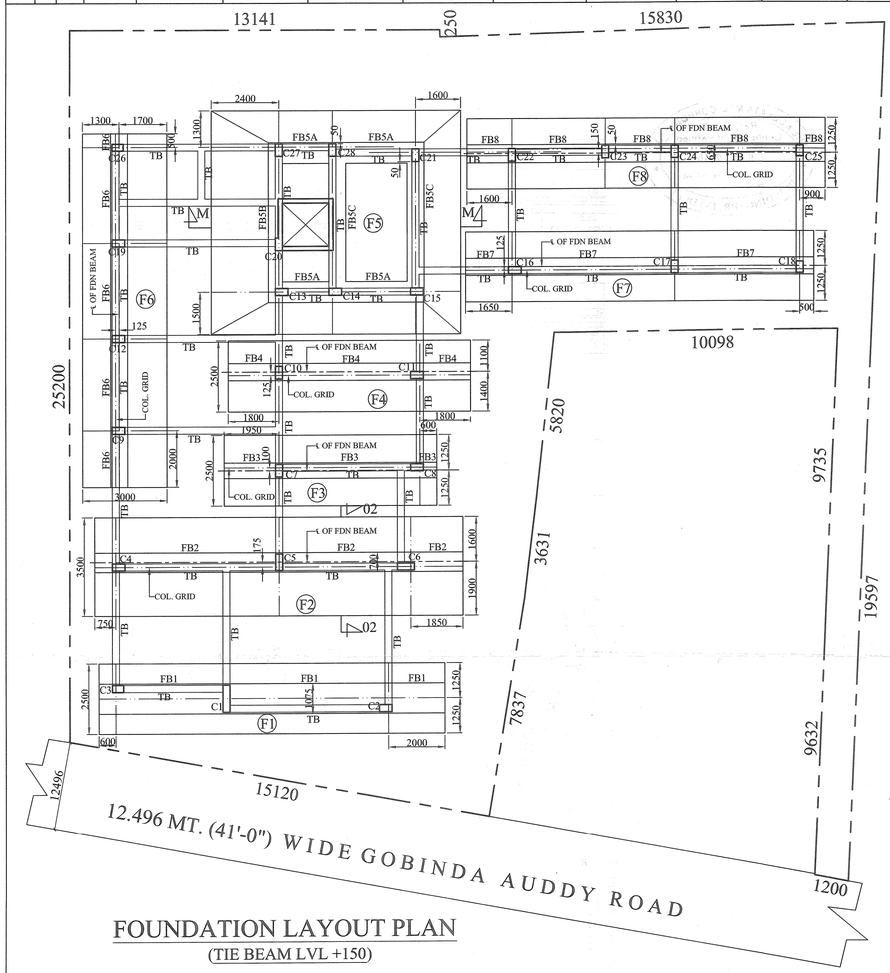
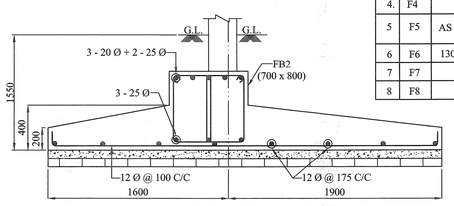
BEAM SCHEDULE

