

NOTES :-

A. GENERAL:

- ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRE.
- DRAWINGS SHALL NOT BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE USED.
- ALL FOUNDATIONS SHALL BE REST ON VIRGIN SOIL OR ON THOROUGHLY COMPACTED SOIL AS PER SPECIFICATION. WHENEVER THE SOIL CONTAIN THE SAME SHALL BE REMOVED AND REFILLED WITH THE P.C.C.

B. CONCRETE WORK:

- ALL CONCRETE WORK SHALL BE AS PER IS456 (LATEST VERSION)
- ALL STRUCTURAL REINFORCED CONCRETE WORK SHALL BE WITH DESIGN MIX CONCRETE OF GRADE AS FOLLOWS UNLESS NOTED OTHERWISE.
 - a). GRADE CONC. FOR SUB & SUPER STRUCTURES ARE M-25
- PLAIN CONCRETE WORK SHALL BE OF THE FOLLOWING GRADES OF NOMINAL MIX CONCRETE:
 - a). 1:5:10 PLUM CONCRETE FOR FILLING CONCRETE UNDER FOUNDATION (WITH MAXIMUM AGGREGATE SIZE OF 40 MM.) AND AS, PIT, TRENCHES ETC.
 - b). M-15 FOR LEAN CONCRETE BELOW FOUNDATIONS & PLINTH PROTECTION
- THE MINIMUM CLEAR COVER FOR PROTECTION OF MAIN REINFORCEMENT SHALL BE AS FOLLOWS

STRUCTURAL ELEMENT	COVER		
	TOP	BOTTOM	SIDES
a). PLINTH BEAM	25	40	40
b). COLUMN	50	-	40
c). SLAB ON GRADE	20	25	25
d). FLOOR BEAM	25	25	25
e). SLAB	20	20	20
f). FOUNDATION	50	50	50

C. REINFORCEMENTS:

- ALL REINFORCING STEEL SHALL BE OF TESTED QUALITY.
- (a). HIGH YIELD STRENGTH DEFORMED BAR REINFORCEMENT (YIELD STRESS $F_y = 500 \text{ N/MM}^2$) SHALL CONFORM TO IS1786 (LATEST REVISION)
- LAPS AND SPLICES OF REINFORCEMENT TO SUIT AVAILABLE LENGTH OF BARS SHALL BE MADE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER AT SITE.
- ALL HOOKS, BENDS, LAPS AND SPLICES SHALL BE AS PER IS2502.
- THE LAP/ANCHORAGE LENGTH OF BARS OF DIAMETER 'D' SHALL BE AS FOLLOWS:-

CONCRETE GRADE	DEFORMED BARS	
	TENSION	COMPRESSION
M-25	50XD	40XD

- LAPPING OF BARS SHALL BE SUITABLY STAGGERED AND IN NO CASE MORE THAN 50% BARS SHALL BE LAPPED AT ANY SECTION.
- LAPPING OF BARS FOR BEAM AND SLAB SHALL BE AVOIDED IN THE MAXIMUM TENSION ZONES.
- DEVELOPMENT LENGTH (L_d) = 50DIA OF THE BAR+10DIA OF THE BAR.
- ALL SPACER BARS ARE 250G @ 450 C/C AND TO BE PROVIDED WHEREVER REQUIRED.

NOTE: THIS BUILDING HAS BEEN DESIGNED FOR G+4. ALL EXTERNAL BRICK WALLS ARE 250MM THICK USED DENSITY 20KN/M³ ALL INTERNAL BRICK WALLS ARE 125MM THICK USED DENSITY 20KN/M³

LOAD CONSIDERED NOTE:

FLOOR LIVE LOAD = 2.5KN/M² (RESIDENTIAL)
 ACCESS ROOF LIVE LOAD = 1.5KN/M²
 NON ACCESS ROOF LIVE LOAD = 0.75KN/M²
 WATER TANK WITH WATER DEAD LOAD = 10KN/M²

COLUMN SCHEDULE (M25:Fe500)

ROOF	M25: Fe500 (M) : Fe415 (S) : COVER = 40mm END / CONFINING ZONE = 500 MM	M25: Fe500 (M) : Fe415 (S) : COVER = 40mm END / CONFINING ZONE = 500 MM	M25: Fe500 (M) : Fe415 (S) : COVER = 40mm END / CONFINING ZONE = 500 MM
TO	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150
2ND FLOOR	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150
2ND FLOOR	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150
TO	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150
FOOTING	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150
COLUMN MARKED	C12,C13,C14,C19,C20	OTHER	C23

