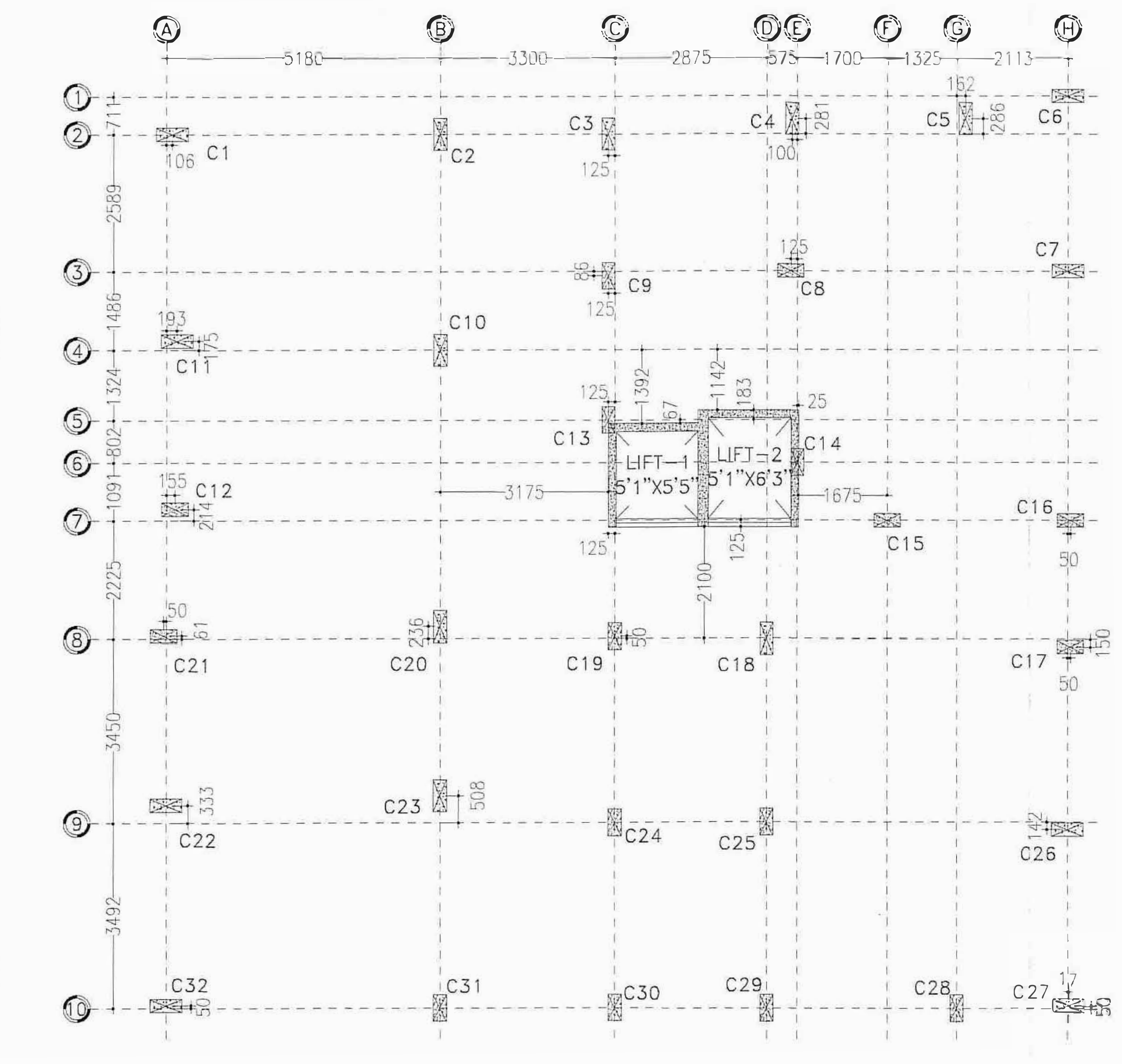