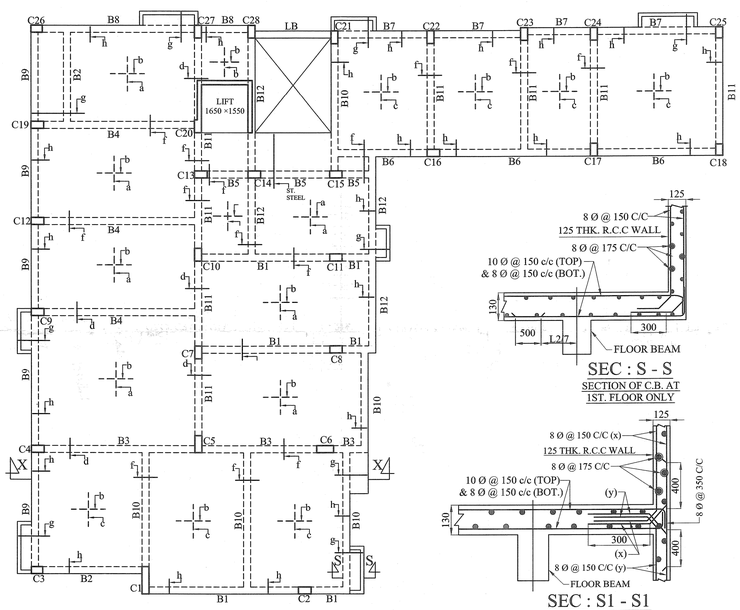
TYPE OF BEAM	SL. NO	BEAM MKD.	BEAM SECTION	END SUPPORT TOP	END SUPPORT BOTTOM	INTERIOR SUPPORT TOP	INTERIOR SUPPORT BOTTOM	END SPAN TOP	END SPAN BOTTOM	INTERIOR SPAN TOP	INTERIOR SPAN BOTTOM	STIRRUPS
FLOOR BEAM	1.	B1	250 x 450	3 - 20 Ø 3 - 20 Ø (D.L.)	3 - 20 Ø	-	-	2 - 20 Ø	3 - 20 Ø 2 - 16 Ø (D.L.)	-	-	8/10 Ø (2L) @ 150 C/C
	2.	B2	250 x 450	4 - 16 Ø	2 - 16 Ø	-	-	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	3.	B3	250 x 450	2 - 16 Ø + 2 - 20 Ø + 2 - 20 Ø (D.L.)	2 - 16 Ø + 1 - 20 Ø	2 - 16 Ø + 2 - 20 Ø + 2 - 16 Ø (D.L.)	2 - 16 Ø + 1 - 20 Ø	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø + 2 - 16 Ø (D.L.)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	4.	B4	250 x 450	3 - 16 Ø 2 - 16 Ø (D.L.)	2 - 12 Ø	-	-	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø + 3 - 16 Ø (D.L.)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	5.	B5	250 x 450	2 - 16 Ø + 2 - 20 Ø + 3 - 16 Ø (D.L.)	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	6.	B6	250 x 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø + 3 - 16 Ø (D.L.)	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø + 2 - 16 Ø (D.L.)	8 Ø (2L) @ 125 TO 200 C/C
	7.	B7	250 x 450	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	8.	B8	250 x 450	2 - 16 Ø + 1 - 20 Ø + 2 - 20 Ø (D.L.)	2 - 16 Ø + 1 - 20 Ø	-	-	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø + 2 - 16 Ø (D.L.)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	9.	B9	250 x 450	2 - 12 Ø + 2 - 16 Ø	2 - 12 Ø	2 - 12 Ø + 2 - 20 Ø + 2 - 20 Ø (D.L.)	2 - 12 Ø	2 - 12 Ø	2 - 12 Ø + 2 - 16 Ø	2 - 12 Ø	2 - 12 Ø + 2 - 20 Ø	8 Ø (2L) @ 150 TO 200 C/C
	10.	B10	250 x 450	3 - 16 Ø	2 - 16 Ø	-	-	2 - 16 Ø	4 - 16 Ø + 2 - 16 Ø (D.L.)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	11.	B11	250 x 450	3 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø + 2 - 16 Ø (D.L.)	2 - 16 Ø	2 - 16 Ø	3 - 16 Ø	2 - 16 Ø	4 - 16 Ø	8 Ø (2L) @ 150 C/C