FOOTING SCHEDULE (M25:Fe500)

FOOTING DESIGN DONE WITH THE SBC OF 15.00 T/SQ.M BASED ON PROVIDED SOIL REPORT

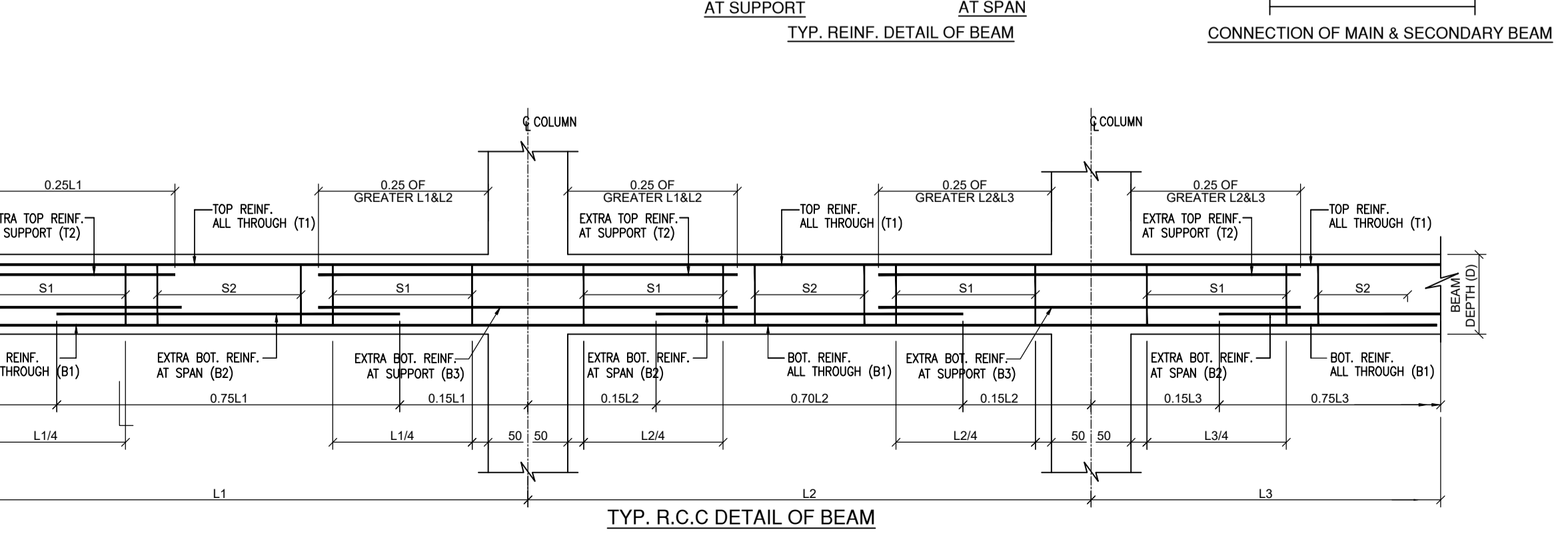
