Verified RealEstate™

RE REGULATORY RECORD

RERA Document

The document as the regulator published it, reproduced in full behind this page.

Published for reference. The authority's own register is the operative record.

Verified RealEstate™
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India

hello@verified.realestate
+91 9996 12 9996
verified.realestate

DIGITALLY VERIFIED RECORD

Plot Nos.46,4748&49 In Existing Survey No.454/2A1A Part, New Sub-Division Survey No.454/8, Siva Nagar, Meelavittan Part-2 Village Approved Spf Layout No.57/2018, Corporation Ward No 51, Thoothukudi City Municipal Corporation.

Residential Apartment Building – Structural Design Report

May 2026

STRUCTUAL CONSULTANT

S.ARUN KUMAR, M.E., (Structural)

9, 9-1, Lakshmi Garden,

Sankara College Road, Saravanampatti,

Coimbatore-641 035.

JPB APARTMENT

THOOTHUKUDI

S. ARUN KUMAR, ME., (Struct.)
Coimbatore LPA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

S.ARUN KUMAR, M.E.,(Struct)
9,9–1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore–641 035.
Mobile : 979 000 6296.

TABLE OF CONTENT

SN. NO	TITLE	PAGE NO.
1	**PREAMBLE**	03
2	**MODEL AND ANALYSIS**	03
3	**LIST OF CODES USED**	03
4	**LOADING PARAMETERS** 1. Gravity Loads. I. Dead load. II. Live load	03
5	**LOAD COMBINATIONS**	06
6	**STAAD IMAGES**	07
7	**DESIGN OF PILE CAP**	11
8	**DESIGN OF BEAM**	14
9	**CONCLUSION**	16
	LIST OF FIGURES a) 3D-Model (Whole Structure) b) Property of the Structure c) Dead load of the Structure d) Live load of the Structure e) Column moment & Ast of the Structure f) Bending moment of Structures g) Shear force of Structures h) Deflection of Structures i) Pile Cap Model j) Pile Cap Plate Stress Contour k) Pile Cap Design Results	 07 07 08 08 09 09 10 10 12 13 13
	LIST OF TABLES 1. General information about the structure 2. Gravity loads	 03 04

S.ARUN KUMAR, M.E.,(Struct)
9,9–1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore–641 035.
Mobile : 979 000 6296.

1. PREAMBLE

TABLE 1. GENERAL INFORMATION ABOUT THE STRUCTURE

1.	NAME OF BUILDING	JPB APARTMENT
2.	NATURE OF BUILDING	Residential Apartment
3.	TYPE OF STRUCTURE	Framed
4.	PLINTH LEVEL	At 0.45m
5.	TOTAL HEIGHT OF THE BUILDING (Above Plinth)	20.30m

2. MODEL AND ANALYSIS

The Model of the structure is created using STAAD.Pro V8i and the Structural analysis is carried out under the following considerations.

2.1 Material Used

Concrete = M30 (For All Concrete Structural Members)
Rebar = HYSD550D (For Structural Members)

2.2 Member Properties

a) Column Sizes (in mm)

C1 = 230x300
C2 = 230x380
C3 = 230x450
C4 = 230x530
C5 = 230x600
C6 = 230x680
C7 = 230X750

3. LIST OF CODES USED

1. IS 456 – 2000 - Plain and reinforced concrete- code of practice
2. IS 875 – (Part –I) -1987 Code of practice for design loads (other than earthquake) for buildings and structures - Dead loads
3. IS 875 – (Part- II) -1987 - Code of practice for design loads (other than earthquake) for buildings and structures. - Imposed loads.

4. LOADING PARAMETERS

i. Self-Weight is default in Staad.pro and it is considered as dead load.
ii. Apart from self-weight, all other dead loads are considered as super dead loads.

S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.

TABLE 2. GRAVITY LOADS

S.No	Floor	Load Type		Load	Reference
1.	**Plinth Beam Level**	**Dead Load**	Brick Wall Load (9")	15.73 kN/m	=(3.8-0.38)*0.23*20 = 15.73 kN/m Ht. of the wall = 3.8m Width of the wall = 0.23m Unit Weight of Brick = 20kN/m^3 Reduction Factor = Average Beam Depth is 0.38m
			Brick Wall Load (4.5")	7.86 kN/m	=(3.8-0.38)*0.115*20 = 7.86 kN/m Ht. of the wall = 3.8m Width of the wall = 0.115m Unit Weight of Brick = 20kN/m^3 Reduction Factor = Average Beam Depth is 0.38m
			Staircase	7 kN/m	
		Live Load	Staircase	5 kN/m	
2.	**Typical Floor Roof Level**	**Dead Load**	Brick Wall Load (9")	12.3 kN/m	=(3.05-0.38)*0.23*20 = 12.3 kN/m Ht. of the wall = 3.05m Width of the wall = 0.23m Unit Weight of Brick = 20kN/m^3 Reduction Factor = Average Beam Depth is 0.38m
			Brick Wall Load (4.5")	6.1 kN/m	=(3.05-0.38)*0.115*20 = 6.1 kN/m Ht. of the wall = 3.05m Width of the wall = 0.115m Unit Weight of Brick = 20kN/m^3 Reduction Factor = Average Beam Depth is 0.38m
			Rail Load	2 kN/m	Assumed.
			Staircase	7 kN/m	
			Slab Load (5")	4.625 kN/m^2	Self Wt. of slab = 0.125*25 =3.125kN/m^2 Slab Thickness = 0.125m Floor Finish of Slab = 1.5kN/m^2 Self Wt. of Slab = 4.625 kN/m^2

S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.

