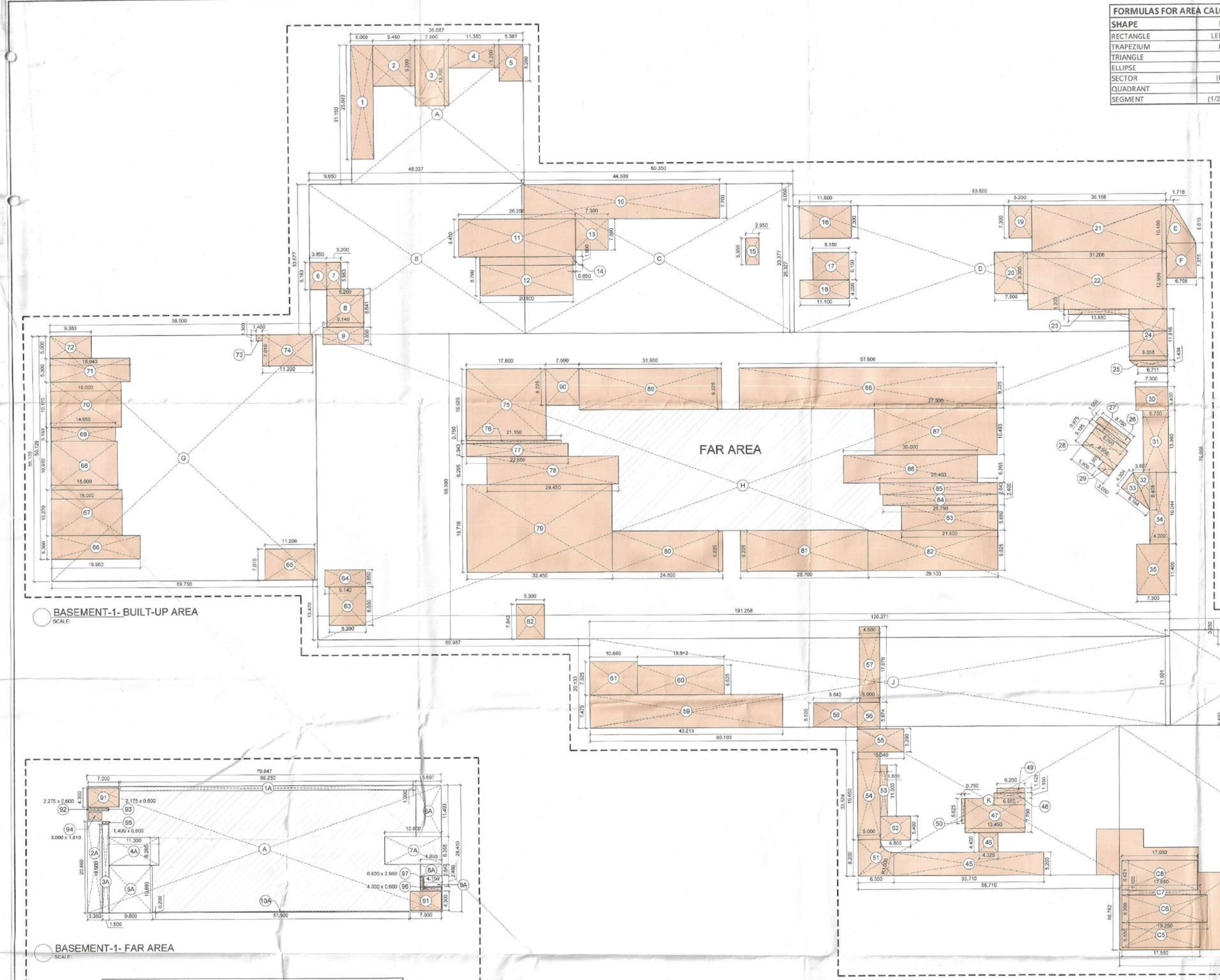
FORMULAS FOR AREA CALCULATION	
SHAPE	**FORMULA**
RECTANGLE	LENGTH x WIDTH
TRAPEZIUM	(A + B) x H/2
TRIANGLE	B x H/2
ELLIPSE	πAB
SECTOR	(θ/360°) x πR2
QUADRANT	(π R2) / 4
SEGMENT	(1/2) x R2 (θ – Sin θ)



BASEMENT-1- BUILT-UP AREA
SCALE:

BASEMENT-1- FAR AREA
SCALE:

