

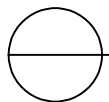
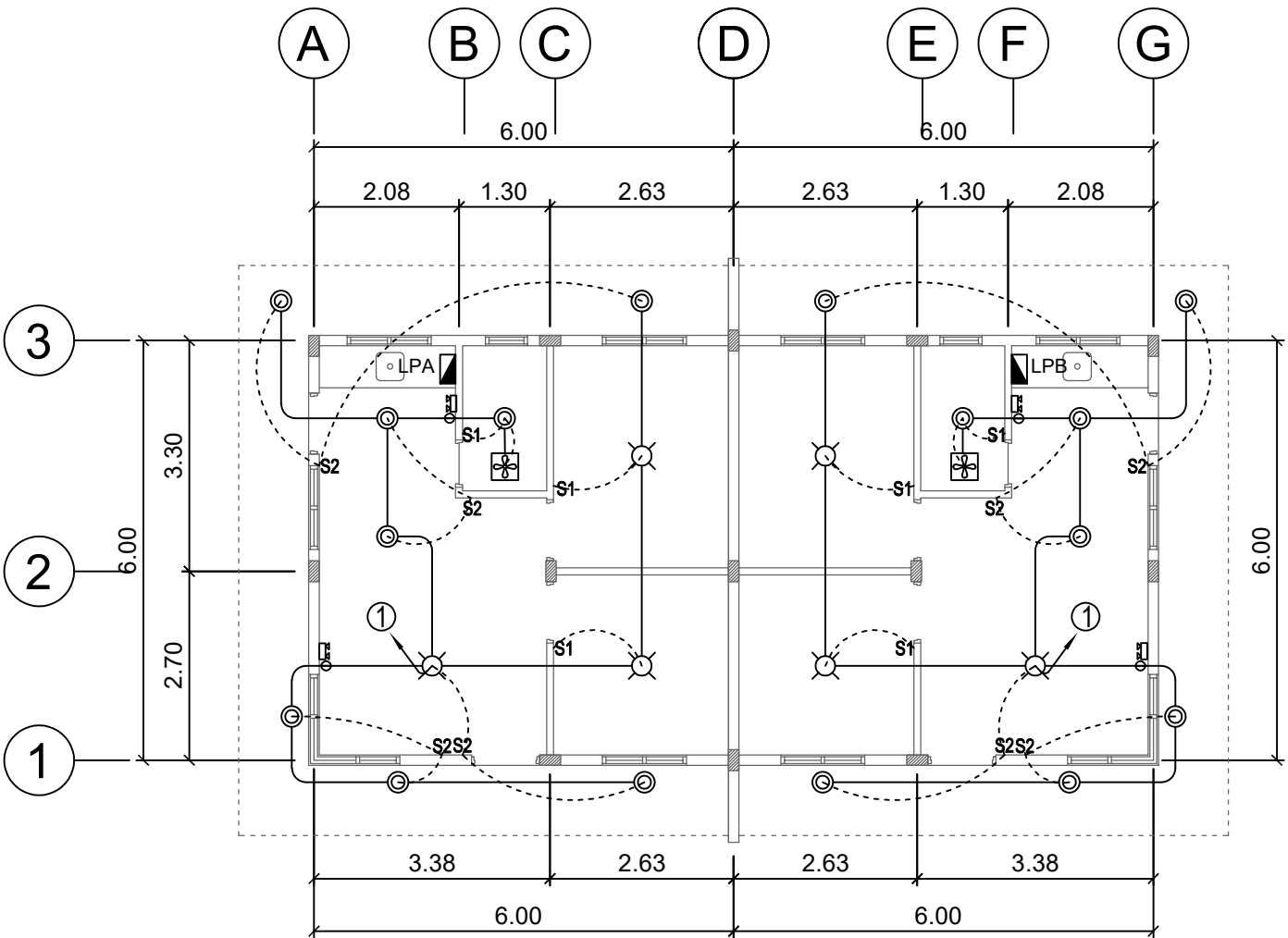
LEGEND:



