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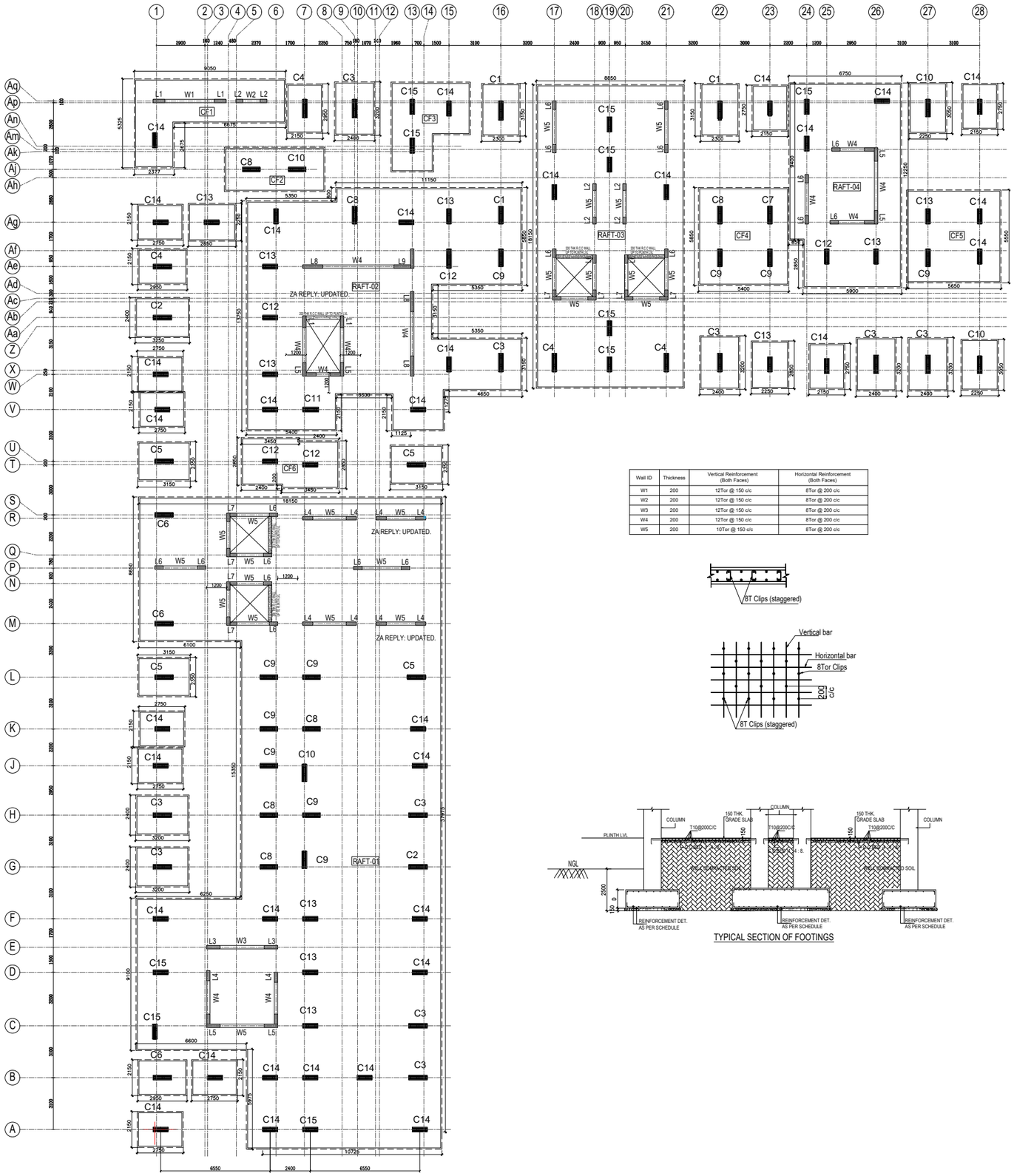
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OMR Thoraipakkam,
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Official Property Record



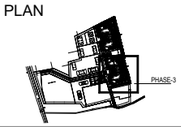
Digitally Verified Record - Powered by Verified RealEstate™



Wall ID	Thickness	Vertical Reinforcement (Both Faces)	Horizontal Reinforcement (Both Faces)
W1	200	12Tor @ 150 c/c	8Tor @ 200 c/c
W2	200	12Tor @ 150 c/c	8Tor @ 200 c/c
W3	200	12Tor @ 150 c/c	8Tor @ 200 c/c
W4	200	12Tor @ 150 c/c	8Tor @ 200 c/c
W5	200	10Tor @ 150 c/c	8Tor @ 200 c/c

TYPICAL SECTION OF FOOTINGS

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

MEP CONSULTANTS :

MEP CONSULTANTS :

RALYS ENGINEERING CONSULTANTS(P)Ltd.

D No.6-3-347/1 Dwarakapuri colony, Panjagutta, Hyderabad - 500 082 Tele- +91 40 2335 0036
Email:ralys@ralysconsultants.com Web: www.ralysconsultants.com

DESIGN ARCHITECT:

design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

No. 10, Karpagambal Nagar, Mylapore, Chennai-600 004. India.
www.crn.co.in

STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES

4th Floor,Anasuya Commercial Complex, Beside Remedy Hospital, Himayathnagar, Hyderabad, Telangana - 500029
T: +91 40 23224772
Email: zakiassociates@gmail.com

NOTES :

1. GRADE OF CONCRETE M x SHALL BE AS FOLLOWS :
   M-40 DESIGN MIX FOR COLUMNS & WALLS
   M-30 DESIGN MIX FOR FOOTINGS
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 550
6. REINFORCEMENT SHALL BE HIGH STRENGTH DEFORMED BARS OF GRADE Fe 550 & Fe 415 CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th / 28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MIXES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX.
14. CONCRETE SHALL BE MACHINE M x ED AND VIBRATED
15. MA x IMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
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17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C1, C3)

TITLE : EXCAVATION LAYOUT AND SHEAR WALL DETAIL

NOTES :
1. FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
2. S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
3. CURING SHALL BE DONE FOR 21 DAYS.
4. STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED STRUCTURAL ENGINEER LICENCE NO.AP

ST-01

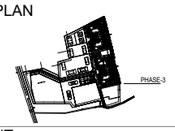


TYPICAL SECTION TOP BOTTOM REINFORCEMENT

TYPICAL SECTION SW1 300mm THK | TYPICAL SECTION SW2 200mm THK | TYPICAL SECTION SW3 200mm THK | TYPICAL SECTION SW1 & TOWER SHEARWALL

UG SUMP WALL DETAIL

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

MEP CONSULTANTS :

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NOTES :-

1. GRADE OF CONCRETE M x SHALL BE AS FOLLOWS :
   M-40 DESIGN MIX FOR COLUMNS & WALLS
   M-30 DESIGN MIX FOR FOOTINGS
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
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7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
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DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C1 & C3)

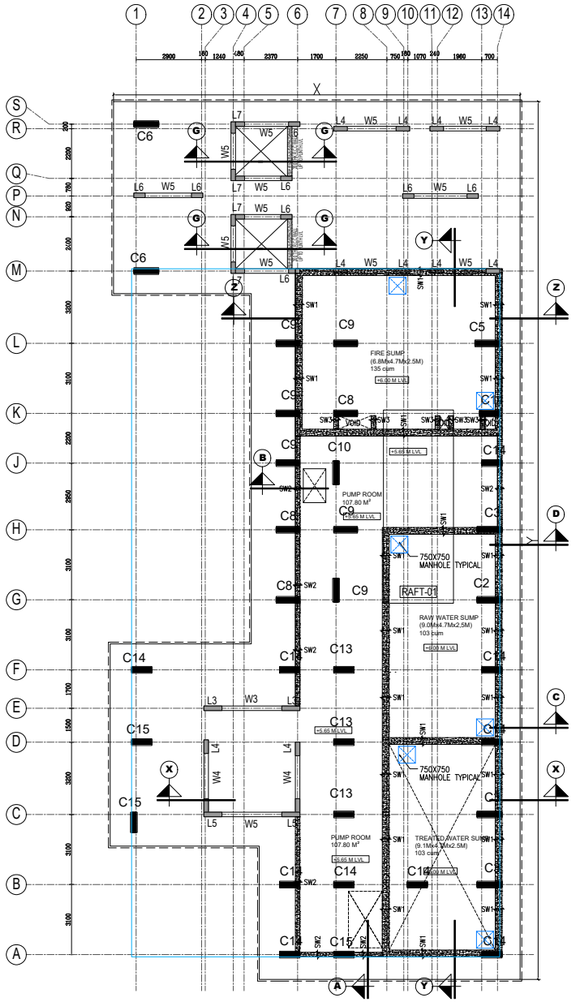
TITLE : UG SUMP LAYOUT AND SIDE WALL DETAILS

NOTES :
1. FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
2. S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
3. CURING SHALL BE DONE FOR 21 DAYS.
4. STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

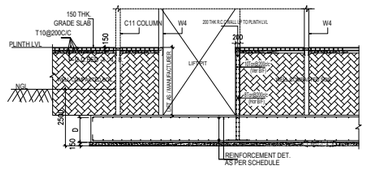
DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED STRUCTURAL ENGINEER LICENCE NO.47

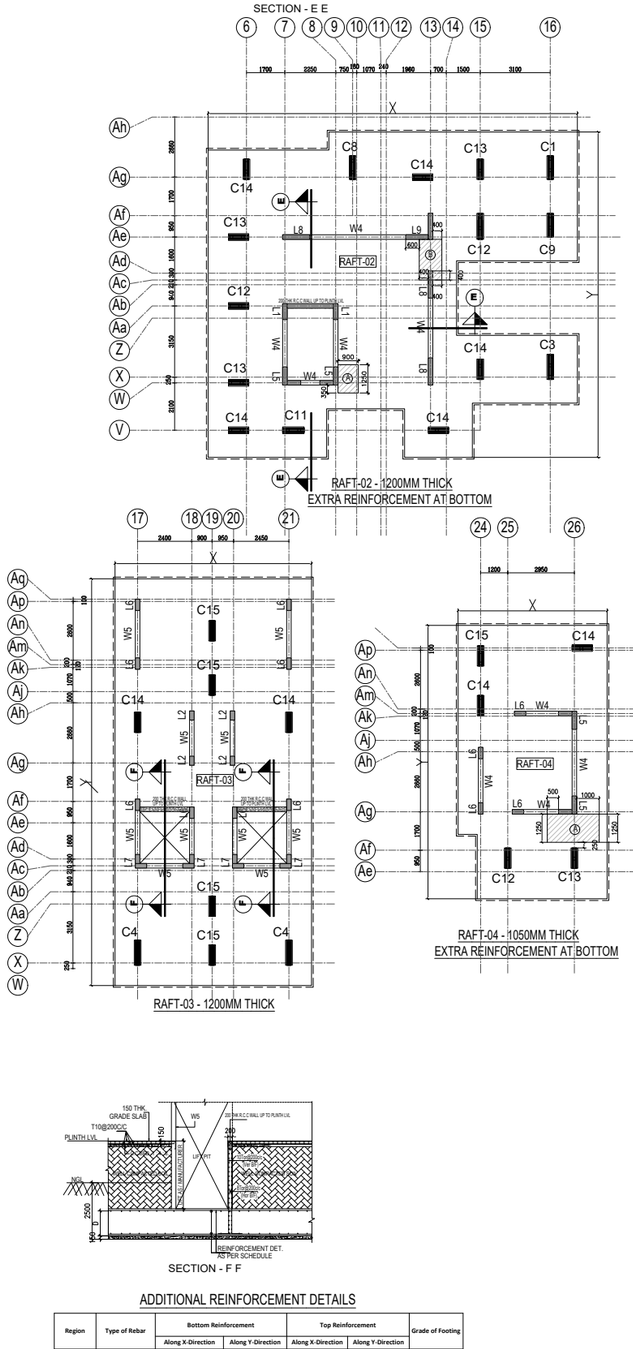
ST-04



RAFT-01 - 1200MM THICK



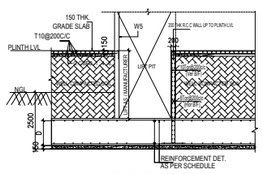
SECTION - E E



RAFT-02 - 1200MM THICK
EXTRA REINFORCEMENT AT BOTTOM

RAFT-03 - 1200MM THICK

RAFT-04 - 1050MM THICK
EXTRA REINFORCEMENT AT BOTTOM



SECTION - G G

SECTION - F F

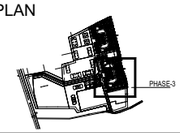
RAFT REINFORCEMENT DETAILS

Raft ID	Footing Depth	Bottom Reinforcement		Top Reinforcement		Side Face Reinforcement	Grade of Footing
		Along X-Direction	Along Y-Direction	Along X-Direction	Along Y-Direction		
RAFT-01	1200mm FLAT	20Tor @100 C/C	20Tor @100 C/C	16Tor @100 C/C	16Tor @100 C/C	12Tor @100 C/C	M30 / Fe550
RAFT-02	1200mm FLAT	20Tor @100 C/C	20Tor @100 C/C	16Tor @100 C/C	16Tor @100 C/C	12Tor @100 C/C	M30 / Fe550
RAFT-03	1200mm FLAT	20Tor @150 C/C	20Tor @100 C/C	16Tor @125 C/C	16Tor @125 C/C	12Tor @100 C/C	M30 / Fe550
RAFT-04	1050mm FLAT	20Tor @150 C/C	20Tor @100 C/C	16Tor @150 C/C	16Tor @150 C/C	12Tor @100 C/C	M30 / Fe550