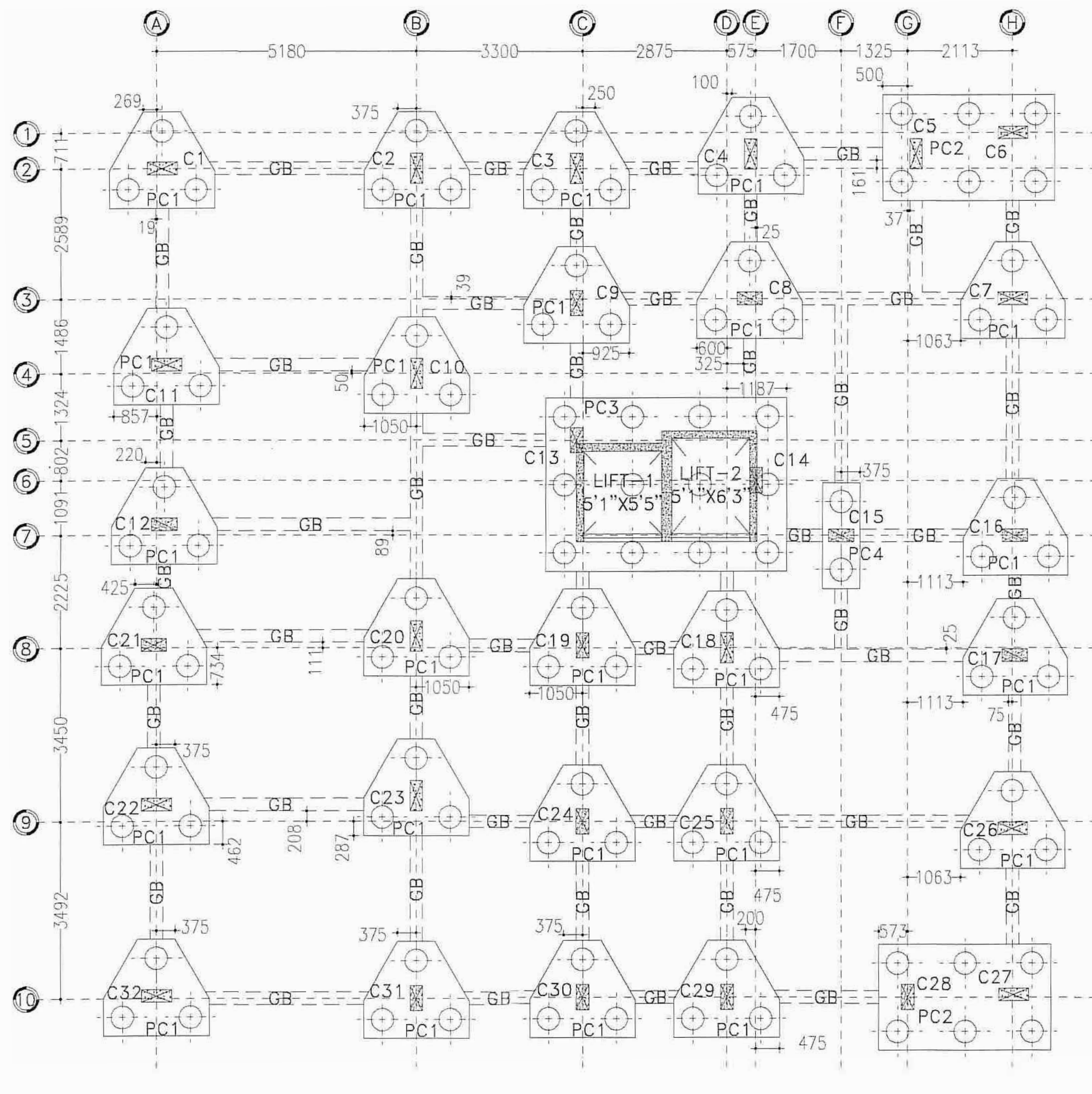


