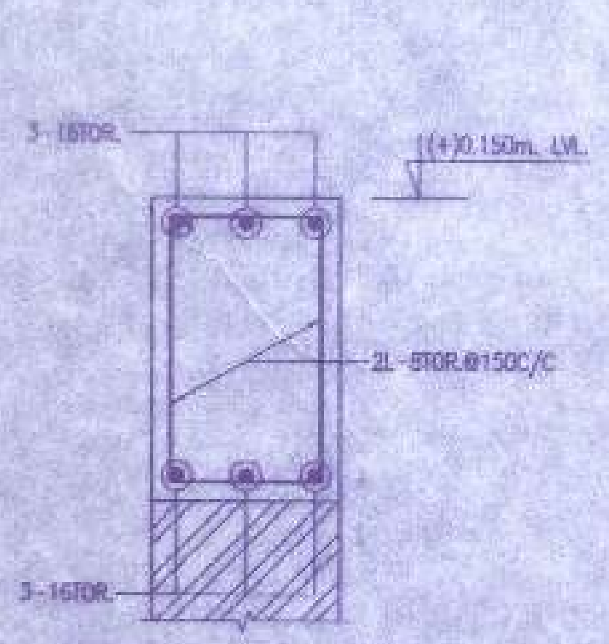
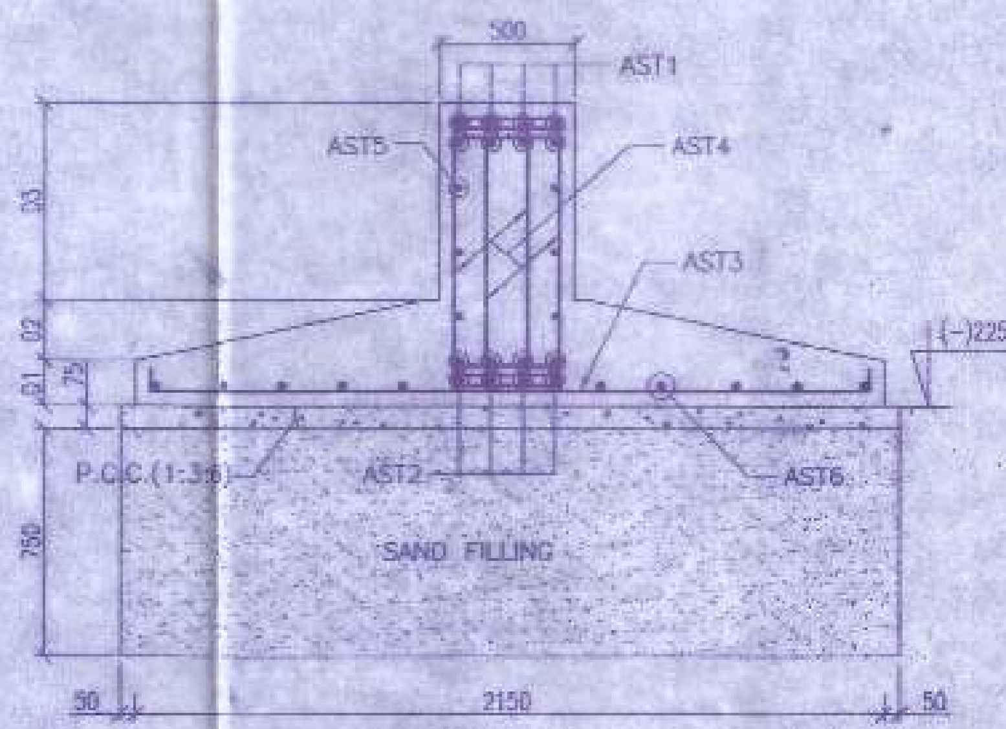

3-16TOR.
(+)0.150m. LVL.
2L-8TOR.@150C/C
3-16TOR.

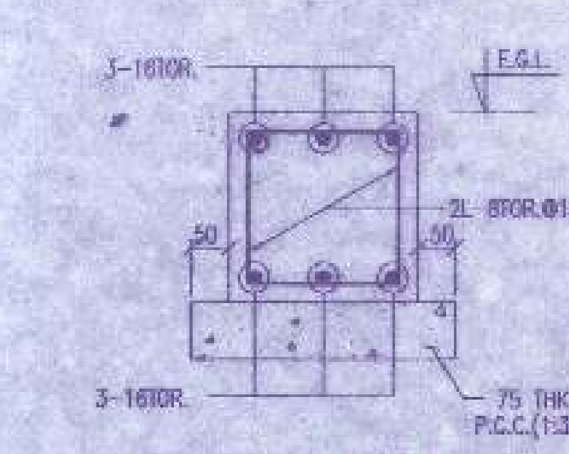
**TYPICAL C/S. OF TIE BEAM(250X400)**

SCALE-1:10


500
AST1
AST5
AST4
AST3
(-)2250 LVL.
P.C.C.(1:3:6)
AST2
AST6
SAND FILLING
750
50
2150
50

## TYPICAL DETAILS OF FOUNDATION BEAM

(SCALE = 1:25)