ADDITIONAL REINFORCEMENT DETAILS

Region	Type of Rebar	Bottom Reinforcement		Top Reinforcement		Grade of Footing
		Along X-Direction	Along Y-Direction	Along X-Direction	Along Y-Direction	
A	2nd Layer	16Tor @100 C/C	16Tor @100 C/C	-----	-----	M30 / Fe550
B	2nd Layer	12Tor @100 C/C	12Tor @100 C/C	-----	-----	M30 / Fe550

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
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NOTES :-

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   Fe-550
2. GRADE OF CEMENT
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5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 550
6. REINFORCEMENT SHALL BE HIGH STRENGTH. DEFORMED BARS OF GRADE Fe 550 & Fe 415 CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS : FOOTINGS : 50mm COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
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DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
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10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C1 & C3)

TITLE : RAFT DETAIL

NOTES :
1. FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
2. S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
3. CURING SHALL BE DONE FOR 21 DAYS.
4. STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

ST-03

SCHEDULE OF COLUMNS/ WALLS

COLUMN No.	COLUMN SIZE a	b	M-40 Fe-550
C1	200	1150	16 Nos 16Tor; 1050; 200; 8Tor @100 c/c Tie & Links 3-SETS
C2	200	1110	16 Nos 20Tor; 1110; 200; 8Tor @100 c/c Tie & Links 3-SETS
C3	200	1110	4 Nos 20Tor, 12 Nos 16Tor; 1110; 200; 8Tor @100 c/c Tie & Links 3-SETS
C4	200	1110	8 Nos 16Tor, 8 Nos 12Tor; 1110; 200; 8Tor @100 c/c Tie & Links 3-SETS
C5	200	1100	4 Nos 20Tor, 12 Nos 16Tor; 1100; 200; 8Tor @100 c/c Tie & Links 3-SETS
C6	200	1100	8 Nos 16Tor, 8 Nos 12Tor; 1100; 200; 8Tor @100 c/c Tie & Links 3-SETS

SCHEDULE OF COLUMNS/ WALLS

COLUMN No.	COLUMN SIZE a	b	M-40 Fe-550
C7	200	1060	8 Nos 16Tor, 8 Nos 12Tor; 1060; 200; 8Tor @100 c/c Tie & Links 3-SETS
C8	200	1050	16 Nos 20Tor; 1050; 200; 8Tor @100 c/c Tie & Links 3-SETS
C9	200	1050	12 Nos 16Tor, 4 Nos 20Tor; 1050; 200; 8Tor @100 c/c Tie & Links 3-SETS
C10	200	1050	16 Nos 16Tor; 1050; 200; 8Tor @100 c/c Tie & Links 3-SETS
C11	200	950	8 Nos 16Tor, 6 Nos 12Tor; 900; 200; 8Tor @100 c/c Tie & Links 2-SETS
C12	200	900	8 Nos 25Tor, 6 Nos 20Tor; 900; 200; 8Tor @100 c/c Tie & Links 2-SETS
C13	200	900	8 Nos 20Tor, 6 Nos 16Tor; 900; 200; 8Tor @100 c/c Tie & Links 2-SETS
C14	200	900	14 Nos 16Tor; 900; 200; 8Tor @100 c/c Tie & Links 2-SETS
C15	200	900	4 Nos 16Tor, 10 Nos 12Tor; 900; 200; 8Tor @100 c/c Tie & Links 2-SETS

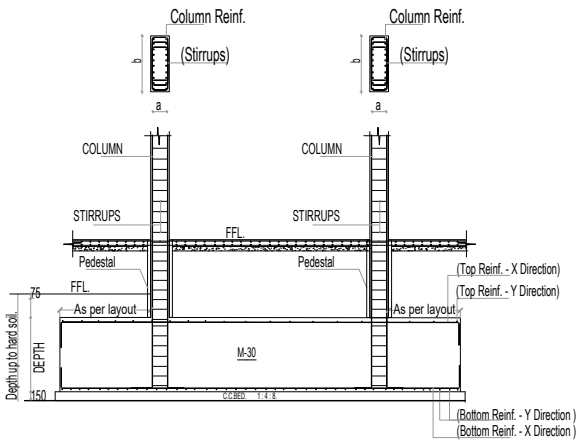
LINK DETAILS

Links No.	Link Mix & Grade of steel	Link section
L1	M40 Fe-550	4 Nos 16Tor, 6 Nos 12Tor; 8tor@100c/c Tie & Links; 200; 700
L2	M40 Fe-550	4 Nos 16Tor, 2 Nos 12Tor; 8tor@100c/c Tie & Links; 200; 400
L3	M40 Fe-550	4 Nos 16Tor, 8 Nos 12Tor; 8tor@100c/c Tie & Links; 200; 800
L4	M40 Fe-550	10 Nos 12Tor; 8tor@100c/c Tie & Links; 200; 600
L5	M40 Fe-550	22nos-12Tor; 200; 8tor@100c/c Tie & Links; 600; 200; 600; 200
L6	M40 Fe-550	8 Nos 12Tor; 8tor@100c/c Tie & Links; 200; 500
L7	M40 Fe-550	16nos-12Tor; 200; 8tor@100c/c Tie & Links; 400; 200; 300; 200
L8	M40 Fe-550	18nos-12Tor; 8tor@100c/c Tie & Links; 200; 1200
L9	M40 Fe-550	36nos-12Tor; 8tor@100c/c Tie & Links; 200; 950; 1000; 200

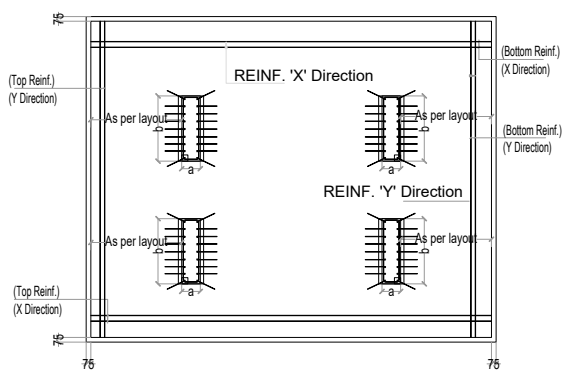
SCHEDULE OF FOOTINGS

FOOTINGS NO	FOOTING SIZE EXCLUDING PCC A	B	D	REINFORCEMENT BOTTOM ALONG 'A' AXIS	BOTTOM ALONG 'B' AXIS	TOP ALONG 'A' AXIS	TOP ALONG 'B' AXIS	SIDE REINFORCEMENT	Grade of Concrete for Footings
C1	2150	3000	750	24 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C2	2250	3100	750	25 Nos 12Tor	19 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C3	2250	3050	750	25 Nos 12Tor	19 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C4	2000	2800	600	20 Nos 12Tor	16 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C5	2200	3000	750	24 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C6	2000	2800	600	20 Nos 12Tor	16 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C7	2000	2800	600	20 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C8	2200	3000	750	24 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C9	2200	3000	750	24 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C10	2100	2900	750	24 Nos 12Tor	17 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C11	1900	2600	600	17 Nos 12Tor	14 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C12	2150	2750	750	22 Nos 12Tor	18 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C13	2100	2700	750	22 Nos 12Tor	17 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C14	2000	2600	600	18 Nos 12Tor	17 Nos 12Tor	-----	-----	----------	M-30 Fe-550
C15	1800	2400	600	22 Nos 10Tor	17 Nos 10Tor	-----	-----	----------	M-30 Fe-550
CF1	AS PER PLAN		900	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550
CF2	AS PER PLAN		900	12tor @ 100 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550
CF3	AS PER PLAN		900	12tor @ 100 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550
CF4	AS PER PLAN		900	12tor @ 100 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550
CF5	AS PER PLAN		900	12tor @ 100 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550
CF6	AS PER PLAN		900	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	12tor @ 100 c/c(top)	12tor @ 100 c/c(top)	----------	M-30 Fe-550

Tower Column

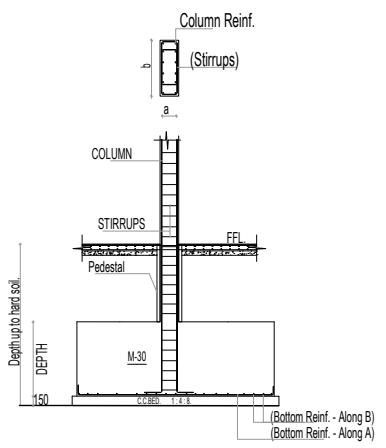


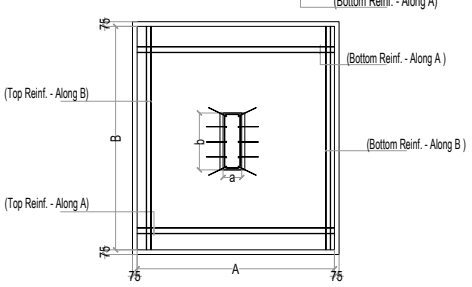
Tower Column



TYPICAL COMBINED FOOTING / RAFT DETAIL

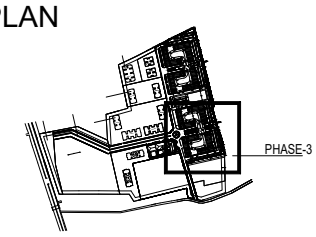
Basement Column





Typical Isolated Column Footing Section

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

MEP CONSULTANTS :

MEP CONSULTANTS :

RALYS ENGINEERING CONSULTANTS(P)Ltd.

D No.6–3–347/1 Dwarakapuri colony,
Panjagutta, Hyderabad – 500 082 Tele– +91 40 2335 0036
Email:ralys@ralysconsultants.com Web: www.ralysconsulants.com

DESIGN ARCHITECT:

design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES

4th Floor,Anasuya Commercial Complex,
Beside Remedy Hospital, Himayathnagar,
Hyderabad, Telangana - 500029
T: +91 40 23224772
Email: zakiassociates@gmail.com

NOTES :-

1. GRADE OF CONCRETE MI x SHALL BE AS FOLLOWS :
   M-30 DESIGN MIX.
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 550
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th. / 28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MI x
14. CONCRETE SHALL BE MACHINE MI x ED AND VIBRATED
15. MA x IMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C2 & C4)

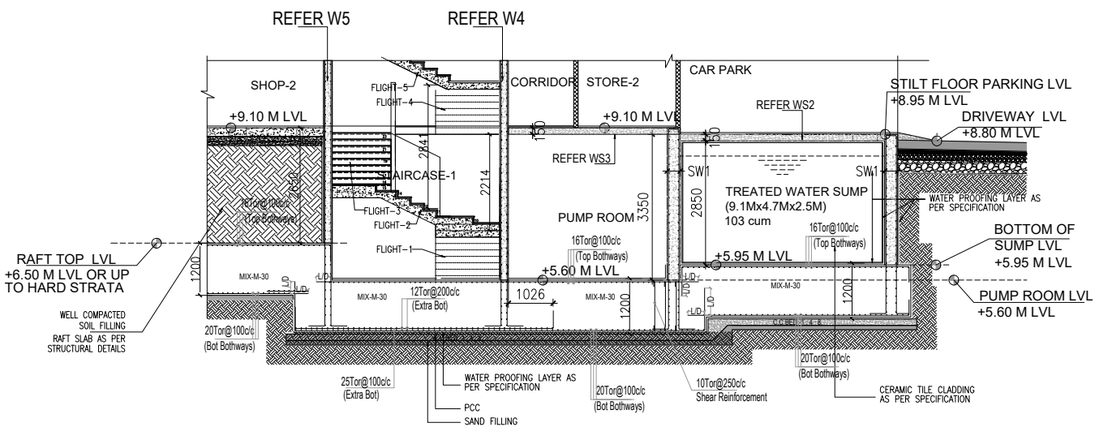
TITLE : COLUMN & FOOTING DETAIL

NOTES :
① FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
② S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
③ CURING SHALL BE DONE FOR 21 DAYS.
④ STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

