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Anugraha

Design Consultant

PROJECT CODE	**1682**
PROJECT NAME	**PROPOSED CONSTRUCTION OF STILT+5 FLOOR RESIDENTIAL APARTMENT**
ENGINEER	**-**
CLIENT NAME	**M/s JOHN BUILDWELL**

B.FATHIMA BIVI.	R.PONMANI DEEPIKA.	E.Mahendran ANUGRAHA DESIGN CONSULTANT Er. E. MAHENDRAN M.E.,(Str.Engg.,)F.I.V. Charted Str. Engr. No. CE/ISE/LM/255 CMDA-SE/Gr.I/2022/11/348 LPA-RSE/Gr.I/TVL/July/2020/021 438, 2nd East Street, Srinivasa Nagar Maharaja Nagar (PO), Tirunelveli-627011 Mail: designanugraha@gmail.com Mobile: 9042 51 41 61, 877 88 64 588
DRAWN BY	**DESIGNED BY**	**APPROVED BY**



TABLE OF CONTENT

Sl.No	Drawing Title	Drawing No.	Revision	DATE
1.	General Notes	Dwg/001/Sheet 01 of 01	R0	21-12-2024
2.	Architectural Floor plan with column location	Dwg/002/Sheet 01 of 02	R2	21-12-2024
	Architectural Floor plan with column location	Dwg/002/Sheet 02 of 02	R2	21-12-2024
3.	Centerline& Excavation Making Layout	Dwg/003/Sheet 01 of 02	R0	21-12-2024
	Centerline& Excavation Making Layout	Dwg/003/Sheet 02 of 02	R0	21-12-2024
4.	Column marking layout and Reinforcement Details	Dwg/004/Sheet 01 of 02	R2	21-12-2024
	Column marking layout and Reinforcement Details	Dwg/004/Sheet 02 of 02	R2	21-12-2024
5.	Footing Marking Layout and Reinforcement Details	Dwg/005/Sheet 01 of 01	R1	21-12-2024
6.	Lift layout and reinforcement details	Dwg/006/Sheet 01 of 01	R2	21-12-2024
7.	Grade Beam Framing Layout and Reinforcement Details	Dwg/007/Sheet 01 of 01	R2	21-12-2024
8.	Basement Belt Beam Framing Layout and Reinforcement Details	Dwg/008/Sheet 01 of 01	R0	21-12-2024
9.	Stilt floor roof beam framing layout.	Dwg/009/Sheet 01 of 06	R0	21-12-2024
	Stilt floor roof beam framing layout.	Dwg/009/Sheet 02 of 06	R0	26-12-2024
	Stilt floor roof beam framing layout.	Dwg/009/Sheet 03 of 06	R0	26-12-2024
	Stilt floor roof beam framing layout.	Dwg/009/Sheet 04 of 06	R0	26-12-2024
	Stilt floor roof beam framing layout.	Dwg/009/Sheet 05 of 06	R0	26-12-2024
	Stilt floor roof beam framing layout.	Dwg/009/Sheet 06 of 06	R0	26-12-2024

10.	Stilt roof slab layout and reinforcement details.	Dwg/010/Sheet 01 of 02	R2	26-12-2024
	Stilt roof slab layout and reinforcement details.	Dwg/010/Sheet 02 of 02	R2	26-12-2024
11.	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 01 of 06	R0	26-12-2024
	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 02 of 06	R0	26-12-2024
	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 03 of 06	R0	26-12-2024
	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 04 of 06	R0	26-12-2024
	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 05 of 06	R0	26-12-2024
	First, Second, Third, and Fourth floor roof beam framing layout.	Dwg/011/Sheet 06 of 06	R0	26-12-2024
12.	First, Second, Third, Fourth roof slab reinforcement details.	Dwg/012/Sheet 01 of 02	R0	26-12-2024
	First, Second, Third, Fourth roof slab reinforcement details.	Dwg/012/Sheet 02 of 02	R0	26-12-2024
13.	Fifth floor roof beam framing layout.	Dwg/013/Sheet 01 of 06	R0	26-12-2024
	Fifth floor roof beam framing layout.	Dwg/013/Sheet 02 of 06	R0	26-12-2024
	Fifth floor roof beam framing layout.	Dwg/013/Sheet 03 of 06	R0	26-12-2024
	Fifth floor roof beam framing layout.	Dwg/013/Sheet 04 of 06	R0	26-12-2024
	Fifth floor roof beam framing layout.	Dwg/013/Sheet 05 of 06	R0	26-12-2024
	Fifth floor roof beam framing layout.	Dwg/013/Sheet 06 of 06	R0	26-12-2024
14.	Stilt roof slab layout and reinforcement details.	Dwg/014/Sheet 01 of 02	R0	26-12-2024
	Stilt roof slab layout and reinforcement details.	Dwg/014/Sheet 02 of 02	R0	26-12-2024

Anugraha Design Consultant

Your's Truly,

For Anugraha Design Consultant

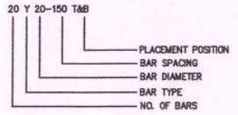
1. RCC WORK SHALL CONFORM TO IS: 456

2.REINFORCEMENT STEEL

I) ALL REINFORCEMENT STEEL SHALL BE HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS:1786 (GRADE Fe.500, Fe550, Fe500D Etc.,).

II) BINDING WIRE 20 BWG CONFORMING TO IS-280-1978.

III) REINFORCEMENTS ARE DETAILED AS FOLLOWS:



3.CEMENT

CEMENT USED IN ALL REINFORCED CONCRETE SHALL BE CONFORMING TO IS: 269-1989.

4.UNO GRADE OF CONCRETE SHALL BE

P.C.C WORK	:	M5(1:5:10)
	:	M7.5(1:4:8)
	:	M15(1:2:4)
SCREED CONCRETE	:	M10
FILLING OVER PEDESTAL FOR STEEL COLUMNS	:	M15
WALL FOOTINGS AND COPING	:	M15
ORDINARY GRADE SLAB AND, APRONS	:	M15
STRUCTURAL GRADE SLABS	:	M20
PLINTH BEAMS, FOOTINGS, COLUMNS, BEAMS, SLABS & STAIRCASES	:	M25
BASEMENTS, EQUIPMENT FOUNDATIONS, COLUMNS & BELOW GROUND STRUCTURES	:	M25
TG DECK COLUMNS, MAT & LIQUID RETAINING STRUCTURES	:	M25
PRECAST CONCRETE MEMBERS, LINTELS & CHAJJAS	:	M20
GROUTING MACHINE BASES & BOLT POCKETS (NON SHRINK GROUT)	:	M40
TRENCHES FOR CABLE, PIPE & DRAINAGE	:	M20

5. UNLESS NOTED OTHERWISE CLEAR COVER TO MINIMUM REINFORCEMENTS SALL BE AS FOLLOWS:

FOUNDATIONS	BOTTOM – 50mm, TOP & SIDES – 40mm
GRADE/PLINTH BEAMS	BOTTOM – 50mm, TOP – 25mm, SIDES – 40mm

GRADE SLABS	40mm FROM TOP
COLUMNS AND PEDESTALS	40mm
BEAMS AND LINTELS	25mm ON ALL SIDES
SLABS, STAIRCASES, WALLS, CHAJJAS, AND PRECAST	
TRENCH COVERS	15mm ON ALL SIDES
RETAINING WALLS & BASEMENT/PIT WALL	50mm ON EARTH FACE &
BASEMENTS, EQUIPMENT FOUNDATIONS, COLUMNS & BELOW GROUND STRUCTURES	25mm ON THE OTHER FACE
UNDERGROUND LIQUID RETAINING STRUCTURES	40mm EARTH SIDE
OVERHEAD LIQUID HEATING STRUCTURES	25mm ON LIQUID FACE &
GROUTING MACHINE BASES & BOLT POCKETS (NON SHRINK GROUT)	15mm ON THE OTHER FACE

(IMPORTANT: IN ALL THE ABOVE CASES, THE COVER SHALL NOT BE LESS THAN THE BAR DIAMETER)

6. LAP LENGTH OR DEVELPOMENT LENGTH FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS:

I) UNLESS STATED OTHERWISE ON DRAWINGS, ALL REINFORCEMENT SPLICES AND ANCHORAGES SHALL BE IN ACCORDANCE WITH IS:456 AND SHALL BE DETAILED CONFORMING TO IS:2502.

II) NOT MORE THAN 50% BARS SHALL BE SPLICED AT A SECTION (LOCATION OF SPLICE SHALL BE APPROVED BY SITE ENGINEER).

7. FOR LIQUID RETAINING STRUCTURES AND UNDERGROUND BASEMENTS, APPROVED INTEGRAL WATER PROOFING COMPOUND CONFORMING TO IS 2645 SHALL BE ADDED TO CONCRETE 2 TO 3% BY WEIGHT OF CEMENT OR AS RECOMMENDED BY THE MANUFACTURER

8. SPLICING OF REINFORCEMENT SHALL BE AS SHOWN ON THE DRAWING OR AS DIRECTED BY THE ENGINEER-IN-CHARGE. LAPS SHOULD BE LOCATED AT MID SPAN AND AT SUPPORT FOR TOP ROD AND BOTTOM ROD OF SLAB AND BEAM RESPECTIVELY FOR REINFORCEMENT.

9. OPENINGS LESS THAN 80 MM AND 150 MM IN SIZE MAY BE MADE, PROVIDED THERE IS NO OTHER OPENING NEAR IT CLOSER THAN 400 MM.
FOR OPENINGS BETWEEN 80 MM AND 150 MM IN SITE, FOUR ADDITIONAL STEEL BARS 1350 MM LONG SHALL BE PROVIDED ON EACH SIDE OF THE OPENING. THE DIAMETER OF SUCH ADDITIONAL BARS BEING THE SAME AS THE SLAB MAIN REINFORCEMENT. THIS IS ALSO SUBJECT TO THE CONDITION THAT THERE IS NO OTHER OPENING NEAR IT CLOSER THAN 750 MM. OPENING LARGER THAN 150 MM IN SIZE SHALL BE CLEARED BY THE DESIGN OFFICE.

10. WHERE TOTAL NUMBER OF BARS/STIRUPS IS SPECIFIED ON DRAWINGS OVER CERTAIN SECTION/DISTANCE, THE BARS/ STIRRUPS SHALL BE UNIFORMLY SPACED, UNLESS NOTED OTHERWISE.

11. WHERE REINFORCEMENT BARS ARE TO EMBEDDED IN CONCRETE TO PROVIDE FOR FUTURE EXPANSION, THEY SHALL FIRST BE WRAPPED IN BITUMEN COATED HESSIAN, BEFORE EMBEDMENT.

12. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
B) BOTTOM OF SHUTTERING SLABS – 3 DAYS (KEEPING THE PROPS)
C) BOTTOM OF SHUTTERING BEAMS – 7 DAYS (KEEPING THE PROPS)
D) PROPS TO SLABS:
I) SPANNING UP TO 4.50M – 7 DAYS
II) SPANNING OVER 4.50M –14 DAYS
E) PROPS TO BEAMS & ARCHES:
I) SPANNING UP TO 6.00M – 14 DAYS
II) SPANNING OVER 6.00M – 21 DAYS

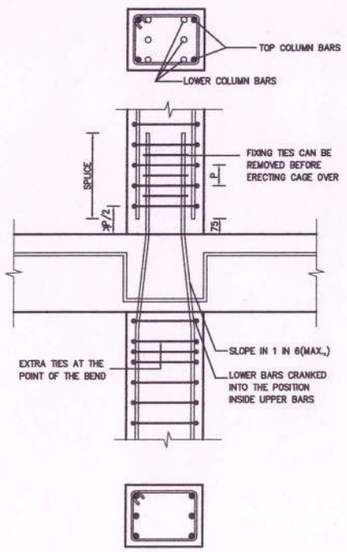
13. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.

14. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.

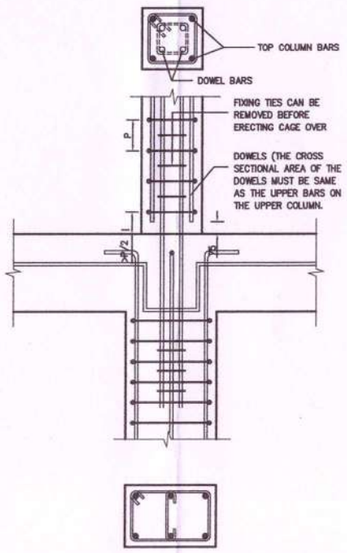
15. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.

16. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR.

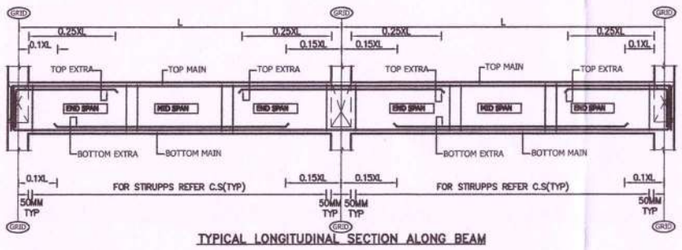
17. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.0M DEPTH FROM NATURAL GROUND LEVEL.



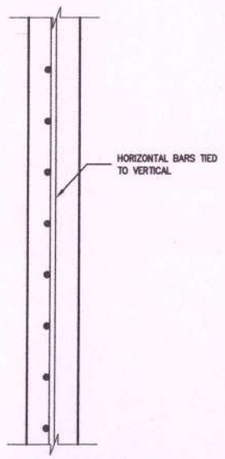
SPLICE WITH LOWER BARS CRANKED INTO POSITION INSIDE UPPER BARS (INTERMEDIATE FLOOR)



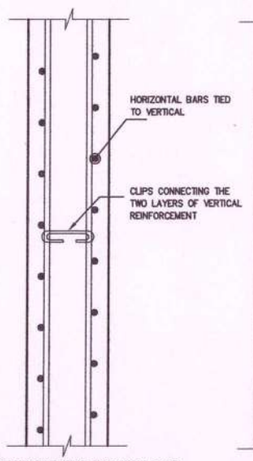
SPLICING AT THE FLOOR LEVEL WHEN THE RELATIVE DISPLACEMENT OF COLUMN FACES IS MORE THAN 75 MM.



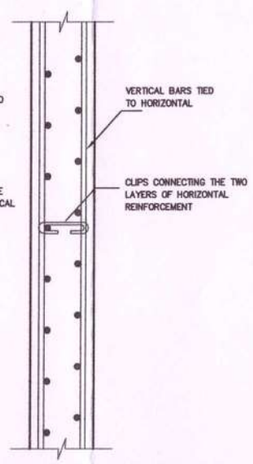
TYPICAL LONGITUDINAL SECTION ALONG BEAM



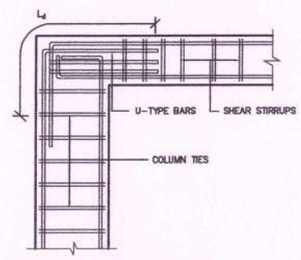
TYPICAL REINFORCEMENT FOR WALLS OF THICKNESS ≤175 MM IN CENTRE OF WALL (CONSIDERED TO BE NOMINAL).



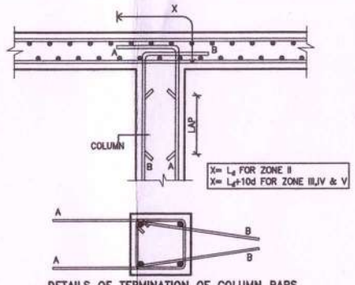
TYPICAL REINFORCEMENT FOR WALLS OF THICKNESS >175 MM IN BUT ≤ 220 MM AND WALLS OF THICKNESS >220 MM WITH VERTICAL REINFORCEMENT GREATER THAN NOMINAL.



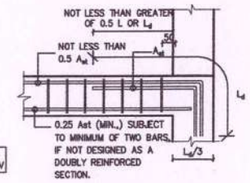
TYPICAL REINFORCEMENT FOR WALLS OF THICKNESS >220 MM WITH NOMINAL REINFORCEMENT.



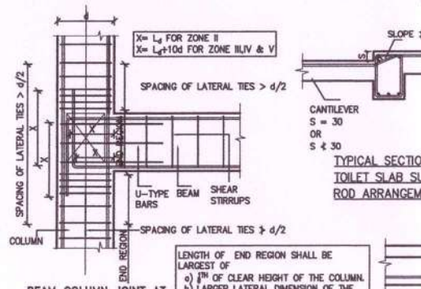
FIXED END JOINT IN A COLUMN



DETAILS OF TERMINATION OF COLUMN BARS INSIDE THE SLAB
SCALE 1:16



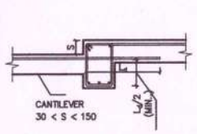
CANTILEVER BEAM PROJECTING FROM A COLUMN



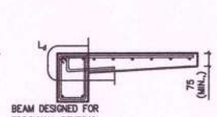
BEAM COLUMN JOINT AT EXTERNAL COLUMNS
SCALE 1:16

LENGTH OF END REGION SHALL BE LARGEST OF
a) 1/6TH OF CLEAR HEIGHT OF THE COLUMN.
b) LARGER LATERAL DIMENSION OF THE COLUMN,
c) 450 MM.

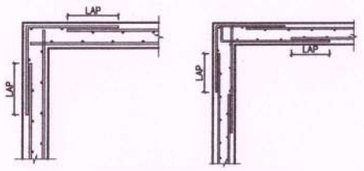
TYPICAL SECTION FOR TOILET SLAB SUNKEN ROD ARRANGEMENT



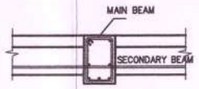
TYPICAL SECTION FOR BALCONY SLAB SUNKEN ROD ARRANGEMENT



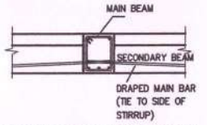
TYPICAL ROD DETAIL OF CANTILEVER SLAB



TYPICAL CORNER AND INTERSECTION DETAILS FOR REINFORCED CONCRETE WALLS.



TYPICAL ROD DETAILING OF MAIN HORIZONTAL BARS AT TWO DIFFERENT SETS OF STIRRUPS



TYPICAL ROD DETAILING OF BEAM SOFFITS AT SAME LEVEL.

E.Mahendran

Anugraha Design Consultant

THIS DRAWING IS ONLY VALID IF CONSULTANT IS CHECKED AT SITE

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
01.	18.07.2024	GOOD FOR CONSTRUCTION	RO	FATHI	MAHI
DRAWN BY	Er.FARZANA	CHECKED BY	Mr.MAHENDRAN	APPROVED BY	Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

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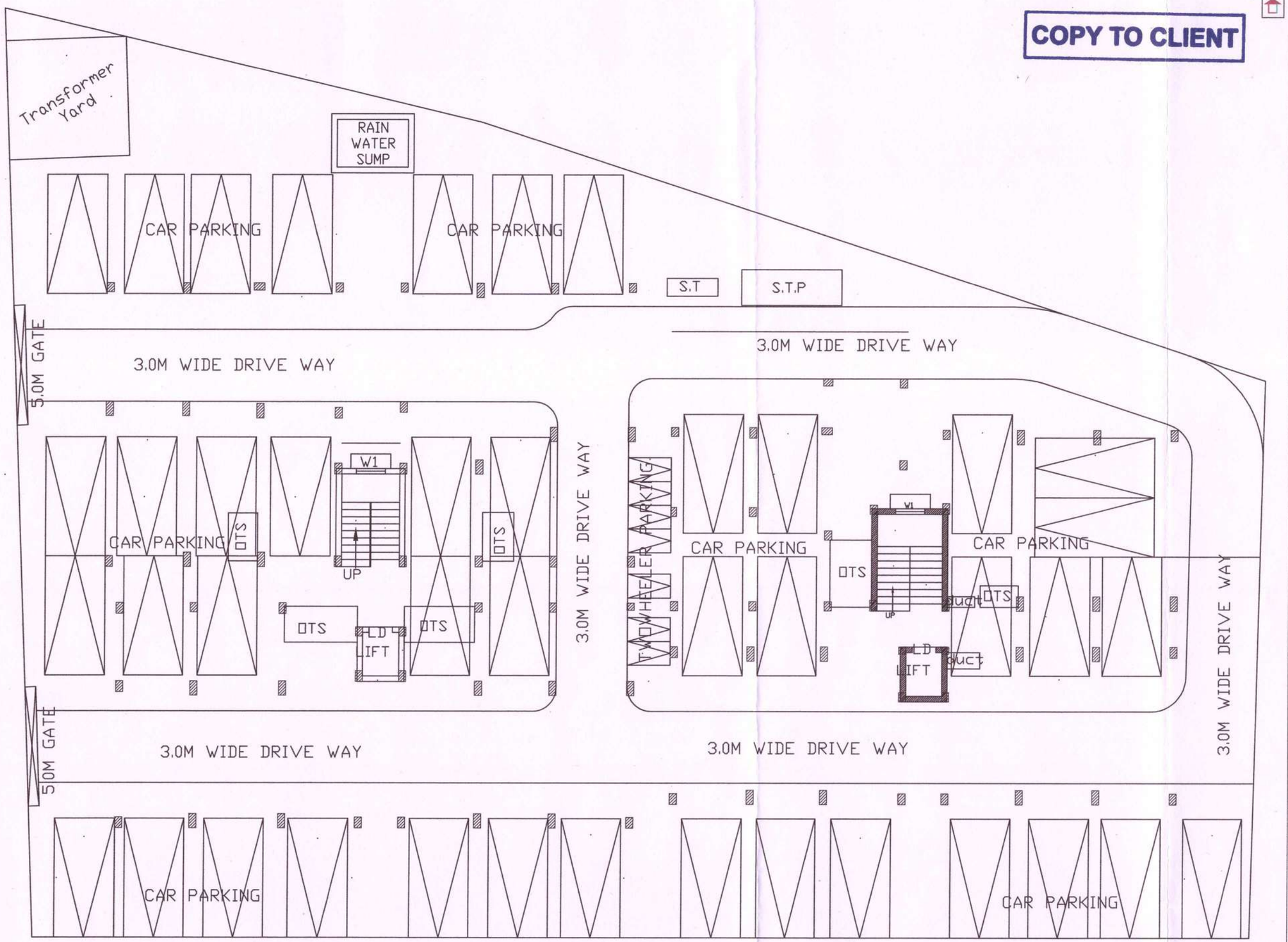
GOOD FOR CONSTRUCTION

DRAWING TITLE: ARCHITECTURAL FLOOR PLAN WITH COLUMN LOCATION

DRAWING NO. 964-A1-DWG-001 SHEET 01 OF 01 REVISION 00

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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE – DO NOT MAKE ANY CORRECTIONS MANUALLY



ARCHITECTURAL STILT FLOOR PLAN WITH COLUMN LOCATION

N

COPY TO CLIENT

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION– BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS –24HR
   B) BOTTOM OF SHUTTERING SLABS – 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS – 7 DAYS (KEEPING THE PROPS)
      I) SPANNING UP TO 4.50M – 7 DAYS
      II) SPANNING OVER 4.50M –14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M – 14 DAYS
      II) SPANNING OVER 6.00M – 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E.Mahendran

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.	21.12.2024	COLUMN SCHEDULE TABLE REVISED	R2	FATHI	MAHI
02.	21.09.2024	GOOD FOR CONSTRUCTION	R1	FATHI	MAHI
01.	18.07.2024	FOR PRELIMINARY USES	R0	FATHI	MAHI

DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

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CLIENT: M/s JOHN BUILDWELL–INDIA P(LTD)

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Better Environment for Architectural Design of Shelters
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MOBILE: 9943251453.

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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI–627011

DRAWING TITLE: ARCHITECTURAL FLOOR PLAN WITH COLUMN LOCATION

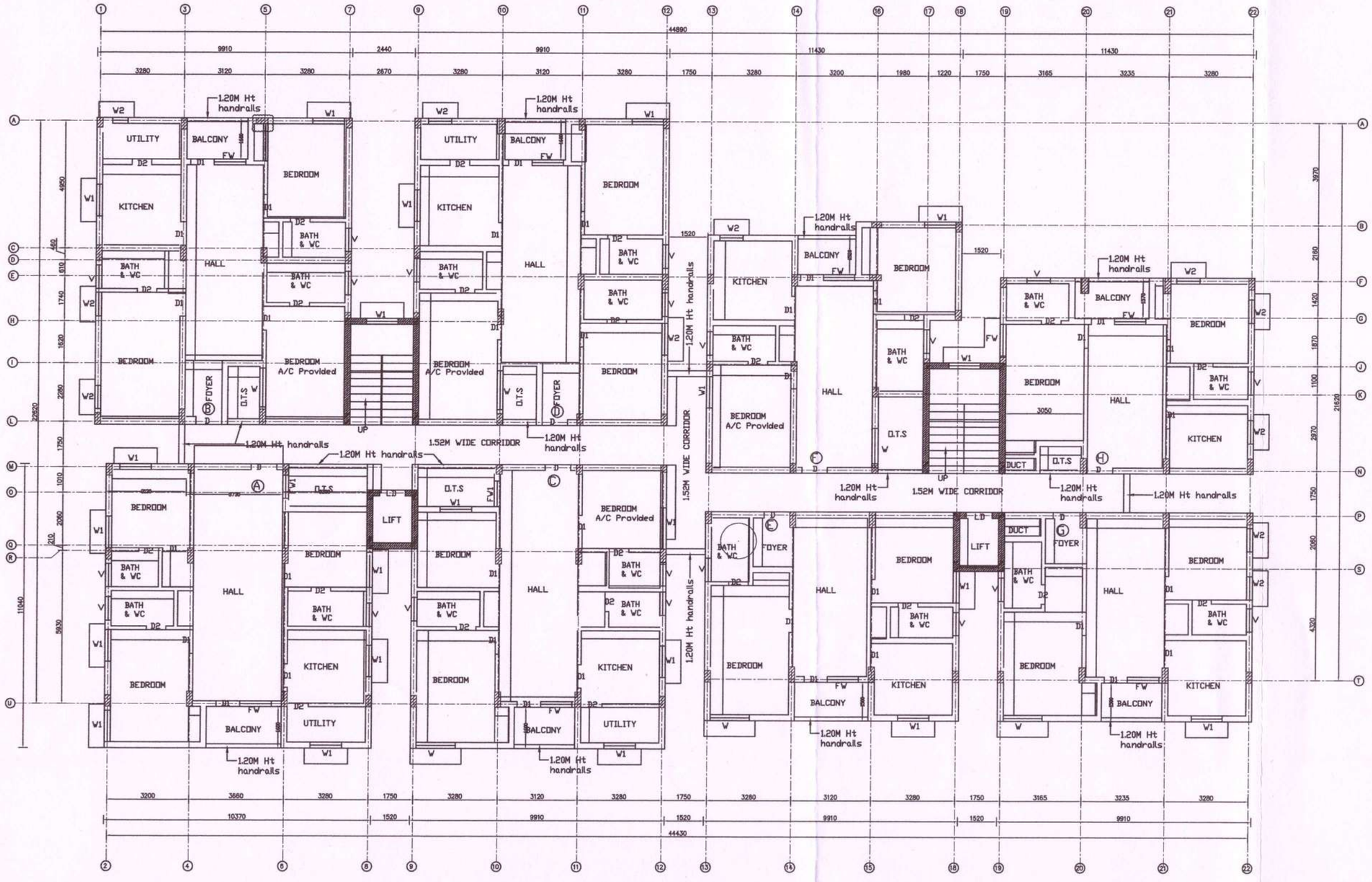
DRAWING NO. 1031–A1–DWG–002 SHEET 01 OF 02 | REVISION R2

GOOD FOR CONSTRUCTION

CAUTION : THE INFORMATION IN THIS DOCUMENT IS THE PROPERTY OF ANUGRAHA DESIGN CONSULTANT. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

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COPY TO CLIENT



ARCHITECTURAL FIRST,SECOND,THIRD,FOURTH & FIFTH FLOOR PLAN WITH COLUMN LOCATION

SCALE 1:55

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M - 14 DAYS
      II) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50.40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E.Mahendran

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.	21.12.2024	COLUMN SCHEDULE TABLE REVISED	R2	FATHI	MAHI
02.	21.09.2024	GOOD FOR CONSTRUCTION	R1	FATHI	MAHI
01.	18.07.2024	FOR PRELIMINARY USES	R0	FATHI	MAHI

DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

GOOD FOR CONSTRUCTION

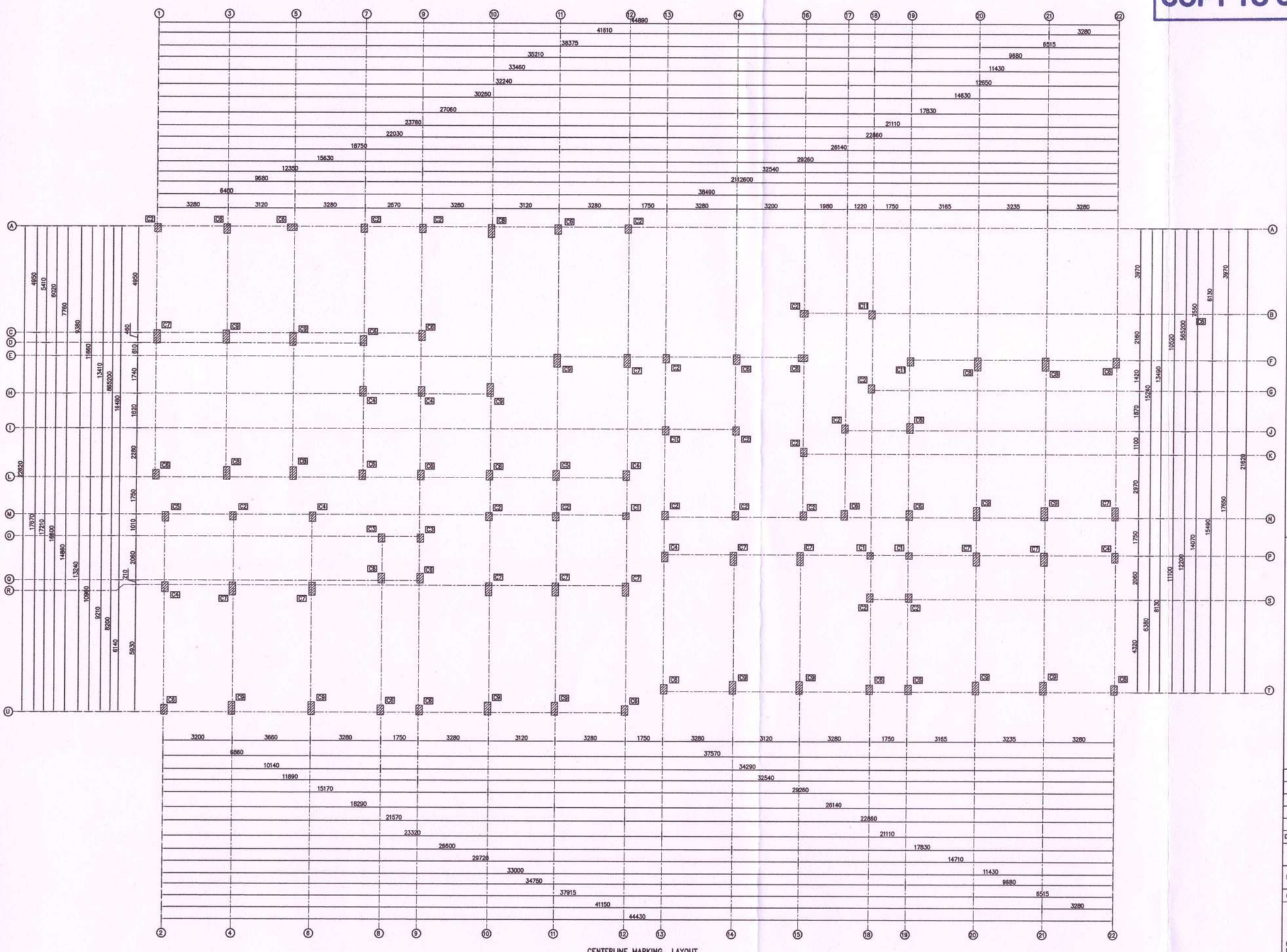
DRAWING TITLE: ARCHITECTURAL FLOOR PLAN WITH COLUMN LOCATION

DRAWING NO.: 1031-A1-DWG-002 SHEET 02 OF 02 | REVISION: R2

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COPY TO CLIENT



CENTERLINE MARKING LAYOUT

SCALE 1:60

KEYPLAN

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1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
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   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS --24HR
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Anugraha Design Consultant E.Mahendran

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
01.	22.12.2024	GOOD FOR CONSTRUCTION	RO	SUNDAR	MAHI

DRAWN BY: Er.SUNDAR | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL--INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
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STRUCTURAL CONSULTANT:-
Anugraha Design Consultant
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
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E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI--627011

GOOD FOR CONSTRUCTION

CONCRETE -- M25
STEEL -- Fe 550

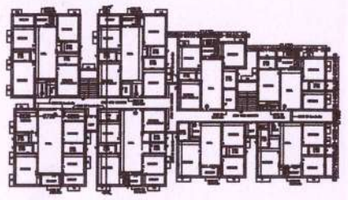
DRAWING TITLE: CENTERLINE AND EXCAVATION PIT MARKING LAYOUT

DRAWING NO. 1682-A1-DWG-003 SHEET 01 OF 02 | REVISION 00

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COPY TO CLIENT



KEYPLAN

NOTES:-

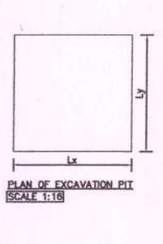
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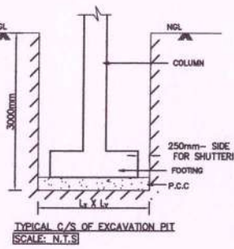
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Anugraha Design Consultant
E. Mahendran

FOR STRUCTURAL ENGINEER.



