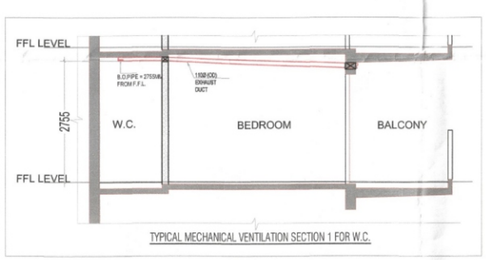
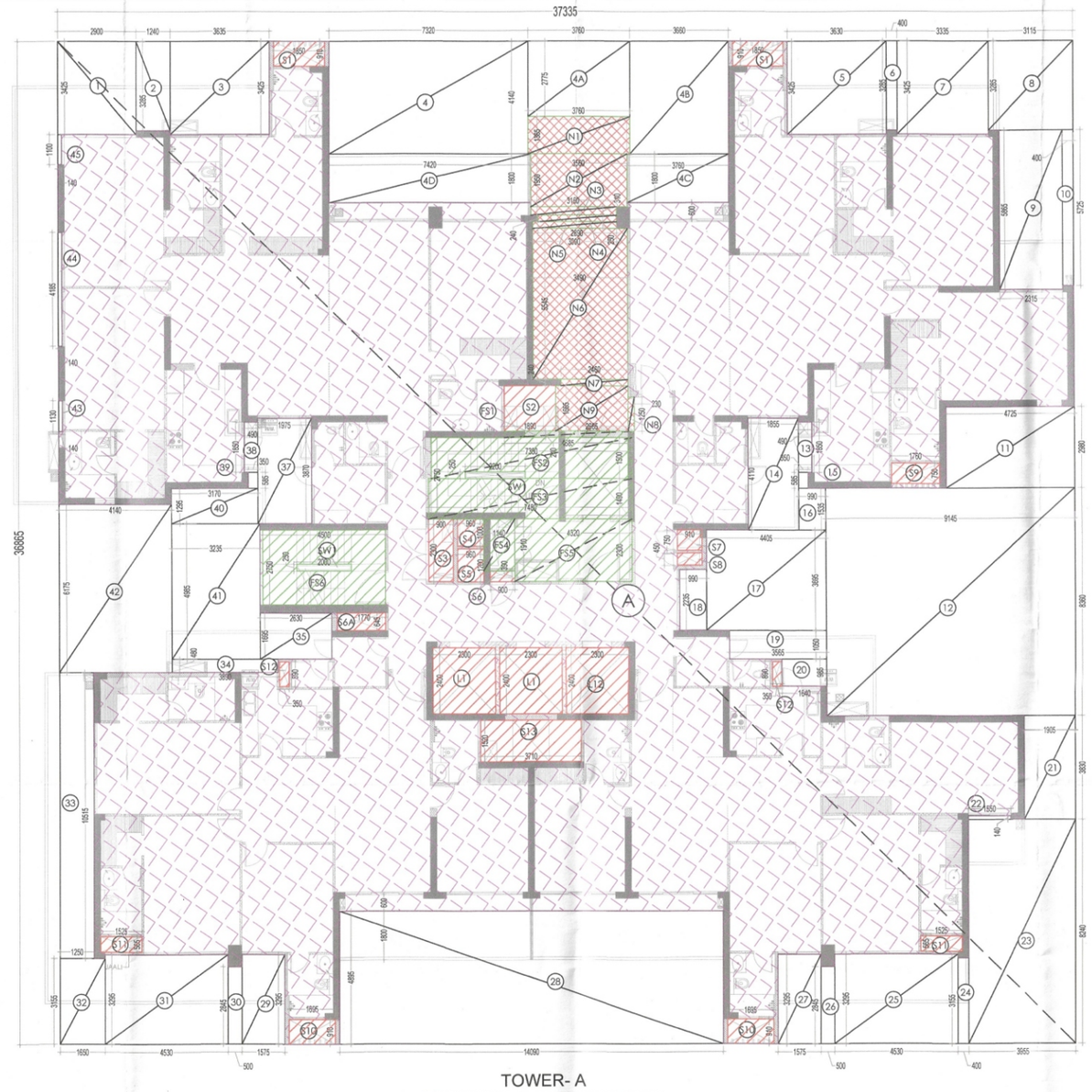