	12.	B12	250 x 450	3 - 16 Ø	2 - 16 Ø	3 - 16 Ø + 2 - 16 Ø (D.L.)	2 - 16 Ø	2 - 16 Ø	3 - 16 Ø	2 - 16 Ø	4 - 16 Ø	8 Ø (2L) @ 150 C/C
FOUNDATION BEAM	1.	FB1	1075 x 700	5 - 16 Ø	5 - 16 Ø + 4 - 20 Ø	5 - 16 Ø	5 - 16 Ø + 4 - 20 Ø + 3 - 20 Ø (D.L.)	5 - 16 Ø + 4 - 20 Ø + 3 - 16 Ø (D.L.)	5 - 16 Ø	-	-	10 Ø (4L) @ 125 TO 175 C/C
	2.	FB2	700 x 800	3 - 20 Ø	5 - 25 Ø	3 - 20 Ø + 2 - 25 Ø	5 - 25 Ø + 5 - 25 Ø (D.L.)	3 - 20 Ø + 4 - 25 Ø + 3 - 25 Ø (D.L.)	3 - 25 Ø	-	-	10 Ø (4L) @ 75 TO 150 C/C
	3.	FB3	600 x 650	3 - 16 Ø	3 - 16 Ø + 2 - 20 Ø + 3 - 20 Ø (D.L.)	-	-	3 - 16 Ø + 2 - 20 Ø	3 - 16 Ø	-	-	10 Ø (4L) @ 125 TO 200 C/C
	4.	FB4	600 x 700	4 - 16 Ø	4 - 16 Ø + 3 - 20 Ø + 3 - 20 Ø (D.L.)	-	-	4 - 16 Ø + 3 - 20 Ø + 3 - 20 Ø (D.L.)	4 - 16 Ø	-	-	10 Ø (4L) @ 125 TO 175 C/C
	5.	FB5A	750 x 600	5 - 16 Ø + 2 - 16 Ø	5 - 16 Ø	5 - 16 Ø	5 - 16 Ø + 2 - 16 Ø	5 - 16 Ø + 2 - 16 Ø	5 - 16 Ø	-	-	10 Ø (4L) @ 150 C/C
	6.	FB5B	500 x 700	3 - 16 Ø	3 - 16 Ø + 2 - 20 Ø	3 - 16 Ø	3 - 16 Ø + 2 - 20 Ø + 3 - 20 Ø (D.L.)	3 - 16 Ø + 2 - 20 Ø + 3 - 20 Ø (D.L.)	3 - 16 Ø	-	-	10 Ø (4L) @ 100 TO 150 C/C
	7.	FB5C	600 x 700	3 - 20 Ø	3 - 20 Ø + 2 - 20 Ø + 2 - 20 Ø (D.L.)	-	-	3 - 20 Ø + 4 - 20 Ø + 5 - 20 Ø (D.L.)	3 - 20 Ø	-	-	10 Ø (4L) @ 100 TO 175 C/C
	8.	FB6	600 x 700	4 - 16 Ø	4 - 16 Ø + 3 - 20 Ø + 3 - 20 Ø (D.L.)	4 - 16 Ø	4 - 16 Ø + 3 - 20 Ø	4 - 16 Ø + 3 - 20 Ø	4 - 16 Ø	6 - 16 Ø	4 - 16 Ø	10 Ø (4L) @ 100 TO 150 C/C
	9.	FB7	600 x 750	3 - 20 Ø	3 - 20 Ø + 2 - 16 Ø	3 - 20 Ø	3 - 20 Ø + 4 - 20 Ø + 4 - 20 Ø (D.L.)	3 - 20 Ø + 2 - 16 Ø	3 - 20 Ø	3 - 20 Ø + 4 - 20 Ø + 2 - 20 Ø (D.L.)	3 - 20 Ø	10 Ø (4L) @ 125 TO 200 C/C
	10.	FB8	650 x 600	3 - 16 Ø	3 - 16 Ø + 2 - 20 Ø	3 - 16 Ø	3 - 16 Ø + 4 - 16 Ø	3 - 16 Ø + 2 - 16 Ø	3 - 16 Ø	-	-	10 Ø (4L) @ 150 TO 200 C/C