- EXHAUST FAN



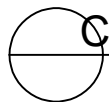
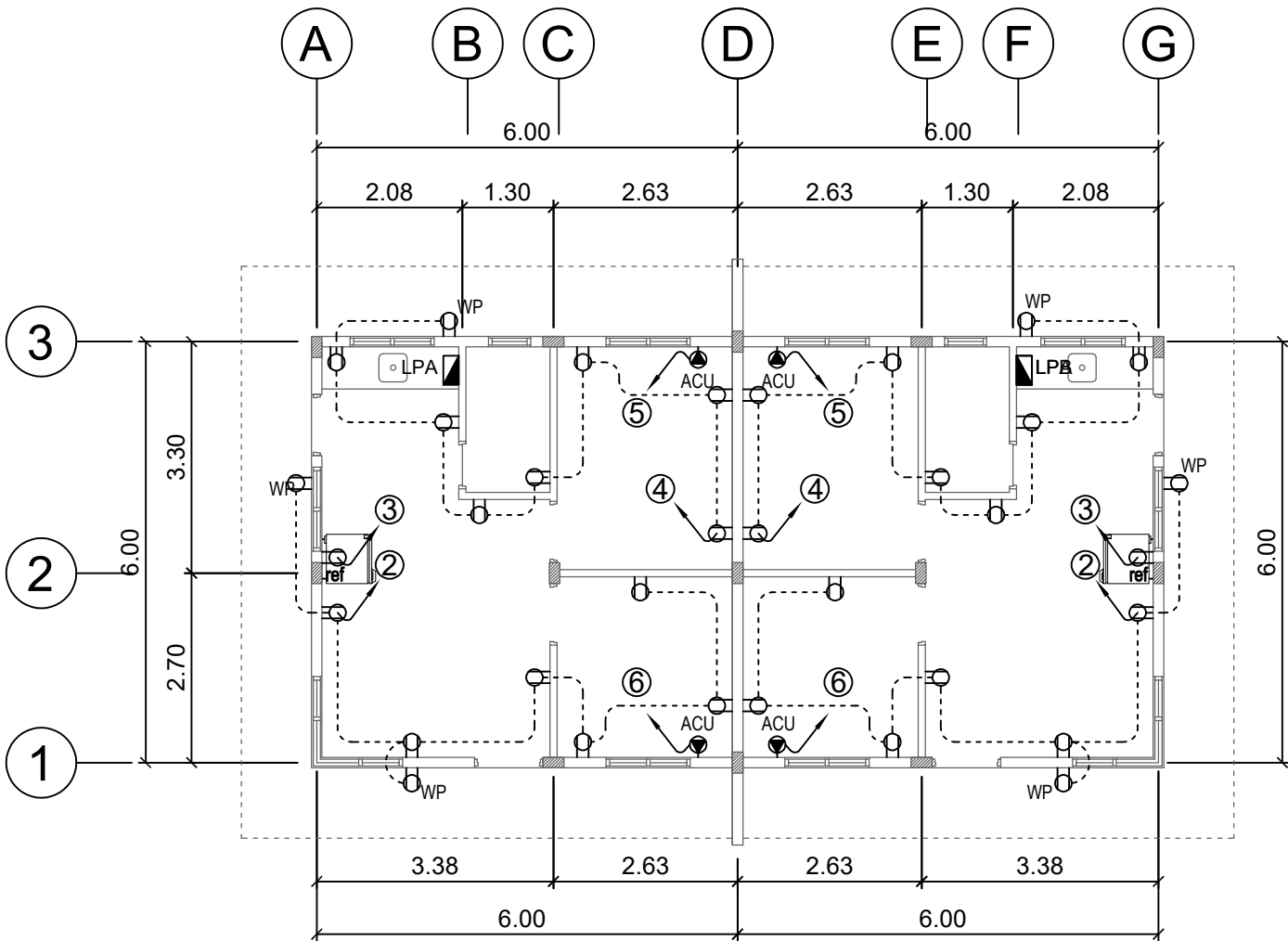
- EMERGENCY LIGHT



LIGHTING LAYOUT

SCALE

1 : 100 MTS.



CONVENIENCE OUTLET LAYOUT

SCALE

1 : 100 MTS.

