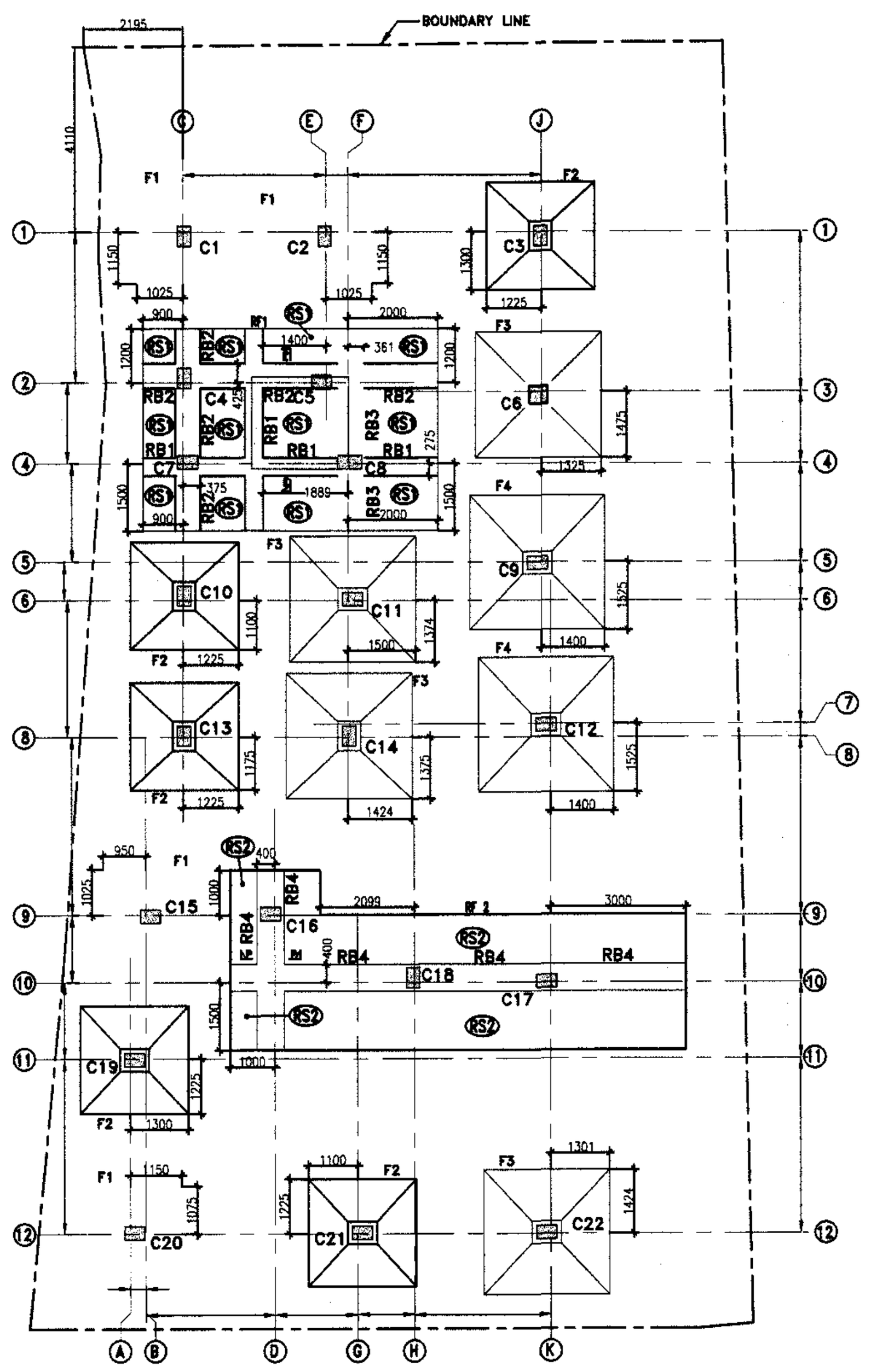
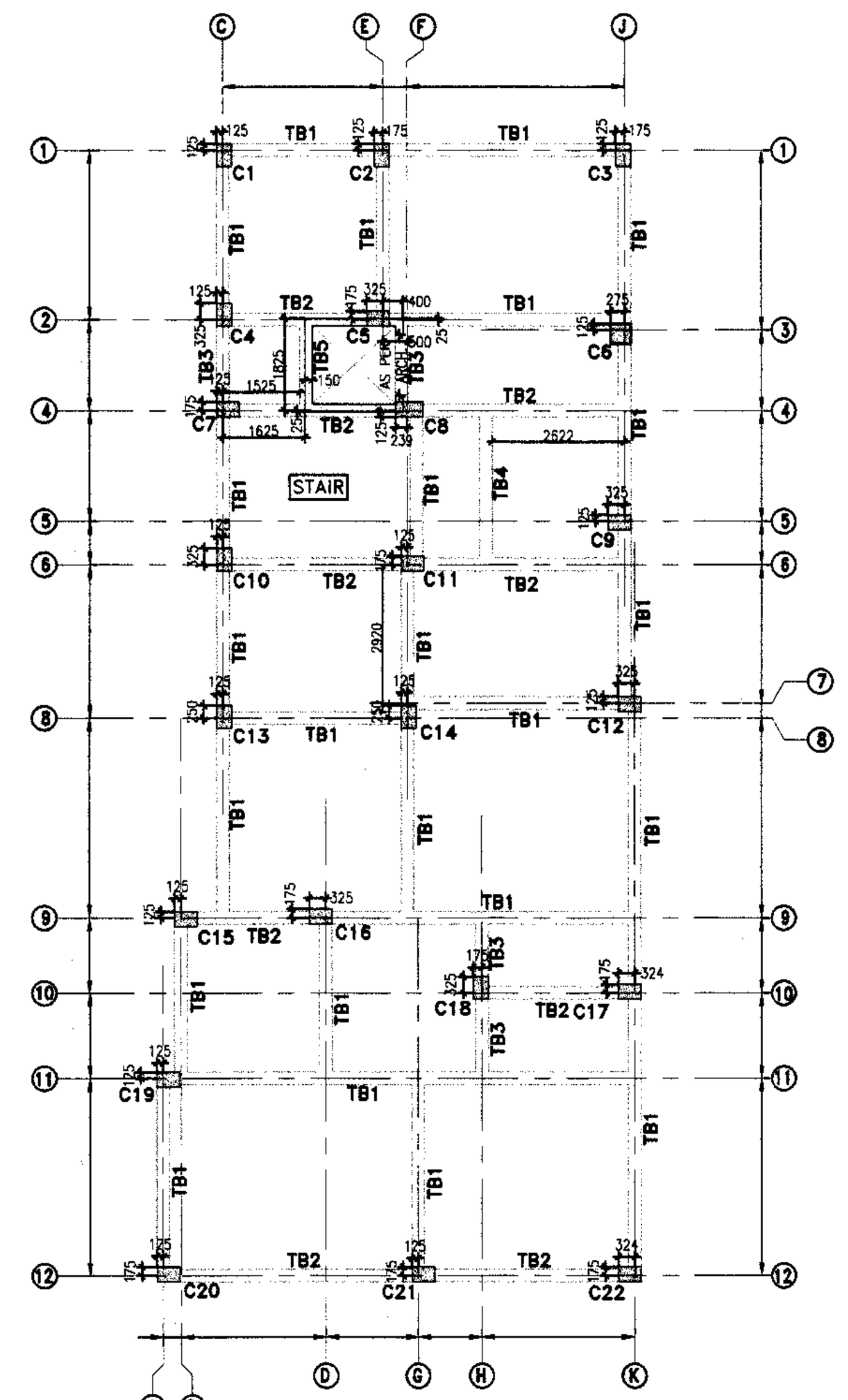