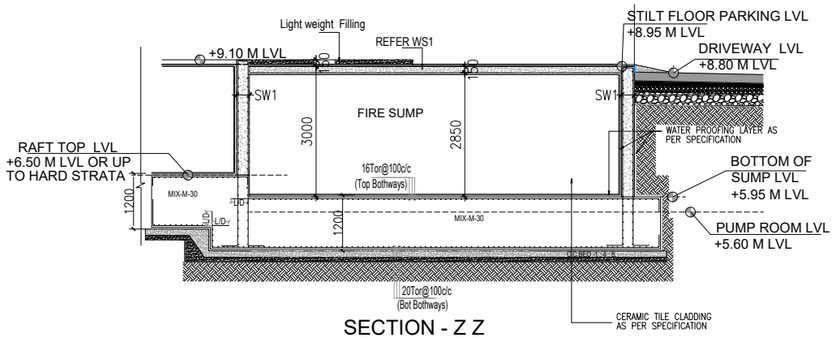
DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

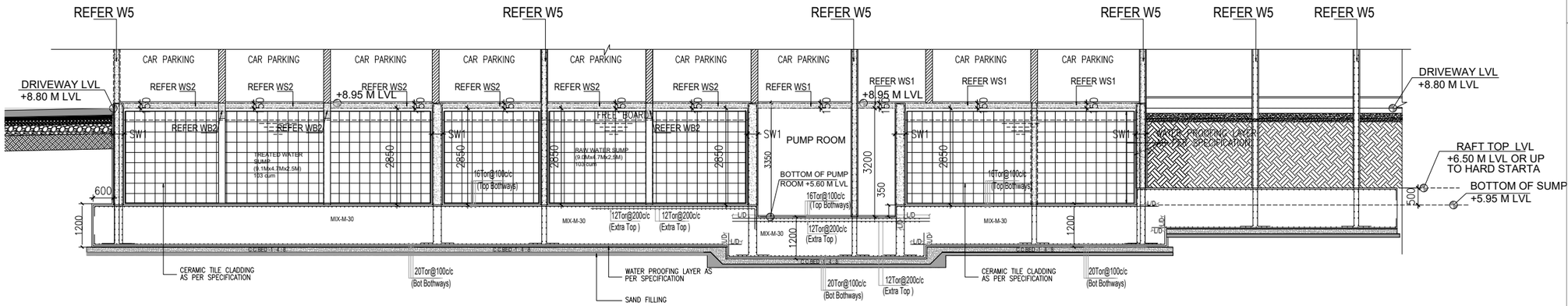
ST-02



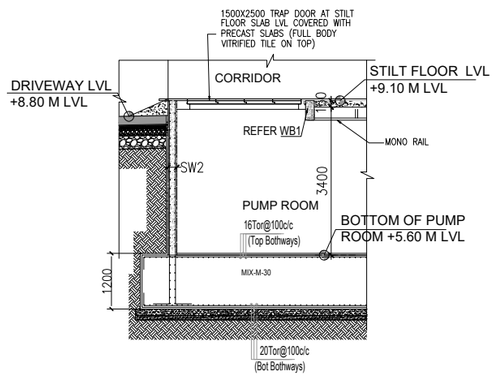
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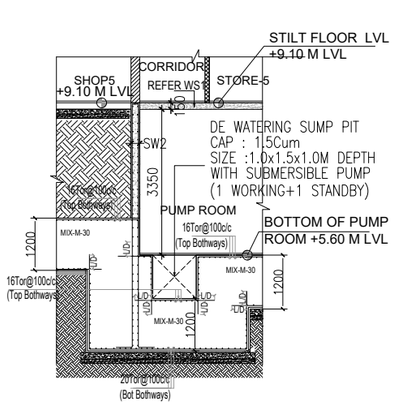
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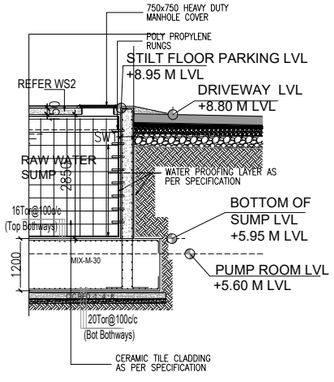
SECTION - Y Y



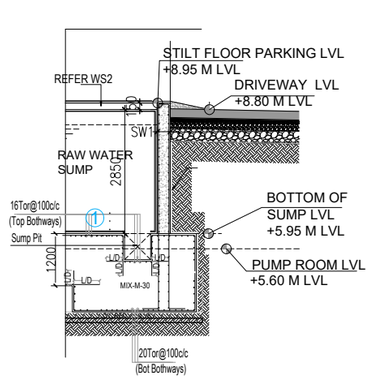
SECTION - A A



SECTION - B B

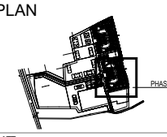


SECTION - C C



SECTION - D D

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

MEP CONSULTANTS :

MEP CONSULTANTS :
RALYS ENGINEERING CONSULTANTS(P)Ltd.
D No.6-3-347/1 Dwarakapuri colony,
Panjagutta, Hyderabad – 500 082 Tele– +91 40 2335 0036
Email:ralys@ralysconsultants.com Web: www.ralysconsulants.com

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www.crn.co.in

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ZAKI & ASSOCIATES
4th Floor,Anasuya Commercial Complex,
Beside Remedy Hospital, Himayathnagar,
Hyderabad, Telangana - 500029
T: +91 40 23224772
Email: zakiassociates@gmail.com

NOTES :-

1. GRADE OF CONCRETE M I x SHALL BE AS FOLLOWS :
   M-30 DESIGN MIX
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 550
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE
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    SHALL BE DONE WITH RICHER MI x
14. CONCRETE SHALL BE MACHINE MI x ED AND VIBRATED
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18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C2 & C4)

TITLE : UG SUMP SECTIONS

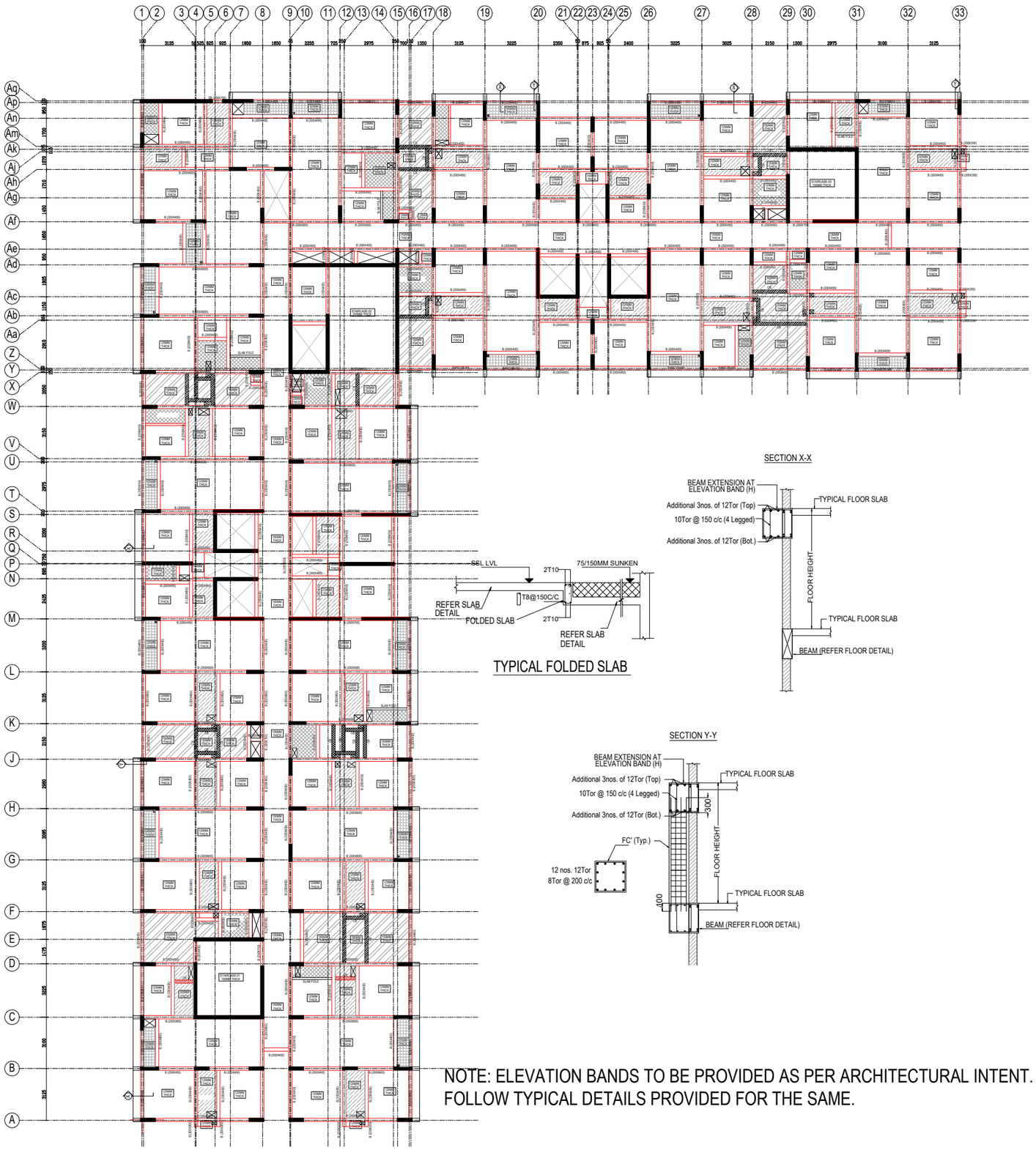
NOTES :
① FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
② S.B.C. OF SOIL ASSUMED AS 50T/ Sq.m. (as / Soil Report)
③ CURING SHALL BE DONE FOR 21 DAYS.
④ STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	APROZE	AQEEL	ZAKI AHMED

NOT TO SCALE

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

ST-05



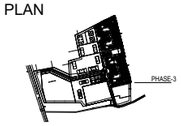
SECTION X-X

TYPICAL FOLDED SLAB

SECTION Y-Y

NOTE: ELEVATION BANDS TO BE PROVIDED AS PER ARCHITECTURAL INTENT.
FOLLOW TYPICAL DETAILS PROVIDED FOR THE SAME.

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

MEP CONSULTANTS :

MEP CONSULTANTS :
RALYS ENGINEERING CONSULTANTS(P)Ltd.
D No.6-3-347/1 Dwarakapuri colony,
Panjagutta, Hyderabad – 500 082 Tele- +91 40 2335 0036
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DESIGN ARCHITECT:

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4th Floor,Anasuya Commercial Complex,
Beside Remedy Hospital, Himayathnagar,
Hyderabad, Telangana - 500029
T: +91 40 23224772
Email: zakiassociates@gmail.com

NOTES :-

1. GRADE OF CONCRETE M x SHALL BE AS FOLLOWS :
   M-40 DESIGN MIX FOR COLUMNS & WALLS
   M-30 DESIGN MIX FOR FOOTINGS
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 550
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE
    THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR
    PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th / 28th DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MIXES THE COMMON CONCRETE
    SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MI x ED AND VIBRATED
15. MA x IMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES
    UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
12 mm	600	530	475	12 mm	480	425	380
16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C1 & C3)

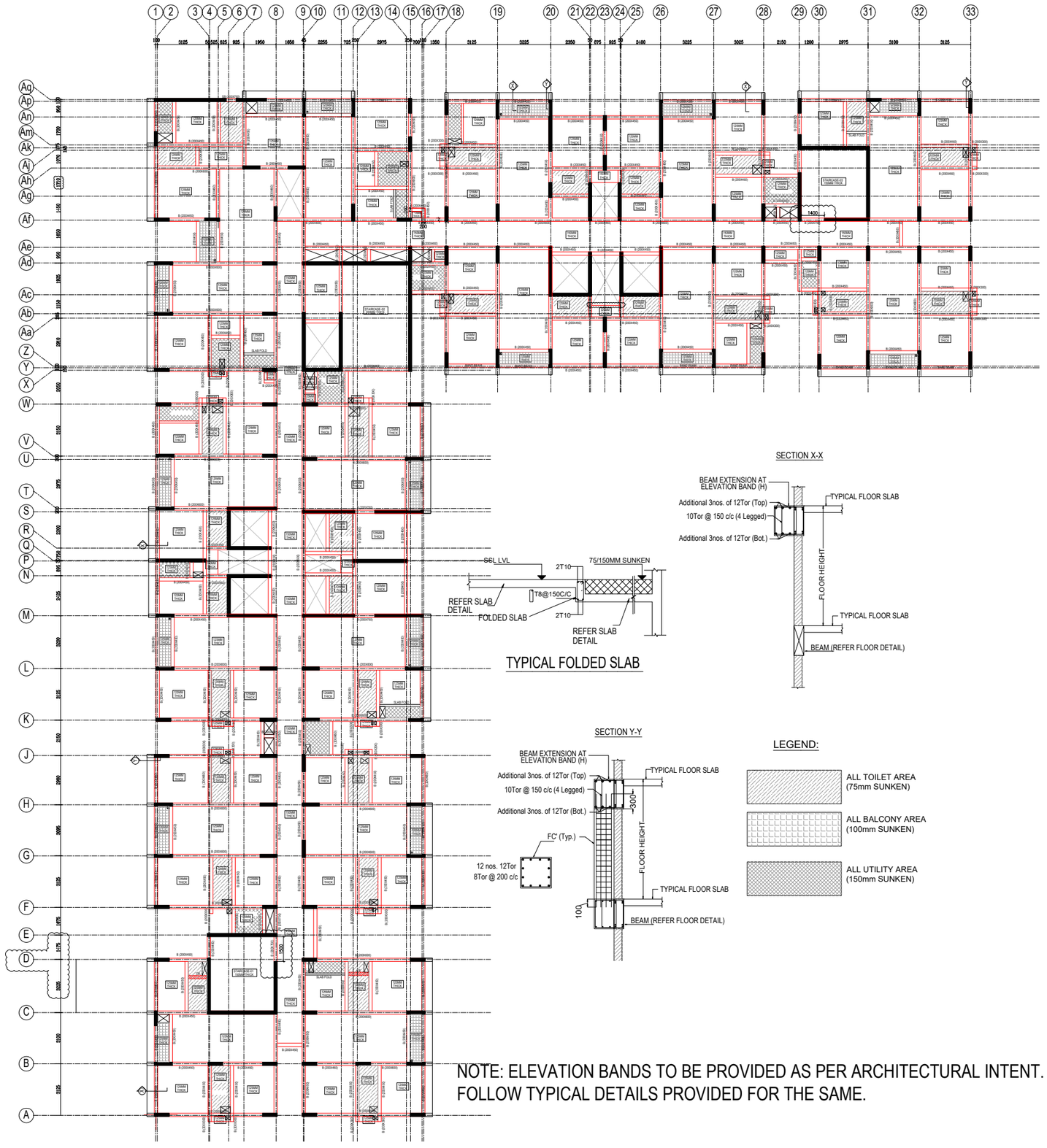
TITLE : FIRST FLOOR FRAMING DETAILS

NOTES :
1. FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
2. S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
3. CURING SHALL BE DONE FOR 21 DAYS.
4. STRUCTURE IS DESIGNED FOR SIESMICFORCES AS PER I. S. 1893 ZONE III CONDITIONS

DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

ST-06



SECTION X-X

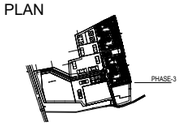
TYPICAL FOLDED SLAB

SECTION Y-Y

LEGEND:

NOTE: ELEVATION BANDS TO BE PROVIDED AS PER ARCHITECTURAL INTENT.
FOLLOW TYPICAL DETAILS PROVIDED FOR THE SAME.

KEY PLAN



CLIENT:

INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

MEP CONSULTANTS :

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DESIGN ARCHITECT:

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T: +91 40 23224772
Email: zakiassociates@gmail.com

NOTES :-

1. GRADE OF CONCRETE M x SHALL BE AS FOLLOWS :
   M-40 DESIGN MIX FOR COLUMNS & WALLS
   M-30 DESIGN MIX FOR FOOTINGS
   Fe-550
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe-550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe-550
6. REINFORCEMENT SHALL BE HIGH STRENGTH, DEFORMED BARS OF GRADE Fe 550 & Fe 415 CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th / 28th. DAY
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DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION				IN COMPRESSION			
GRADE OF CONCRETE				GRADE OF CONCRETE			
DIA	M-30	M-35	M-40 & ABOVE	DIA	M-30	M-35	M-40 & ABOVE
8 mm	400	355	315	8 mm	320	285	255
10 mm	500	440	395	10 mm	400	355	315
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16 mm	800	705	630	16 mm	640	565	505
20 mm	1000	880	790	20 mm	800	705	630
25 mm	1250	1100	985	25 mm	1000	880	790
32 mm	1595	1410	1260	32 mm	1280	1130	1010

PROJECT : INCOR - PHASE-III (BLOCK-C1 & C3)

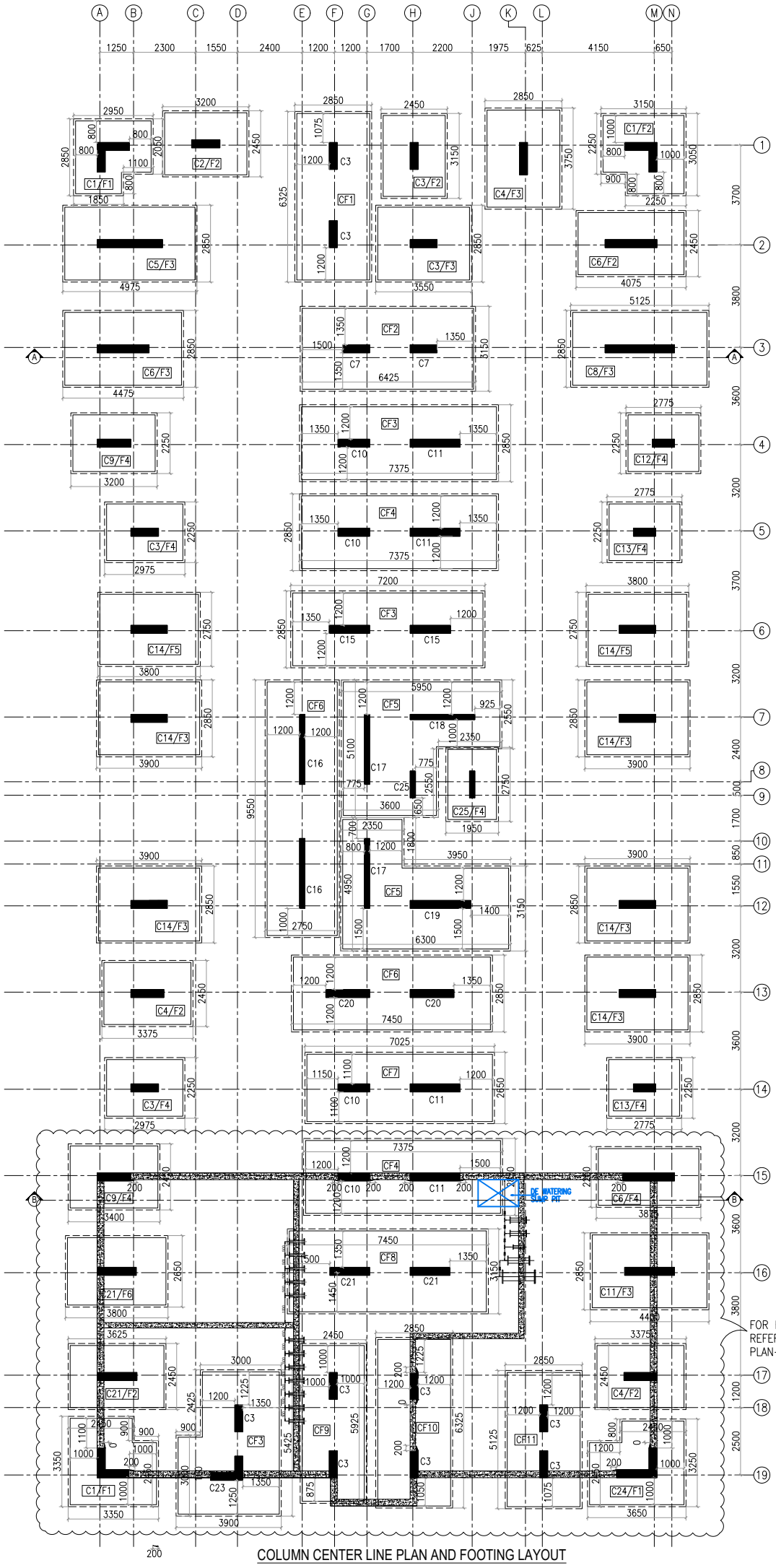
TITLE : TYPICAL FLOOR FRAMING DETAILS

NOTES :
1. FOUNDATION DESIGNED FOR S + 14 FLOORS ONLY.
2. S.B.C. OF SOIL ASSUMED AS 40T/ Sq.m. (as / Soil Report)
3. CURING SHALL BE DONE FOR 21 DAYS.
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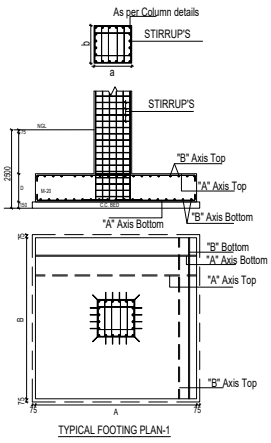
DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			05-10-2024	IRSHAD	FAISAL	ZAKI AHMED

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.67

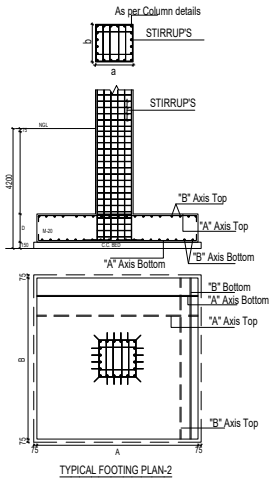
ST-07



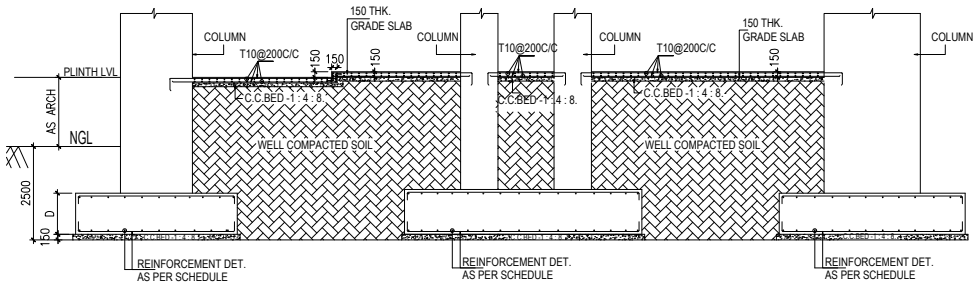
COLUMN CENTER LINE PLAN AND FOOTING LAYOUT



TYPICAL FOOTING PLAN-1



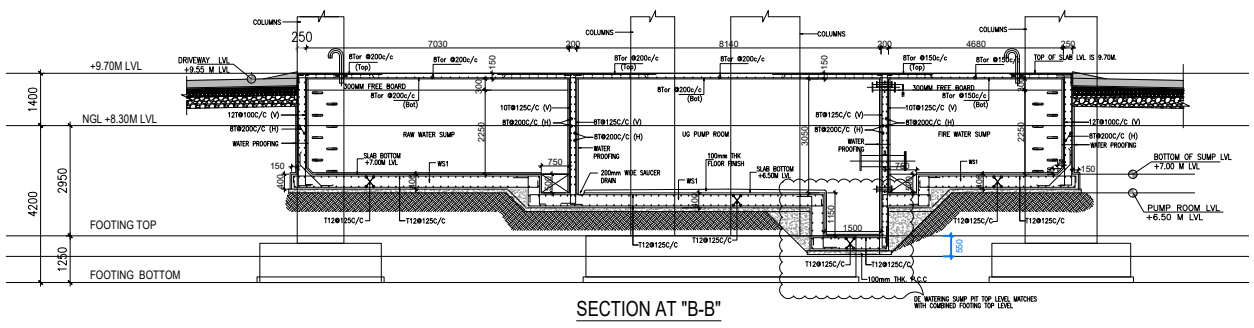
TYPICAL FOOTING PLAN-2



SECTION AT "A-A"

SCHEDULE OF FOOTINGS

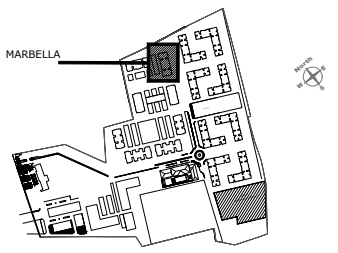
FOOTINGS NO	FOOTING SIZE A	B	D	REINFORCEMENT BOTTOM ALONG 'A' AXIS	BOTTOM ALONG 'B' AXIS	TOP ALONG 'A' AXIS	TOP ALONG 'B' AXIS	SIDE REINFORCEMENT	Grade of Concrete for Footings
F1	AS PER PLAN		900	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	-----	-----	12tor @ 100 c/c	M-30 Fe-550
F2	AS PER PLAN		900	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	-----	-----	12tor @ 100 c/c	M-30 Fe-550
F3	AS PER PLAN		1100	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	10 Tor @ 200 c/c	10 Tor @ 200 c/c	12tor @ 100 c/c	M-30 Fe-550
F4	AS PER PLAN		900	16tor @ 175 c/c(bot)	16tor @ 175 c/c(bot)	-----	-----	12tor @ 100 c/c	M-30 Fe-550
F5	AS PER PLAN		1100	16tor @ 135 c/c(bot)	16tor @ 135 c/c(bot)	10 Tor @ 200 c/c	10 Tor @ 200 c/c	12tor @ 100 c/c	M-30 Fe-550
F6	AS PER PLAN		1000	16tor @ 135 c/c(bot)	16tor @ 135 c/c(bot)	10 Tor @ 200 c/c	10 Tor @ 200 c/c	12tor @ 100 c/c	M-30 Fe-550
CF1	AS PER PLAN		1100	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF2	AS PER PLAN		1200	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	12tor @ 150 c/c(top)	12tor @ 150 c/c(top)	12tor @ 100 c/c	M-30 Fe-550
CF3	AS PER PLAN		1100	16tor @ 100 c/c(bot)	16tor @ 100 c/c(bot)	16tor @ 150 c/c(top)	16tor @ 150 c/c(top)	12tor @ 100 c/c	M-30 Fe-550
CF4	AS PER PLAN		1100	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF5	AS PER PLAN		1200	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF6	AS PER PLAN		1100	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	16tor @ 125 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF7	AS PER PLAN		1000	16tor @ 100 c/c(bot)	16tor @ 100 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF8	AS PER PLAN		1200	20tor @ 125 c/c(bot)	20tor @ 125 c/c(bot)	16tor @ 125 c/c(top)	16tor @ 125 c/c(top)	12tor @ 100 c/c	M-30 Fe-550
CF9	AS PER PLAN		900	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF10	AS PER PLAN		1000	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	16tor @ 150 c/c(bot)	12tor @ 100 c/c	M-30 Fe-550
CF11	AS PER PLAN		1100	20tor @ 125 c/c(bot)	20tor @ 125 c/c(bot)	16tor @ 150 c/c(top)	16tor @ 150 c/c(top)	12tor @ 100 c/c	M-30 Fe-550