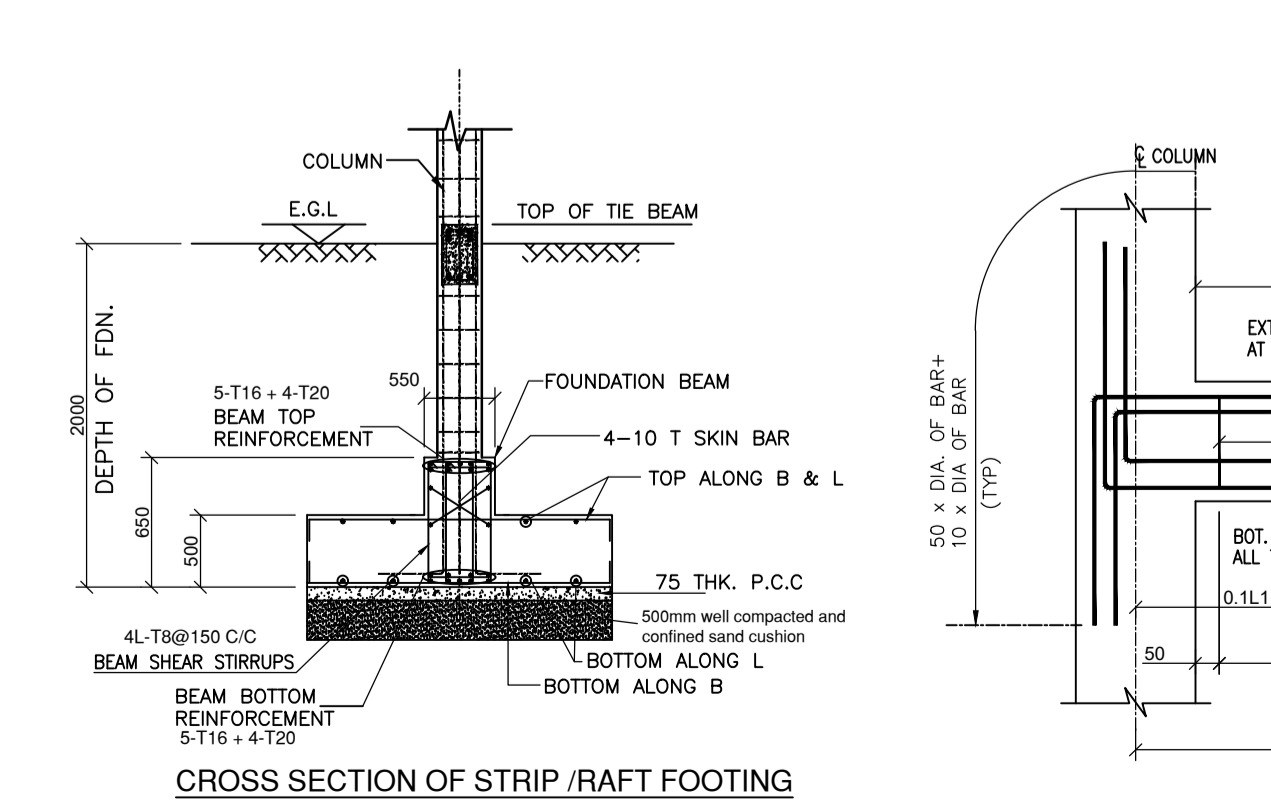
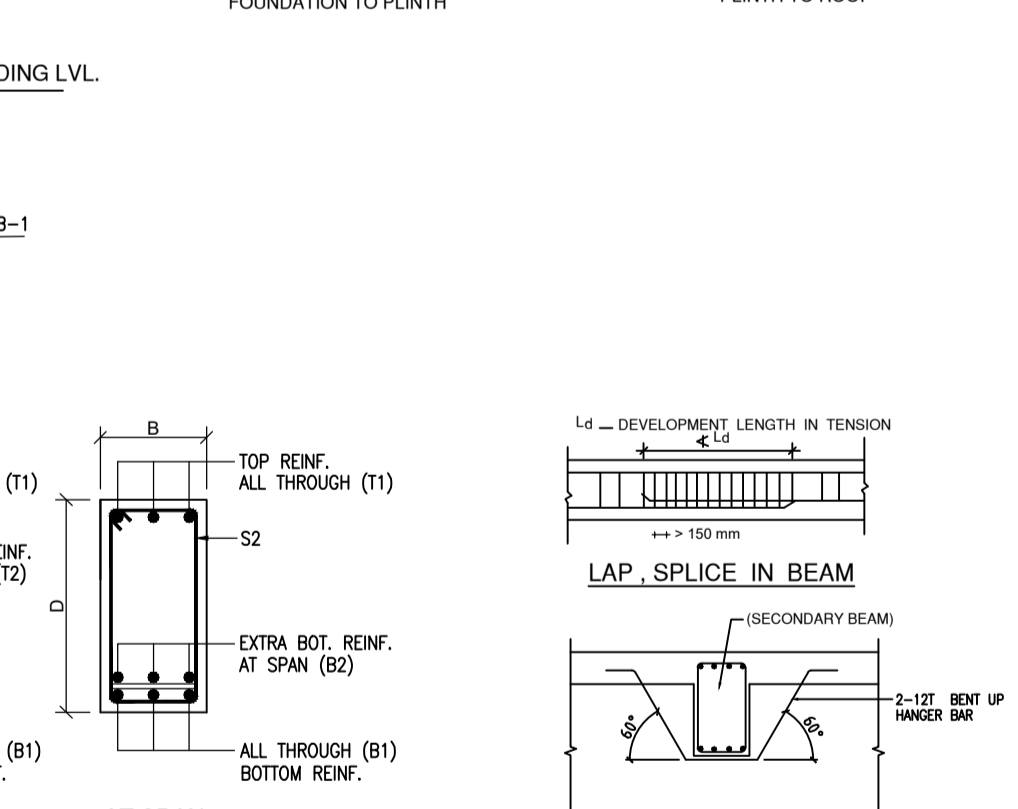
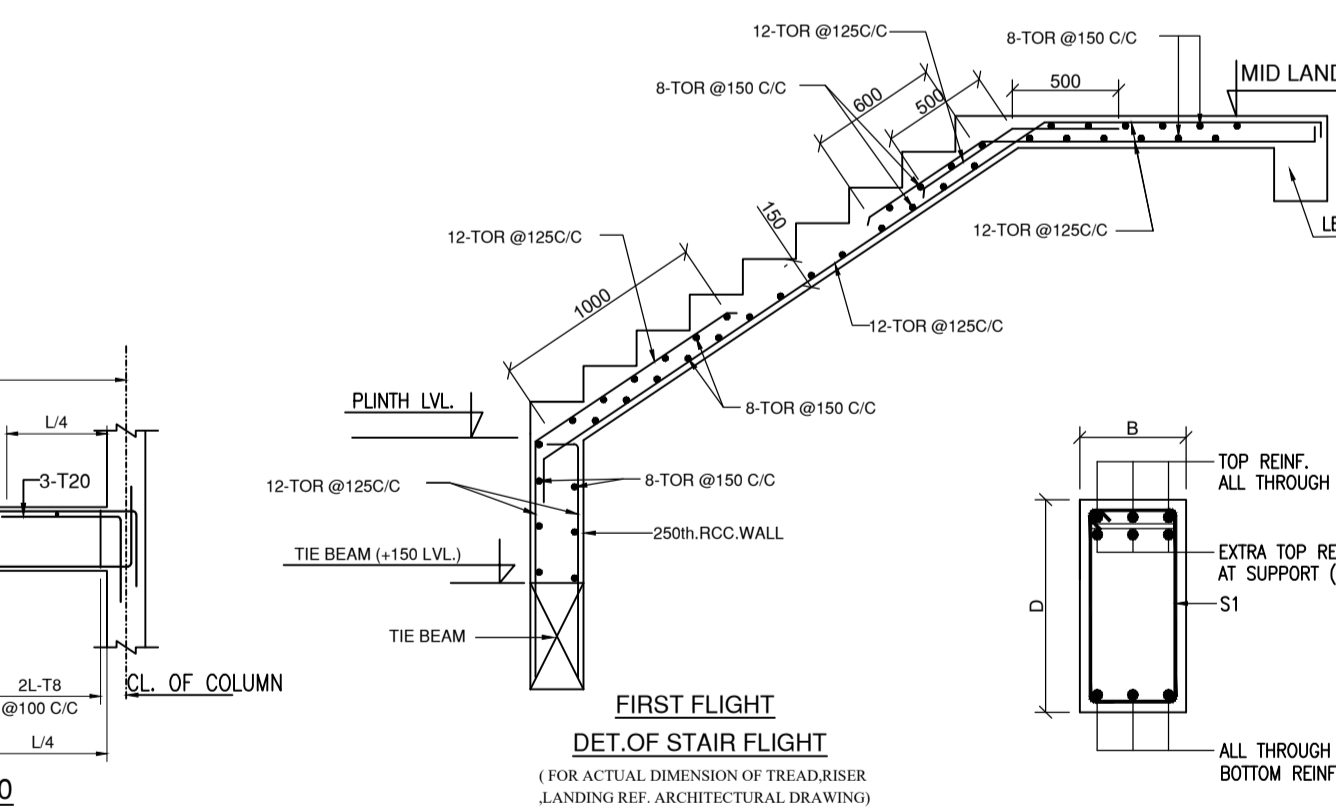
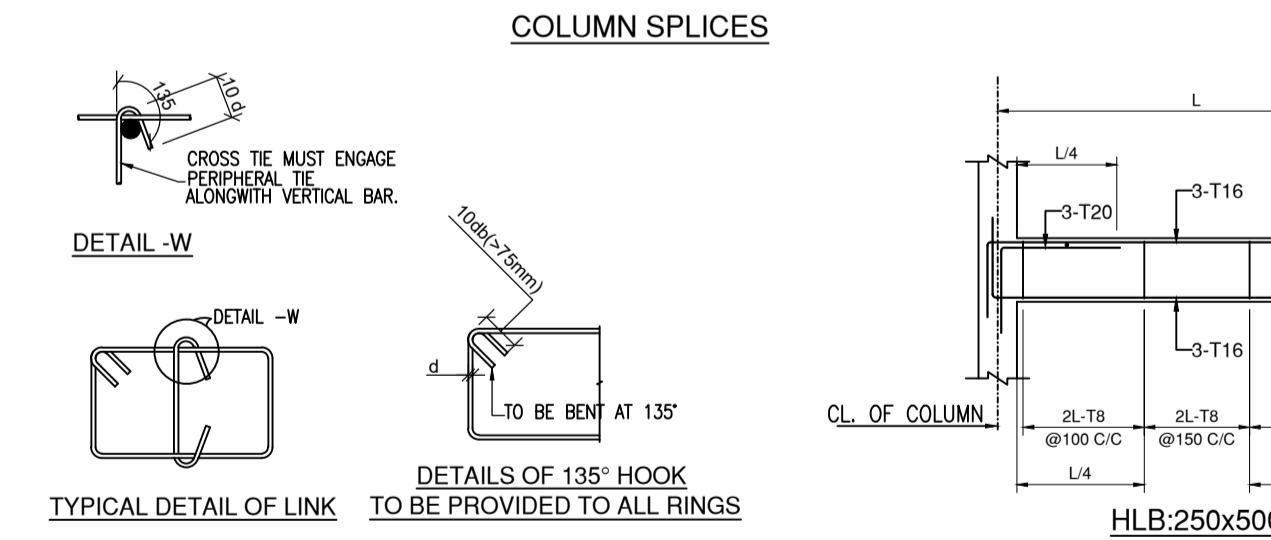
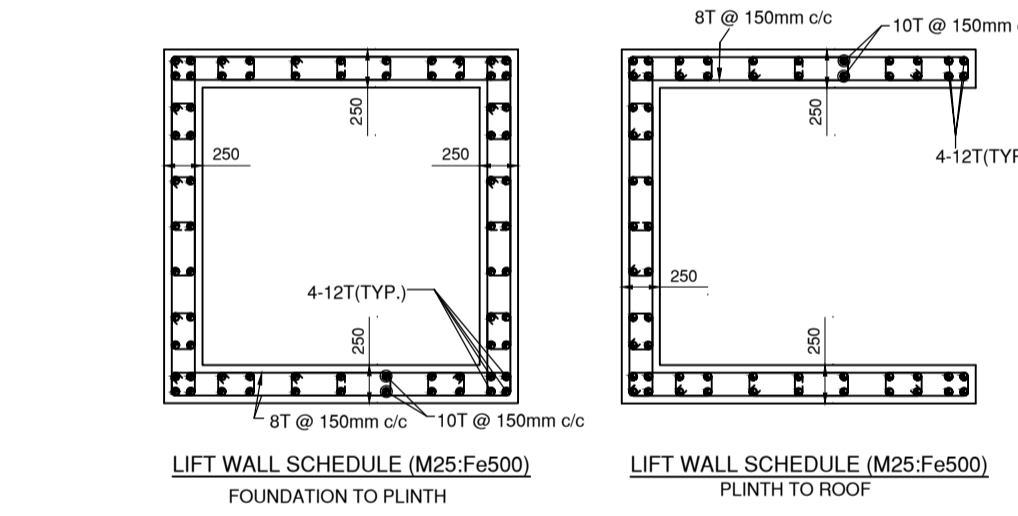
