	KVA
3	FLAT-1 (3BHK)	1	units	@	3.0	KVA		=	3	KVA
4	FLAT-2 & 5 (3BHK)	2	units	@	3.0	KVA		=	6	KVA
5	FLAT-3 (3BHK)	31	units	@	3.0	KVA		=	93	KVA
6	FLAT-4 (3BHK)	31	units	@	3.0	KVA		=	93	KVA
7	FLAT-6 (3BHK)	29	units	@	3.0	KVA		=	87	KVA
8	FLAT-1, 2, 5 (3BHK)	90	units	@	3.0	KVA		=	270	KVA
9	FLAT-6 (1BHK)	2	units	@	3.0	KVA		=	6	KVA
	Tower - T2 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
10	FLAT-1 (2BHK)	1	units	@	3.0	KVA		=	3	KVA
11	FLAT-2 (2BHK)	1	units	@	3.0	KVA		=	3	KVA
12	FLAT-1, 2 (3BHK)	62	units	@	3.0	KVA		=	186	KVA
13	FLAT-3 (3BHK)	31	units	@	3.0	KVA		=	93	KVA
14	FLAT-4 (3BHK)	31	units	@	3.0	KVA		=	93	KVA
15	FLAT-5 (3BHK)	31	units	@	3.0	KVA		=	93	KVA
16	FLAT-6 (3BHK)	29	units	@	3.0	KVA		=	87	KVA
17	FLAT-6 (1BHK)	2	units	@	3.0	KVA		=	6	KVA
	Tower - T3 (2B+G+31)	**No. of Tower**		**=**	**1**	**nos.**				
18	Flat 1	30	units	@	3.0	KVA		=	90	KVA
19	Flat 2	30	units	@	3.0	KVA		=	90	KVA
20	Flat 3	31	units	@	3.0	KVA		=	93	KVA
21	Fkat 4	31	units	@	3.0	KVA		=	93	KVA
						Total Load		**=**	**1494**	**KW**
						By taking Overall Diversity factor	**60**	**%**	**=>**	**896**	**KW**
						By taking Power factor	**0.80**		**=>**	**1120**	**KVA**

Total Electrical Load (A) = 1120 KVA

Essential Load Calculation - "DIVYANSH GREEN HEIGHTS"

AT PLOT No. - 09, CHOROSIA ESTATE OF SECTOR PI-I & II, GREATER NOIDA.

S.no	Description	No. of unit		Load per Unit				Total Load		
	Commercial Load (B)									
22	Commercial	565	sqm	@	150	W/sqM		=	85	KW
						Total Load		**=**	**85**	**KW**
						By taking Overall Diversity factor	**75**	**% =>**	**64**	**KW**
						By taking Power factor	**0.80**	**=>**	**80**	**KVA**
						Electrical Load (B) = 80 KVA				
						Total Electrical Load (A + B)		**=>**	**1200**	**KVA**
						DG Loading	**85**	**% =>**	**1412**	**KVA**

Recommended DG sets = 2 nos. 750 KVA.