1 COLUMN LAYOUT PLAN
SCALE: 1:100



2 FOOTING LAYOUT PLAN
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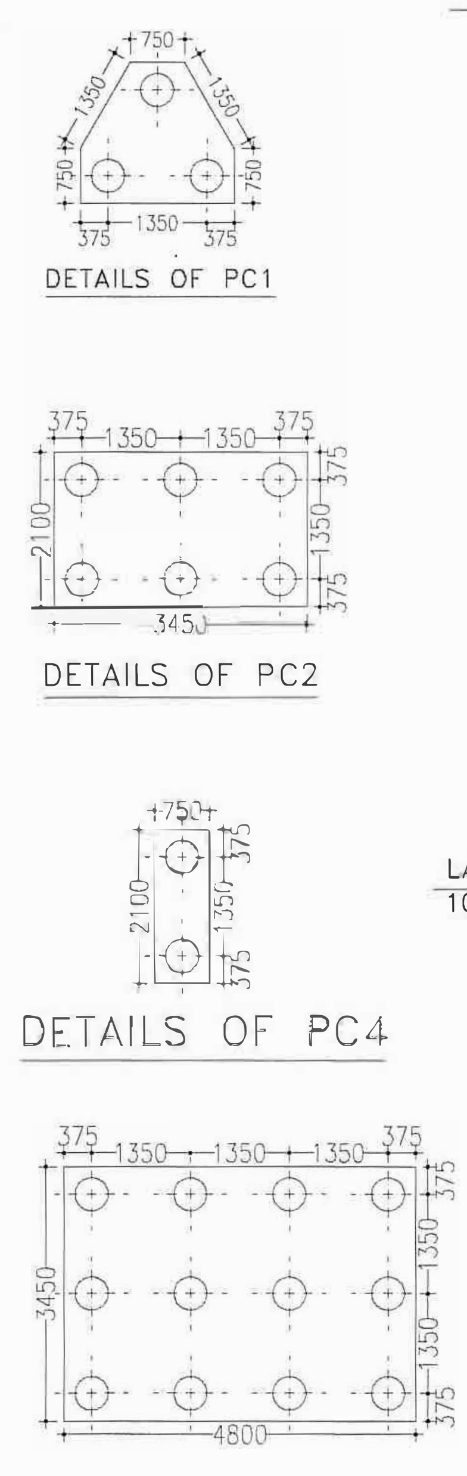
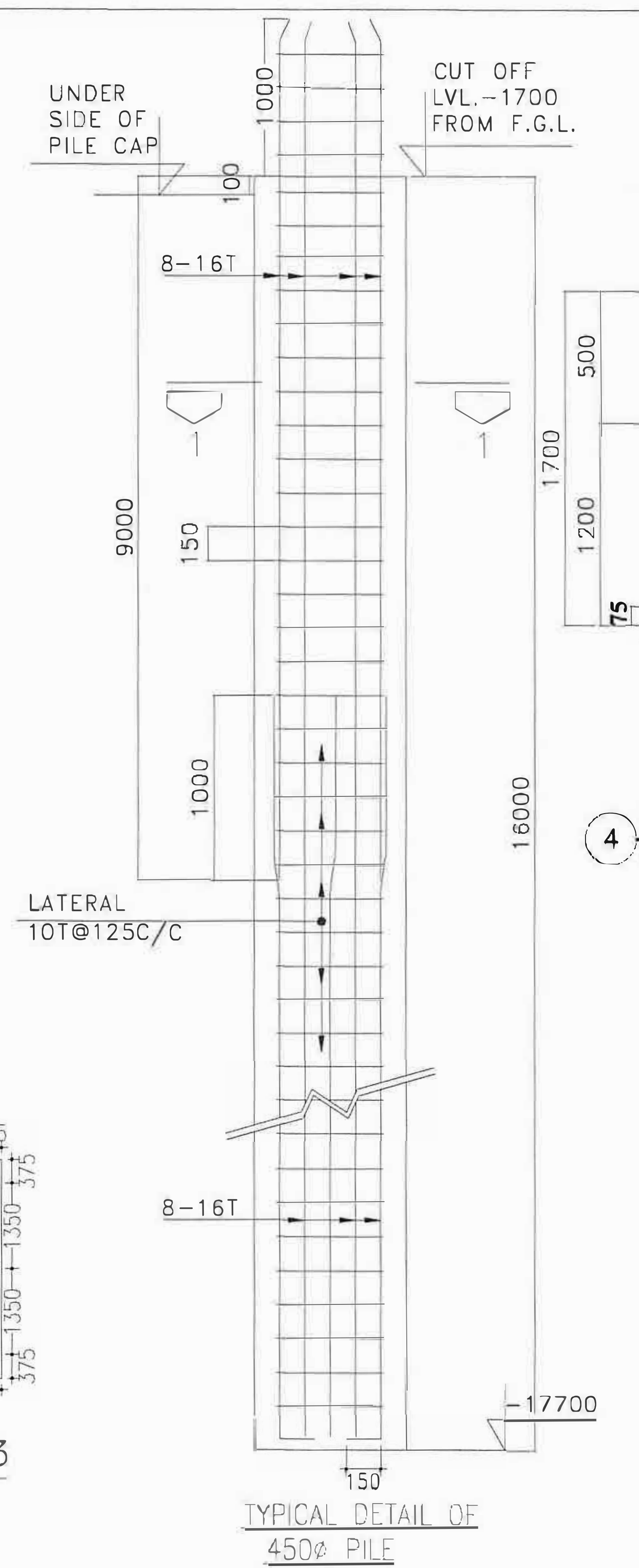