ENVELOPE ADDITION (1)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS	NOS	AREA (Sq.Mt.)
A	REC	79.647	28.450		1	2265.957
TOTAL (1)						**2265.957**

ENVELOPE SUBTRACTION (2)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS/ VALUE	NOS	AREA (Sq.Mt.)
1A	REC	66.250	1.000		1	66.250
2A	REC	3.350	20.650		1	69.178
3A	REC	19.900	1.500		1	29.850
4A	REC	11.300	6.265		1	70.795
5A	REC	9.500	10.693		1	101.584
6A	REC	5.887	11.493		1	67.674
7A	REC	12.900	6.265		1	80.819
8A	REC	4.850	2.642		1	12.814
9A	REC	4.150	2.400		1	9.960
10A	REC	57.500	0.200		1	11.500
TOTAL (2)						**520.522**

SERVICE SUBTRACTION (3)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS/ VALUE	NOS	AREA (Sq.Mt.)
91	REC	7.000	4.300		2	60.200
92	REC	2.275	0.600		1	1.365
93	REC	2.175	0.600		1	1.305
94	REC	3.000	1.800		1	5.400
95	REC	1.400	0.600		1	0.840
96	REC	4.000	0.600		1	2.400
97	REC	0.600	2.950		1	1.770
TOTAL (3)						**73.280**

BASEMENT-1 FAR CALCULATION	
BASEMENT-1 FAR	**1 - (2 + 3)**
	2265.957 - (520.522 + 73.280)
	1672.155

ENVELOPE ADDITION (A)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS	NOS	AREA (Sq.Mt.)
A	REC	38.687	31.150		1	1205.100
B	REC	48.337	33.677		1	1627.845
C	REC	60.350	33.377		1	2014.302
D	REC	83.820	28.327		1	2374.369
E	TRAPEZIUM	1.716	6.706	8.619	1	36.295
F	REC	6.706	7.875		1	52.810
G	REC	58.750	55.120		1	3293.420
H	REC	191.258	68.590		1	13118.386
J	REC	130.271	20.133		1	2622.746
K	REC	58.710	33.524		1	1968.194
L	REC	36.881	21.501		1	792.978
M	TRAPEZIUM	32.677	23.069	16.472	1	459.124
N	REC	76.698	50.306		1	3858.170
P	TRAPEZIUM	48.626	50.306	4.318	1	213.594
Q	TRIANGLE	45.886		24.501	1	562.126
TOTAL (A)						**34199.660**

ENVELOPE SUBTRACTION (B)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS/ VALUE	NOS	AREA (Sq.Mt.)
C1	REC	21.000	26.850		1	563.850
C2	REC	5.188	32.400		1	168.091
C3	TRAPEZIUM	32.400	29.287	1.816	1	56.012
C4	TRIANGLE	31.240		14.757	1	230.504
C5	REC	17.550	5.550		1	97.403
C6	REC	19.250	6.200		1	119.350
C7	REC	17.650	1.100		1	19.415
C8	REC	17.050	6.621		1	112.888
TOTAL (B)						**1367.513**

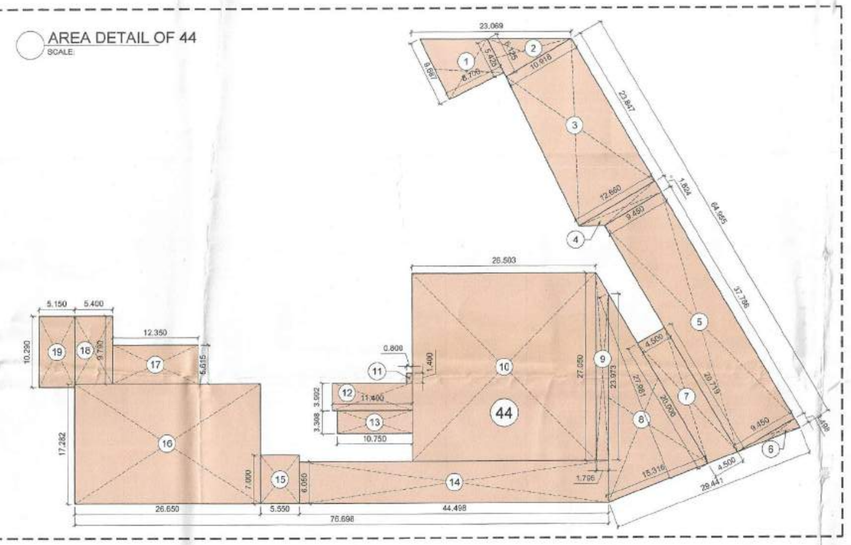
BASEMENT-1 BUILTUP CALCULATION	
BASEMENT-1 BUILTUP AREA	**A - B**
	32832.147
BASEMENT-1 FAR	**1672.155**
BASEMENT-1 NON FAR	**BUILTUP - FAR**
	31159.991
BASEMENT-1 PARKING AREA	**BUILTUP AREA - FAR - C**
	32832.147 - 1672.155 - 12352.930
	18812.752