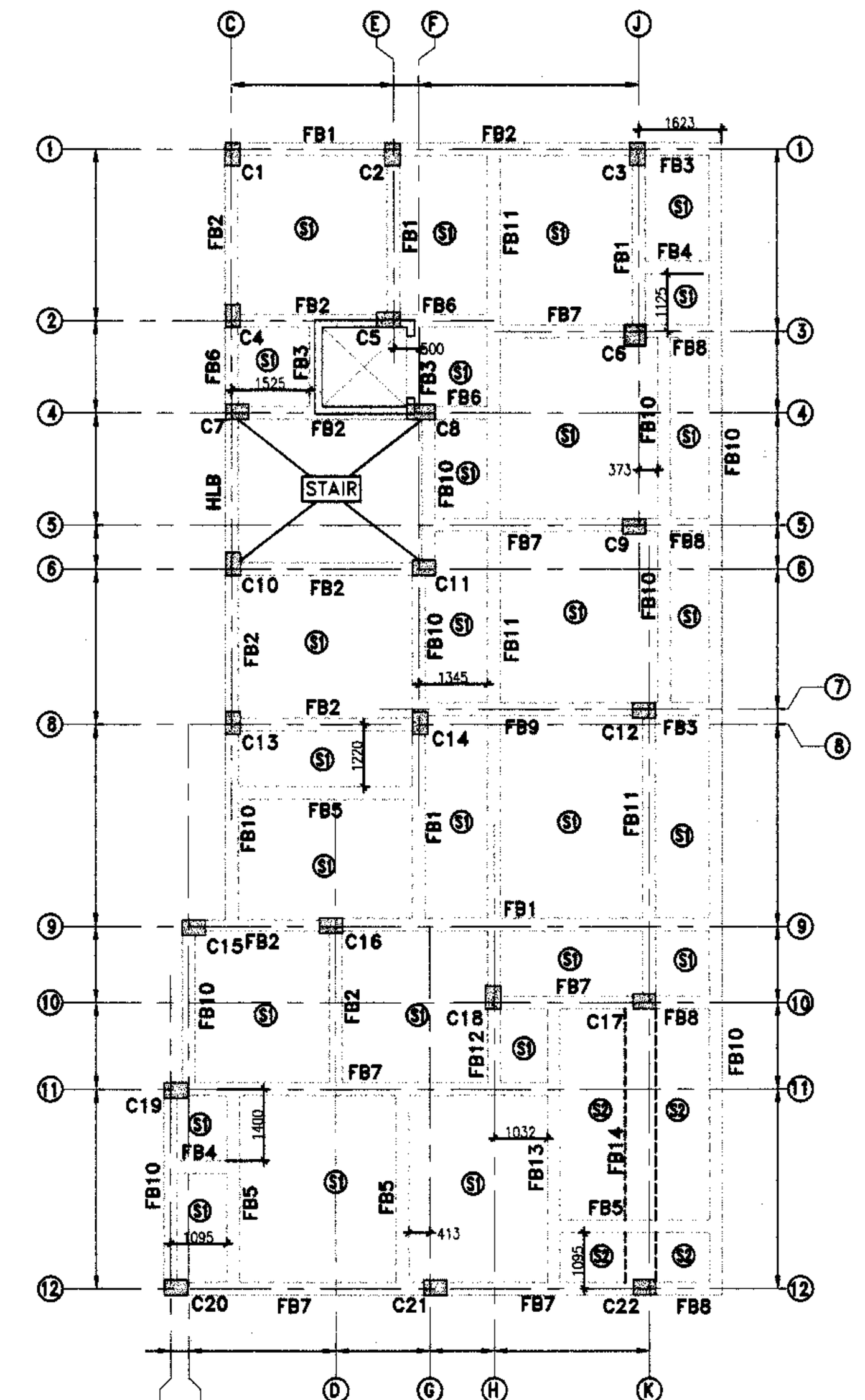


