TOWER ES2

400 MM SEPARATION GAP

4BHK + UTILITY (TYPE - 2)

44085

4BHK + 1 SERVICE PERSONNEL UNIT

34980

3BHK + UTILITY

TOWER : ES-1
REFUGE FLOOR PLAN
(17TH FLOOR @ LVL +62.550 M & 25TH FLOOR @ LVL+90.550 M)

4BHK + UTILITY (TYPE - 1)

TOWER ES2

TOWER : ES-1
REFUGE FLOOR PLAN AREA DIAGRAM
(17TH & 25TH FLOOR)

TO BE READ WITH THIS OFFICE MEMO NO.: 13350 DATED: 2/12/26

This is a "PROVISIONAL BUILDING PLAN" approved only for the purpose of inviting Objections from the general public

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

ATP(HQ) | ATP(HQ) | FBO, (HQ) Member BPAC

AD | PA | ATP

Rajesh Dutt SD(HQ)

Checked and found ok for Provisional (Internal) Service only, subject to compliance in forwarding letter No. 52037 Dt. 2/12/26

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

KEY PLAN

Note :

1. BUILDING HAS AUTOMATIC SPRINKLER SYSTEM WHEREVER REQUIRED BY NBC.
2. BUILDING WILL BE DESIGNED (STRUCTURES) AS PER RELEVANT IS CODES FOR EARTH QUAKE RESISTANCE.
3. 100% POWER BACKUP/ MECHANICAL VENTILATED SHAFTS.
4. RAILING HEIGHT AS PER NBC.

PHASE - 1 ALREADY SANCTIONED VIDE DATES: 25.01.2023 AND MEMO NO. - 2350

PROJECT:

PROPOSED BUILDING PLANS OF PHASE-03 & REVISED BUILDING PLANS OF PHASE-02, & BASEMENTS FALLING UNDER PHASE-02 & 03 PART OF GROUP HOUSING COLONY (MIX-LAND USE 99% RESIDENTIAL COMPONENT & 1% COMMERCIAL COMPONENT) UNDER TOD POLICY OVER AN AREA MEASURING 15.99375 ACRES (LICENSE NO. 213 OF 2022 DATED: 27.12.2022) IN THE REVENUE ESTATE OF VILLAGE CHAUMA, SECTOR-111, GURUGRAM MANESAR
URBAN COMPLEX BEING DEVELOPED BY M/S METRO EDUCATION & WELFARE PVT. LTD.