PARKING DETAIL	
PARKING AREA (Sq.Mt.)	18812.752
PROPOSED ECS BY AREA @ 32 Sq.Mt.	587.899
SAY ECS	**588**
PROVIDED BY BAY Nos	**453**

SERVICE SUBTRACTION (C)						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS/ VALUE	NOS	AREA (Sq.Mt.)
1	REC	5.000	25.603		1	128.015
2	REC	9.450	9.200		1	86.940
3	REC	7.500	13.700		1	102.750
4	REC	11.350	5.200		1	59.020
5	REC	5.387	8.200		1	44.173
6	REC	3.850	6.163		1	23.728
7	REC	3.200	5.933		1	18.986
8	REC	8.200	8.641		1	70.856
9	REC	9.140	3.850		1	35.189
10	REC	44.500	7.700		1	342.650
11	REC	26.250	8.450		1	221.813
12	REC	20.800	8.700		1	180.960
13	REC	7.300	7.000		1	51.100
14	REC	0.650	1.900		1	1.235
15	REC	2.950	5.950		1	17.553
16	REC	11.600	7.300		1	84.680
17	REC	8.150	6.150		1	50.123
18	REC	11.100	4.200		1	46.620
19	REC	5.200	7.300		1	37.960
20	REC	7.500	9.300		1	69.750
21	REC	30.158	10.450		1	315.151
22	REC	31.208	12.950		1	404.144
23	REC	13.650	1.200		1	16.380
24	REC	8.558	11.516		1	98.554
25	TRAPEZIUM	8.558	6.711	1.434	1	10.948
26	REC	8.750	1.550		1	13.563
27	REC	8.000	0.975		1	7.800
28	REC	8.950	5.125		1	45.869
29	REC	3.050	1.925		1	5.871
30	REC	7.300	5.400		1	39.420
31	REC	5.700	13.960		1	79.572
32	TRIANGLE	3.807		8.408	1	16.005
33	TRIANGLE	4.304		8.164	1	17.569
34	REC	4.300	16.044		1	68.989
35	REC	7.300	11.400		1	83.220
36	REC	5.000	3.250		1	16.250
37	REC	5.400	7.100		1	38.340
38	REC	14.476	5.499		1	79.604
39	REC	1.600	0.800		1	1.280
40	REC	3.525	8.450		1	29.786
41	REC	6.100	11.200		1	68.320
42	REC	1.800	0.750		1	1.350
43	REC	1.550	3.900		1	6.045
44	AS/DETAIL			2859.271	1	2859.271
45	REC	33.710	5.200		1	175.292
46	REC	4.325	4.400		1	19.030
47	REC	13.450	7.700		1	103.565
48	REC	6.950	1.150		1	7.993
49	REC	6.200	1.125		1	6.975
50	REC	0.750	5.625		1	4.219
51	REC- QUADRANT	8.000	8.200	3.000	1	58.535
52	REC	6.800	5.400		1	36.720
53	REC	1.600	11.500		1	18.400
54	REC	5.000	10.650		1	98.250
55	REC	10.340	5.200		1	53.768
56	REC	5.000	5.974		1	29.870
57	REC	4.500	17.076		1	76.842
58	REC	9.840	5.500		1	54.120
59	REC	43.213	7.475		1	323.017
60	REC	19.513	6.625		1	129.274
61	REC	10.650	7.525		1	80.143
62	REC	6.300	7.842		1	49.405
63	REC	8.200	8.650		1	70.930
64	REC	9.140	3.850		1	35.189
65	REC	11.200	7.010		2	157.024
66	REC	19.983	5.300		1	105.910
67	REC	16.000	10.270		1	164.320
68	REC	15.000	10.990		1	163.950
69	REC	14.660	3.150		1	46.148
70	REC	16.000	10.170		1	162.720
71	REC	18.043	5.300		1	95.628
72	REC	9.383	5.000		1	46.915
73	REC	1.400	1.300		1	1.820
74	REC	11.200	7.010		1	78.512
75	REC	17.800	16.025		1	285.245
76	REC	21.150	0.750		1	15.863
77	REC	22.650	2.943		1	66.659
78	REC	29.450	6.265		1	184.504
79	REC	32.450	19.718		1	639.849
80	REC	24.800	9.225		1	228.780
81	REC	28.700	9.225		1	264.758
82	REC	29.100	9.025		1	262.628
83	REC	21.600	5.650		2	244.080
84	REC	25.750	2.400		1	61.800
85	REC	26.450	2.643		1	69.907
86	REC	27.500	10.493		1	288.558
87	REC	31.000	7.626		1	236.406
88	REC	57.800	9.225		1	533.205
89	REC	31.950	9.225		1	294.789
90	REC	7.500	9.225		1	61.688
91	REC	7.000	4.300	2		60.200
92	REC	2.275	0.600	1		1.365
93	REC	2.175	0.600	1		1.305
94	REC	3.000	1.800	1		5.400
95	REC	1.400	0.600	1		0.840
96	REC	4.000	0.600	1		2.400
97	REC	0.600	2.950	1		1.770
E	TRAPEZIUM	1.716	6.706	8.619	1	36.295
F	REC	6.706	7.875		1	52.810
TOTAL (C)						**12352.930**