SECTION AT "B-B"

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

KEY PLAN :-



design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

C R NARAYANA RAO

NOTES :-

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
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   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
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GOOD FOR CONSTRUCTION
DATE : 18-07-2024

REV.	DESCRIPTION	DATE	BY
R5	REVISED AS PER ARCH.COMMENTS	18.07.2024	VAMSHI
R4	REVISED AS PER ARCH.COMMENTS	24.06.2024	VAMSHI
R3	REVISED AS PER ARCH.COMMENTS	10.04.2024	VAMSHI
R2	SUMP REVISION UPDATED	14.03.2024	VAMSHI
R1	COLUMN SIZES UPDATED	06.03.2024	VAMSHI

DEVELOPMENT LENGTH OF BARS FOR Fe-500 GRADE

IN TENSION — GRADE OF CONCRETE						IN COMPRESSION — GRADE OF CONCRETE					
DIA	M-20	M-25	M-30	M-35	M-40	DIA	M-20	M-25	M-30	M-35	M-40
8 mm	455	390	365	320	290	8 mm	365	315	290	260	230
10 mm	570	485	455	400	360	10 mm	455	390	365	320	290
12 mm	680	585	545	480	430	12 mm	545	470	435	385	345
16 mm	910	780	725	640	575	16 mm	725	625	580	515	460
20 mm	1135	975	910	800	715	20 mm	910	780	725	640	575
25 mm	1420	1215	1135	1000	895	25 mm	1135	975	910	820	715
32 mm	1815	1555	1450	1280	1145	32 mm	1450	1245	1160	1025	920

PROJECT :

INCOR - PHASE-III - MARBELLA [B5 & B6]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD

1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

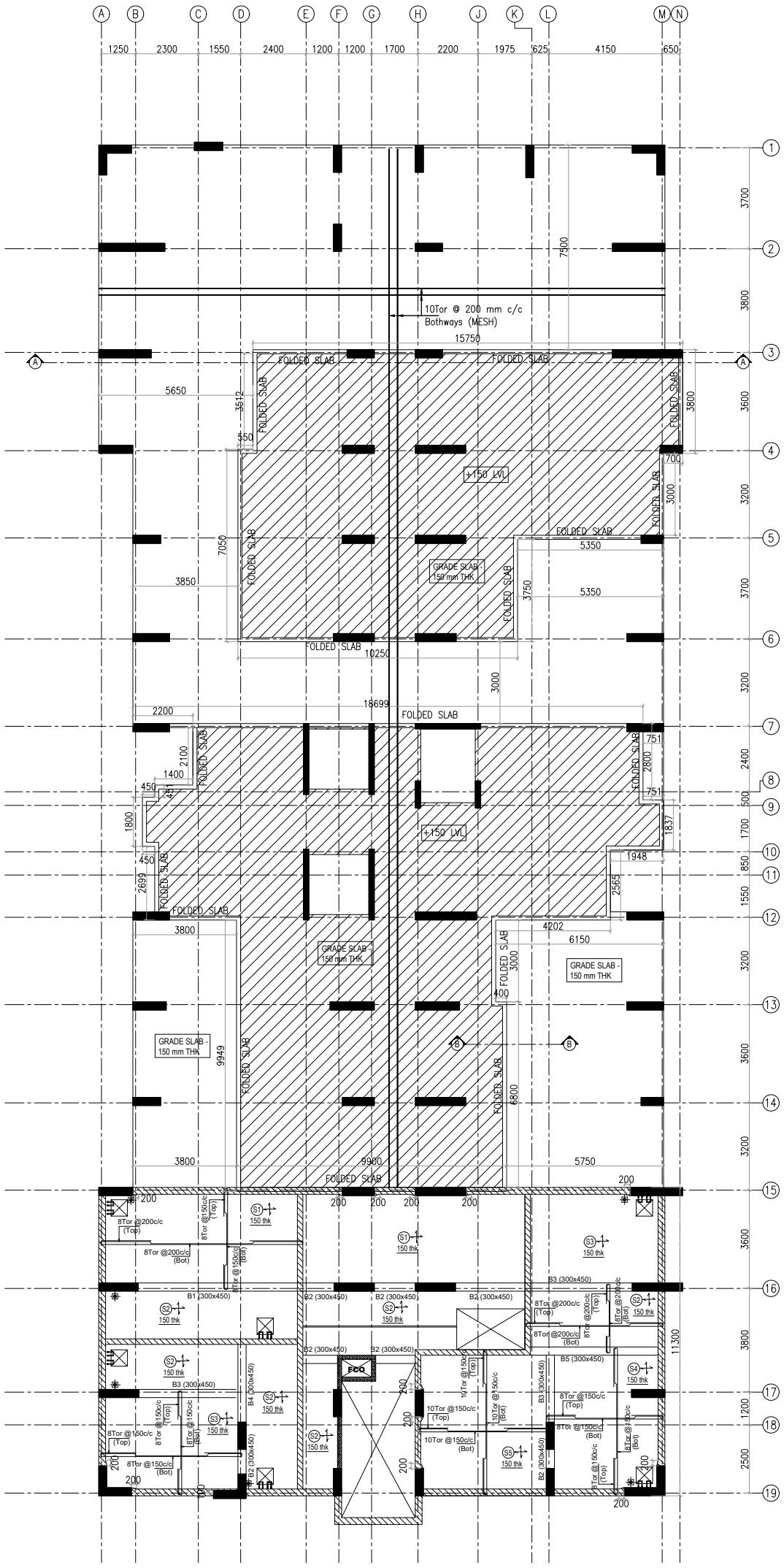
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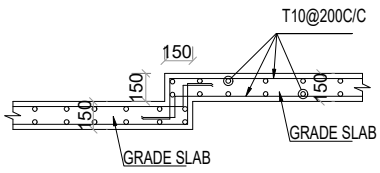
STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

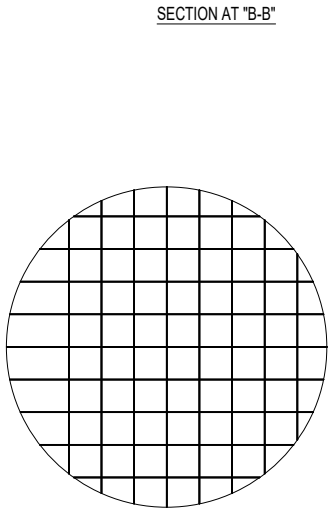
TITLE :-
COLUMN CENTER LINE PLAN, FOOTING LAYOUT, SCHEDULE OF FOOTINGS & GRADE SLAB DETAILS

SCALE:	DEALT:	CHECKED:	DRAWN:	APPROVED:
1:100	TEJA	VAMSHI	NAVANEETHA	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-07-2024	ZA/INCOR/PH-111/MRBL/B5/ST-01		R5

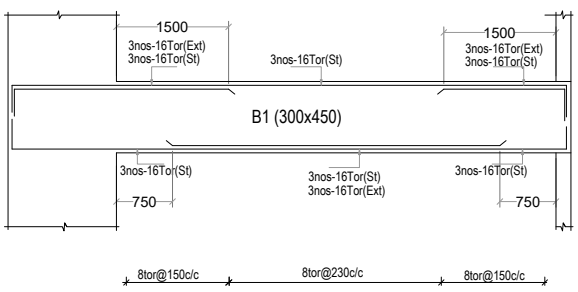


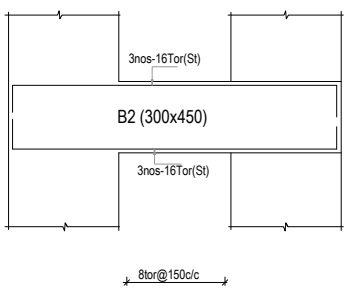


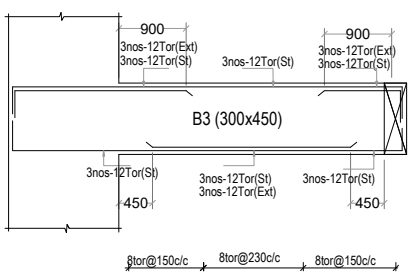
SECTION AT "B-B"

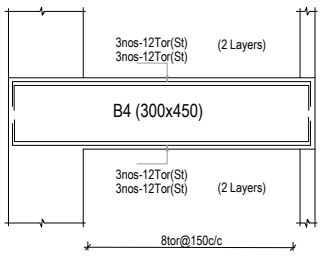


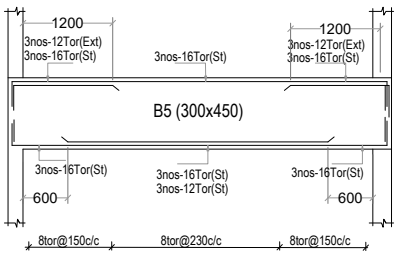
GRADE SLAB – 150 mm THK
10Tor @ 200 mm c/c Bothways (MESH)





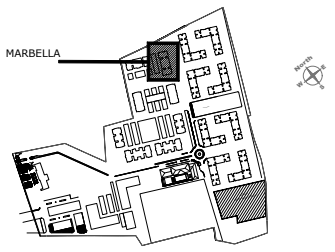






TYPICAL CUT OUT DETAILS

KEY PLAN :-



design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

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incor

STRUCTURAL CONSULTANT:

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4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

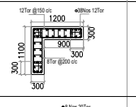
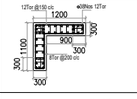
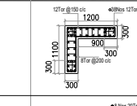
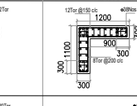
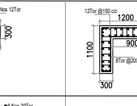
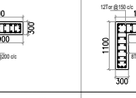
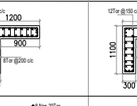
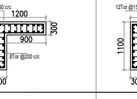
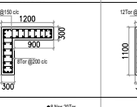
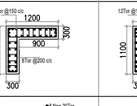
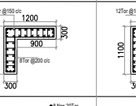
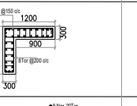
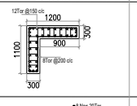
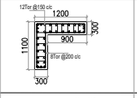
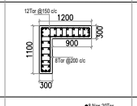
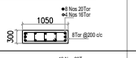
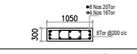
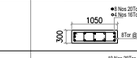
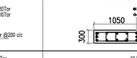
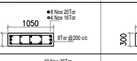
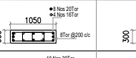
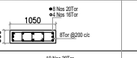
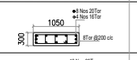
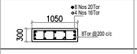
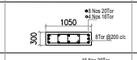
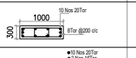
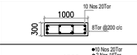
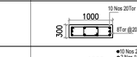
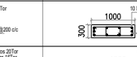
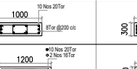
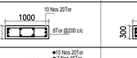
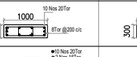
ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

GOOD FOR CONSTRUCTION
DATE : 20-07-2024

TITLE :-
GRADE SLAB DETAILS

SCALE:	DEALT:	CHECKED:	DRAWN:	APPROVED:
1:100	TEJA	VAMSHI	NAVANEETHA	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-02-2024	ZA/INCOR/PH-111/MRBL/B5/ST-01A		R5

