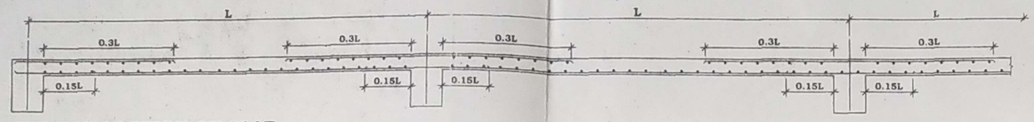
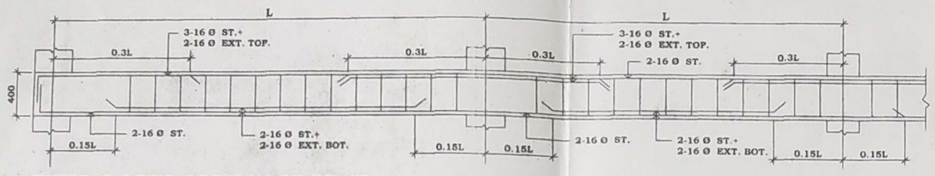
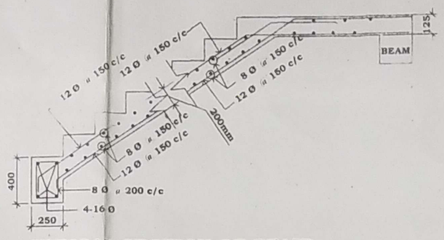
STRUCTURAL DRAWING OF G+3 STORIED RESIDENTIAL FLAT BUILDING OF ACHINTYA CHAKRABORTY, PAYAL CHAKRABORTY, KOYAL CHAKRABORTY & KRISHNA SINGHA ROY ON L.R. DAG NO.- 2036, L.R. KHATIAN NOS.- 15101, 15102, 15103 & 15104, MOUZA- UDAYRAJPUR, J.L. NO.- 43, R.S. NO.- 6, HOLDING NO.- 12, SCHOOL ROAD (UTTARPARA), (ID:18154), WARD NO.- 12, P.S.- MADHYAMGRAM, DIST.- NORTH 24 PARGANAS, UNDER MADHYAMGRAM MUNICIPALITY.



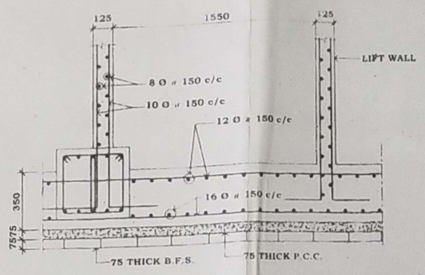
TYPICAL SECTION OF SLAB
SCALE 1:25



TYPICAL LONG SECTION OF BEAM
SCALE 1:25



TYPICAL SECTION OF STAIR
SCALE 1:25



SECTION OF RAFT WITH LIFT WALL
SCALE 1:25

SCHEDULE OF FOOTING

FOOTING MKD.	COLUMN MKD.	L	B	D1	D2	REINFORCEMENT
F1	C1,C35,C36,C37	1850	1850	125	125	BOT.: 12 Ø 150 c/c, (Both way)
F2	C4,C5,C33	1950	1950	150	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
F3	C3,C9,C15,C21,C31,C34	2050	2050	150	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
F4	C6,C7,C13	2150	2150	175	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
F5	C2,C26,C27,C29,C32	2250	2250	200	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
F6	C10,C16,C22,C30	2350	2350	200	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
F7	C11,C28	2500	2500	225	125	BOT.: 12 Ø 150 c/c, (Both way) TOP : 10 Ø 150 c/c, (Both way)
RAFT 1	C17,C18,C23,C24	AS SHOWN		350		BOT.: 12 Ø 150 c/c, (Both way) TOP : 12 Ø 150 c/c, (Both way)
RAFT 2	C8,C12,C14,C19,C20,C25 & LIFT	AS SHOWN		350		BOT.: 12 Ø 150 c/c, (Both way) TOP : 12 Ø 150 c/c, (Both way)