3-16TOR.
E.G.L.
2L-8TOR.@150C/C
50
50
3-16TOR.
75 THK.
P.C.C.(1:3:6)

**TYPICAL C/S. OF BAND BEAM(250X250)**

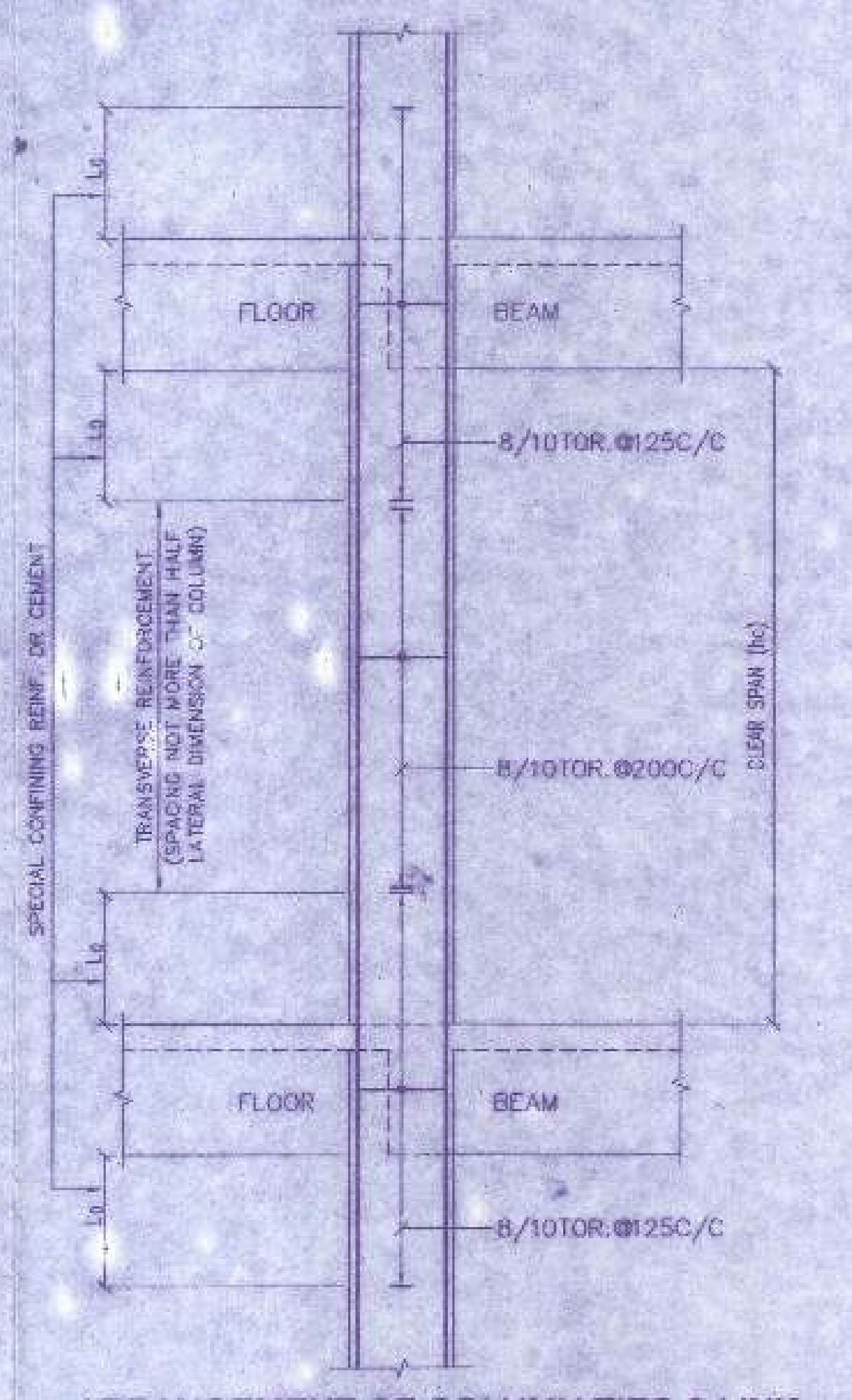
ONLY PERIPHERAL SCALE-1:10

## SCHEDULE OF STRIP FOOTING

| BEAM MKD. | D1 | D2 | D3 | FOUNDATION BEAM SIZE | SUPPORT | | SPAN | | AST3 | AST4 | AST5 | AST6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AST1 | AST2 | AST1 | AST2 | | | | |
| FB-1 | 200 | 250 | 750 | 500 X 1200 | 4-25TOR. | 4-25TOR.<br>4-25TOR. | 4-25TOR.<br>4-25TOR. | 4-25TOR. | 12TOR.@125C/C | 4L-12TOR.@150C/C | (5+5) 10TOR. | 8TOR.@150C/C |
| FB-2 | 200 | 250 | 550 | 500 X 1000 | 4-20TOR. | 4-20TOR.<br>4-25TOR. | 4-20TOR.<br>4-25TOR. | 4-20TOR. | 12TOR.@125C/C | 4L-12TOR.@150C/C | (4+4) 10TOR. | 8TOR.@150C/C |
| FB-3 | 200 | 250 | 550 | 500 X 1000 | 4-20TOR. | 4-20TOR.<br>4-16TOR. | 4-20TOR.<br>4-16TOR. | 4-20TOR. | 12TOR.@125C/C | 4L-10TOR.@125C/C | (4+4) 10TOR. | 8TOR.@150C/C |
| FB-4 | 200 | 250 | 500 | 500 X 950 | 4-20TOR. | 4-20TOR.<br>2-16TOR. | 4-20TOR.<br>2-16TOR. | 4-20TOR. | 12TOR.@125C/C | 4L-10TOR.@150C/C | (4+4) 10TOR. | 8TOR.@150C/C |