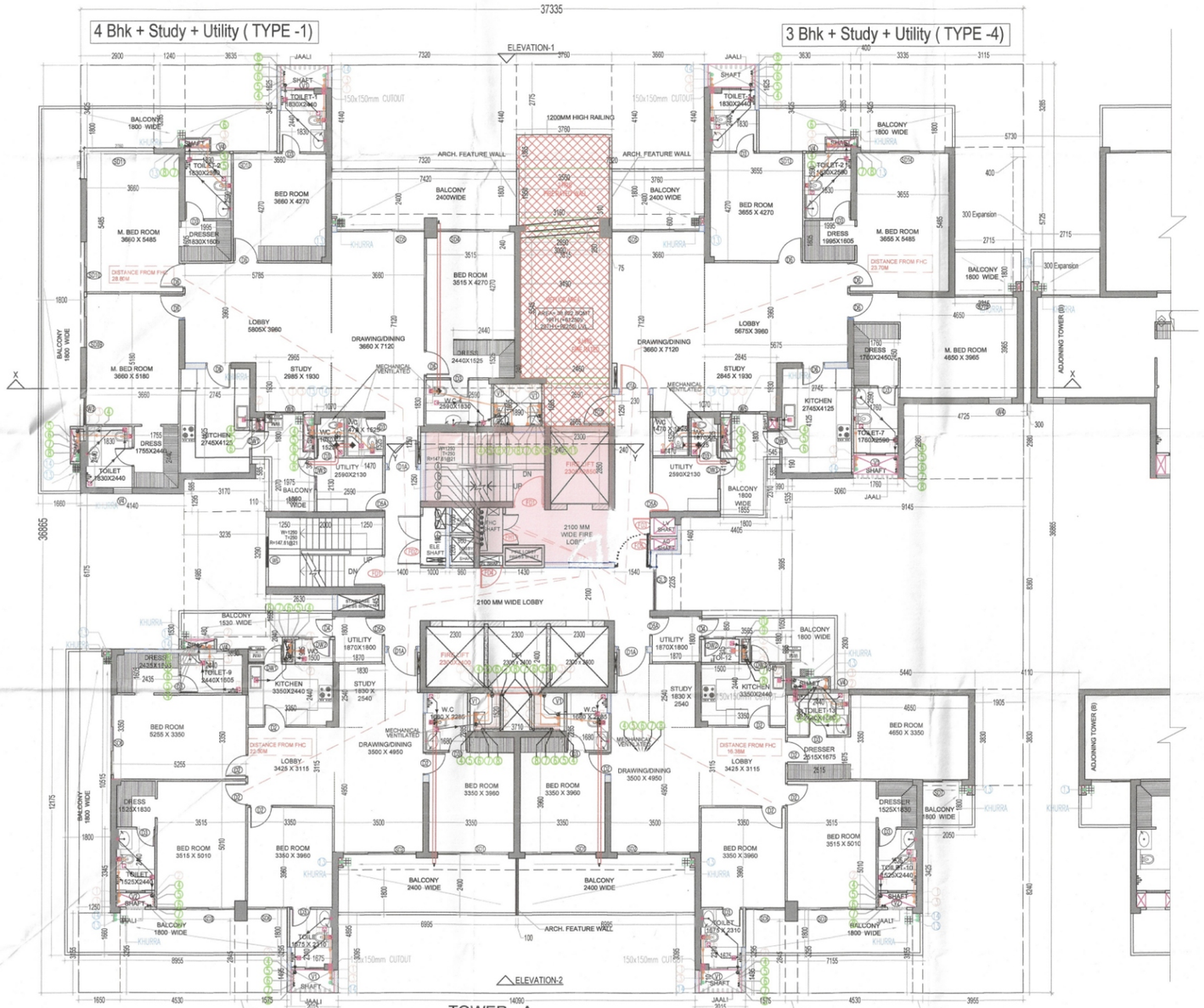
TYPICAL MECHANICAL VENTILATION SECTION 1 FOR W.C.