SCHEDULE OF LOADS

PANEL: LP		CABLE: 2 - 8.0 SQ. MM THHN + G 5.5 SQ MM THHN		MAIN: 50 AT, 50AF, 2P, 230V, 18 KAIC,MCCB	
PHASE: 1		CONDUIT: RSC, 25 MM DIA.		ENCLOSURE : NEMA 1	
VOLTS: 230				MOUNTING: SURFACE	

CKT NO.	NO. OF OUTLETS	CIRCUIT DESCRIPTION	LOAD IN			CIRCUIT PROTECTION CIRCUIT BREAKER RATING	Size of Conductor		Size Of Conduit In MM ø	Color Code
			WATTS	VOLT	AMPERES		SQ. MM THHN	SQ. MM THHN(G)		
1	11	LIGHTING OUTLET	1100	230	4.78	15AT, 2P,10 KAIC	2 - 2.0		15	1R,1BK
2	8	CONVENIENCE OUTLET	1440	230	6.26	20AT, 2P,10 KAIC	2 - 3.5	+ G 2.0	15	1R,1BK,G
3	1	REFRIGERATOR	750	230	3.26	20AT, 2P,10 KAIC	2 - 3.5	+ G 2.0	15	1R,1BK
4	8	CONVENIENCE OUTLET	3500	230	15.22	20AT, 2P,10 KAIC	2 - 3.5	+ G 2.0	15	1R,1BK,G
5	1	ACU	1000	230	8.00	20AT, 2P,10 KAIC	2 - 3.5	+ G 2.0	15	1R,1BK,G
6	1	ACU	1000	230	8.00	20AT, 2P,10 KAIC	2 - 3.5	+ G 2.0	15	1R,1BK,G
7		SPARE								
8		SPARE								
		TOTAL	8790	230	45.52	50AT, 2P,10 KAIC	2 - 8.0	+ G 5.5	25	1R,1BK,G

FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

G - Means Ground Wire
1R- Color RED
1BK- Color BLACK
1G- Color GREEN

$$I_{FL} = \frac{[40.91 + 25\% \times I_m]}{DF} = 46.34 \text{ Amperes}$$

use: 2 - 8.0 SQMM THHN + 1 -5.5 SQMM THHN IN 25 MM DIA. RSC

$$ICB = \frac{[40.91 + 250\% \times I_m]}{DF} = 53.67 \text{ Amperes}$$

use: 50AT, 50AF, 2P, 230V, 10KAIC, CB

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is prohibited,
Except redesign of electrical load system will be done.

PREPARED BY: RONALD P. PENA
Professional Electrical Engineer
PRC #3857
Expiry: April 1, 2022
PTR # CAV 2124168
Date: Jan. 04, 2021
Place: Indang, Cavite
TIN # 102-441-998

NOTES & SPECIFICATIONS :

1. ALL ELECTRICAL WORKS TO BE UNDERTAKEN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE PART 1 AND 2 AND THE RULES AND REGULATIONS OF LOCAL ENFORCING UTILITY POWER AND TELEPHONE COMPANY.

2. ALL MATERIALS AND EQUIPMENT TO BE USED SHALL BE NEW AND APPROVED TYPE FOR BOTH LOCATION AND PURPOSES.

3. THERE SHALL BE ONLY ONE SERVICE DROP IN A BUILDING 230 VOLTS, 3 WIRE, 1 PHASE, 60 CYCLE.

4. THE ELECTRICAL WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER OR MASTER ELECTRICIAN AUTHORIZED FOR EACH GRADE.

5. THE MINIMUM SIZE OF WIRE SHALL BE NUMBER 2.0mmØ COPPER, THHN TYPE UNLESS OTHERWISE NOTED.

6. WIRING METHOD SHALL BE PVC FOR ALL BRANCH CIRCUITS AND RSC FOR SERVICE ENTRANCE.

7. PROPER GROUNDING OR ELECTRICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE PHILIPPINE ELECTRICAL CODE.
8. FIELD VERIFICATION SHALL BE DONE BY THE CONTRACTOR ANY DISCRIPANCIES OR CHANGES SHALL BE PROMPTLY NOTIFIED TO THE OWNER'S REPRESENTATIVE OR DESIGNER.