## SCHEDULE OF COLUMNS

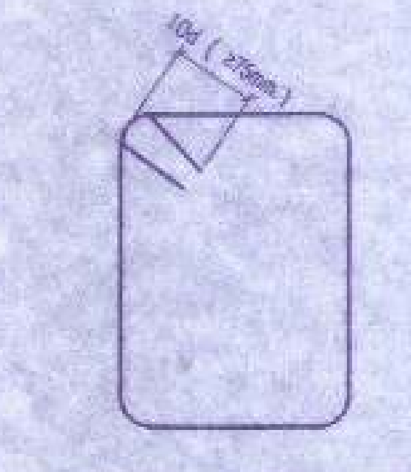
| COLUMN MKD. | SIZE | MAIN REINFORCEMENT | | | | |
|---|---|---|---|---|---|---|
| | | FOUNDATION TO 1ST. FL. | 1ST. FLOOR TO 3RD. FL. | 3RD. FLOOR TO 5TH. FL. | 5TH. FLOOR TO 7TH. FL. | 7TH. FLOOR TO ROOF |
| C24,C27 | 300 X 500 | 6 - 20T +<br>4 - 20T | 6 - 20T +<br>4 - 16T | 4 - 16T +<br>6 - 16T | 4 - 16T +<br>6 - 12T | 4 - 16T +<br>6 - 12T |
| C7,C10 | 300 X 500 | 10 - 20T | 6 - 20T +<br>4 - 16T | 8 - 16T +<br>2 - 16T | 8 - 16T +<br>2 - 12T | 8 - 16T +<br>2 - 12T |
| C1,C2,C3,C4 | 300 X 500 | 10 - 20T | 6 - 20T +<br>4 - 8T | 4 - 16T +<br>6 - 10T | 4 - 16T +<br>6 - 12T | 4 - 16T +<br>6 - 12T |
| C25,C28,C34 | 300 X 500 | 10 - 20T | 10 - 16T | 6 - 16T +<br>4 - 16T | 4 - 16T +<br>6 - 12T | 4 - 16T +<br>6 - 12T |
| C8,C9 | 300 X 500 | 10 - 20T | 4 - 20T +<br>6 - 20T | 4 - 20T +<br>6 - 16T | 4 - 20T +<br>6 - 16T | 4 - 20T +<br>6 - 16T |
| C32,C35 | 300 X 500 | 12 - 20T | 8 - 20T +<br>4 - 20T | 4 - 20T +<br>8 - 16T | 8 - 16T +<br>4 - 12T | 4 - 16T +<br>8 - 12T |
| C22,C23 | 300 X 500 | 12 - 20T | 12 - 20T | 8 - 20T +<br>4 - 16T | 4 - 20T +<br>8 - 16T | 12 - 16T |
| C31 | 300 X 600 | 8 - 25T +<br>4 - 25T | 6 - 20T +<br>2 - 20T | 4 - 20T +<br>6 - 20T | 10 - 16T | 6 - 16T +<br>4 - 12T |
| C19,C29 | 250 X 800 | 12 - 20T | 8 - 20T +<br>4 - 16T | 4 - 20T +<br>8 - 16T | 8 - 16T +<br>4 - 12T | 4 - 16T +<br>8 - 12T |
| C11,C12,C17,C21 | 300 X 600 | 8 - 25T +<br>4 - 20T | 8 - 25T +<br>4 - 20T | 4 - 25T +<br>8 - 20T | 8 - 20T +<br>4 - 16T | 8 - 20T +<br>4 - 16T |
| C30 | 300 X 600 | 8 - 25T +<br>4 - 16T | 4 - 20T +<br>8 - 16T | 4 - 20T +<br>8 - 16T | 4 - 20T +<br>8 - 16T | 4 - 20T +<br>8 - 16T |
| C18,C20 | 300 X 900 | 18 - 20T | 10 - 20T +<br>8 - 16T | 4 - 20T +<br>14 - 16T | 10 - 16T +<br>8 - 12T | 4 - 16T +<br>14 - 12T |
| C13,C16 | 300 X 900 | 20 - 25T | 10 - 25T +<br>10 - 16T | 4 - 25T +<br>16 - 16T | 10 - 16T +<br>10 - 12T | 8 - 16T +<br>14 - 12T |
| C14,C15 | 300 X 950 | 14 - 16T | 10 - 16T +<br>4 - 12T | 10 - 16T +<br>4 - 12T | 10 - 16T +<br>4 - 12T | 10 - 16T +<br>4 - 12T |
| C5,C6 | 300 X 975 | 6 - 25T +<br>12 - 20T | 12 - 20T +<br>6 - 16T | 4 - 20T +<br>14 - 16T | 12 - 16T +<br>6 - 12T | 4 - 16T +<br>14 - 12T |
| [illegible] | 300 X 1075 | 18 - 16T | 10 - 16T +<br>8 - 12T | 8 - 16T +<br>10 - 12T | 8 - 16T +<br>10 - 12T | 8 - 16T +<br>10 - 12T |