TYPICAL MECHANICAL VENTIALTION CALCULATION FOR W.C.

S.No.	Location	Area (Sq.ft.)	Height (Ft.)	Volume (Cu.ft.)	Design CFM CFM	SELECTED EXHAUST FAN	FAN SIZE LXBXH (mm)	EXHAUST DUCT SIZE DIAMETER (mm)
1	TYPICAL MECHANICAL VENTIALTION FOR W.C.							
1.1	W.C.	41	10.2	420	84	1# 100 cfm cassette Inline fan	270X270X171	110 (OD)
1.2	W.C.	51	10.2	519	104	1# 100 cfm cassette Inline fan	270X270X171	110 (OD)



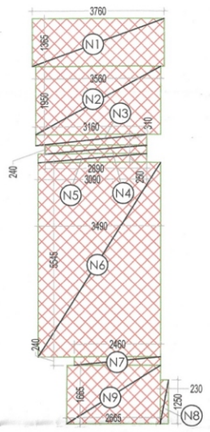
TOWER- A
REFUGE LVL AREA DIAGRAM
(LEVEL - 19TH to 29th)



TOWER - A
REFUGE LVL LAYOUT
(LEVEL - 19th & 29th)

DOOR WINDOW SCHEDULE TYPICAL & REFUGE FLOOR

TYPE	WIDTH	HEIGHT	SILL LVL	LINTEL LVL	REMARKS
D1	1200	2400	± 00	2400	ENTRANCE (ONE HOUR FIRE RATED DOOR)
D1A	1200	2400	± 00	2400	ENTRANCE REFUGE FLOOR (TWO HOUR FIRE RATED DOOR)
D2	900	2250	± 00	2250	BEDROOMS/ KITCHEN ENTRY
D3	750	2250	± 00	2250	TOILETS
D4	750	2500	± 00	2500	UTILITY BALCONY DOOR
D5	750	2400	± 00	2400	UTILITY ENTRANCE (ONE HOUR FIRE RATED DOOR)
D5A	750	2400	± 00	2400	UTILITY ENTRANCE REFUGE LVL (TWO HOUR FIRE RATED DOOR)
D6	900	2250	± 00	2250	BED ROOM/ KITCHEN DOOR
D7	1250	2100	± 00	2100	FIRE RATED DOOR FIRE LOBBY STILT
SD1	2800	2450	± 00	2450	BEDROOM
SD2	2875	2450	± 00	2450	DRAWING ROOM
SD3	3090	2450	± 00	2450	BEDROOM
SD4	2890	2450	± 00	2450	BEDROOM
SD5	3460	2450	± 00	2450	DRAWING ROOM
SD6	1575	2450	± 00	2450	BEDROOM
SD7	1550	2450	± 00	2450	BEDROOM
SD8	3250	2450	± 00	2450	DRAWING ROOM
SD9	2000	2450	± 00	2450	BEDROOM
SD10	1985	2450	± 00	2450	BEDROOM
SD11	1100+2760	2450	± 00	2450	BEDROOM
SD12	2930	2450	± 00	2450	BEDROOM
SD13	1725	2450	± 00	2450	BEDROOM
SD14	3340	2450	± 00	2450	BEDROOM
SD15	3315	2450	± 00	2450	BEDROOM
FD1	1250	2100	± 00	2100	FIRE RATED DOOR FIRE LOBBY AND STAIRCASE
FD2	2000	2000	100	2100	FIRE RATED DOOR ELECTRICAL SHAFT
FD3	750	2000	100	2100	FIRE RATED DOOR L.V SHAFT
FD4	900	2000	100	2100	FIRE RATED DOOR PLUMBING SHAFT
FD5	450	2000	100	2100	FIRE RATED DOOR AC SHAFT
DW1	750/600	2450	0/1050	2450	KITCHEN
DW2	750/350	2450	0/1050	2450	WC
DW3	750/600	2450	0/1050	2450	UTILITY
V1	750	1700	+750	2450	TOILETS
V2	750	1400	+1050	2450	TOILETS
V3	600	1400	+1050	2450	TOILETS
V4	750	1200	+1250	2450	TOILETS
GL1	8205	4800	±00	4800	ENTRANCE LOBBY STILT FLOOR
GL2	8010	2400	±00	2400	ENTRANCE LOBBY STILT FLOOR
GL3	2235	1550	900	2450	LIFT LOBBY
W3	1055	1550	900	2450	BED ROOM
W4	900	1550	900	2450	BED ROOM
W5	1100	1550	900	2450	BED ROOM
W6	1200	1200	1200	--	STAIRCASE