FOUNDATION LAYOUT PLAN

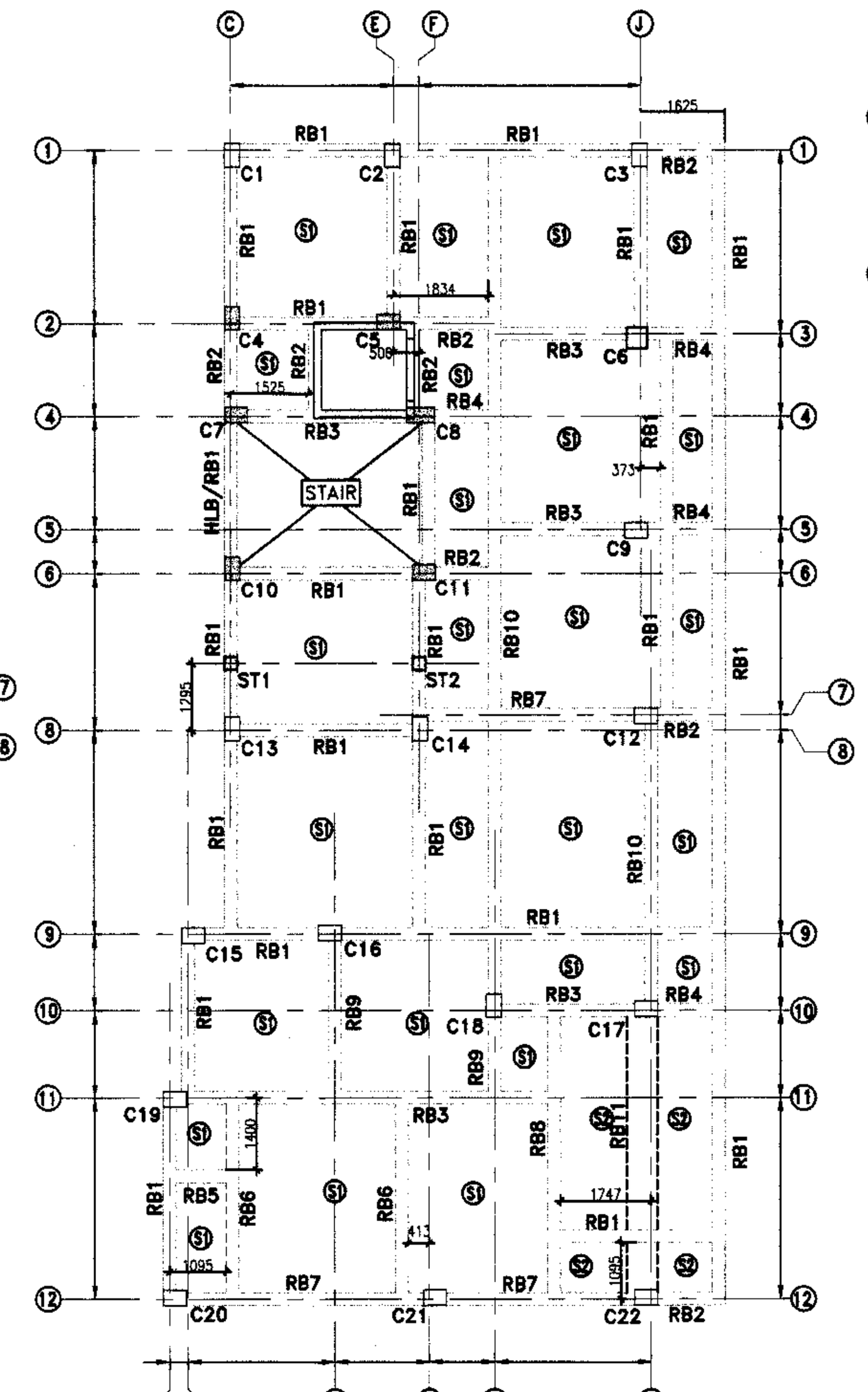
RS1 MARKED SLAB 400mm THK.
RS2 MARKED SLAB 600mm THK.
SCALE-1:100



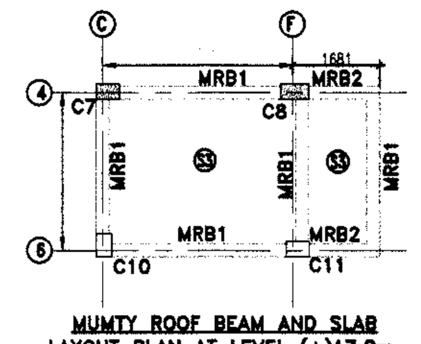
TIE BEAM LAYOUT PLAN
AT LEVEL(+)0.0m
SCALE-1:100



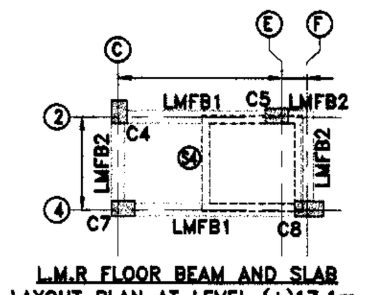
TYPICAL FLOOR BEAM AND SLAB LAYOUT PLAN
AT LEVELS
(+)3.2m, (+)6.25m, (+)9.3m, (+)12.35m.
S1 MARKED SLABS ARE 115mm THICK.
S2 MARKED SLABS ARE 150mm THICK.
HLB REFERS TO HALF LANDING BEAM.
SCALE-1:100



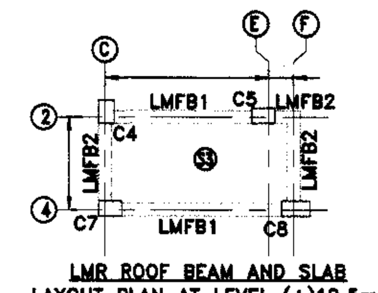
ROOF BEAM AND SLAB LAYOUT PLAN
AT LEVEL(+)15.4m.
S1 MARKED SLABS ARE 115mm THICK.
S2 MARKED SLABS ARE 150mm THICK.
HLB REFERS TO HALF LANDING BEAM.
SCALE-1:100



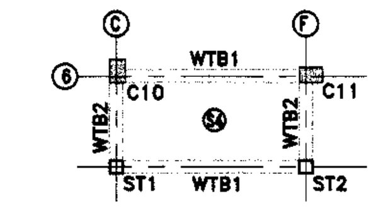
MUMTY ROOF BEAM AND SLAB
LAYOUT PLAN AT LEVEL (+)17.8m.
S3 MARKED SLABS ARE 115 mm. THICK.
SCALE 1:100



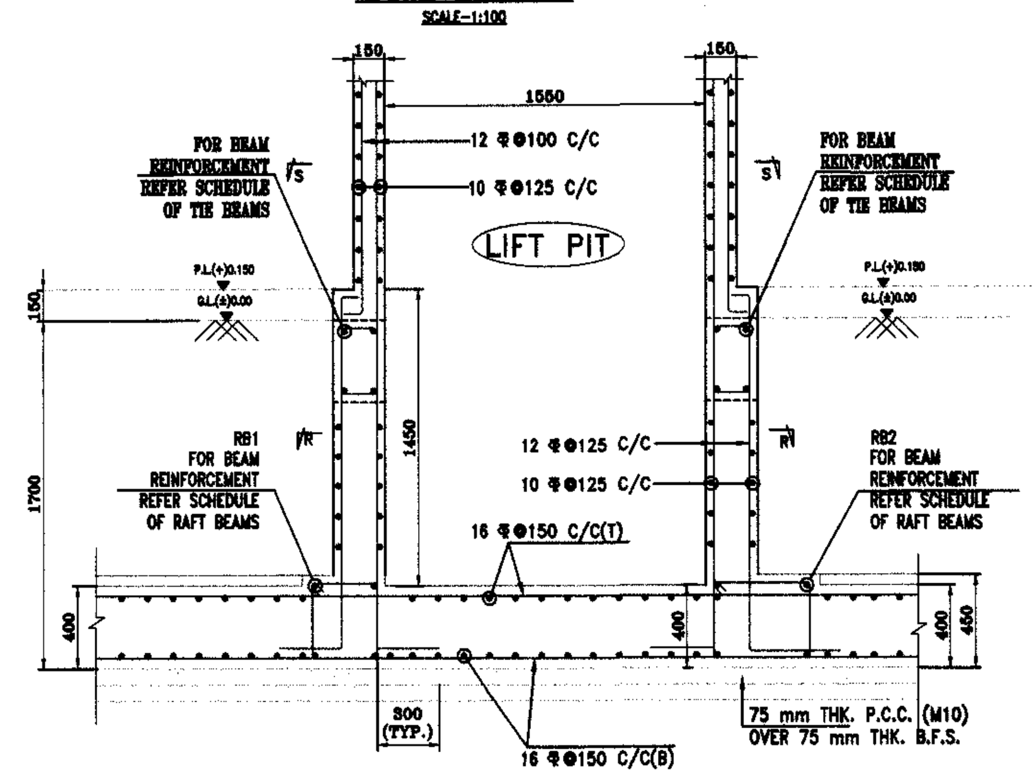
L.M.R FLOOR BEAM AND SLAB
LAYOUT PLAN AT LEVEL (+)17.1m.
S4 MARKED SLABS ARE 150 mm. THICK.
SCALE 1:100