PLAN OF EXCAVATION PIT
SCALE 1:16



TYPICAL C/S OF EXCAVATION PIT
SCALE: N.T.S

TABLE-1
EXCAVATION PIT SCHEDULE:-

S.NO.	EXCAVATION PIT MARK	NO OF FDN	SIZE OF EXCAVATION PIT Lx	Ly
1.	EP1	03	1900	1900
2.	EP2	02	2000	2000
3.	EP3	05	2200	2200
4.	EP4	22	2300	2300
5.	EP5	22	2500	2500
6.	EP6	15	2700	2700
7.	EP7	10	2800	2900
8.	EP8	01	3000	3000

TOTAL NO OF EXCAVATION PIT - 83

EXCAVATION MARKING LAYOUT
SCALE 1:55

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
01.	21.12.2024	GOOD FOR CONSTRUCTION	R0	SUNDAR	MAHI

DRAWN BY	CHECKED BY	APPROVED BY
Er.SUNDAR	Mr.MAHENDRAN	Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
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MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
Anugraha Design Consultant
Er..E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
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MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

THIS DRAWING IS ONLY VALID IF CONSULTANT IS CHECKED AT SITE.

GOOD FOR CONSTRUCTION

CONCRETE - M25
STEEL - Fe 550

LEGENDS:-
EP - EXCAVATION PIT
GL - GROUND LEVEL
C/S - CROSS SECTION

DRAWING TITLE: CENTERLINE AND EXCAVATION PIT MARKING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682-A1-DWG-003 SHEET 02 OF 02 REVISION R0

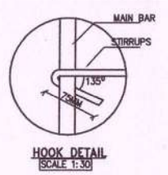
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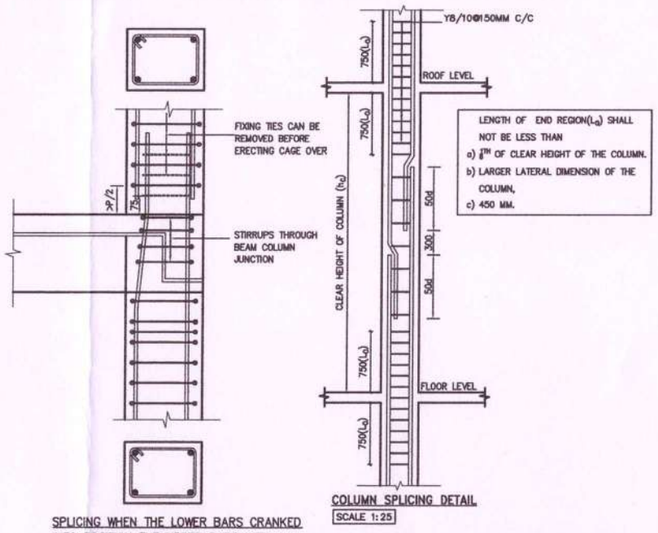
SL.NO	COLUMN MARK	TOTAL NOS	MAIN BAR	SPACING	CROSS SECTION	TIES SHAPE
01.	C1 300X300	03	• 6Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 300, 6Y–16	
	C1 230X300		• 6Y–16 FROM STILT TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 300, 6Y–16	
	C1 230X300		• 6Y–12 FROM FIRST FLOOR ROOF TO TERRACE	Y8@170MMC/C	230 × 300, 6Y–16	
02.	C2 300X380	18	• 8Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 380, 8Y–16	
	C2 230X380		• 8Y–16 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 380, 8Y–16	
	C2 230X380		• 4Y–16 + • 2Y–12 FROM FIRST FLOOR ROOF TO TERRACE FLOOR	Y8@200MMC/C	230 × 380, 4Y–16, 2Y–12	
03.	C3 300X380	02	• 4Y–20 + • 4Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 380, 4Y–20, 4Y–16	
	C3 230X380		• 4Y–20 + • 4Y–16 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 380, 4Y–20, 4Y–16	
	C3 230X380		• 8Y–12 FROM FIRST FLOOR ROOF TO TERRACE FLOOR	Y8@170MMC/C	230 × 380, 8Y–12	
04.	C4 300X450	07	• 8Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 450, 8Y–16	
	C4 230X450		• 8Y–16 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 450, 8Y–16	
	C4 230X450		• 8Y–12 FROM FIRST FLOOR ROOF TO TERRACE FLOOR	Y8@170MMC/C	230 × 450, 8Y–12	
05.	C5 300X450	02	• 8Y–20 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 450, 8Y–20	
	C5 230X450		• 8Y–16 FROM STILT ROOF TO TERRACE FLOOR	Y8@200MMC/C	230 × 450, 8Y–16	
06.	C8 300X450	25	• 8Y–20 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 450, 8Y–20	
	C8 230X450		• 8Y–20 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 450, 8Y–20	
	C8 230X450		• 4Y–16 + • 4Y–12 FROM FIRST FLOOR ROOF TO TERRACE	Y8@200MMC/C	230 × 450, 4Y–16, 4Y–12	
07.	C7 300X600	12	• 12Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 600, 12Y–16	
	C7 230X600		• 12Y–16 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 600, 12Y–16	
	C7 230X450		• 4Y–20 + • 4Y–16 FROM FIRST FLOOR ROOF TO SECOND FLOOR ROOF	Y8@200MMC/C	230 × 450, 4Y–20, 4Y–16	
	C7 230X450		• 4Y–16 + • 4Y–12 FROM SECOND FLOOR ROOF TO TERRACE FLOOR	Y8@200MMC/C	230 × 450, 4Y–16, 4Y–12	
08.	C8 300X600	05	• 6Y–20 + • 6Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 600, 6Y–20, 6Y–16	
	C8 230X600		• 6Y–20 + • 6Y–16 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 600, 6Y–20, 6Y–16	
	C8 230X600		• 12Y–16 FROM FIRST FLOOR ROOF TO TERRACE FLOOR	Y8@200MMC/C	230 × 600, 12Y–16	
09.	C9 300X600	14	• 4Y–25 + • 8Y–20 FROM FOUNDATION TO STILT ROOF	Y8@300MMC/C	300 × 600, 4Y–25, 8Y–20	
	C9 230X600		• 4Y–25 + • 8Y–20 FROM STILT ROOF TO FIRST FLOOR ROOF	Y8@300MMC/C	230 × 600, 4Y–25, 8Y–20	
	C9 230X450		• 8Y–16 FROM FIRST FLOOR ROOF TO SECOND FLOOR ROOF	Y8@200MMC/C	230 × 450, 8Y–16	
	C9 230X450		• 4Y–16 + • 4Y–12 FROM SECOND FLOOR ROOF TO TERRACE FLOOR	Y8@200MMC/C	230 × 450, 4Y–16, 4Y–12	
10.	C10 230X380	01	• 8Y–16	Y8@200MMC/C	230 × 380, 8Y–16	
11.	C11 300X380	02	• 6Y–16 FROM FOUNDATION TO STILT ROOF	Y8@200MMC/C	300 × 380, 6Y–16	
	C11 230X380		• 6Y–16 FROM STILT TO FIRST FLOOR ROOF	Y8@200MMC/C	230 × 380, 6Y–16	
	C11 230X380		• 6Y–12 FROM FIRST FLOOR ROOF TO TERRACE	Y8@170MMC/C	230 × 380, 6Y–12	

TABLE–2

S.NO	ϕ – DIA. OF BAR	L_d – DEVELOPMENTAL LENGTH FOR COLUMN
1.	12MM	600MM
2.	16MM	800MM
3.	20MM	1000MM
4.	25MM	1250MM



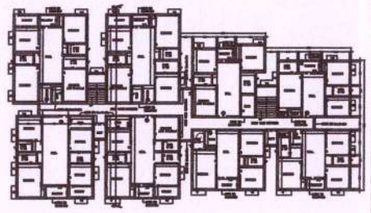
HOOK DETAIL
SCALE 1:30



SPLICING WHEN THE LOWER BARS CRANKED INTO POSITION THE UPPER BARS WITH STEPPING OF COLUMNS ON ONE SIDE

COLUMN SPLICING DETAIL
SCALE 1:25

COPY TO CLIENT



KEYPLAN

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   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS –24HR
   B) BOTTOM OF SHUTTERING SLABS – 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS – 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M – 7 DAYS
      II) SPANNING OVER 4.50M –14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M – 14 DAYS
      II) SPANNING OVER 6.00M – 21 DAYS
6. LAP LENGTH SHALL BE 50.40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:–

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
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Anugraha Design Consultant
E.Mahendhar

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.	21.12.2024	COLUMN SCHEDULE TABLE REVISED	R2	FATHI	MAHI
02.	21.09.2024	GOOD FOR CONSTRUCTION	R1	FATHI	MAHI
01.	18.07.2024	FOR PRELIMINARY USES	R0	FATHI	MAHI

DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL–INDIA P(LTD)

CONCRETE – M25
STEEL – Fe 550

LEGENDS:–
C – COLUMN
LVL – LEVEL
TYP – TYPICAL
C/C – CENTRE TO CENTRE
C/S – CROSS SECTION
TOS – TOP OF SLAB

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE–641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:–
Anugraha Design Consultant
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
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+91 87 78 50 52 00
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI–627011

THIS DRAWING IS ONLY VALID IF CONSULTANT IS CHECKED AT SITE.

GOOD FOR CONSTRUCTION

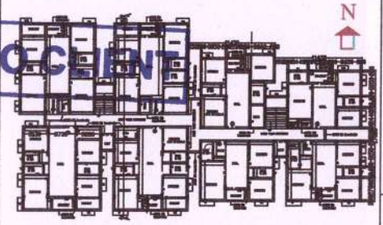
DRAWING TITLE: COLUMN MARKING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682–A1–DWG–004 SHEET 02 OF 02 | REVISION R2

CAUTION : THE INFORMATION IN THIS DOCUMENT IS THE PROPERTY OF ANUGRAHA DESIGN CONSULTANT. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE – DO NOT MAKE ANY CORRECTIONS MANUALLY

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
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TABLE-3

FOUNDATION REINFORCEMENT DETAIL SCHEDULE:-

S.NO	FOOTING MARK	NO. OF FDN	SIZE OF FOOTING Lx	Ly	D1	D2	BOTTOM REINFORCEMENT ALONG X	ALONG Y
1.	F1	03	1400	1400	400	--	Y12 @ 150MM C/C	Y12 @ 150MM C/C
2.	F2	02	1500	1500	450	--	Y12 @ 150MM C/C	Y12 @ 150MM C/C
3.	F3	08	1700	1700	450	--	Y12 @ 120MM C/C	Y12 @ 120MM C/C
4.	F4	22	1800	1800	350	300	Y12 @ 120MM C/C	Y12 @ 120MM C/C
5.	F5	22	2000	2000	350	350	Y12 @ 120MM C/C	Y12 @ 120MM C/C
6.	F6	15	2200	2200	400	450	Y12 @ 100MM C/C	Y12 @ 100MM C/C
7.	F7	10	2400	2400	450	500	Y12 @ 100MM C/C	Y12 @ 100MM C/C
8.	F8	01	2500	2500	450	550	Y12 @ 100MM C/C	Y12 @ 100MM C/C

NOTE: FOUNDATION ORIENTATION AS PER FOUNDATION LAYOUT ONLY.

LEGENDS:-
F - FOOTING C/C - CENTRE TO CENTRE
LVL - LEVEL C/S - CROSS SECTION
TYP - TYPICAL TOS - TOP OF SLAB

CONCRETE - M25
STEEL - Fe 550

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
02.	25.09.2024	GOOD FOR CONSTRUCTION	R1	FATHI	MAHI
01.	18.07.2024	FOR PRELIMINARY USES	R0	FATHI	MAHI

DRAWN BY Er.FARZANA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

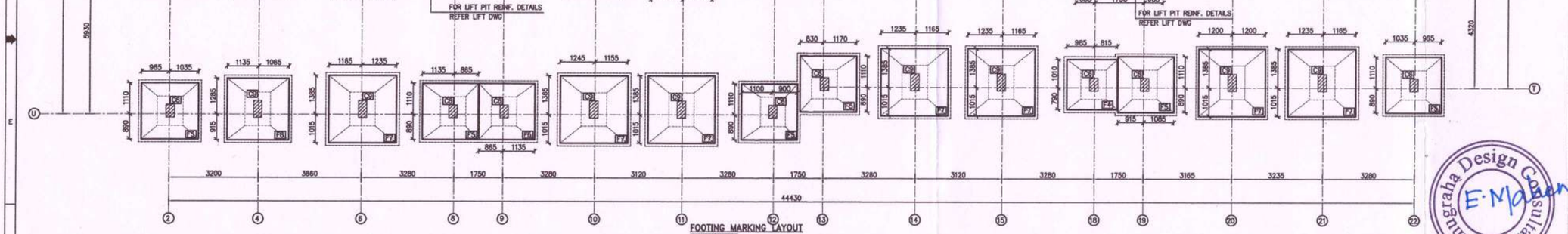
CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

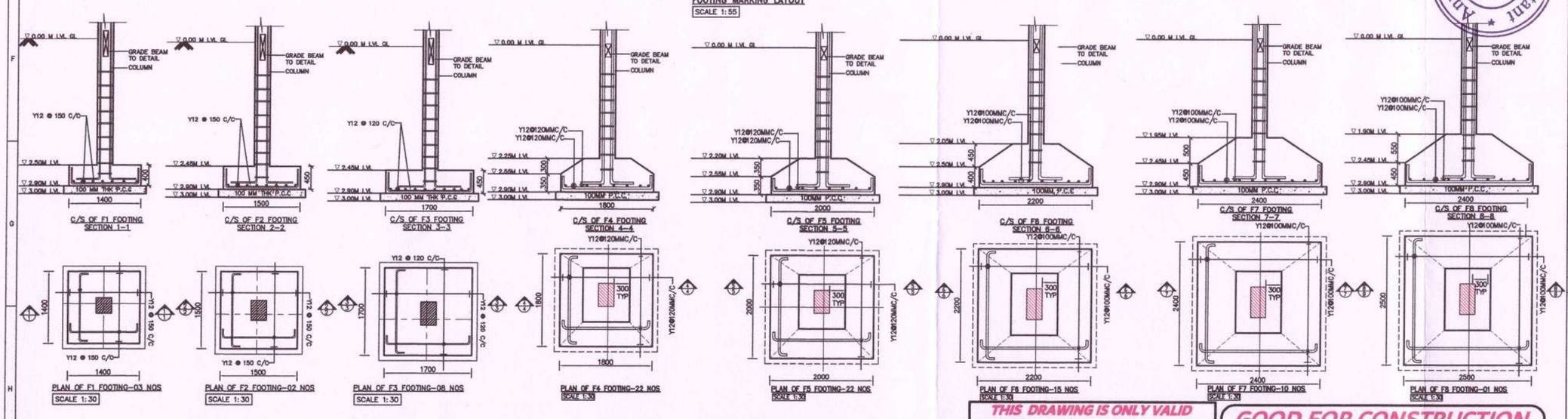
beads
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MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FOOTING MARKING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682-A1-DWG-005 SHEET 01 OF 01 | REVISION R0





Anugraha Design Consultant E.Mahendran

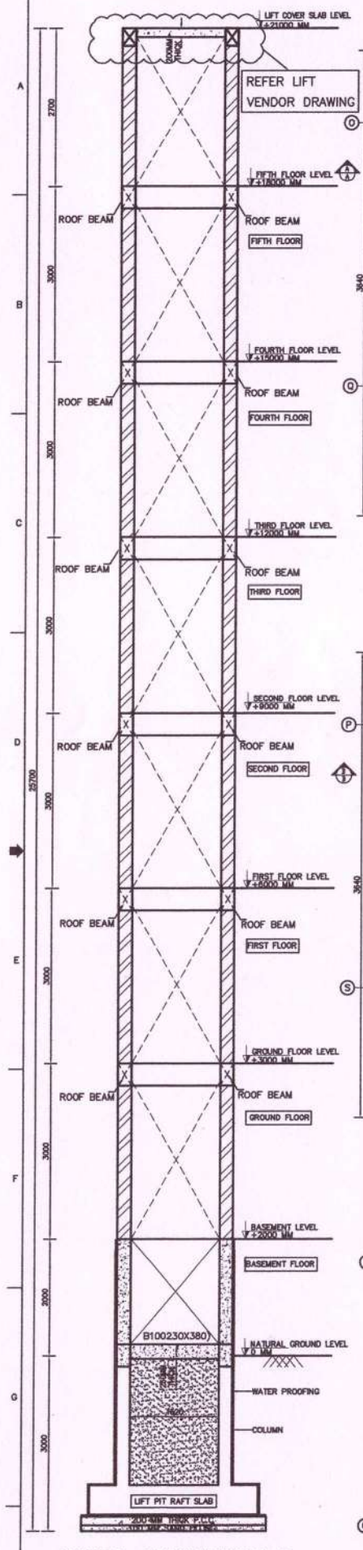
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GOOD FOR CONSTRUCTION

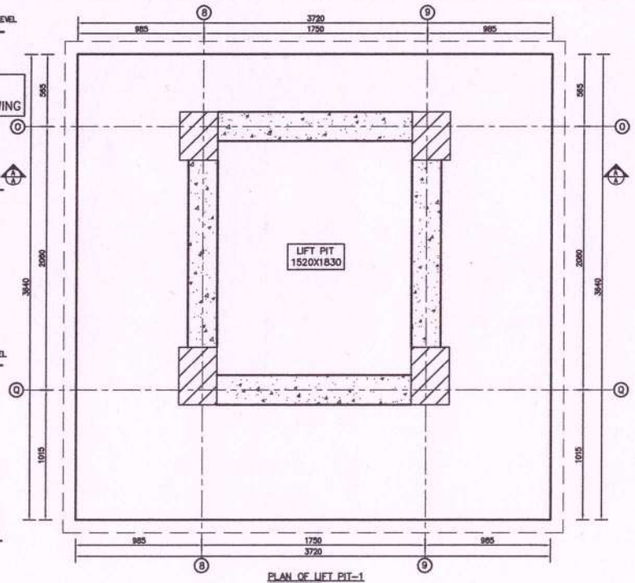
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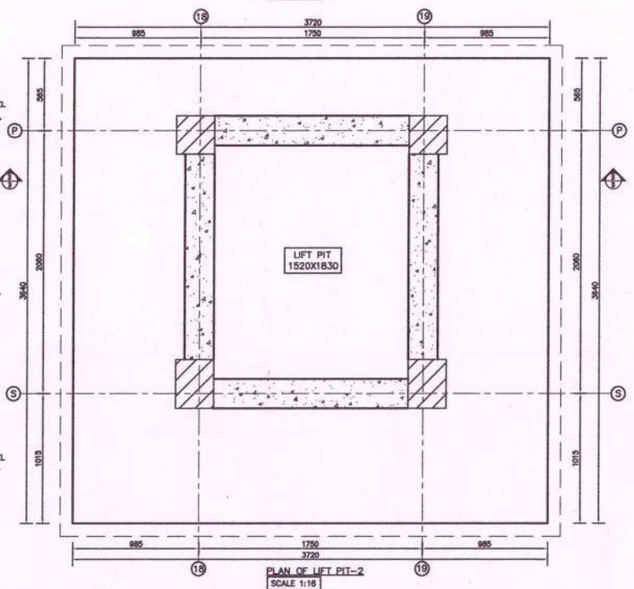
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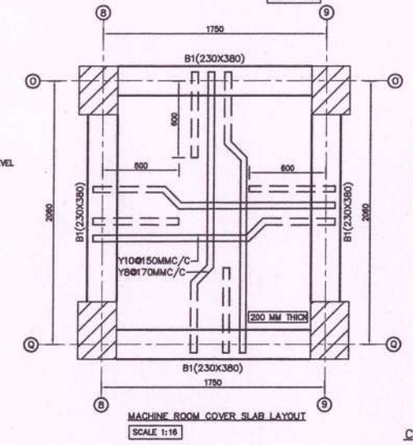
CONCRETE GA – SECTIONAL ELEVATION AA BB
SCALE 1:30



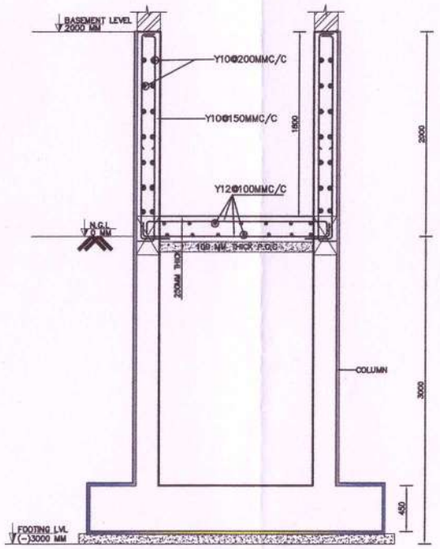
PLAN OF LIFT PIT-1
SCALE 1:16



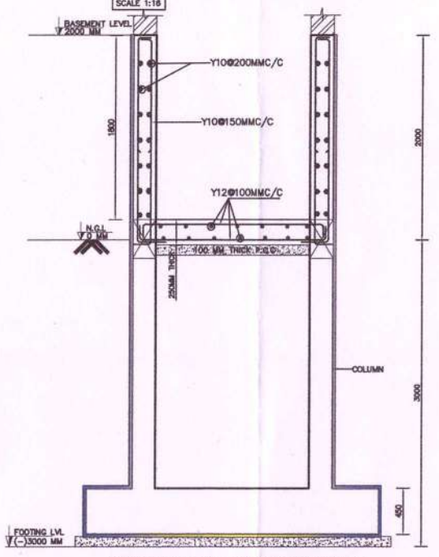
PLAN OF LIFT PIT-2
SCALE 1:16



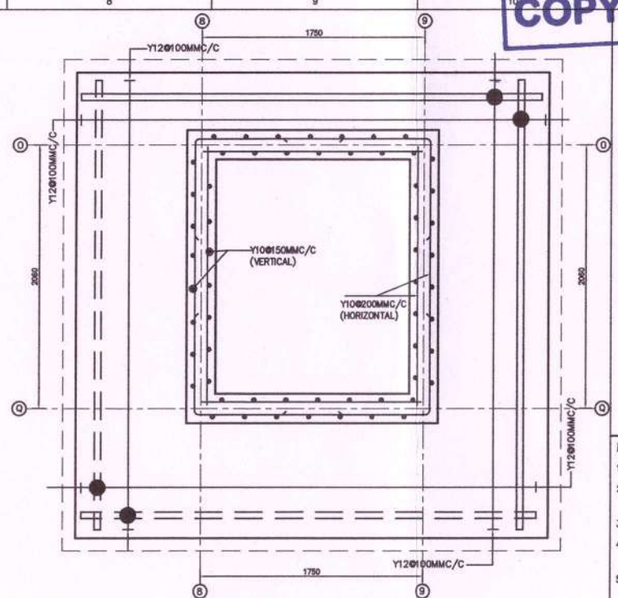
MACHINE ROOM COVER SLAB LAYOUT
SCALE 1:16



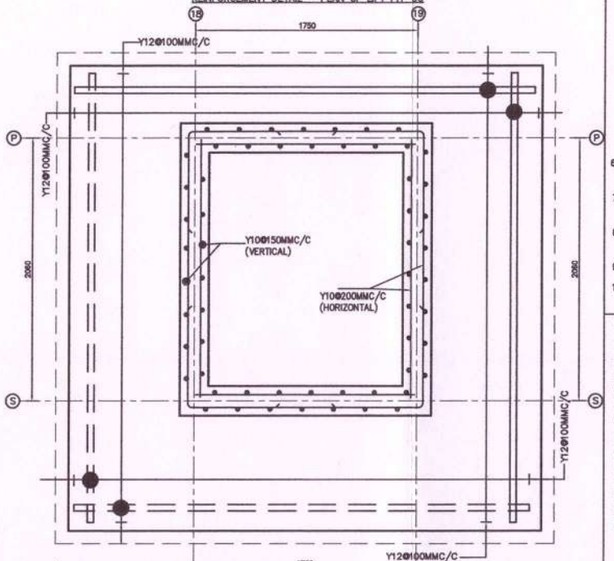
REINFORCEMENT DETAIL – SECTIONAL ELEVATION –CC
SCALE 1:16



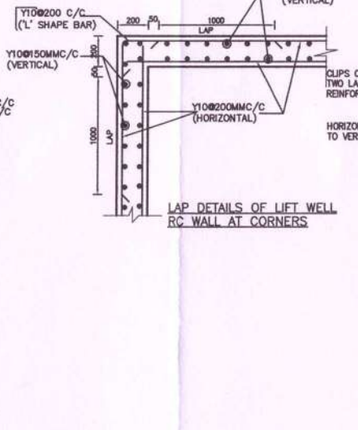
REINFORCEMENT DETAIL – SECTIONAL ELEVATION –DD
SCALE 1:16



REINFORCEMENT DETAIL – PLAN OF LIFT PIT–CC

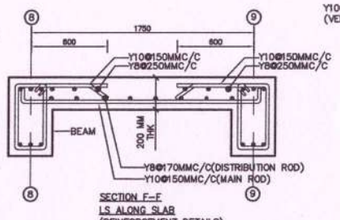


REINFORCEMENT DETAIL – PLAN OF LIFT PIT–DD
SCALE 1:16

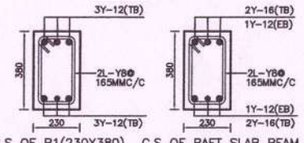


LAP DETAILS OF LIFT WELL
RC WALL AT CORNERS

TYPICAL DETAIL OF VERTICAL
CLIPS IN RC WALL

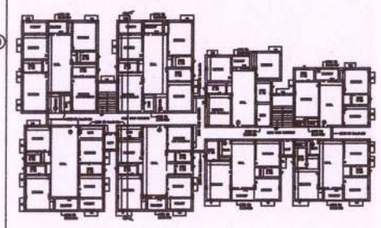


SECTION F–F
LS ALONG SLAB
(REINFORCEMENT DETAILS)
SCALE 1:16



C.S OF B1(230X380)

C.S OF RAFT SLAB BEAM
B100(230X380)



KEYPLAN

NOTES:–

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Anugraha Design Consultant
E. Mahendran

FOR STRUCTURAL ENGINEER

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	21.12.2024	REVISED FOR BASEMENT HEIGHT CHANGES	R2	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	R1	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	R0	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR
○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

THIS DRAWING IS ONLY VALID IF CONSULTANT IS CHECKED AT SITE

GOOD FOR CONSTRUCTION

NOTES:
BEFORE EXECUTION OF LIFT MACHINE ROOM SLAB, REFER LIFT VENDOR DRAWING FOR FURTHER WORKINGS

LEGENDS:–

S	– SLAB	TB	– THROUGH BAR
B	– BEAM	EB	– EXTRA BAR
LVL	– LEVEL	TYP	– TYPICAL
L.S	– LONGITUDINAL SECTION	C/S	– CROSS SECTION
C/C	– CENTER TO CENTER	——	– TOP RFT
T.O.C	– TOP OF CONCRETE	——	– BOTTOM RFT

CONCRETE M20
STEEL FE–550

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

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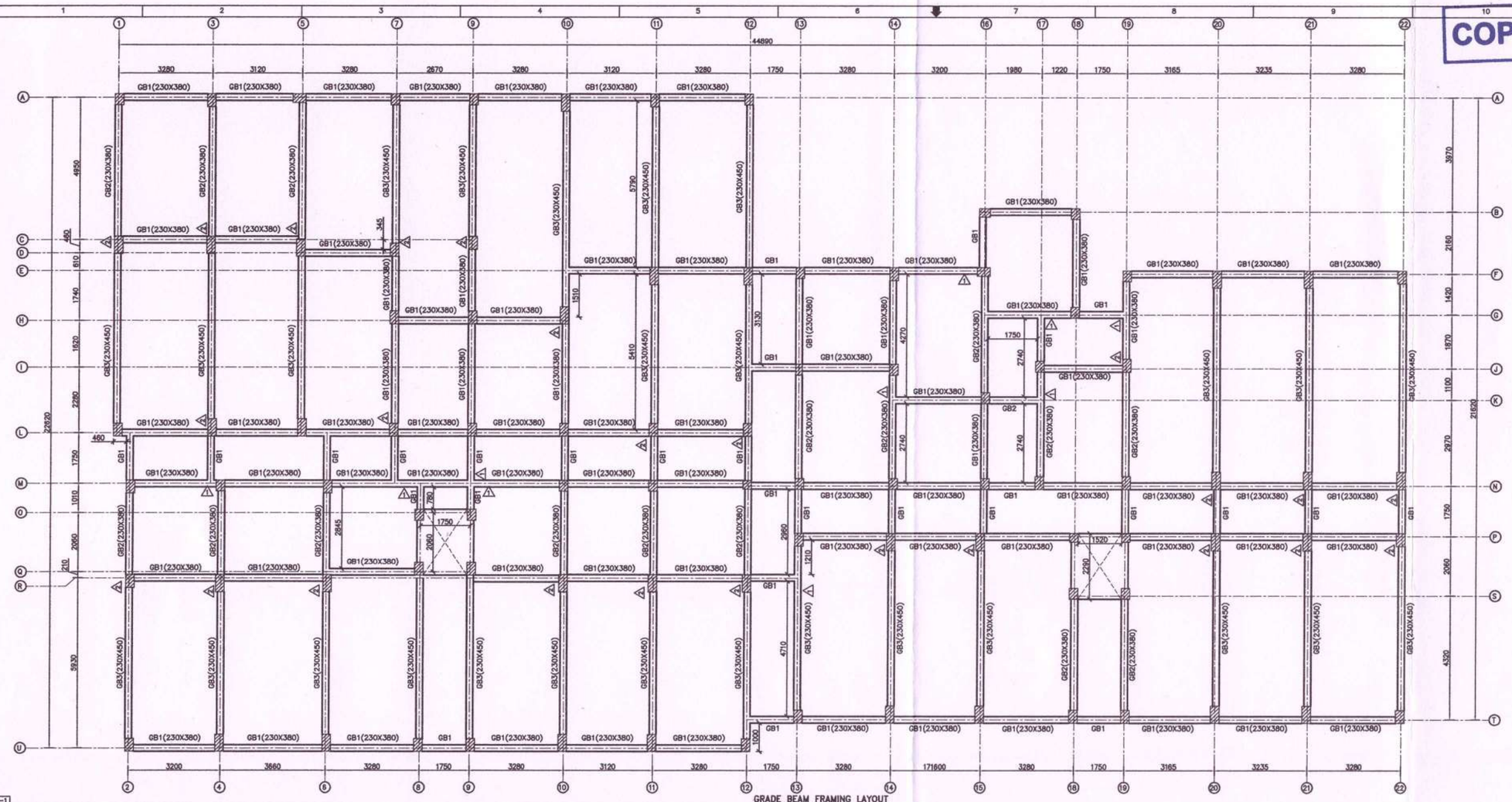
STRUCTURAL CONSULTANT:–

Anugraha Design Consultant
Er..E.MAHENDRAN M.E. Str.Engg. F.I.V
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI–627011

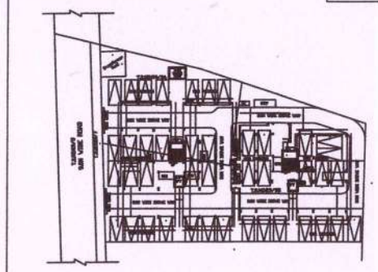
DRAWING TITLE: LIFT GENERAL ARRANGEMENT AND REINFORCEMENT DETAILS

DRAWING NO. 1031–A1–DWG–006 SHEET 01 OF 01 | REVISION R2

COPY TO CLIENT



GRADE BEAM FRAMING LAYOUT
SCALE 1:55



KEYPLAN

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1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
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9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

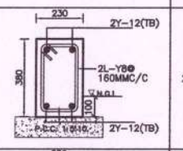
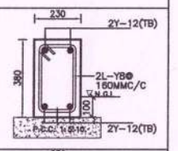
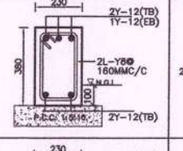
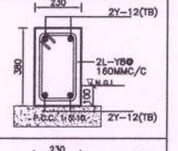
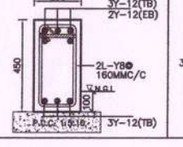
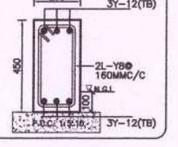
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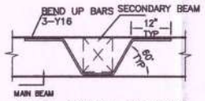
Anugraha Design Consultant Mahendran

FOR STRUCTURAL ENGINEER.