DETAILS OF PC1

DETAILS OF PC2

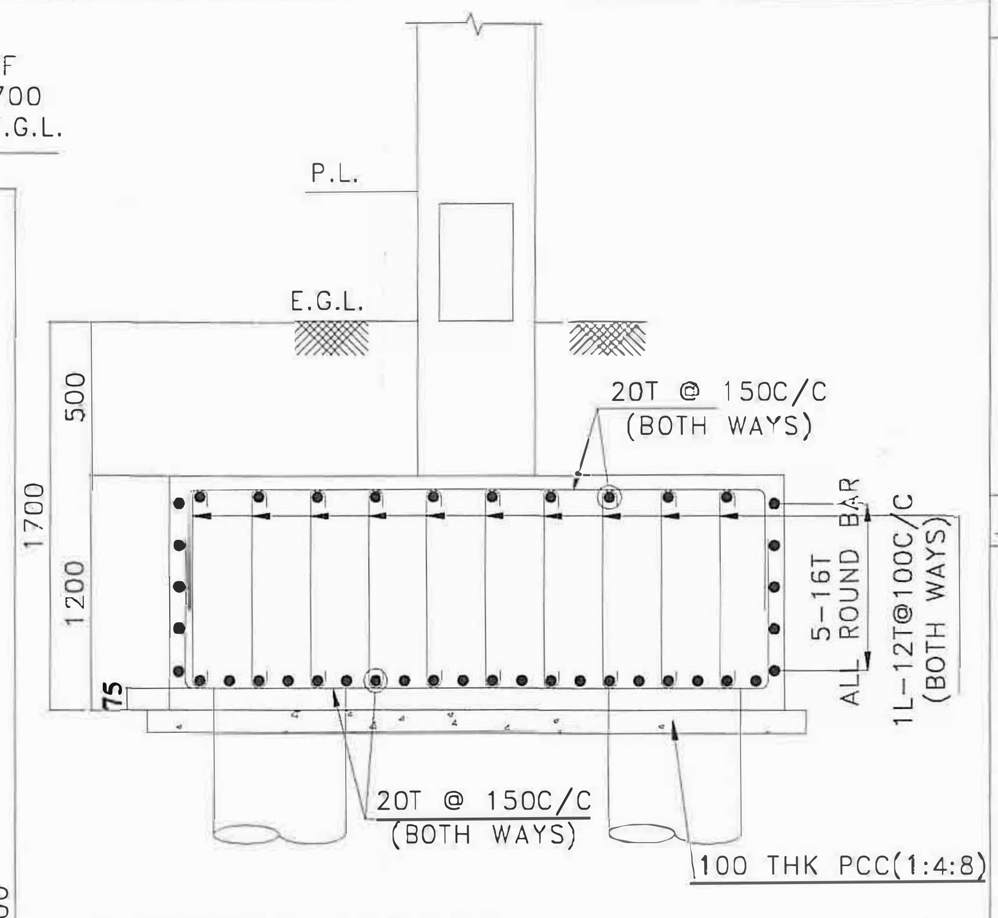
DETAILS OF PC4

DETAILS OF PC3

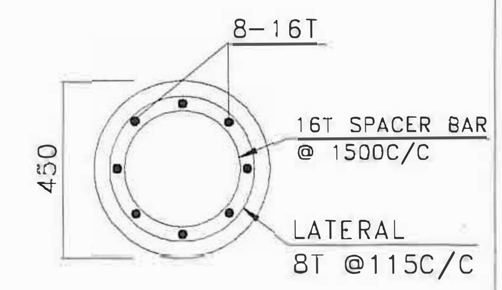


TYPICAL DETAIL OF 450⌀ PILE

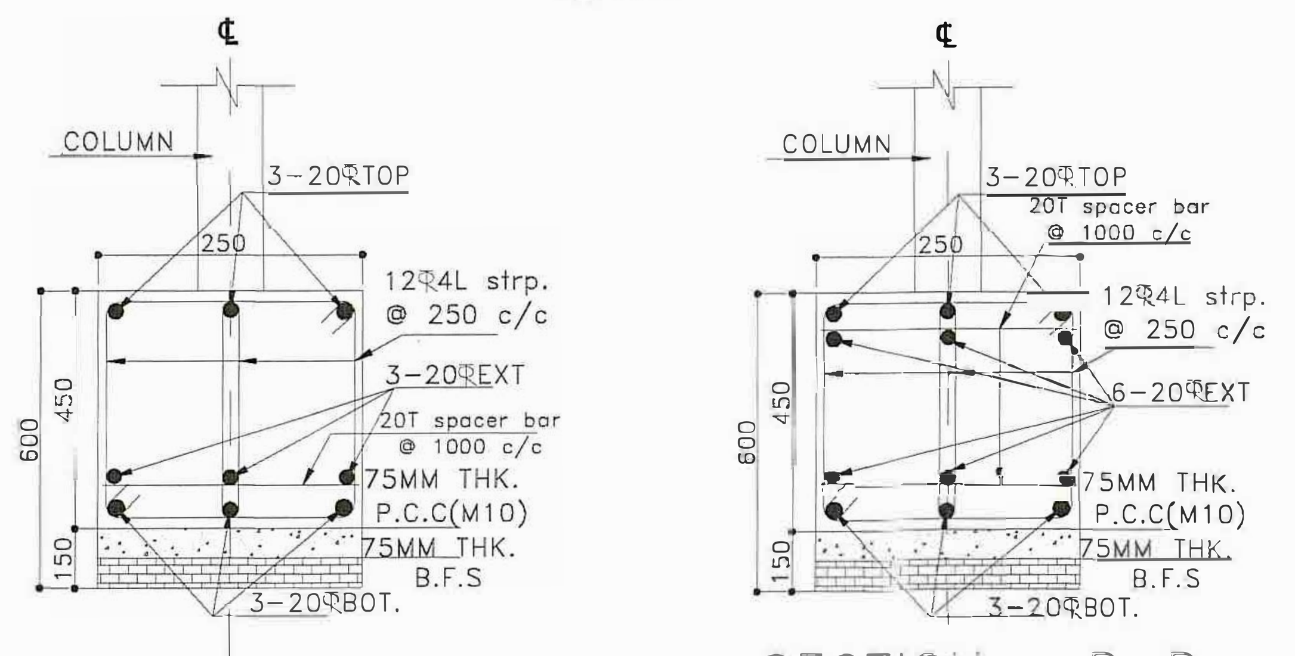
3 TYPICAL DETAILS OF 450 DIA PILE
SCALE: N.T.S