9. TYPE OF LIGHTING FIXTURE SHALL BE SUBMITTED TO THE ENGINEER OR ARCHITECT FOR APPROVAL.

10. MOUNTING HEIGHT

1. SWITCHES-1400 MM.

2. CONVINIENCE OUTLET-300 MM.

3. CONVINIENCE OUTLET (COUNTER)-300 MM. ABOVE COUNTER.

4. REFRIGERATOR/ACU/RANGE OUTLET-300 MM.

5. WATER HEATER-500 MM. BELOW CEILING LINE.

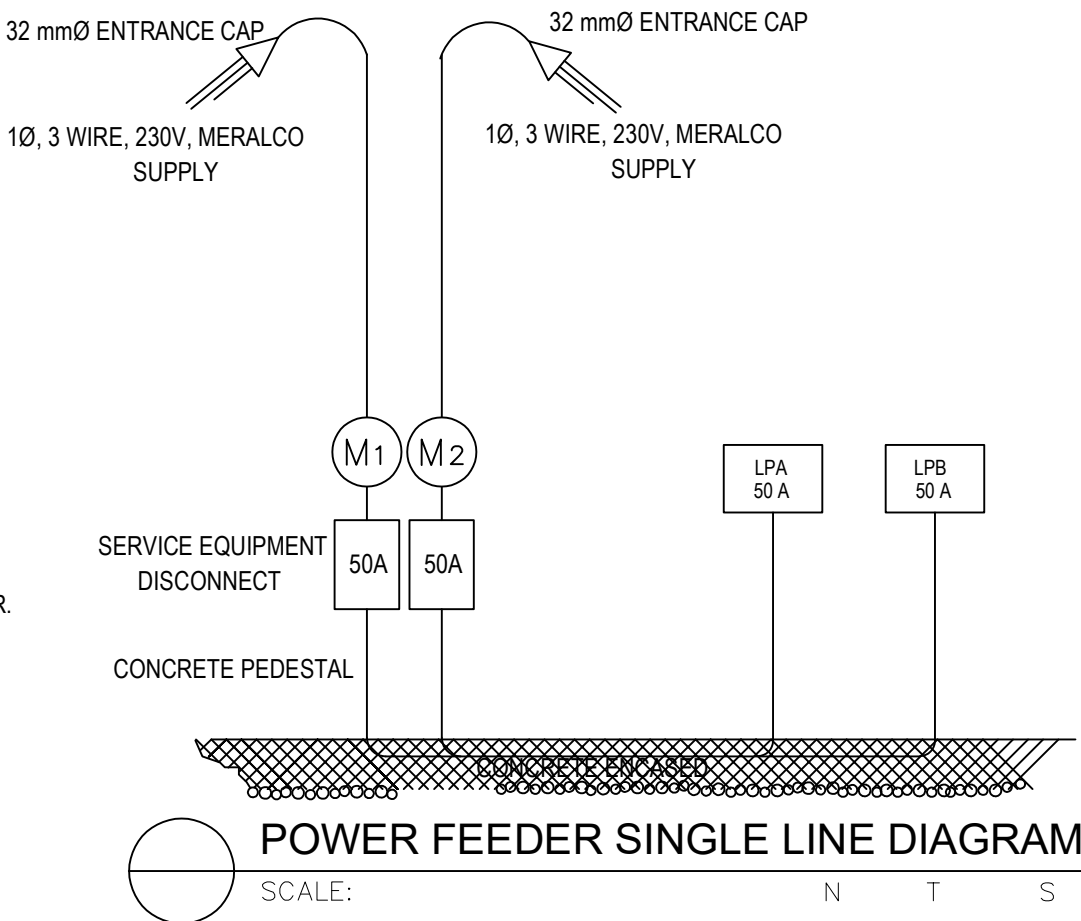
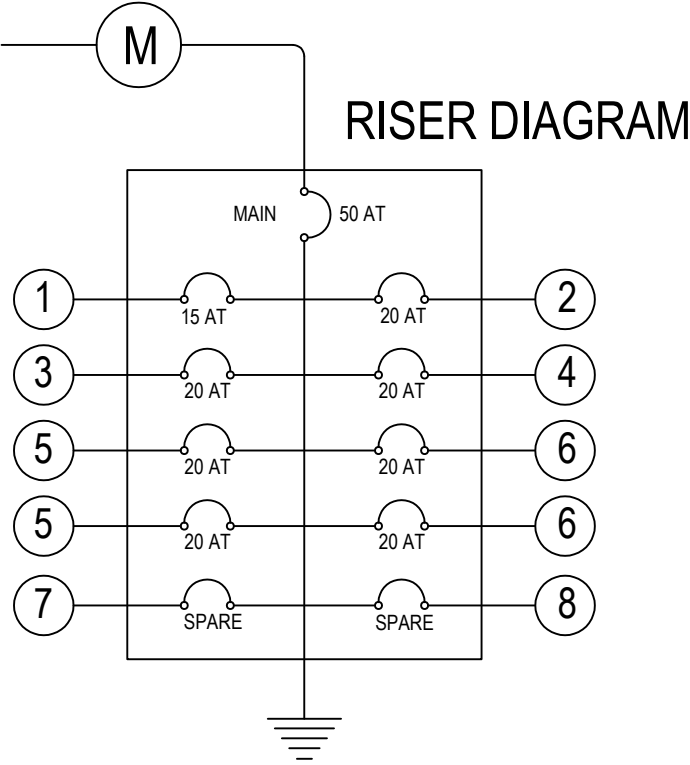
6. CHIME BELL-300 MM. BELOW CEILING LINE.

