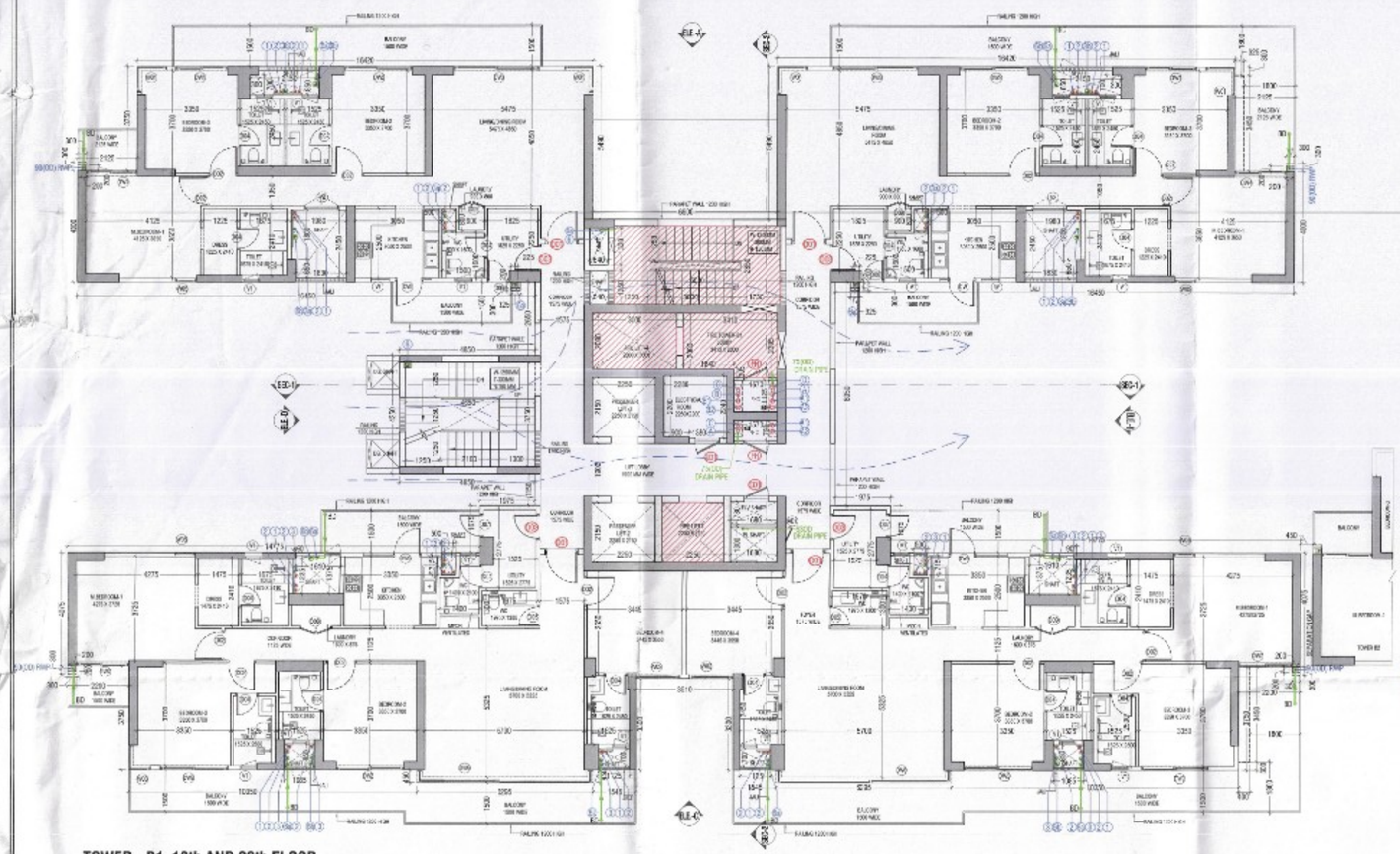