4 TYPICAL DETAILS OF PILE CAP-PC1(SECTION)
SCALE: 1:50



5 SECTION:-1-1
SCALE: 1:50



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

SECTION:- B-B
SCALE - N.T.S

TABLE NO:-01 (SCHEDULE OF PILE CAP (500 ⌀ PILE)

PILE CAP MARKED	NAME OF COLUMN	CAP SIZE LENGTH (mm)	CAP SIZE WIDTH (mm)	THICKNESS (mm)	BOTTOM REINFORCEMENT(A) ALONG LONGER DIRECTION	BOTTOM REINFORCEMENT(A) ALONG SHORTER DIRECTION	TOP REINFORCEMENT(B) ALONG LONGER DIRECTION	TOP REINFORCEMENT(B) ALONG SHORTER DIRECTION	C LINK(C) (BOTH DIRECTION)	SIDE FACE REINFORCEMENT (D)	CUT OFF LEV.
PC1(3P)	C1,C2,C3,C4,C7,C8,C9, C10,C11,C12,C16,C17, C18,C19,C20,C21,C22, C23,C24,C25,C26,C29, C30,C31,C32.	SEE PC1 DETAILS		1200	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	12 Ⴔ@100 C/C	16 Ⴔ@200 C/C	(-) 1.7 m
PC2(6P)	C5+ C6. C27+C28.	3450	2100	1200	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	16 Ⴔ@150 C/C	16 Ⴔ@150 C/C	12 Ⴔ@100 C/C	16 Ⴔ@200 C/C	(-) 1.7 m
PC3(12P)	C13 + C14 + LIFT.	4800	3450	1200	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	16 Ⴔ@150 C/C	16 Ⴔ@150 C/C	12 Ⴔ@100 C/C	16 Ⴔ@200 C/C	(-) 3.35 m
PC4(2P)	C15.	750	2100	1200	20 Ⴔ@150 C/C	20 Ⴔ@150 C/C	16 Ⴔ@150 C/C	16 Ⴔ@150 C/C	12 Ⴔ@100 C/C	16 Ⴔ@200 C/C	(-) 1.7 m

TABLE NO:-02 (SCHEDULE OF PILE)

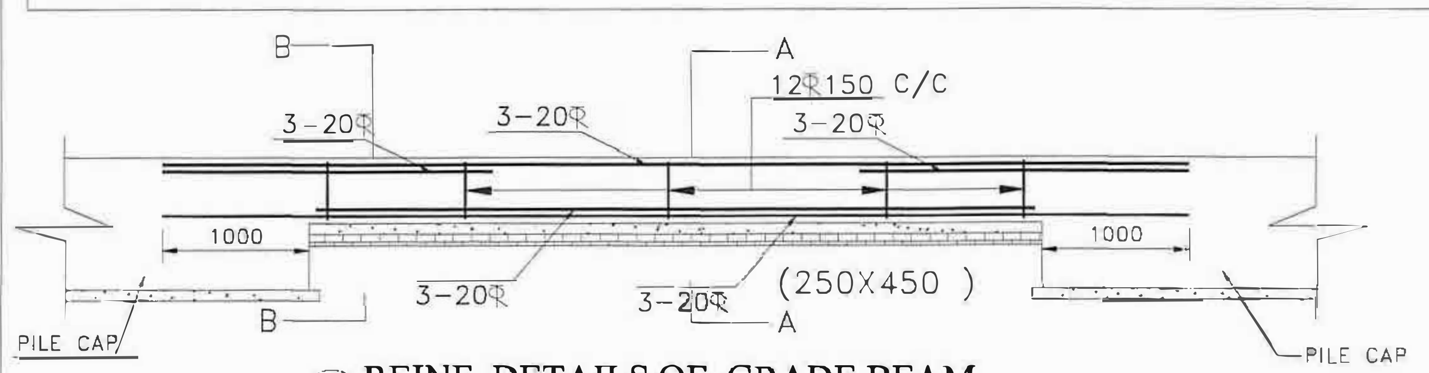
MIN CEMENT CONTENT IN CONCRETE SHALL BE = 400Kg /m³

LEGEND	DIA OF PILE (MM)	CUT-OFF LEVEL (M)	PILE LENGTH (M)	MAIN REINFORCEMENT	PILE CAPACITY SAFE WORKING LOAD IN TONS: COMPRESSION	TENSION	LATERAL	REMARKS
⌀	450 DIA	EL.(-)1.7 EXCEPT PILES UNDER LIFT PIT	18	8-16Ⴔ(ALTH)	63	-	-	CUT OFF LEVEL IS (-) 3.35 M LEVEL UNDER LIFT PIT PILE

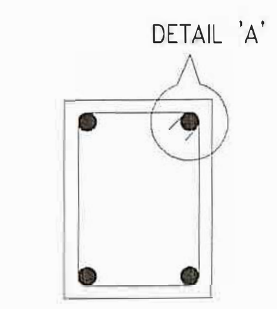
NOTE:- ABOVE ARE THE PILE DETAILS ADOPTED. THESE MUST BE ENSURED AT SITE BY PILE LOAD TEST.