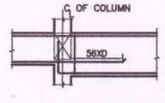
TABLE-1

GRADE BEAM REINFORCEMENT DETAIL :-

BEAM MARK	(AT END SPAN) TOP REINFORCEMENT THROUGH	(AT END SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT END SPAN) BOTTOM REINFORCEMENT THROUGH	(AT END SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT END SPAN) STIRRUPS	(AT END SPAN) CROSS SECTION	(AT MID SPAN) TOP REINFORCEMENT THROUGH	(AT MID SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT MID SPAN) BOTTOM REINFORCEMENT THROUGH	(AT MID SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT MID SPAN) STIRRUPS	(AT MID SPAN) CROSS SECTION
GB1(230X380)	2Y-12	---	2Y-12	---	2L-Y8@ 150MMC/C		2Y-12	---	2Y-12	---	2L-Y8@ 150MMC/C	
GB2(230X380)	2Y-12	1Y-12	2Y-12	---	2L-Y8@ 160MMC/C		2Y-12	---	2Y-12	---	2L-Y8@ 160MMC/C	
GB3(230X450)	3Y-12	2Y-12	3Y-12	---	2L-Y8@ 160MMC/C		3Y-12	---	---	3Y-12	2L-Y8@ 160MMC/C	



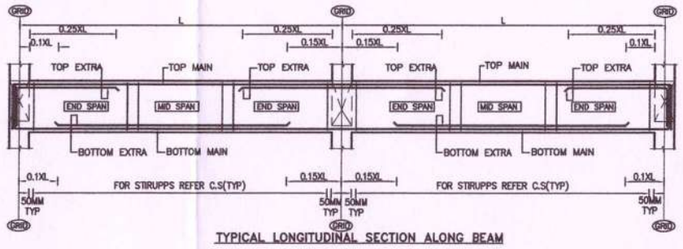
⚠ TYP., BEND UP BAR DETAIL @BEAM CONNECTION
SCALE 1:16



⚠ LS ALONG VARYING DEPTH BEAM CONNECTION @ MIDDLE

TABLE-2

S.NO.	ϕ - DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR BEAM
1.	12MM	600MM
2.	16MM	800MM



TYPICAL LONGITUDINAL SECTION ALONG BEAM

03.	21.12.2024	REVISED FOR BASEMENT HEIGHT	R2	VENKAT	MAHI
02.	25.09.2024	GOOD FOR CONSTRUCTION	R1	FATHI	MAHI
01.	18.07.2024	FOR PRELIMINARY USES	R0	FATHI	MAHI
ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
DRAWN BY	Er.FARZANA	CHECKED BY	Mr.MAHENDRAN	APPROVED BY	Mr.MAHENDRAN

ISSUED FOR ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL--INDIA P(LTD)

CONCRETE - M25
STEEL - Fe 550

LEGENDS:-
GB - GRADE BEAM
LVL - LEVEL
TYP - TYPICAL
C/S - CROSS SECTION
L/S - LONGITUDINAL SECTION
C/C - CENTRE TO CENTRE
N.G.L- NATURAL GROUND LEVEL
LD - DEVELOPMENT LENGTH
TB - THROUGH BAR
EB - EXTRA BAR

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

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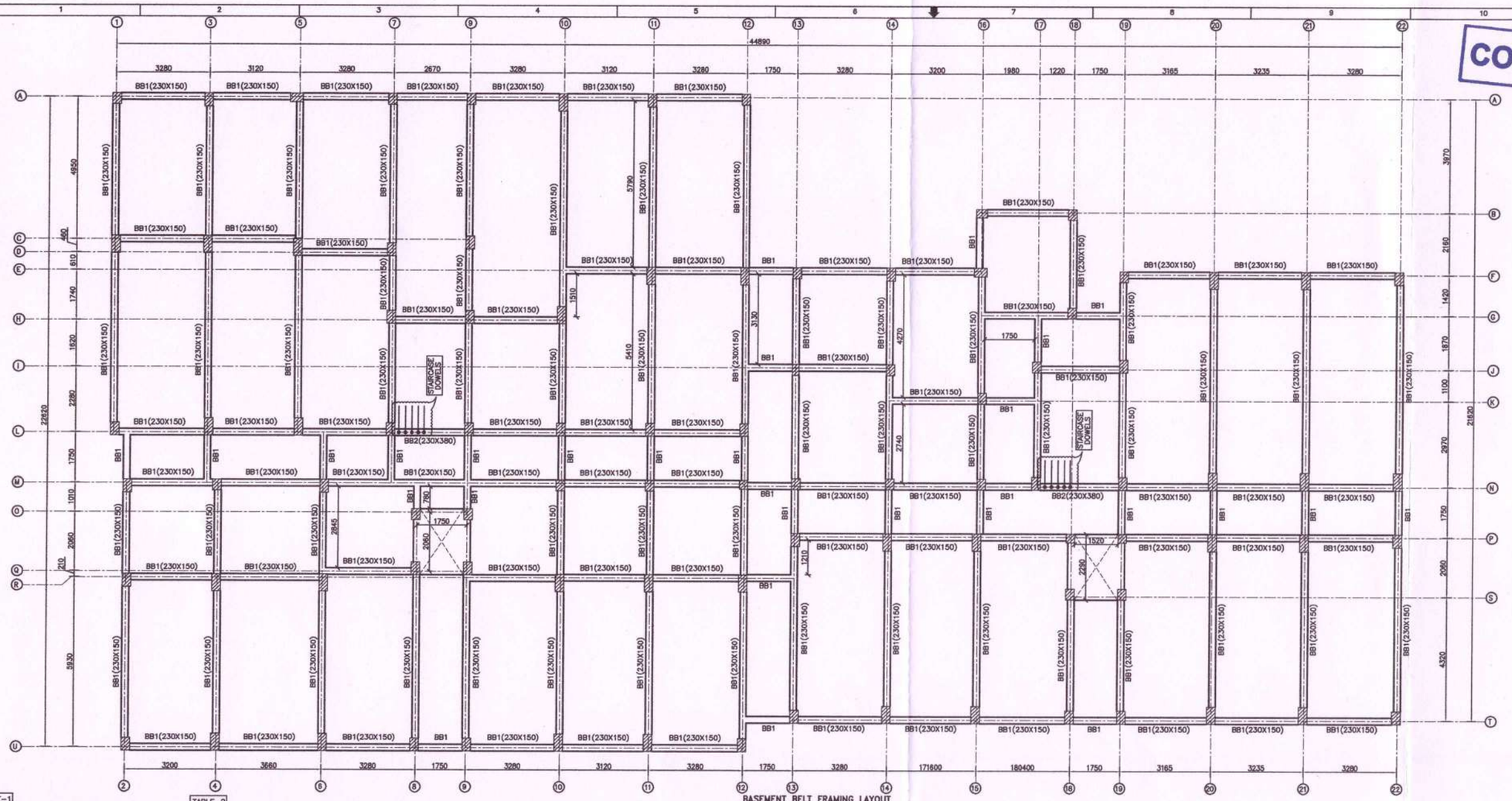
GOOD FOR CONSTRUCTION

DRAWING TITLE: GRADE BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682-A1-DWG-007 SHEET 01 OF 01 REVISION R0

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BASEMENT BELT FRAMING LAYOUT
SCALE 1:55

TABLE-1

BASEMENT BELT BEAM REINFORCEMENT DETAIL

SL.NO	BEAM MARK	CROSS SECTION
1.	BB1 (230X150)	2Y-8(TB); 2L-Y8@200MMC/C; 2Y-8(TB)
2.	BB2 (230X380)	2Y-16+1Y12(TB); 2L-Y8@160MMC/C; 2Y-16(TB)

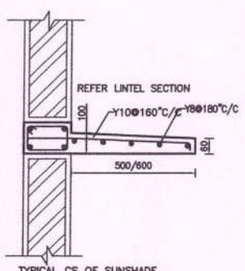
TABLE-2

LINTEL BEAM REINFORCEMENT DETAIL

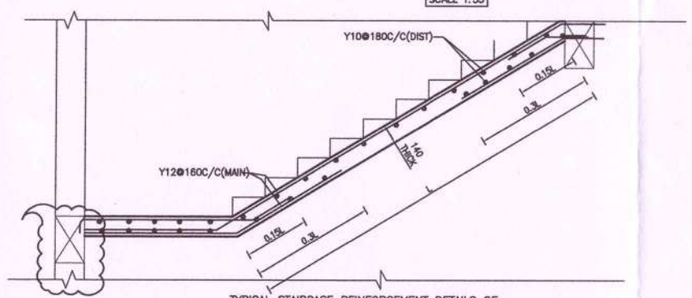
SL.NO	BEAM MARK	CROSS SECTION
1.	LB1-(230X150) 230 BRICK WALL OPENING 900-1300	2-Y8; 2LY8@180C/C; 2-Y8
2.	LB2-(230X150) 230 BRICK WALL OPENING 1300-1800	2-Y10; 2LY8@150C/C; 2-Y10
3.	LB3-(230X150) 230 BRICK WALL WITHOUT OPENING	2-Y8; 2LY8@200C/C; 2-Y8
4.	LB4-(115X150) 115 BRICK WALL WITHOUT OPENING	2-Y8; 2LY8@230C/C; 2-Y8

TABLE-3

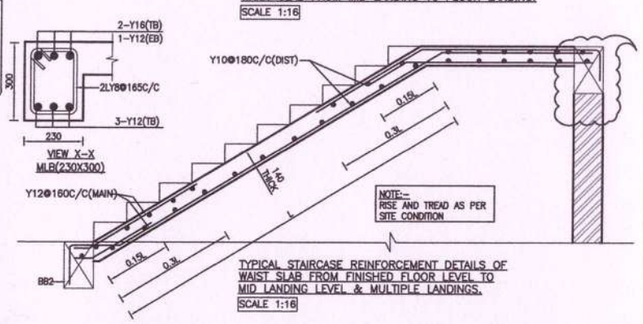
SL.NO	ϕ - DIA. OF BAR	L_d - DEVELOPMENT LENGTH OF BEAM
1.	8MM	450
2.	10MM	600
3.	12MM	700
4.	16MM	900



TYPICAL CS OF SUNSHADE
SCALE 1:10

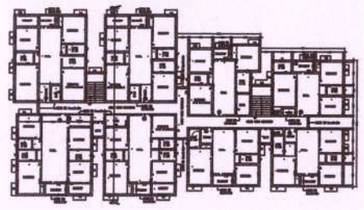


TYPICAL STAIRCASE REINFORCEMENT DETAILS OF WAIST SLAB FROM MID LANDING TO FLOOR LANDING.
SCALE 1:16



TYPICAL STAIRCASE REINFORCEMENT DETAILS OF WAIST SLAB FROM FINISHED FLOOR LEVEL TO MID LANDING LEVEL & MULTIPLE LANDINGS.
SCALE 1:16

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M - 14 DAYS
      II) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
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Anugraha Design Consultant
E. Mahendran

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.					
02.					
01.	21.12.2024	GOOD FOR CONSTRUCTION	R0	FATHI	MAHI

DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

CONCRETE - M25
STEEL - Fe 550

LEGENDS:-
BB - BASEMENT BELT BEAM
LVL - LEVEL
TYP - TYPICAL
C/S - CROSS SECTION
C/C - CENTER TO CENTER
L/S - LONGITUDINAL SECTION
TB - THROUGH BAR
EB - EXTRA BAR
F.F.L - FINISHED FLOOR LEVEL

THIS DRAWING IS ONLY VALID IF CONSULTANT IS CHECKED AT SITE.

GOOD FOR CONSTRUCTION

Dbeads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

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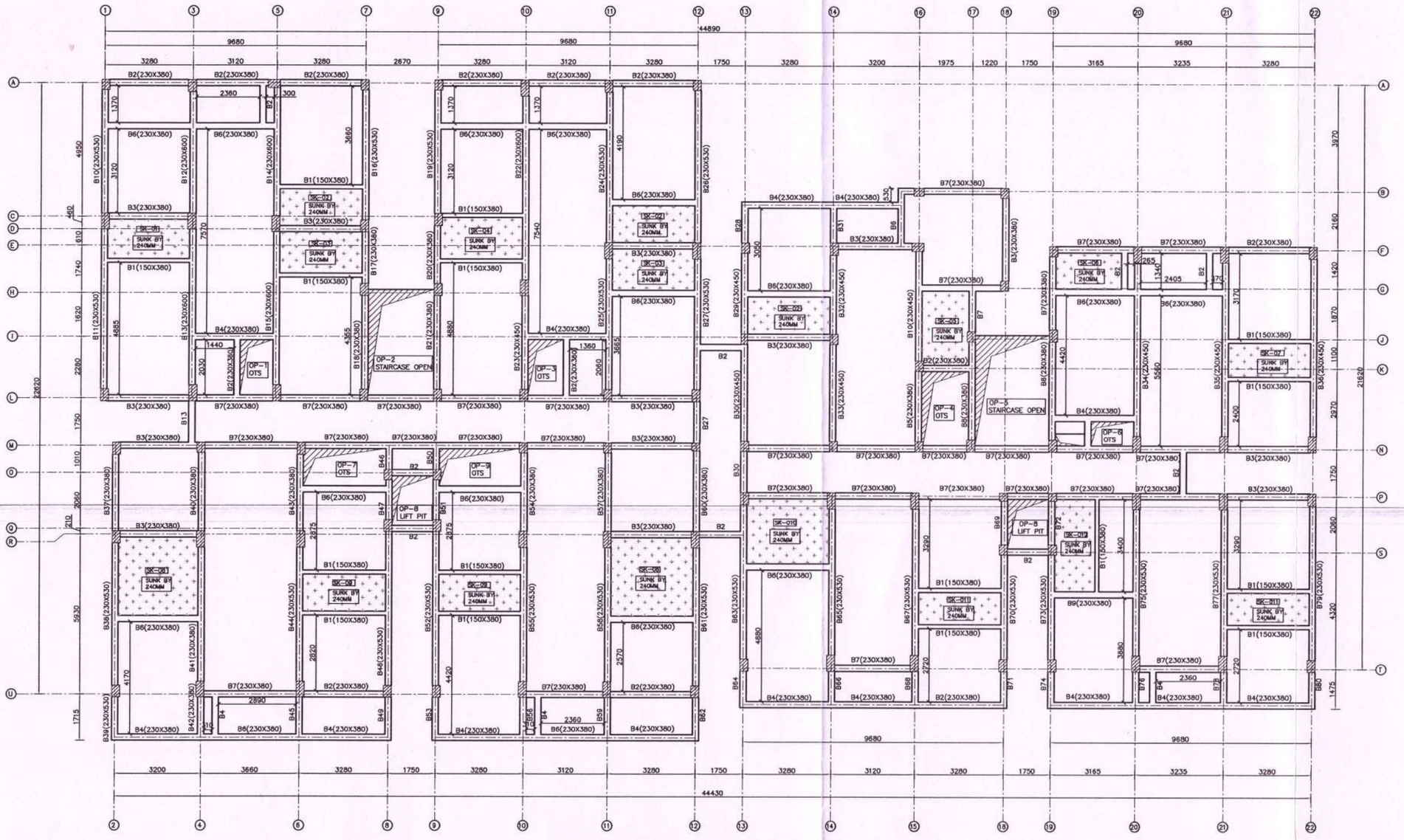
DRAWING TITLE: BASEMENT BELT FRAMING LAYOUT, LINTEL, STAIRCASE TYPICAL REINFORCEMENT DETAILS

DRAWING NO. 1682-A1-DWG-008 SHEET 01 OF 01 | REVISION 00

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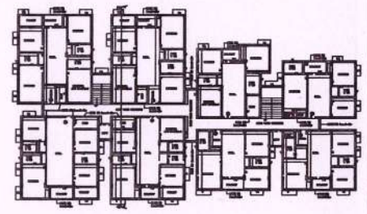
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STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

SCALE 1:55



KEYPLAN

NOTES:-

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E.Mahendran

FOR STRUCTURAL ENGINEER

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
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STRUCTURAL CONSULTANT:-
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-009 SHEET 01 OF 06 | REVISION 02

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

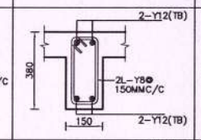
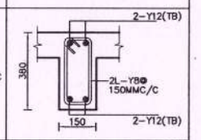
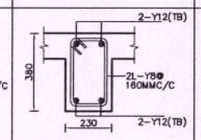
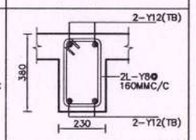
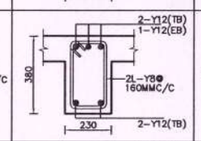
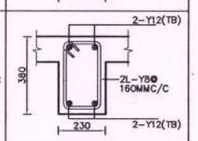
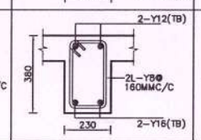
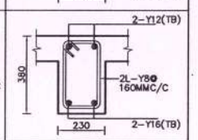
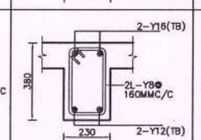
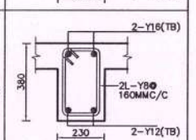
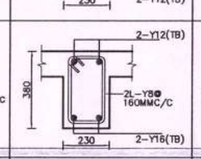
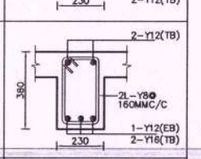
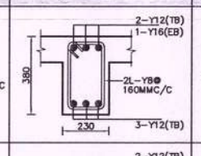
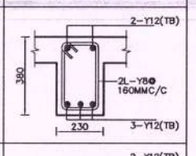
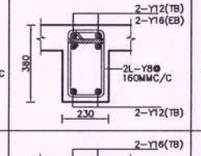
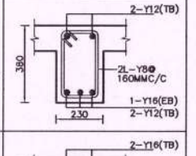
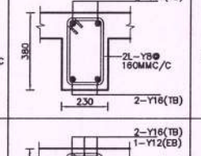
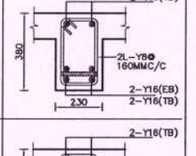
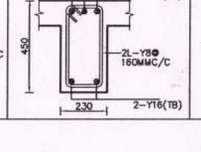
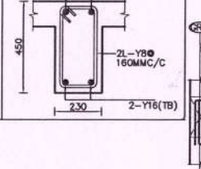
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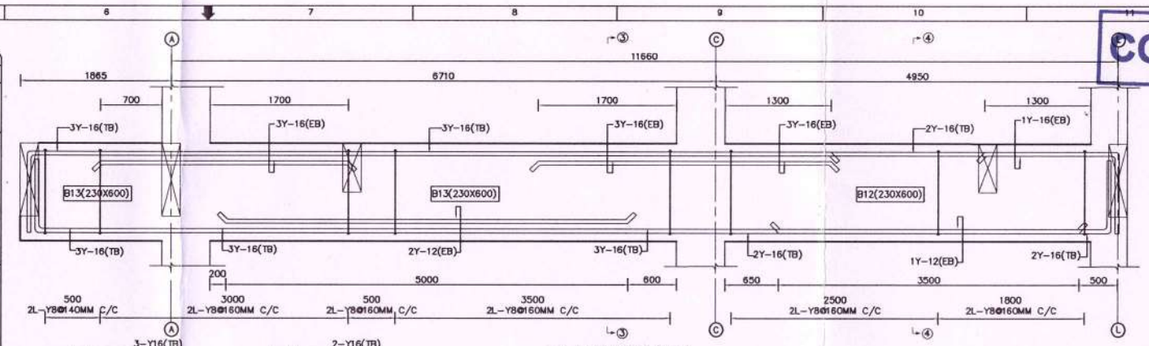
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

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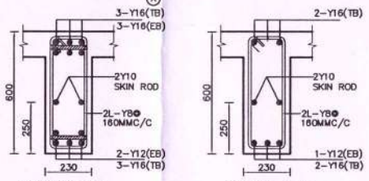
TABLE-1

STILT FLOOR ROOF BEAM REINFORCEMENT DETAIL :-

BEAM MARK	(AT END SPAN) TOP REINFORCEMENT THROUGH	(AT END SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT END SPAN) BOTTOM REINFORCEMENT THROUGH	(AT END SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT END SPAN) STIRRUPS	(AT END SPAN) CROSS SECTION	(AT MID SPAN) TOP REINFORCEMENT THROUGH	(AT MID SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT MID SPAN) BOTTOM REINFORCEMENT THROUGH	(AT MID SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT MID SPAN) STIRRUPS	(AT MID SPAN) CROSS SECTION
B1(150X380)	2-Y12	---	2-Y12	---	2L-Y8@ 150MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 150MMC/C	
B2(230X380)	2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B3(230X380)	2-Y12	1-Y12	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B4(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C	
B5(230X380)	2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C	
B6(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	1-Y12	2L-Y8@ 160MMC/C	
B7(230X380)	2-Y12	1-Y16	3-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	3-Y12	---	2L-Y8@ 160MMC/C	
B8(230X380)	2-Y12	2-Y16	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	1-Y16	2L-Y8@ 160MMC/C	
B9(230X380)	2-Y16	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y16	2-Y16	2L-Y8@ 160MMC/C	
B10(230X450)	2-Y16	1-Y12	2-Y16	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y16	---	2L-Y8@ 160MMC/C	

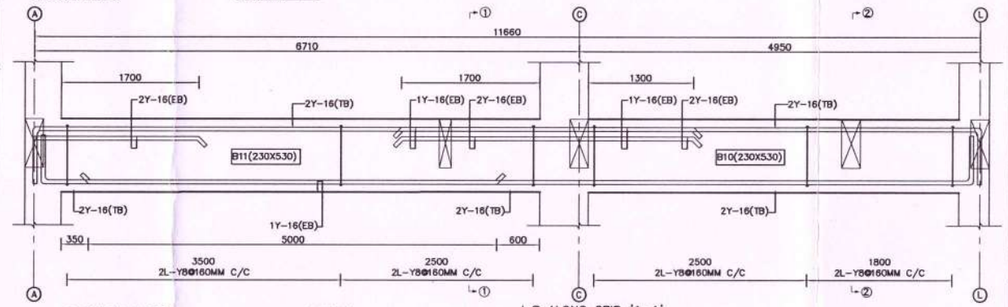


L.S ALONG GRID '3-3'
B12,B13(230X600)

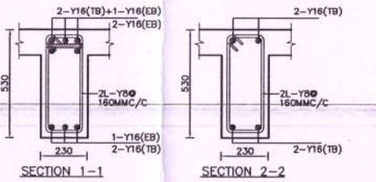


SECTION 3-3

SECTION 4-4



L.S ALONG GRID '1-1'
B10,B11(230X530)



SECTION 1-1

SECTION 2-2

TABLE-2

STILT FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

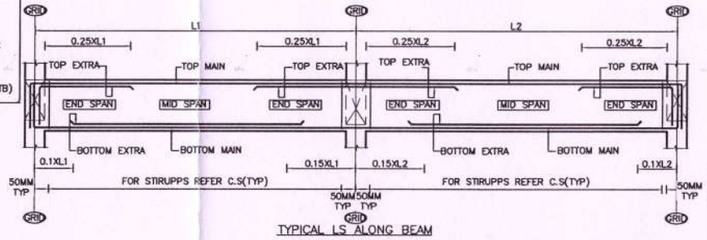
TABLE-3

STILT FLOOR ROOF BEAM SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	SK-01 SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02 SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03 SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04 SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05 SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06 SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07 SUNKEN(SUNK BY 240MM)	3050 X 1260
8.	SK-08 SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09 SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010 SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011 SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012 SUNKEN(SUNK BY 240MM)	1500 X 3400

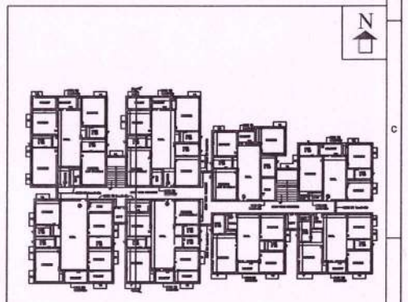
TABLE-4

S.NO	ϕ - DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR BEAM
1.	12MM	600MM
2.	16MM	800MM



TYPICAL LS ALONG BEAM

GOOD FOR CONSTRUCTION



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 6.00M - 14 DAYS
      ii) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.IV
CHARTED Str.Engr. No. CE/ISE/LM/255
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

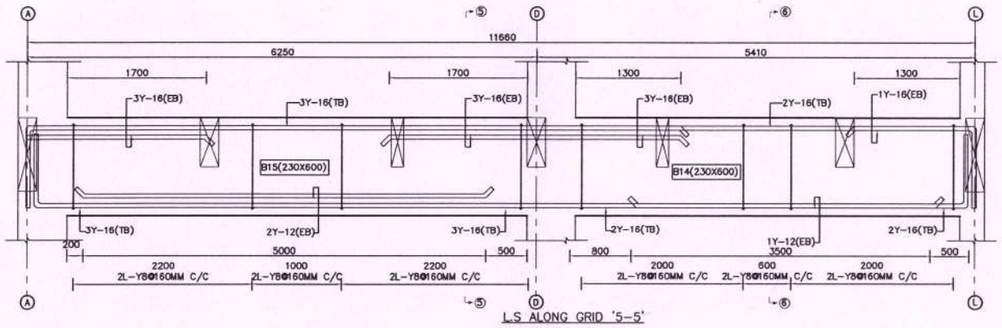
DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-009 SHEET 02 OF 06 | REVISION 02

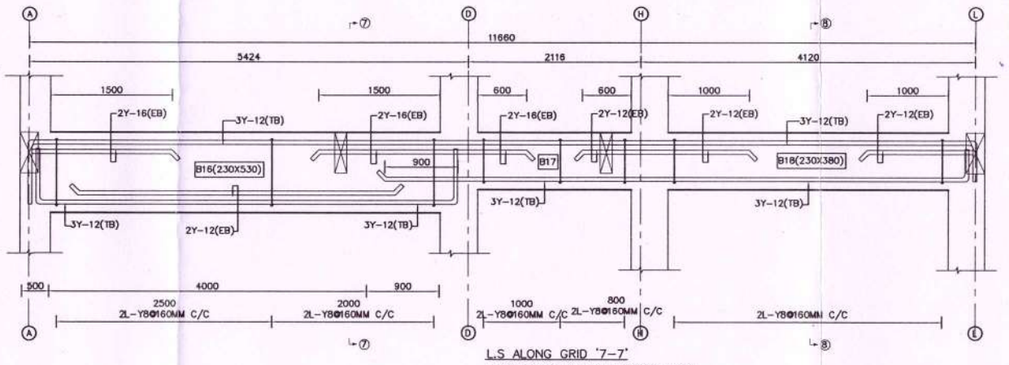
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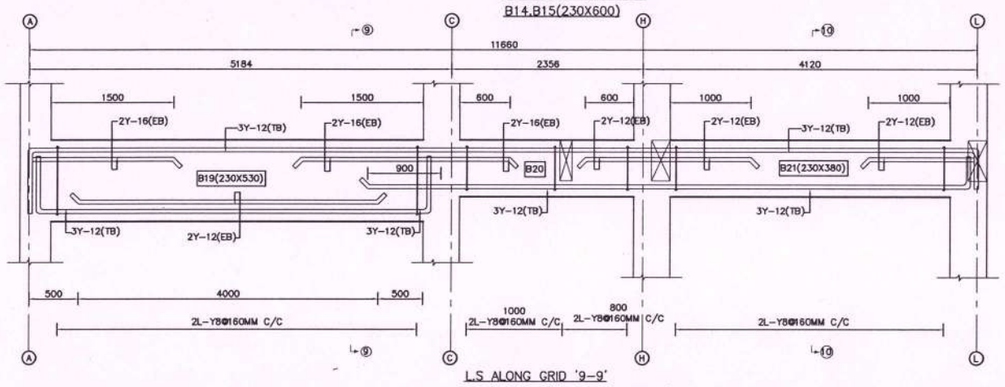
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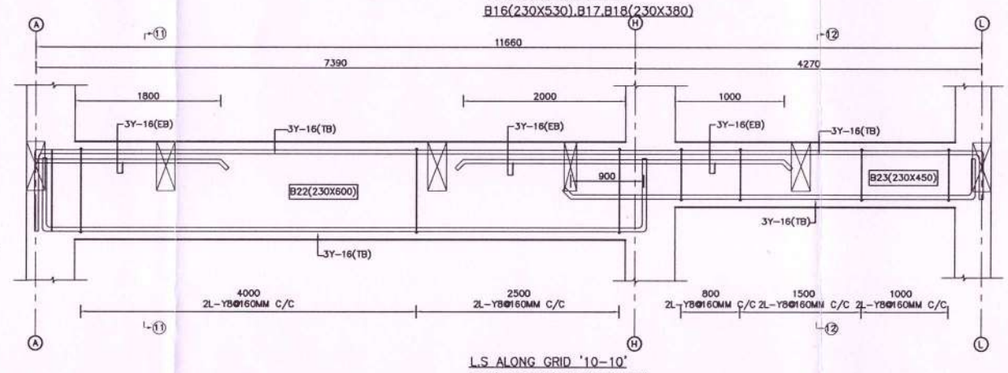
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B14,B15(230X600)



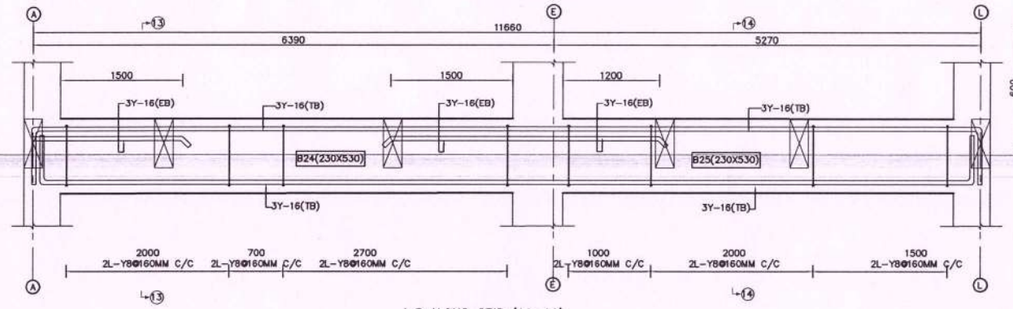
L.S ALONG GRID '7-7'
B16(230X530),B17,B18(230X380)



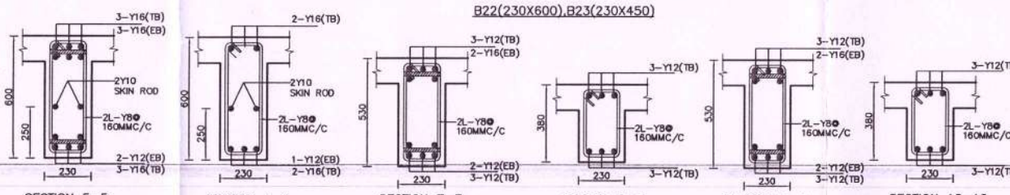
L.S ALONG GRID '9-9'
B19(230X530),B20,B21(230X380)



L.S ALONG GRID '10-10'
B22(230X600),B23(230X450)



L.S ALONG GRID '11-11'
B24(230X530),B25(230X530)



SECTION 5-5

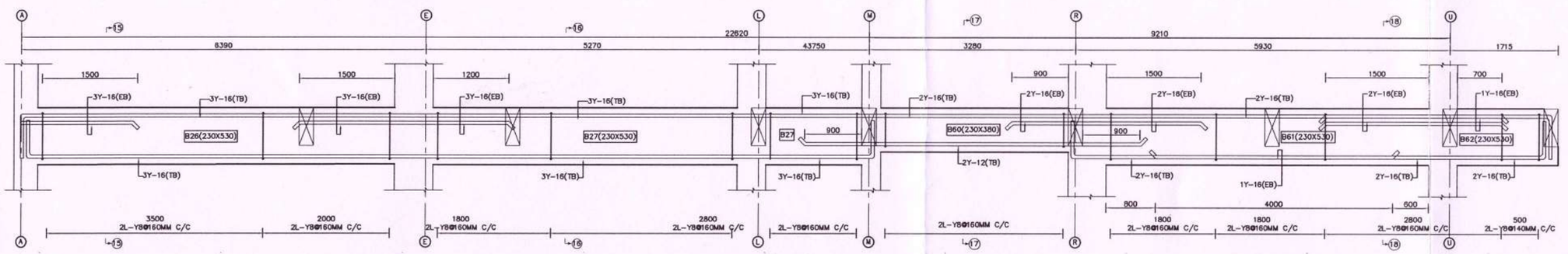
SECTION 6-6

SECTION 7-7

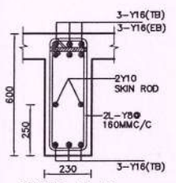
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SECTION 9-9