OWNER

METRO EDUCATION AND WELFARE PVT. LTD

ARCHITECTS

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SUBMISSION DRAWING

OWNER'S SEAL & SIGNATURE

Metro Education & Welfare Pvt. Ltd. Authorised Signatory

ARCHITECT'S SEAL & SIGNATURE

AMIT GUPTA Architect CA/2004/33147

DATE:-	SCALE :-	DRAWING NO:-
MAR 2026	1:100	CRN111-PH2-STS-ES1-RFU-DR-AR-0107

DRAWING TITLE:-
TOWER : ES-1
17TH & 25TH REFUGE FLOOR PLAN & AREA DIAGRAM

LEGEND

- FAR AREA
- NON FAR AREA
- SERVICE AREA
- SHAFT AREA UNDER DEDUCTION
- FIRE TENDER PATH
- TOWER LINE

DOOR & WINDOW SCHEDULE

S.NO.	SYMBOL	SIZE	CILL LVL	LINTEL LVL	REMARKS
1	SD01	4105X2750	-	2750	UPVC/SD
2	SD02	1985X2750	-	2750	UPVC/SD
3	SD03	3515X2750	-	2750	UPVC/SD
4	SD04	1515X2750	-	2750	UPVC/SD
5	SD05	1700X2750	-	2750	UPVC/SD
6	SD06	2500X2750	-	2750	UPVC/SD
7	SD07	3340X2750	-	2750	UPVC/SD
8	SD08	2690X2750	-	2750	UPVC/SD
9	SD09	4230X2750	-	2750	UPVC/SD
10	SD10	1715X2750	-	2750	UPVC/SD
11	SD11	2350X2750	-	2750	UPVC/SD
12	GL01	1500X2750	-	2750	GLASS DOOR
13	GL02	1000X2750	-	2750	GLASS DOOR
14	GL03	2000X2750	-	2750	GLASS DOOR
15	FD01	1500X2430	-	2430	TWO HOUR FIRE RATED DOOR
16	FD01A	1500X2750	-	2750	TWO HOUR FIRE RATED DOOR
17	FD02	1200X2650	100	2750	TWO HOUR FIRE RATED DOOR
18	FD03	1000X2330	100	2430	TWO HOUR FIRE RATED DOOR
19	FD04	1250X2430	-	2430	TWO HOUR FIRE RATED DOOR
20	FD04A	1250X2750	-	2750	TWO HOUR FIRE RATED DOOR
21	FD05	900X2750	-	2750	TWO HOUR FIRE RATED DOOR
22	FD06	2000X2750	-	2750	TWO HOUR FIRE RATED DOOR
23	D01	1200X2750	-	2750	ONE HOUR FIRE RATED DOOR
24	D02	1000X2430	-	2430	WD/FLUSH DOOR
25	D03	800X2430	-	2430	WD/FLUSH DOOR
26	D04	800X2430	-	2430	ONE HOUR FIRE RATED DOOR
27	D04A	800X2750	-	2750	WD/FLUSH DOOR
28	D05	1000X2750	-	2750	WD/FLUSH DOOR
29	D05A	1050X2750	-	2750	WD/FLUSH DOOR
30	D06	1250X2750	-	2750	WD/FLUSH DOOR
31	D07	815X2250	-	2250	WD/FLUSH DOOR
31	V01	600X1200	1050	2250	UPVC
32	V02	600X1200	600	2250	UPVC
33	V03	500X1200	1050	2250	UPVC
34	DW01	800/1000 (1800)	0/1050	2750	UPVC/OP
35	DW02	800/1350 (2350)	0/1050	2750	UPVC/OP
36	DW03	800/815 (1615)	0/1050	2750	UPVC/OP
37	DW04	800/640 (1440)	0/1050	2750	UPVC/OP
38	DW05	800/850 (1650)	0/1050	2750	UPVC/OP
39	DW06	800/1185 (1985)	0/1050	2750	UPVC/OP
40	W01	815X1200	1050	2250	UPVC/OP
41	W02	1000X1200	1050	2250	UPVC/OP
42	W03	750X1200	1050	2250	UPVC/OP

REMARKS: WD/FD = WOODEN FLUSH DOOR; UPVC/SD = UPVC/ SLIDING; UPVC/OP = UPVC/ OPENABLE

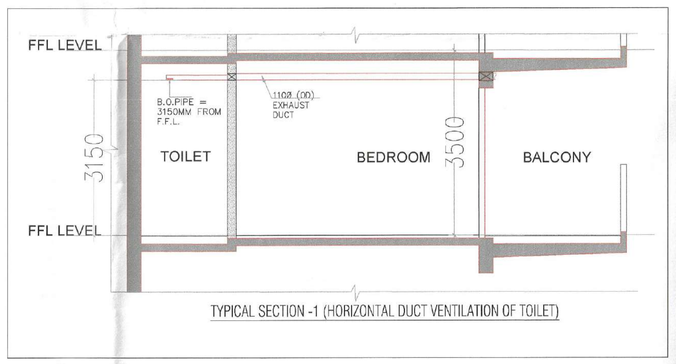
LEGEND:- PLUMBING

1		100Ø SOIL PIPE
2		100Ø WASTE PIPE
3		75Ø VENT PIPE
4		150Ø RAIN WATER PIPE FROM TERRACE
5		100Ø RAIN WATER PIPE FROM BALCONY
6		DOMESTIC WATER DOWN TAKE TOP 3-FLOOR HYDRO SUPPLY
7		DOMESTIC WATER DOWN TAKE (LEFT 25TH FLOOR TO 15TH FLOOR)
8		DOMESTIC WATER DOWN TAKE (LEFT 14 FLOOR TO GROUND/STILT FLOOR)
9		FLUSHING WATER DOWN TAKE (TOP 28TH FLOOR TO 16TH FLOOR)
10		FLUSHING WATER DOWN TAKE (LEFT 15TH FLOOR TO GROUND/STILT FLOOR)
11		DOMESTIC WATER RISER PIPE
12		FLUSHING WATER RISER PIPE