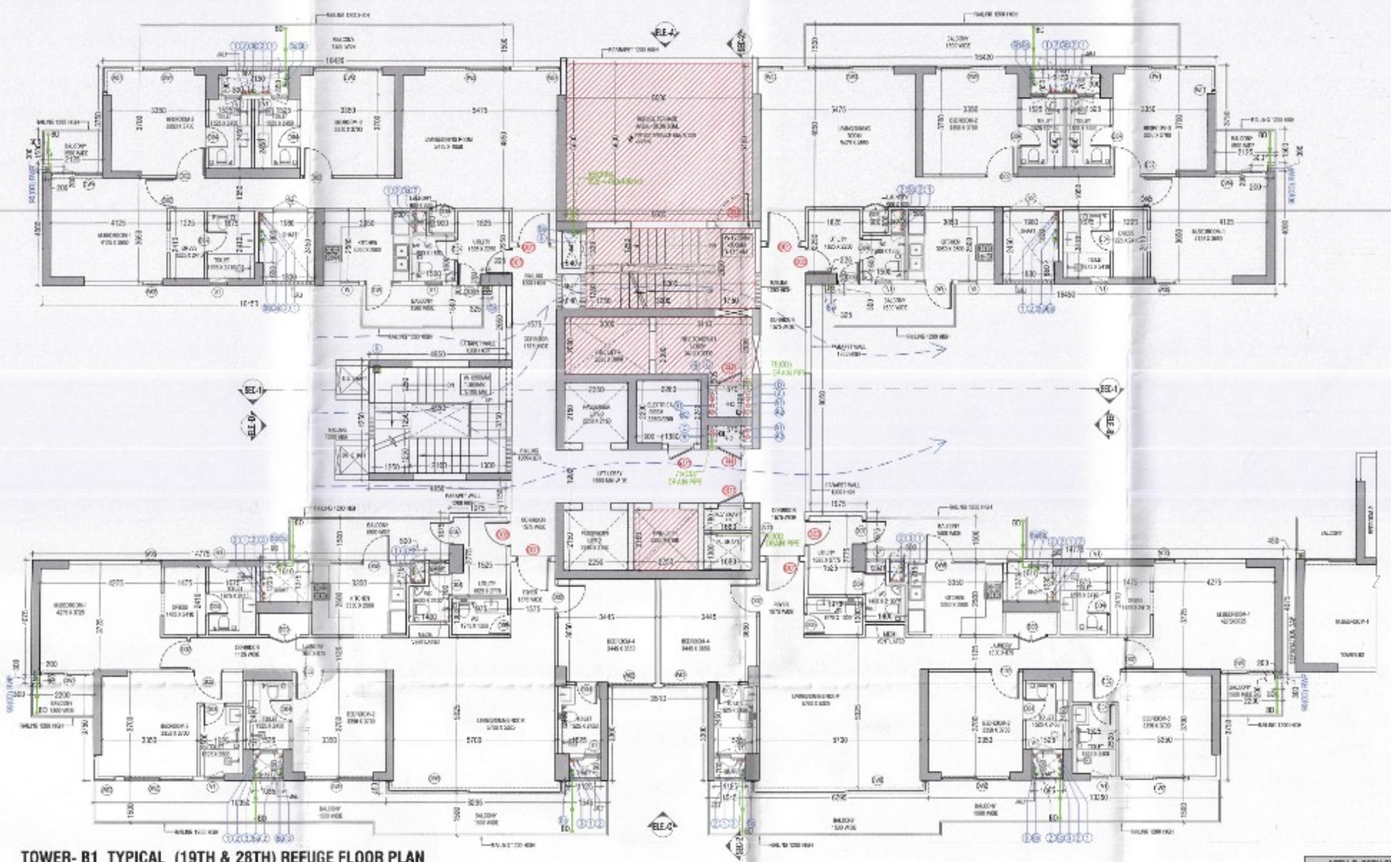


