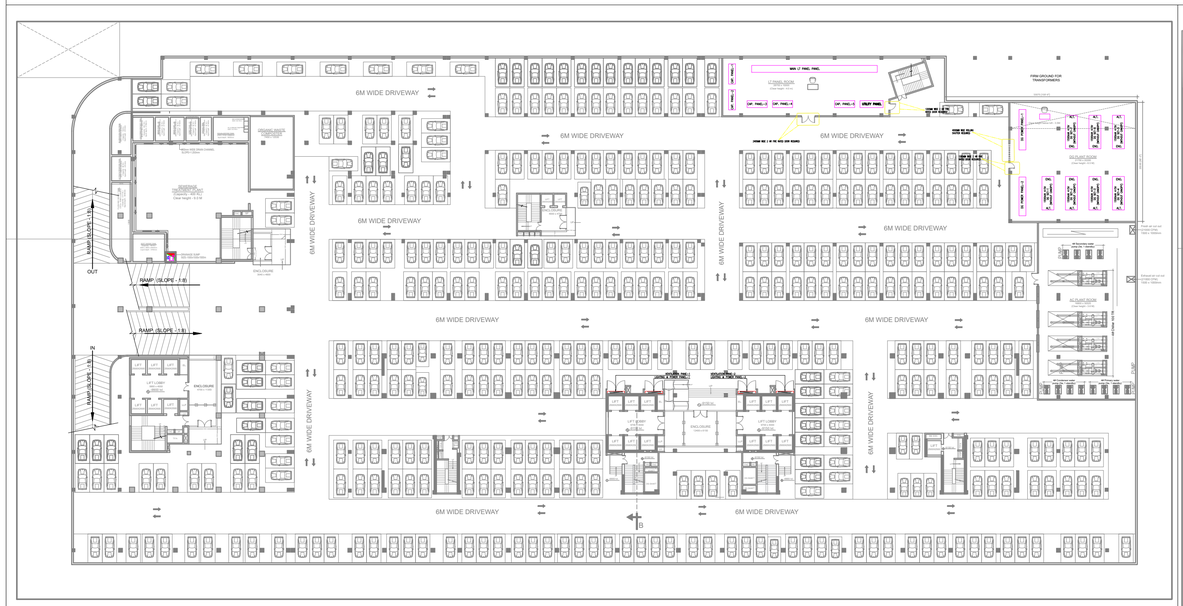
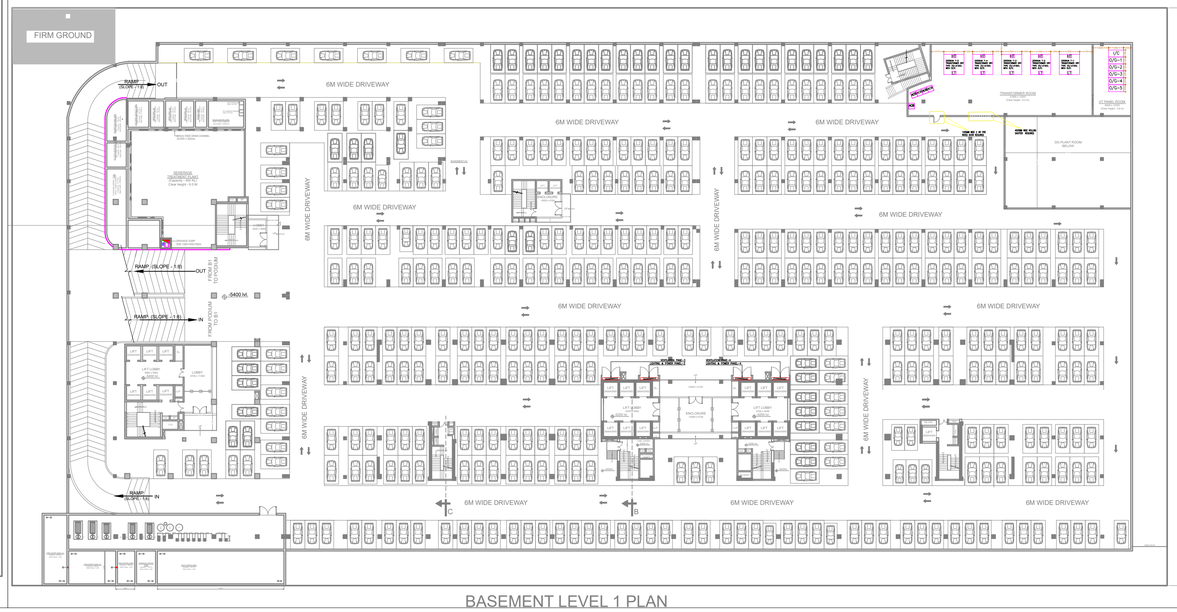