			Slab Load (6")	5.25 kN/m²	Self Wt. of slab = 0.15*25 =3.75kN/m² Slab Thickness = 0.150m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 5.25 kN/m²
			Sunken Load (230mm)	3.45 kN/m²	=0.23*15 = 3.45 kN/m²
			Sunken Material	15 kN/m²	Hemalite
		Live Load	Floor Load	2 kN/m²	IS 875 – (PART -2) - 1987
			Staircase	5 kN/m	
			Balcony Load	3 kN/m	IS 875 – (PART -2) - 1987
			Slab Load (6")	5.25 kN/m²	Self Wt. of slab = 0.15*25 =3.75kN/m² Slab Thickness = 0.150m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 5.25 kN/m²
			Sunken Load (230mm)	3.45 kN/m²	=0.23*15 = 3.45 kN/m²
			Sunken Material	15 kN/m²	Hemalite
3.	**Terrace Floor Level**	**Dead Load**	Brick Wall Load (9")	12.3 kN/m	=(3.05-0.38)*0.23*20 = 12.3 kN/m Ht. of the wall = 3.05m Width of the wall = 0.23m Unit Weight of Brick = 20kN/m³ Reduction Factor = Average Beam Depth is 0.38m
			Brick Wall Load (4.5")	6.1 kN/m	=(3.05-0.38)*0.115*20 = 6.1 kN/m Ht. of the wall = 3.05m Width of the wall = 0.115m Unit Weight of Brick = 20kN/m³ Reduction Factor = Average Beam Depth is 0.38m
			Parapet Load	4.2 kN/m	=0.915*0.23*20 = 4.2 kN/m Ht. of the wall = 0.915m Width of the wall = 0.23m Unit Weight of Brick = 20kN/m³

			Staircase	7 kN/m	
			Slab Load (5")	4.625 kN/m²	Self Wt. of slab = 0.125*25 =3.125kN/m² Slab Thickness = 0.125m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 4.625 kN/m²
			Slab Load (6")	5.25 kN/m²	Self Wt. of slab = 0.15*25 =3.75kN/m² Slab Thickness = 0.150m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 5.25 kN/m²
		Live Load	Floor Load	2 kN/m²	IS 875 – (PART -2) - 1987
			Staircase	5 kN/m	
3.	**Head Room Level**	**Dead Load**	Brick Wall Load (9")	12.3 kN/m	=(3.05-0.38)*0.23*20 = 12.3 kN/m Ht. of the wall = 3.05m Width of the wall = 0.23m Unit Weight of Brick = 20kN/m³ Reduction Factor = Average Beam Depth is 0.38m
			Slab Load (5")	4.625 kN/m²	Self Wt. of slab = 0.125*25 =3.125kN/m² Slab Thickness = 0.125m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 4.625 kN/m²
			Slab Load (6")	5.25 kN/m²	Self Wt. of slab = 0.15*25 =3.75kN/m² Slab Thickness = 0.150m Floor Finish of Slab = 1.5kN/m² Self Wt. of Slab = 5.25 kN/m²
		Live Load	Floor Load	2 kN/m²	IS 875 – (PART -2) - 1987

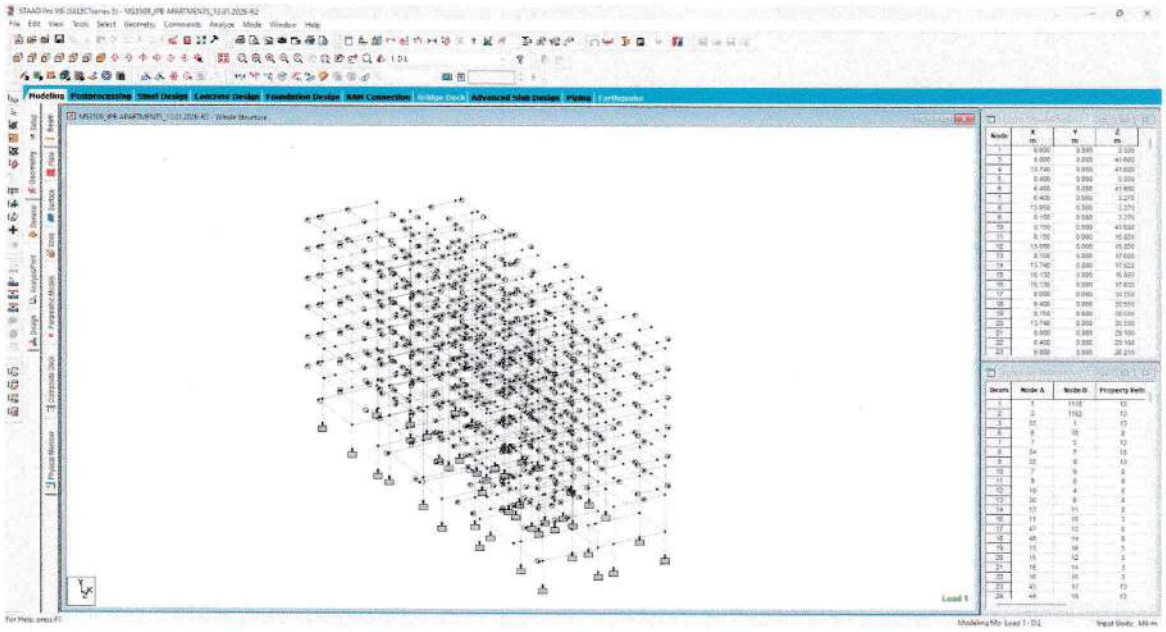
5. LOAD COMBINATIONS

The load combinations producing the most critical conditions on the frames are taken into account. The load combinations indicated in IS 875:1987 (Part 5) are adopted for the design of the framed structure. The load combinations with appropriate load factor a given below.