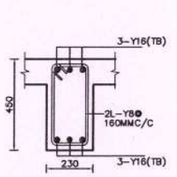
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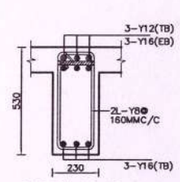
L.S ALONG GRID '12-12'
B26(230X530),B27(230X530),B60(230X380),B61,B62(230X530)



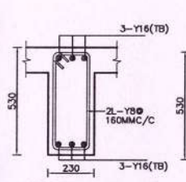
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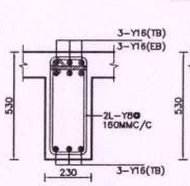
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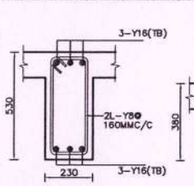
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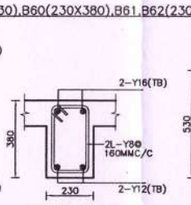
SECTION 14-14



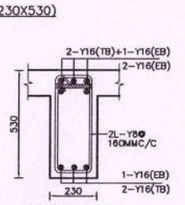
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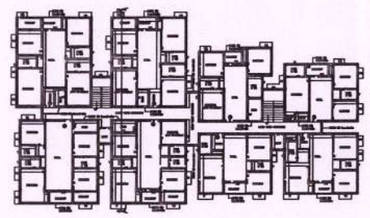
SECTION 16-16



SECTION 17-17



SECTION 18-18



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.5Om - 7 DAYS
      ii) SPANNING OVER 4.5Om -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 6.00M - 14 DAYS
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6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
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9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

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Anugraha Design Consultant
E.Mahendran
FOR STRUCTURAL ENGINEER

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

GOOD FOR CONSTRUCTION

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1,
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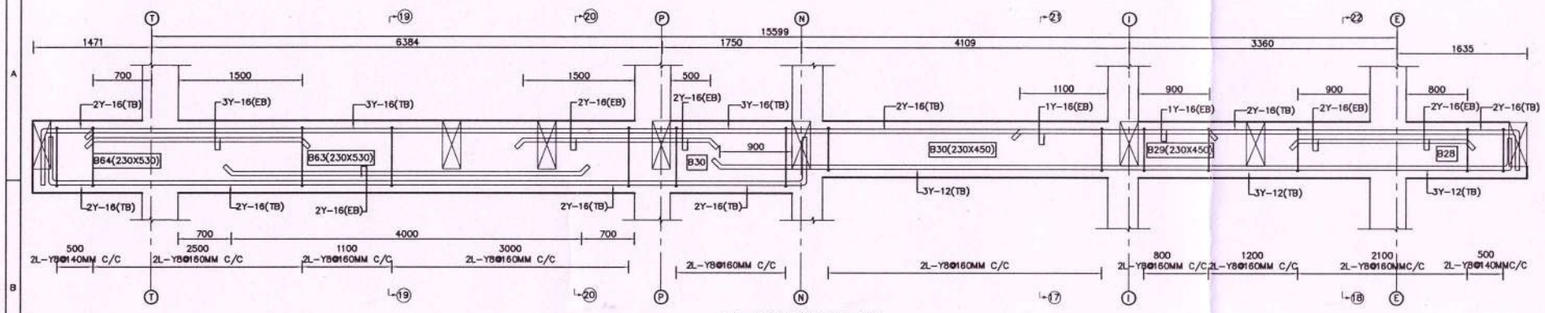
STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

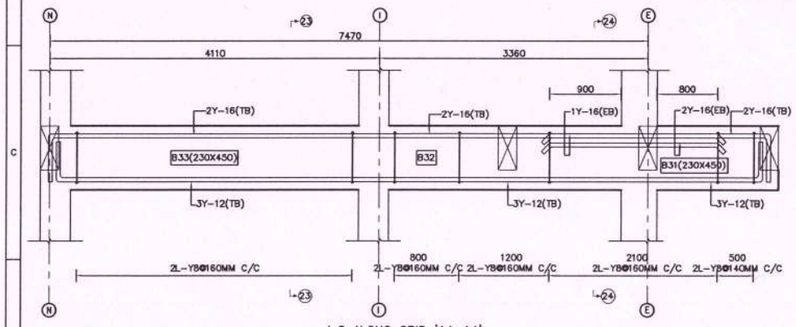
DRAWING NO. 1031-A1-DWG-009 SHEET 03 OF 06 | REVISION 02

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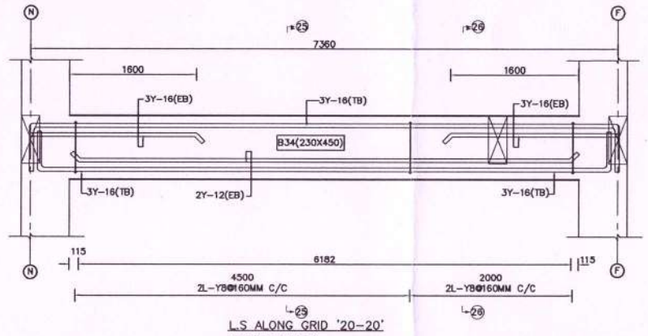
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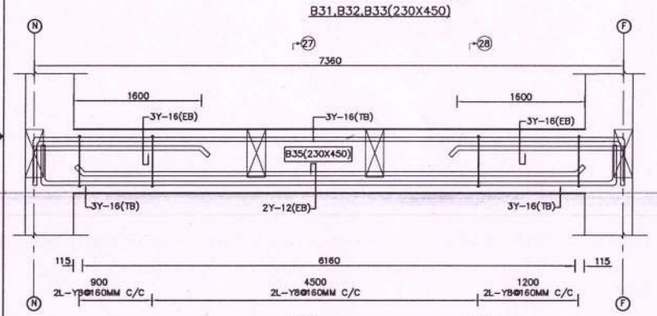
L.S ALONG GRID '13-13'
B28,B29,B30(230X450),B63,B64(230X530)



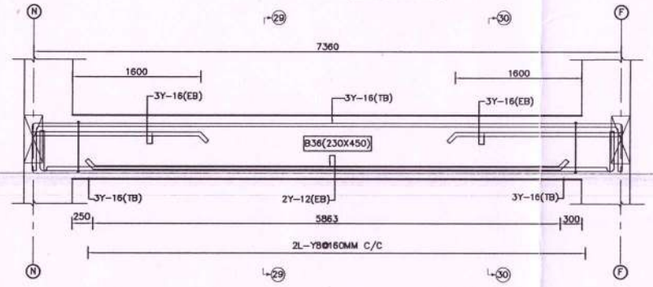
L.S ALONG GRID '14-14'
B31,B32,B33(230X450)



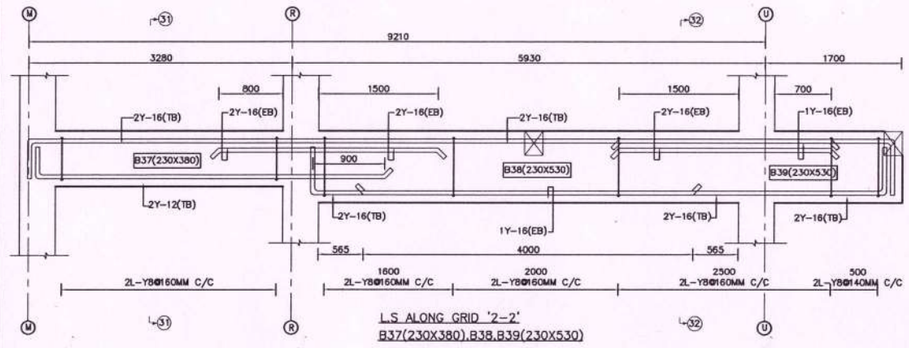
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B34(230X450)



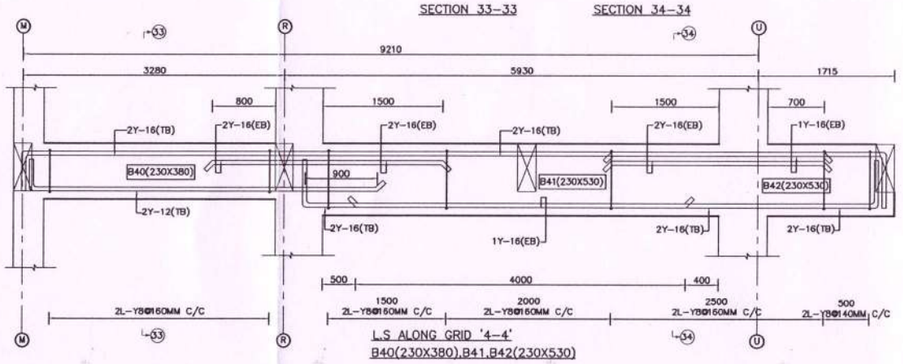
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B35(230X450)



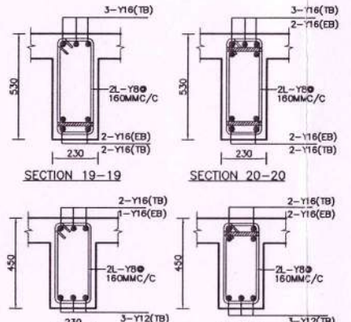
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B36(230X450)



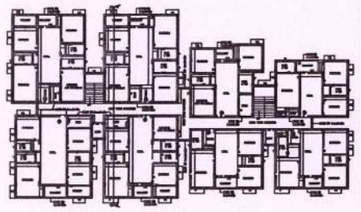
L.S ALONG GRID '2-2'
B37(230X380),B38,B39(230X530)



L.S ALONG GRID '4-4'
B40(230X380),B41,B42(230X530)



COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
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01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHE

DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
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Er.E.MAHENDRAN M.E. Str.Engg. F.I.V.
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-009 SHEET 04 OF 06 | REVISION 02

CONCRETE M25
STEEL FE 550

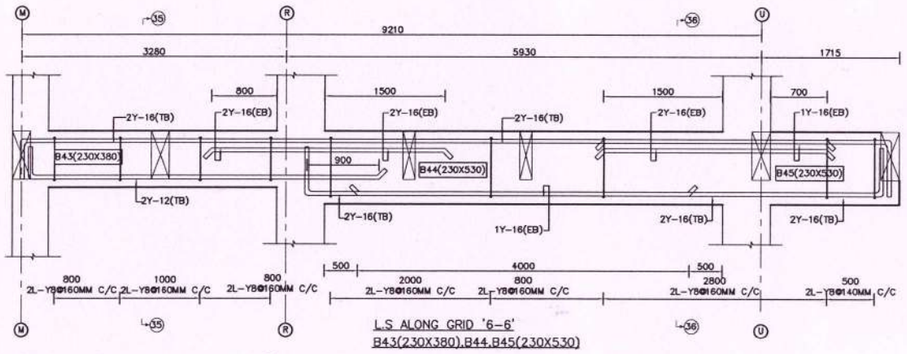
LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

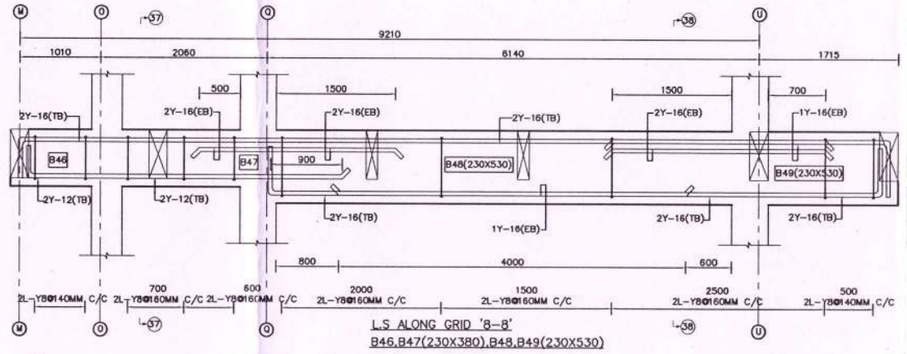
GOOD FOR CONSTRUCTION

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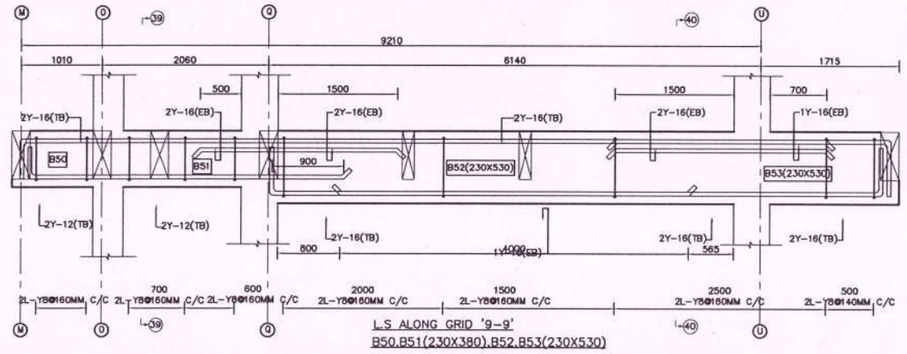
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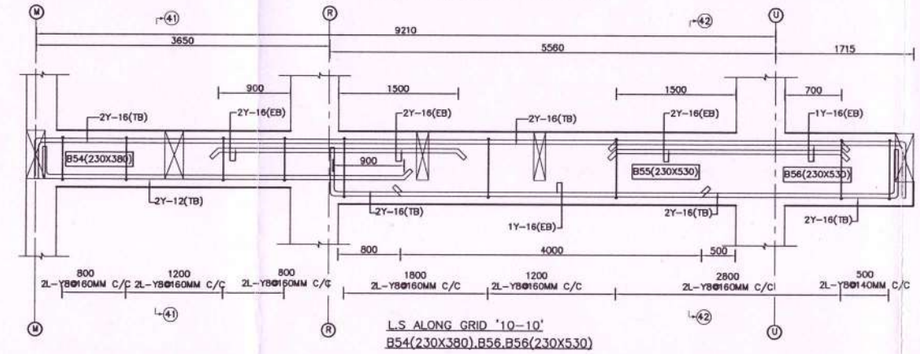
L.S ALONG GRID '6-6'
B43(230X380),B44,B45(230X530)



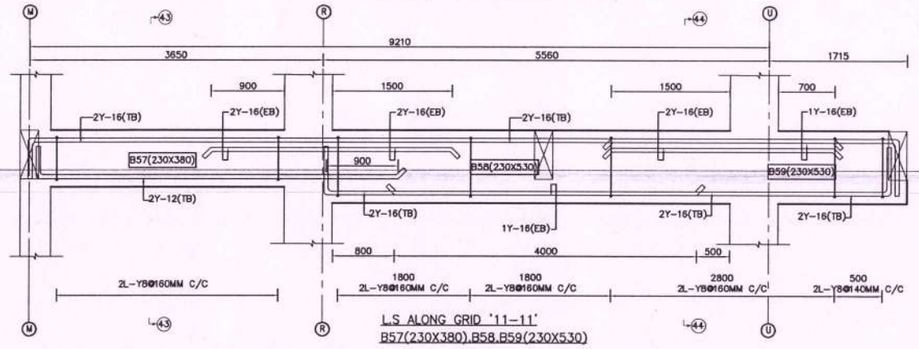
L.S ALONG GRID '8-8'
B46,B47(230X380),B48,B49(230X530)



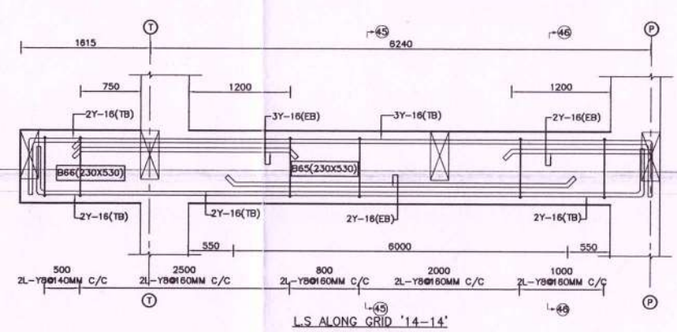
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B50,B51(230X380),B52,B53(230X530)



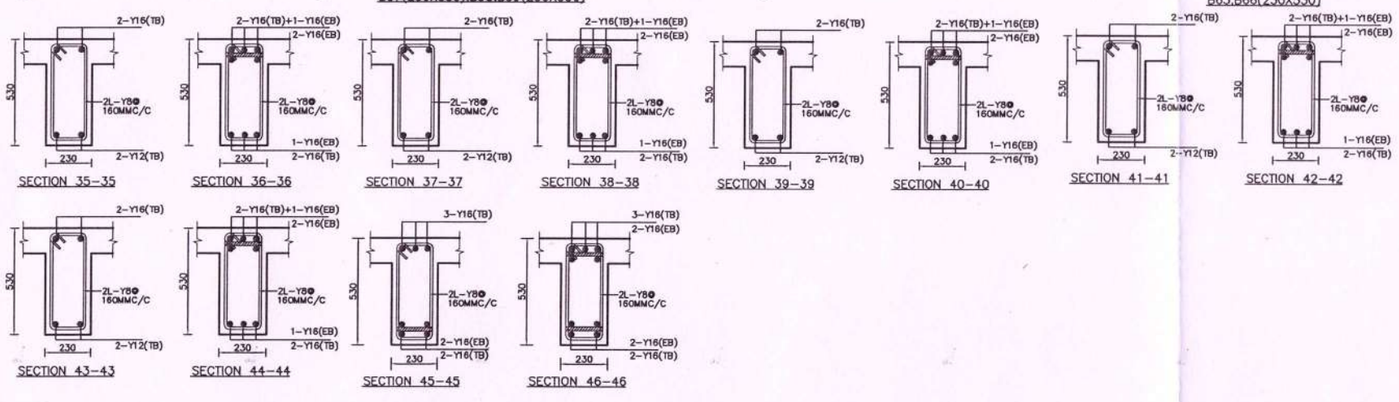
L.S ALONG GRID '10-10'
B54(230X380),B56,B56(230X530)



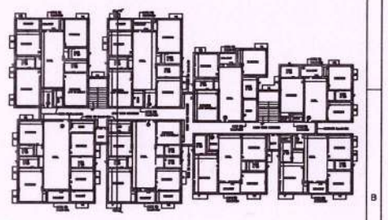
L.S ALONG GRID '11-11'
B57(230X380),B58,B59(230X530)



L.S ALONG GRID '14-14'
B65,B66(230X530)



COPY TO CLIENT



KEYPLAN

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CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 81
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-009 SHEET 05 OF 06 | REVISION 02

CONCRETE M25
STEEL FE 550

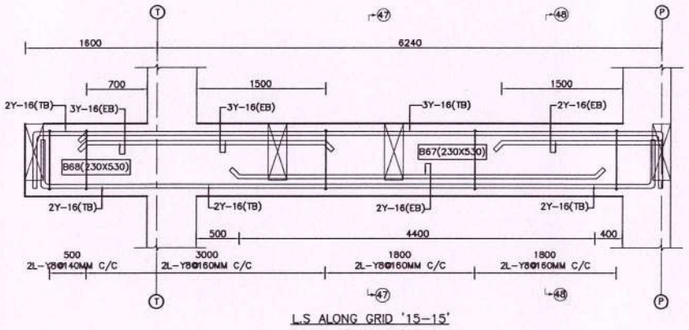
LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
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LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

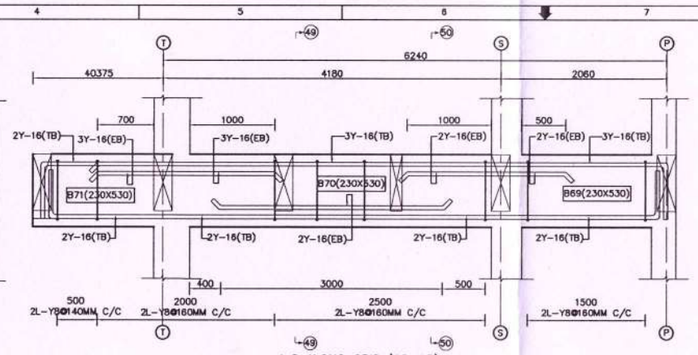
GOOD FOR CONSTRUCTION

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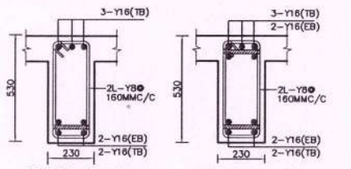
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



L.S ALONG GRID '15-15'
B67,B68(230X530)

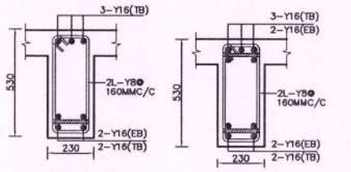


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B69,B70,B71(230X530)



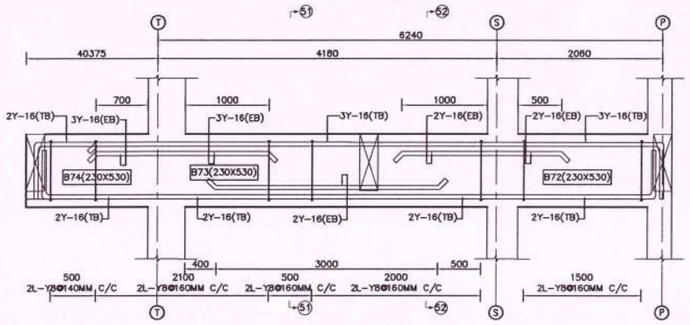
SECTION 47-47

SECTION 48-48

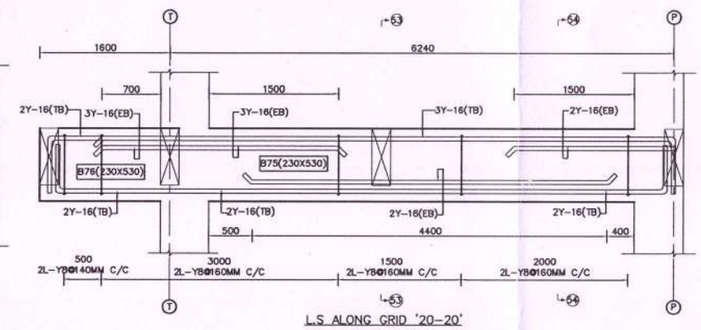


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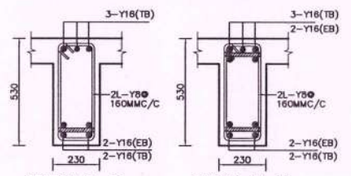
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B72,B73,B74(230X530)

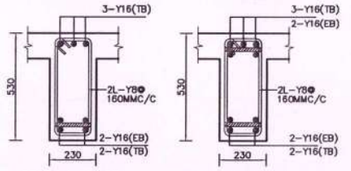


L.S ALONG GRID '20-20'
B75,B76(230X530)



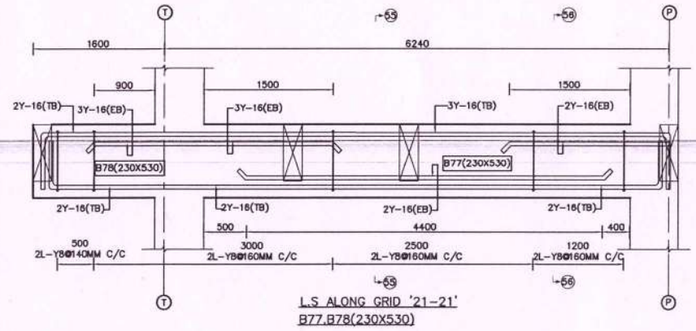
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SECTION 52-52

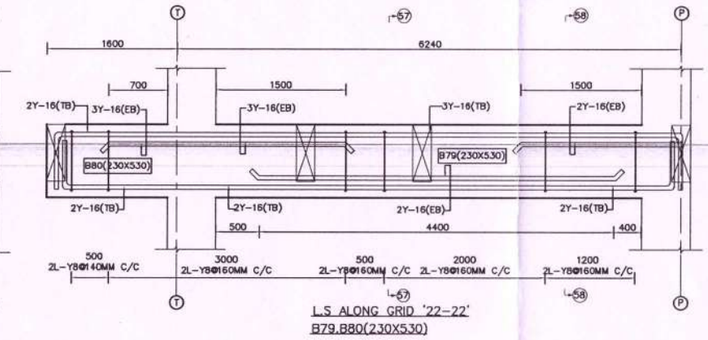


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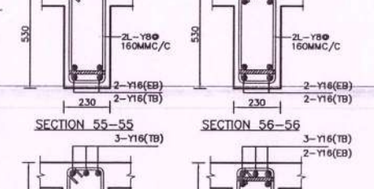
SECTION 54-54



L.S ALONG GRID '21-21'
B77,B78(230X530)

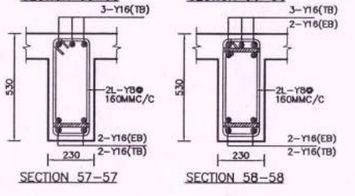


L.S ALONG GRID '22-22'
B79,B80(230X530)



SECTION 55-55

SECTION 56-56



SECTION 57-57

SECTION 58-58

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

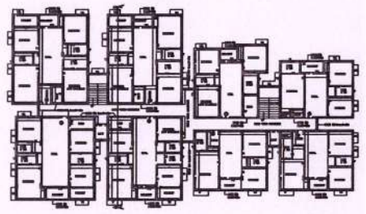
GOOD FOR CONSTRUCTION

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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

COPY TO CLIENT

N



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT: FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M - 14 DAYS
      II) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50.40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

E.Mahendran

Anugraha Design Consultant

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

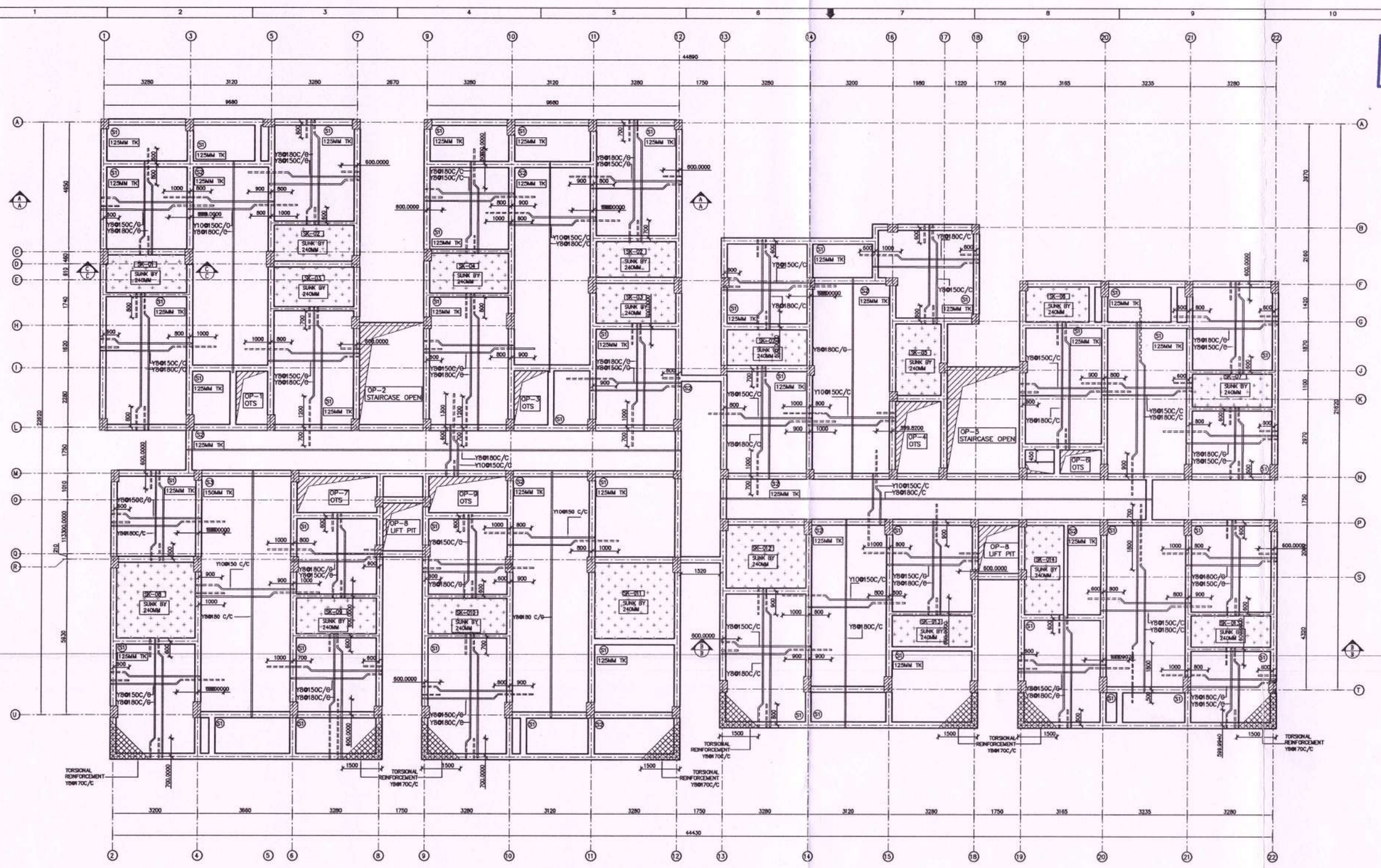
CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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DRAWING TITLE: STILT FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

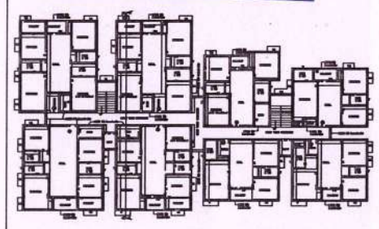
DRAWING NO. 1031-A1-DWG-009 SHEET 06 OF 06 | REVISION 02



STILT FLOOR ROOF SLAB LAYOUT AND REINFORCMENT DETAILS

SCALE 1:55

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-500 GRADE.
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 8.00M - 14 DAYS
      ii) SPANNING OVER 8.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant Mahendran

FOR STRUCTURAL ENGINEER.

TABLE-1

STILT FLOOR ROOF SLAB SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	SK-01 SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02 SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03 SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04 SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05 SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06 SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07 SUNKEN(SUNK BY 240MM)	3050 X 1280
8.	SK-08 SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09 SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010 SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011 SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012 SUNKEN(SUNK BY 240MM)	1500 X 3400

TABLE-2

STILT FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

TABLE-3

S.NO.	ϕ- DIA. OF BAR	Ld - DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	400MM
2.	10MM	500MM

TABLE-4

STILT ROOF SLAB REINFORCEMENT DETAILS

S.NO.	SLAB MARK	THK. OF SLAB	TYPE OF SLAB	REINFORCEMENT	
				MAIN BAR	DISTRIBUTION
1.	S1	125 MM	TWO WAY	Y8@150C/C	Y8@180C/C
2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C
4.	SK	140 MM	TWO WAY (SUNKEN)	Y10@150C/C	Y10@180C/C

CONCRETE M25
STEEL FE 550

LEGENDS:-

S - SLAB
SK - SUNKEN
OP - OPENING
LVL - LEVEL
TYP - TYPICAL
—— - TOP BAR
—— - BOTTOM BAR
TOC - TOP OF CONCRETE
C/C - CENTER TO CENTER
C/S - CROSS SECTION
L/S - LONGITUDINAL SECTION
REINF. - REINFORCEMENT

GOOD FOR CONSTRUCTION

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	18.07.2024	GOOD FOR CONSTRUCTION	00	FATHI	MAHI

DRAWN BY Er.FARZANA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1, SAROJINI STREET, RAM NAGAR, COIMBATORE-641009.
MOBILE: 99432514S3.