TOWER- A
19TH & 29TH LVL AREA DIAGRAM
(REFUGE AREA)

-	87.015	=	735.198	SQ.MT
TOTAL REFUGE AREA AT 19TH / 29TH LVL				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
N1	1	3.760	1.365	5.132
N2	1	3.560	1.950	6.942
N3	1	3.160	0.310	0.980
N4	1	2.890	0.240	0.694
N5	1	3.090	0.250	0.773
N6	1	3.490	5.545	19.352
N7	1	2.460	0.240	0.590
N8	1	0.230	1.250	0.288
N9	1	2.665	1.665	4.437
TOTAL REFUGE AREA				39.187
GROSS AREA AT 19TH / 29TH FLOOR(FAR+FS1+FS2+FS3+FS4-SW1-SW2)			781.976	(A)
GROSS AREA AT 20th / 30 th FLOOR (FAR+NON FAR)			809.623	(B)
TOTAL GROSS AREA=(A+B)			1591.598	
NO. OF PERSON= (TOTAL GROSS AREA/12.5)			127.328	
REFUGE AREA REQUIRED =(NO. OF PERSON X .3)			38.198	(C)
AREA ADDITIONAL FOR WHEEL CHAIR			0.9	(D)
REFUGE AREA REQUIRED (NO. OF PERSON X .3 + AREA ADDITIONAL FOR WHEEL CHAIR)			39.098	(C+D)

LEGEND:-

- AREA FAR
- AREA NON FAR
- SERVICE SHAFT (CUTOUT)
- 2 HRS. FIRE RATED FULL HEIGHT WALL
- CARPET AREA

FAR AREA AT 19TH/29TH LVL -TOWER - A
(All Distances are in Meter & Areas in Sqm)

ADDITIONS (A)				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
A	1	37.335	36.865	1376.355
TOTAL(A) =				1376.355

DEDUCTION (B)				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
1	1	2.900	3.425	9.933
2	1	1.240	3.285	4.073
3	1	3.635	3.425	12.450
4	1	7.320	4.140	30.305
4A	1	3.760	2.775	10.434
4B	1	3.660	4.140	15.152
4C	1	3.760	1.800	6.768
4D	1	7.420	1.800	13.356
5	1	3.630	3.425	12.433
6	1	0.400	3.285	1.314
7	1	3.335	3.425	11.422
8	1	3.115	3.285	10.233
9	1	2.315	5.865	13.577
10	1	0.400	5.725	2.290
11	1	4.725	2.980	14.081
12	1	9.145	8.360	76.452
13	1	0.490	1.850	0.907
14	1	1.855	4.110	7.624
15	1	0.350	0.585	0.205
16	1	0.990	1.535	1.520
17	1	4.405	3.695	16.276
18	1	0.990	2.235	2.213
19	1	3.565	1.050	3.743
20	1	1.640	0.985	1.615
21	1	1.905	3.830	7.296
22	1	1.550	0.140	0.217
23	1	3.955	8.240	32.589
24	1	3.155	0.400	1.262
25	1	4.530	3.295	14.926
26	1	0.500	2.845	1.423
27	1	1.575	3.295	5.190
28	1	14.090	4.895	68.971
29	1	1.575	3.295	5.190
30	1	0.500	2.845	1.423
31	1	4.530	3.295	14.926
32	1	1.650	3.155	5.206
33	1	1.250	10.515	13.144
34	1	3.890	0.480	1.867
35	1	2.630	1.695	4.458
36		Not in use		
37	1	1.975	3.870	7.643
38	1	0.490	1.850	0.907
39	1	0.350	0.585	0.205
40	1	3.170	1.295	4.105
41	1	3.235	4.985	16.126
42	1	4.140	6.175	25.565
43	1	0.140	1.130	0.158
44	1	0.140	4.185	0.586
45	1	0.140	1.100	0.154
TOTAL				511.911

