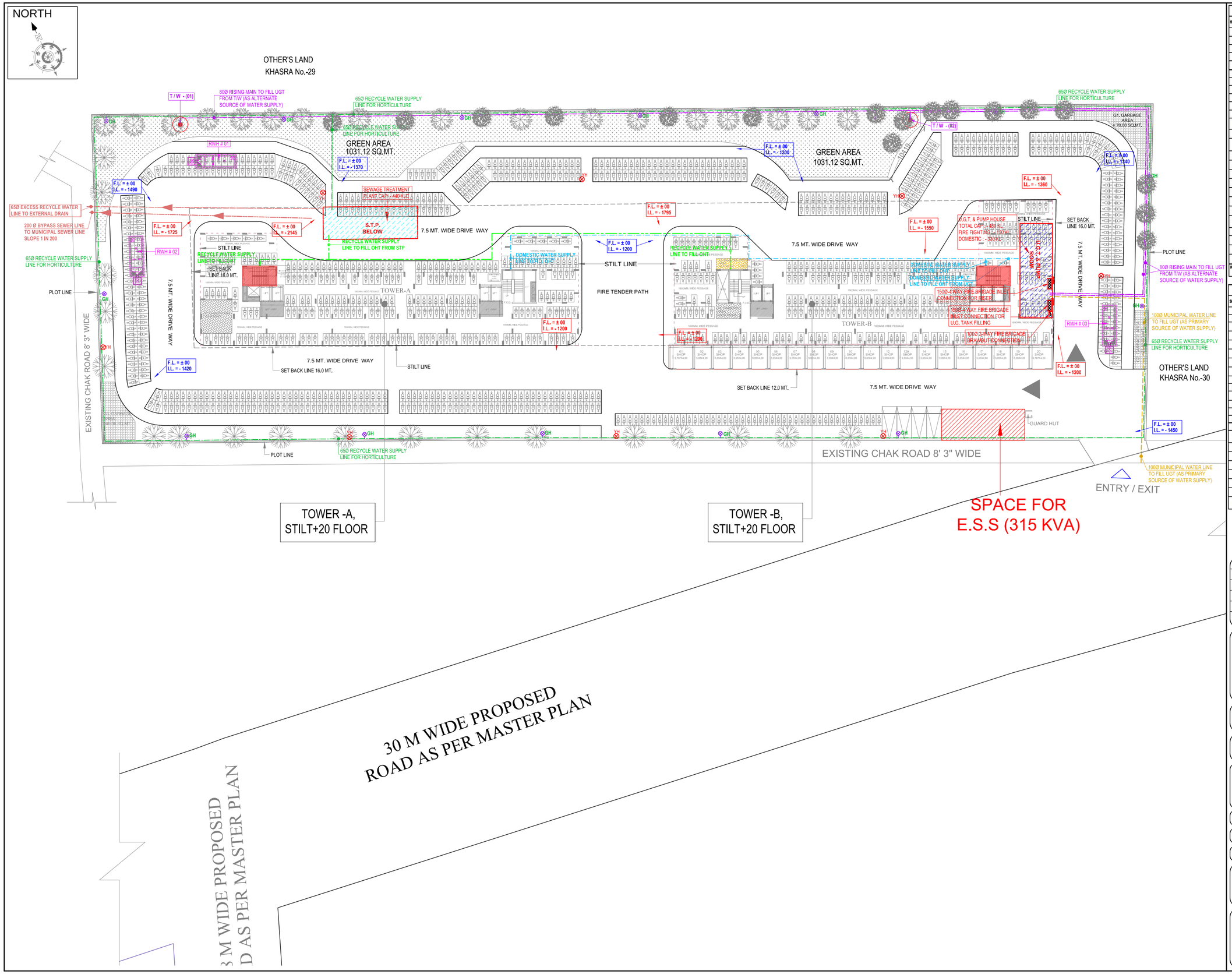


**Electrical Load Calculation - Migsun Atharva Ghaziabad UP (Plot - D)**

| S.no | Description | No. of unit | | Load per Unit | | Total Load | |
|---|---|---|---|---|---|---|---|
| | **Sub Head - (A)** | | | | | | |
| 1 | Residential Units - PMAY - EWS Units | 946 | units | @ 2.00 | KW | = 1892 | KW |
| | | | | | Total Load = | 1892 | KW |
| | | | | By taking Overall Diversity factor | 50 % | => 946 | KW |
| | **Sub Head - (B)** | | | | | | |
| 2 | Commercial | 271 | sqm | @ 120.0 | W/sqm | = 33 | KW |
| | | | | | Total Load (B) = | 33 | KW |
| | | | | By taking Overall Diversity factor | 75 % | => 24 | KW |
| | | | | | Total Load (A) + (B) = | 970 | KW |
| | | | | By taking Power factor | 0.90 | => 1080 | KVA |
| | | | | Electrical Load = 1080 KVA | | | |