FLOOR
BEAM
8/10TOR.@125C/C
SPECIAL CONFINING REINF. OR CEMENT
TRANSVERSE REINFORCEMENT (SPACING NOT MORE THAN HALF LATERAL DIMENSION OF COLUMN)
8/10TOR.@200C/C
CLEAR SPAN (hc)
FLOOR
BEAM
8/10TOR.@125C/C

## ARRANGEMENT OF COLUMN TIES & LINK

SCALE-1:25

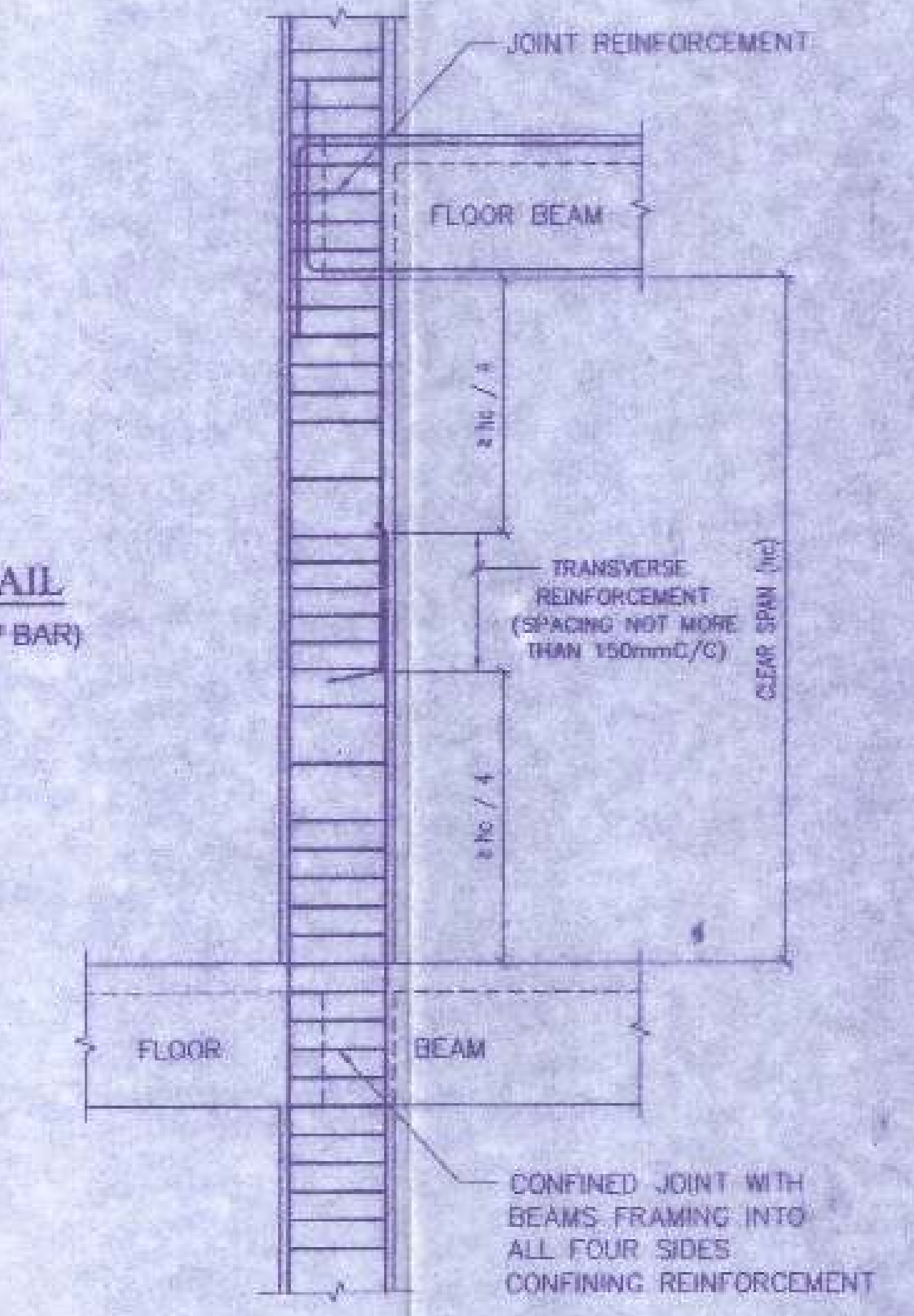
Lo SHALL BE MAXIMUM OF THE FOLLOWING:-
1. < LARGER LATERAL DIMENSION OF MEMBER
2. < 1/6 TH. OF CLEAR SPAN OF MEMBER
3. < 450mm.