SCHEDULE OF COLUMNS

COLUMN No.	COLUMN SIZE a	b	UPTO 1st Floor M-40 Fe-500	UPTO 2nd Floor M-40 Fe-500	UPTO 3rd Floor M-40 Fe-500	UPTO 4th Floor M-40 Fe-500	UPTO 5th Floor M-35 Fe-500	UPTO 6th Floor M-35 Fe-500	UPTO 7th Floor M-35 Fe-500	UPTO 8th Floor M-35 Fe-500	UPTO 9th Floor M-30 Fe-500	UPTO 10th Floor M-30 Fe-500	UPTO 11th Floor M-30 Fe-500	UPTO 12th Floor M-30 Fe-500	UPTO 13th Floor M-30 Fe-500	UPTO 14th Floor M-30 Fe-500	TERRACE M-30 Fe-500
C1	AS PER PLAN																
C2	300	1050															
C3	300	1000															
C4	300	1200															
C5	300	2425															
C6	300	1925															
C7	300	1000															
C8	300	2575															
C9	300	1250															
C10	300	1175															
C11	300	1850															
C12	300	825															
C13	300	825															
C14	300	1350															
C15	300	1500															
C16	200	2600															
C17	200	2600															
C18	200	2400															
C19	300	2250															
C20	300	1625															
C21	300	1475															
C22					NOT IN USE				NOT IN USE						NOT IN USE		
C23	AS PER PLAN																
C24	AS PER PLAN																
C25	200	1000															

GOOD FOR CONSTRUCTION

DATE : 20-07-2024

design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

NOTES :-

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS
20. GRADE OF CONCRETE SHALL BE OF HIGHER MIX IN CASE OF MULTIPLE JUNCTION

REV.	DESCRIPTION	DATE	BY
R1	COLUMN SIZES UPDATED	06.03.2024	VAMSHI

DEVELOPMENT LENGTH OF BARS FOR Fe-500 GRADE

IN TENSION GRADE OF CONCRETE						IN COMPRESSION GRADE OF CONCRETE					
DIA	M-20	M-25	M-30	M-35	M-40	DIA	M-20	M-25	M-30	M-35	M-40
8 mm	455	390	365	320	290	8 mm	365	315	290	260	230
10 mm	570	485	455	400	360	10 mm	455	390	365	320	290
12 mm	680	585	545	480	430	12 mm	545	470	435	385	345
16 mm	910	780	725	640	575	16 mm	725	625	580	515	460
20 mm	1135	975	910	800	715	20 mm	910	780	725	640	575
25 mm	1420	1215	1135	1000	895	25 mm	1135	975	910	820	715
32 mm	1815	1555	1450	1280	1145	32 mm	1450	1245	1160	1025	920

PROJECT :

INCOR - PHASE-III - MARBELLA [B5 & B6]

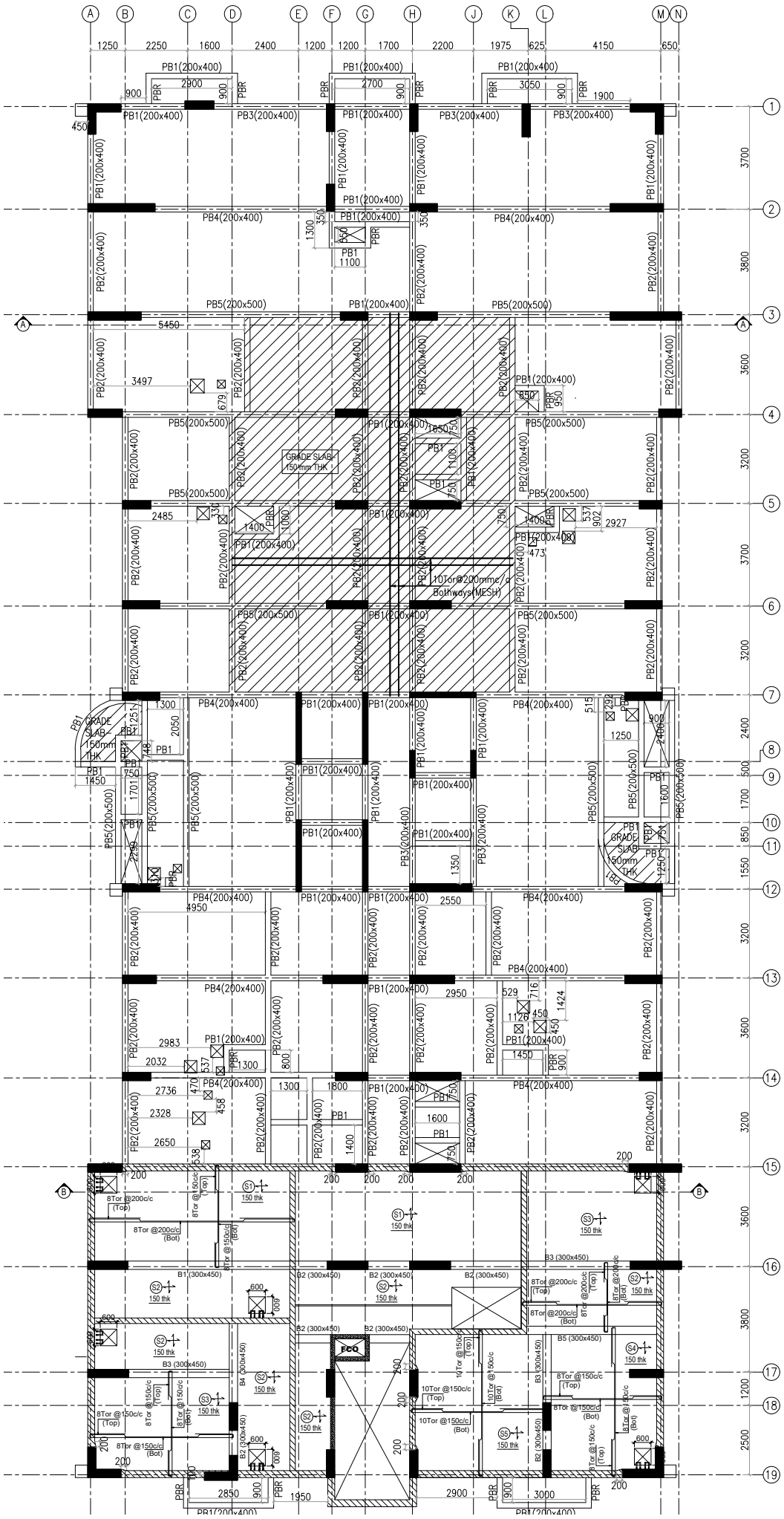
CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

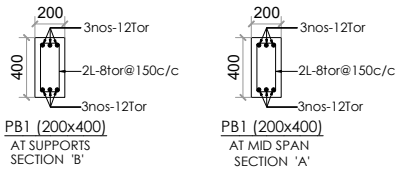
STRUCTURAL CONSULTANT:

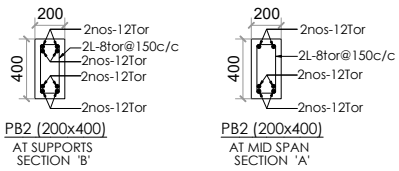
ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

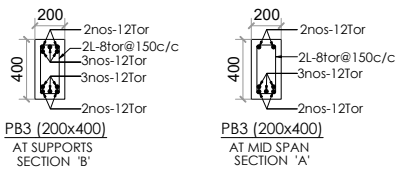
ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

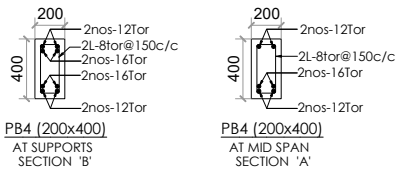
TITLE :-	SCHEDULE OF COLUMNS			
SCALE:	DEALT:	CHECKED:	DRAWN:	APPROVED:
1:100	TEJA	VAMSHI	NAVANEETHA	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-02-2024	ZA/INCOR/PH-111/MRBL/B5/ST-02		R1

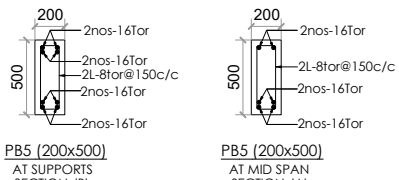


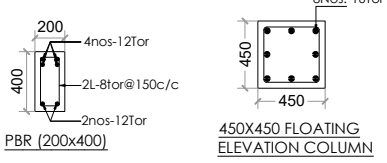


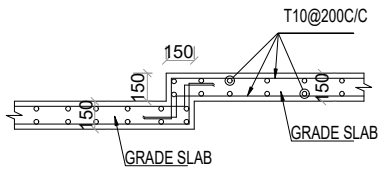


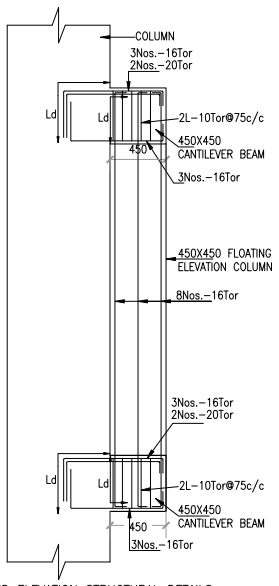




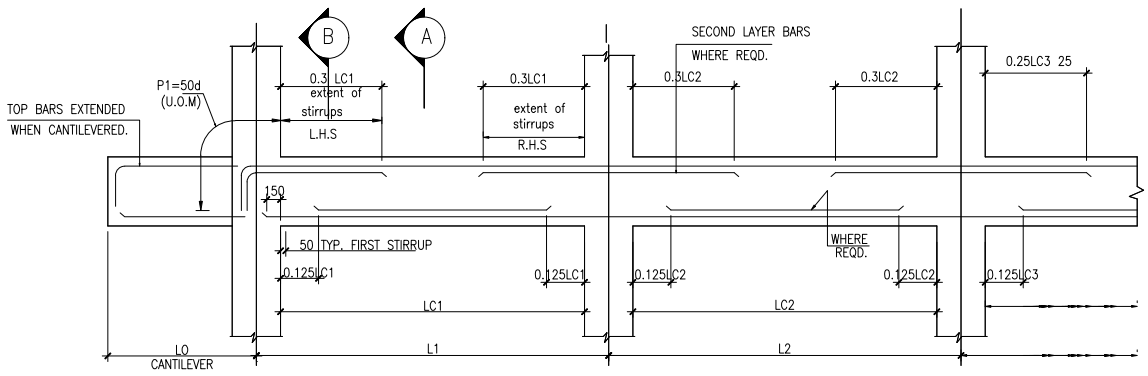




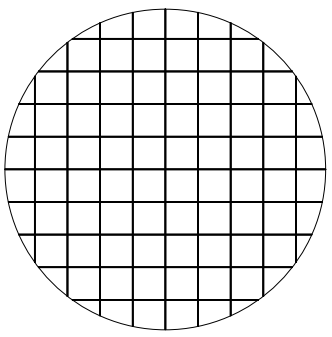




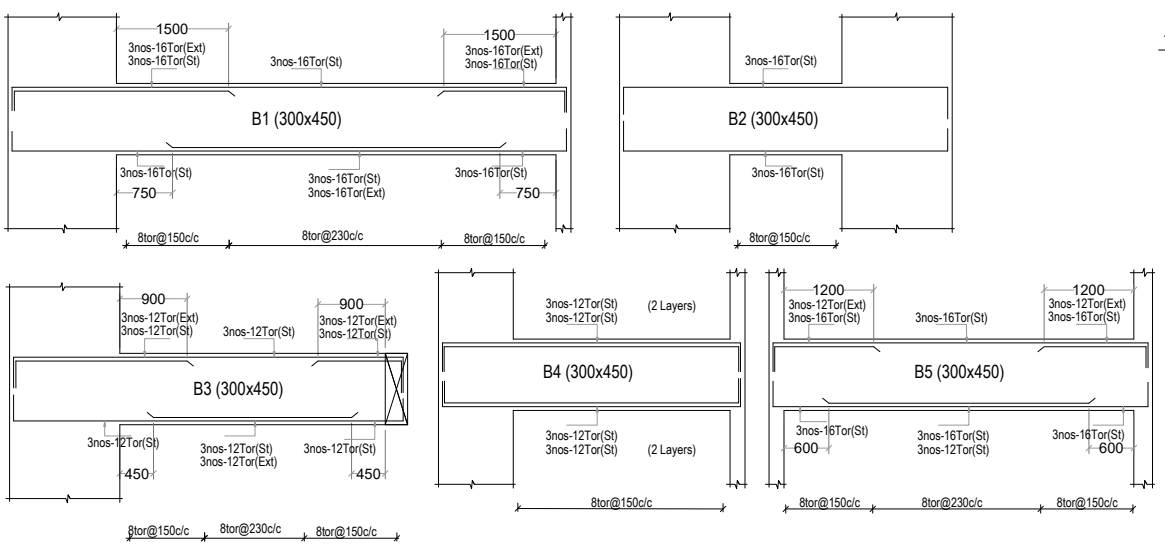
TYPICAL BAND ELEVATION STRUCTURAL DETAILS PERTAINING TO ALL FLOORS AS PER ARCHITECTURAL REQUIREMENT

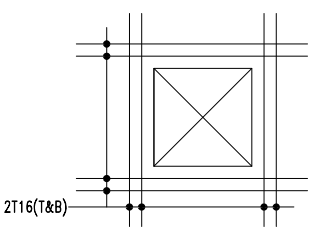


TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAMS



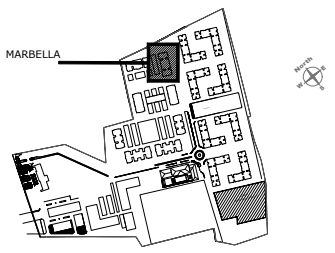
GRADE SLAB – 150 mm THK
10Tor @ 200 mm c/c Bothways (MESH)