Recommended Transformer for Residential units & Commercial = 4 Nos. 400 KVA.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Sub Head - (C)** | | | | | | |
| | **Common Services (Towers)** | **Nos of Tower** | | = 2 | | | |
| 3 | Elevators | 9 | nos | @ 12 | KW | = 108 | KW |
| 4 | Common Lights | 2 | towers | @ 5 | KW | = 10 | KW |
| | **Common Services - General** | | | | | | |
| 5 | Tube wells/Water Supply Pumps | 1 | Job | @ 60 | KW | = 60 | KW |
| 6 | STP | 1 | Job | @ 60 | KW | = 60 | KW |
| 7 | External / Gate / Landscape lighting | 1 | Set | @ 2 | KW | = 2 | KW |
| 8 | Still lighting | 1848.31 | sqm | @ 0.7 | W/sqm | = 1 | KW |
| 9 | Fire pumps (only jockey pumps have been considered) | 2 | set | @ 10 | KW | = 20 | KW |
| | | | | | Total Load = | 261 | KW |
| | | | | By taking Overall Diversity factor | 70 % | => 183 | KW |
| | | | | By taking Power factor | 0.90 | => 200 | KVA |
| | | | | Electrical Load = 200 KVA | | | |

Recommended Transformer for Common Services considering 100% Fire load = 1 no. 315 KVA.

**Essential Electrical Load Calculation - Migsun Atharva Ghaziabad UP (Plot - D)**

| S.no | Description | No. of unit | | Load per Unit | | Total Load | |
|---|---|---|---|---|---|---|---|
| | **Sub Head - (B)** | | | | | | |
| 2 | Commercial | 271 | sqm | @ 120.0 | W/sqm | = 33 | KW |
| | | | | | Total Load (B) = | 33 | KW |
| | | | | By taking Overall Diversity factor | 75 % | => 24 | KW |
| | | | | By taking Power factor | 0.80 | => 30 | KVA |
| | | | | Electrical Load - (B) = 30 KVA | | | |
| | **Sub Head - (C)** | | | | | | |
| | **Common Services (Towers)** | **Nos of Tower** | | = 2 | | | |
| 1 | Elevators | 9 | nos | @ 12 | KW | = 108 | KW |
| 2 | Common Lights | 2 | towers | @ 5 | KW | = 10 | KW |
| | **COMMON SERVICES - General** | | | | | | |
| 3 | Tube wells/Water Supply Pumps | 1 | Job | @ 60 | KW | = 60 | KW |
| 4 | STP | 1 | Job | @ 60 | KW | = 60 | KW |
| 5 | External / Gate / Landscape lighting | 1 | Set | @ 2 | KW | = 2 | KW |
| 6 | Still lighting | 1848 | sqm | @ 0.7 | W/sqm | = 1 | KW |
| 7 | Fire pumps (only jockey pumps have been considered) | 2 | set | @ 10 | KW | = 20 | KW |
| | | | | | Total Load (C) = | 261 | KW |
| | | | | By taking Overall Diversity factor | 70 % | => 183 | KW |
| | | | | By taking Power factor | 0.80 | => 230 | KVA |
| | | | | Electrical Load - (C) = 230 KVA | | | |
| | | | | Total Residential Electrical Load (A) + (B) + (C) | | => 260 | KVA |
| | | | | Total Electrical Load = 260 KVA | | | |

Recommended DG Sets (Only for Commercial & Common Services) = 1 no. 320 KVA.

| rev. no. | date | revision |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| .. | .. | .. |

**project**
**PMAY SCHEME**
PMAY SCHEME AT KHASRA No.- 408,409, 410,411,423,424,425,426,427, 428,429,430,431, 432(M),433(M),434,488,489,490,492,493
VILLAGE :- NOORNAGAR & 31,90,91,191
VILLAGE :- MORTA, GHAZIABAD

**title**
**LAYOUT PLAN (PLOT - D)**

**subtitle**
**ELECTRICAL PLAN ( LOAD CALCULATION AND E.S.S LOCATION )**

drawing released for
- ☐ APPROVAL
- ■ MUN. SUBMISSION
- ☐ ADVANCE COPY
- ☐ CONSTRUCTION

| | |
|---|---|
| drg. no. MA / 19B05 / PD / ES - 06 | drawn by Prem Saini |
| scale 1 : 300 | designed by Badri Vishal |
| date 19.06.2019 | checked by Anand Havelia |

architects
**Space Designers International**
B - 34, SECTOR-67, NOIDA
PH : +91 9711633717,18,19 & 20, Mob: 9811070399 , 9811336231
e-mail : spacesdi@gmail.com, www.spacedi.com

services consultant
**Consummate Engineering Services (P) Ltd.**
Noida Office : B - 67, Sector - 67, Noida - 201 301
Lko. Office : R 006, Rohtas Plumeria, Gomti Nagar, Lucknow
Tel : (0120) 2303500 ( 30 Lines )
e mail : mail@cespl.in, website : www.cespl.in


PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT
PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT