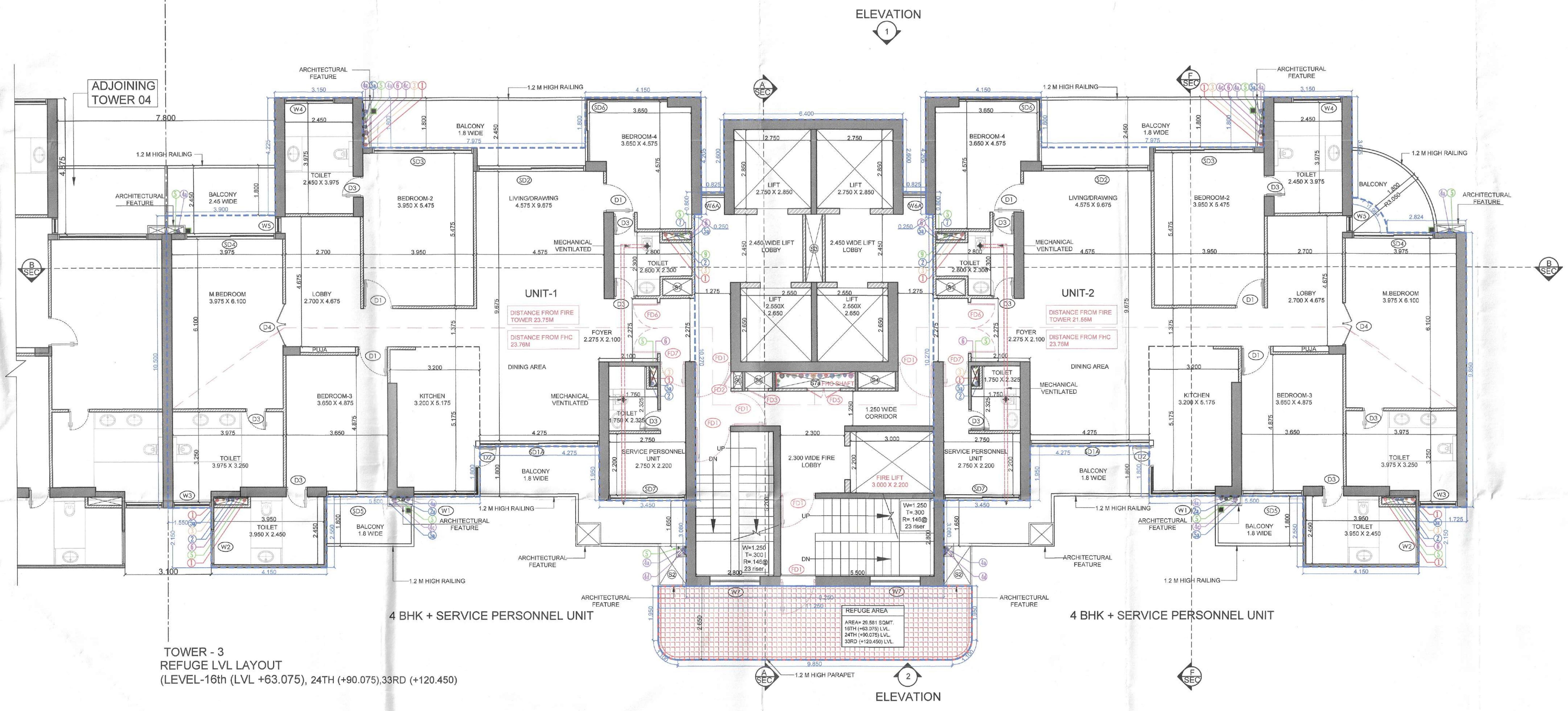
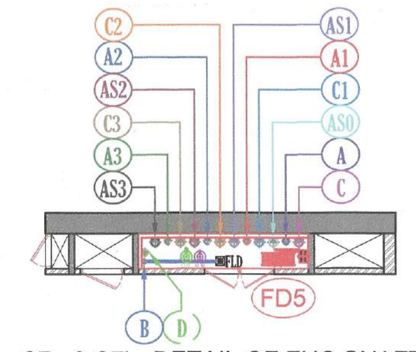
ADJOINING TOWER 04



TOWER - 3
REFUGE LVL LAYOUT
(LEVEL-16th (LVL +63.075), 24TH (+90.075),33RD (+120.450)

LEGEND PLUMBING PIPE :-

S.No.	DESCRIPTION
1.	110 OD SOIL PIPE
2.	110 OD WASTE PIPE
2a.	110 OD KITCHEN WASTE PIPE
2b.	110 OD WASHING MACHINE WASTE PIPE
2c.	75 OD GARBAGE ROOM WASTE PIPE
3.	75 OD uPVC VENT PIPE
4.	110 OD uPVC RAIN WATER PIPE
4a.	110 OD uPVC BALCONY DRAIN PIPE
4b.	110 OD uPVC UTILITY BALCONY DRAIN PIPE
4c.	160 OD uPVC RAIN WATER PIPE
4d.	75 OD uPVC REFUGE BALCONY DRAIN PIPE
5.	DOMESTIC WATER SUPPLY DN. TAKE (DWS) *
5a.	DOMESTIC BOOSTER PUMP WATER SUPPLY (UPPER 4 FLOOR) *
6.	FLUSHING WATER SUPPLY DN. TAKE (FWS) *
7.	65Ø DOMESTIC WATER SUPPLY RISER TO TERRACE OHT
8.	50Ø FLUSHING WATER SUPPLY RISER TO TERRACE OHT
9.	160 OD DOMESTIC WATER SUPPLY DN. TAKE FOR LOWER FLOOR (DWS)
10.	110 OD FLUSHING WATER SUPPLY DN. TAKE FOR LOWER FLOOR (FWS)
*	AS PER WATER SUPPLY DISTRIBUTION DIAGRAM



S7a & S7b- DETAIL OF FHC SHAFT

LEGEND FIRE FIGHTING PIPE:-

S.No.	DESCRIPTION
A	100Ø HYDRANT PIPE FOR ZONE-1
A1	100Ø HYDRANT PIPE FOR ZONE-2
A2	100Ø HYDRANT PIPE FOR ZONE-3
A3	100Ø HYDRANT PIPE FOR ZONE-4
B	80Ø FIRE DRAIN PIPE
C	100Ø SPRINKLER PIPE FOR ZONE-1
C1	100Ø SPRINKLER PIPE FOR ZONE-2
C2	100Ø SPRINKLER PIPE FOR ZONE-3
C3	100Ø SPRINKLER PIPE FOR ZONE-4
D	100Ø FIRE MAKEUP LINE
AS0	100Ø ALTERNATE SPRINKLER PIPE FOR ZONE-1
AS1	100Ø ALTERNATE SPRINKLER PIPE FOR ZONE-2
AS2	100Ø ALTERNATE SPRINKLER PIPE FOR ZONE-3
AS3	100Ø ALTERNATE SPRINKLER PIPE FOR ZONE-4

LEGEND:-

100 MM INTERNAL WALL

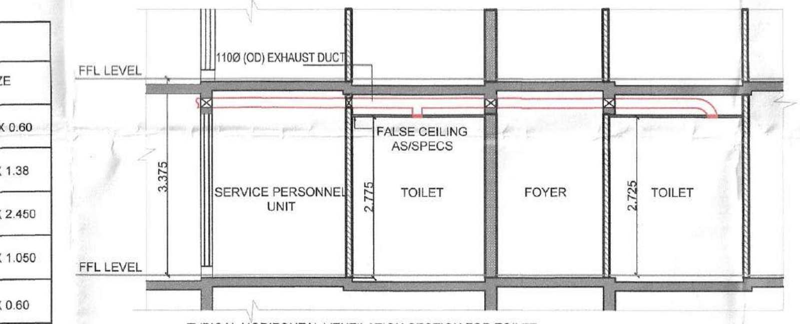
DOOR WINDOW SCHEDULE

TYPE	WIDTH	HEIGHT	SILL LVL	LINTEL LVL.	REMARKS
D1	1100	2400	± 00	2400	BEDROOM
D2	750	2700	± 00	2700	KITCHEN
D3	750	2400	± 00	2400	TOILETS
D4	1500	2400	± 00	2400	M. BEDROOM
D5	1250	2400	± 00	2400	MUMTY,MACHINE ROOM
SD1	3975	2700	± 00	2700	LIVING/DINING
SD1A	4275	2700	± 00	2700	LIVING/DINING
SD1B	7225	2700	± 00	2700	M BEDROOM
SD1C	6925	2700	± 00	2700	M BEDROOM
SD2	3875	2700	± 00	2700	LIVING/DINING
SD2A	6575	7150	± 00	7150	LIVING/DINING
SD3	3600	2700	± 00	2700	BEDROOM
SD4	3225	2700	± 00	2700	M BED ROOM
SD5	2200	2700	± 00	2700	BEDROOM
SD6	2950+ 2300	2700	± 00	2700	BEDROOM
SD7	2750	2700	± 00	2700	SPU
SD8	6580	2600	+100	2700	LOUNGE
W1	2350+ 1050	2600	+100	2700	BEDROOM CORNER WINDOW
W2	1250	2600	+100	2700	TOILET
W3	1375	2600	+100	2700	TOILET
W4	1800	2600	+100	2700	TOILET
W5	600	2600	+100	2700	LOUNGE
W6	1025	2600	+100	2700	LIFT LOBBY
W6A	825	2600	+100	2700	LIFT LOBBY
W7	1800	2600	+100	2700	LIFT LOBBY
W9	2950+ 2300	2600	+100	2700	LOUNGE
W11	1850	2600	+100	2700	LIFT LOBBY
W12	2225	2600	+100	2700	LIFT LOBBY
W13	525	2600	+100	2700	LIFT LOBBY
W14	6275	2600	+100	2700	FAMILY LOUNGE
FD1	1250	2400	± 00	2400	(TWO HOUR FIRE RATED DOOR)
FD2	600	2300	+100	2400	(TWO HOUR FIRE RATED DOOR)
FD3	750	2300	+100	2400	(TWO HOUR FIRE RATED DOOR)
FD5	1200	2300	+100	2400	(FHC DOOR)
FD6	900	2400	± 00	2400	ENTRANCE (ONE HOUR FIRE RATED DOOR)
FD7	900	2400	± 00	2400	SERVICE PERSONNEL UNIT (ONE HOUR FIRE RATED DOOR)

NOTE: ON REFUGE FLOOR W7 ,FD6 & FD7 SHALL BE TWO HOUR FIRE RATED WINDOW & DOOR.

LEGEND SHAFT:-

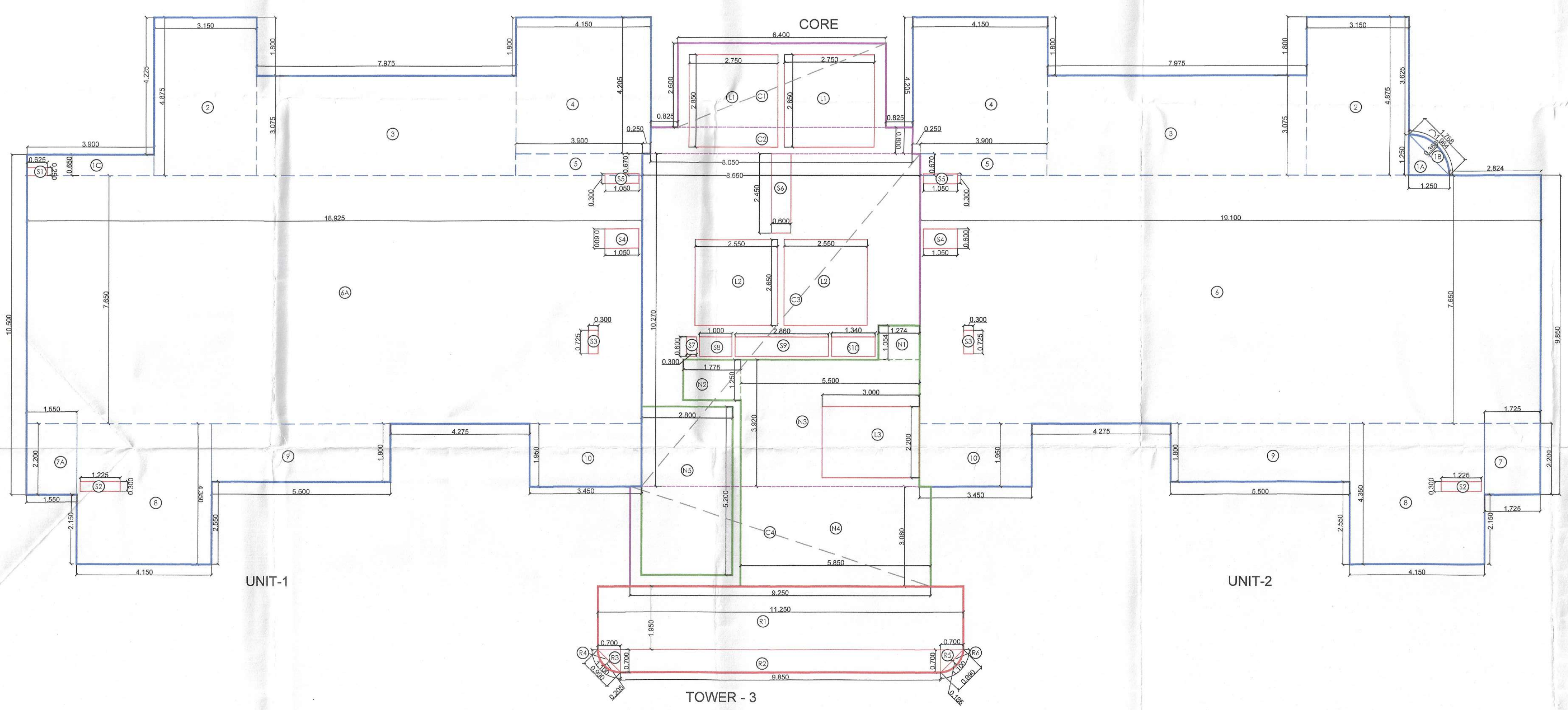
S.No.	DESCRIPTION	SIZE
S1	ELEC. SHAFT	1.05 X 0.60
S2	ST. PRESS SHAFT	0.95 X 1.38
S3	LOBBY PRESS. SHAFT	0.60 X 2.450
S3a	LOBBY PRESS. SHAFT	0.50 X 1.050
S4	FIRE LOBBY PRESS. SHAFT	1.34 X 0.60
S5	LV SHAFT	1 X 0.60
S6	PL. SHAFT	0.30 X 0.60
S7a	FHC SHAFT	2.860 X 0.60
S7b	FHC SHAFT	3.260 X 0.60
S8a	ELEC. SHAFT	0.60 X 1.20
S9a	PL. SHAFT	0.575 X 1.20
S8b	ELEC. SHAFT	0.575 X 1.095
S9b	PL. SHAFT	0.575 X 1.07



TYPICAL HORIZONTAL VENTILATION SECTION FOR TOILET.

TYPICAL HORIZONTAL VENTILATION CALCULATION FOR W.C.

S.NO	LOCATION	AREA (Sq.ft.)	HEIGHT (Ft.)	VOLUME (Cu.ft.)	ACPH	DESIGN CFM	SELECTED CFM	SELECTED EXHAUST FAN
1	TYPICAL MECHANICAL VENTILATION FOR WC & TOILET							
1.1	Bedroom 4 toilet	60.06	8.94	537	12	107.39	100	1 # 100 CFM INLINE FAN
1.2	SPU Toilet	40.26	8.94	360	12	71.98	100	1 # 100 CFM INLINE FAN



TOWER - 3
16TH , 24TH & 33RD LVL AREA DIAGRAM (REFUGE FLOOR)

TOWER-1 ,2& 3

FAR AREA AT UNIT 1 PER FLOOR
(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
1C	1	3.900	0.650	2.535
2	1	3.150	4.875	15.356
3	1	7.975	3.075	24.523
4	1	4.150	4.205	17.451
5	1	3.900	0.670	2.613
6A	1	18.925	7.650	144.776
7A	1	1.550	2.200	3.410
8	1	4.150	4.350	18.053
9	1	5.500	1.800	9.900
10	1	3.450	1.950	6.728
TOTAL(A) =				245.344

DEDUCTION (B)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
S1	1	0.625	0.250	0.156
S2	1	1.225	0.300	0.368
S3	1	0.300	0.725	0.218
S4	1	1.050	0.600	0.630
S5	1	1.050	0.300	0.315
TOTAL				1.686

UNIT1-FAR AREA CALCULATION = ADDITION(A) - (DEDUCTION (B)

=	245.344	–	1.686	
		=	243.658	SQMT

FAR AREA AT UNIT 2 PER FLOOR
(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
1A	0.5	1.250	1.250	0.781
1B	0.667	0.366	1.768	0.432
2	1	3.150	4.875	15.356
3	1	7.975	3.075	24.523
4	1	4.150	4.205	17.451
5	1	3.900	0.670	2.613
6	1	19.100	7.650	146.115
7	1	1.725	2.200	3.795
8	1	4.150	4.350	18.053
9	1	5.500	1.800	9.900
10	1	3.450	1.950	6.728
TOTAL(A) =				245.746

DEDUCTION (B)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
S2	1	1.225	0.300	0.368
S3	1	0.300	0.725	0.218
S4	1	1.050	0.600	0.630
S5	1	1.050	0.300	0.315
TOTAL				1.530

UNIT2-FAR AREA CALCULATION = ADDITION(A) - (DEDUCTION (B)

=	245.746	–	1.530	
		=	244.216	SQMT

CORE FAR AREA AT TYPICAL FLOOR
(All Distances are in Meter & Areas in Sqm)

ADDITIONS (A)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH
C1	1	6.400	2.600	16.640
C2	1	8.050	0.800	6.440
C3	1	8.550	10.270	87.809
C4	1	9.250	3.080	28.490
TOTAL(A) =				139.379