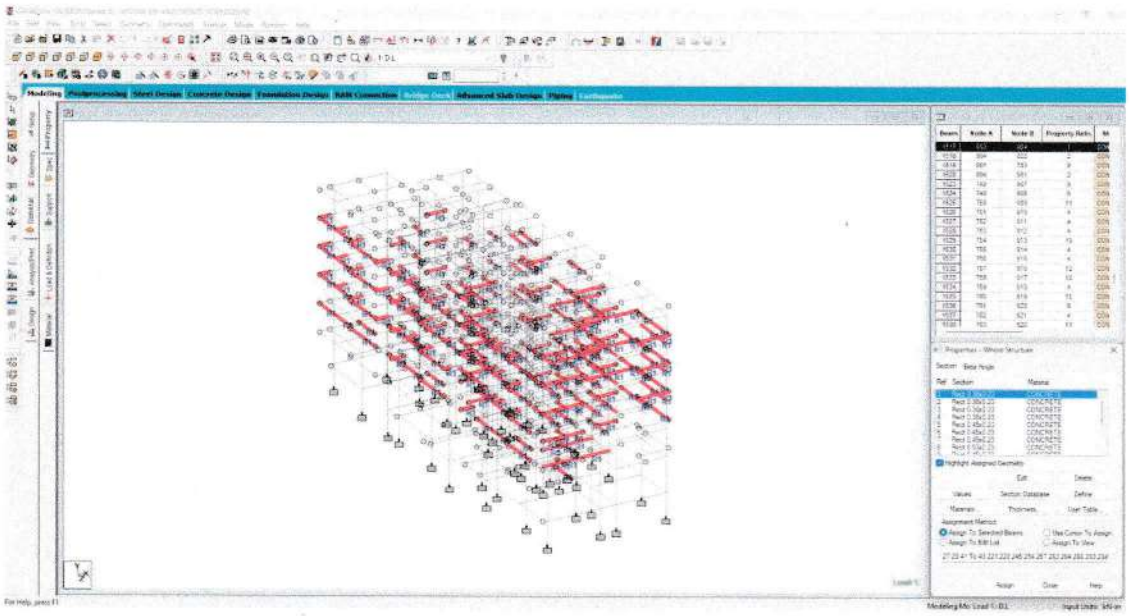
- D.L + L.L
- 1.5D.L + 1.5L.L

S. ARUN KUMAR, ME., (Struct.)
Coimbatore LPA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

6. STAAD IMAGES

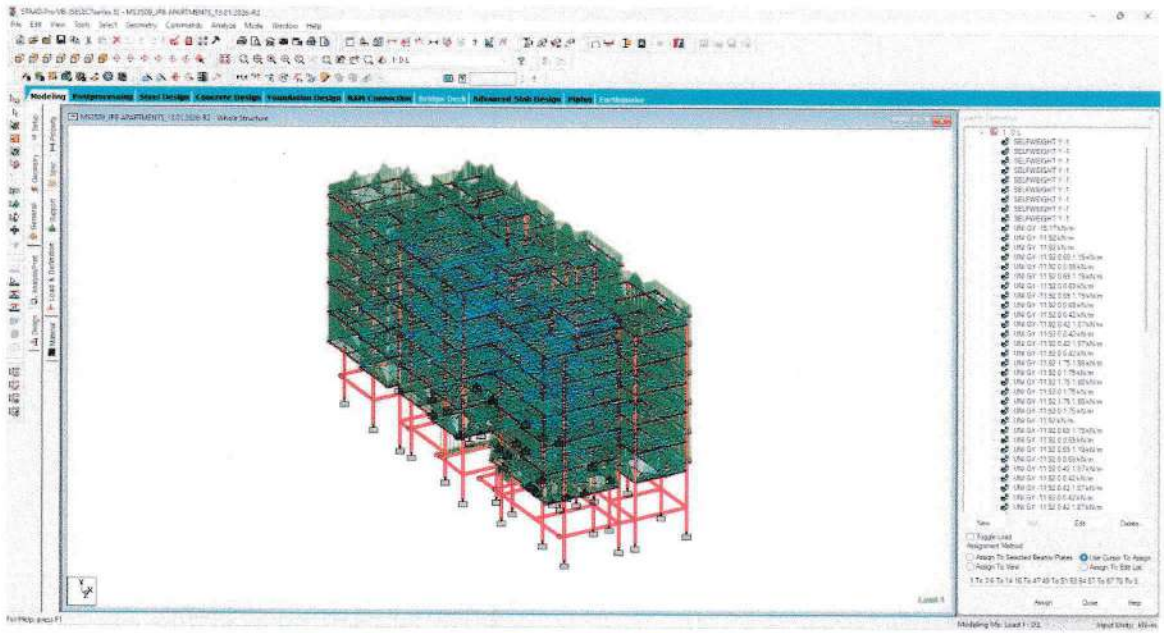


WHOLE STRUCTURE

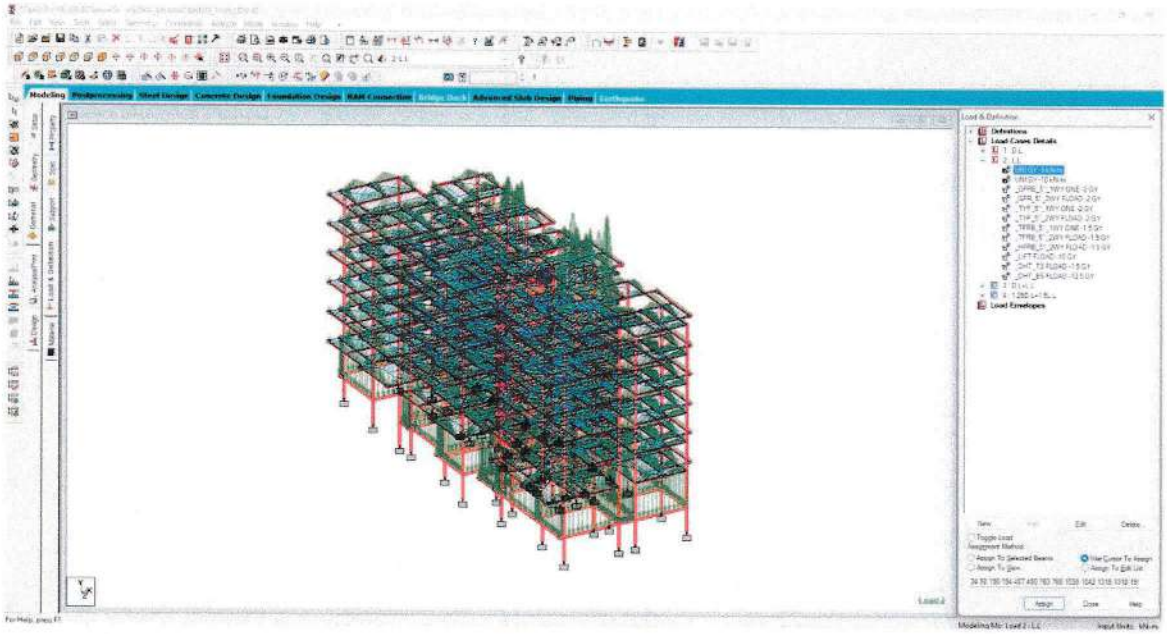


PROPERTIES OF THE STRUCTURE

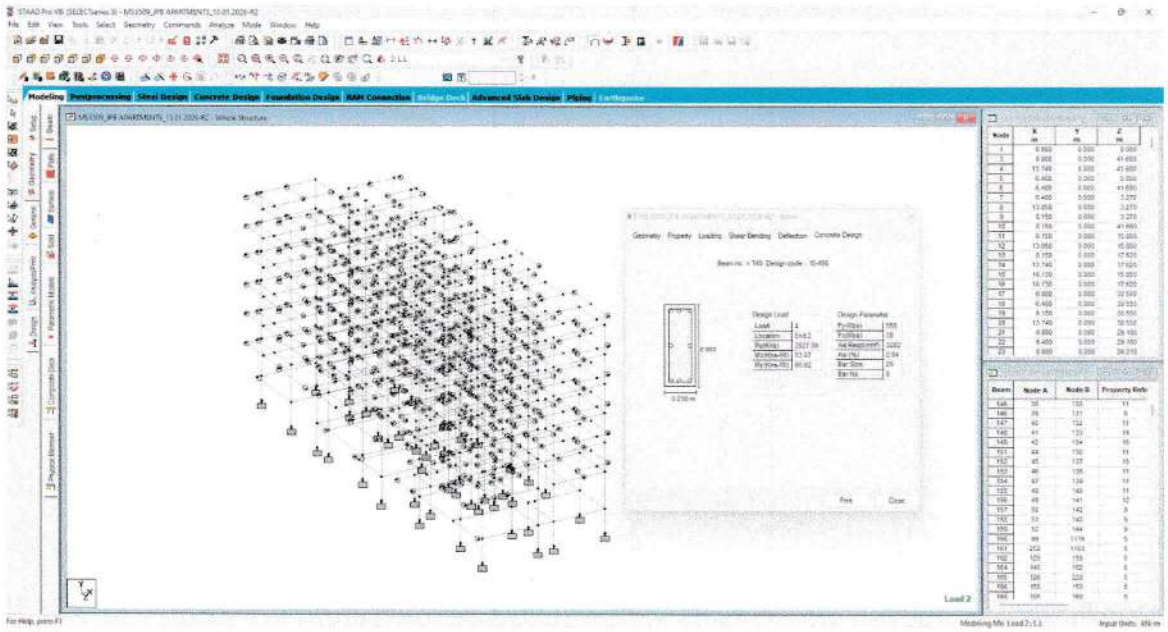
S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.