DETAIL OF 44						
TYPE		WIDTH	LENGTH	HEIGHT /RADIUS/ VALUE	NOS	AREA (Sq.Mt.)
1	TRAPEZIUM	5.428	9.687	8.700	1	65.750
2	TRIANGLE	6.125		10.918	1	33.436
3	TRAPEZIUM	10.918	12.660	23.847	1	281.132
4	TRAPEZIUM	9.450	12.660	1.824	1	20.164
5	REC	9.450	37.786		1	357.078
6	TRIANGLE	9.450		1.498	1	7.078
7	TRAPEZIUM	20.006	20.719	4.500	1	91.631
8	TRIANGLE	15.316		27.981	1	214.278
9	TRAPEZIUM	27.050	23.973	1.795	1	45.793
10	REC	26.503	27.050		1	716.906
11	REC	0.800	1.400		1	1.120
12	REC	11.400	3.992		1	45.509
13	REC	10.750	3.308		1	35.561
14	REC	44.498	6.050		1	269.213
15	REC	5.550	7.000		1	38.850
16	REC	26.650	17.282		1	460.565
17	REC	12.350	5.615		1	69.345
18	REC	5.400	9.790		1	52.866
19	REC	5.150	10.290		1	52.994
TOTAL (B)						**2859.271**

AREA DETAIL OF 44
SCALE:



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S.T.P (HQ) Senior 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)

AD PA ATP

Ram Avtar Bassi JD(HQ)

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

NOTES:
1. ALL LIFTS SHALL HAVE 100%POWER BACKUP.
2. ALL ELECTRICAL INSTALLATIONS SHALL BE AS PER PROVISION OF NBC.
3. FIRE FIGHTING/SAFETY PROVISIONS WILL BE AS PER RELEVANT NBC PROVISIONS.
4. BUILDING STRUCTURE DESIGNED EARTHQUAKE RESISTANT.
5. MAIN ENTRY & BOUNDARY WALL AS PER STANDARD DESIGN.
6. TOILET WILL BE MECHANICALLY VENILATED WITH 100% POWER BACKUP.