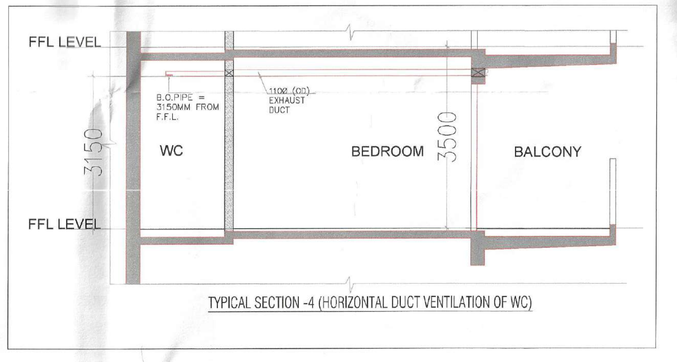
- PIPE SUPPORT
- W.C CISTERN
- HEALTH FAUCET
- GEYSER
- BUTTERFLY VALVE
- PIPE DROP
- FLOOR TRAP
- FLOOR DRAIN
- FLOOR TRAP CUTOUT 150X150MM
- WC CUTOUT 150X150MM
- HOT WATER SUPPLY PIPE
- KHURRA SIZE 450X450

SUNKEN FOR TOILET 100MM

SUNKEN FOR BALCONY 75 MM



TYPICAL SECTION -1 (HORIZONTAL DUCT VENTILATION OF TOILET)



TYPICAL SECTION -4 (HORIZONTAL DUCT VENTILATION OF WC)

LEGEND:-

1. COLUMN / STRUCTURAL WALL
2. NON STRUCTURAL WALL

SUMMARY OF MECHANICAL VENTILATION

SN	Floor	Area SFT	Effective HT FT	Volume CFT	Air Change Per Hour	Calculated CFM	Installed CFM	Application	Nos. of Fan & Fan Capacity CFM	Type of Fan	Remark	Static Pressure (mm) Indicative	No. of Point	Kw of Each Point	Phase	Total Kw in Normal Mode	Total Kw Extra in Fire Mode	Local Source of Power	Location of Local Source	Supply to Local Source
A	GENERAL VENTILATION																			
	TYPICAL FLOOR																			
1	Toilet for Living & Dining	27	9.0	243	10	41	100	Exhaust	100 CFM	Inline Fan	Normal Mode	8	1	0.15	1PH	0.15	0.00	MCB	Near Fan	By Others
2	Toilet for Bedroom-2	93	9.0	837	10	140	150	Exhaust	150 CFM	Inline Fan	Normal Mode	8	1	0.20	1PH	0.20	0.00	MCB	Near Fan	By Others

FAR AREA OF TOWER- ES1 / ES3 AT(17TH & 25TH FLOOR) REFUGE FLOOR LEVEL

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N) in sq.m
A	44.085	34.98	1	1542.093
TOTAL (A)				1542.093
DEDUCTIONS				
D1	2.000	4.715	2	18.860
D2	1.750	1.600	2	5.600
D3	0.425	1.940	2	1.649
D4	6.005	5.405	2	64.914
D5	12.690	1.815	2	46.065
D6	6.080	1.800	1	10.944
D7	2.990	1.600	1	4.784
D8	2.500	0.200	3	1.500
D9	5.805	5.405	1	31.376
D10	3.795	6.835	1	25.939
D11	1.515	0.140	1	0.212
D12	1.880	4.115	1	7.736
D13	2.770	3.445	1	9.543
D14	1.200	0.690	1	0.828
D15	1.000	7.650	1	7.650
D16	9.370	6.190	1	58.000
D17	0.965	0.690	1	0.666
D18	2.690	0.140	1	0.377
D19	3.140	6.515	1	20.457
D20	5.615	5.405	1	30.349
D21	2.100	1.590	1	3.339
D22	1.490	0.730	1	1.088
D23	0.695	0.630	1	0.438
D24	0.310	2.180	1	0.676
D25	2.100	2.400	1	5.040
D26	6.080	0.200	1	1.216
D27	3.640	7.250	1	26.390
TOTAL (D)				385.635