LMR ROOF BEAM AND SLAB
LAYOUT PLAN AT LEVEL (+)19.5m.
S3 MARKED SLABS ARE 115 mm. THICK.
SCALE 1:100

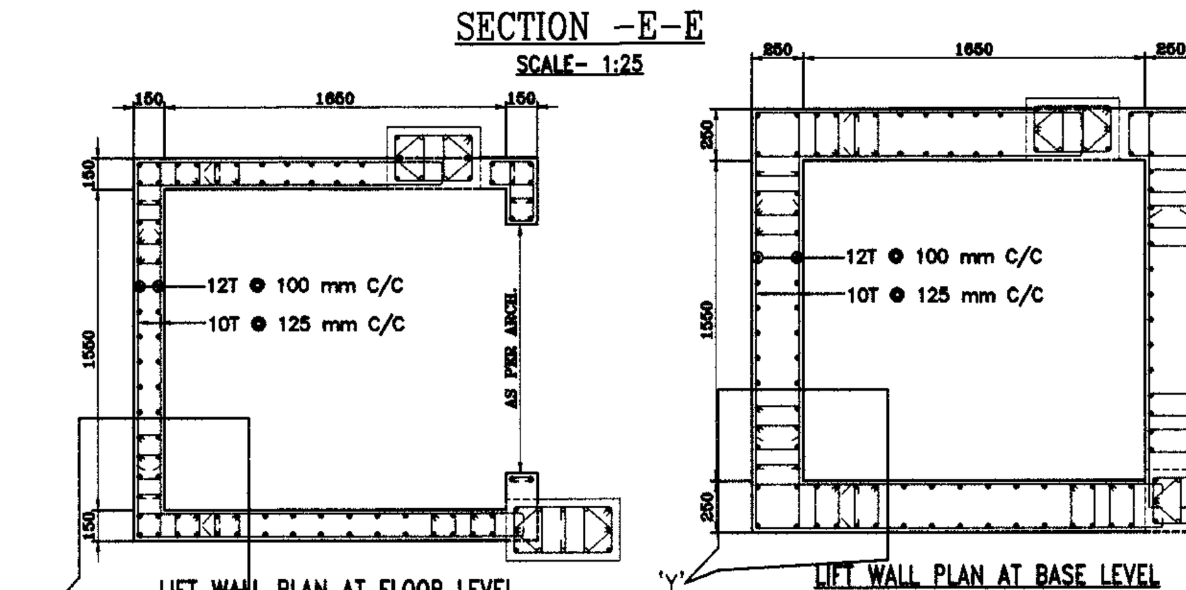


WATER TANK-1 BEAM AND SLAB
LAYOUT PLAN AT LEVEL (+)16.4m.
WATER TANK CAPACITY-5000 LIT.
S4 MARKED SLABS ARE 150 mm. THICK.
SCALE 1:100



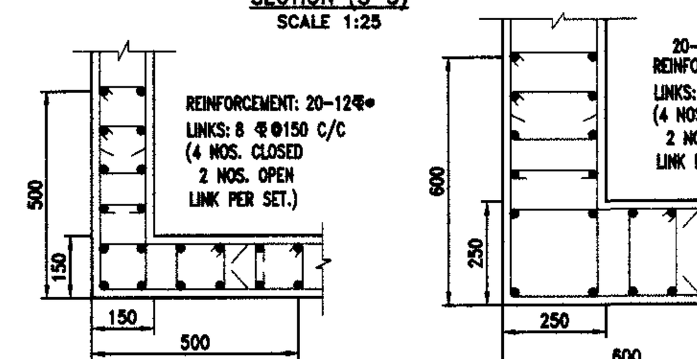
SECTION -E-E
SCALE- 1:25

SPECIAL NOTES:- [illegible]



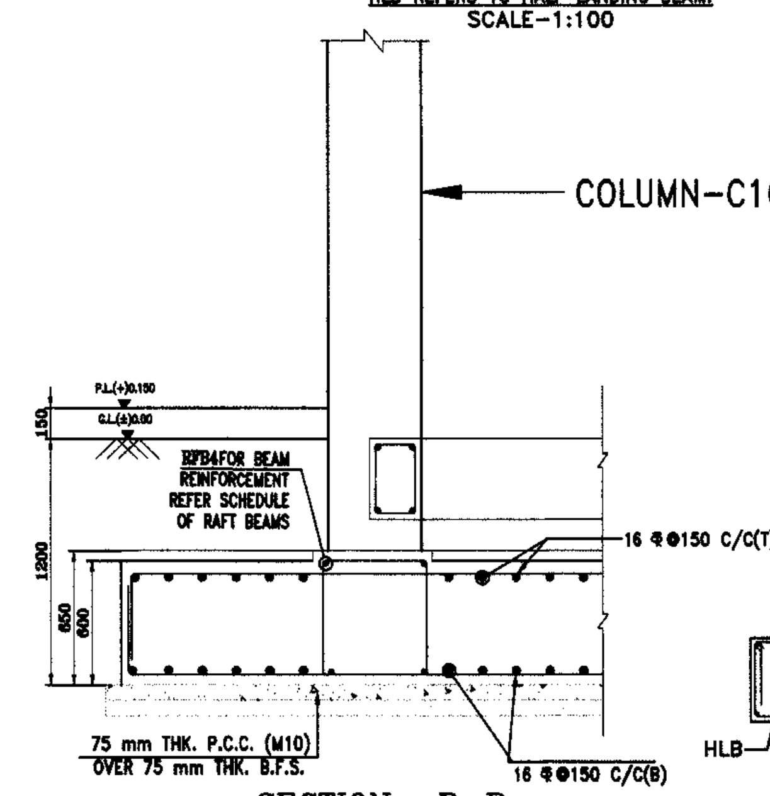
LIFT WALL PLAN AT FLOOR LEVEL
SECTION (S-S)

LIFT WALL PLAN AT BASE LEVEL
SECTION (R-R)
SCALE- 1:25

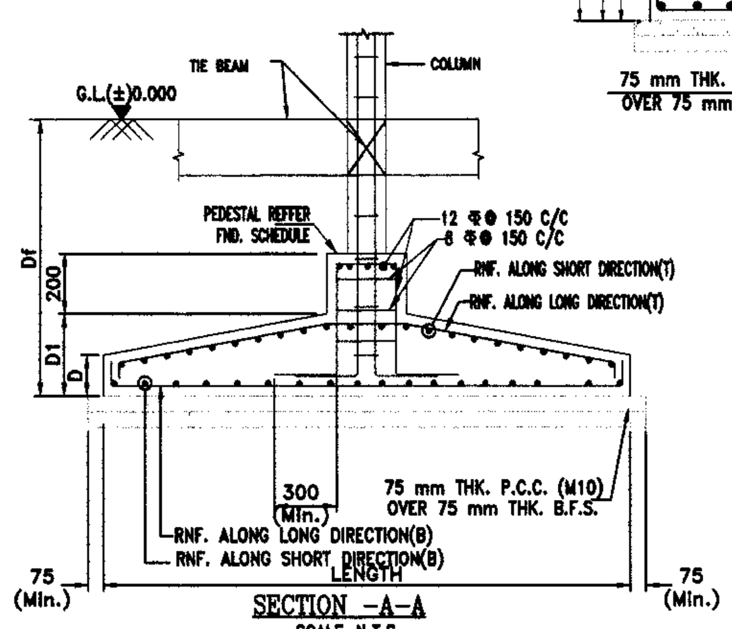


DETAIL "X"
SCALE-N.T.S

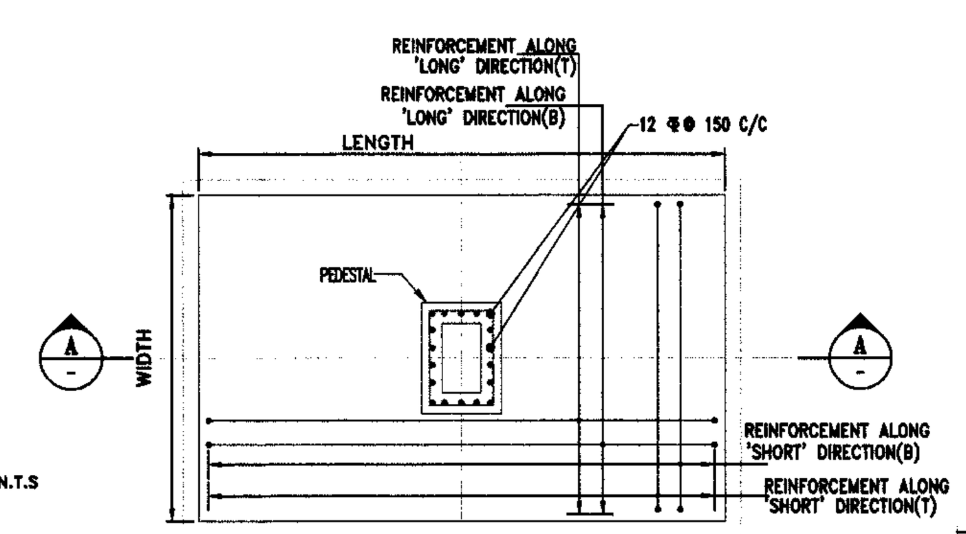
DETAIL "Y"
SCALE-N.T.S



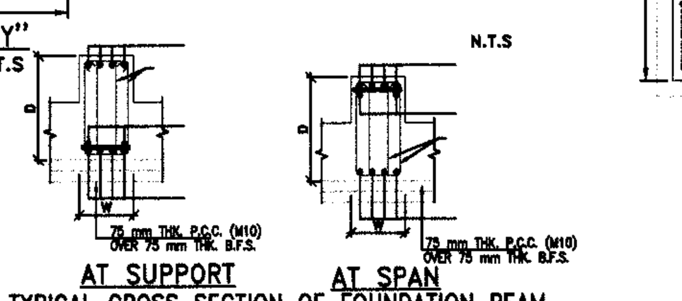
SECTION -P-P
SCALE- 1:25



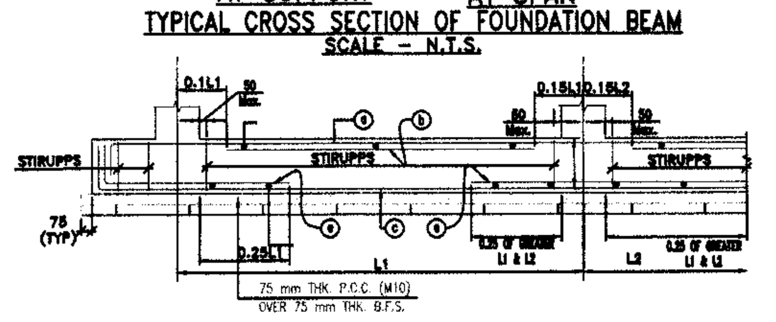
SECTION -A-A
SCALE-N.T.S



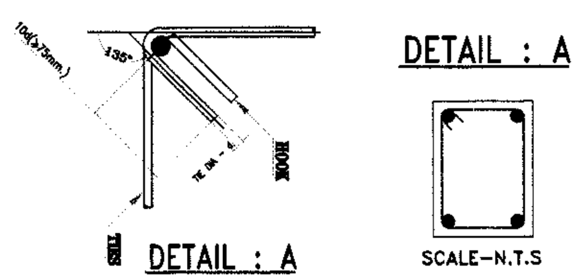
TYPICAL DETAIL OF ISOLATED FOUNDATION
SCALE-N.T.S.