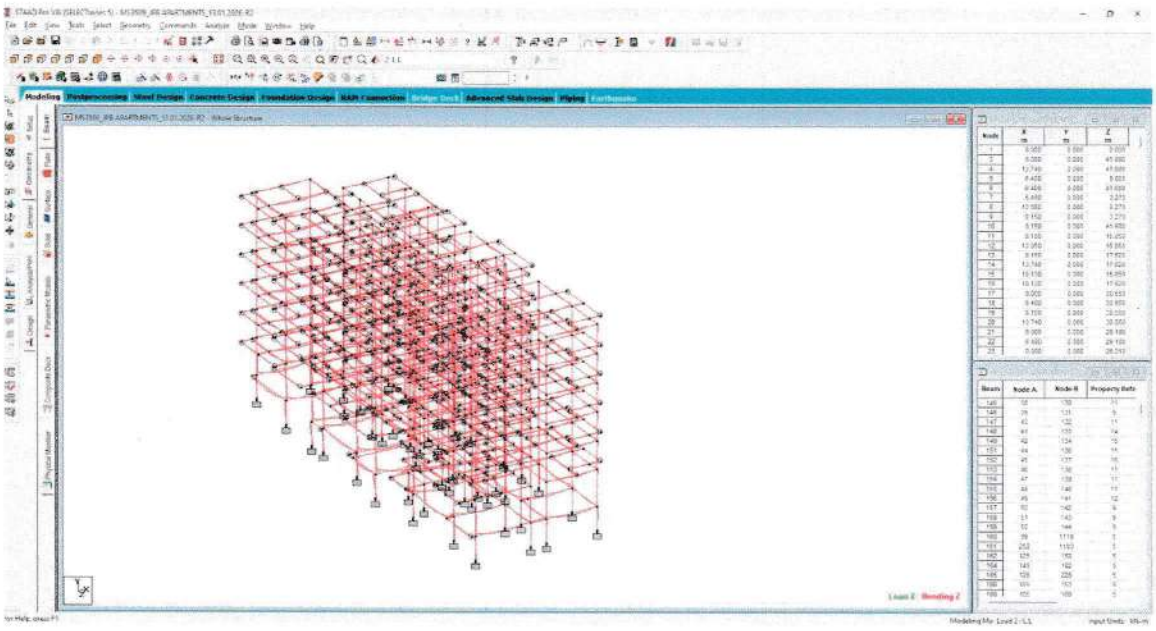
DEAD LOAD OF STRUCTURE



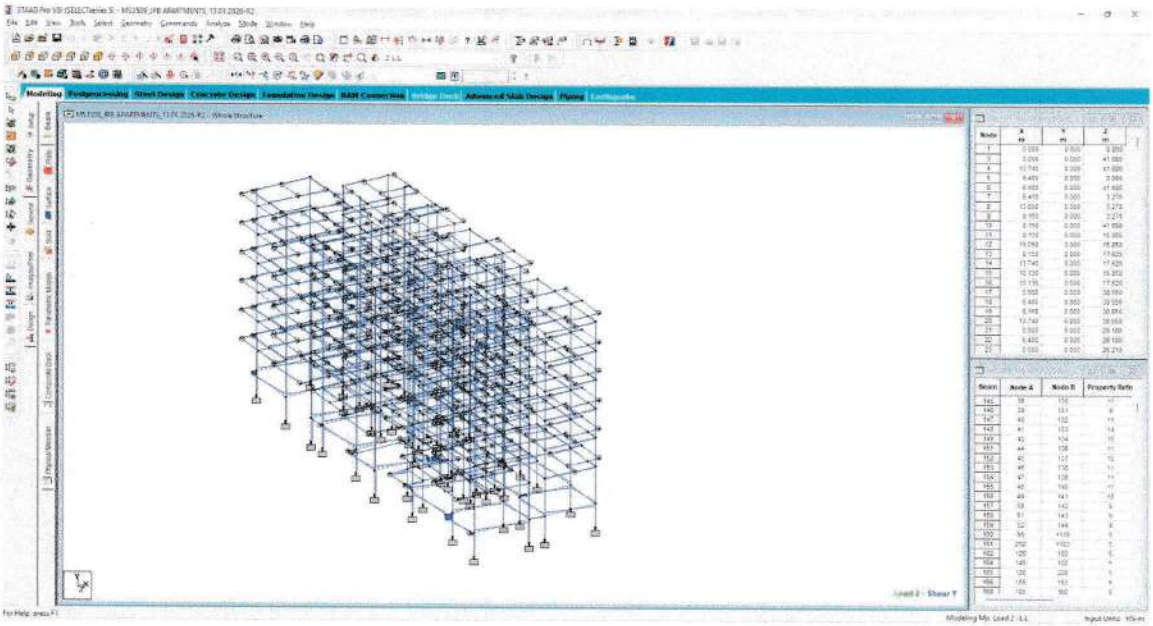
LIVE LOAD OF STRUCTURE



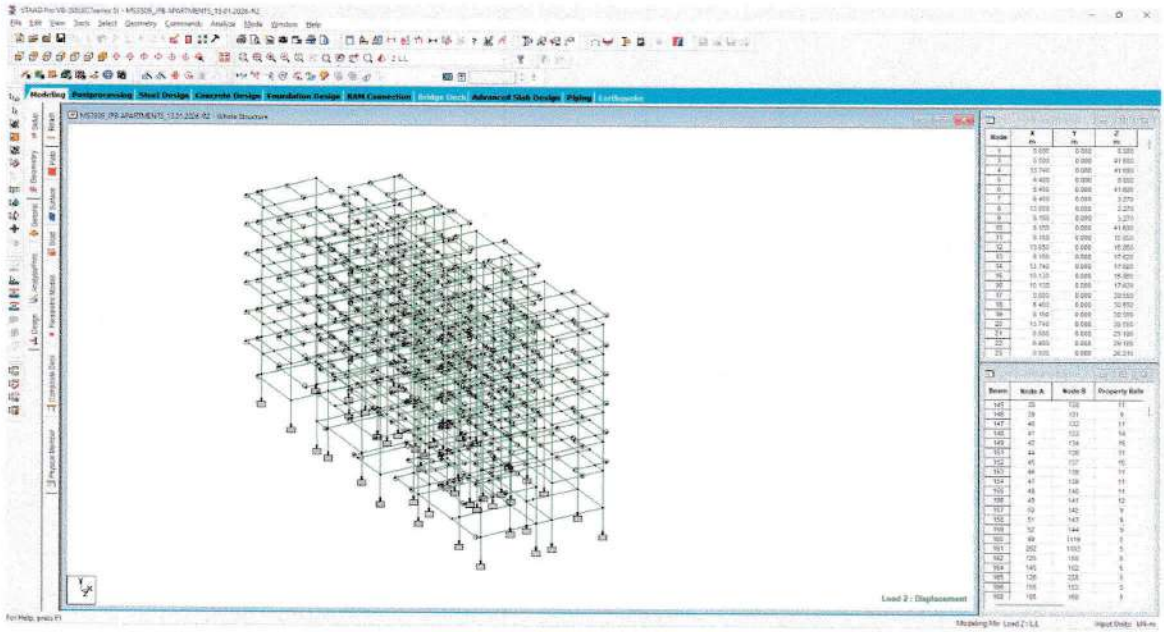
COLUMN MOMENT & AST



BENDING MOMENT OF THE STRUCTURE