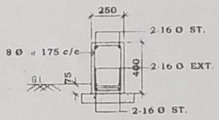
SCHEDULE OF SLAB

SLAB MKD.	THICKNESS (mm)	REINFORCEMENT			
		SHORT DIRECTION		LONG DIRECTION	
		SUPPORT	SPAN	SUPPORT	SPAN
S1	110	8 Ø @ 150 c/c	8 Ø @ 150 c/c	8 Ø @ 175 c/c	8 Ø @ 175 c/c
S2	100	8 Ø @ 150 c/c	8 Ø @ 150 c/c	8 Ø @ 200 c/c	8 Ø @ 200 c/c

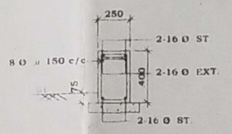
NOTE: EXTRA TOP REINFORCEMENT TO BE PROVIDED UP TO 0.3L FROM SUPPORT

SCHEDULE OF COLUMNS

COLUMN MKD.	SIZE	REINFORCEMENT			
		GROUND & FIRST	SECOND	THIRD & ROOF	STIRRUP
C1,C36	250X350	4-16 Ø + 4-12 Ø	8-12Ø	8-12 Ø	8 Ø @ 150 c/c
C2,C3,C4,C5,C6,C7,C13,C23, C29,C32,C33,C34,C35,C37	250X400	8-16 Ø	4-16 Ø + 4-12 Ø	8-12 Ø	
C8,C9,C10,C12,C14,C15,C16, C17,C18,C19,C20,C21,C22, C24,C25,C26,C27,C31	250X450	10-16 Ø	6-16 Ø + 4-12 Ø	10-12 Ø	
C11,C28,C30	250X450	4-20 Ø + 6-16 Ø	10-16 Ø	4-16 Ø + 6-12 Ø	