TOWER - B1_18th AND 20th FLOOR



TOWER- B1_TYPICAL (19TH & 28TH) REFUGE FLOOR PLAN

Checked and found ok for Public Health (Internal) Service only subject to comments in forwarding letter No. 283-453 Dt. 29/09/2025

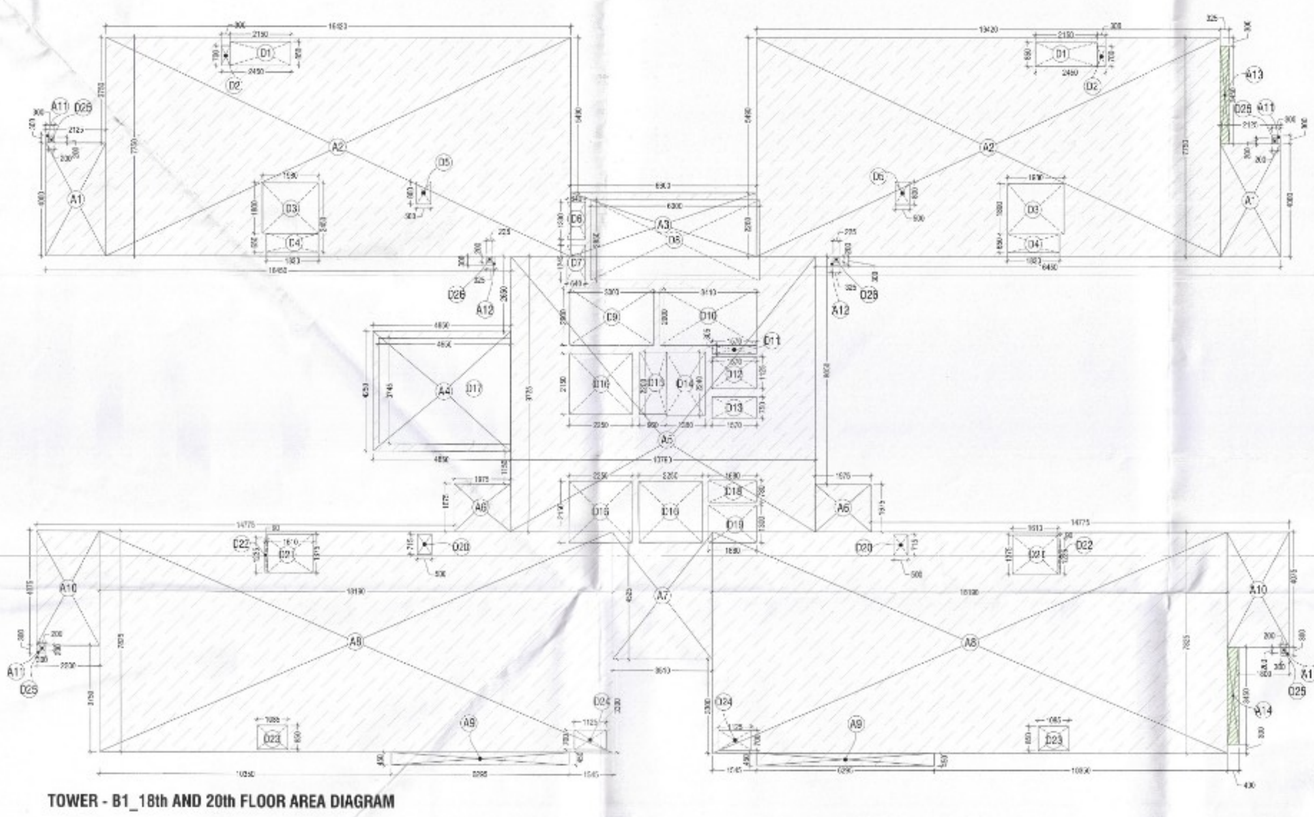
Superintending Engineer (HQ)
for Chief Engineer-I
HSVP, Panchkula

S.T.P.(HQ) Member Secretary B.P.A.C.
S.T.P.(G) Member B.P.A.C.
C.T.P.(HT) Chairman B.P.A.C.
DTP(HQ)
ATP(HQ)
AD
PA
ATP