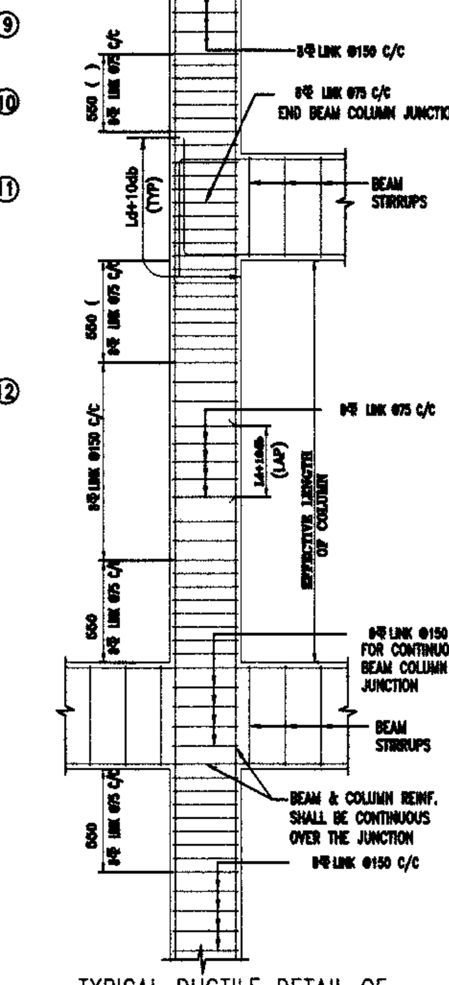
AT SUPPORT AT SPAN
TYPICAL CROSS SECTION OF FOUNDATION BEAM
SCALE - N.T.S.



TYPICAL ARRANGEMENT OF REINFORCEMENT IN FOUNDATION BEAM
(AS PER SP 34-1987)

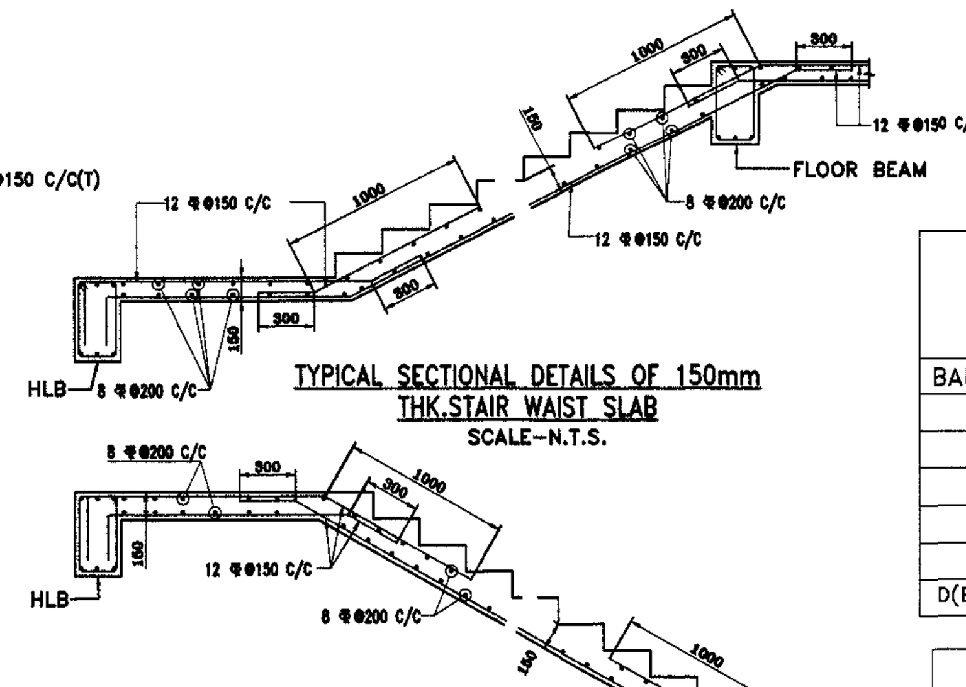


DETAIL : A
(TYPICAL DETAIL OF 135° HOOK)
SCALE-N.T.S

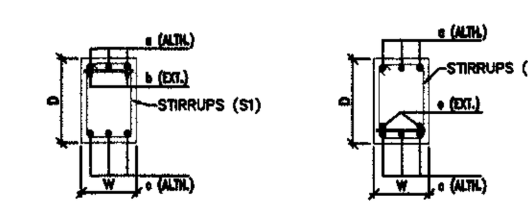


TYPICAL DUCTILE DETAIL OF BEAM COLUMN JUNCTION

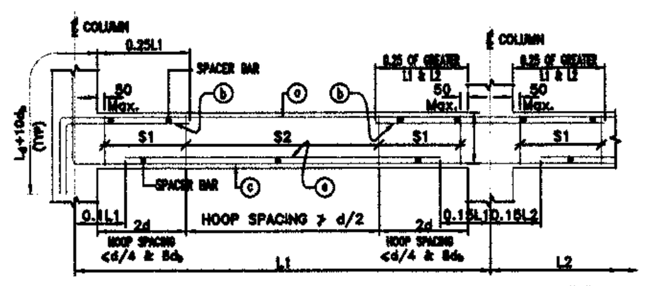
L_d = DEVELOPMENT LENGTH IN TENSION
d_b = DIAMETER OF LONGITUDINAL BAR
SCALE-N.T.S



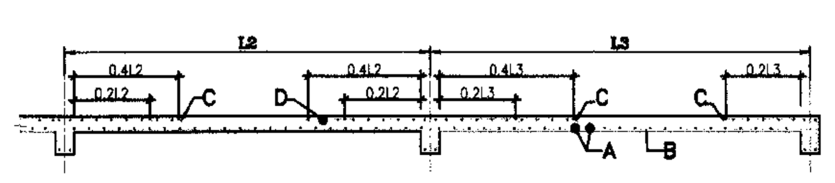
TYPICAL SECTIONAL DETAILS OF 150mm THK.STAIR WAIST SLAB
SCALE-N.T.S.



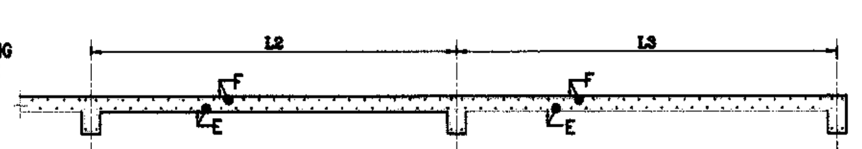
AT SUPPORT AT SPAN
TYPICAL CROSS SECTION OF BEAM
SCALE-N.T.S



TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAM
SCALE-N.T.S



SCALE-N.T.S.
TYPICAL DETAILS OF SLAB REINFORCEMENT (TOP & BOTTOM)
(SLAB MARKED S1 & S2)
(SCALE - N.T.S.)