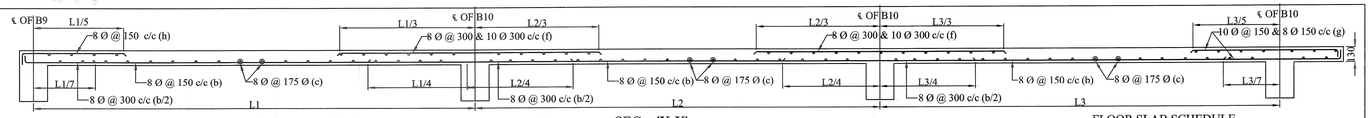
FOUNDATION LAYOUT PLAN
(TIE BEAM LVL +150)



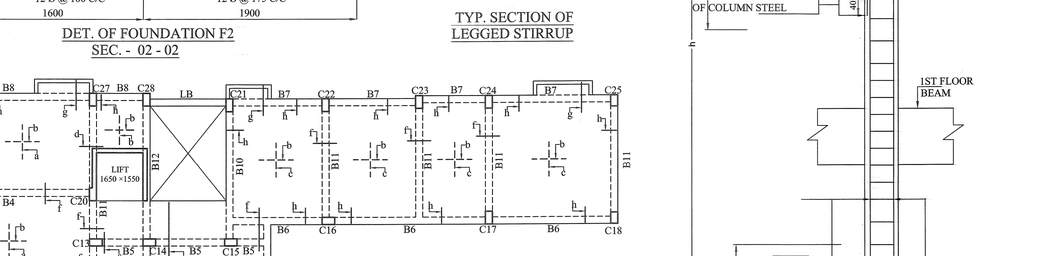
DET. OF FOUNDATION F2
SEC. - 02 - 02



TYPICAL FLOOR BEAM LAYOUT PLAN
(1ST TO 4TH)



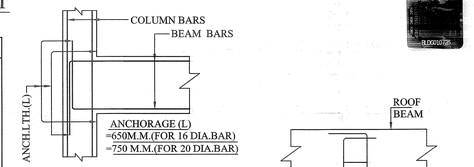
SEC. - 'X-X'



SECTION - 'M - M'

COLUMN SCHEDULE

GROUP MKD.	COLUMN MARKED	COLUMN SECTION	COLUMN REINFORCEMENT: GROUND TO 2ND. FL. LEV.	COLUMN REINFORCEMENT: 2ND. FL. LVL TO 4TH. FL. LVL.	COLUMN REINFORCEMENT: 4TH. FL. LVL TO ROOF & L/M RM.	LINKS
1	C7,C8,C9,C10,C11, C12,C13,C19,C22, C23,C24,C28	250 x 450	8 - 20 Ø	4 - 20 Ø + 4 - 16 Ø	8 - 16 Ø	8 Ø (2L) & (4L.) @ 200 C/C
2	C2,C4,C14,C15,C16, C17,C20,C21,C27	250 x 450	10 - 20 Ø	6 - 20 Ø + 4 - 16 Ø	4 - 20 Ø + 6 - 16 Ø	
3	C3,C18,C25,C26	250 x 400	8 - 16 Ø	4 - 16 Ø + 4 - 12 Ø	8 - 12 Ø	
4	C5,C6	250 x 600	14 - 20 Ø	8 - 20 Ø + 6 - 16 Ø	6 - 20 Ø + 8 - 16 Ø	
5	C1	250 x 975	14 - 16 Ø	8 - 16 Ø + 6 - 12 Ø	6 - 16 Ø + 8 - 12 Ø	



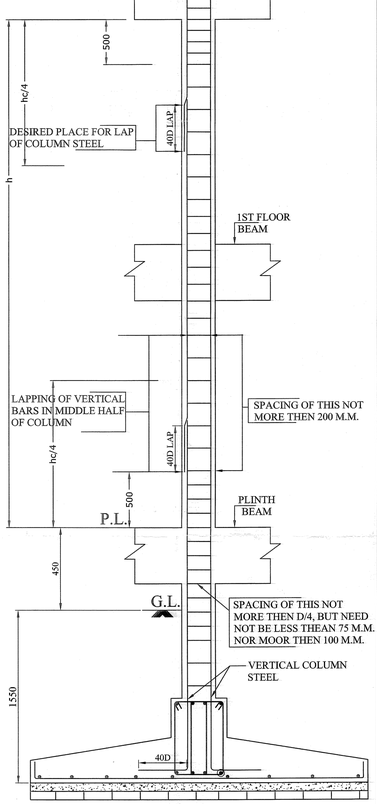
ANCHORAGE OF BEAM BARS IN EXTERIOR JOINTS