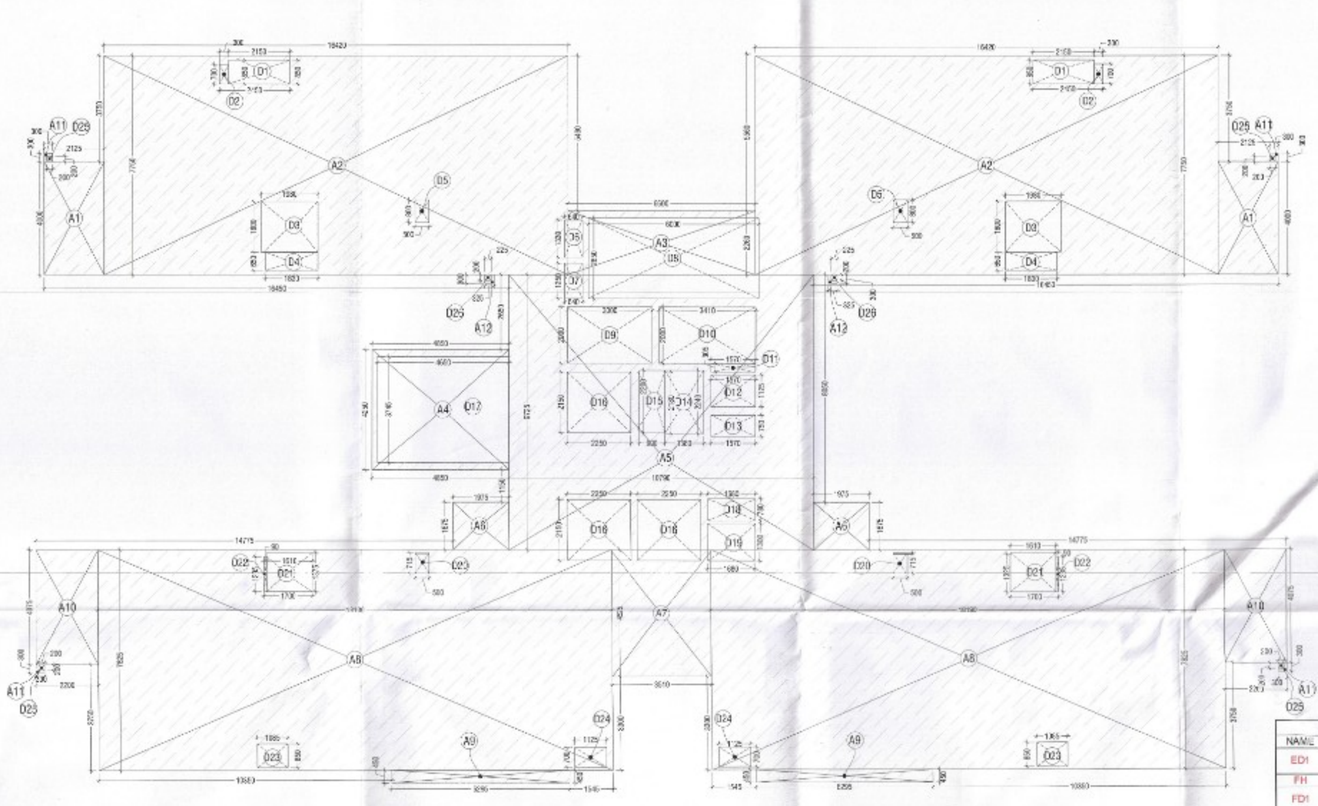
SANCTIONED
TO BE READ WITH THIS OFFICE MEMO NO.: 37614
DATED: 25/09/2025

DINESH KUMAR
PA(HQ)

JCTP(HQ)
Member
BPAC



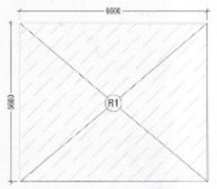
TOWER - B1_18th AND 20th FLOOR AREA DIAGRAM