**STIRRUP DETAIL**

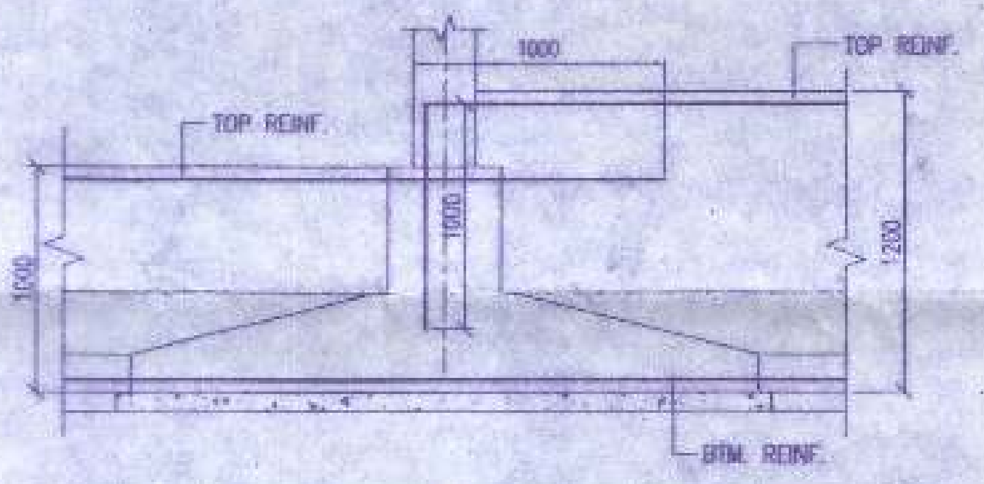
(d = DIA OF STIRRUP BAR)

SCALE-1:10


JOINT REINFORCEMENT
FLOOR BEAM
hc / 4
TRANSVERSE REINFORCEMENT (SPACING NOT MORE THAN 150mmC/C)
CLEAR SPAN (hc)
hc / 4
FLOOR
BEAM
CONFINED JOINT WITH BEAMS FRAMING INTO ALL FOUR SIDES CONFINING REINFORCEMENT

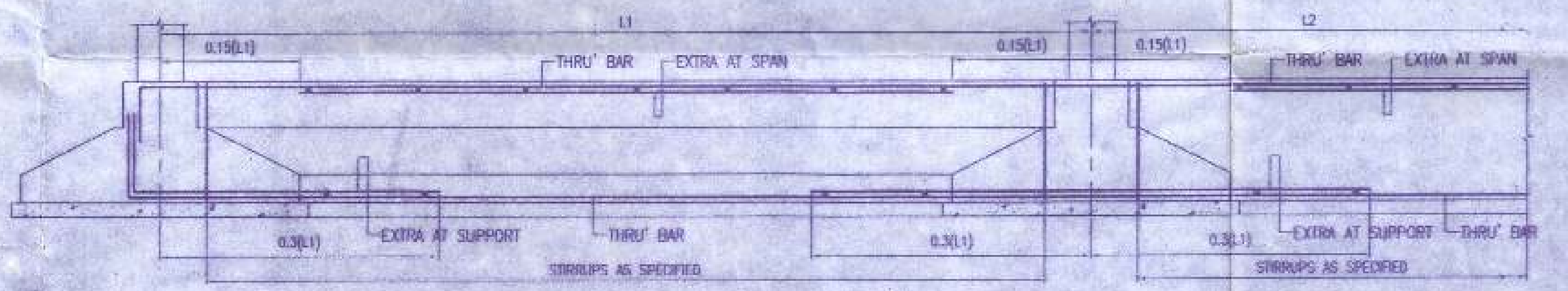
## TYPICAL LONG SECTION OF COLUMN SHOWING COLUMN BAR SPLICING

SCALE-1:25


TOP REINF.
1000
TOP REINF.
1000
1000
1200
BTM. REINF.