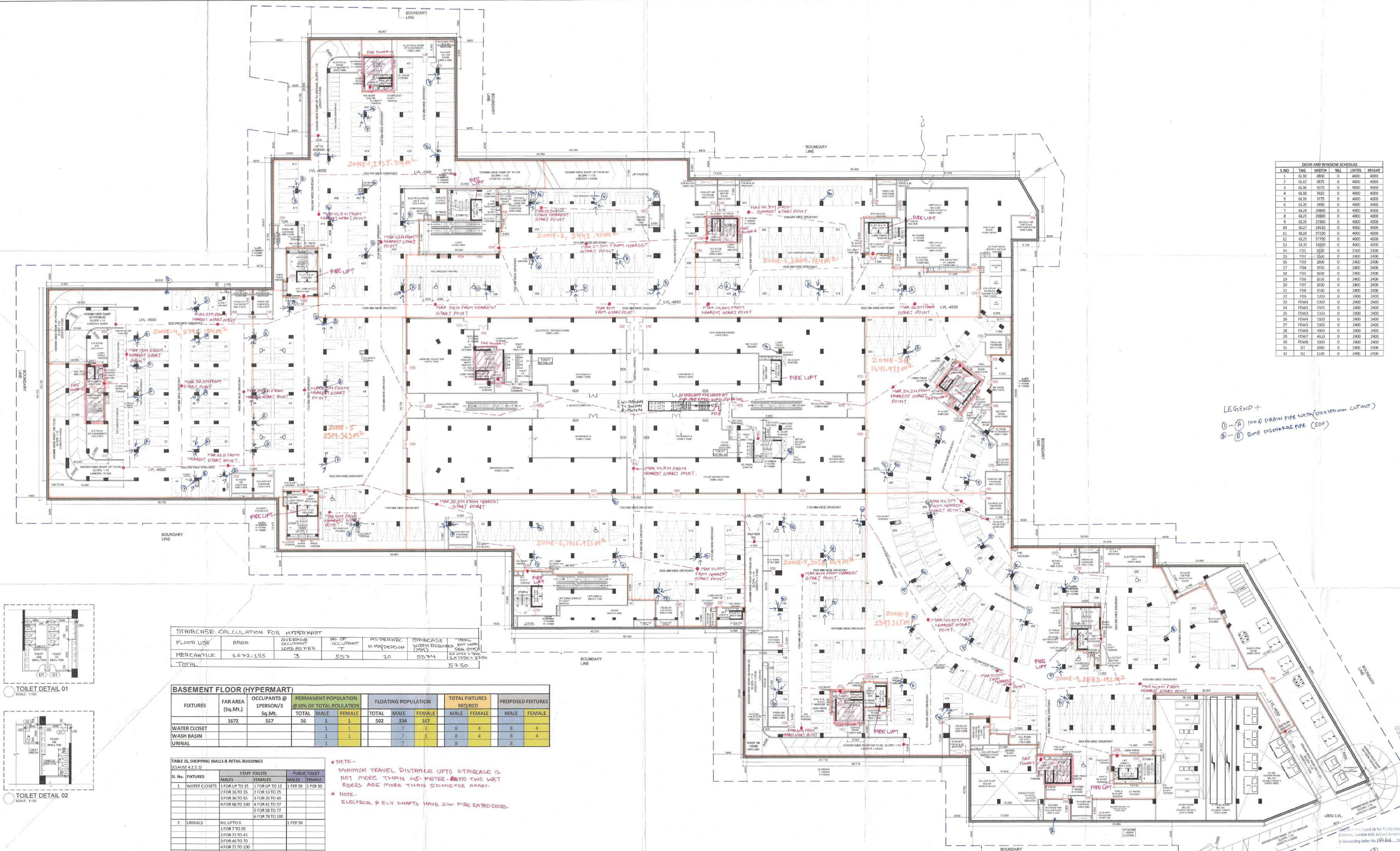
PROJECT:
REVISED BUILDING PLAN OF COMMERCIAL COLONY MEASURING 10.4375 ACRES (LICENSE NO. 56 OF 2013 DATED 16.07.2013) IN SECTOR-69, GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY ADVANCE INDIA PROJECTS LIMITED

OWNER SIGN: M/S Advance India Projects Ltd — Authorised Signatory

ARCHITECT SIGN: Ar. A.K. GOYAL, CA/2000/30127, Arch. Regd.

DRAWING TITLE:
BASEMENT-1
BUILT UP AREA CALCULATION

DATE:	SHEET NO	NORTH
SCALE:	B1B	



DOOR AND WINDOW SCHEDULE

S.NO	TAG	WIDTH	SILL	LINTEL	HEIGHT
1	GL10	8800	0	4000	4000
2	GL12	6875	0	4000	4000
3	GL16	5075	0	4000	4000
4	GL18	3925	0	4000	4000
5	GL19	3775	0	4000	4000
6	GL20	3450	0	4000	4000
7	GL24	29840	0	4000	4000
8	GL25	20690	0	4000	4000
9	GL26	22360	0	4000	4000
10	GL27	24520	0	4000	4000
11	GL28	57230	0	4000	4000
12	GL29	57790	0	4000	4000
13	GL30	18830	0	4000	4000
14	FD1	2150	0	2100	2100
15	FD2	2600	0	2400	2400
16	FD3	2000	0	2400	2400
17	FD4	1950	0	2400	2400
18	FD5	1800	0	2400	2400
19	FD6	1650	0	2400	2400
20	FD7	1600	0	2400	2400
21	FD8	1500	0	2400	2400
22	FD9	1200	0	2400	2400
23	FDW1	6300	0	2400	2400
24	FDW2	5925	0	2400	2400
25	FDW3	5350	0	2400	2400
26	FDW4	5100	0	2400	2400
27	FDW5	5000	0	2400	2400
28	FDW6	4900	0	2400	2400
29	FDW7	4650	0	2400	2400
30	FDW8	3000	0	2400	2400
31	D1	1000	0	2400	2400
32	D2	1100	0	2400	2400