TYPICAL CUT OUT DETAILS

KEY PLAN :-



design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

NOTES :-

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
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9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
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ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

REV.	DESCRIPTION	DATE	BY
R6	REVISED AS PER ARCHITECTURAL DRAWING	30.10.2024	VAMSHI
R5	REVISED AS PER ARCH.COMMENTS	18.07.2024	VAMSHI
R4	REVISED AS PER ARCH.COMMENTS	24.06.2024	VAMSHI
R3	REVISED AS PER ARCH.COMMENTS	10.04.2024	VAMSHI
R2	SUMP REVISION UPDATED	14.03.2024	VAMSHI
R1	COLUMN SIZES UPDATED	06.03.2024	VAMSHI

DEVELOPMENT LENGTH OF BARS FOR Fe-500 GRADE

	IN TENSION						IN COMPRESSION					
	GRADE OF CONCRETE						GRADE OF CONCRETE					
DIA	M-20	M-25	M-30	M-35	M-40		DIA	M-20	M-25	M-30	M-35	M-40
8 mm	455	390	365	320	290		8 mm	365	315	290	260	230
10 mm	570	485	455	400	360		10 mm	455	390	365	320	290
12 mm	680	585	545	480	430		12 mm	545	470	435	385	345
16 mm	910	780	725	640	575		16 mm	725	625	580	515	460
20 mm	1135	975	910	800	715		20 mm	910	780	725	640	575
25 mm	1420	1215	1135	1000	895		25 mm	1135	975	910	820	715
32 mm	1815	1555	1450	1280	1145		32 mm	1450	1245	1160	1025	920

PROJECT :

INCOR - PHASE-III - MARBELLA [B5 & B6]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

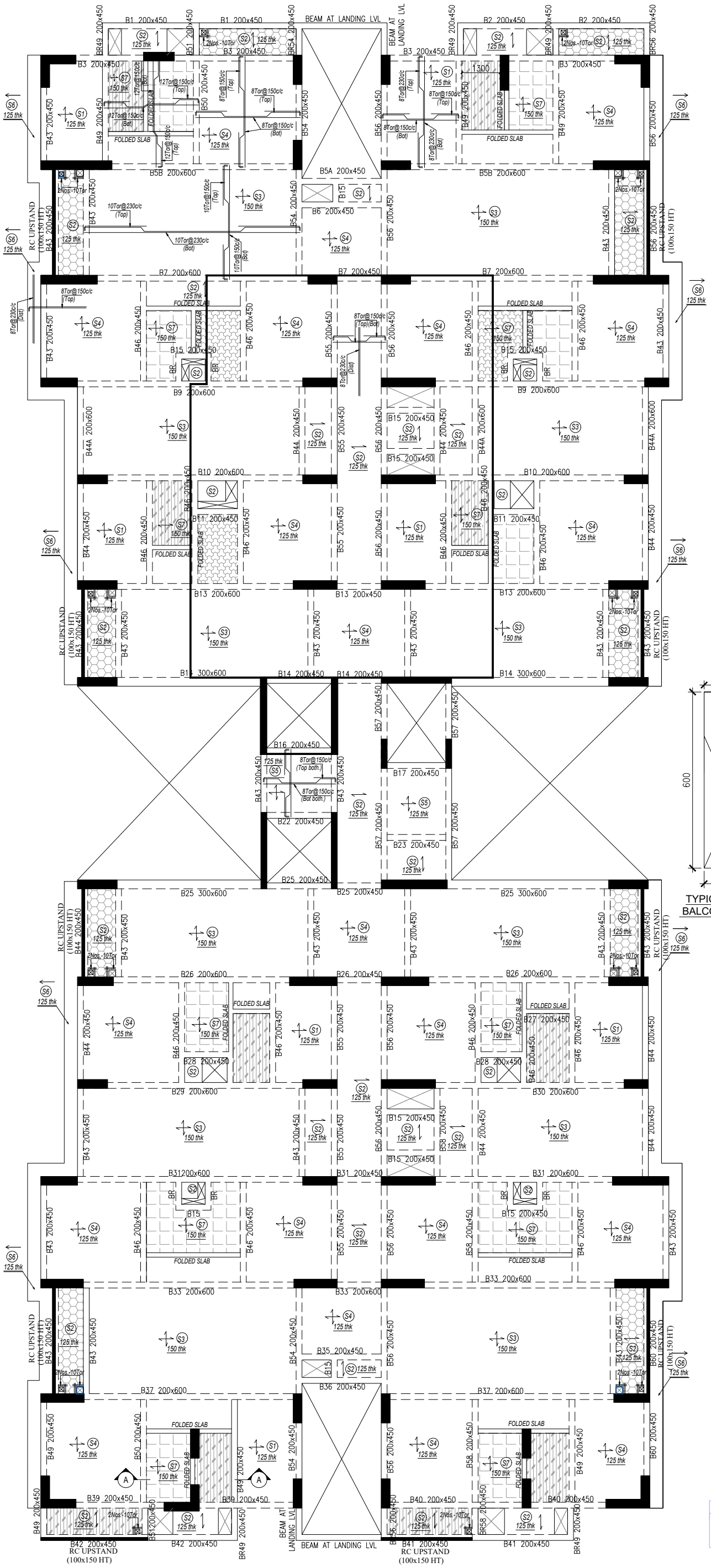
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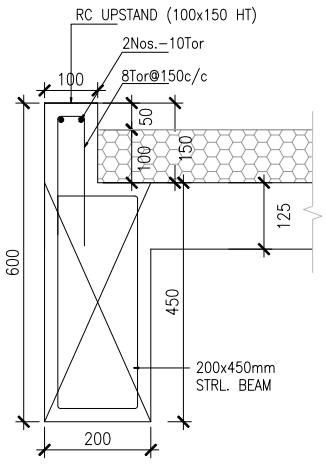
ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

TITLE :-
PLINTH BEAM DETAILS

SCALE:	DEALT:	CHECKED:	DRAWN:	APPROVED:
1:100	TEJA	VAMSHI	NAVANEETHA	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-09-2024	ZA/INCOR/PH-111/MRBL/B5/ST-01A		R6

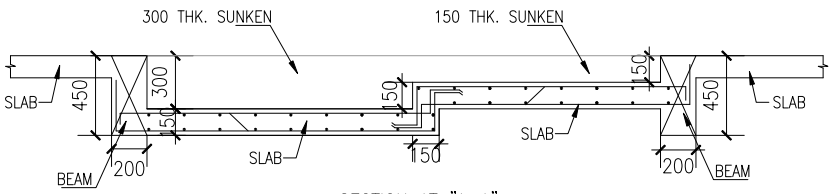
GOOD FOR CONSTRUCTION
DATE : 30.10.2024





TYPICAL SECTION OF
BALCONY RC UPSTAND

1st FLOOR SLAB & BEAM LAYOUT



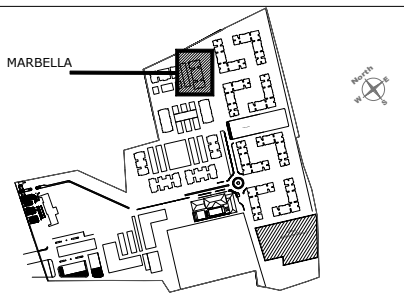
SECTION AT "A–A"

LEGEND:

- SLAB SUNKEN BY 75MM [TOILETS]
- SLAB SUNKEN BY 300MM [TOILETS]
- SLAB SUNKEN BY 150MM FOR UTILITY
- SLAB SUNKEN BY 100MM FOR BALCONY

GOOD FOR CONSTRUCTION
DATE :30.10.2024

KEY PLAN :-



design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

CRN
C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

NOTES :

1. *CRANKING OF BARS SHOULD BE DONE @ 1/4 TH OF THE SPAN @ AN ANGLE OF 45°.*
2. *MIX SHALL BE M25 (1:1:2) WITH W/C RATIO 0.40.*
3. *COVERING FOR MAIN STEEL SHALL BE 15mm FOR SLABS &25mmFOR BEAMS.*
4. *CURING SHALL BE DONE FOR 21 DAYS.*

NOTES :-

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS
20. GRADE OF CONCRETE SHALL BE OF HIGHER MIX IN CASE OF MULTIPLE JUNCTION

REV.	DESCRIPTION	DATE	BY
R1	REVISED AS PER CLIENT & ARCH. COMMENTS	30.10.2024	VAMSHI

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION						IN COMPRESSION					
	GRADE OF CONCRETE						GRADE OF CONCRETE				
DIA	M-20	M-25	M-30	M-35	M-40	DIA	M-20	M-25	M-30	M-35	M-40
8 mm	572	495	460	410	365	8 mm	460	400	370	330	295
10 mm	715	616	575	510	455	10 mm	575	500	460	410	365
12 mm	860	740	690	625	550	12 mm	690	590	550	485	440
16 mm	1145	980	920	810	730	16 mm	920	790	740	650	585
20 mm	1435	1230	1150	1015	910	20 mm	1150	990	920	810	730
25 mm	1790	1535	1430	1270	1130	25 mm	1430	1230	1145	1015	905
32 mm	2295	1965	1840	1620	1450	32 mm	1840	1580	1470	1300	1160

PROJECT :

INCOR - PHASE-III - MARBELLA [B5 & B6]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD

1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

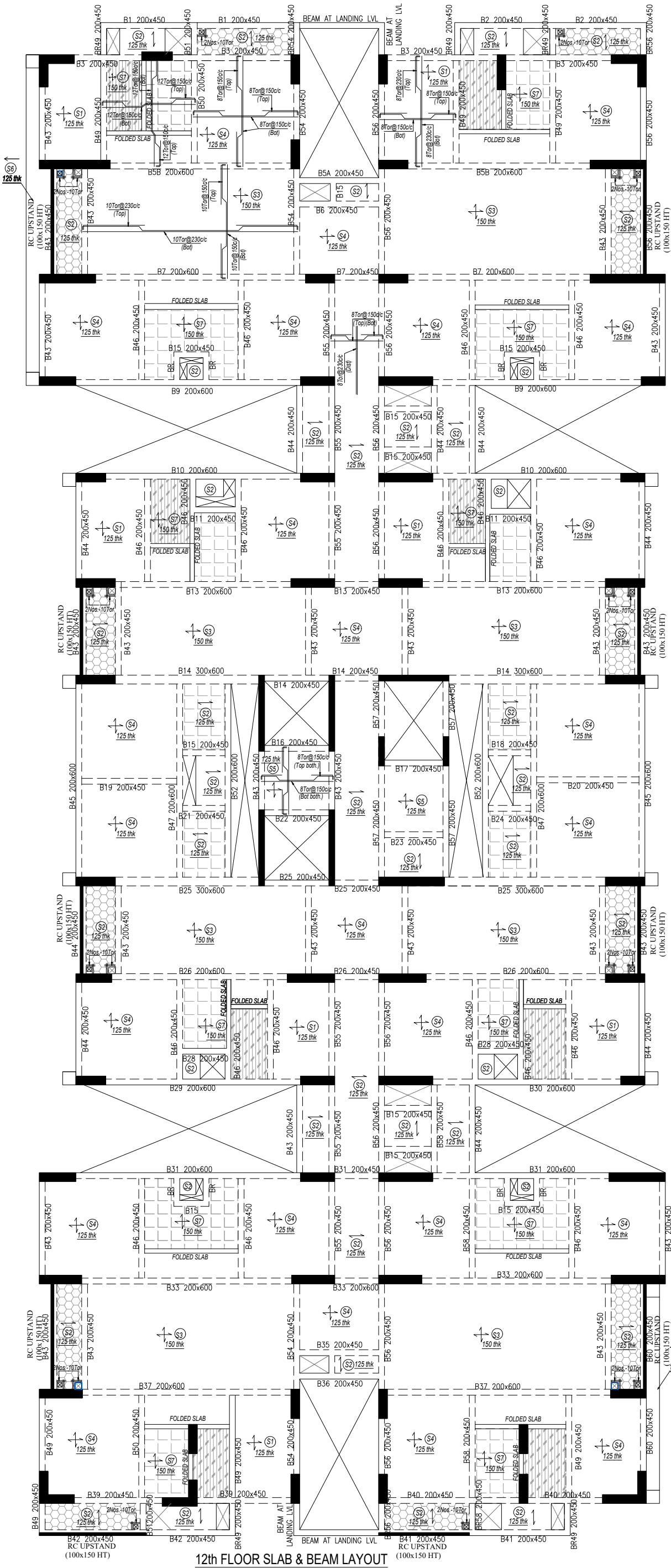
incor

STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

TITLE :-			
1st FLOOR SLAB & BEAM LAYOUT			
SCALE:	DEALT:	CHECKED:	DRAWN:	APPROVED:
1:100	TEJA	VAMSHI	AZHAR	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-02-2024	ZA/INCOR/PH-111/MRBL/B5/ST-03		R1