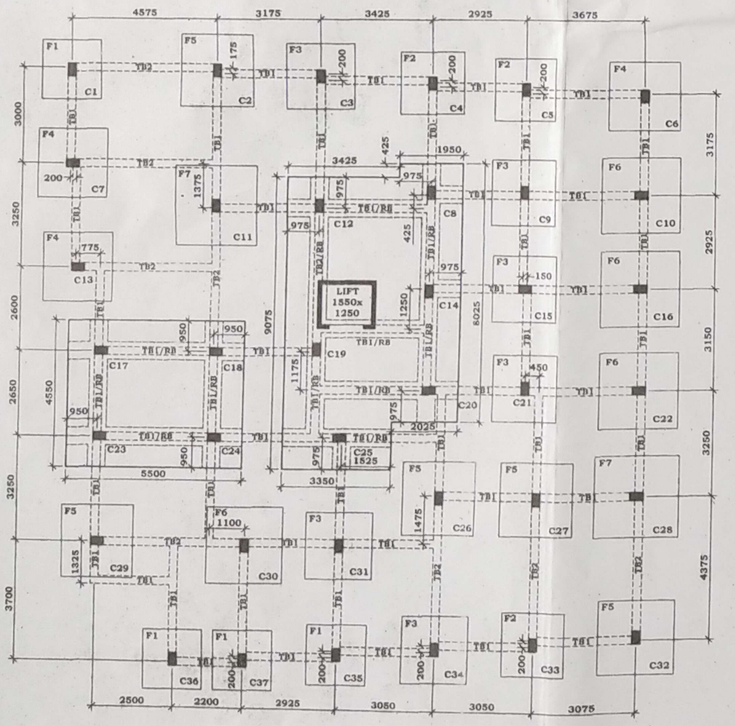
MID. SEC. OF TB1
SCALE 1:25



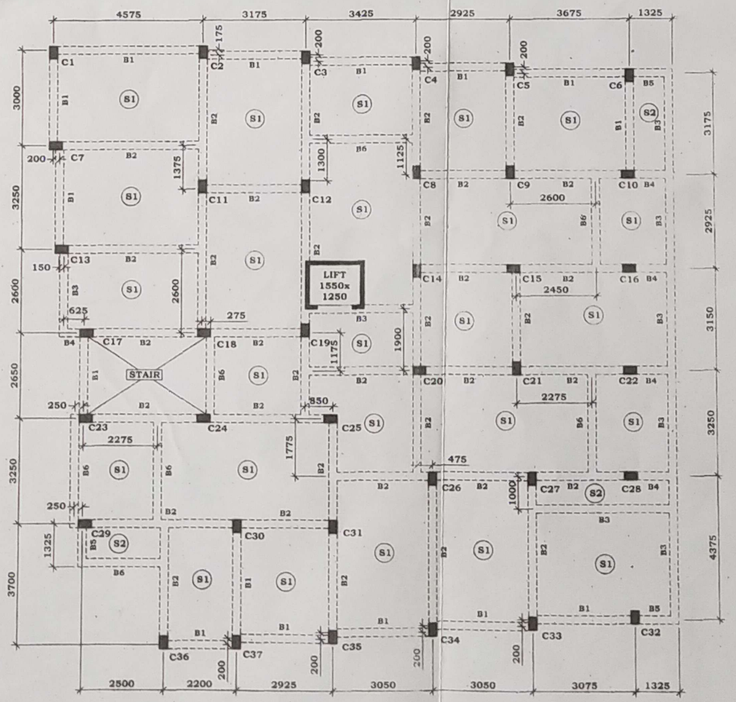
SUPP. SEC. OF TB1
SCALE 1:25

SCHEDULE OF BEAMS

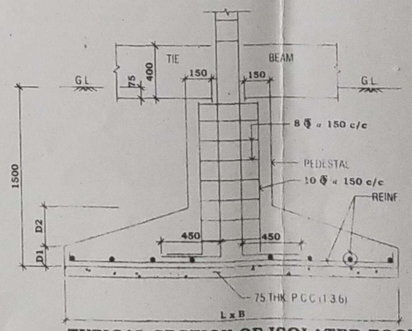
BEAM MKD.	SIZE	AT SUPPORT		AT SPAN		STIRRUP SUPPORT/SPAN
		TOP	BOTTOM	TOP	BOTTOM	
B1	250 x 400	3-16 Ø + 2-16 Ø	2-16 Ø	3-16 Ø	3-16 Ø + 2-16 Ø	8 Ø @ 150 / 175 c/c (2L)
B2	250 x 450	3-16 Ø + 3-16 Ø	3-16 Ø	3-16 Ø	3-16 Ø + 2-16 Ø	8 Ø @ 150 / 175 c/c (2L)
B3	250 x 400	3-16 Ø	3-16 Ø	3-16 Ø	3-16 Ø + 2-16 Ø	8 Ø @ 150 / 175 c/c (2L)
B4	250 x 450	3-16 Ø + 2-16 Ø	3-16 Ø	—	—	8 Ø @ 150 / 175 c/c (2L)
B5	250 x 400	3-16 Ø + 2-16 Ø	3-16 Ø	—	—	8 Ø @ 150 / 175 c/c (2L)
B6	250 x 350	2-16 Ø	2-16 Ø	2-16 Ø	2-16 Ø + 2-16 Ø	8 Ø @ 150 / 200 c/c (2L)
TB1	250 x 400	2-16 Ø + 2-16 Ø	2-16 Ø	2-16 Ø	2-16 Ø + 2-16 Ø	8 Ø @ 150/ 175 c/c (2L)
TB2	250 x 400	2-16 Ø + 3-16 Ø	2-16 Ø	2-16 Ø	2-16 Ø + 2-16 Ø	8 Ø @ 150/ 175 c/c (2L)
RB	550 x 600	5-16 Ø	5-16 Ø + 5-16 Ø	5-16 Ø + 5-16 Ø	5-16 Ø	10 Ø @ 150 / 125 c/c (4L)