LIFT & SERVICES SHAFTS

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N) in sq.m
S1	2.550	2.200	4	22.440
S2	1.740	2.255	2	7.847
S3	0.450	1.350	4	2.430
S4	1.700	1.365	2	4.641
S5	1.540	0.140	1	0.216
S6	1.370	2.970	1	4.069
S7	0.800	2.970	1	2.376
S8	2.100	2.830	1	5.943
S9	1.940	0.140	1	0.272
S10	1.740	0.450	1	0.783
S11	1.580	0.140	1	0.221
S12	2.345	0.450	1	1.055
S13	0.250	0.250	8	0.500
S14	0.480	1.600	3	2.304
S15	0.540	1.600	1	0.864
TOTAL (S)				55.961

FIRE STAIRCASE & NON FAR AREA

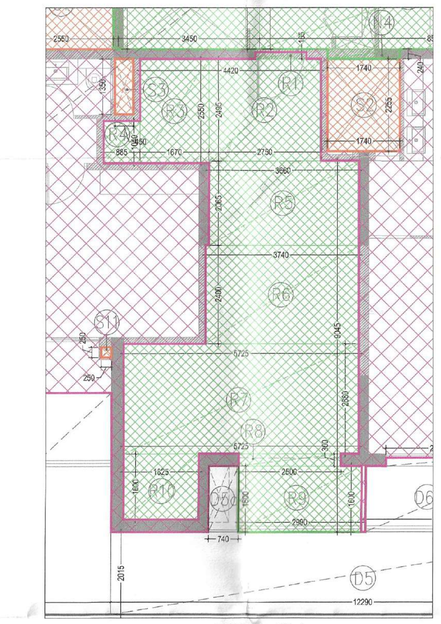
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N) in sq.m
N1	5.200	2.830	1	14.716
N2	2.440	0.120	2	0.586
N3	8.500	2.950	1	25.075
N4	1.740	0.240	1	0.418
N5	3.450	3.020	1	10.419
TOTAL (N)				51.213
FIRE STAIRCASE WELL				
O1	2.700	0.330	1	0.891
O2	3.000	0.330	1	0.990
TOTAL (W)				1.881
TOTAL NON FAR AREA (NF) = (N - W)				49.332
TOTAL FAR AREA (F) = (A - D - S - N-R)				996.707
TOTAL COVERED AREA = (F + NF)				1046.039

REFUGE AREA CALCULATION AT 17TH & 25TH FLOOR

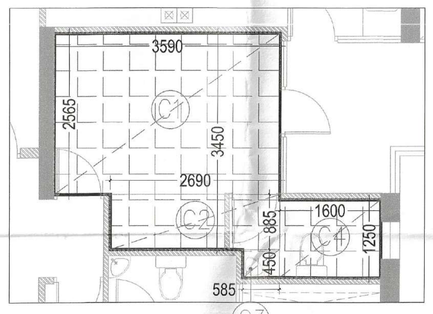
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N) in sq.m
R1	1.250	0.165	1	0.206
R2	2.750	2.495	1	6.861
R3	1.670	2.550	1	4.259
R4	0.885	1.040	1	0.920
R5	3.660	2.065	1	7.558
R6	3.740	2.490	1	8.976
R7	5.725	2.680	1	15.343
R8	2.500	0.300	1	0.750
R9	2.990	1.600	1	4.784
R10	1.825	1.600	1	2.920
TOTAL (R)				52.577
GROSS AREA at 17th/25th FLOOR (FAR + NON FAR)				1046.039
GROSS AREA at 18th/24th FLOOR (FAR + NON FAR)				1093.157
TOTAL GROSS AREA at 17th/25th & 18th/24th FLOOR (G)				2139.196
B = GROSS AREA (G) / 12.5				171.136
C = B * 0.3				51.341
ADDITIONAL SPACE REQUIRED TO ACCOMMODATE WHEEL CHAIR				0.900
TOTAL REFUGE AREA REQUIRED				52.241
TOTAL REFUGE AREA PROVIDED = (RO)				52.577
GRAND TOTAL NON FAR AREA= (NF+R)				101.910

CARPET AREA - SERVICE PERSONNEL UNIT TYPICAL FLOOR

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N) in sqm.
C1	3.590	2.565	1	9.208
C2	2.690	0.885	1	2.381
C3	0.585	0.450	1	0.263
C4	1.600	1.250	1	2.000
TOTAL (D)				13.85



TOWER : ES-1
REFUGE AREA DIAGRAM



SERVICE PERSONNEL UNIT
CARPET AREA DIAGRAM