SERVICE SHAFT & LIFT (C)				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
L1	3	2.300	2.400	16.560
S1	2	1.850	0.910	3.367
S2	1	1.890	1.665	3.147
S3	1	0.900	2.300	2.070
S4	1	0.960	1.000	0.960
S5	1	0.960	1.200	1.152
S6	1	0.900	0.390	0.351
S6A	1	1.770	0.645	1.142
S7	1	0.910	0.750	0.683
S8	1	0.910	0.450	0.410
S9	1	1.760	0.750	1.320
S10	2	1.695	0.910	3.085
S11	2	1.525	0.565	1.723
S12	2	0.350	0.890	0.623
S13	1	3.710	1.520	5.639
TOTAL SERVICES AREA				42.231

NON FAR/ STAIRCASE (D)				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
FS1	1	4.685	0.240	1.124
FS2	1	7.380	1.500	11.070
FS3	1	7.480	1.490	11.145
FS4	1	1.140	1.910	2.177
FS5	1	4.320	2.300	9.936
FS6	1	4.500	2.750	12.375
N1	1	3.760	1.365	5.132
N2	1	3.560	1.950	6.942
N3	1	3.160	0.310	0.980
N4	1	2.890	0.240	0.694
N5	1	3.090	0.250	0.773
N6	1	3.490	5.545	19.352
N7	1	2.460	0.240	0.590
N8	1	0.230	1.250	0.288
N9	1	2.665	1.665	4.437
TOTAL NON FAR				87.015

DEDUCTION (E)				
ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
SW1	1	2.000	0.250	0.500
SW2	1	2.200	0.250	0.550
TOTAL=				1.050
TOTAL NON FAR AREA (F) = (D-E)				
87.015	-	1.050	=	85.965

TOTAL FAR AREA AT 19TH & 29TH LVL. = ADDITION(A) - DEDUCTION				
1376.355	-	511.911	-	42.231
-	87.015	=	735.198	SQ.MT
TOTAL REFUGE AREA AT 19TH / 29TH LVL				

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL STRUCTURAL, MEP DRAWINGS.
2. ANY DISCREPANCY BETWEEN THE VARIOUS DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT IMMEDIATELY.
3. THE DRAWING SHALL NOT BE SCALED, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
4. THE FINISHED FLOOR LEVELS GIVEN IN THIS DRAWING ARE WITH RESPECT TO THE CENTRE LINE OF THE FRONT ROAD AT THE MIDDLE OF PLOT AS ± 0.00M.
5. PLEASE FOLLOW SERVICES DRAWING FOR ELECTRICAL AND SERVICES SHAFT DETAIL.
6. FOR STAIRCASE, LIFT LOBBY, TOILET, KITCHEN, RAILING AND BALCONY PLEASE FOLLOW DETAIL DRAWING.

S.T.P. (HQ) Member Secretary B.P.A.C. — S.T.P. (G) Member B.P.A.C. — C.T.P. (HQ) Chairman B.P.A.C.