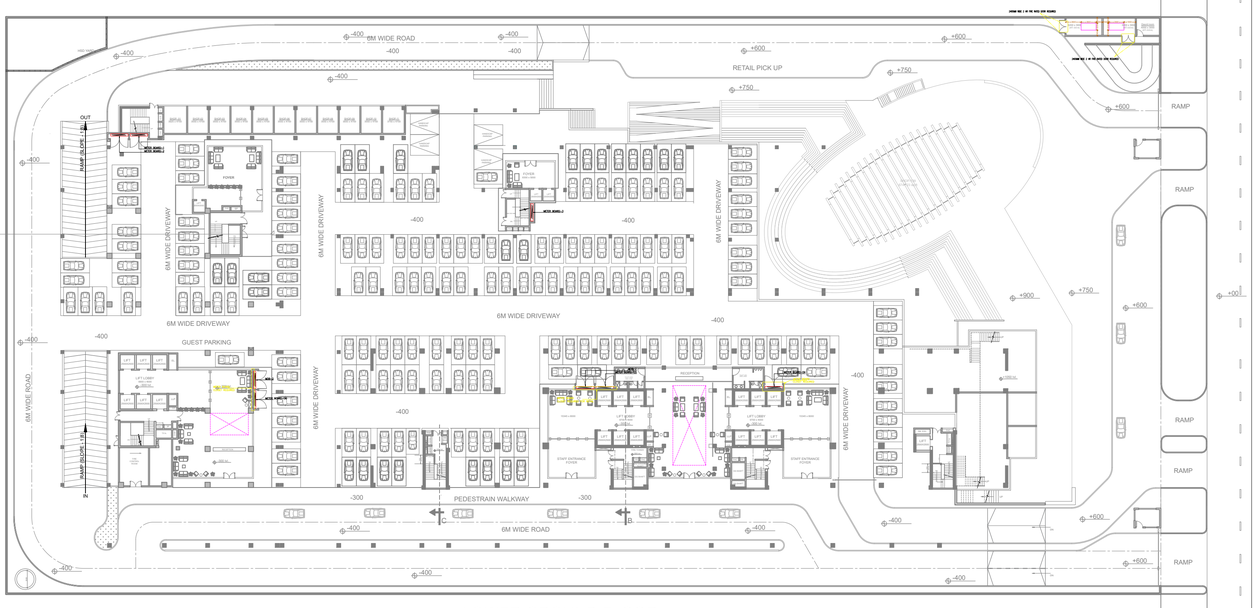
DATE	REVISION	DESCRIPTION	BY