TABLE NO:-03 (SCHEDULE OF COLUMNS)

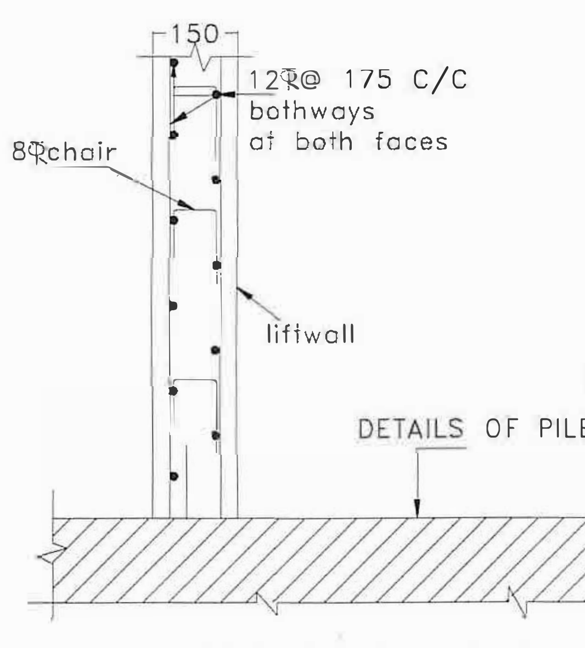
COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO 3RD FLOOR LONGITUDINAL REINFORCEMENT	4TH FLOOR TO 7TH FLOOR LONGITUDINAL REINFORCEMENT	8TH FLOOR TO ROOF LONGITUDINAL REINFORCEMENT	TIE	SHAPE OF STIRRUPS
C1,C2,C3,C4,C5,C6, C7,C11,C22,C26, C27,C32.	12	600X250	600 × 250; REINFORCEMENT: 10-25Ⴔ●	600 × 250; REINFORCEMENT: 8-25 Ⴔ● 2-20Ⴔ○	600 × 250; REINFORCEMENT: 6-25 Ⴔ● 4-20Ⴔ○	NEAR JUNCTION (UPTO 'lo') LENGTH LINKS:8Ⴔ@75C/C (3 NOS. CLOSED LINK PER SET) AT REST PORTION LINKS:8Ⴔ@150C/C (3 NOS. CLOSED	1, 2, 3
C10,C18,C20,C23.	04	600X250	600 × 250; REINFORCEMENT: 8-25 Ⴔ● 2-20Ⴔ○	600 × 250; REINFORCEMENT: 6-25 Ⴔ● 4-20Ⴔ○	600 × 250; REINFORCEMENT: 4-25 Ⴔ● 6-20Ⴔ○	NEAR JUNCTION (UPTO 'lo') LENGTH LINKS:8Ⴔ@75C/C (3 NOS. CLOSED LINK PER SET) AT REST PORTION LINKS:8Ⴔ@150C/C (3 NOS. CLOSED	1, 2, 3
C12,C16,C17,C21, C24,C25,C28,C29, C30,C31.	10	500X250	500 × 250; REINFORCEMENT: 8-25 Ⴔ● 2-20Ⴔ○	500 × 250; REINFORCEMENT: 6-25 Ⴔ● 4-20Ⴔ○	500 × 250; REINFORCEMENT: 4-25 Ⴔ● 6-20Ⴔ○	NEAR JUNCTION (UPTO 'lo') LENGTH LINKS:8Ⴔ@75C/C (3 NOS. CLOSED LINK PER SET) AT REST PORTION LINKS:8Ⴔ@150C/C (3 NOS. CLOSED	1, 2, 3
C8,C9,C13, C14,C15,C19.	06	500X250	500 × 250; REINFORCEMENT: 6-20 Ⴔ● 4-16Ⴔ○	500 × 250; REINFORCEMENT: 4-20 Ⴔ● 6-16Ⴔ○	500 × 250; REINFORCEMENT: 10-20Ⴔ●	NEAR JUNCTION (UPTO 'lo') LENGTH LINKS:8Ⴔ@75C/C (3 NOS. CLOSED LINK PER SET) AT REST PORTION LINKS:8Ⴔ@150C/C (3 NOS. CLOSED	1, 2, 3



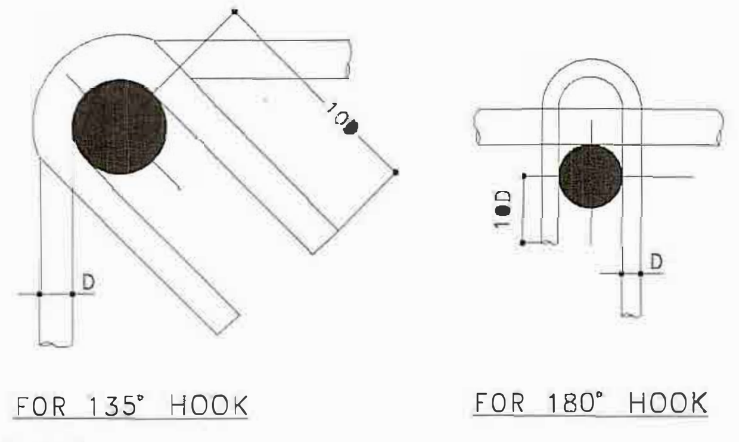
6 REINF. DETAILS OF GRADE BEAM
SCALE: 1:100