TOWER-B1_TYPICAL REFUGE FLOOR (19TH & 28TH)

18TH & 20TH FLOOR FAR AREA CALCULATIONS(T-B1)				
S. No.	WIDTH	LENGHT	NOS.	AREA IN SQMT
ADDITIONS (A)				
A1	2.125	4.000	2	17.000
A2	16.420	7.750	2	254.510
A3	6.600	2.260	1	14.916
A4	4.850	4.250	1	20.613
A5	10.790	9.725	1	104.933
A6	1.975	1.675	2	6.616
A7	3.510	4.525	1	15.883
A8	18.190	7.825	2	284.674
A9	6.295	0.450	2	5.666
A10	2.200	4.075	2	17.930
A11	0.300	0.300	4	0.360
A12	0.325	0.300	2	0.195
A13	0.325	3.450	1	1.123
A-14	0.400	3.450	1	1.380
TOTAL ADDITION (A)			=	745.796
DEDUCTIONS (D)				
D1	2.150	0.850	2	3.655
D2	0.300	0.700	2	0.420
D3	1.980	1.800	2	7.128
D4	1.830	0.650	2	2.379
D5	0.500	0.800	2	0.800
D6	0.640	1.330	1	0.851
D7	0.640	1.245	1	0.797
D8	6.000	2.850	1	17.100
D9	3.000	2.000	1	6.000
D10	3.410	2.000	1	6.820
D11	1.570	0.305	1	0.479
D12	1.570	1.125	1	1.766
D13	1.570	0.750	1	1.178
D14	1.380	2.240	1	3.091
D15	0.900	2.200	1	1.980
D16	2.250	2.150	3	14.513
D17	4.650	3.745	1	17.414
D18	1.680	0.780	1	1.310
D19	1.680	1.300	1	2.184
D20	0.900	0.715	2	0.715
D21	1.610	1.375	2	4.428
D22	0.090	1.235	2	0.222
D23	1.085	0.850	2	1.845
D24	1.125	0.700	2	1.575
D25	0.200	0.200	4	0.160
D26	0.225	0.200	2	0.090
TOTAL DEDUCTIONS (D)				98.899
TOTAL TYPICAL FLOOR FAR AREA (A-D) =			=	646.896

REFUGE 19TH & 28TH FLOOR FAR AREA CALCULATIONS(T-B1)				
S. No.	WIDTH	LENGHT	NOS.	AREA IN SQMT
ADDITIONS (A)				
A1	2.125	4.000	2	17.000
A2	16.420	7.750	2	254.510
A3	6.600	2.260	1	14.916
A4	4.850	4.250	1	20.613
A5	10.790	9.725	1	104.933
A6	1.975	1.675	2	6.616
A7	3.510	4.525	1	15.883
A8	18.190	7.825	2	284.674
A9	6.295	0.450	2	5.666
A10	2.200	4.075	2	17.930
A11	0.300	0.300	4	0.360
A12	0.325	0.300	2	0.195
TOTAL ADDITION (A)			=	743.294
DEDUCTIONS (D)				
D1	2.150	0.850	2	3.655
D2	0.300	0.700	2	0.420
D3	1.980	1.800	2	7.128
D4	1.830	0.650	2	2.379
D5	0.500	0.800	2	0.800
D6	0.640	1.330	1	0.851
D7	0.640	1.245	1	0.797
D8	6.000	2.850	1	17.100
D9	3.000	2.000	1	6.000
D10	3.410	2.000	1	6.820
D11	1.570	0.305	1	0.479
D12	1.570	1.125	1	1.766
D13	1.570	0.750	1	1.178
D14	1.380	2.240	1	3.091
D15	0.900	2.200	1	1.980
D16	2.250	2.150	3	14.513
D17	4.650	3.745	1	17.414
D18	1.680	0.780	1	1.310
D19	1.680	1.300	1	2.184
D20	0.900	0.715	2	0.715
D21	1.610	1.375	2	4.428
D22	0.090	1.235	2	0.222
D23	1.085	0.850	2	1.845
D24	1.125	0.700	2	1.575
D25	0.200	0.200	4	0.160
D26	0.225	0.200	2	0.090
TOTAL DEDUCTIONS (D)				98.899
TOTAL REFUGE 19TH & 28TH FLOOR FAR AREA (A-D) =			=	644.395