SCHEDULE OF FOUNDATION

SL. NO	FDN. MKD	BASE WIDTH /FDN. SIZE	SLAB DEPTH	SLAB RE- INFORCEMENT: MAIN	SLAB RE- INFORCEMENT: DIST.
1.	F1	2500	200 TO 400	10 Ø @ 150 C/C	10 Ø @ 150 C/C
2.	F2	1600 × 1900	200 TO 450	12 Ø @ 100 C/C	12 Ø @ 150 C/C
3.	F3	1100 × 1400	200 TO 400	10 Ø @ 100 C/C	10 Ø @ 150 C/C
4.	F4	2500	200 TO 400	10 Ø @ 100 C/C	10 Ø @ 150 C/C
5	F5	AS PER FIG.	500 RAFT	10 Ø @ 125 C/C (TOP)	16 Ø @ 125 C/C (BOT. MAIN) 10 Ø @ 125 C/C (BOT. DIST.)
6	F6	1300 × 1700	200 TO 450	12 Ø @ 150 C/C	10 Ø @ 150 C/C
7	F7	2500	200 TO 450	10 Ø @ 150 C/C	10 Ø @ 150 C/C
8	F8	2500	200 TO 400	10 Ø @ 150 C/C	10 Ø @ 150 C/C

SEC : S - S
SECTION OF C.B. AT 1ST. FLOOR ONLY

SEC : S1 - S1
SECTION OF C.B. AT 2ND TO 4TH FLOOR



TYPICAL DETAIL SHOWING PLACING OF VERTICAL BARS AND CLOSED TIES IN COLUMNS-COLUMN ENDS AND LAP LENGTH. (TO BE PROTECTED WITH CLOSELY SPACED TIES).

TYP. SECTION OF LEGGED STIRRUP

FLOOR SLAB SCHEDULE

SLAB THICKNESS- 130 M.M.

LEGEND	SLAB STEEL
a	8 Ø @ 125 c/c (BOT.)
b	8 Ø @ 150 c/c (BOT.)
c	8 Ø @ 175 Ø (BOT.)
d	8 Ø @ 250 & 10 Ø 250 c/c (ALT.)(TOP.)
f	8 Ø @ 300 & 10 Ø 300 c/c (ALT.)(TOP.)
g	10 Ø @ 150 (TOP) & 8 Ø 150 c/c (BOT.)
h	8 Ø @ 150 c/c (TOP)
———	SHOWN AS TOP LAYER STEEL
- - - -	SHOWN AS BOTTOM LAYER STEEL

SPECIFICATIONS:

ALL DIMENSIONS ARE IN M.M.
GRADE OF CONCRETE IS M -20
GRADE OF STEEL : Fe 500
COVER TO STEEL: 50 M.M. (FOUNDATION), 40 MM. (COLUMN), 25 MM. (FL. BEAM), 20 MM.(SLAB)
ALL FOUNDATION ARE LAID OVER 75 THK. P.C.C. (1:2:4) OVER 75 THK.B.F.S.
25 Ø @ 750 C/C STEEL ARE USED AS SPACER BAR AT DOUBLE LAYER
STRENGTH OF CONC. TO BE TESTED BY AVAILABLE DESTRUCTIVE AND NON DESTRUCTIVE TESTS AS PER I.S. SPECIFICATIONS.
400 mm. LONG 10 Ø CHAIR BARS TO BE PLACED BETWEEN TOP & BOTTOM LAYER OF REINFORCEMENT WITHIN FLOOR SLAB AS SEPARATOR.

CERTIFICATE OF STRUCTURAL ENGINEER

THE STRUCTURAL DESIGN OF BOTH FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING HAVE BEEN MADE BY ME CONSIDERING ALL POSSIBLE LOADS INCLUDING THE SEISMIC LOAD AS PER N.B.C OF INDIA AND BASIS OF SOIL INVESTIGATION REPORT BY GEOTEST ENGINEERS PVT. LTD. (MR. ALOK ROY) 6A, MILAN PARK, KOLKATA-700084, CERTIFY THAT IT IS SAFE AND STABLE IN ALL RESPECT.