SHEAR FORCE OF THE STRUCTURE



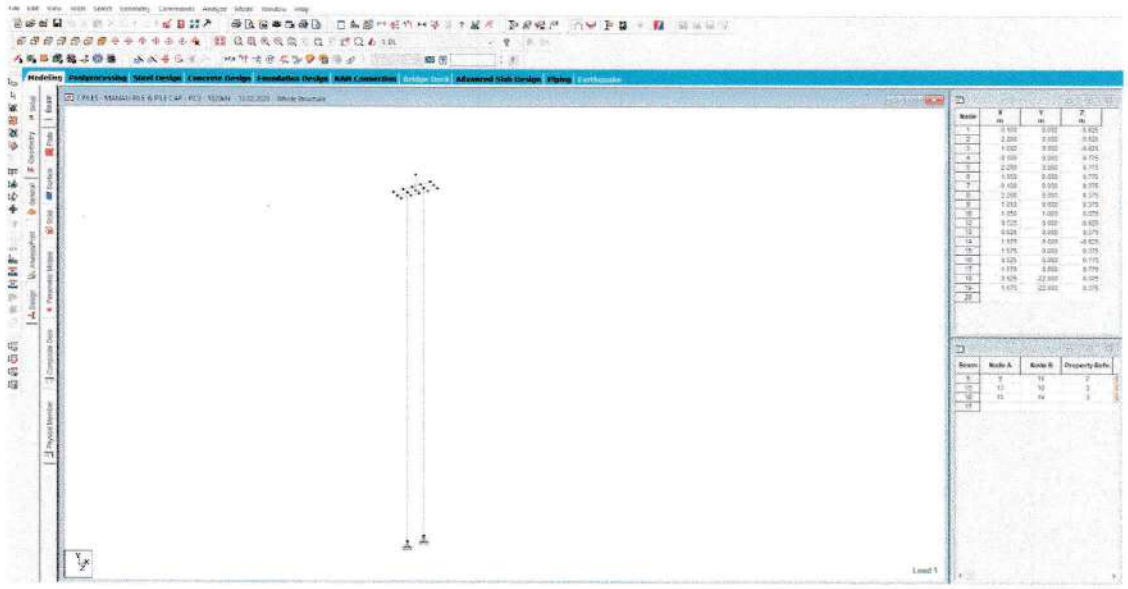
DEFLECTION OF THE STRUCTURE

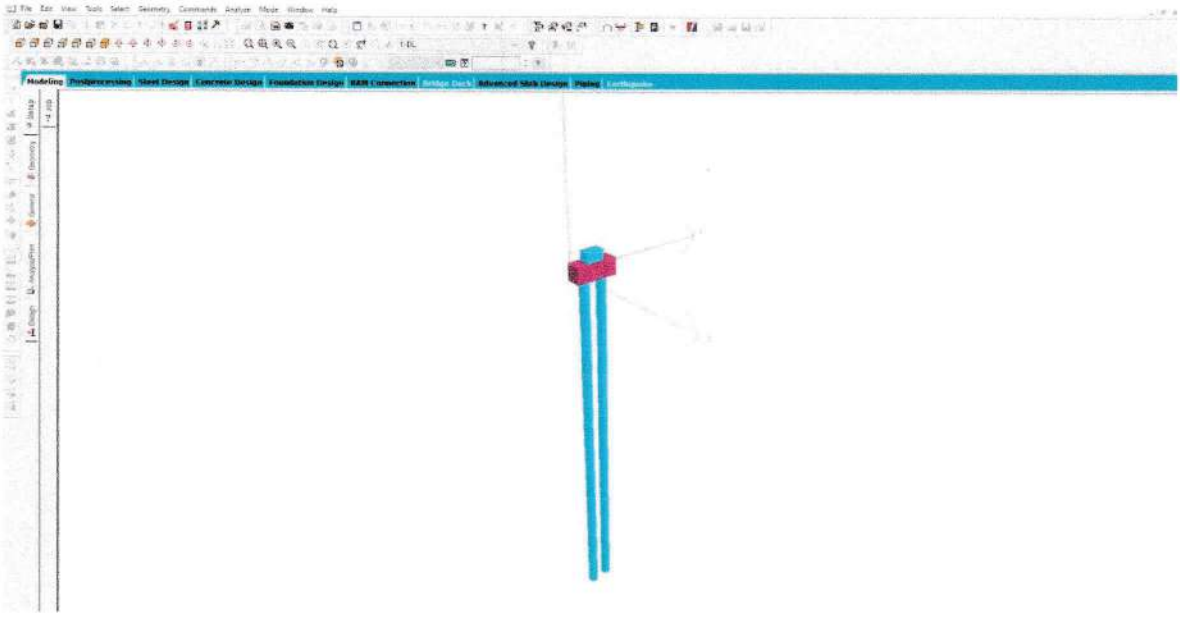
S. ARUN KUMAR, ME., (Struct.)
Coimbatore I PA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