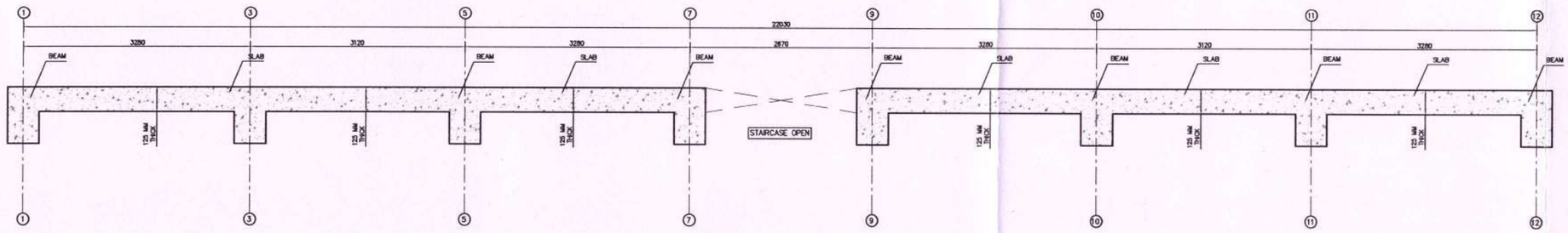
STRUCTURAL CONSULTANT:-
Anugraha Design Consultant
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
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DRAWING TITLE: STILT FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

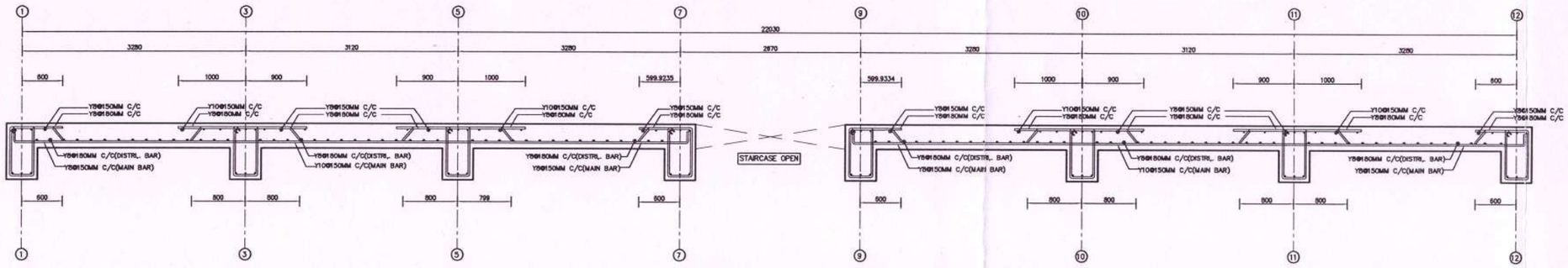
DRAWING NO. 1682-A1-DWG-010 SHEET 01 OF 02 | REVISION 02

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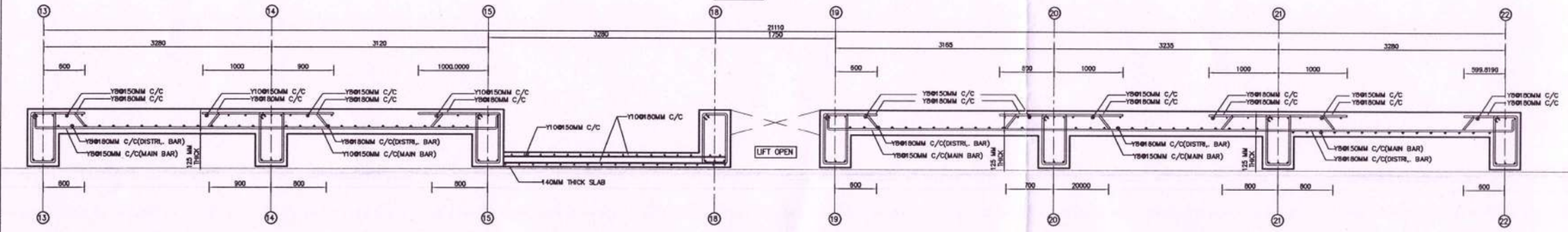
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



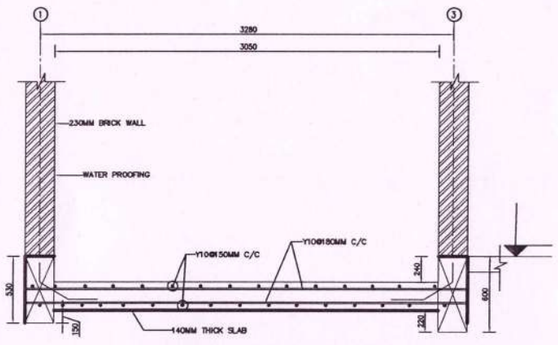
SECTION A-A
ROOF SLAB CONCRETE GENERAL ARRANGEMENT
SCALE 1:20



SECTION A-A
ROOF SLAB REINFORCEMENT GENERAL ARRANGEMENT
SCALE 1:25



SECTION B-B
ROOF SLAB REINFORCEMENT GENERAL ARRANGEMENT
SCALE 1:25



TOILET SUNKEN SLAB SK-01 REINFORCEMENT DETAIL
SECTION C-C
SCALE 1:25

TABLE-1

STILT FLOOR ROOF SLAB SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	SK-01 SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02 SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03 SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04 SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05 SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06 SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07 SUNKEN(SUNK BY 240MM)	3050 X 1260
8.	SK-08 SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09 SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010 SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011 SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012 SUNKEN(SUNK BY 240MM)	1500 X 3400

TABLE-2

STILT FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

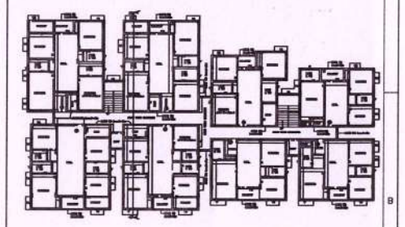
TABLE-3

STILT ROOF SLAB REINFORCEMENT DETAILS

S.NO	SLAB MARK	THK. OF SLAB	TYPE OF SLAB	REINFORCEMENT	
				MAIN BAR	DISTRIBUTION
1.	S1	125 MM	TWO WAY	Y8@150C/C	Y8@180C/C
2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C
4.	SK	140 MM	TWO WAY (SUNKEN)	Y10@150C/C	Y10@180C/C

TABLE-4

S.NO	ϕ - DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	400MM
2.	10MM	500MM



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-500 GRADE.
3. GRADE OF CONCRETE SHALL BE M25 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 8.00M - 14 DAYS
      ii) SPANNING OVER 8.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50.40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E. Mahendran
FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	CHD.	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	18.07.2024	GOOD FOR CONSTRUCTION	00	FATHI	MAHI

DRAWN BY Er.FARZANA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: STILT FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682-A1-DWG-010 SHEET 02 OF 02 | REVISION 02

CONCRETE M25
STEEL FE 550

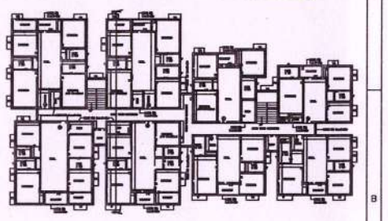
LEGENDS:-
S - SLAB
SK - SUNKEN
OP - OPENING
LVL - LEVEL
TYP - TYPICAL
—— - TOP BAR
—— - BOTTOM BAR
TOC - TOP OF CONCRETE
C/C - CENTER TO CENTER
C/S - CROSS SECTION
L/S - LONGITUDINAL SECTION
REINF. - REINFORCEMENT

GOOD FOR CONSTRUCTION

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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT: FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
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E.Mahendran Anugraha Design Consultant

FOR STRUCTURAL ENGINEER.

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DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

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STRUCTURAL CONSULTANT:-
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-011 SHEET 01 OF 06 | REVISION 02

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT

SCALE 1:55

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

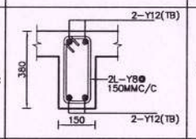
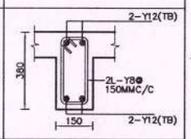
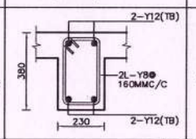
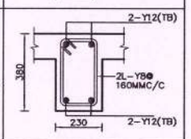
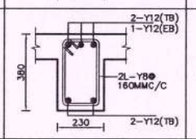
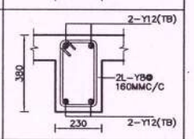
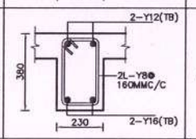
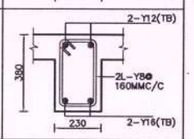
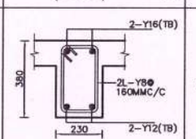
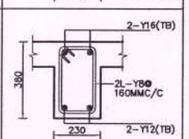
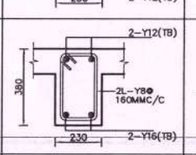
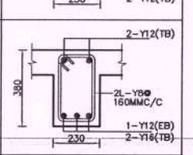
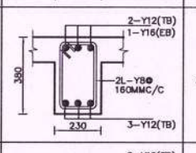
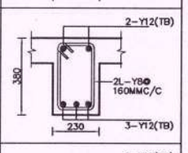
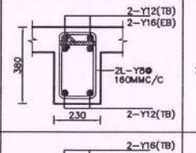
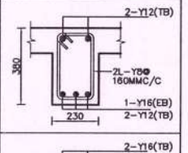
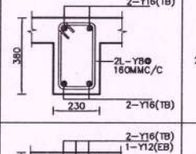
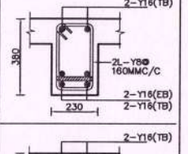
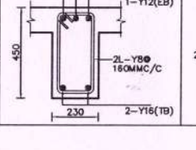
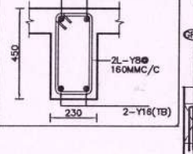
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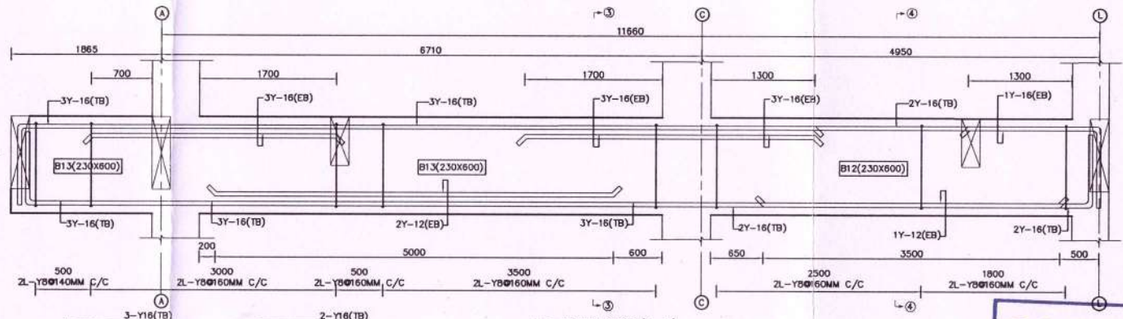
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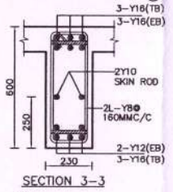
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

TABLE-1

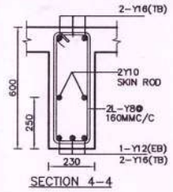
FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM REINFORCEMENT DETAIL :-

BEAM MARK	(AT END SPAN) TOP REINFORCEMENT THROUGH	(AT END SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT END SPAN) BOTTOM REINFORCEMENT THROUGH	(AT END SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT END SPAN) STIRRUPS	(AT END SPAN) CROSS SECTION	(AT MID SPAN) TOP REINFORCEMENT THROUGH	(AT MID SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT MID SPAN) BOTTOM REINFORCEMENT THROUGH	(AT MID SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT MID SPAN) STIRRUPS	(AT MID SPAN) CROSS SECTION
B1(150X380)	2-Y12	---	2-Y12	---	2L-Y8@ 150MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 150MMC/C	
B2(230X380)	2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B3(230X380)	2-Y12	1-Y12	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B4(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C	
B5(230X380)	2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C	
B6(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	1-Y12	2L-Y8@ 160MMC/C	
B7(230X380)	2-Y12	1-Y16	3-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	3-Y12	---	2L-Y8@ 160MMC/C	
B8(230X380)	2-Y12	2-Y16	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	1-Y16	2L-Y8@ 160MMC/C	
B9(230X380)	2-Y16	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y16	2-Y16	2L-Y8@ 160MMC/C	
B10(230X450)	2-Y16	1-Y12	2-Y16	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y16	---	2L-Y8@ 160MMC/C	

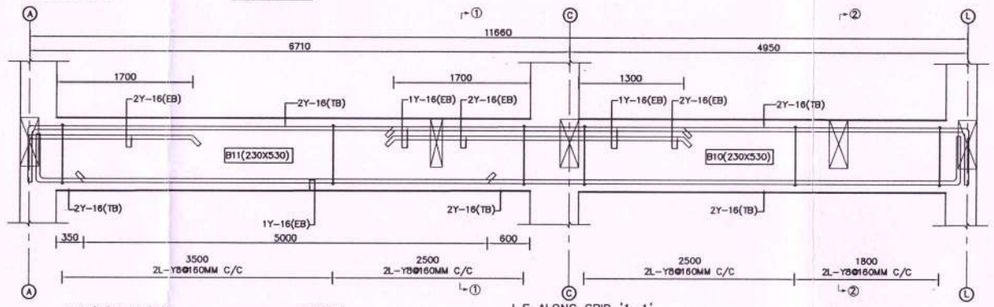


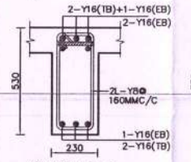


SECTION 3-3

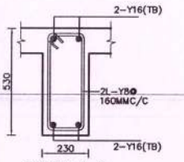


SECTION 4-4





SECTION 1-1



SECTION 2-2

TABLE-2

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

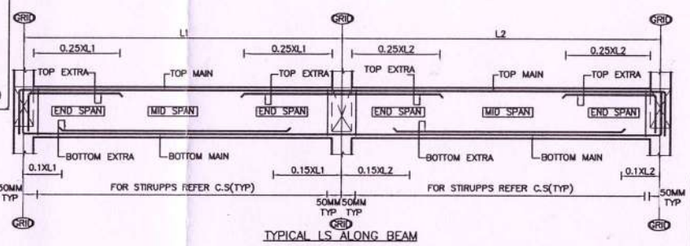
TABLE-3

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	SK-01 SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02 SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03 SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04 SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05 SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06 SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07 SUNKEN(SUNK BY 240MM)	3050 X 1260
8.	SK-08 SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09 SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010 SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011 SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012 SUNKEN(SUNK BY 240MM)	1500 X 3400

TABLE-4

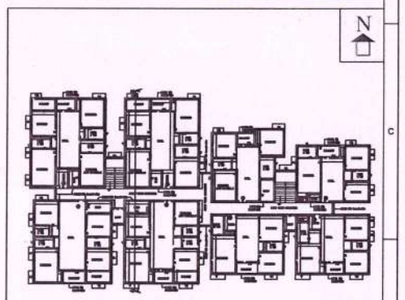
S.NO	ϕ- DIA OF BAR	Ld - DEVELOPMENTAL LENGTH FOR BEAM
1.	12MM	780MM
2.	16MM	1040MM



TYPICAL LS ALONG BEAM

GOOD FOR CONSTRUCTION

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT: FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
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03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
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01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI
DRAWN BY	Er.UMA	CHECKED BY Mr.MAHENDRAN	APPROVED BY	Mr.MAHENDRAN	

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

beads
better Environment for Architectural Design of Shelters
ANM CREST 1828/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

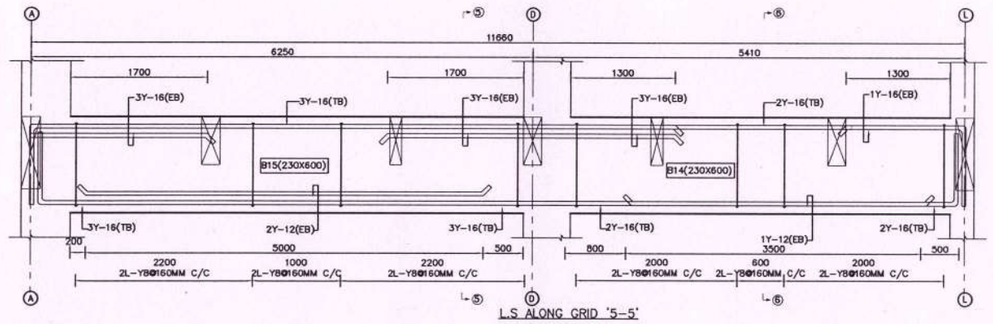
STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.IV
CHARTERED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

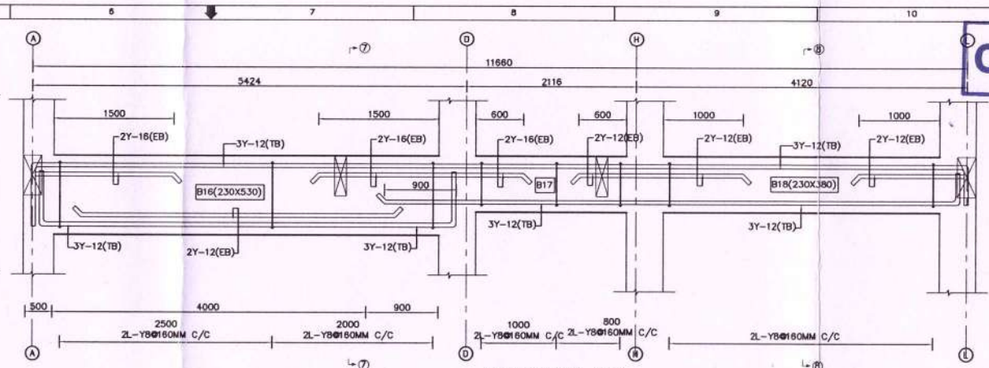
DRAWING NO. 1031-A1-DWG-011 SHEET 02 OF 06 REVISION 02

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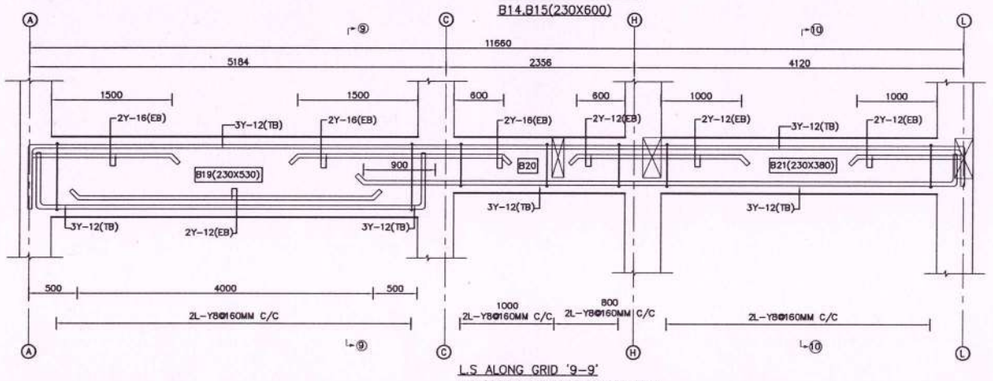
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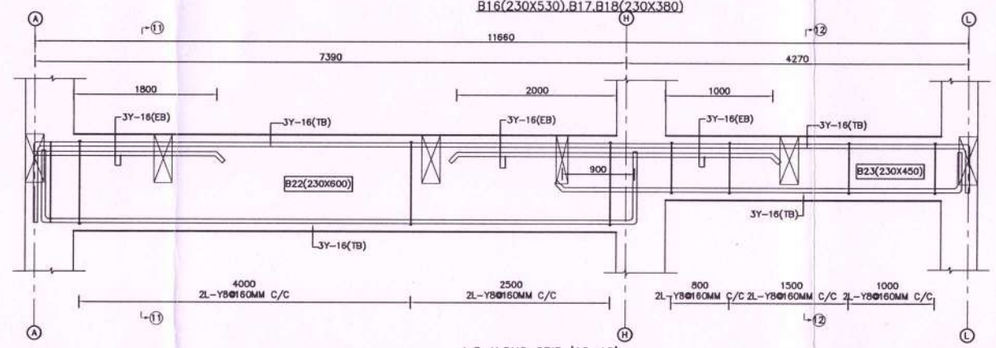
L.S ALONG GRID '5-5'
B14,B15(230X600)



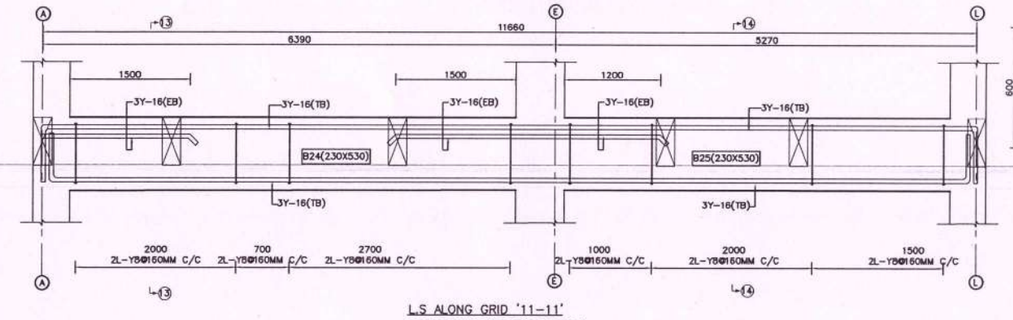
L.S ALONG GRID '7-7'
B16(230X530),B17,B18(230X380)



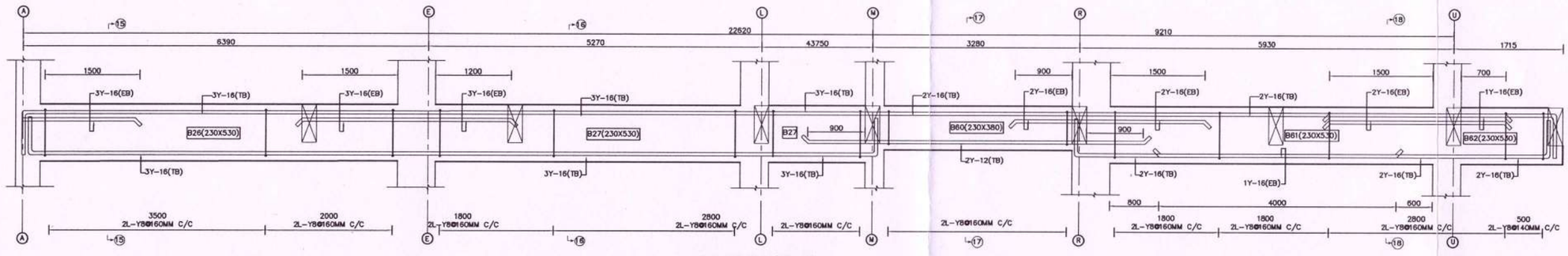
L.S ALONG GRID '9-9'
B19(230X530),B20,B21(230X380)



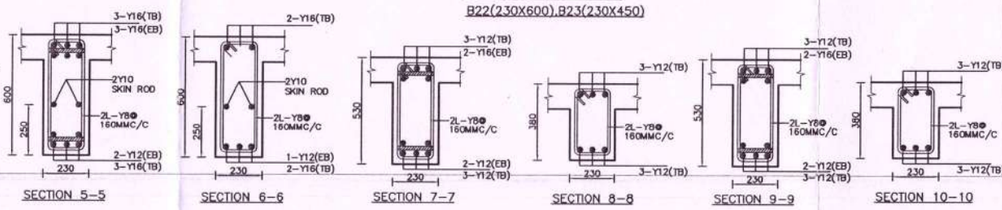
L.S ALONG GRID '10-10'
B22(230X600),B23(230X450)



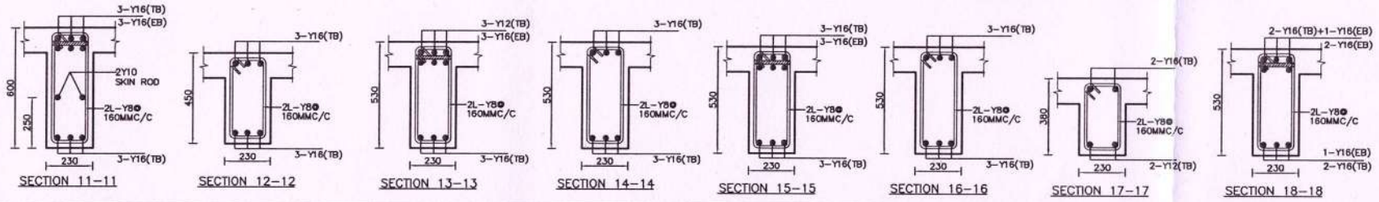
L.S ALONG GRID '11-11'
B24(230X530),B25(230X530)



L.S ALONG GRID '12-12'
B26(230X530),B27(230X530),B60(230X380),B61,B62(230X530)



SECTION 5-5 | SECTION 6-6 | SECTION 7-7 | SECTION 8-8 | SECTION 9-9 | SECTION 10-10



SECTION 11-11 | SECTION 12-12 | SECTION 13-13 | SECTION 14-14 | SECTION 15-15 | SECTION 16-16 | SECTION 17-17 | SECTION 18-18

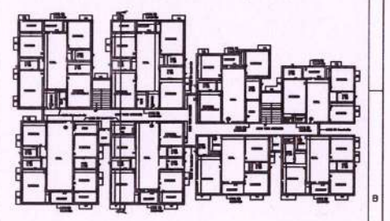
GOOD FOR CONSTRUCTION

CONCRETE M25
STEEL FE 550

LEGENDS:-

B – BEAM		TB – THROUGH BAR	
OP – OPENING		EB – EXTRA BAR	
LVL – LEVEL		TYP – TYPICAL	
L.S – LONGITUDINAL SECTION		C/S – CROSS SECTION	
C/C – CENTER TO CENTER		OTS – OPEN TO SKY	
T.O.C – TOP OF CONCRETE		SK – SUNKEN	

COPY TO CLIENT



KEYPLAN

NOTES:-

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STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE, THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E. Mahendran

FOR STRUCTURAL ENGINEER.

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02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	18.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1, SAROJINI STREET, RAM NAGAR, COIMBATORE-641009.
MOBILE: 9943251453.

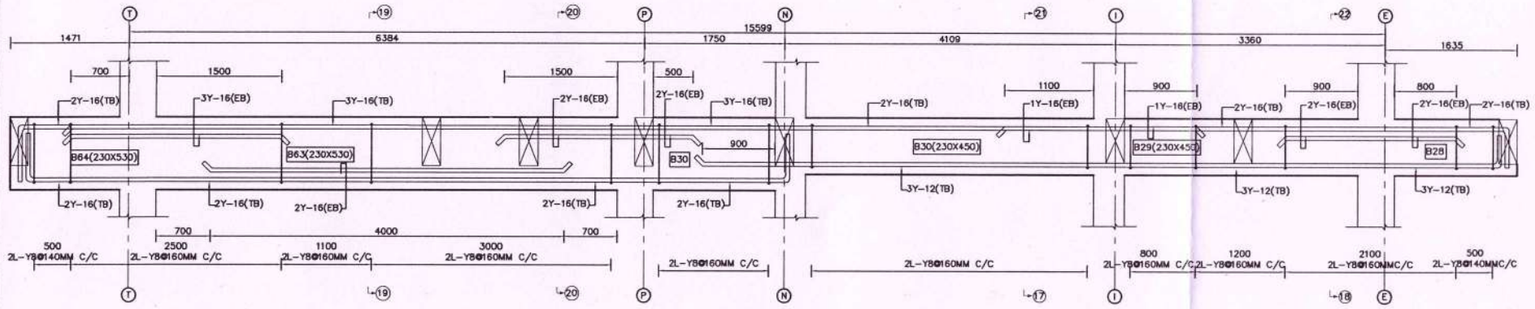
STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V.
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 51
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

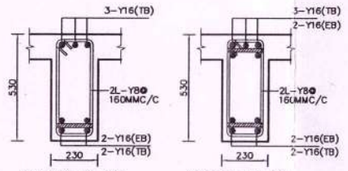
DRAWING NO. 1031-A1-DWG-011 SHEET 03 OF 06 | REVISION 02

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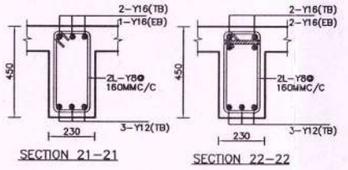


L.S ALONG GRID '13-13'
B28,B29,B30(230X450),B63,B64(230X530)



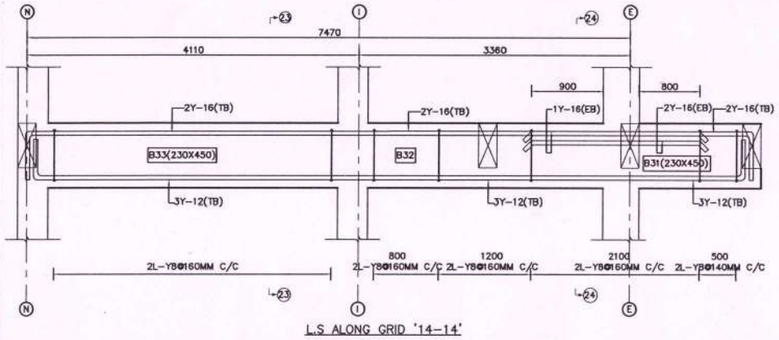
SECTION 19-19

SECTION 20-20

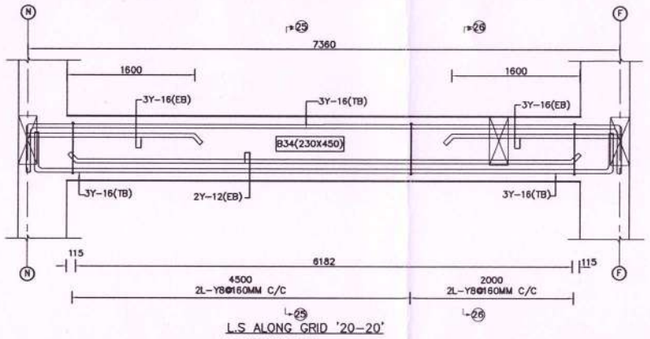


SECTION 21-21

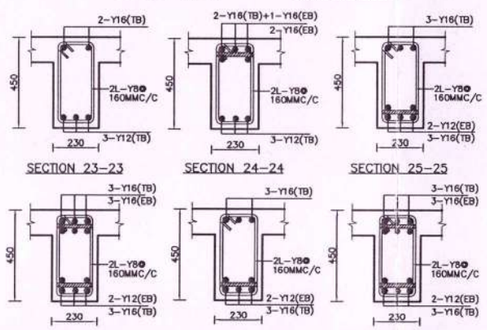
SECTION 22-22



L.S ALONG GRID '14-14'
B31,B32,B33(230X450)



L.S ALONG GRID '20-20'
B34(230X450)



SECTION 23-23

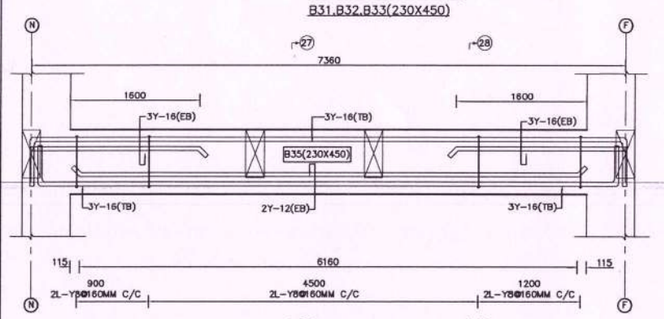
SECTION 24-24

SECTION 25-25

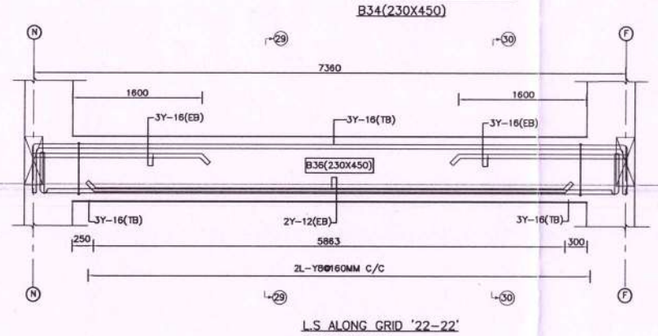
SECTION 26-26

SECTION 27-27

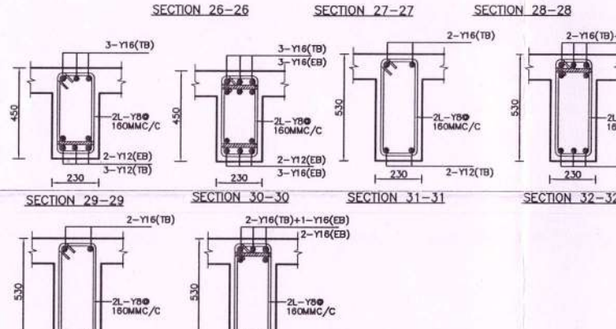
SECTION 28-28



L.S ALONG GRID '21-21'
B35(230X450)



L.S ALONG GRID '22-22'
B36(230X450)



SECTION 29-29

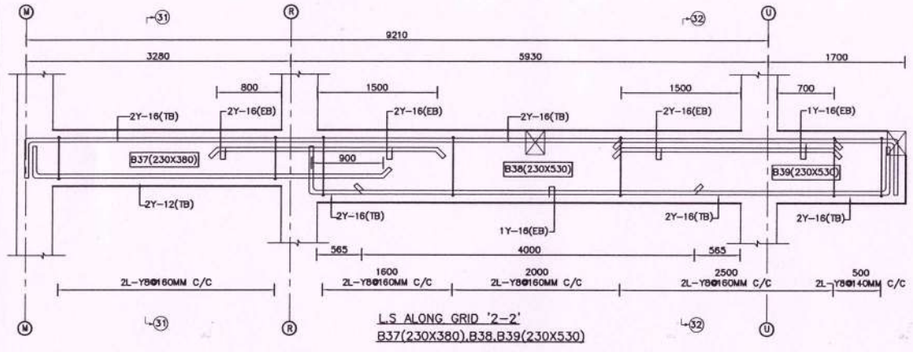
SECTION 30-30

SECTION 31-31

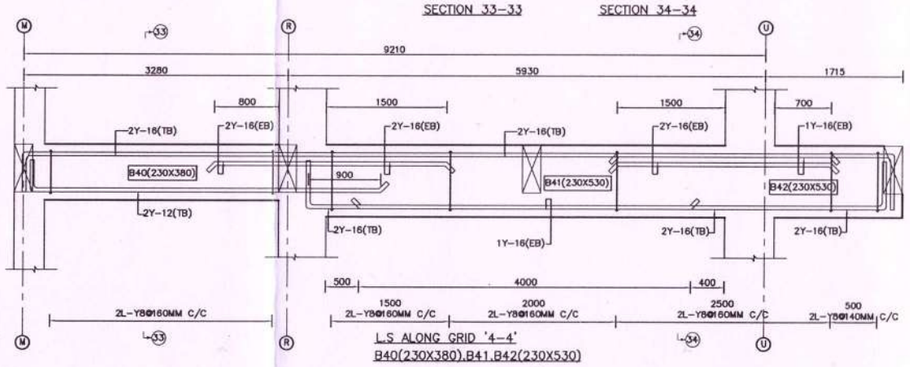
SECTION 32-32

SECTION 33-33

SECTION 34-34



L.S ALONG GRID '2-2'
B37(230X380),B38,B39(230X530)



L.S ALONG GRID '4-4'
B40(230X380),B41,B42(230X530)

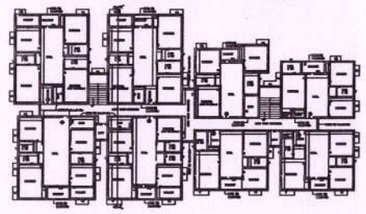
CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

COPY TO CLIENT



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Anugraha Design Consultant
E. Mahendran
FOR STRUCTURAL ENGINEER.