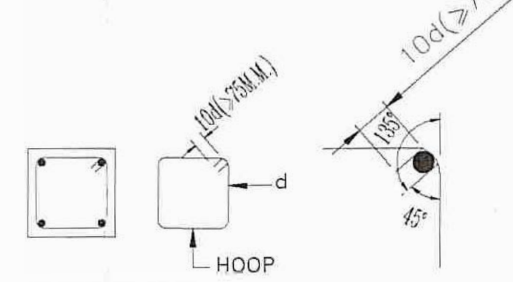
DETAILS OF COLUMN HOOK REINFORCEMENT



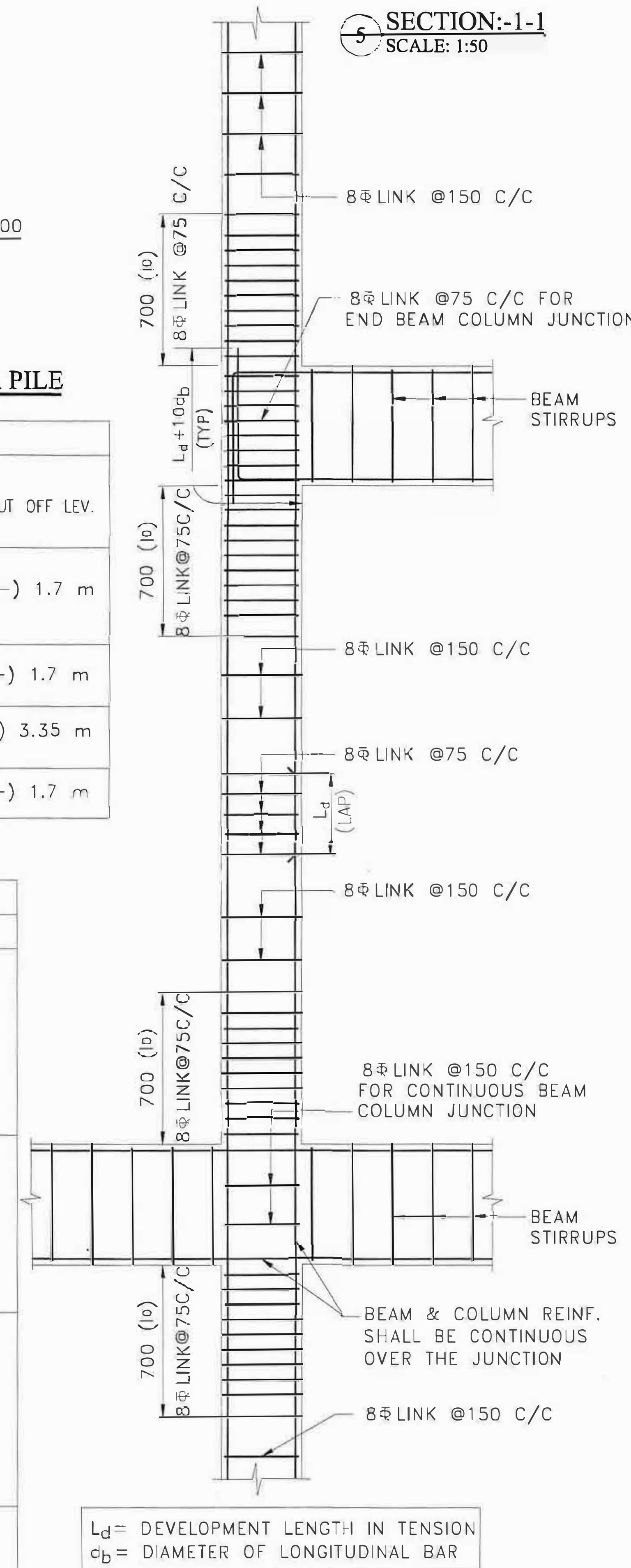
7 SECTION OF LIFT WALL
SCALE: 1:25



TYP. DETAIL OF HOOK



STIRRUP DETAIL
(d = DIA OF STIRRUP BAR)



L_d = DEVELOPMENT LENGTH IN TENSION
d_b = DIAMETER OF LONGITUDINAL BAR

TYPICAL DETAIL OF BEAM COLUMN JUNCTION
SCALE-N.T.S.