7. DESIGN OF PILE CAP

S. ARUN KUMAR, ME., (Struct.)
Coimbatore LPA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

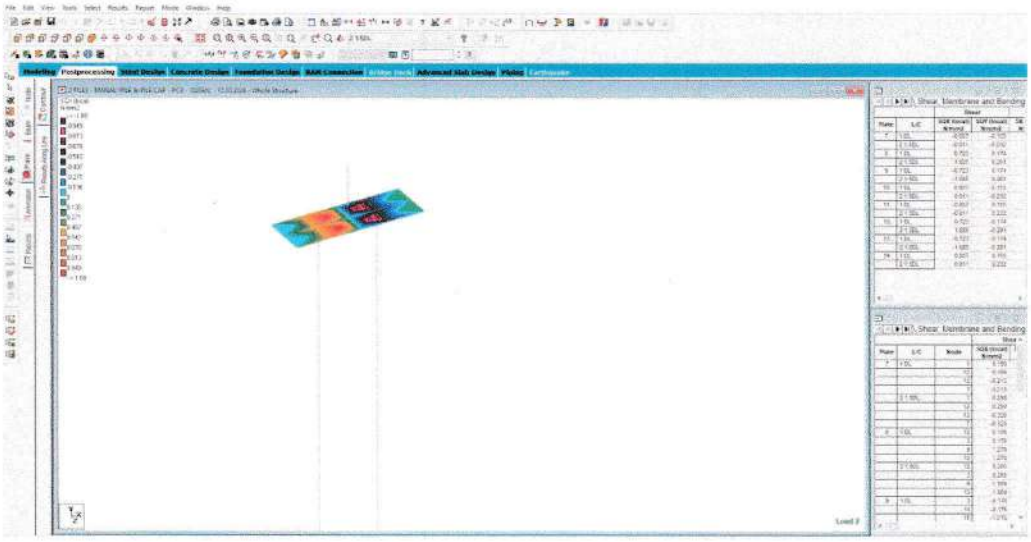
S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.





PILE CAP MODEL

S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.



PILE CAP - PLATE STRESS CONTOUR

ELEMENT DESIGN SUMMARY

ELEMENT	LONG. REINF (SQ.MM/ME)	MOM-X /LOAD (KN-M/M)	TRANS. REINF (SQ.MM/ME)	MOM-Y /LOAD (KN-M/M)
7 TOP :	1056.	0.00 / 0	1056.	0.00 / 0
BOTT:	1056.	-3.11 / 2	1056.	-22.85 / 2
8 TOP :	1056.	248.99 / 2	1056.	24.41 / 2
BOTT:	1056.	0.00 / 0	1056.	0.00 / 0
9 TOP :	1056.	248.99 / 2	1056.	24.41 / 2
BOTT:	1056.	0.00 / 0	1056.	0.00 / 0
10 TOP :	1056.	0.00 / 0	1056.	0.00 / 0
BOTT:	1056.	-3.11 / 2	1056.	-22.85 / 2
11 TOP :	1056.	0.00 / 0	1056.	0.00 / 0
BOTT:	1056.	-3.11 / 2	1056.	-22.85 / 2
12 TOP :	1056.	248.99 / 2	1056.	24.41 / 2
BOTT:	1056.	0.00 / 0	1056.	0.00 / 0
13 TOP :	1056.	248.99 / 2	1056.	24.41 / 2
BOTT:	1056.	0.00 / 0	1056.	0.00 / 0
14 TOP :	1056.	0.00 / 0	1056.	0.00 / 0
BOTT:	1056.	-3.11 / 2	1056.	-22.85 / 2

**********END OF ELEMENT DESIGN**********

PILE CAP DESIGN RESULT

S. ARUN KUMAR, ME., (Struct.)
Coimbatore LPA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

S.ARUN KUMAR, M.E.,(Struct)
9,9-1,Lakshmi Garden,
Sankara College Road,
Saravanampatti,
Coimbatore-641 035.
Mobile : 979 000 6296.

8. DESIGN OF BEAMS

DATE	06.05.2026	JPB APARTMENT-THOOTHUKUDI	METIS STRUCTURES	S.ARUN KUMAR, M.E.,(Struct) 9,9–1,Lakshmi Garden, Sankara College Road, Saravanampatti, Coimbatore–641 035. Mobile : 979 000 6296.
REV NO	00			

DETAILS OF BEAM SECTION:

Grade of Concrete	f_{ck}	30.00
Grade of Steel (Main bar)	f_y	500.00
Grade of Steel (Stirrups)	f_{ys}	500.00
Young's modulus of steel	E_s	200000.00
Modulus of elasticity of concrete	E_c	27386.13
Modulus of rupture of concrete	f_{cr}	3.83
Shrinkage strain of concrete	ϵ_{cs}	0.0003
Creep coefficient (After 28 days)	θ	1.60
Clear Cover	d_c	25.00
End Panel Cover	d_{ce}	25.00

SYMBOLS USED:

M_u = Moment from Analysis M_e = Equivalent moment at column face = M_u -(V_u*B_c/8)+ T_u/(1+D/b))/1.7

Where B_c-Column dimension

Depth of Balanced N.A - $X_{u,max}$ = 0.0035/(0.0055+f_y/1.15*E_s)d

Moment of Resistance - M_{u1} = 0.36 f_{ck} b $X_{u,max}$(d-0.42$X_{u,max}$)

For Singly Reinforced Beams (M_{u1} > M_u)