REFUGE_19TH & 28TH AREA DIAGRAM

REFUGE AREA CALCULATION:
GROSS AREA OF TWO CONSECUTIVE FLOORS = 743.294 + 745.796 = 1489.09 SQM
NO OF OCCUPANTS ON two FLOOR = 1489.09 /12.5 = 119.127 SAY 120 PERSONS
REFUGE AREA REQUIRED = 120 X 0.3 = 36 SQM
ADDITIONALLY FOR WHEELCHAIR SPACE = 0.9 SQM
TOTAL REFUGE AREA REQUIRED = 36 + 0.9 = 36.90 SQM
REFUGE AREA PROVIDED = 36.96 SQM

19TH & 28TH LEVEL REFUGE AREA CALCULATIONS(T-B3)				
S. No.	WIDTH	LENGHT	NOS.	AREA IN SQMT
ADDITIONS (A)				
R1	6.600	5.600	1	36.960
TOTAL ADDITION (A)			=	36.960

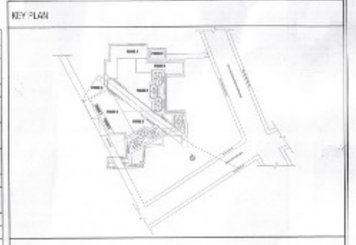
LEGEND FOR PLUMBING:	
1	100Ø SOIL & VENT PIPE
1a	150Ø SOIL & VENT PIPE
1b	200Ø SOIL & VENT PIPE
2	100Ø WASTE & VENT PIPE
2a	150Ø WASTE & VENT PIPE
2b	200Ø WASTE & VENT PIPE
3	75Ø ANTI-SYPHONAGE PIPE
3a	100Ø ANTI-SYPHONAGE PIPE
3b	150Ø ANTI-SYPHONAGE PIPE
4	DOMESTIC WATER SUPPLY MAIN PIPE
4a	DOMESTIC WATER SUPPLY BRANCH PIPE
5	FLUSHING WATER SUPPLY MAIN PIPE
5a	FLUSHING WATER SUPPLY BRANCH PIPE
6	75Ø RAIN WATER PIPE
6a	100Ø RAIN WATER PIPE
6b	150Ø RAIN WATER PIPE
6c	200Ø RAIN WATER PIPE
7	DOMESTIC WATER TANK FILLING PIPE
8	FLUSHING WATER TANK FILLING PIPE

FIRE FIGHTING LEGEND:-	
(X)	150Ø FIRE PIPE FOR LOW RISE
(X)	150Ø HRL PIPE FOR MID RISE
(X)	150Ø FIRE PIPE FOR HIGH RISE
(E)	150Ø SPRINKLER PIPE FOR LOW RISE
(E)	150Ø SPRINKLER PIPE FOR MID RISE
(E)	150Ø SPRINKLER PIPE FOR HIGH RISE
(C)	80Ø SPRINKLER DRAIN PIPE
(T)	150Ø FIRE PIPE FROM FIRE OHT TO BASEMENT
	FIRE HOSE CABINET

NOTE
EACH FIRE HOSE CABINET SHALL CONSIST OF
1 NO. - SS SINGLE HEADED HYDRANT VALVE (63mm).
2 Nos. - FIRE HOSES 63mm (15M LONG WITH ACCESSORIES.
1 No - SHORT BRANCH PIPE
1 No - FIRST AID HOSE REEL DRUM
1 No - ABC TYPE FIRE EXT. (6.0KG)
1 No - CO2 TYPE FIRE EXT. (4.5KG)