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DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

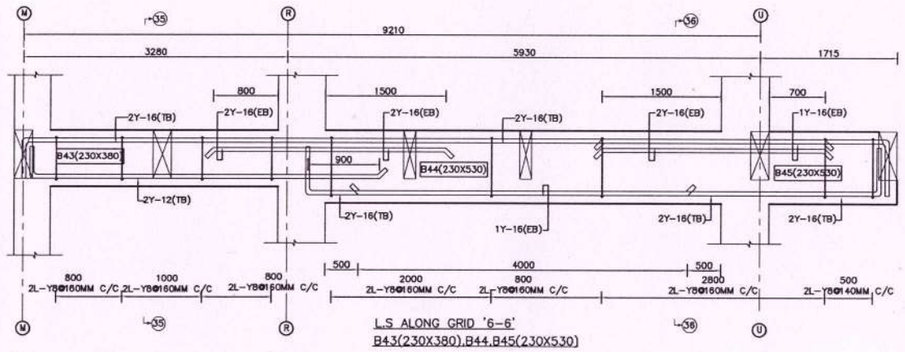
STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

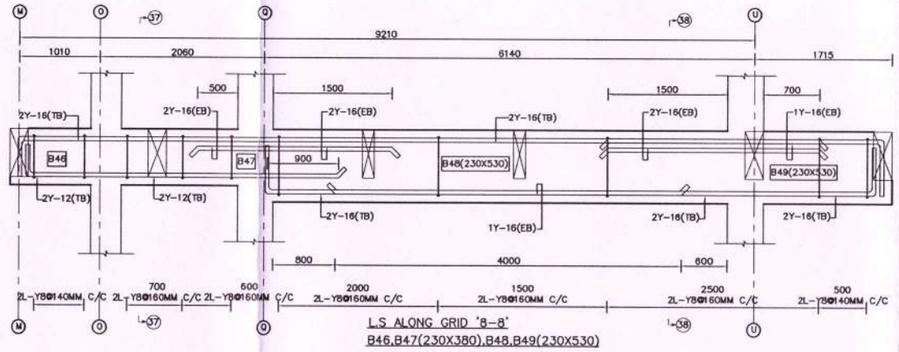
DRAWING NO. 1031-A1-DWG-011 SHEET 04 OF 06 | REVISION 02

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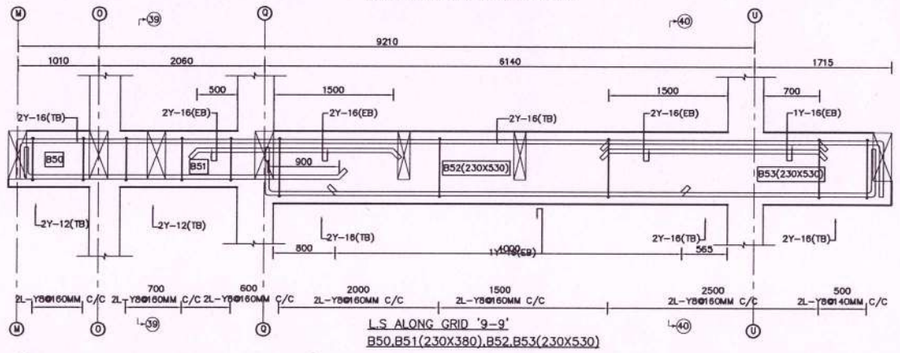
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



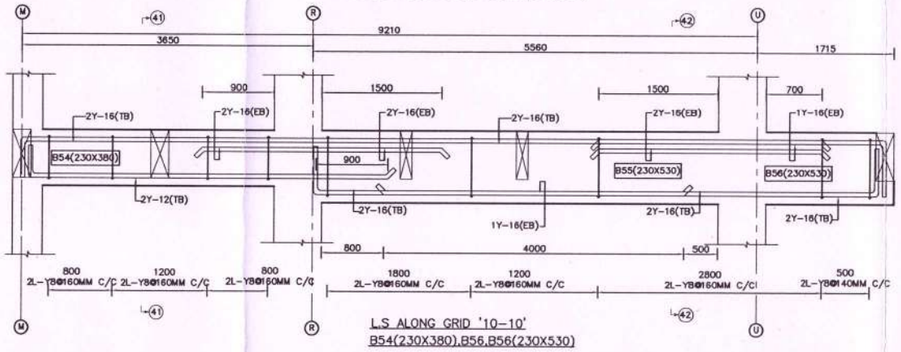
L.S ALONG GRID '6-6'
B43(230X380),B44,B45(230X530)



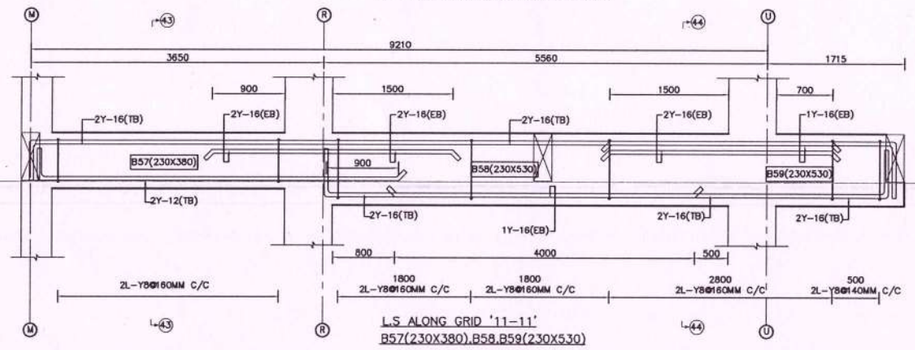
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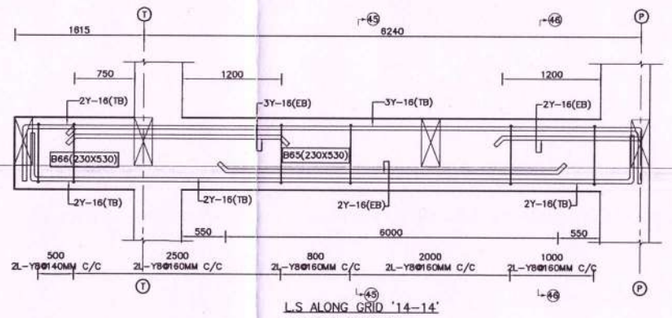
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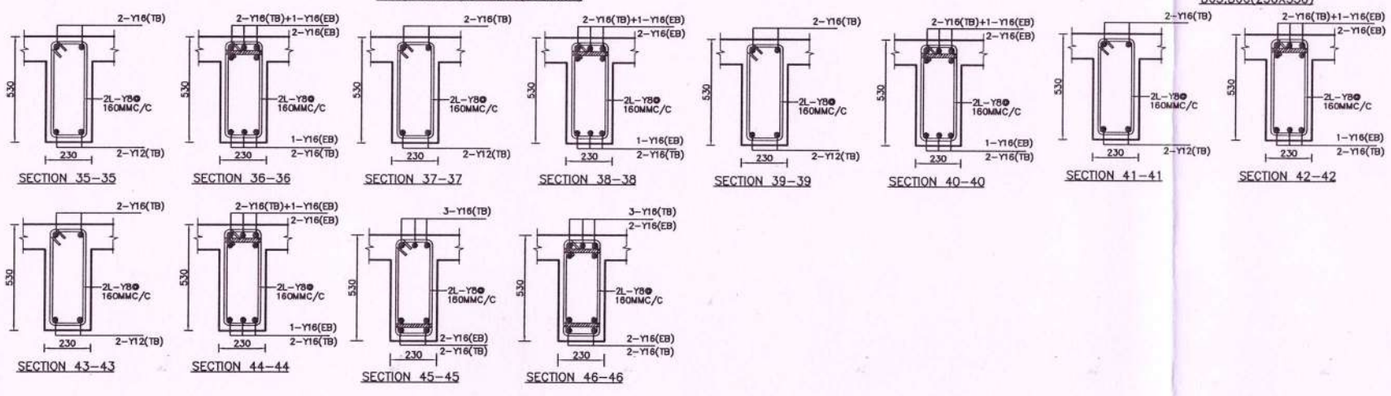
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B57(230X380),B58,B59(230X530)



L.S ALONG GRID '14-14'
B65,B66(230X530)



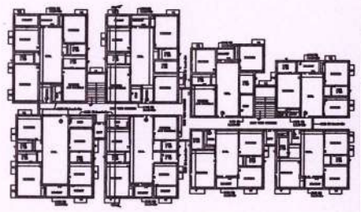
CONCRETE M25
STEEL FE 550

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 8.00M - 14 DAYS
      II) SPANNING OVER 8.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

E.Mahendran

Anugraha Design Consultant

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 1628/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

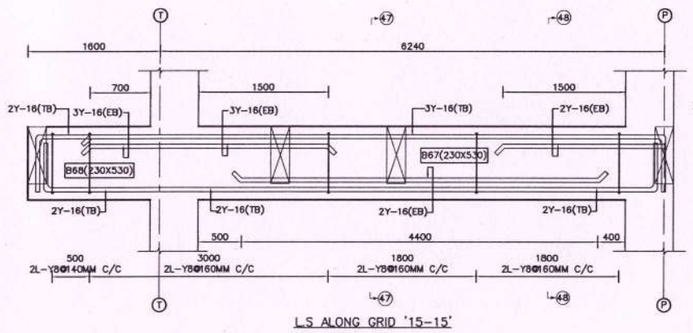
STRUCTURAL CONSULTANT:-
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Er.E.MAHENDRAN M.E. Str.Engg. F.IV
CHARTED Str.Engr. No. CE/ISE/LM/255
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

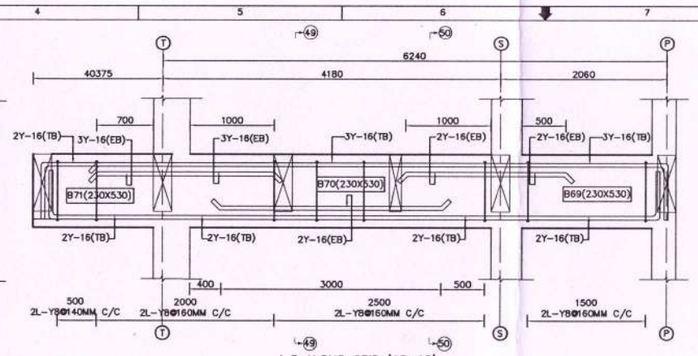
DRAWING NO. 1031-A1-DWG-011 SHEET 05 OF 06 | REVISION 02

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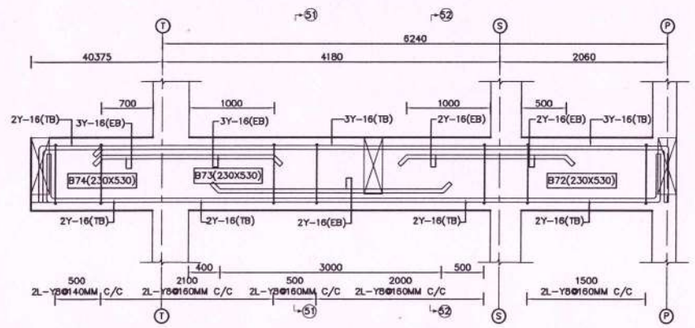
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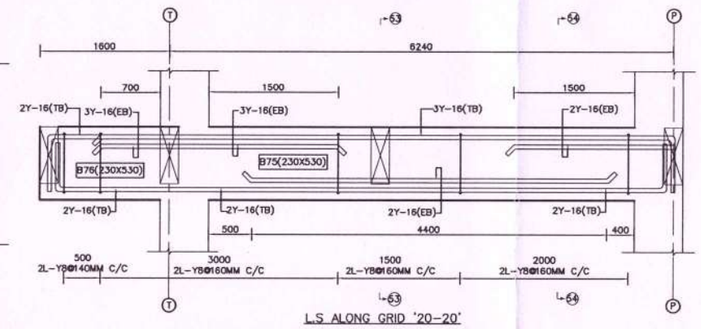
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B67,B68(230X530)



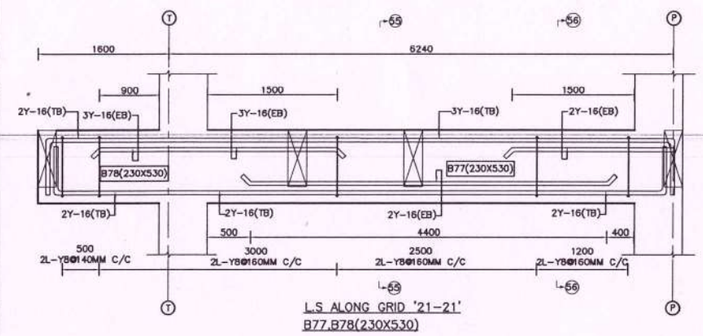
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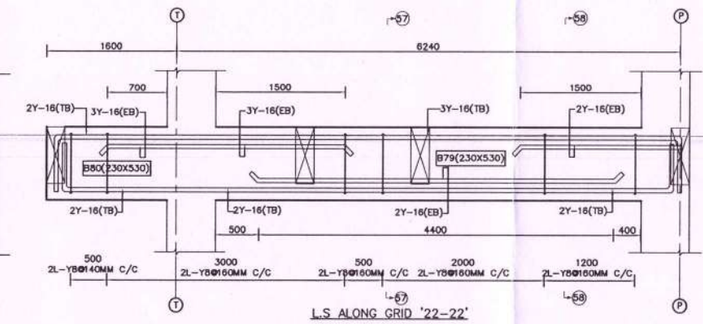
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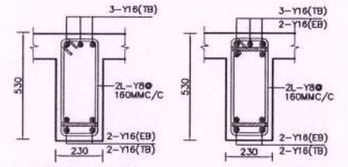
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L.S ALONG GRID '21-21'
B77,B78(230X530)

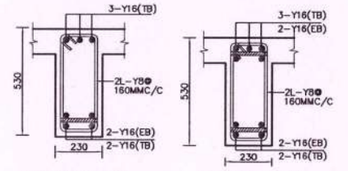


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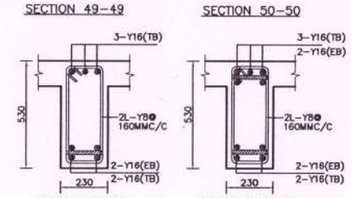
SECTION 47-47

SECTION 48-48



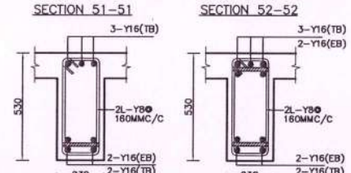
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SECTION 50-50



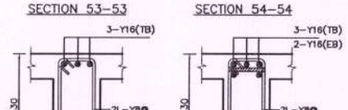
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SECTION 52-52



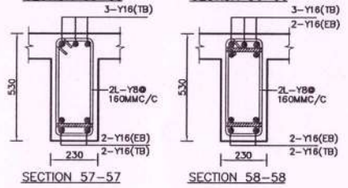
SECTION 53-53

SECTION 54-54



SECTION 55-55

SECTION 56-56

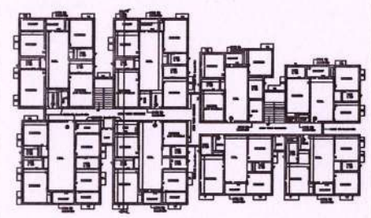


SECTION 57-57

SECTION 58-58

COPY TO CLIENT

N



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
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   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 6.00M - 14 DAYS
      ii) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
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STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant E.Mahendra

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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Er..E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
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E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-011 SHEET 06 OF 06 | REVISION 02

CONCRETE M25
STEEL FE 550

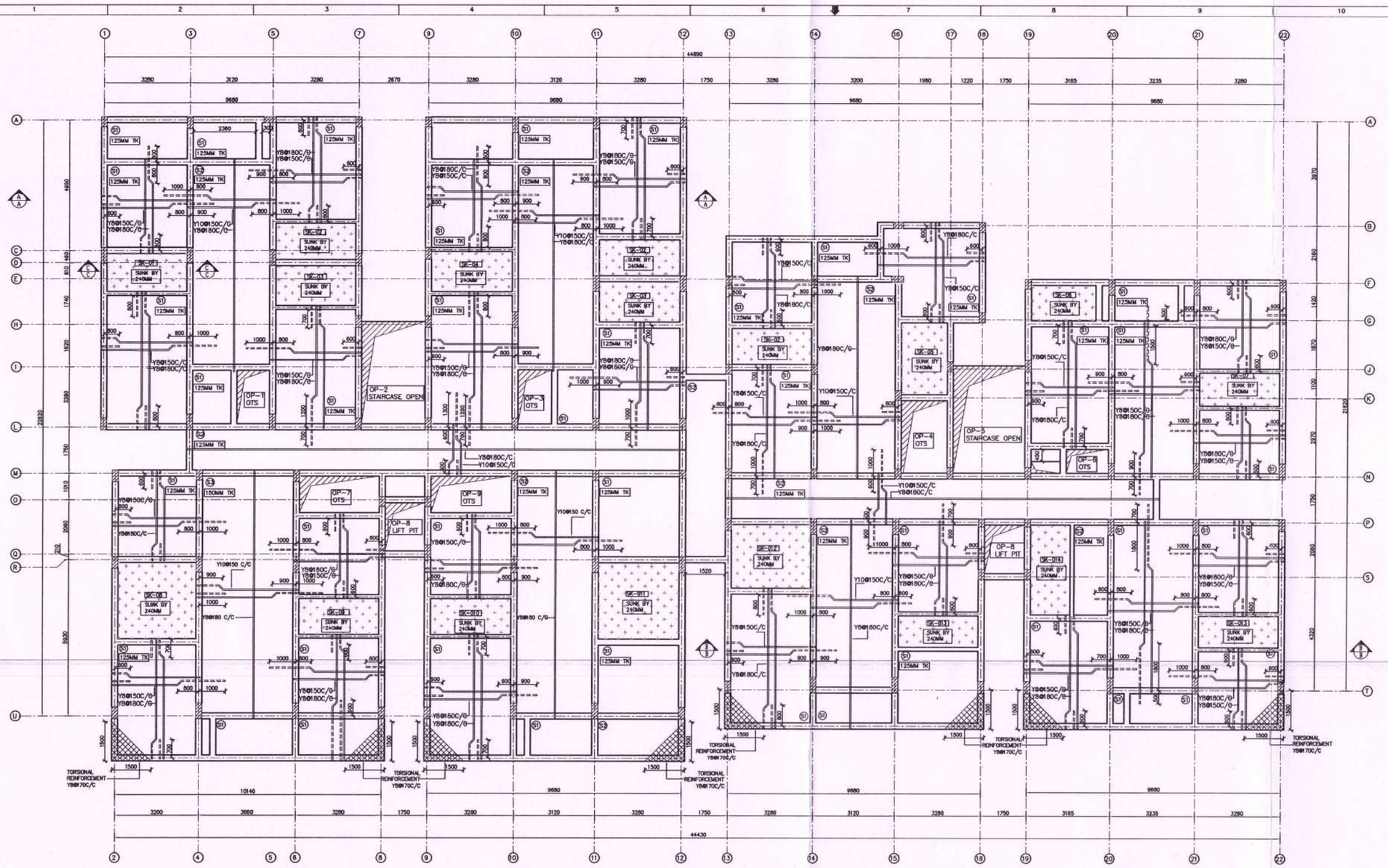
LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



FIRST,SECOND,THIRD FLOOR & FOURTH FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

SCALE 1:55

TABLE-1

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF SLAB SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION		SIZE
1.	SK-01	SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02	SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03	SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04	SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05	SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06	SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07	SUNKEN(SUNK BY 240MM)	3050 X 1280
8.	SK-08	SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09	SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010	SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011	SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012	SUNKEN(SUNK BY 240MM)	1500 X 3400

TABLE-2

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

TABLE-3

S.NO.	ϕ - DIA. OF BAR	Ld - DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	500MM
2.	10MM	600MM

TABLE-4

FF,SF,TF,FF ROOF SLAB REINFORCEMENT DETAILS

S.NO.	SLAB MARK	THK. OF SLAB	TYPE OF SLAB	REINFORCEMENT	
				MAIN BAR	DISTRIBUTION
1.	S1	125 MM	TWO WAY	Y8@150C/C	Y8@180C/C
2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C
4.	SK	140 MM	TWO WAY (SUNKEN)	Y10@150C/C	Y10@180C/C

CONCRETE M25
STEEL FE 550

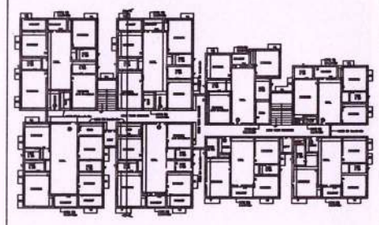
LEGENDS:-

S - SLAB
SK - SUNKEN
OP - OPENING
LVL - LEVEL
TYP - TYPICAL
—— - TOP BAR
—— - BOTTOM BAR
TOC - TOP OF CONCRETE
C/C - CENTER TO CENTER
C/S - CROSS SECTION
L/S - LONGTUDINAL SECTION
REINF., - REINFORCEMENT

GOOD FOR CONSTRUCTION

COPY TO CLIENT

N



KEYPLAN

NOTES:-

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Anugraha Design Consultant E.Mahendran

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DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
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SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

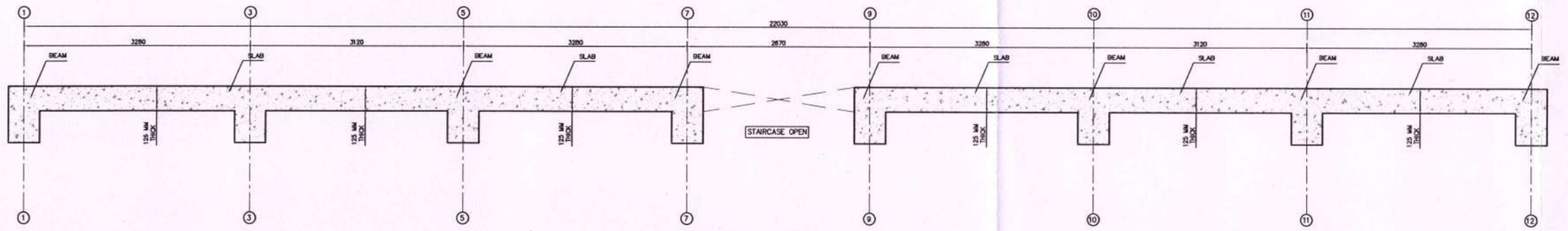
STRUCTURAL CONSULTANT:-
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Er..E.MAHENDRAN M.E. Str.Engg. F.I.V
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DRAWING TITLE: FIRST,SECOND,THIRD,FOURTH FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

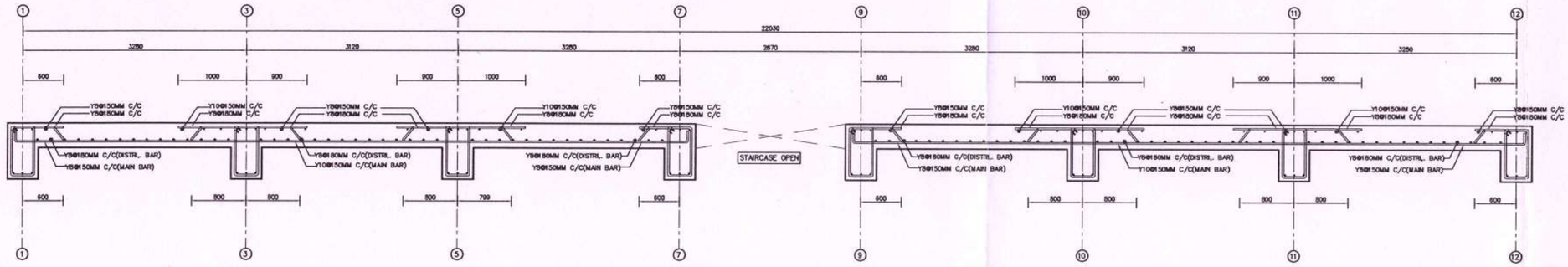
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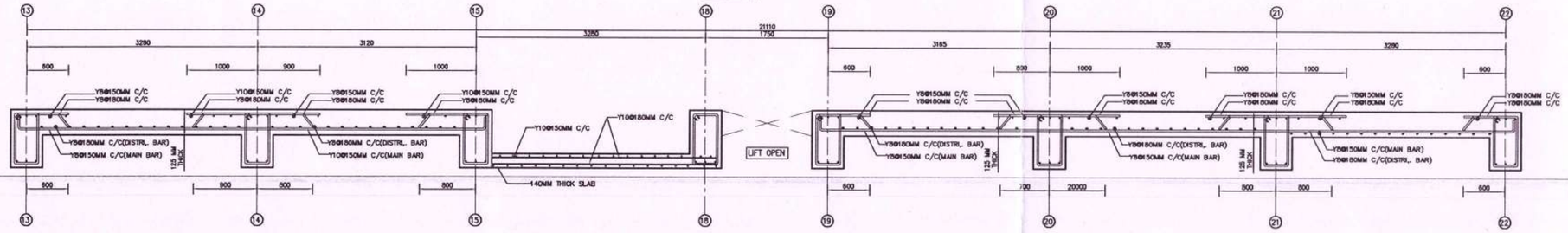
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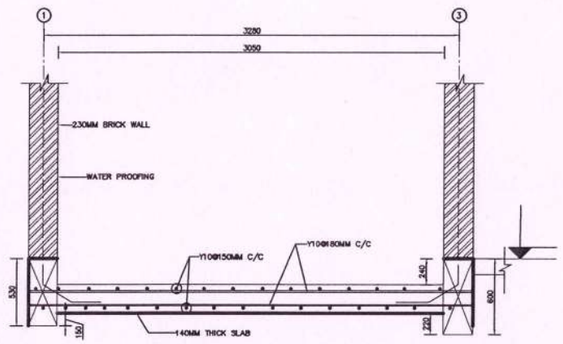
SECTION A-A
ROOF SLAB CONCRETE GENERAL ARRANGEMENT
SCALE 1:20



SECTION A-A
ROOF SLAB REINFORCEMENT GENERAL ARRANGEMENT
SCALE 1:25



SECTION B-B
ROOF SLAB REINFORCEMENT GENERAL ARRANGEMENT
SCALE 1:25



TOILET SUNKEN SLAB SK-01 REINFORCEMENT DETAIL
SECTION C-C
SCALE 1:25

TABLE-1

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF SLAB SUNKEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	SK-01 SUNKEN(SUNK BY 240MM)	3050 X 1450
2.	SK-02 SUNKEN(SUNK BY 240MM)	3050 X 1370
3.	SK-03 SUNKEN(SUNK BY 240MM)	3050 X 1520
4.	SK-04 SUNKEN(SUNK BY 240MM)	3050 X 1530
5.	SK-05 SUNKEN(SUNK BY 240MM)	1750 X 2740
6.	SK-06 SUNKEN(SUNK BY 240MM)	2440 X 1340
7.	SK-07 SUNKEN(SUNK BY 240MM)	3050 X 1260
8.	SK-08 SUNKEN(SUNK BY 240MM)	2970 X 2900
9.	SK-09 SUNKEN(SUNK BY 240MM)	3040 X 1370
10.	SK-010 SUNKEN(SUNK BY 240MM)	3050 X 2400
11.	SK-011 SUNKEN(SUNK BY 240MM)	3050 X 1200
12.	SK-012 SUNKEN(SUNK BY 240MM)	1500 X 3400

TABLE-2

FIRST,SECOND,THIRD,FOURTH FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1800 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

TABLE-3

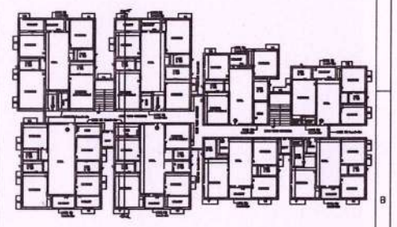
FF,SF,TF,FF ROOF SLAB REINFORCEMENT DETAILS

S.NO.	SLAB MARK	THK. OF SLAB	TYPE OF SLAB	REINFORCEMENT	
				MAIN BAR	DISTRIBUTION
1.	S1	125 MM	TWO WAY	Y8@150C/C	Y8@180C/C
2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C
4.	SK	140 MM	TWO WAY (SUNKEN)	Y10@150C/C	Y10@180C/C

TABLE-4

S.NO.	ϕ- DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	500MM
2.	10MM	600MM

COPY TO CLIENT



KEYPLAN

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DRAWN BY Er.FARZANA | CHECKED BY Mr.M.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

CONCRETE M25
STEEL FE 550

LEGENDS:-
S - SLAB
SK - SUNKEN
OP - OPENING
LVL - LEVEL
TYP - TYPICAL
—— - TOP BAR
—— - BOTTOM BAR
TOC - TOP OF CONCRETE
C/C - CENTER TO CENTER
C/S - CROSS SECTION
L/S - LONGITUDINAL SECTION
REINF., - REINFORCEMENT