PROJECT NAME:-

STRUCTURAL DRAWING OF PROPOSED (G+8) NINE STORIED RESIDENTIAL BUILDING OF MR. UJJAL DUTTA, S/O BASUDEV DUTTA, MR. RABI SINGH S/O SAGAR SINGH, (R. K BUILDERS AND DEVELOPERS PVT LTD) PLOT NO-1205,1206, KHATIAN NO- 3670,3671, J. L NO-105, MOUZA-JEMUA, P. S - NEW TOWNSHIP, DIST-PASCHIM BARDHAMAN.WEST BANGAL-713206

NOTES :-

1. ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER UNLESS OTHERWISE STATED.
2. ±0.00 LVL. REFERS TO E.G.L
3. CLEAR CONCRETE COVER TO MAIN REINFORCEMENT BARS SHALL BE AS FOLLOWS :-

	TOP	BOTTOM	SIDE
a) PILE -	50 mm	50 mm	50 mm
b) PILE CAP -	75 mm	75 mm	75 mm

4. ALL PILES SHALL BE BORED CAST-IN-SITU PILES, DMC METHOD SHALL BE ADOPTED BY CIRCULATING BENTONITE SLURRY OF SP GRAVITY 1.1 TO 1.2 gm/cc.
5. ALL REINFORCEMENT IN PILE SHALL BE HIGH TENSILE STRENGTH COLD TWISTED DEFORMED BAR CONFORMING TO IS-1786-2008 OF GRADE Fe500.
6. CONCRETE GRADE SHALL BE M25 WITH MINIMUM CEMENT CONTENT OF 400Kg/M OF CONCRETE & SLUMP BETWEEN 150mm TO 180mm.
7. CONCRETING SHALL BE DONE BY SUITABLE TREMIE ONLY & IT SHOULD BE REACHED WITHIN 500 TO 750mm FROM BOTTOM LEVEL OF BORE HOLE.
8. CONCRETE SHALL BE DONE AS SOON AS POSSIBLE AFTER COMPLETING THE PILE BORE. THE BORE HOLE FULL OF DRILLING MUD SHOULD NOT BE LEFT UNCONCRETED FOR MORE THAN 12 TO 24 HOURS DEPENDING UPON THE STABILITY OF BORE HOLES.
9. FOR PLACING CONCRETE IN PILE BORE A FUNNEL SHOULD BE USED & METHOD OF CONCRETE SHOULD BE SUCH THAT THE ENTIRE VOLUME OF THE PILE BORE IS FILLED UP WITHOUT THE FORMATION OF VOIDS &/ FOR MIXING OF SOIL & DRILLING MUD IN CONCRETE.
10. THE PILE HEADS SHALL PROJECT IN TO THE PILE CAP 75mm. THE HEADS TO BE NEATLY FORMED TO THE REQUIRED DIA.
11. 80mm ROLLER TYPE COVER BLOCK WITH MINIMUM THICKNESS 32mm SHALL BE USED.
12. ALL LAP JOINTS AND DEVELOPMENT LENGTHS SHALL BE 50xDIA. & TACK WELDED.
13. INITIAL PILE LOAD TEST AND ONE NUMBER ROUTINE LOAD TEST SHALL BE PERFORMED AS PER IS CODE FOR EVERY 100 PILES.
14. SPACER BAR OF DIA T16 ARE TO BE PROVIDED AT AN INTERVAL OF 1500M C/C TO WELDED.
15. WASHING TO BE DONE WITH 20HP PUMP/VACEL AS PER SITE REQUIREMENT.
16. BENTONITE TO BE USED AS PER IS CODE.
17. VIBRATOR SHALL BE USED FOR PROPER COMPACTION OF CONCRETE AND CURING SHALL BE DONE PROPERLY.
18. THIS DRAWING SHOULD BE READ ALONG WITH THE CORRESPONDING ARCHITECTURAL DRAWING.
19. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT SURVEY DRAWING.
20. PILE CAPACITY OF SOIL & OTHER NECESSARY SUGGESTION HAS BEEN CONSIDERED AS PER SOIL REPORT.

SIGNATURE OF STRUCTURAL ENGINEER:-

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Structural Engineer
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DCE, B-TECH, G.I.D.S, Durgapur-16
Contact No.- 9333233331

SIGNATURE OF DEVELOPER/OWNER:-

... & BUILDERS AND DEVELOPERS PVT. LTD.
Rabi Singh
Director

VETTED BY:-

DR. S. N. MUKHERJEE
Professor
CIVIL ENGINEERING DEPT.
JADAVPUR UNIVERSITY
KOLKATA-700032 (W.B)

Approved Plan No. 50 on Meeting No. 01/2022-23 Date 22/04/2022
Valid upto 30/11/2024
Prodhan 01/12/22
Jemua Gram Panchayet

TITLE:-

COLUMN & FOOTING LAYOUT PLAN, SCHEDULE OF COLUMN, DETAILS OF STIRRUPS, DETAILS BEAM COLUMN JUNCTION, SECTION DETAILS OF FOOTING, SCHEDULE OF FOOTING,DETAILS OF STAIR.

SIGNATURE OF GEO-TECHNICAL ENGINEER:-

MANOJ MAITY
Civil / Geotechnical Engineer
CE (IGS - LM4278
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G.I.D.S., Durgapur 16

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DATE : 04.03.2022
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