BASEMENT LEVEL 2 PLAN



BASEMENT LEVEL 1 PLAN



LOWER GROUND FLOOR

Electrical Load Calculation_Retail Area + Basements + Ventilation + PHE + Fire Fighting + External Lighting_PVVNL Norms

(13.94 W per Sqft for Commercial Building) -

#	Description	Area (FAR + Basement)	Percentage considered as per PVVNL	Constructed Area considered for Load Cal.	Load @ 13.94 W / sq ft	Misc Load	Total Load
		(Sq ft)	%	(Sq ft)	(kW)	(kW)	(kW)
I							
1.	Basements (Car Parking)	3,09,238.40	50%	1,54,619.20	2,155.39	-	2,155.39
2.	Reatil Area	6,67,368.00	100%	6,67,368.00	9,303.11	-	9,303.11
	Total (I)					-	**11459**
II	**PHE & Fire Fighting**						
1.	Plumbing Pumps + STP + Sump Pumps & Water					100.00	100.00
2.	Fire Fighting Pump(200kW)					200.00	20.00
	Total (II)					-	**120**
III.	**Lifts & Escalators**						
1.	Lifts (25 Nos.)					500.00	500.00
2.	Escalator (4 No.)					30.00	30.00
	Total (III)					-	**530**
IV.	**External Lighting**						
1.	Security / Boundary Lighting					10.00	10.00
2.	Landscape / Facade Lighting					30.00	30.00
	Total (IV)					-	**40**
Transformer Selection							
Total Connected Load_I + II + III + IV							**12149 kW**
Diversity Factor as per PVVNL							75%
Total Maximum Demand Load							9111 kW
Total Maximum Demand Load (@ 0.95 P.F.)							**9591 kVA**
Loading (@ 0.80)							**11989 kVA**

Proposed Transformer Rating (33/0.415kV) : 5 Nos. x 2500 kVA Dry Type with OLTC = 12500 kVA

DG SELECTION AS PER ACTUAL LOAD CALCULATION

S.No.	Area Location	Area(Sq. ft)	Load factor @ 8W/Sq. ft.	Connected Load	Demand Factor	Demand Load
1	Total FAR	667368	8	5338.94	100%	5338.94
2	**Common Services Load**					
a	Basement Lighting & Power (309238.40 Sq.ft. @ 0.2W/Sq ft)			61.85	80%	49.48
b	Common Area Lighting & Power Load			100.00	80%	80.00
	Total(i)					**5468.42**
II	**PHE & Fire Fighting**					
1.	Plumbing Pumps + STP + Sump Pumps & Water Bodies					100.00
2.	Fire Fighting Pump(200kW)					20.00
	Total (II)					**120.00**
III.	**Lifts & Escalators**					
1.	Lifts (25 Nos.)					500.00
2.	Escalator (4 No.)					30.00
	Total (III)					**530.00**
IV.	**External Lighting**					
1.	Security / Boundary Lighting					10.00
2.	Landscape / Facade Lighting					30.00
	Total (IV)					**40.00**
DG Selection						
Total Connected Load_I + II + III + IV						**6158 kW**
Diversity Factor						90%
Total Maximum Demand Load						5543 kW
Total Maximum Demand Load (@ 0.80 P.F.)						**6928 kVA**
Loading (@ 0.80)						**8660 kVA**

Proposed DG Rating (415kV) : 7 Nos. x 1500 kVA Heat Exchanger Type DG sets(N +1)

NOTE:- 2HR FIRE RATED DOOR REQUIRED IN ELECTRICAL AND LV SHAFT
SERVICES ROOM DOOR SHALL BE OPEN OUTWARD

CLIENT

GYGY INFRADESIGN PVT. LTD.

PROJECT

GYGY MENTIS AT PLOT NO-2, SECTOR 140 NOIDA

PRINCIPAL ARCHITECT

DESIGN FORUM INTERNATIONAL

K-47, KAILASH COLONY, NEW DELHI-110048
PHONE NO.: 011-46556600

MEP CONSULTANT:

V.S. KUKREJA & ASSOCIATES PVT. LTD.
CONSULTING ENGINEERS
165-A,GAUTAM NAGAR
NEW DELHI-110049 PH:26521075/76
EMAIL:info@vskukreja.com

DRAWING TITLE:

BASEMENT LEVEL 2 PLAN
ELECTRICAL LAYOUT

DATE	26-04-2023	NORTH
SCALE	A1@ 1: 275	
DRAWN	DEEP	
CHKD.BY	P.K	
DWG.NO.		