SCALE-N.T.S.
TYPICAL DETAILS OF SLAB REINFORCEMENT (TOP & BOTTOM)
(SLAB MARKED S3 & S4)
(SCALE-N.T.S)

NET SAFE BEARING CAPACITIES CONSIDERED FOR FOUNDATION

ISOLATED	F1	2.1m. x 2.1m.	13.2
	F2	2.4m. x 2.4m.	12.9
	F3	2.8m. x 2.8m.	12.8
	F4	3.0m. x 3.0m.	12.7
RAFT	RF1	AS SHOWN IN DRAWING	11.00
	RF2	AS SHOWN IN DRAWING	10.00

SPECIAL NOTE:-
[illegible]

SCHEDULE FOR ISOLATED FOUNDATION

UNDER COLUMNS MARKED	FOUNDATION MARKED	NUMBER	FOUNDATION SIZE WIDTH (m)	LENGTH (m)	THICKNESS D1 (mm)	D (mm)	DEPTH Df (mm)	BOTTOM REINFORCEMENT ALONG SHORT DIRECTION	ALONG LONG DIRECTION	TOP REINFORCEMENT ALONG SHORT DIRECTION	ALONG LONG DIRECTION
C1,C2,C15, C20	F1	04	2.1	2.1	400	250	1200	12 Φ@ 150 C/C	12 Φ@ 150 C/C	8 Φ@ 250 C/C	8 Φ@ 250 C/C
C3,C10, C13,C19,C21	F2	06	2.4	2.4	500	350	1200	12 Φ@ 150 C/C	12 Φ@ 150 C/C	8 Φ@ 250 C/C	8 Φ@ 250 C/C
C6,C11, C14,C22	F3	04	2.8	2.8	550	300	1200	12 Φ@ 100 C/C	12 Φ@ 100 C/C	8 Φ@ 250 C/C	8 Φ@ 250 C/C
C9,C12	F4	02	3.0	3.0	550	350	1200	12 Φ@ 100 C/C	12 Φ@ 100 C/C	8 Φ@ 250 C/C	8 Φ@ 250 C/C

SCHEDULE OF S1,S2 MARKED SLABS (TYPICAL & ROOF SLABS THICKNESS-115mm,150mm)

BAR MKD.	REINFORCEMENT	POSITION
A	8ø @ 150 mm C/C (ALL THROUGH)	BOT.
B	8ø @ 150 mm C/C (ALL THROUGH)	BOT.
X	8ø @ 150 mm C/C (ALL THROUGH)	BOT.
Y	8ø @ 150 mm C/C (ALL THROUGH)	BOT.
C	8ø @ 150mm C/C (CURTAILMENT)	TOP
D(BINDER)	8ø @ 200 mm C/C (WHEREVER REQUIRED)	TOP

SCHEDULE OF S4 MARKED SLABS (LMR FLOOR & WATER TANK SLAB THICKNESS-150mm.)

BAR MKD.	REINFORCEMENT	POSITION
E	10T @ 200 mm C/C (ALL THROUGH)	BOT.
F	10T @ 200 mm C/C (ALL THROUGH)	TOP

SCHEDULE OF S3 MARKED SLABS (MUMTY & LMR ROOF SLAB THICKNESS-115mm.)

BAR MKD.	REINFORCEMENT	POSITION
E	8T @ 150 mm C/C (ALL THROUGH)	BOT.
F	8T @ 150 mm C/C (ALL THROUGH)	TOP

SCHEDULE OF RAFT BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	DEPTH (D) (mm)	TOP REINORCEMENT ALTHROUGH (a)	EXTRA AT SPAN (b)	BOTTOM REINORCEMENT ALTHROUGH (c)	EXTRA AT SUPPORT (e)	STIRRUPS	SIDE FACE
RFB1	400	450	4-16 Φ	-	4-20 Φ	3-16 Φ	4L-8 Φ@200 C/C	-
RFB2	550	450	5-16 Φ	-	5-20 Φ	3-16 Φ	4L-8 Φ@150 C/C	-
RFB3	600	450	6-16 Φ	-	6-20 Φ	-	4L-8 Φ@150 C/C	-
RFB4	600	650	7-16 Φ	5-16 Φ	7-20 Φ	7-20 Φ	4L-8 Φ@100 C/C	-

SCHEDULE OF RAFT SLAB

SLAB MARKED	SLAB THICKNESS (mm)	REINFORCEMENT ALONG SHORTER DIRECTION BOTTOM	TOP	REINFORCEMENT ALONG LONGER DIRECTION BOTTOM	TOP
RS1	400	16 Φ@150 C/C	16 Φ@150 C/C	16 Φ@150 C/C	16 Φ@150 C/C
RS2	600	16 Φ@150 C/C	16 Φ@150 C/C	16 Φ@150 C/C	16 Φ@150 C/C

SCHEDULE OF TIE BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
TB1	250	400	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
TB2	250	400	2-12 Φ +1-16 Φ	2-12 Φ	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
TB3	250	400	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
TB4	250	350	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
TB5	250	350	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C

SCHEDULE OF TYPICAL FLOOR BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
FB1	250	450	2-16 Φ +1-12 Φ	2-12 Φ	2-16 Φ +1-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB2	250	450	2-16 Φ +1-12 Φ	2-16 Φ	2-16 Φ +1-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB3	250	450	2-16 Φ +1-12 Φ	-	2-16 Φ +1-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
FB4	250	400	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
FB5	250	400	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB6	250	450	LAYER1 2-12 Φ +1-16 Φ; LAYER2 2-16 Φ	-	2-16 Φ +1-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
FB7	250	450	3-16 Φ	3-16 Φ	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB8	250	450	3-16 Φ +3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB9	250	450	2-16 Φ +1-12 Φ	3-16 Φ	2-16 Φ +1-12 Φ	2-12 Φ	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB10	250	450	2-16 Φ +1-12 Φ	-	2-16 Φ +1-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB11	250	450	3-20 Φ	3-20 Φ	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB12	250	450	3-20 Φ	3-20 Φ	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
FB13	250	450	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB14	600	175	6-20 Φ	-	6-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
HLB	250	450	3-16 Φ	2-16 Φ	2-16 Φ +1-20 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C

SCHEDULE OF ABOVE ROOF BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
WTB1	250	450	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
WTB2	250	450	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
LMFB1	250	400	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
LMFB2	250	400	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
LMRB1	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
LMRB2	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
MRB1	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
MRB2	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C