LEGEND :-

1 - (A) 100 Ø DRAIN PIPE WITH (150x150 mm CUTOUT)

2 - (B) SUMP DISCHARGE PIPE (SDP)

STAIRCASE CALCULATION FOR HYPERMART

FLOOR USE	AREA	AVERAGE OCCUPANT LOAD AS PER	NO. OF OCCUPANT	AS PER NBC 10 MM/PERSON	STAIRCASE WIDTH REQUIRED (MM)	TOTAL EXIT WIDTH REQ. (MM)
MERCANTILE	1672.155	3	557	10	5574	2X 2000 = 4000 1X 1750 = 1750
TOTAL						5750

BASEMENT FLOOR (HYPERMART)

FIXTURES	FAR AREA (Sq.Mt.)	OCCUPANTS @ 1PERSON/3 Sq.Mt.	PERMANENT POPULATION @10% OF TOTAL POULATION			FLOATING POPULATION			TOTAL FIXTURES REQIRED		PROPOSED FIXTURES	
			TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
	1672	557	56	1	1	502	334	167				
WATER CLOSET				1	1		7	3	8	4	8	4
WASH BASIN				1	1		7	3	8	4	8	4
URINAL				1			7		8		8	

TABLE 15, SHOPPING MALLS & RETAIL BUILDINGS (CLAUSE 4.2.5.1)

Sl. No.	FIXTURES	STAFF TOILETS MALES	STAFF TOILETS FEMALES	PUBLIC TOILET MALES	PUBLIC TOILET FEMALE
1	WATER CLOSETS	1 FOR UP TO 15	1 FOR UP TO 12	1 PER 50	1 PER 50
		2 FOR 16 TO 35	2 FOR 13 TO 25		
		3 FOR 36 TO 65	3 FOR 26 TO 40		
		4 FOR 66 TO 100	4 FOR 41 TO 57		
			5 FOR 58 TO 77		
			6 FOR 78 TO 100		
2	URINALS	NIL UPTO 6		1 PER 50	
		1 FOR 7 TO 20			
		2 FOR 21 TO 45			
		3 FOR 46 TO 70			
		4 FOR 71 TO 100			
3	WASH BASINS	1 FOR UP TO 15	1 FOR UP TO 12	1 PER 50	1 PER 50
		2 FOR 16 TO 35	2 FOR 13 TO 25		
		3 FOR 36 TO 65	3 FOR 26 TO 40		
		4 FOR 66 TO 100	4 FOR 41 TO 57		

* NOTE-
MINIMUM TRAVEL DISTANCE UPTO STAIRCASE IS NOT MORE THAN 45-METER. AND TWO WET RISERS ARE MORE THAN 50-METER APART.

* NOTE-
ELECTRICAL & ELV SHAFTS HAVE 2hr FIRE RATED DOORS.

TOILET DETAIL 01
SCALE: 1:150

TOILET DETAIL 02
SCALE: 1:150

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. — C.T.P (Hr.) Chairman B.P.A.C.

DTP (HQ) — ATP (HQ)

AD — PA — ATP

Ram Avtar Bassi JD(HQ)

DDT (HQ) Member BPAC

Checked and found ok for Public Health (Internal) Service only subject to comments in forwarding letter No. 164606 Dt 13/06/2019

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

BASEMENT-1 PLAN
SCALE:

NOTES:
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PROJECT:
REVISED BUILDING PLAN OF COMMERCIAL COLONY MEASURING 10.4375 ACRES (LICENSE NO. 56 OF 2013 DATED 10.07.2013) IN SECTOR-65, GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY ADVANCE INDIA PROJECTS LIMITED.

OWNER SIGN
M/S Advance India Projects Ltd
Authorised Signatory

ARCHITECT SIGN

DRAWING TITLE:
BASEMENT-1 PLAN

DATE:		SHEET NO	NORTH
SCALE:	1:300	B1A	NORTH