Sankar Das
B.E. (CAL), M.E. (CAL), M.I.E.
Consulting Structural Engineer
The Kolkata Municipal Corporation
Empanelment No.:- E.S.E. 1/12

(SANKAR DAS E.S.E.-I/(12)
SIG. OF STRUCTURAL ENGINEER

DECLARATION OF ARCHITECT.

CERTIFIED THAT THE PLAN ITSELF WITH FULL RESPONSIBILITY THAT THE BUILDING PLAN HAS DRAWN UP AS PER PROVISION OF K.M.C. BUILDING RULES 2009, AS AMMENDED FROM TIME TO TIME AND THE SITE CONDITION INCLUDING THE ABUTTING ROAD IS CONFORM WITH THE PLAN. IT IS A BUILDABLE SITE NOT A TANK OR FILLED UP TANK. THERE IS AN EX STRUC. TO BE DEMOLISHED BEFORE COMMENCEMENT OF WORK IT IS FULLY OCCUPIED BY THE OWNER. THERE IS NO TENENT.

(ANJAN UKIL CA/94/16721)
SIG. OF ARCHITECT.

I DO HERE BY DECLARE WITH FULL RESPONSIBILITY THAT, I SHALL ENGAGE L.B.A & ESE DURING CONSTRUCTION. I SHALL FOLLOW THE INSTRUCTION OF L.B.A & E.S.E DURING CONSTRUCTION OF THE BUILDING (AS PER PLAN) K.M.C AUTHORITY WILL NOT BE RESPONSIBLE FOR STRUCTURAL STABILITY OF THE BUILDING & ADJOINING STRUCTURE IF ANY SUBMITTED DOCUMENT ARE FAKE. THE K.M.C AUTHORITY WILL REVOKE THE SANCTION PLAN. THE CONSTURCTION OF U.G.W.R & SEPTIC TANK TAKEN UNDER THE GUIDENCE OF LBS/EBE BEFORE STARTING OF BUILDING FOUNDATION.

..i Ghosh, Samiran Majumdar,
Dipali Majumdar, Rajib Majumdar,
Debasis Mazumdar
Constituted Attorney

VIVEK RUIA & RICKY CHANDRA (C.A)
SIGNATURE OF OWNER

PROJECT.
PROPOSED G+IV (15.475 MT.) STORIED RESIDENTIAL BUILDING AT PRE. NO. -2/1D, GOBINDA AUDDY ROAD, KOLKATA -700027, WARD NO-82, BOROUGH NO.-IX, P.S.-CHETLA.

JOB NO.	C/2359	DATE : 05.10.2016
DRG. NO. -	01	
SCALE : -	1 : 100,1:25 (UNLESS OTHERWISE SPECIFIED)	
TITLE :	STRUCTURAL DETAIL.	
DRAWN BY.	P.C.M.	

STRUCTURAL CONSULTANT
TETRAGON ENGINEERING CONSULTANCY (P) LTD. 2T CORNFIELD ROAD, KOLKATA - 700019.
PHONE NO 033 4072 8600.
E-mail : tecpl.kolkata@gmail.com

N

2/B

PARTY'S COPY

Structural plan and design calculation as submitted by the structural engineer have been kept with B.P. No. 2016090042 Date. 06/12/16 for record of the Kolkata Municipal Corporation without verification No. deviation from the submitted structural plan should be made at the time of erection without submitting fresh structural plan along with design calculation and stability certificate in the prescribed form, necessary steps should be taken for the safetyof the adjoining premises public and private properties and safety of human life during construction.

Dy. C.E.

EXECUTIVE ENGINEER/ASSTT.ENGINEER
BOROUGH NO.

THE KOLKATA MPL. CORPORATION
RECEIVED
Comments Not Verified
16 DEC 2016
11, Belvedere Road
No.
BUILDING (BR. IX) DEPTT.