SCHEDULE OF COLUMNS

COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO ROOF /ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING NEAR JUNCTION( )	REST PORTION
C8	01	300X550	MAIN RNF.:- 6-16 Φ• +6-12 Φ○	8Φ@75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)	8Φ@150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C2,C3,C4,C5, C7,C9,C10, C11,C13,C14, C15,C20, C21,C22	14	300X450	MAIN RNF.:- 4-16 Φ• +6-12 Φ○	8Φ@75 C/C (3 NOS. CLOSED LINK)	8Φ@150 C/C (3 NOS. CLOSED LINK)
C1,C12,C16, C18,C19	05	300X450	MAIN RNF.:- 8-16 Φ• +2-12 Φ○	8Φ@75 C/C (3 NOS. CLOSED LINK)	8Φ@150 C/C (3 NOS. CLOSED LINK)
C17	01	300X450	MAIN RNF.:- 8-20 Φ• +2-16 Φ○	8Φ@75 C/C (3 NOS. CLOSED LINK)	8Φ@150 C/C (3 NOS. CLOSED LINK)
C6	01	400X400	MAIN RNF.:- 8-16 Φ•	8Φ@75 C/C (2 NOS. CLOSED LINK)	8Φ@150 C/C (2 NOS. CLOSED LINK)

SCHEDULE OF STOOL COLUMNS

COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	ROOF TO ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING
ST1,ST2 (ROOF TO WATER TANK)	02	250x250	MAIN RNF.:- 4-16 Φ•	8 Φ@150 C/C (1 NO. CLOSED LINK)

SCHEDULE OF ROOF FLOOR BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
RB1	250	450	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB2	250	450	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
RB3	250	450	2-12 Φ +1-16 Φ	3-16 Φ	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB4	250	450	LAYER1 2-12 Φ +1-16 Φ; LAYER2 3-16 Φ	-	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
RB5	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
RB6	250	400	3-12 Φ	-	3-12 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB7	250	450	2-12 Φ +1-16 Φ	2-12 Φ	2-12 Φ +1-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB8	250	450	2-12 Φ +1-16 Φ	-	2-12 Φ +1-16 Φ	2-12 Φ	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB9	250	450	3-16 Φ	3-20 Φ	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB10	250	450	3-16 Φ	3-20 Φ	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
RB11	600	175	6-16 Φ	-	6-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
HLB	250	450	3-16 Φ	-	3-16 Φ	-	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C

NOTES :

1. UNLESS OTHERWISE STATED ALL CONSTRUCTION ACTIVITIES SHALL … CONFORMING TO RELEVANT (INDIAN) STANDARD CODES OF PRACTIC…
2. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METER. I… MENTIONED ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. ALL … STRUCTURAL DRAWINGS ARE IN ACCORDANCE WITH ARCHITECTURAL… INDICATE STRUCTURAL LEVEL ONLY (WITHOUT FINISH).
3. ANY DISCREPANCY IN THE STRUCTURAL AND ARCHITECTURAL DRA… BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT BEFORE … WORK.
4. UNLESS OTHERWISE SPECIFIED ALL REINFORCEMENT TO BE USED … BARS OF GRADE Fe-500/500D CONFORMING TO IS-1786-2008.
5. UNLESS OTHERWISE STATED LAP LENGTH OF BARS SHALL BE EQUAL TO THE DEVELOPMENT LENGTH = 50xBAR DIA.
6. CONCRETE NOMINAL COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
   - i) COLUMNS : 40 mm
   - ii) BEAMS : 30 mm
   - iii) SLABS : 20 mm
   - iv) WAIST SLAB : 20 mm
   - V) ISOLATE FOOTING : 50 mm
   - Vi) RAFT BEAM & SLAB : 50 mm
   - Vii) SHEAR WALL : 20 mm
7. GRADE OF CONCRETE FOR SUPERSTRUCTURE
   - (1) GRADE OF CONCRETE FOR SUPERSTRUCTURE WILL BE M25 AS PER IS:456:2000.
   - (2) SUBSTRUCTURE - M25 AS PER IS:456:2000.
8. VIBRATOR SHALL BE USED FOR PROPER COMPACTION OF CONCRETE AND CURING SHALL BE DONE PROPERLY.
9. DEVELOPMENT LENGTH 50XD FOR LAP & SPLICES SHOULD BE PROVIDED AS PER THE PROVISIONS LAID DOWN IN SP34:1987
10. WHEREVER A SUPPORTED MEMBER TERMINATES AT A SUPPORTING MEMBER THE BARS OF THE SUPPORTED MEMBER SHOULD HAVE AN ANCHORAGE OF 60D IN THE SUPPORTING MEMBER.
11. WHEN TWO BEAMS MEET AT A COLUMN LOCATION ALONG THE SAME LINE THE HIGHER REINFORCEMENT AT THE TOP SHOULD BE CONTINUED AT BOTH SIDE.
12. THE NET SAFE BEARING CAPACITIES FOR ALL ISOLATED,COMBINED & STRIP FOOTINGS AT DEPTH (-)1.2m. FROM G.L. HAS BEEN CONSIDERED AS MENTIONED IN DRAWING IN TUNE WITH THE SOIL REPORT PREPARED BY MR. ASIM SARKAR.
13. THE ABOVE MENTIONED BEARING CAPACITIES MUST BE ENSURED AT SITE UNDER THE SUPERVISION OF A COMPETENT GEOTECHNICAL ENGINEER FOR VALIDITY OF THIS DRAWING.
14. THE N VALUE AS DESCRIBED UNDER NOTES OF TABLE-1 OF IS-1893(PART-1)-2016 SHOULD BE ENSURED TO BE GREATER THAN 15 FOR VALIDITY OF THIS DESIGN AND DRAWING.

TITLE-

STRUCTURAL DRAWING OF PROPOSED G+4 STORIED COMMERCIAL CUM RESIDENTIAL (APARTMENT) BUILDING OF SRI ASIT KUMAR TRIBEDI, SMT. HASI TRIBEDI , OVER L.R. PLOT NO. - 3149 & 3151, R.S PLOT NO.- 702, KHATIAN NO- 1284 & 2154 MOUZA - NADIHA, J.L. NO- 092, P.S. COKE OVEN, DIST- PASCHIM BARDHAMAN.

SIGNATURE OF OWNER

SIGNATURE OF ARCHITECT/ENGINEEER

SIGNATURE OF GEO-TECHNICAL ENGINEER

SIGNATURE OF STRUCTURAL ENGINEER

SIGNATURE OF THE VETTING AUTHORITY

STRUCTURAL CONSULTANT:

Structcon
STRUCTCON ENTERPRISE
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DRAWING TITLE

FOUNDATION, BEAM, COLUMN, SAB, STAIR LAYOUT PLAN WITH REINF. STRUCTURAL DETAILS.

SCALE.-1:100 OR AS SHOWN
DATE.- 26.06.2023
SHEET NO.- 1 OF 1 | SHEET SIZE- A0