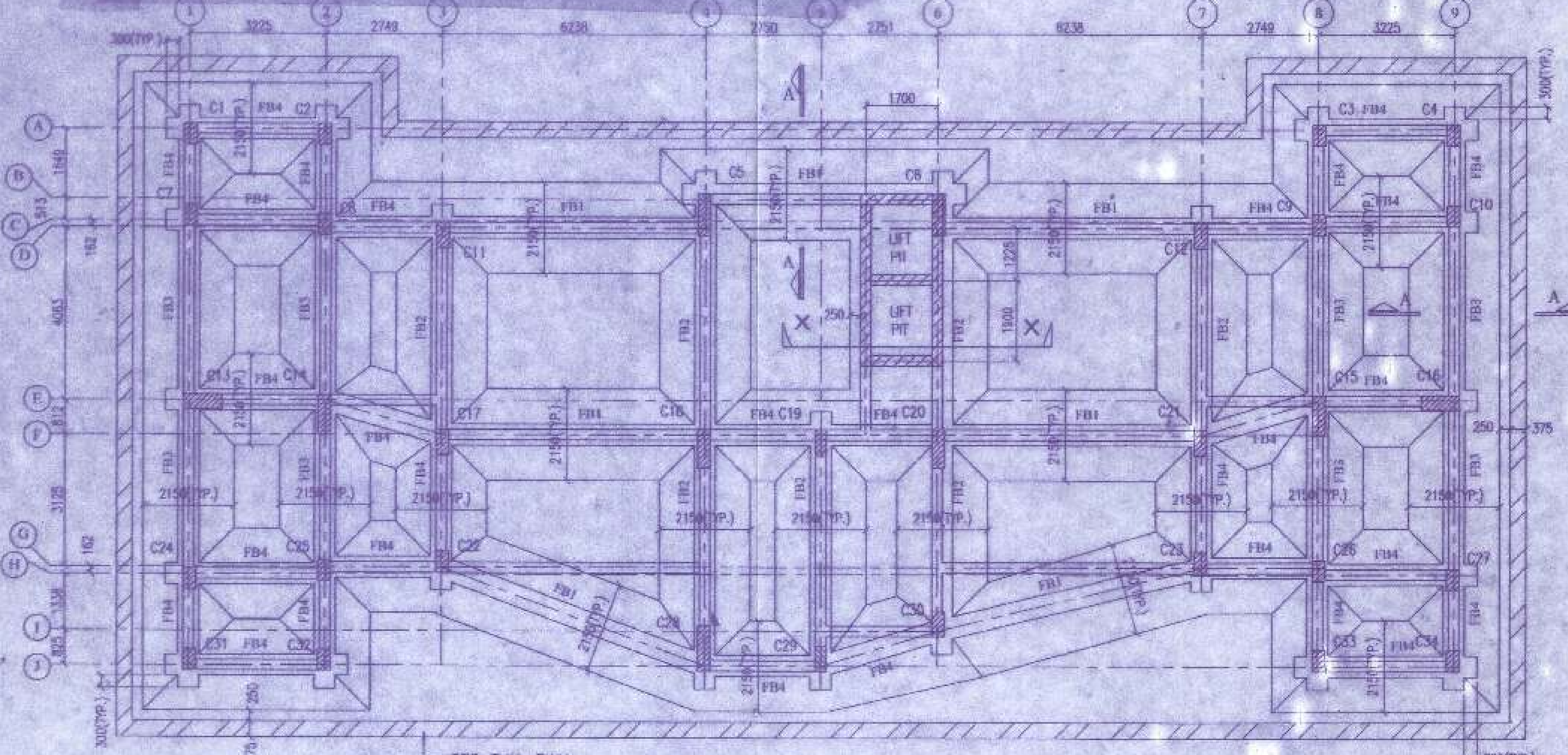
**TYPICAL BEAM DETAIL OF VARYING DEPTH**

SCALE-1:25


L1
L2
0.15(L1)
0.15(L1)
0.15(L1)
THRU' BAR
EXTRA AT SPAN
THRU' BAR
EXTRA AT SPAN
0.3(L1)
EXTRA AT SUPPORT
THRU' BAR
0.3(L1)
0.3(L1)
EXTRA AT SUPPORT
THRU' BAR
STIRRUPS AS SPECIFIED
STIRRUPS AS SPECIFIED