DTP(HQ) — ATP(HQ)

SANCTIONED
TO BE READ WITH THIS OFFICE MEMO NO.: 3474
DATED : 27/11/25

DDR(T) MEMBER BPAC

AD — PA — ATP

Rajesh Dutt
SD(HQ)

Key Plan

LEGEND FOR PLUMBING:-

- (1) 110 OD SWE PVC SOIL & VENT PIPE
- (2) 110 OD SWE PVC WASTE & VENT PIPE
- (3) 90 OD SWE PVC ANTI-SYPHONAGE PIPE
- (4) DOMESTIC WATER SUPPLY 2N. SWE PIPE 27th TO 28th FLOOR
- (5) DOMESTIC WATER SUPPLY 2N. SWE PIPE 27th TO 14th FLOOR
- (6) DOMESTIC WATER SUPPLY 2N. SWE PIPE 13th TO GROUND FLOOR
- (7) FLUSHING WATER SUPPLY 2N. SWE PIPE 27th TO 14th FLOOR
- (8) FLUSHING WATER SUPPLY 2N. SWE PIPE 13th TO 1st FLOOR
- (9) DOMESTIC WATER SUPPLY 2N. SWE PIPE 27th TO 28th FLOOR FOR SERVANT TOILET
- (10) DOMESTIC WATER SUPPLY 2N. SWE PIPE 27th TO 1st FLOOR FOR SERVANT TOILET
- (11) 50M DOMESTIC WATER SUPPLY RISER TO SUN.T. FILLING
- (12) 50M FLUSHING WATER SUPPLY RISER TO SUN.T. FILLING
- (13) 110 OD UPVC RAIN WATER PIPE (FOR BALCONY)
- (14) 110 OD UPVC RAIN WATER PIPE (FOR TERRACE)
- ■ CUTOUT 150x150 IN SLAB
- FLOOR DRAIN (110x40)
- FLOOR TRAP (110x110)

LEGEND:-

- (A) 150M M.S. FIRE SPRINKLER PIPE (ZONE-1) STILT FLOOR TO 13th FLOOR
- (B) 150M M.S. FIRE SPRINKLER PIPE (ZONE-2) 14th FLOOR TO 28th FLOOR
- (C) 150M M.S. FIRE SPRINKLER PIPE (ZONE-3) 29th FLOOR TO TERRACE FLOOR
- (D) 50M M.S. FIRE SPRINKLER DRAIN PIPE
- (E) 100M M.S. FIRE WAKE-UP LINE
- (F) 100M M.S. FIRE HYDRANT PIPE (LOW ZONE) STILT FLOOR TO 13th FLOOR
- (G) 100M M.S. FIRE HYDRANT PIPE (HIGH ZONE) 14th TO TERRACE FLOOR

Checked and found ok for Public Health (Internal) Service only subject to comments in in forwarding letter No. 405 S.E. Dt 24/12/25

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

Owner:
Union Buildmart Pvt.Ldt, Vibrant infratech Pvt. Ltd, Targe Buildcon Pvt in Collaboration with Union Buildmart Pvt. Ltd

Architect:
GIAN P. MATHUR AND ASSOCIATES (P) LTD.
ARCHITECTS & PLANNERS
C - 55, East Of Kailash, New Delhi-110065
T : 011-46599599 / F 011-46599512
E : info@gpmindia.com / W : www.gpmindia.com

Project Title:
PROPOSED BUILDING PLAN OF PHASE - 2 GROUP HOUSING COLONY (MIX LAND USE RESIDENTIAL 99.5% AND 0.5% COMMERCIAL) ON THE AREA MEASURING 10.225 ACRES **(LICENCE NO. 229 OF 2023 DATED 02-11-2023) IN SECTOR -113, GURUGRAM**

Status: SUBMISSION DRAWING

Sheet Title
RESIDENTIAL TOWER - A
19TH &29TH FLOOR LVL LAYOUT & AREA DETAILS

Owner's Sign: For Union Buildmart Private Limited — Authorized Signatory

Architect's Sign: GIAN P. MATHUR ARCHITECT B. Arch., M.C.A., L.L.A. CA No. 80/5769

SCALE: 1: 100

DWG. No.
SD/AR/M3M-113A/T-A-105