Area of Tension Steel (A_{st} = 0.5 f_{ck}/f_y(1-SQRT(1-4.6.M_u.10^6/f_{ck}.b.d^2)).b.d

Minimum Steel Required $A_{st,min}$=0.85/f_y*bd

Nominal Shear Stress (τ_v = V_u/bd

Percentage of Steel (P_t=A_{st}x100/bd)

τ_c - Design Shear Stress ,$\tau_{c,max}$ - Maximum Shear Stress (Page 73, IS 456:2000)

Shear Resistance of Beam Section (V_{uc} = τ_c.b.d/1000

Spacing of Stirrups (S_v) = 0.87.f_{ys}.d.A_{sv}/(V_u-V_{uc})1000 & Max Spacing($S_{v,max}$) = 0.75d

Beam No / Moment Location		Max.BM (M_u)		Max. SF (V_u)	Beam Size/Span		Ast Required		Min.Ast	Ast Provided		Main Reinforcement: Bottom Reinforcement					Main Reinforcement: Top Reinforcement									Shear Reinforcement			
		Bottom	Top		b	D	A_{st1}	A_{st2}	$A_{st,min}$	A_{st1}	A_{st2}	Thro# (1st Layer)		Curtail (1st Layer)		Total Layer	Thro# (1st Layer)		Thro# (II nd Layer)		Thro# (III rd Layer)		Curtail (1st Layer)		Total Layer	Dia of bar	S_v	$S_{v,max}$	S_v
		kNm	kNm	kN	mm	mm	mm^2	mm^2	mm^2	mm^2	mm^2	No	Dia	No	Dia		No	Dia	No	Dia	No	Dia	No	Dia		mm	mm	mm^2	mm^2
TYB1	S		1	60	230	530	5	0	194	402	402	2	16			1	2	16							1	8	1063.2	300	150
	M	25			230	530	118	0	194	402	402	2	16			1	2	16							1	8			150
	S		137	215	230	530	710	0	194	1030	402	2	16			1	2	16					2	25	1	8	151.2	300	150
TYB2	S		128	109	230	530	658	0	194	1030	402	2	16			1	2	16					2	25	1	8	582.6	300	150
	M	76			230	530	341	0	194	402	402	2	16			1	2	16							1	8			150
	S		76	84	230	530	372	0	194	402	402	2	16			1	2	16							1	8	619.7	300	150
TYB3	S		52	18	230	530	250	0	194	402	402	2	16			1	2	16							1	8	-702.7	300	150
	M	1			230	530	5	0	194	402	402	2	16			1	2	16							1	8			150
	S		33	14	230	530	156	0	194	402	402	2	16			1	2	16							1	8	-822.2	300	150
TYB4	S		85	141	230	530	466	0	194	402	628	2	20			1	2	16							1	8	236.1	300	150
	M	202			230	530	1133	0	194	1257	402	2	20	2	20	1	2	16							1	8			150
	S		1	117	230	530	5	0	194	402	628	2	20			1	2	16							1	8	319.3	300	150
TYB5	S		48	75	230	450	378	0	163	402	402	2	16			1	2	16							1	8	592.9	300	150
	M	91			230	450	598	0	163	804	402	2	16	2	16	1	2	16							1	8			150
	S		78	100	230	450	468	0	163	628	402	2	16			1	2	16					2	12	1	8	389.9	300	150
TYB6	S		10	10	230	450	56	0	163	628	402	2	16			1	2	16					2	12	1	8	-421.8	300	150
	M	1			230	450	6	0	163	402	402	2	16			1	2	16							1	8			150
	S		6	5	230	450	44	0	5	402	402	2	16			1	2	16							1	8	-464.7	300	150
TYB7	S		1	32	230	380	7	0	138	226	226	2	12			1	2	12							1	8	19305.8	261.8	150
	M	20			230	380	136	0	138	226	226	2	12			1	2	12							1	8			150
	S		1	32	230	380	7	0	138	226	226	2	12			1	2	12							1	8	19305.8	261.8	150
TYB8	S		1	14	230	300	9	0	105	226	226	2	12			1	2	12							1	8	-910.2	261.8	150
	M	7			230	300	61	0	105	226	226	2	12			1	2	12							1	8			150
	S		1	14	230	300	9	0	105	226	226	2	12			1	2	12							1	8	-910.2	261.8	150
TYB9	S		3	75	230	530	14	0	194	402	402	2	16			1	2	16							1	8	833.7	300	150
	M	10			230	530	47	0	194	402	402	2	16			1	2	16							1	8			150
	S		168	166	230	530	995	0	193	1610	402	2	16			1	2	20					2	25	1	8	264.9	300	150
TYB10	S		263	224	230	530	1488	219.92	193	1610	628	2	20			1	2	20					2	25	1	8	154.6	300	150
	M	143			230	530	746	0	194	1257	628	2	20	2	20	1	2	20							1	8			150
	S		108	117	230	530	1096	0	194	1257	628	2	20			1	2	20					2	25	1	8	548.3	300	150
	S		1	41	230	480	6	0	162	628	402	2	16			1	2	20							1	8	-1592.3	300	150