**TYP. LONG SECTION OF FOUNDATION BEAM**

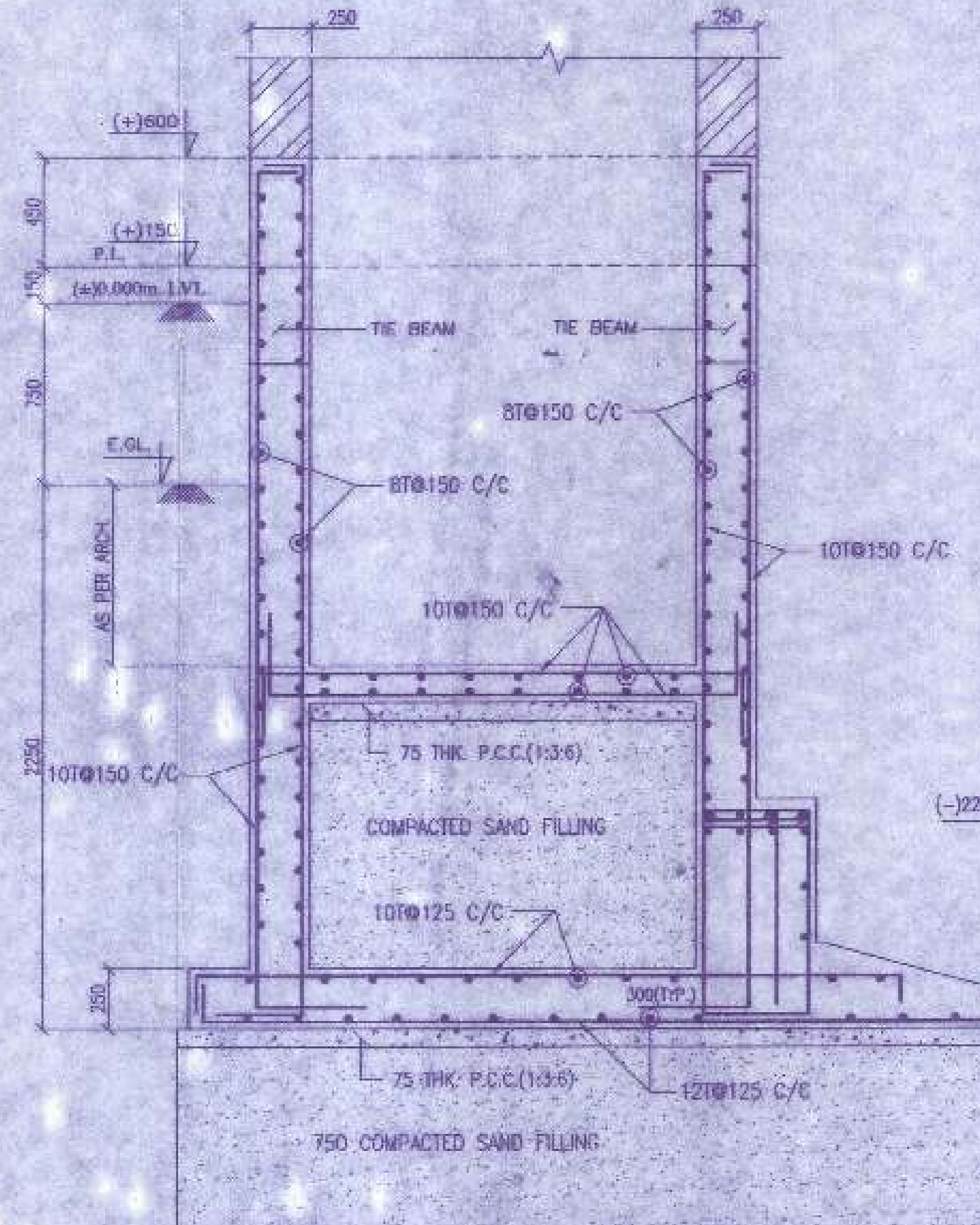
SCALE-1:25


1
2
3
4
5
6
7
8
9
3225
2749
6238
2750
2751
6238
2749
3225
300(TYP.)
A
B
C
D
E
F
G
H
I
J
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C34
C35
FB1
FB2
FB3
FB4
LIFT PIT
1700
2150(TYP.)
375 THK. BWK.
300(TYP.)

## FOUNDATION LAYOUT PLAN

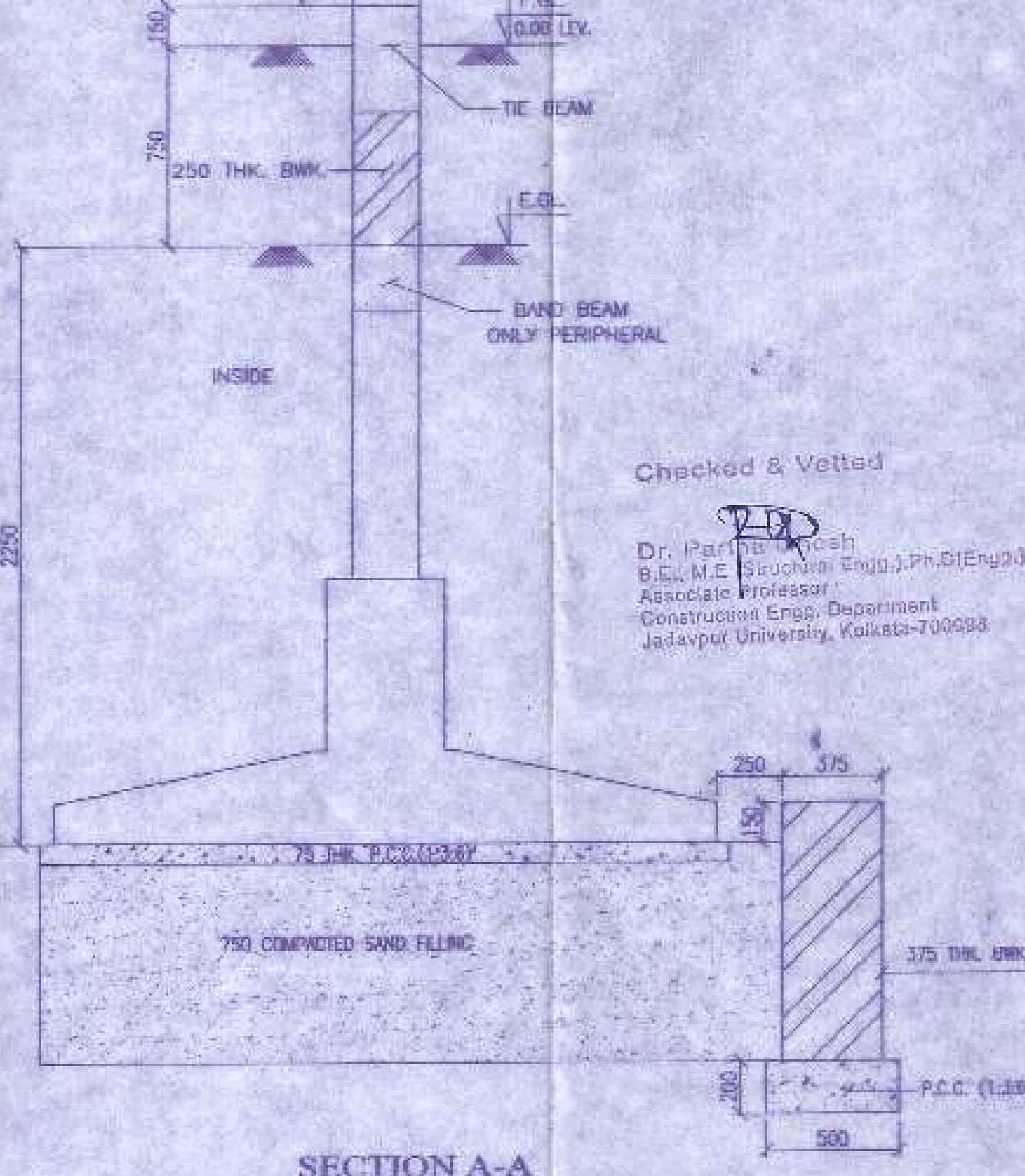
ALL TIE BEAM (250 X 400)