SERVICE SHAFT (C)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH
L1	2	2.750	2.850	15.675
L2	2	2.550	2.650	13.515
S6	1	0.600	2.450	1.470
S7	1	0.300	0.600	0.180
S8	1	1.000	0.600	0.600
S9	1	2.860	0.600	1.716
S10	1	1.340	0.600	0.804
TOTAL				33.960

NON FAR AREA (STAIRCASE) (D)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH
N1	1	1.274	1.054	1.343
N2	1	1.775	1.250	2.219
N3	1	5.500	3.920	21.560
N4	1	5.850	3.080	18.018
N5	1	2.800	5.200	14.560
TOTAL NON FAR AREA (D)				57.700

NON FAR AREA (DUCTION) (E)

ITEM	NO.S	WIDTH (MTR.)	LENGTH (MTR.)	AREA(SQ.MT.) = NO.X LENGTH X WIDTH
L3	1	3.000	2.200	6.600
NON FAR AREA (E)				6.600

TOTAL NON FAR AREA CALCULATION (D-E) =	51.100

TOTAL CORE FAR AREA CALCULATION = ADDITION(A) - (SERVICE SHAFT (C) + NON FAR AREA (D)

=	139.379	–	91.660	
		=	47.719	SQMT

TOTAL TYPICAL FLOOR FAR AREA CALCULATION = (TOTAL TYPICAL FLOOR UNIT 1 FAR AREA) +(TOTAL TYPICAL FLOOR UNIT 2 FAR AREA)+(TOTAL TYPICAL FLOOR CORE FAR AREA)

=	243.658	+	244.216	
+	47.719	=	535.593	SQMT

TOWER-1 ,2 & 3

TOTAL REFUGE AREA AT 16TH ,24TH& 33RD LVL
(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
R1	1	11.250	1.950	21.938
R2	1	9.850	0.700	6.895
R3	0.5	0.700	0.700	0.245
R4	0.667	0.205	0.990	0.135
R5	0.5	0.700	0.700	0.245
R6	0.667	0.186	0.990	0.123
TOTAL(A) =				29.581

GROSS AREA AT 17TH,25TH &34TH FLOOR(FAR+NON FAR AREA)	586.693	(A)
GROSS AREA AT 16TH,24TH ,33RD FLOOR(FAR AREA +NON FAR AREA)	586.693	(B)
(FAR+NON FAR)		
TOTAL GROSS AREA=(A+B)	1173.385	
NO. OF PERSON= (TOTAL GROSS AREA/12.5)	93.871	
REFUGE AREA REQUIRED =(NO. OF PERSON X.3)	28.161	(C)
AREA ADDITIONAL FOR WHEEL CHAIR (@0.9 FOR UPTO 200 PERSON)	0.9	(D)
REFUGE AREA REQUIRED (NO. OF PERSON X.3 + AREA ADDITIONAL FOR WHEEL CHAIR)	29.061	(C+D)
REFUGE AREA PROVIDED	29.581	SQM

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

DTP(HQ) ATP(HQ)

JD. P.A. A.T.P

SANCTIONED TO BE READ WITH THIS OFFICE MEMO NO.: DATED :

JD(HQ)

JDT (HQ) Member BPAC

Note:-

1. BUILDING HAS AUTOMATIC SPRINKLER SYSTEM WHEREVER REQUIRED BY NBC.
2. BUILDING WILL BE DESIGNED (STRUCTURES) AS PER RELEVENT IS CODES FOR EARTH QUAKE RESISTANCE.
3. MECHANICAL VENTILATION WITH 100% POWER BACK-UP FOR SERVICE AREAS.

PROJECT:

PROPOSED GROUP HOUSING COLONY MEASURING 5.875 ACRES UNDER TOD POLICY DATED 09.02.2016(LICENSE NO. 50 OF 2019 DATED 07.03.2019) IN SECTOR -49, GURUGRAM BEING DEVELOPED BY ELAN ENCLAVE PRIVATE LIMITED UNDER COLLABORATION WITH V.A. AGRICULTURE PVT LTD

ARCHITECT'S SEAL & SIGNATURE	OWNER'S SEAL & SIGNATURE
GIAN P. MATHUR ARCHITECT B. Arch., M.C.A. I.I.A CA No. 80/5169	For ELAN ENCLAVE PRIVATE LIMITED Authorised Signatory

Checked and found ok for Public Health (Internal) Service only subject to comments in in forwarding letter No. 252674 Dt 05/08/25.

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

JULY-2025.	Scale : 1:75
Drawing Title:-	Drawing No:-
TOWER - 3 16TH , 24TH & 33rd LVL PLAN (REFUGE FLOOR)&AREA DETAIL	A-T3-05