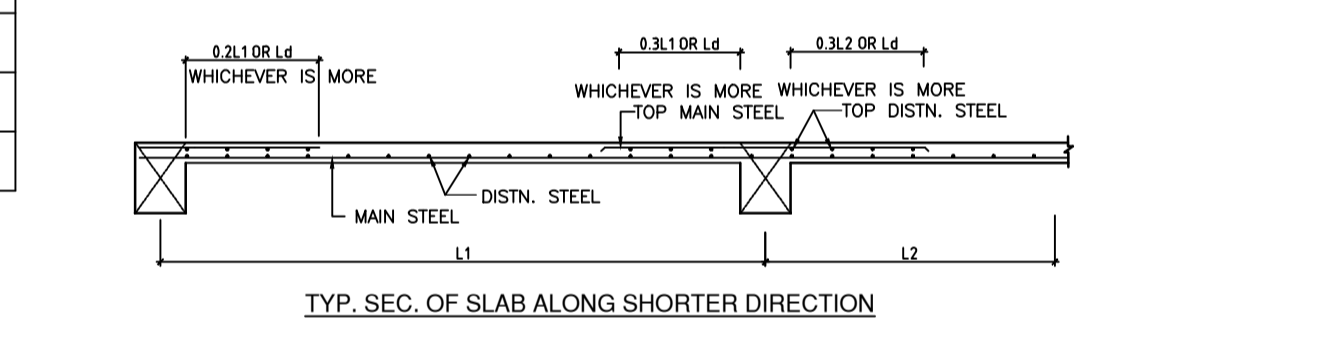
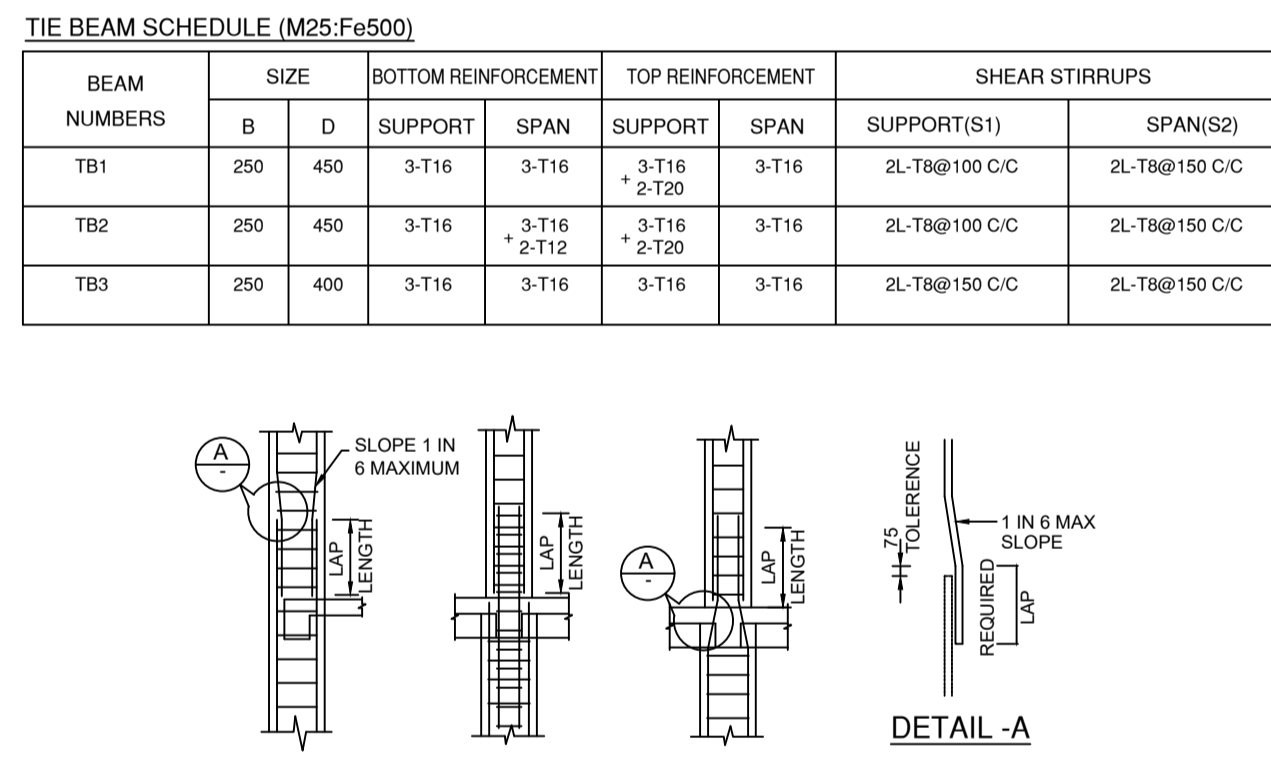
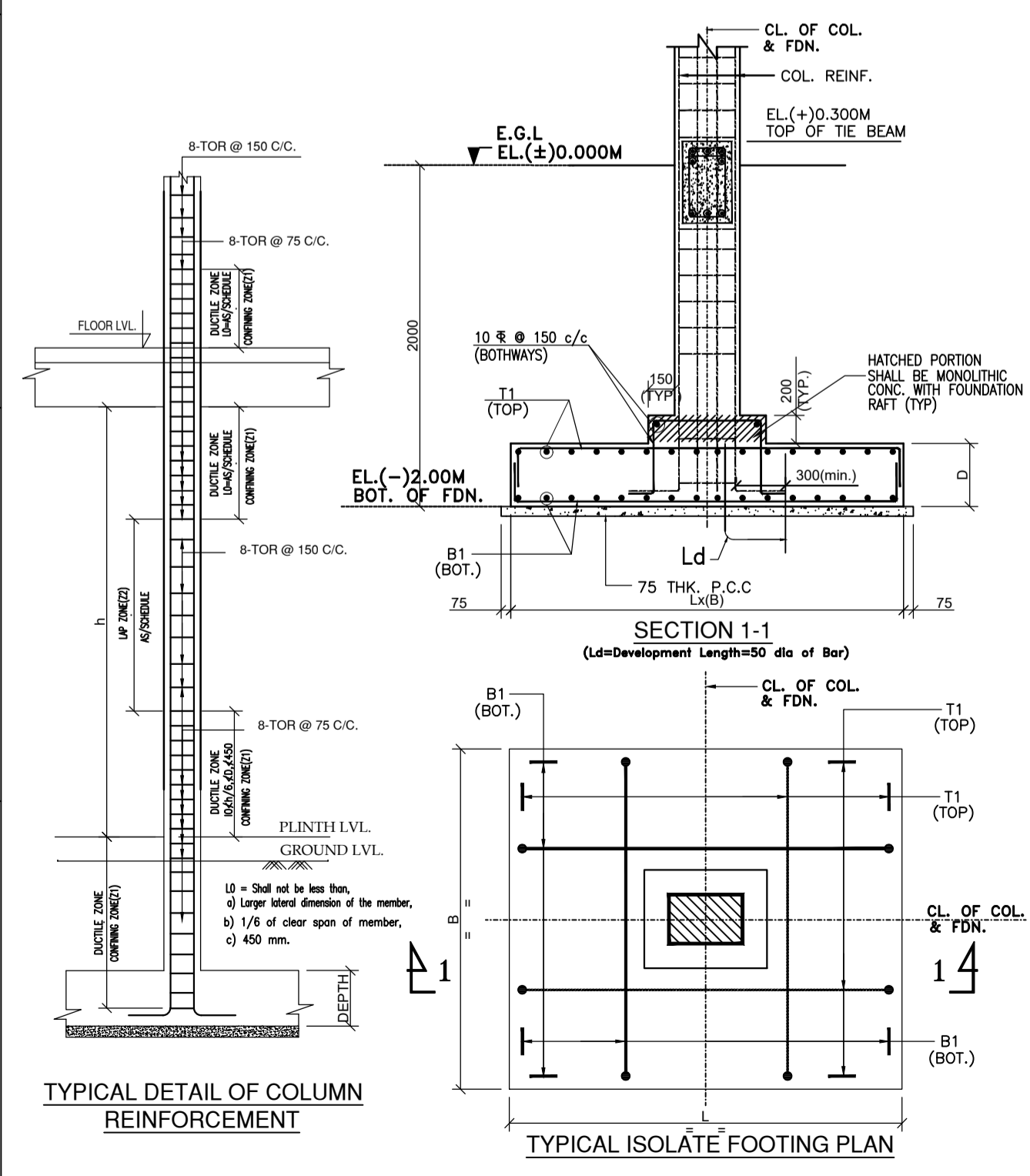
FOOTING NUMBERS	FOOTING TYPE	FOOTING DIMENSION			FOOTING REINFORCEMENT			
		L	B	D	BOTTOM		TOP	
FC1	PAD	2300	2050	400	T12@150 C/C	T12@150 C/C	T8 @ 150C/C	T8 @ 150C/C
FC2	PAD	2500	2250	450	T12@150 C/C	T12@150 C/C	T8 @ 150C/C	T8 @ 150C/C
FC3	PAD	2850	2600	500	T12@150 C/C	T12@150 C/C	T16 @ 200C/C	T16 @ 200C/C
ST-1	STRIP	4250	2700	500	T16@150 C/C	T16@150 C/C	T16 @ 200C/C	T16 @ 200C/C
ST-2	STRIP	5350	2250	500	T16@150 C/C	T16@150 C/C	T16 @ 200C/C	T16 @ 200C/C
MAT-1	RAFT	6550	5500	500	T16@150 C/C	T16@150 C/C	T16 @ 200C/C	T16 @ 200C/C