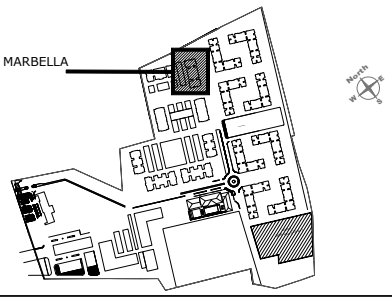
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- SLAB SUNKEN BY 150MM FOR UTILITY
- SLAB SUNKEN BY 100MM FOR BALCONY

GOOD FOR CONSTRUCTION
DATE :30.10.2024

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

KEY PLAN :-



design | interiors | engineering | construction management

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   * COLUMNS
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REV.	DESCRIPTION	DATE	BY
R1	REVISED AS PER CLIENT & ARCH. COMMENTS	30.10.2024	VAMSHI

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

IN TENSION						IN COMPRESSION					
GRADE OF CONCRETE						GRADE OF CONCRETE					
DIA	M-20	M-25	M-30	M-35	M-40	DIA	M-20	M-25	M-30	M-35	M-40
8 mm	572	495	460	410	365	8 mm	460	400	370	330	295
10 mm	715	616	575	510	455	10 mm	575	500	460	410	365
12 mm	860	740	690	625	550	12 mm	690	590	550	485	440
16 mm	1145	980	920	810	730	16 mm	920	790	740	650	585
20 mm	1435	1230	1150	1015	910	20 mm	1150	990	920	810	730
25 mm	1790	1535	1430	1270	1130	25 mm	1430	1230	1145	1015	905
32 mm	2295	1965	1840	1620	1450	32 mm	1840	1580	1470	1300	1160

PROJECT :

INCOR - PHASE-III - MARBELLA [B5 & B6]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD

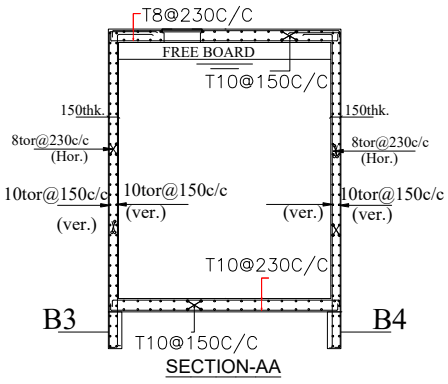
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

STRUCTURAL CONSULTANT:

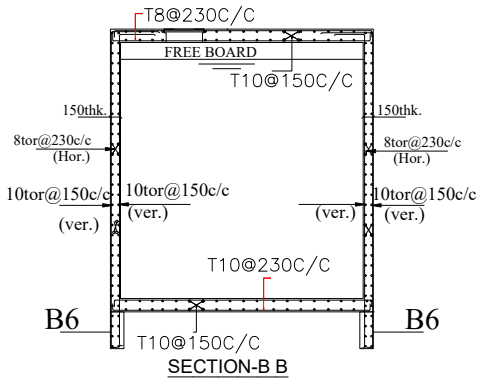
ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

TITLE :- TYPICAL FLOOR SLAB & BEAM LAYOUT

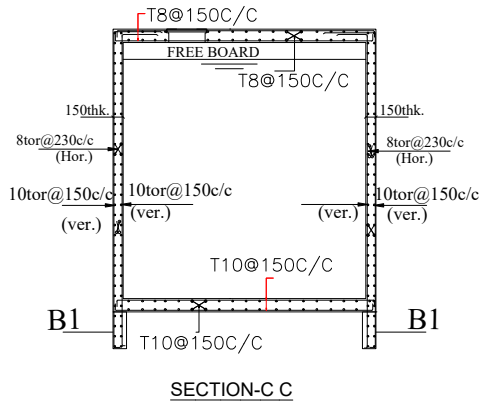
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1:100	TEJA	VAMSHI	AZHAR	ZAKI AHMED
JOB NO:	DATE:	DRG NO:		REV:
	20-02-2024	ZA/INCOR/PH-111/MRBL/B5/ST-14		R1



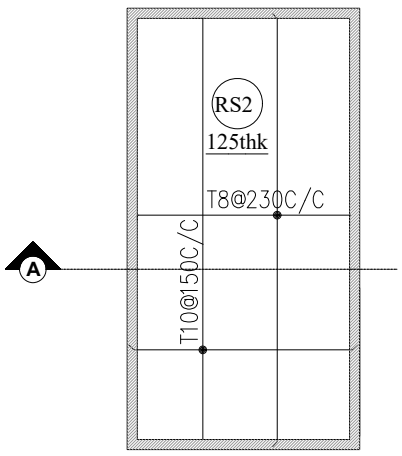
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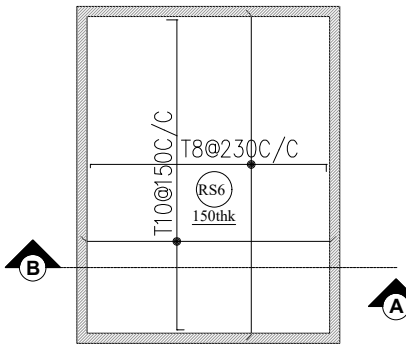
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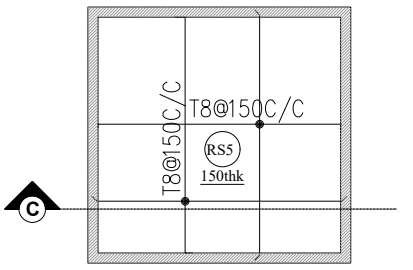
SECTION-C C



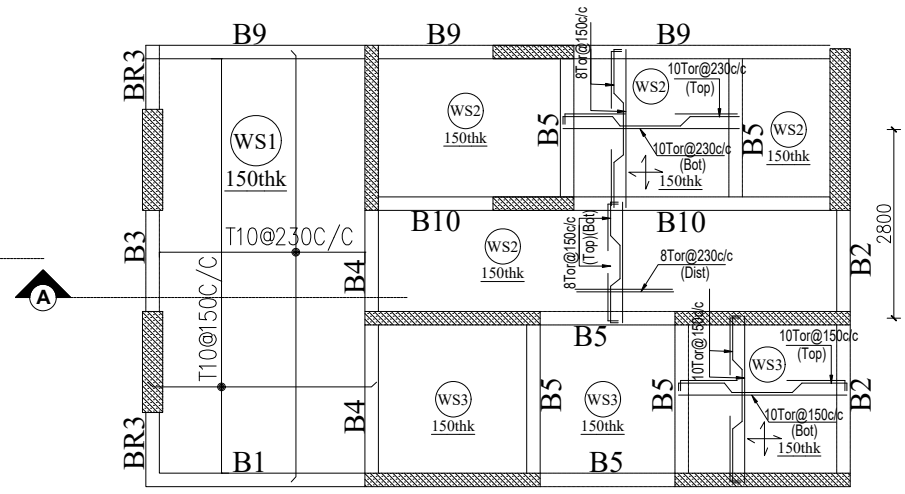
OHT TOP SLAB



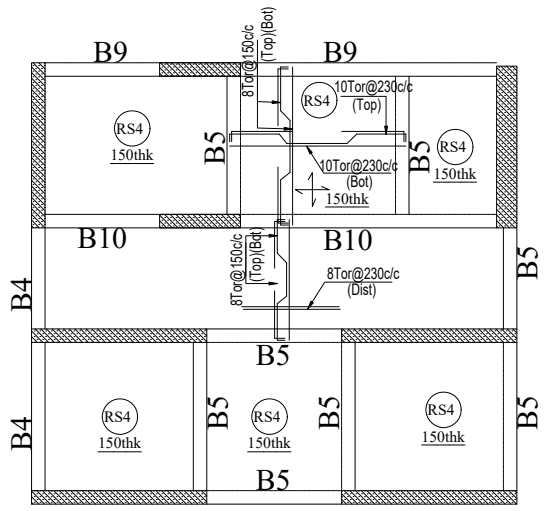
OHT TOP SLAB



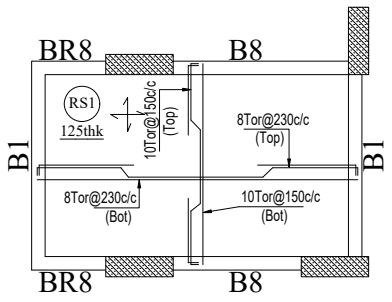
OHT TOP SLAB



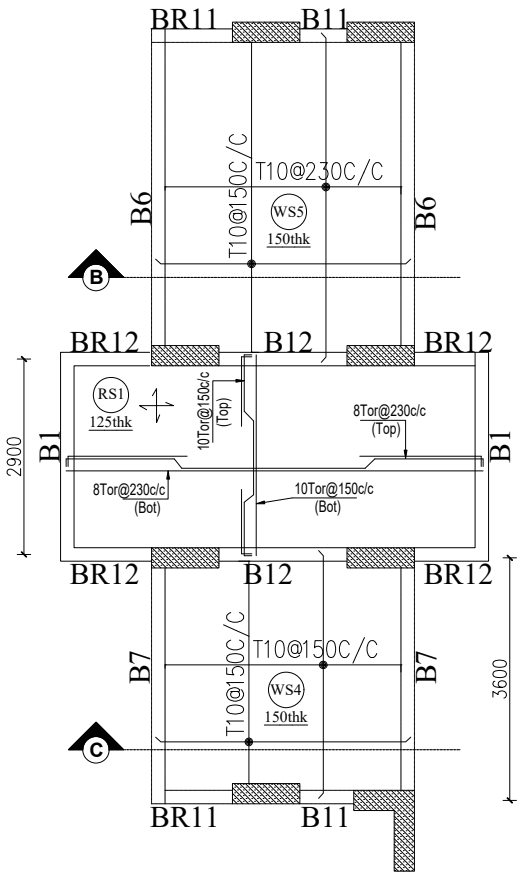
OHT BOTTOM SLAB & LMR BOTTOM SLAB



LMR TOP SLAB

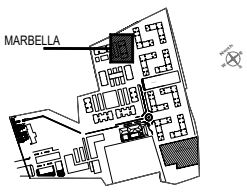


HEAD ROOM TOP SLAB



OHT BOTTOM SLAB & HEAD ROOM TOP SLAB

KEY PLAN :-



design | interiors | engineering | construction management

C.R.Narayana Rao (Consultants) Private Limited

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
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OREINTATION



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*M40
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DEVELOPMENT LENGTH OF BARS FOR Fe-500 GRADE

IN TENSION						IN COMPRESSION					
GRADE OF CONCRETE						GRADE OF CONCRETE					
DIA	M-20	M-25	M-30	M-35	M-40	DIA	M-20	M-25	M-30	M-35	M-40
8 mm	455	390	365	320	290	8 mm	365	315	290	260	230
10 mm	570	485	455	400	360	10 mm	455	390	365	320	290
12 mm	680	585	545	480	430	12 mm	545	470	435	385	345
16 mm	910	780	725	640	575	16 mm	725	625	580	515	460
20 mm	1135	975	910	800	715	20 mm	910	780	725	640	575
25 mm	1420	1215	1135	1000	895	25 mm	1135	975	910	820	715
32 mm	1815	1555	1450	1280	1145	32 mm	1450	1245	1160	1025	920

PROJECT :

INCOR - PHASE-III - MARBELLA [B5]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

TITLE :

O H T & LMR & HEAD ROOM DETAILS

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DATE :	R.NO.	REVISIONS :	DATE :	DEALT :	DRAWN :	CHECKED :
			04-10-2023	VAMSHI	AZHAR	

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th Floor,Anasuya Commercial Complex,
Beside Remedy Hospital, Himayathnagar, Hyd.
☎ 23224772.

ST-12

ZAKI AHMED
STRUCTURAL ENGINEER
LICENCE NO.47

Our services go beyond

Buying & Selling Services

Property Buying Assistance, Property Selling Support, Market Price Analysis, Owner Outreach and Negotiation.

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Certified EC, Patta, legal opinions, property verification, due diligence, litigation solutions, and legal heir certificates.

Property Development & Approvals

Building plan approvals, construction, layout and sub-division approvals, zone conversion, and occupancy certification.

NRI & Investment Services

Escrow Services, Rentals, Litigation Solutions, Property Valuation and Property Management

Compliance & Special Services

Demolition, Vaasthu checks, regularization of unauthorized buildings, and office space solutions.

Smarter Tools, Stronger Decisions

Property Valuation & Cost Estimation

Guideline Value, Apartment Composite Value, Stamp Duty & Registration Fees Calculator, Building Value Calculator, Capital Gains Calculator, Area Unit Converter, Length Unit Converter

Ownership, Compliance & Legal Verification

Encumbrance Certificate (EC) Search, Find Your SRO, Temple Property Check, WAQF Property Check, View Patta/Chitta, View FMB, Patta Analyzer, EC Analyzer

Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator

Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

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We're honored to be part of your
real estate journey

3/350/2 Mettukuppam,
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