FOUNDATION & TIE BEAM LAYOUT PLAN
SCALE 1:100



TYPICAL FLOOR BEAM AND SLAB LAYOUT PLAN
SCALE 1:100



TYPICAL SECTION OF ISOLATED FOOTING
SCALE 1:25

SPACE FOR OFFICE USE

NOTE:-
1. ALL DIMENSION ARE IN MM UNLESS OTHERWISE STATED
2. ALL EXTERNAL WALLS ARE 200 TH. & ALL INTERNAL WALLS ARE 125/75 TH. AS MENTIONED
3. MIX OF CONCRETE OF ALL R.C.C. MEMBERS ARE M 20 GRADE
4. ALL REINFORCEMENT SHALL BE Fe-500 CONFORMING TO I. S. CODE
5. CLEAR COVER FOR a) FOUNDATION 50 MM b) COLUMN 40 MM c) BEAM 25 MM d) SLAB 15 MM
6. FIGURED DIMENSIONS SHOULD BE FOLLOWED
7. NET SAFE BEARING CAPACITY OF SOIL HAS BEEN CONSIDERED FROM THE SOIL INVENTIGATION REPORT, AS PREPARED BY 'ASSOCIATED FOUNDATION ENGINEERS'
8. THIS STRUCTURAL DESIGN CALCULATION IS VALID ONLY FOR THE GRID LAY OUT, AS SHOWN IN THE STRUCTURAL DRAWING
9. ALL OTHERS WORKS AS PER I.S. CODE

N

CERTIFICATE OF STRUCTURAL ENGINEER & GEOTECHNICAL ENGINEER

WE HEREBY CERTIFY THAT THE FOUNDATION AND SUPER STRUCTURE OF THE G+3 STORIED BUILDING PROPOSED FOR CONSTRUCTION ON ABOVE SCHEDULED LAND HAS BEEN PERSONALLY INSPECTED AND SO DESIGNED BY US. WILL MAKE SUCH FOUNDATION AND SUPER STRUCTURE SAFE IN ALL RESPECT INCLUDING THE CONSIDERATION OF BEARING CAPACITY AND SETTLEMENT OF SOIL AND OTHER CONDITIONS, IF ANY CONFORMING TO ALL STIPULATIONS OF RELEVANT I.S. CODE OF PRACTICE AND N.B. CODES.

Dipika Majumder
B.Tech. (Civil)
MM/ Struc/009/2019-20
Class-II

SIGNATURE OF STRUCTURAL ENGINEER

ASIM SARKAR
BCE, ME(SOIL), M.TECH (STRUCTURE) MIGS.
EMPANELLED GEOTECHNICAL ENGINEER
KMC NO.- CLASS I & 2

SIGNATURE OF GEOTECHNICAL ENGINEER

CERTIFICATE OF THE OWNERS

CERTIFIED THAT WE SHALL NOT ON A LATER DATE MAKE ANY ADDITION OR ALTERATION TO THIS PLAN. CERTIFIED THAT WE HAVE GONE THROUGH THE BUILDING RULES FOR M.M. AND ALSO ABIDE BY THOSE RULES DURING AND AFTER CONSTRUCTION OF THE BUILDING. AND ALSO DECLARE THAT WE SHALL BE RESPONSIBLE TO INFORM THE ABOVE SIGNED ENGINEER BEFORE STARTING OF THE SAID CONSTRUCTION FOR SUPERVISING THE BUILDING.

1. Achintya Chakraborty
2. Payal Chakraborty
3. Koyal Chakraborty
4. Krishna Singha Roy

SIGNATURE OF OWNERS

ARCH. VIEW
ARCHITECTS, PLANNERS & ENGINEERS
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MADHYAMGRAM, KOLKATA 700129.
MOB: 9903347265, 8017574759

DRAWN BY : ARPAN SARKAR & MOUMITA MAJUMDER