SCALE-1:100


250
250
(+)600
(+)150
(±)0.000m. LVL.
TIE BEAM
TIE BEAM
8T@150 C/C
8T@150 C/C
E.G.L.
AS PER ARCH.
10T@150 C/C
10T@150 C/C
10T@150 C/C
75 THK. P.C.C.(1:3:6)
COMPACTED SAND FILLING
10T@125 C/C
(-)2250 LVL.
300(TYP.)
75 THK. P.C.C.(1:3:6)
12T@125 C/C
750 COMPACTED SAND FILLING

## SECTION X-X

SCALE-1:25


(+)150
F.G.L.
0.00 LEV.
TIE BEAM
250 THK. BWK.
E.G.L.
BAND BEAM ONLY PERIPHERAL
INSIDE
2250
250
375
75 THK. P.C.C.(1:3:6)
750 COMPACTED SAND FILLING
375 THK. BWK.
P.C.C. (1:3:6)
500

**SECTION A-A**

**TYP. C/S OF PERIPHERAL FOUNDATION**

SCALE-1:25

Checked & Vetted

Dr. Partha Ghosh
B.E., M.E. (Structural Engg.), Ph.D(Engg.)
Associate Professor
Construction Engg. Department
Jadavpur University, Kolkata-700098

PROJECT-

**PROPOSED G+VII STORIED RESIDENTIAL BUILDING PLAN AT**
**MOUZA – KAMARPARA, J.L. NO. – 131,**
**DAG NO. – 605/1147, 606 , 607 , L.R.**
**KHATIAN NO.- 827, 1094, 1150, 1213. POST OFFICE – DARANDHA, POLICE STATION – ILLAMBAZAR, GP – ILLAMBAZAR,**
**SUB REGISTRY OFFICE – BOLPUR,**
**DIST. – BIRBHUM**

**NOTES:**

1. ALL DIMENSIONS ARE IN mm. U.N.O.
2. GRADE OF CONCRETE SHALL BE M30.
3. GRADE OF REINFOCEMENT SHALL BE Fe500.
4. CLEAR COVER TO REINFORCEMENT SHALL BE
   a) FOR FOUNDATION / FOUNDATION BEAM = 50mm.
   b) FOR TIE BEAM / COLUMN = 40mm.
   c) FOR BEAMS = 25mm.
   d) FOR SLAB / LIFT WALL = 20mm.
5. MIX OF P.C.C. SHALL BE 1:3:6
6. LAP/BOND LENGTH SHALL BE 50D WHERE D IS THE DIAMETER OF BAR.

SIGNATURE OF PANCHAYET PRADHAN

Narayan Chandra Pramanik

SIGNATURE OF OWNER

JAYANTA MAJUMDAR
B.E., M.E., M.I.G.S.
Geotechnical Engineer
C.T/I/13

KOUSHIK SENGUPTA
B.E. (CIVIL), M.E. (STRUCTURE)
51/2 MAHAJATI NAGAR, BIRATI
, KOLKATA - 700 051

SIGNATURE OF STRUCTURAL ENGINEER

ANUPAM MAITI
C.O.A. Registered Architect
CA/2010/48538
anupam.mozaik@yahoo.in

SIGNATURE OF ARCHITECT

ARCHITECT: **MOZAIK**
P-621, RAJA BASANTA ROY RD.
KOLKATA-29
PH. NO.- 033-40670094/9831180114

| | |
|---|---|
| STRUCTURAL DRAWING<br>(FOUNDATION DETAILS) | TYPE-1A<br>BLOCK-33,<br>BLOCK-34 &<br>BLOCK-35 |
| SCALE - 1 : 100, 25, 10 | |
| KOUSHIK SENGUPTA<br>51/2 MAHAJATI NAGAR, BIRATI,<br>KOLKATA-700051 | date:-06-07-19 |
| | sheet :- 1 |