TYB11	M	1			230	450	6	0	163	402	628	2	16			1	2	20						1	8			150
	S		213	122	230	450	1421	373	161	1610	402	2	16			1	2	20				2	25	1	8	388.6	300	150
	S		161	262	230	450	1106	33.63	161	1610	402	2	16			1	2	20				2	25	1	10	136.5	300	125
TYB12	M	1			230	450	6	0	163	402	628	2	16			1	2	20						1	10			125
	S		7	267	230	450	39	0	162	628	402	2	16			1	2	20						1	10	132.6	300	125
	S		1	2	230	450	6	0	163	402	402	2	16			1	2	16						1	8	-431.7	300	150
TYB13	M	138			230	450	909	0	162	1030	402	2	16	2	20	1	2	16						1	8			150
	S		66	22	230	450	522	0	5	804	402	2	16			1	2	16				2	16	1	8	-466.3	300	150
	S		113	126	230	450	711	0	163	804	402	2	16			1	2	16				2	16	1	8	271.1	300	150
TYB14	M	116			230	450	733	0	163	804	402	2	16	2	16	1	2	16						1	8			150
	S		1	88	230	450	6	0	163	402	402	2	16			1	2	16						1	8	407.5	300	150
	S		1	14	230	380	7	0	136	226	226	2	12			1	2	12						1	8	-886.8	261.8	150
TYB14.A	M	6			230	380	45	0	136	226	226	2	12			1	2	12						1	8			150
	S		1	14	230	380	7	0	136	226	226	2	12			1	2	12						1	8	-886.8	261.8	150
	S		3	74	230	530	14	0	194	628	628	3	20			1	3	20						1	8	1434.8	300	150
TYB15	M	1			230	530	5	0	194	628	628	3	20			1	3	20						1	8			150
	S		109	102	230	530	984	0	193	1610	628	2	20			1	2	20				2	25	1	8	1245.3	300	150
	S		240	191	230	530	1372	96.07	193	1610	628	2	20			1	2	20				2	25	1	8	282.6	300	150
TYB16	M	142			230	530	740	0	194	1030	628	2	20	2	16	1	2	20						1	8			150
	S		100	148	230	530	840	0	194	1257	628	2	20			1	2	20				2	20	1	8	387.1	300	150
	S		1	115	230	450	8	0	163	402	402	2	16			1	2	16						1	8	257.7	300	150
TYB17	M	143			230	450	950	0	162	1030	402	2	16	2	20	1	2	16						1	8			150
	S		1	96	230	450	8	0	163	402	402	2	16			1	2	16						1	8	352.3	300	150
	S		84	80	230	450	508	0	163	402	402	2	16			1	2	16						1	8	510.0	300	150
TYB18	M	46			230	450	266	0	163	402	402	2	16			1	2	16						1	8			150
	S		89	97	230	450	542	0	163	804	402	2	16			1	2	16				2	16	1	8	479.8	300	150
	S		117	182	230	450	741	0	163	804	402	2	16			1	2	16				2	16	1	8	147.9	300	125
TYB19	M	11			230	450	61	0	163	402	402	2	16			1	2	16						1	8			125
	S		3	26	230	450	17	0	163	403	402	2	16			1	2	16						1	8	-547.6	300	125
	S		18	50	230	450	101	0	163	402	402	2	16			1	2	16						1	8	3168.4	300	150
TYB20	M	1			230	450	6	0	163	402	402	2	16			1	2	16						1	8			150
	S		90	70	230	450	293	0	163	804	402	2	16			1	2	16				2	16	1	8	1619.7	300	150
	S		136	109	230	530	701	0	194	804	402	2	16			1	2	16				2	16	1	8	497.3	300	150
TYB21	M	84			230	530	414	0	194	804	402	2	16	2	16	1	2	16						1	8			150
	S		105	109	230	530	526	0	194	628	402	2	16			1	2	16				2	12	1	8	435.1	300	150
	S		16	11	230	450	90	0	163	628	402	2	16			1	2	16				2	12	1	8	-431.8	300	150
TYB22	M	1			230	450	6	0	163	402	402	2	16			1	2	16						1	8			150
	S		1	7	230	450	8	0	163	402	402	2	16			1	2	16						1	8	-469.8	300	150
	S		10	24	230	380	67	0	136	226	226	2	12			1	2	12						1	8	-2117.9	261.8	150
TYB23	M	4			230	380	27	0	136	226	226	2	12			1	2	12						1	8			150
	S		10	29	230	380	67	0	5	226	226	2	12			1	2	12						1	8	-4997.6	261.8	150
	S		21	45	230	380	143	0	136	226	226	2	12			1	2	12						1	8	1104.7	261.8	150
TYB24	M	11			230	380	74	0	136	226	226	2	12			1	2	12						1	8			150
	S		21	38	230	380	143	0	136	452	226	2	12			1	2	12				2	12	1	8	-3516.0	261.8	150
	S		38	44	230	380	265	0	136	452	226	2	12			1	2	12				2	12	1	8	7258.6	261.8	150
TYB25	M	1			230	380	7	0	136	226	226	2	12			1	2	12						1	8			150
	S		3	24	230	380	20	0	136	226	226	2	12			1	2	12						1	8	-2117.9	261.8	150

9. CONCLUSION

1. All the Columns, Pile caps are designed using Staad pro and manually checked using Excel sheets.

2. The design of Beams were done using Excel sheets where the Moments & Shear forces values are taken from Staad pro.

S. ARUN KUMAR, ME., (Struct.)
Coimbatore LPA/SE/GR-I/066/2024
METIS STRUCTURES
9,9-1,Lakshmi Garden, Sankara Collage Road,
Saravanampatti, Coimbatore - 35.
GSTIN : 33AAXFM9597P1ZT

THE LANDLENS SUITE

Eight ways to know a piece of land before you pay for it.

This report covers one part of the picture. These cover the rest, drawn from the same government records, for any property in Tamil Nadu.

LandLens One
Ask anything about a property and get an answer grounded in live government records, with the sources shown.
/landlens/one

Verify My Land
Every record check run on one property and returned as a single report.
/landlens/verify-my-land

Legal Opinion
An advocate's written opinion on the title, built on the records we pull for it.
/landlens

One Map
Every layer on one map: the parcel, its boundary, zoning, water bodies and what sits around it.
/landlens/one/map

PriceMap
What land actually changed hands for around this plot, taken from the registered deeds.
/landlens/pricemap

Build Scope
What you are allowed to build here: floor space, height, coverage and setbacks.
/landlens/build-scope

Property Tracker
Watch a property and hear about it when something new is registered against it.
/landlens/property-tracker

Deal Room
Run the transaction in one place: documents, stamping, signatures and the parties.
/landlens/deal-room

FREE TOOLS · NO ACCOUNT NEEDED

Twenty-four checks you can run yourself, at no cost.

Records and verification

The registers themselves, read for you.

- Encumbrance Certificate
- Patta and Chitta
- Field Measurement Sketch
- EC Analyzer
- Bank charge check
- Court case search
- Seller background check
- Approval check by survey

Value and duty

What it is worth and what it costs to register.

- Guideline value by street
- Guideline value by survey
- Stamp duty and registration fees
- Capital gains
- Floor space index
- Area unit converter

Zoning and land use

What the plan says can happen on this land.

- Land use zone finder
- CMDA land use check
- Coastal regulation zone
- Master plan check
- Water bodies finder
- Airport height clearance

Registers and directories

Who holds it, and which office keeps the record.

- Find your registering office
- Temple property check
- Waqf property check
- RERA register

Every free tool
/tools

Services we run for you
/services

The LandLens suite
/landlens/one

Verified RealEstate™

Every claim in this document traces back to a government record.

- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

Verified RealEstate
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India
hello@verified.realestate
+91 9996 12 9996

Prepared from the registers named on the page each finding sits on. Where a register could not be read, this document says so in its place rather than leaving the gap to be read as a clean result.