FLOOR BEAM SCHEDULE (M25:Fe500)

BEAM NUMBERS	SIZE	BOTTOM REINFORCEMENT	TOP REINFORCEMENT		SHEAR STIRRUPS	
			SUPPORT	SPAN	SUPPORT(S1)	SPAN(S2)
FB1	250 500	3-T16	3-T16	3-T16	2L-T8@100 C/C	2L-T8@150 C/C
FB2	250 500	3-T16	3-T16 + 2-T12	3-T16	2L-T8@100 C/C	2L-T8@150 C/C
FB3	250 450	3-T16	3-T16	3-T16	2L-T8@150 C/C	2L-T8@150 C/C
FB4	250 450	3-T16	3-T16	3-T16	2L-T8@150 C/C	2L-T8@150 C/C

FLOOR SLAB SCHEDULE (M25 : FE500)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT		TOP REINFORCEMENT	
		ALONG SHORT SPAN	ALONG LONG SPAN	OVER LONG SUPPORT	OVER SHORT SUPPORT
S1	125	T10 @ 125 C/C	T10 @ 125 C/C	T10 @ 125 C/C	T10 @ 125 C/C
S2	150	T10 @ 125 C/C	T10 @ 125 C/C	T10 @ 125 C/C	T10 @ 125 C/C



PROJECT :

PROPOSED FIVE STORIED(G+4) RESIDENTIAL BUILDING OF MR. RABINDRA NARAYAN BHATTACHARJEE, AT AMDHIA ROAD BY LANE, UNDER PURULIA MUNICIPALITY, HOLDING NO: 221/A, WITH IN MOUZA- NADIHA, LL NO. - 003, R.S KHATIAN NO. - 289, R.S PLOT NO. -679 WARD NO.-06, P.5+DIST. - PURULIA, WB, 723101.

DECLARATION OF STRUCTURAL ENGINEER

CERTIFIED THAT THE STRUCTURAL ANALYSIS & DESIGN OF PROPOSED FIVE STORIED(G+4) RESIDENTIAL BUILDING OF MR. RABINDRA NARAYAN BHATTACHARJEE HAS BEEN PREPARED BY ME IN THE FOLLOWING LAND SCHEDULE: AT AMDHIA ROAD BY LANE, UNDER PURULIA MUNICIPALITY, HOLDING NO: 221/A, WITH IN MOUZA- NADIHA, LL NO. - 003, R.S KHATIAN NO. - 289, R.S PLOT NO. -679 WARD NO.-06, P.5+DIST. - PURULIA, WB, 723101.

IT IS ALSO CERTIFIED THAT THE SAID STRUCTURAL ANALYSIS HAS BEEN PREPARED CONSIDERING ALL POSSIBLE LOADS INCLUDING SEISMIC LOADS AND AS PER LATEST RELEVANT IS CODES AND THE PROPOSED STRUCTURE IS SAFE IN ALL RESPECTS.

Rahul Koley
RAHUL KOLEY
 B. Tech(Civil), M.E. (Structure)
 KMC: ESE/1/307
 Mob: 9873471135

SIGNATURE OF STRUCTURAL ENGINEER

TITLE:-
 MARKING AND DETAILS OF COLUMN, FOOTING, BEAM, SLAB AND STAIR

PROJECT NO:-25_14/RNB DRAWING NO: STR-01 REV:R0