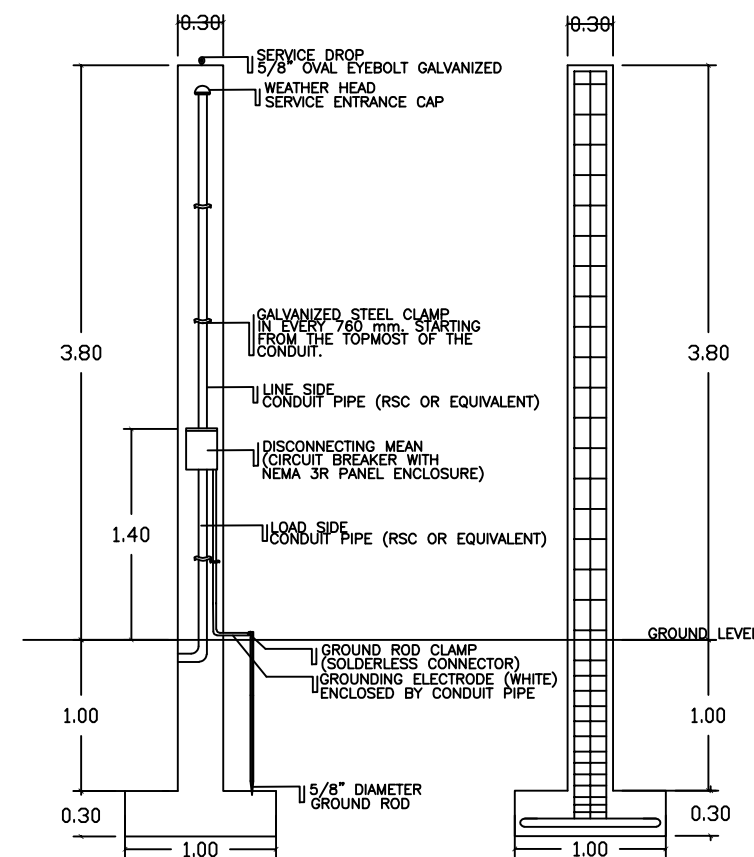
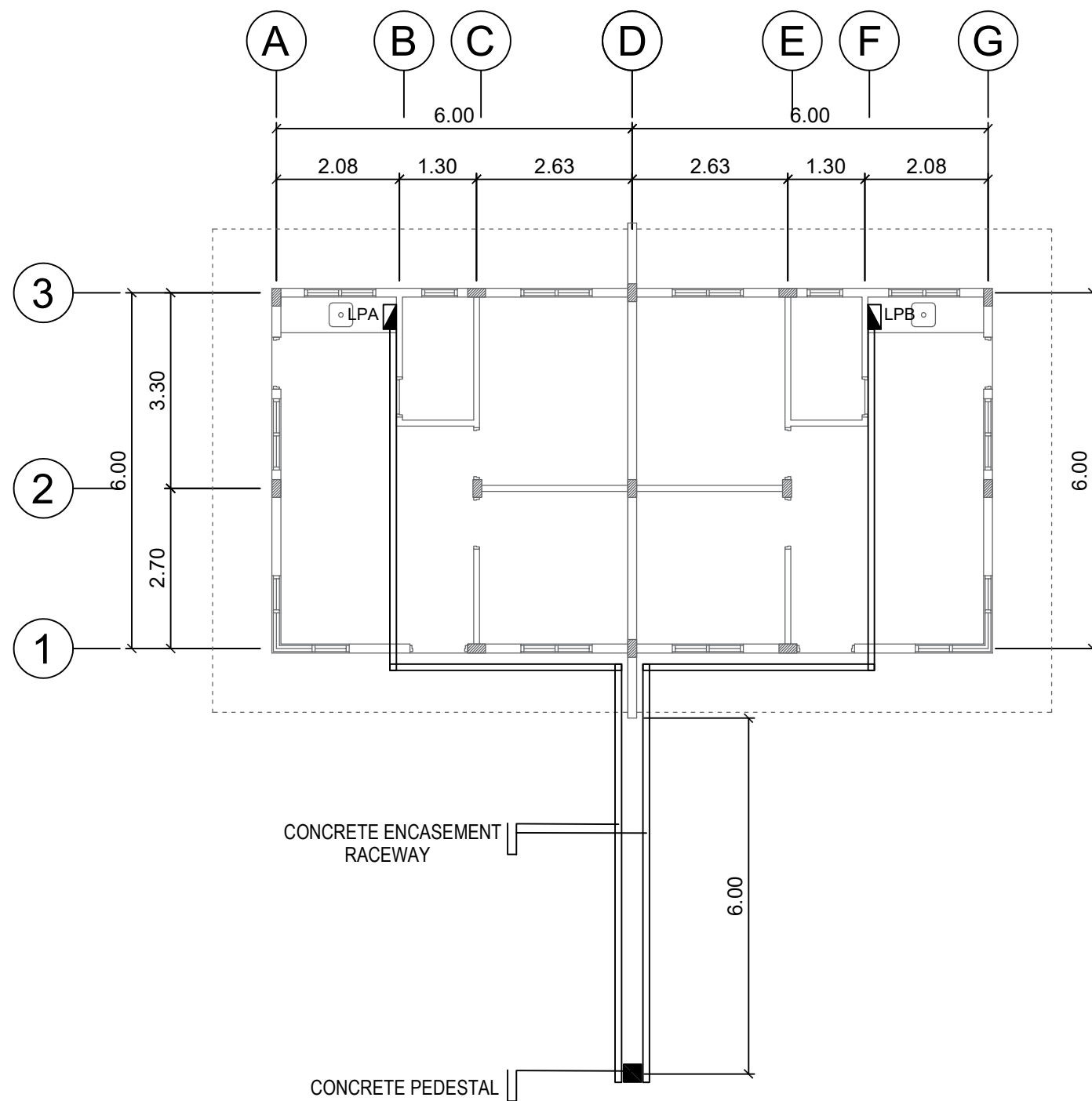
7. TELEPHONE/TV/INTERCOM OUTLET-300 MM.

8. HEAT/SMOKE DETECTOR-CEILING MOUNTED.

9. EMERGENCY LIGHT-500 MM. BELOW CEILING LINE.

10. METER CENTER-SUBMIT SHOP DRAWING FOR APPROVAL.





SCHEDULE OF FOOTINGS						
NAME	TYPE	THICKNESS	SIZE (LxW)	DEPTH	REINFORCEMENT	
					BOTTOM	
					ALONG L	ALONG W
F1	ISOLATED	300 MM	1000 x 1000 MM	1300 MM	7-16 MM Ø @ 150 MM	7-16 MM Ø @ 150 MM

COLUMN	DIMENSION	REINFORCEMENT	NO. OF TIES & SPACING
C1	300 MM X 300 MM	8 - 16mm Ø R.S.B.	2 SET OF 10mm Ø TIES @ 2-50mm, 4-75mm, 6-100mm, REST @ 200mm O.C.