TOWER B DOOR WINDOW SCHEDULE					
NAME	WIDTH	HEIGHT	CILL	LINTEL	LOCATION
ED1	900	2250	150	2400	ELE. ROOM / ELV. SHAFT 2 HR FIRE RATING
FH	900	2250	150	2400	FHC
FD1	1200	2400	0	2400	STAIRCASE 2 HR FIRE RATING
FD2	1000	2400	0	2400	FIRE CONTROL ROOM STILT
FD3	1200	2400	0	2400	ELECTRICAL METER ROOM-STILT
AD1	600	2250	150	2400	PL SHAFT
DD1	1200	2400	0	2400	UNIT ENTRY / TERRACE 1 HR FIRE RATING
DD1A	1200	2100	0	2100	TERRACE
D02	1050	2400	0	2400	ROOM
D03	900	2400	0	2400	UTILITY ROOM ENTRY 1 HR. FIRE RATING
D04	800	2400	0	2400	TOILET
D05	750	2400	0	2400	TOILET
D06	900	2400	0	2400	UTILITY BALCONY
D07	825	2500	0	2400	UTILITY BALCONY
D08	1200	2400	0	2400	HANDICAPPED TOILET
D09	900/1150	2400	0	2400	LAUNDRY
D10	1575	2400	0	2400	STILT CORRIDOR
DW	1000/900	2400/1150	0/1050	2400	KITCHEN TO BALCONY
DW1	1850	2400	0	2400	BEDROOM TO BALCONY
DW2	2450	2400	0	2400	BEDROOM TO BALCONY
DW3	3050	2400	0	2400	LIVING ROOM TO BALCONY
DW4	1825	2400	0	2400	BEDROOM TO BALCONY
DW5	1000/1100	2400/1350	0/1050	2400	KITCHEN TO BALCONY
DW6	900/6295	2400	0/1050	2400	LIVING ROOM TO BALCONY
DW7	1900	2400	0	2400	BEDROOM TO BALCONY
W	850	1350	1050	2400	KITCHEN TO BALCONY
W01	900/1075	2400	0	2400	LIVING ROOM TO BALCONY
W02	1585	2400	0	2400	BEDROOM
W03	900/775	2400	0	2400	BEDROOM
W04	873	2400	0	2400	LIVING ROOM
W06	750	2400	0	2400	BEDROOM
V1	600	1200	1200	2400	TOILET
V2	1200	1200	1200	2400	TOILET
GL1	1800/14840	3000/4800	0	3000/4800	ENTRANCE LOBBY STILT
GL2	3800/3050	4900	0	4900	WAITING LOUNGE STILT
GL3	1150	3700	1200	4900	WAITING LOUNGE STILT
GL4	1640	3700	1200	4900	CORRIDOR STILT
					CORRIDOR

KEY PLAN



PRINCIPAL ARCHITECT

ACPL
ISO 9001:2015
ACPL Design Ltd
Quality Business Management Consulting
N

CLIENT
EMAAR INDIA LTD.

PROJECT
PROPOSED RESIDENTIAL COLONY (UNDER NILP POLICY DATED 11.05.2022)ON THE ADDITIONAL AREA MEASURING 1.4375 ACRES (LICENCE NO. 76 OF 2025 DATED 22.09.2025) ADJOINING TO ALREADY LICENSE GRANTED AREA MEASURING 24.4375 ACRES (LICENCE NO. 10 OF 2025 DATED 16.01.2025)THERBY MAKING TOTAL AREA MEASURING 25.90 ACRES, SECTOR-85, GURUGRAM BEING DEVELOPED BY EMAAR INDIA LTD.

EMAAR INDIA LIMITED
OWNER/AUTH. SIGNATURE

RAJESH SHANGARI
ARCHITECT
CA/97/21741
ARCHITECT'S SIGNATURE

DRAWING TITLE TOWER B1_18TH & 20TH,19TH & 28TH REFUGE FLOOR PLAN & AREA DIAGRAM