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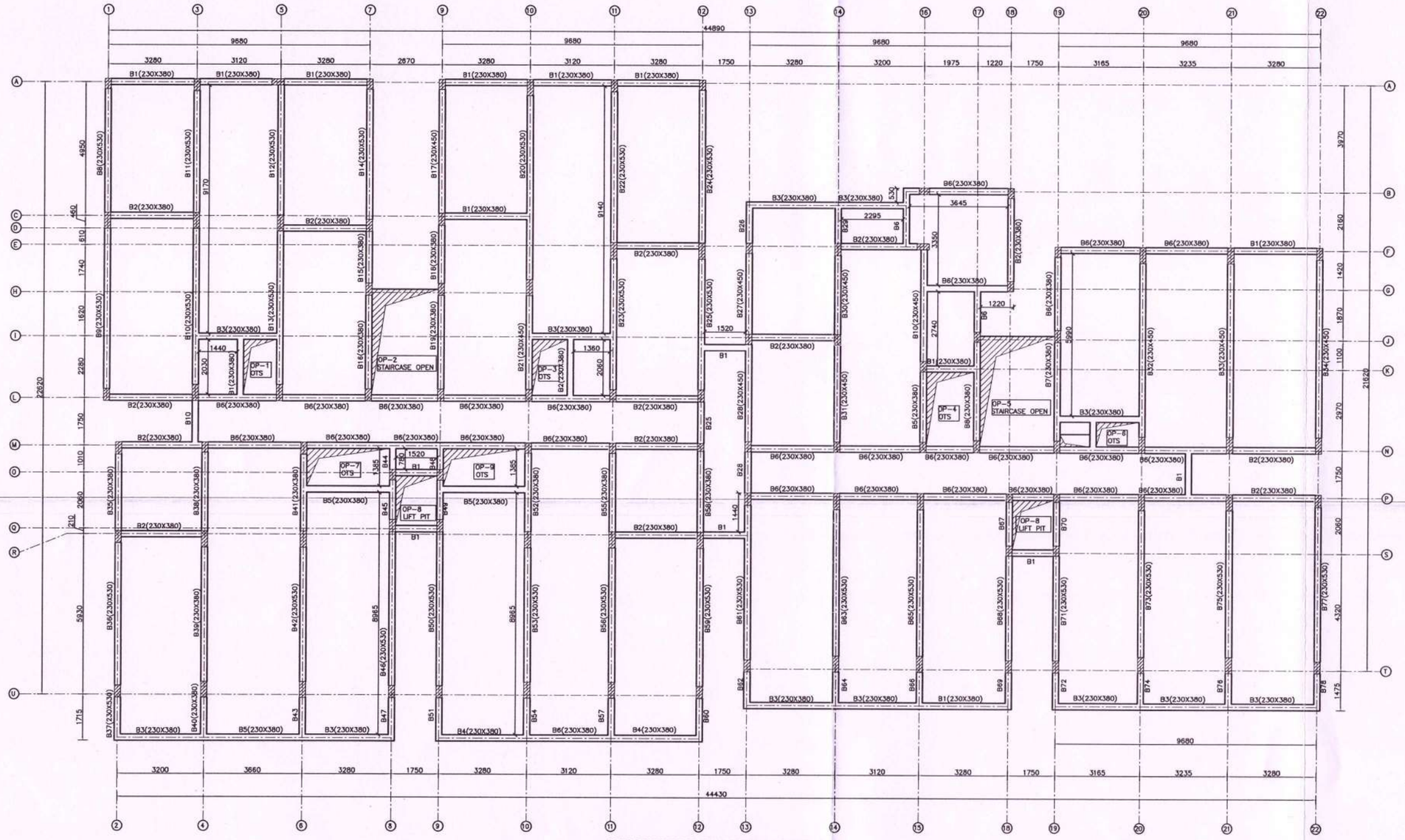
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DRAWING NO. 1682-A1-DWG-012 SHEET 02 OF 02 | REVISION 02

GOOD FOR CONSTRUCTION

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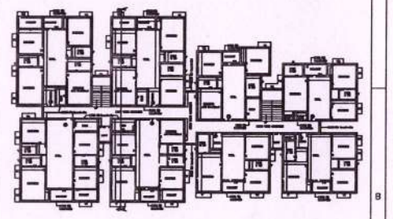


FIFTH FLOOR ROOF BEAM FRAMING LAYOUT

SCALE 1:55

COPY TO CLIENT

N



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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

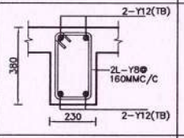
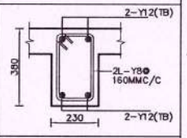
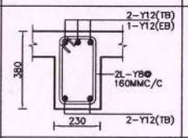
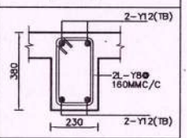
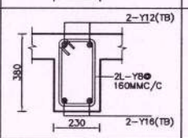
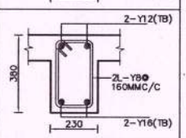
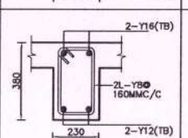
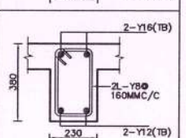
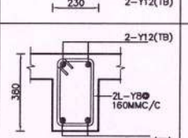
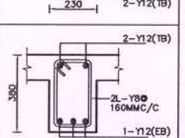
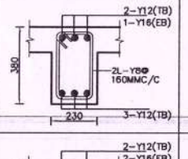
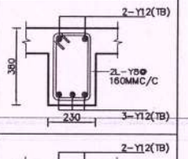
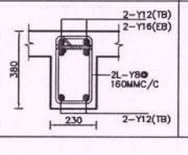
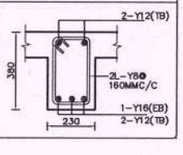
DRAWING NO. 1031-A1-DWG-013 SHEET 01 OF 06 | REVISION 02

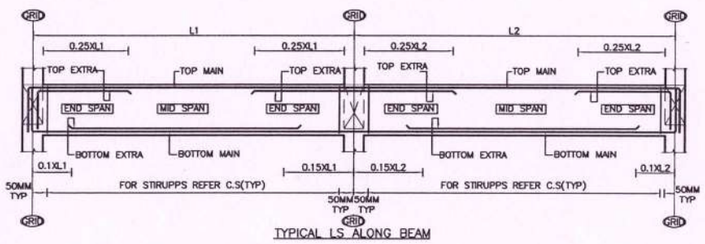
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

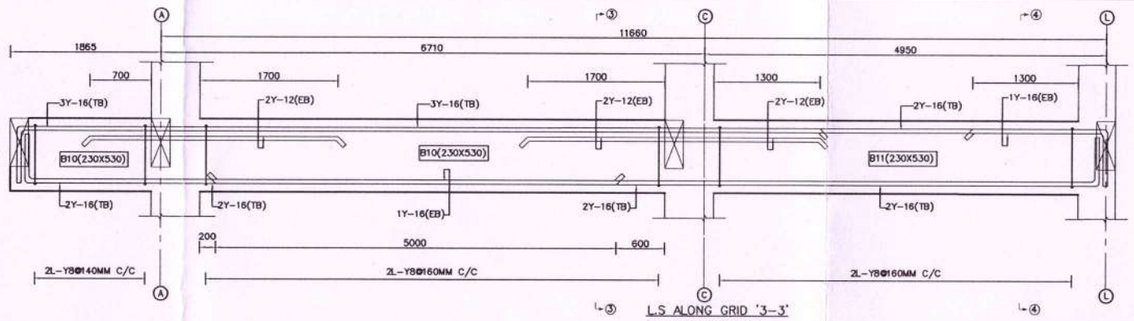
TABLE-1

FIFTH FLOOR ROOF BEAM REINFORCEMENT DETAIL :-

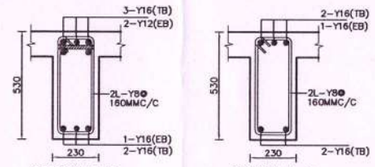
BEAM MARK	(AT END SPAN) TOP REINFORCEMENT THROUGH	(AT END SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT END SPAN) BOTTOM REINFORCEMENT THROUGH	(AT END SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT END SPAN) STIRRUPS	(AT END SPAN) CROSS SECTION	(AT MID SPAN) TOP REINFORCEMENT THROUGH	(AT MID SPAN) TOP REINFORCEMENT EXTRA (0.25L)	(AT MID SPAN) BOTTOM REINFORCEMENT THROUGH	(AT MID SPAN) BOTTOM REINFORCEMENT EXTRA (0.70L)	(AT MID SPAN) STIRRUPS	(AT MID SPAN) CROSS SECTION
B1(230X380)	2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B2(230X380)	2-Y12	1-Y12	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	---	2L-Y8@ 160MMC/C	
B3(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C	
B4(230X380)	2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C		2-Y16	---	2-Y12	---	2L-Y8@ 160MMC/C	
B5(230X380)	2-Y12	---	2-Y16	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y16	1-Y12	2L-Y8@ 150MMC/C	
B6(230X380)	2-Y12	1-Y16	3-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	3-Y12	---	2L-Y8@ 160MMC/C	
B7(230X380)	2-Y12	2-Y16	2-Y12	---	2L-Y8@ 160MMC/C		2-Y12	---	2-Y12	1-Y16	2L-Y8@ 160MMC/C	



TYPICAL LS ALONG BEAM

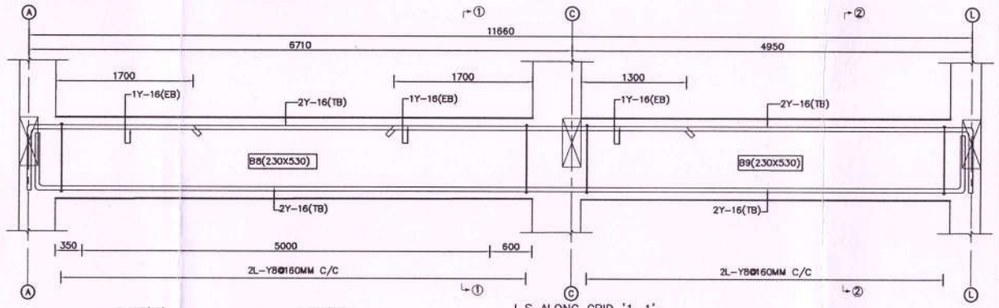


L.S ALONG GRID '3-3'
B10,B11(230X530)

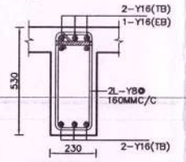


SECTION 3-3

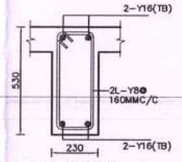
SECTION 4-4



L.S ALONG GRID '1-1'
B8,B9(230X530)



SECTION 1-1



SECTION 2-2

TABLE-2

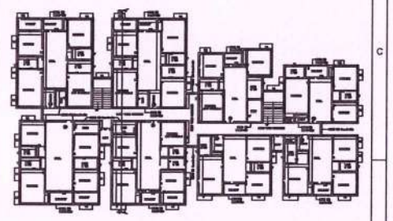
FIFTH FLOOR ROOF OPEN SCHEDULE DETAILS:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

TABLE-4

S.NO.	ϕ - DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR BEAM
1.	12MM	780MM
2.	16MM	1040MM

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M - 14 DAYS
      II) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er..E.MAHENDRAN M.E. Str.Engg. F.I.V.
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

Anugraha Design Consultant E.Mahendran

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

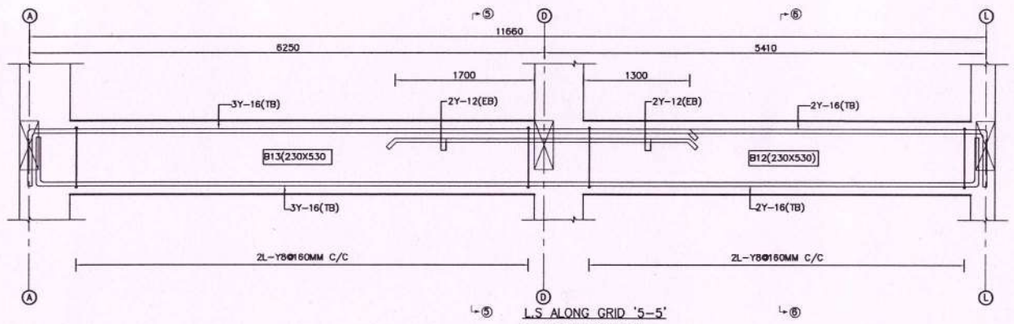
GOOD FOR CONSTRUCTION

DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

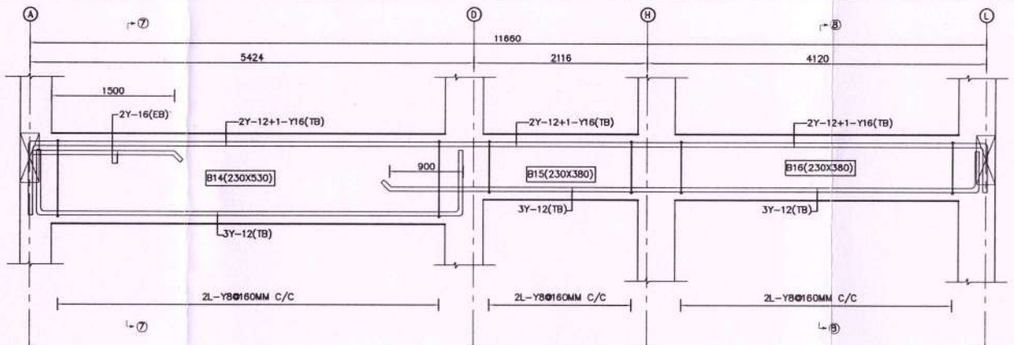
DRAWING NO. 1031-A1-DWG-013 SHEET 02 OF 06 | REVISION 02

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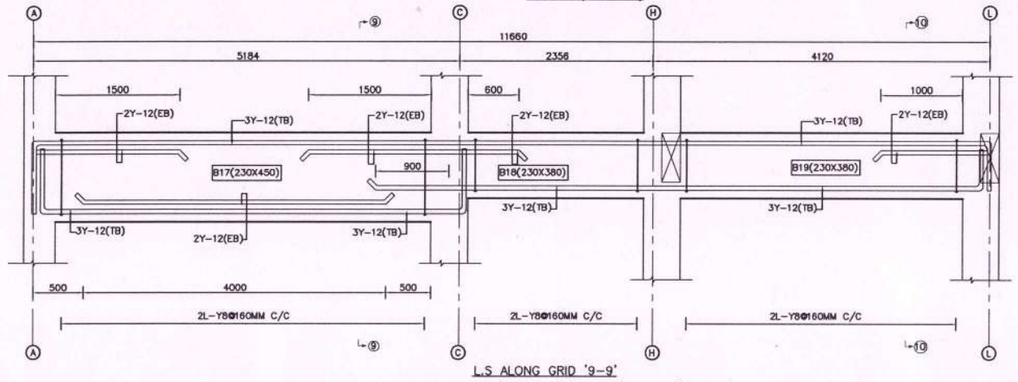
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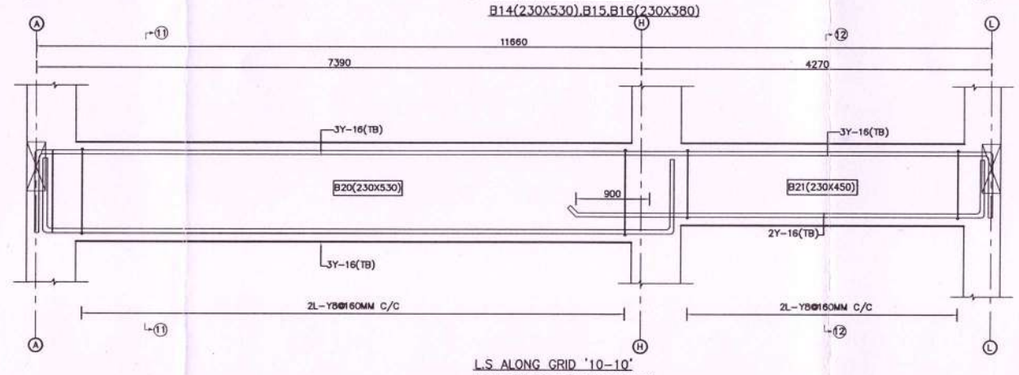
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B12,B13(230X530)



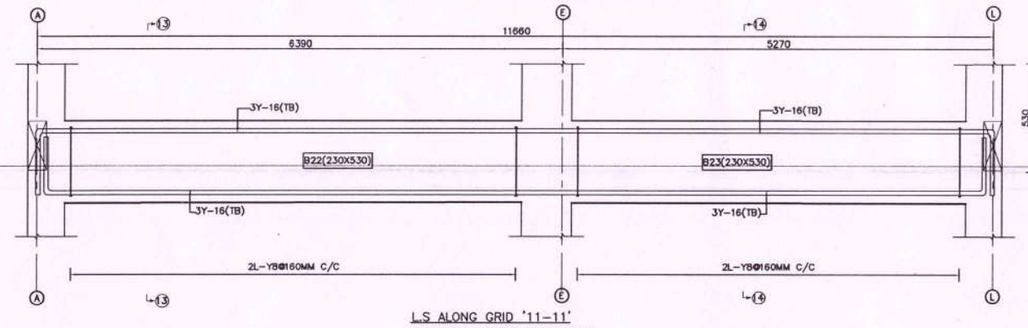
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B14(230X530),B15,B16(230X380)



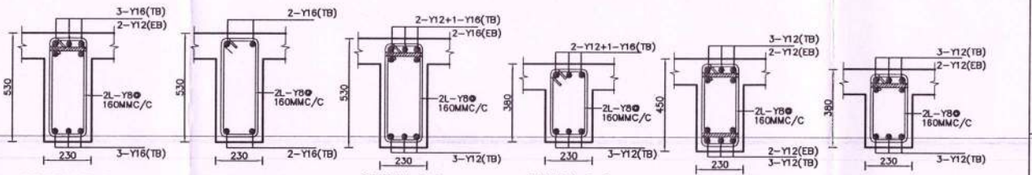
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B17(230X450),B18,B19(230X380)

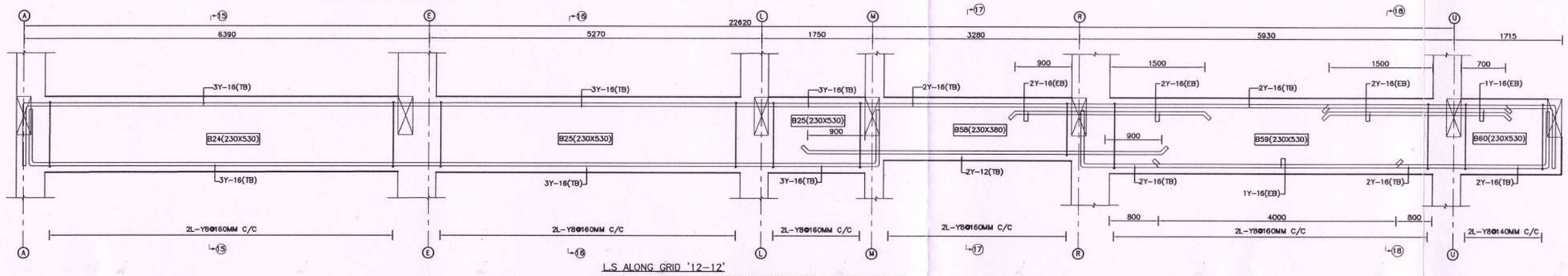


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B20(230X530),B21(230X450)

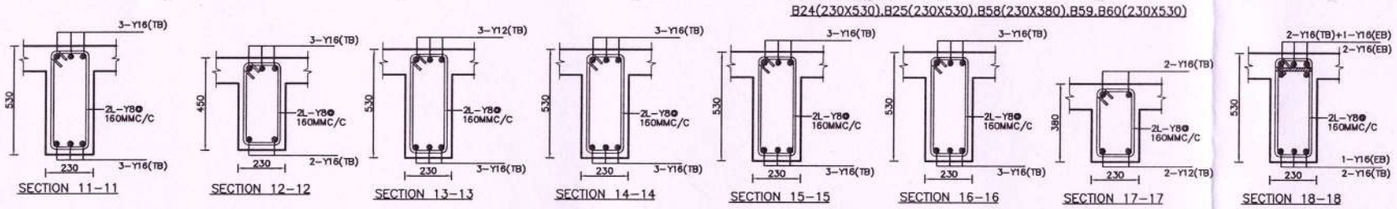


L.S ALONG GRID '11-11'
B22(230X530),B23(230X530)





L.S ALONG GRID '12-12'
B24(230X530),B25(230X530),B58(230X380),B59,B60(230X530)

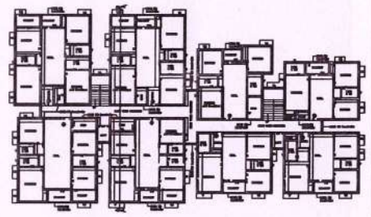


GOOD FOR CONSTRUCTION

LEGENDS:-

B	– BEAM	TB	– THROUGH BAR
OP	– OPENING	EB	– EXTRA BAR
LVL	– LEVEL	TYP	– TYPICAL
L.S	– LONGITUDINAL SECTION	C/S	– CROSS SECTION
C/C	– CENTER TO CENTER	OTS	– OPEN TO SKY
T.O.C	– TOP OF CONCRETE	SK	– SUNKEN

COPY TO CLIENT



KEYPLAN

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10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E.Mahendran
FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
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01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

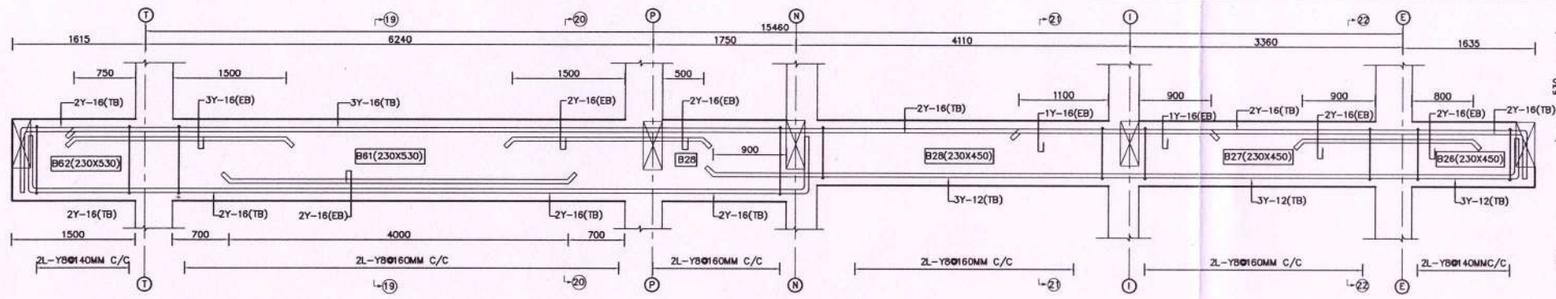
STRUCTURAL CONSULTANT:-
Anugraha Design Consulto
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
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+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

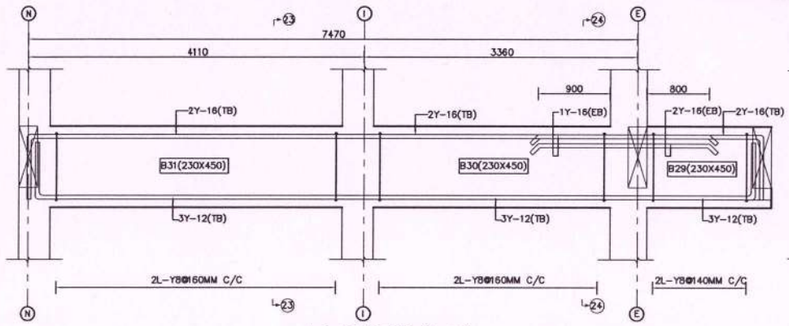
DRAWING NO. 1031-A1-DWG-013 SHEET 03 OF 06 | REVISION 02

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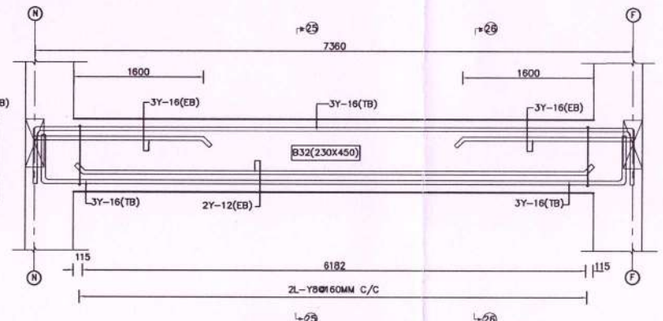
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



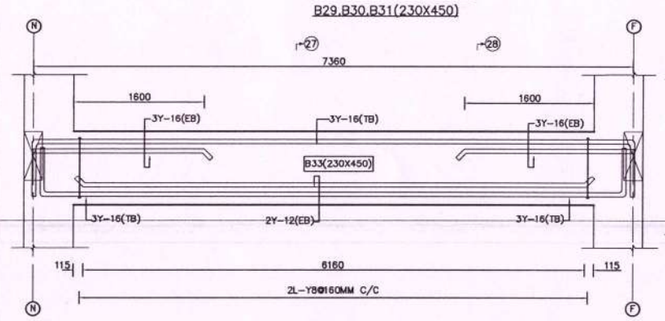
L.S ALONG GRID '13-13'
B26,B27,B28(230X450),B61,B62(230X530)



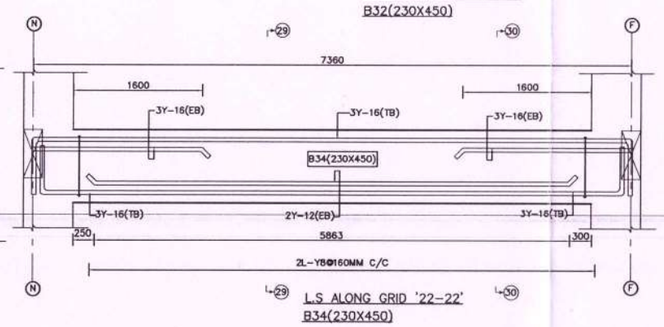
L.S ALONG GRID '14-14'
B29,B30,B31(230X450)



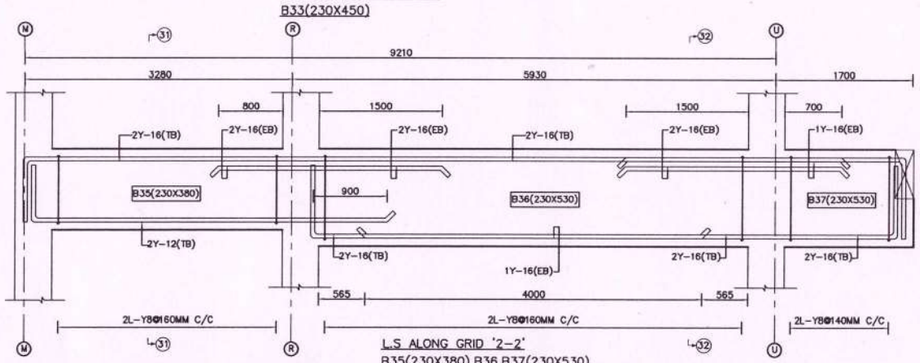
L.S ALONG GRID '20-20'
B32(230X450)



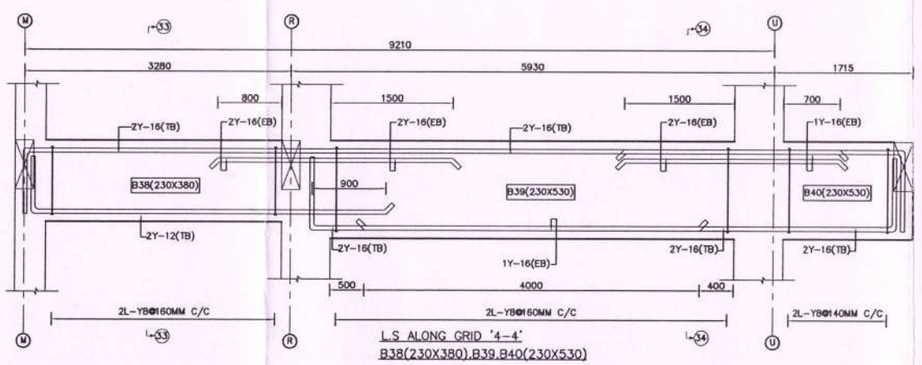
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B33(230X450)



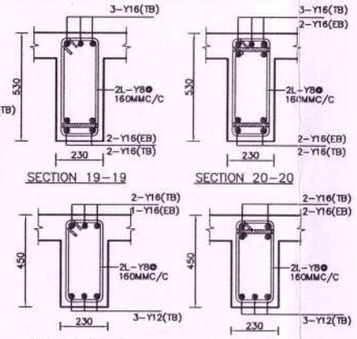
L.S ALONG GRID '22-22'
B34(230X450)

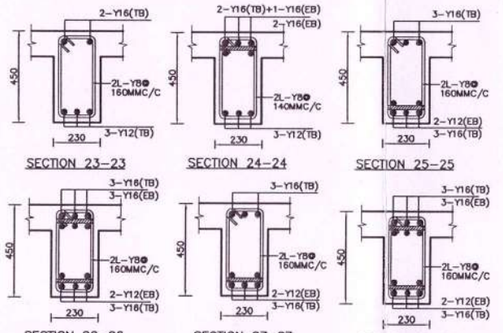


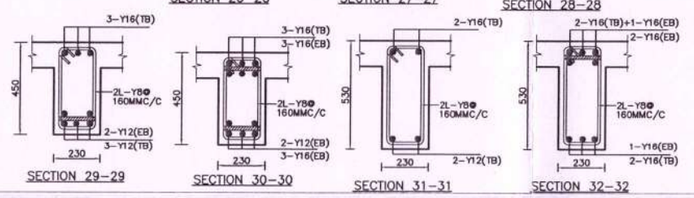
L.S ALONG GRID '2-2'
B35(230X380),B36,B37(230X530)

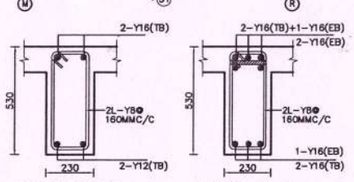


L.S ALONG GRID '4-4'
B38(230X380),B39,B40(230X530)

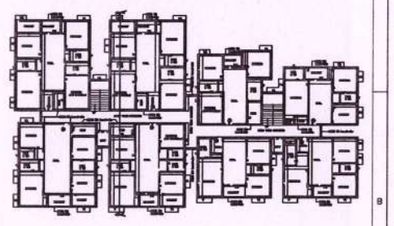








COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT: FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      I) SPANNING UP TO 4.50M - 7 DAYS
      II) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      I) SPANNING UP TO 6.00M - 14 DAYS
      II) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

Anugraha Design Consultant
E. Mahendran
FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANM CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

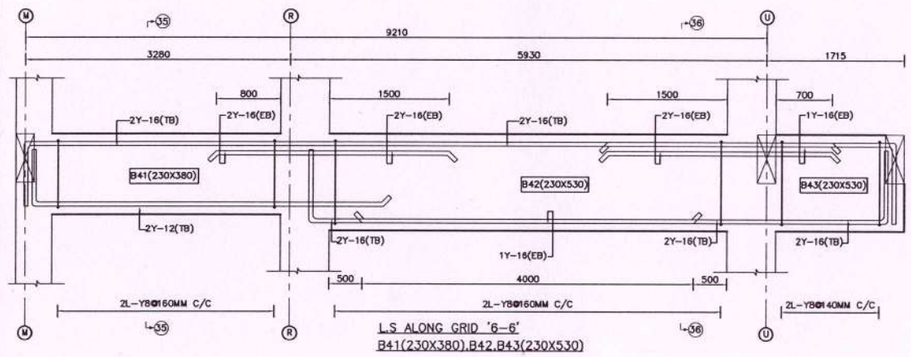
DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-013 SHEET 04 OF 06 | REVISION 02

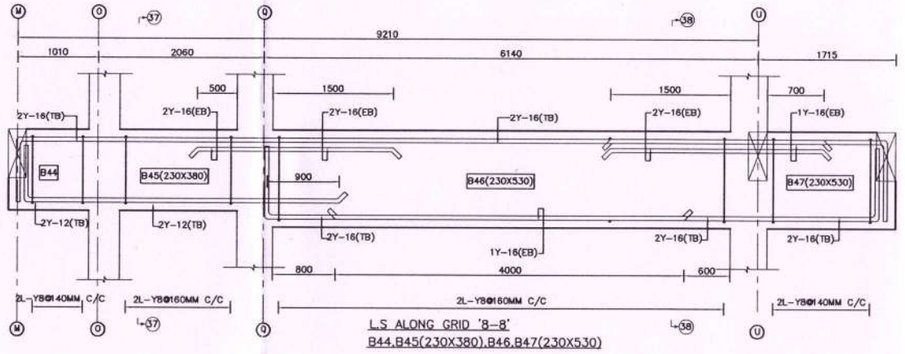
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY

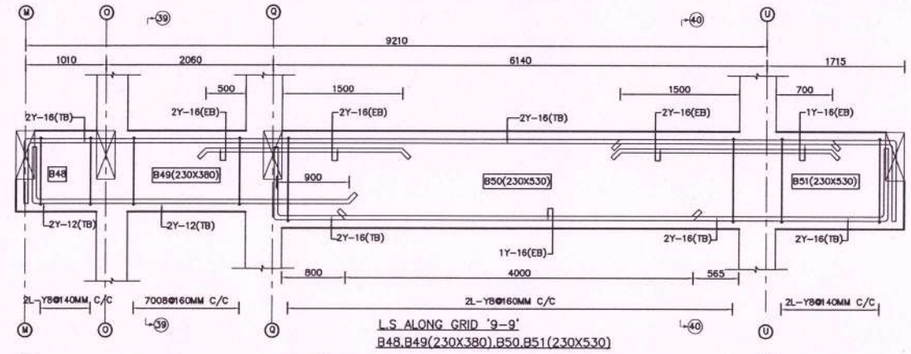
COPY TO CLIENT



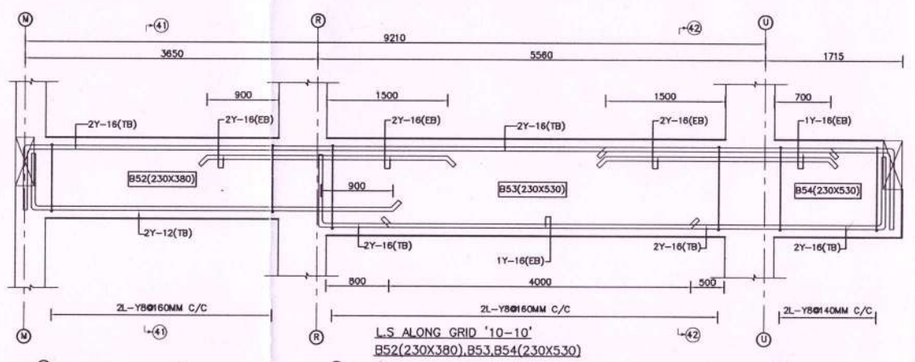
L.S ALONG GRID '6-6'
B41(230X380),B42,B43(230X530)



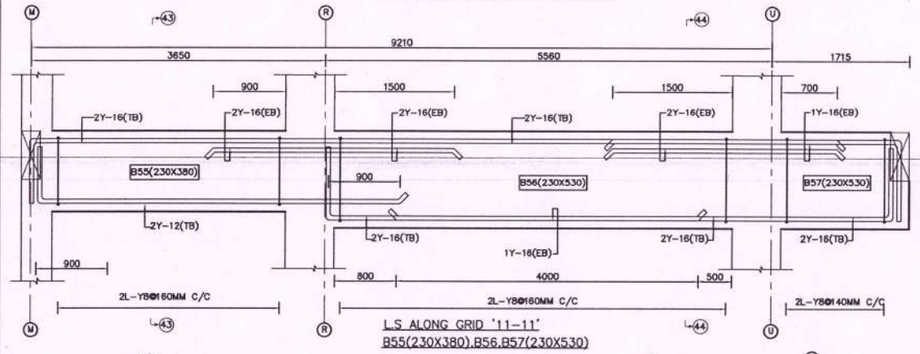
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B44,B45(230X380),B46,B47(230X530)



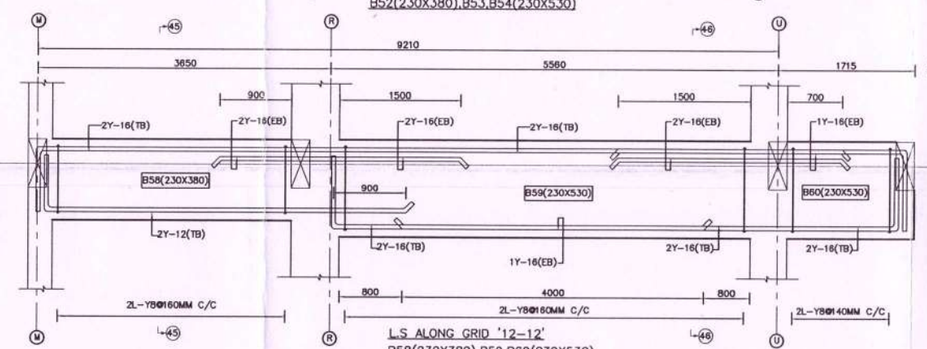
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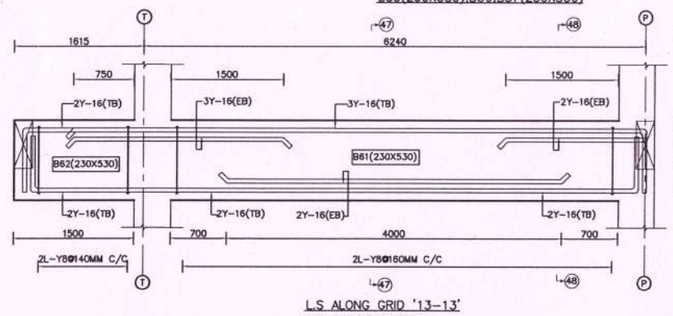
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B52(230X380),B53,B54(230X530)



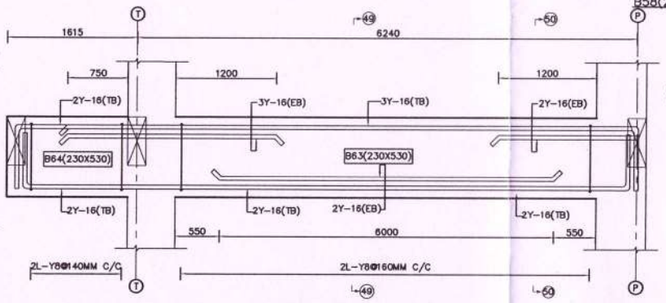
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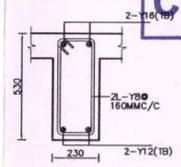
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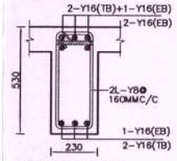
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B61,B62(230X530)



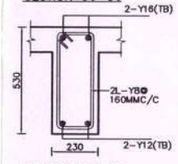
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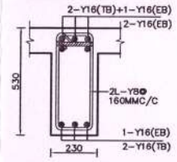
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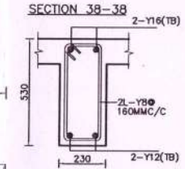
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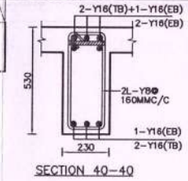
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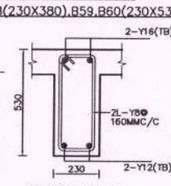
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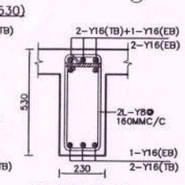
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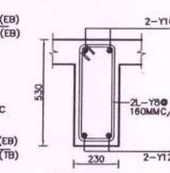
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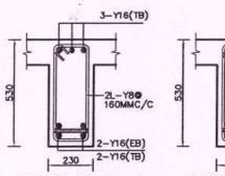
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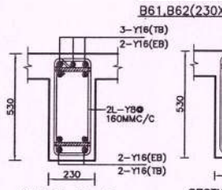
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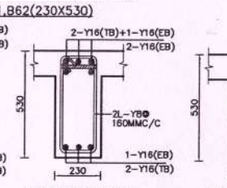
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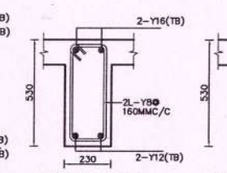
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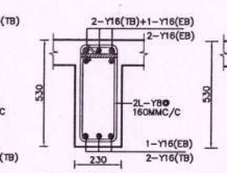
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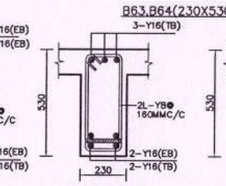
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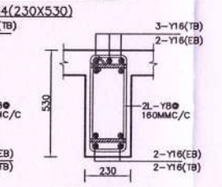
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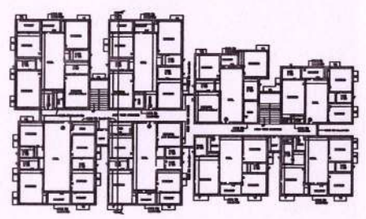
SECTION 48-48



SECTION 49-49



SECTION 50-50



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
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4. CLEAR COVER TO MAIN REINFORCEMENT: FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
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   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
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      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 6.00M - 14 DAYS
      ii) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50,40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
8. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES LAP LENGTH OF THE BAR FOR TENSION & COMPRESSION MEMBERS.
9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
2. HOWEVER IT IS CLEARLY INFORMED THAT THE VIOLATION/DEVIATION OF SETBACK NORMS AND FSI IN THE DEVELOPMENT CONTROL RULES, CORRECTNESS OF CONSTRUCTION, QUALITY AND CONSTRUCTION MANAGEMENT OF THE ABOVE BUILDING ENTIRELY REST WITH THE PROMOTER AND BUILDER(S) AS THE STRUCTURAL ENGINEER IS NOT INVOLVED IN THE SAME AND HENCE THE STRUCTURAL ENGINEER TAKES NO RESPONSIBILITY / ACCOUNTABILITY WHAT SO EVER FOR THE SAME.

E. Mahendran

Anugraha Design Consultant

FOR STRUCTURAL ENGINEER.

ISSUE No.	DATE	DESCRIPTION	REV.	DRAWN	APPD.
03.	17.10.2024	COLUMN SIZE REVISED AS PER STRUCTURAL REQUIREMENTS	02	UMA	MAHI
02.	19.09.2024	DRAWING GENERALLY REVISED FOR LPA APPROVAL	01	UMA	MAHI
01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY: Er.UMA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
Anugraha Design Consulta
Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL/JULY/2020/021
MOBILE: +91 90 42 51 41 61
+91 87 78 50 52 00
E-Mail: designanugraha@gmail.com
438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

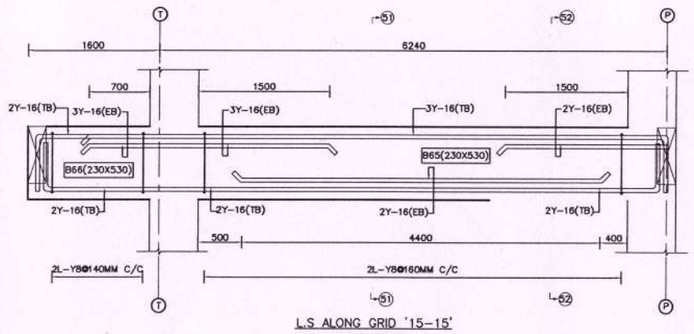
GOOD FOR CONSTRUCTION

DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

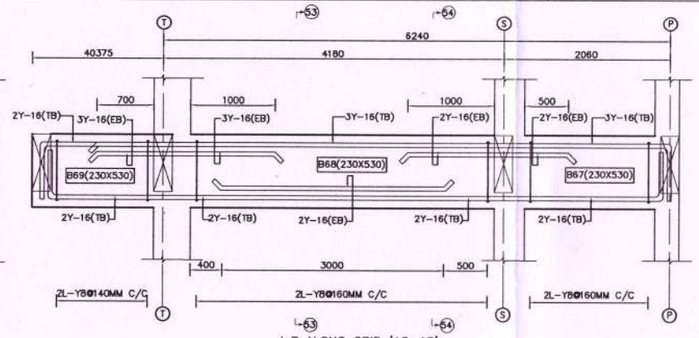
DRAWING NO. 1031-A1-DWG-013 SHEET 05 OF 06 | REVISION 02

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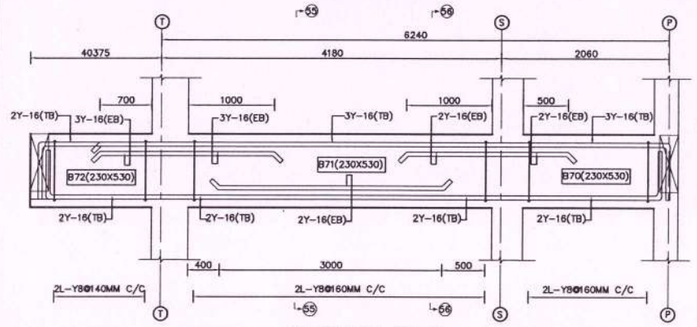
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED | SIZE A1 | THIS IS A CAD FILE - DO NOT MAKE ANY CORRECTIONS MANUALLY



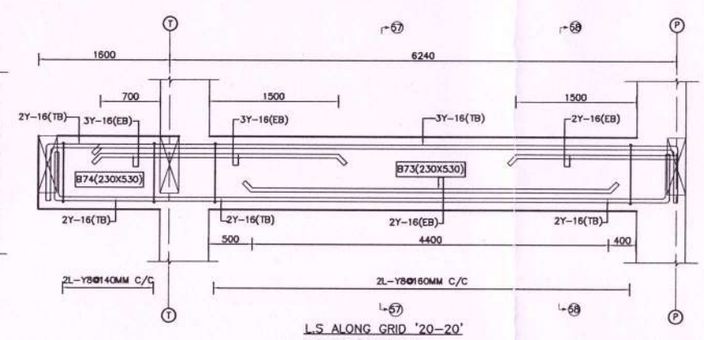
L.S ALONG GRID '15-15'
B65,B66(230X530)



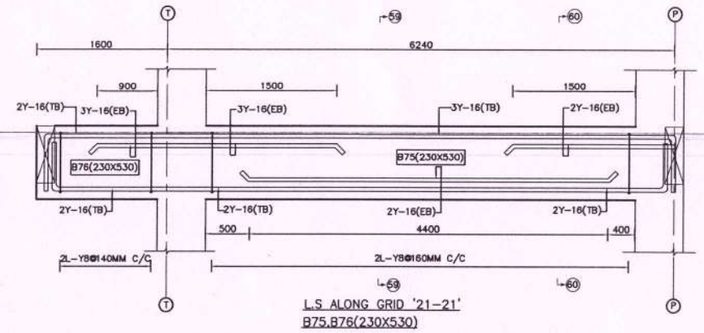
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B67,B68,B69(230X530)



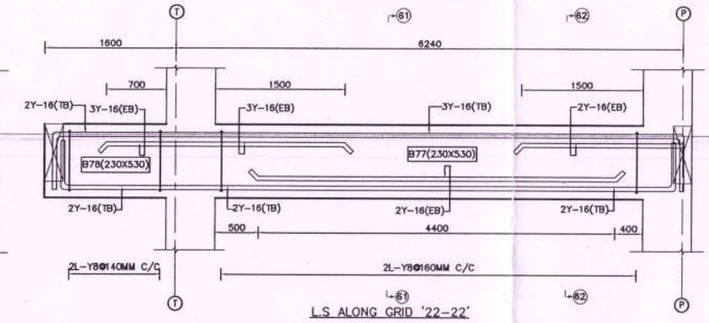
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B70,B71,B72(230X530)



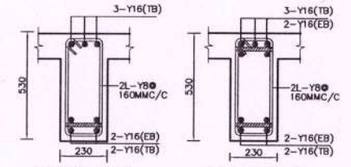
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B73,B74(230X530)



L.S ALONG GRID '21-21'
B75,B76(230X530)

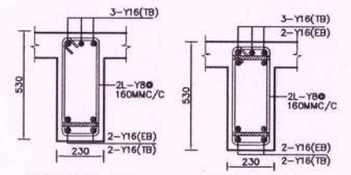


L.S ALONG GRID '22-22'
B77,B78(230X530)



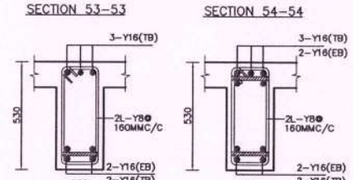
SECTION 51-51

SECTION 52-52



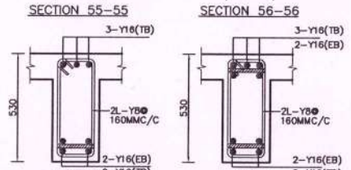
SECTION 53-53

SECTION 54-54



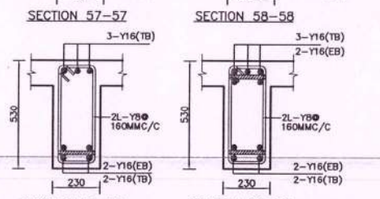
SECTION 55-55

SECTION 56-56



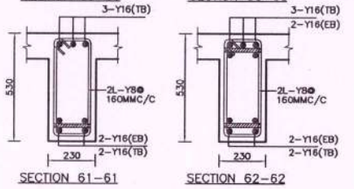
SECTION 57-57

SECTION 58-58



SECTION 59-59

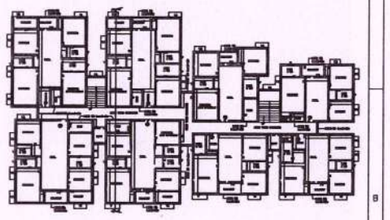
SECTION 60-60



SECTION 61-61

SECTION 62-62

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
2. 'Y' INDICATES HIGH YIELD STRENGTH DEFORMED BARS (HYSD) REINFORCING BARS OF FE-550 GRADE.
3. GRADE OF CONCRETE SHALL BE M20 TO ALL REINFORCED CONCRETE ELEMENTS.
4. CLEAR COVER TO MAIN REINFORCEMENT:FOUNDATION- BOTTOM, SIDE = 75mm, TOP = 50mm, COLUMNS = 40mm, BEAM = 30mm, SLAB = 20mm.
5. SHUTTERING OF ANY PART OF THE STRUCTURE SHALL NOT BE REMOVED UNTIL UNTIL THE CONCRETE ATTAINS 70% OF THE SPECIFIED STRENGTH OF CONCRETE. HOWEVER THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 IS 456
   A) VERTICAL SIDE SHUTTERING OF COLUMNS, WALLS & BEAMS -24HR
   B) BOTTOM OF SHUTTERING SLABS - 3 DAYS (KEEPING THE PROPS)
   C) BOTTOM OF SHUTTERING BEAMS - 7 DAYS (KEEPING THE PROPS)
   D) PROPS TO SLABS:
      i) SPANNING UP TO 4.50M - 7 DAYS
      ii) SPANNING OVER 4.50M -14 DAYS
   E) PROPS TO BEAMS & ARCHES:
      i) SPANNING UP TO 6.00M - 14 DAYS
      ii) SPANNING OVER 6.00M - 21 DAYS
6. LAP LENGTH SHALL BE 50.40 TIMES DIAMETER OF THE BAR FOR TENSION AND COMPRESSION MEMBERS RESPECTIVELY.
7. AT ANY CROSS SECTION OF THE MEMBER,NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
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9. THIS BUILDING IS DESIGNED ONLY FOR STILT+5 FLOOR ONLY.
10. THE SAFE BEARING CAPACITY OF THE SOIL IS TAKEN AS 300KN/M2 @ 3.00M DEPTH FROM NATURAL GROUND LEVEL.

STRUCTURAL ENGINEER CERTIFICATE:-

1. CERTIFIED THAT STRUCTURAL DESIGNS AND STRUCTURAL DRAWINGS FURNISHED BY US FOR THE PROPOSED BUILDING ARE ACCURATE AND SAFE IN ACCORDANCE WITH THE BIS CODES & NBC ENSURING SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURAL MEMBERS OF THE PROPOSED BUILDING PROVIDED THEY ARE ADOPTED IN THE ACTUAL EXECUTION/CONSTRUCTION.
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E.Mahendran

FOR STRUCTURAL ENGINEER.

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01.	16.07.2024	GOOD FOR CONSTRUCTION	00	UMA	MAHI

DRAWN BY Er.UMA | CHECKED BY Mr.MAHENDRAN | APPROVED BY Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ✓ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANM CREST 1628/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

STRUCTURAL CONSULTANT:-
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Er.E.MAHENDRAN M.E. Str.Engg. F.I.V
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DRAWING TITLE: FIFTH FLOOR ROOF BEAM FRAMING LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1031-A1-DWG-013 SHEET 06 OF 06 | REVISION 02

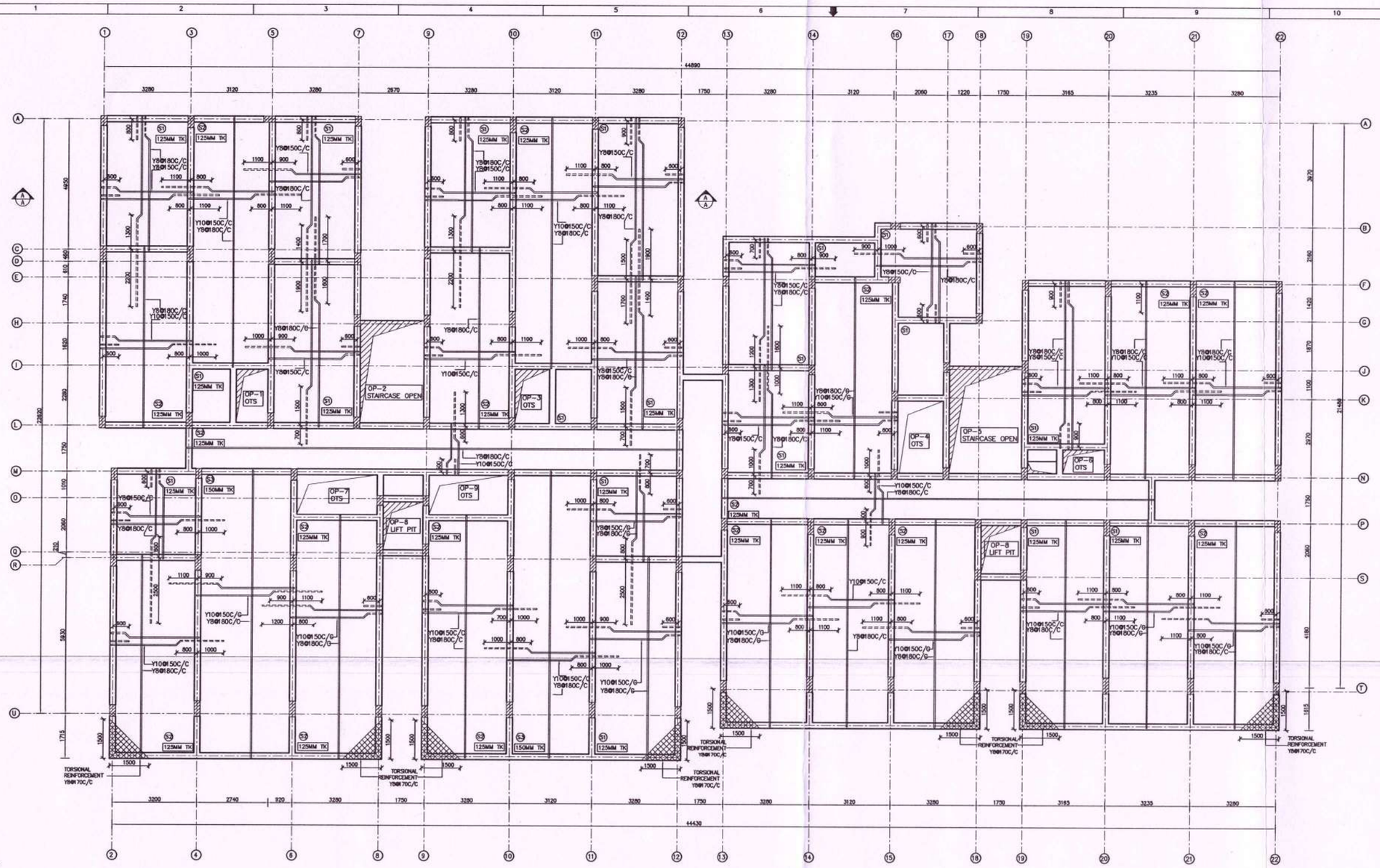
LEGENDS:-

B	- BEAM	TB	- THROUGH BAR
OP	- OPENING	EB	- EXTRA BAR
LVL	- LEVEL	TYP	- TYPICAL
L.S	- LONGITUDINAL SECTION	C/S	- CROSS SECTION
C/C	- CENTER TO CENTER	OTS	- OPEN TO SKY
T.O.C	- TOP OF CONCRETE	SK	- SUNKEN

GOOD FOR CONSTRUCTION

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FIFTH FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

SCALE 1:55

TABLE-1

FIFTH FLOOR ROOF OPEN SCHEDULE DETAIL:-

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP-01 - OPEN TO SKY	1220 X 2030
2.	OP-02 - STAIRCASE OPEN	2440 X 3670
3.	OP-03 - OPEN TO SKY	1300 X 2060
4.	OP-04 - OPEN TO SKY	1750 X 2740
5.	OP-05 - STAIRCASE OPEN	2740 X 3800
6.	OP-06 - OPEN TO SKY	1600 X 910
7.	OP-07 - OPEN TO SKY	3050 X 1385
8.	OP-08 - LIFT OPEN	1520 X 1830
9.	OP-09 - OPEN TO SKY	3040 X 1385

TABLE-2

FIFTH ROOF SLAB REINFORCEMENT DETAILS

S.NO	SLAB MARK	THK. OF SLAB	TYPE OF SLAB	REINFORCEMENT	
				MAIN BAR	DISTRIBUTION
1.	S1	125 MM	TWO WAY	Y8@150C/C	Y8@180C/C
2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C

TABLE-3

S.NO.	ϕ - DIA. OF BAR	L_d - DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	500MM
2.	10MM	600MM

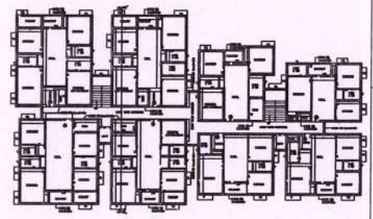
CONCRETE M25
STEEL FE 500

LEGENDS:-

S	-	SLAB
OP	-	OPENING
LVL	-	LEVEL
TYP	-	TYPICAL
———	-	TOP BAR
———	-	BOTTOM BAR
TOC	-	TOP OF CONCRETE
C/C	-	CENTER TO CENTER
C/S	-	CROSS SECTION
L/S	-	LONGITUDINAL SECTION
REINF.	-	REINFORCEMENT

GOOD FOR CONSTRUCTION

COPY TO CLIENT



KEYPLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER. ELEVATION LEVEL IN METRES.
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      II) SPANNING OVER 8.00M - 21 DAYS
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E.Mahendran

Anugraha Design Consultant

FOR STRUCTURAL ENGINEER.

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01.	18.07.2024	GOOD FOR CONSTRUCTION	00	FATHI	MAHI

DRAWN BY	Er.FARZANA	CHECKED BY	Mr.MAHENDRAN	APPROVED BY	Mr.MAHENDRAN

ISSUED FOR: ○ PRELIMINARY ○ TENDER ☑ CONSTRUCTION

PROJECT: PROPOSED CONSTRUCTION OF STILT+5 FLOOR APARTMENT BUILDING @TIRUNELVELI.

CLIENT: M/s JOHN BUILDWELL-INDIA P(LTD)

beads
Better Environment for Architectural Design of Shelters
ANVI CREST 162B/1,
SAROJINI STREET,
RAM NAGAR,
COIMBATORE-641009.
MOBILE: 9943251453.

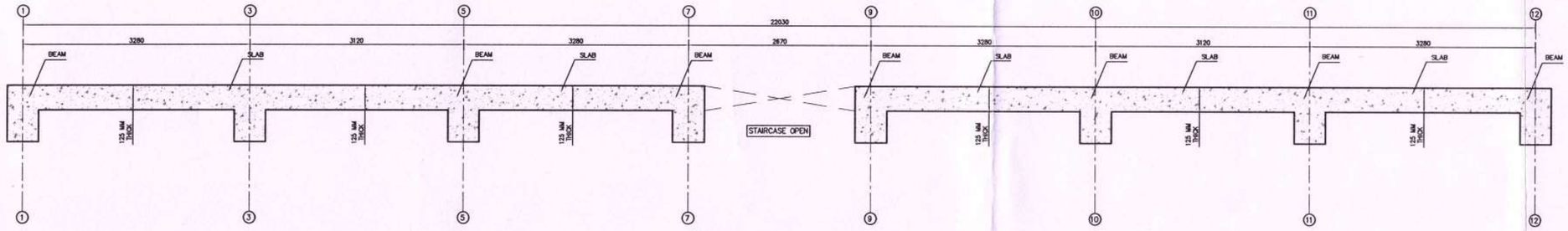
STRUCTURAL CONSULTANT:-
Anugraha Design Consultant
Er..E.MAHENDRAN M.E. Str.Engg. F.I.V
CHARTED Str.Engr. No. CE/ISE/LM/255
CMDA- SE/Gr.1/TVL./JULY/2020/021
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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI-627011

DRAWING TITLE: FIFTH FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

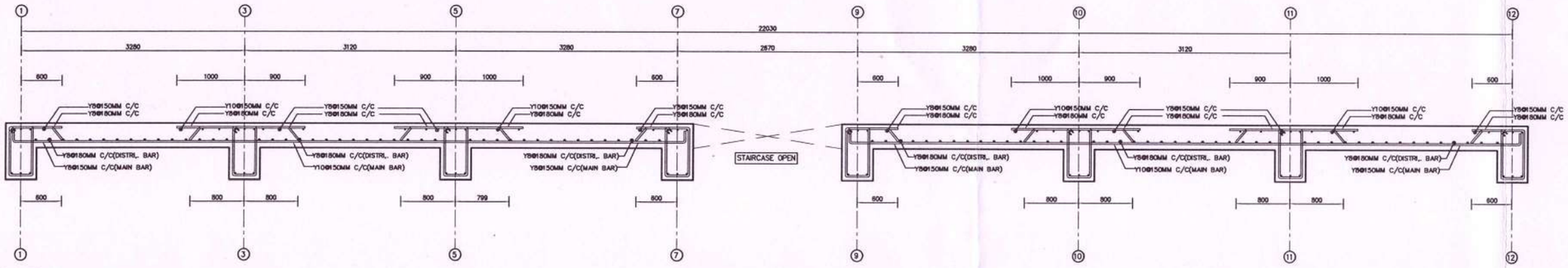
DRAWING NO. 1682-A1-DWG-014 SHEET 01 OF 02 REVISION 02

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SECTION A–A
ROOF SLAB CONCRETE GENERAL ARRANGEMENT
SCALE 1:20



SECTION A–A
ROOF SLAB REINFORCEMENT GENERAL ARRANGEMENT
SCALE 1:25

TABLE–1

FIFTH FLOOR ROOF OPEN SCHEDULE DETAIL:–

SL.NO	OPEN MARK AND LOCATION	SIZE
1.	OP–01 – OPEN TO SKY	1220 X 2030
2.	OP–02 – STAIRCASE OPEN	2440 X 3670
3.	OP–03 – OPEN TO SKY	1300 X 2060
4.	OP–04 – OPEN TO SKY	1750 X 2740
5.	OP–05 – STAIRCASE OPEN	2740 X 3800
6.	OP–06 – OPEN TO SKY	1600 X 910
7.	OP–07 – OPEN TO SKY	3050 X 1385
8.	OP–08 – LIFT OPEN	1520 X 1830
9.	OP–09 – OPEN TO SKY	3040 X 1385

TABLE–2

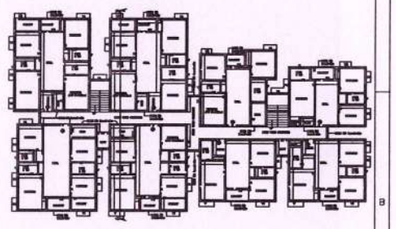
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				MAIN BAR	DISTRIBUTION
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2.	S2	125 MM	ONE WAY	Y10@150C/C	Y8@180C/C
3.	S3	150 MM	ONE WAY	Y10@150C/C	Y8@180C/C

TABLE–3

S.NO.	ϕ– DIA. OF BAR	L_d – DEVELOPMENTAL LENGTH FOR SLAB
1.	8MM	500MM
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COPY TO CLIENT



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DRAWN BY: Er.FARZANA | CHECKED BY: Mr.MAHENDRAN | APPROVED BY: Mr.MAHENDRAN

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CLIENT: M/s JOHN BUILDWELL–INDIA P(LTD)

CONCRETE M25
STEEL FE 550

LEGENDS:–
S – SLAB
SK – SUNKEN
OP – OPENING
LVL – LEVEL
TYP – TYPICAL
----- – TOP BAR
——— – BOTTOM BAR
TOC – TOP OF CONCRETE
C/C – CENTER TO CENTER
C/S – CROSS SECTION
L/S – LONGITUDINAL SECTION
REINF., – REINFORCEMENT

GOOD FOR CONSTRUCTION

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438, 2nd EAST STREET, SRINIVASA NAGAR, TIRUNELVELI–627011

DRAWING TITLE: FIFTH FLOOR ROOF SLAB LAYOUT AND REINFORCEMENT DETAILS

DRAWING NO. 1682–A1–DWG–014 SHEET 01 OF 02 | REVISION 02

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Legal & Documentation Services

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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