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STRUCTURAL DESIGN REPORT

"SRREE KRISHNAA'S ARANYA" PROPOSED RESIDENTIAL APARTMENT BUILDING STILT, FIRST, SECOND, THIRD, FOURTH, FIFTH FLOOR & TERRACE FLOOR OF SITE NO: 9 & 10 IN S.F.NO:232/1B4 AT BALAJI NAGAR OF VADAVALLI VILLAGE, WEST ZONE, PERUR TALUK, COIMBATORE CORPORATION AND DISTRICT

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09/09/2025

1.1 FOREWORD

1.1.1 -DescriptionofProject

"SRREE KRISHNAA'S ARANYA" PROPOSED RESIDENTIAL APARTMENT BUILDING STILT, FIRST, SECOND, THIRD, FOURTH, FIFTH FLOOR & TERRACE FLOOR OF SITE NO: 9 & 10 IN S.F.NO:232/1B4 AT BALAJI NAGAR OF VADAVALLI VILLAGE, WEST ZONE, PERUR TALUK, COIMBATORE CORPORATION AND DISTRICT

1.1.2 –ObjectiveoftheReport.

Theobjectiveofthereportistoprovideandfurnishdetailsrelatedto Projectandstructuralconsid erations.

1.1.3 –ScopeoftheReport.

The Structural Report covers the complete Structural Elements design(column)considerationsforanalysisoflateralloads&gravityloads.

1.2 CODES,STANDARDS ANDREFERENCESStatutoryRequirements:

Thedesignofstructuralandotherbuildingserviceswillcomplywiththefollowingrequirements:

- NationalBuildingCode
- TheBuildingRegulations
- TheEnvironmentalProtectionActinliaisonwiththeEnvironmentalAgency.
- Firepreventionanddetectionincompliancewiththelocal FireRegulation.

DESIGNSTANDARDS:

Specificapplicablecodesandstandardswillbeidentifiedandadoptedin t h e designphilosophiesasappropriatetothestructuralelements.Thelatesteditionsofthe Cod esandStandardswillbeusedindesigns.Alldesignworkshallbebasedon IndianStandards andCodes withlatest revision,withamendments ifany, as on date.**Loads:**

IS:875-1893CodeofPracticefordesignloads(otherthanearthquake)forBuildingsandstructure(Allpa rts)

IS:1893-2016Criteriaforearthquakeresistantdesignofstructure

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Foundations:

IS:1080-1985(2016) Code of Practice for design and construction of shallowfoundationsonsoils(otherthanraft,ringandshell)

IS:1904-1986(2015)CodeofPracticefordesignandconstructionoffoundationsinsoilsgeneralrequirement

IS:2950-1981(2013)Codeof Practice for design and construction of raftfoundations

IS:2974-1998(2013/2015)CodeofPracticefordesignandconstructionofmachinefoundations(Allparts)

IS:8009-1976/1980(2013/2015) Code of Practice for calculation of settlement offoundations(Allparts)

RCC:

IS:456-2000:CodeofPracticeforplainandreinforcedconcreteIS:458-1988Specificationforprecastconcretepipes

IS:3370-2009CodeofPracticeforconcrete structuresforthestorageofliquids:(Allparts)

IS:4326-2013CodeofPracticeforearthquakeresistantdesignandconstructionofbuildings

IS:5525-1969(2013) Recommendation for detailing of reinforced concrete works IS:1786-2008Specificationforhighstrengthdeformedsteelbarsandwiresforconcretereinforcement

IS:10262-2009Recommendedguidelinesforconcretemixdesign

IS:1893 (Part-1)-2016 Criteria for earthquake resistant design of structures(Generalprovisionsandbuilding).

IS:13920-1993:Ductiledetailingofreinforcedconcretestructures.

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Miscellaneous:

IS:432(part 2)-1995Specificationformildsteelandmediumtensilesteel barsandhard-drawnsteelwireforconcretereinforcement

IS:6313(partII)-2001Standardsforanti-termitetreatment

IS:1905-1998CodeofPracticeforstructuraluseofunreinforcedmasonry

IS:3067-1995CodeofPracticeforgeneraldesigndetailsandpreparatoryworksfordampproofingandwaterproofingofbuildings

SP:6-1998Handbookforstructuralengineers(allparts)SP:7-2005NationalBuildingCodeofIndia

SP:16-1999DesignAidsforreinforcedconcretetoIS:456-1978

SP:22-1982Explanatoryhandbookoncodesforearthquake engineering(IS:1982-1975andIS:4326-1976)

SP:24-1983ExplanatoryhandbookonIndianStandardcodeofPracticeforplainandreinforcedconcrete

SP:34-1987Handbookofconcretereinforcementanddetailing(SCIP)

WhereverappropriateIndianRegulationdoesnotexistforanyparticularitem,appropriateBritishstandardswillbeused.

Material:

IS:269-2015SpecificationforOrdinary,rapidhardening andlow heat Portlandcement.

IS:455-1995SpecificationforPortlandblastfurnaceslagcement.IS:1489-1991SpecificationforPortlandpozzolanacement

IS:4031-1991MethodofphysicaltestsforPortlandcement.

IS:383-2016Specificationforcoarseandfineaggregatesfromnaturalsourcesforconcrete.

IS:516–1999Methodoftestforstrengthofconcrete.

IS:1199-1999Methodofsamplingandanalysisofconcrete.

IS:1566-2000Specificationforplainharddrawnsteelwirefabricforconcretereinforcement.

IS:4990-1998Specificationforplywoodforconcreteshutteringworks.

IS:2645-1999Specificationforintegralcementwaterproofingcompounds.

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1.3 –DESCRIPTIONOFSTRUCTURE

1.3.1 –Location

SITE NO: 9 & 10 IN S.F.NO:232/1B4 AT BALAJI NAGAR OF VADAVALLI VILLAGE, WEST ZONE, PERUR TALUK, COIMBATORE CORPORATION AND DISTRICT

1.3.2 –BuildingDescription.

TheResidentialBuildingConsistsofthefollowing:Kindlystudythearchitecturaldrawingsforbe tterunderstanding

- ❖ Stilt + 5 floors + Terrace

1.3.3 –StructuralArrangement:

- TheStructuralSystemisaRCCframedStructurecomprisingofC o nventional RCC Slab& RCC BeamsupportedbyRCstructuralcolumns/wallswithPrimary&Secondarybeams.Flatslabsbeams and Columns areconsideredtoactasarigiddiaphragmtotransferthelateralforcestothelateralloadresisting elements.

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Date: 19/8/2025

1.4 –DESIGNAPPROACH

1.4.1 –

DesigndataLoads:

Deadloads:

Dead load shall include weight of all structural and Architectural components. Self-weightofthematerialsshallbecalculatedonthebasisofunitweightsgiveninIS:875.

- Floorfinishof75mmthickness
  Forfloors :180kg/sq.m(1.8kN/sq.m)
- Falseceiling/ducting+Sprinklers :20kg/sq.m(0.2kN/sq.m)
- DryPartition :100kg/sq.m(1.0kN/sq.m)
- Self-weightofPlainconcrete :2400kg/cu.m(24kN/cu.m)
- Self-weightofRCC :2500kg/cu.m(25kN/cu.m)
- Solidblockmasonry :2500kg/cu.m(25kN/cu.m)
- Soil(Dry) :1800kg/cu.m(18KN/cu.m)
- Soil(Wet) :2000kg/cu.m(20kN/cu.m)
- Water :1000kg/cu.m(10kN/cu.m)

Liveloads:

ThesuperimposedloadsshallbecalculatedinaccordancewithIS:875(Part-2)basedon Occupancy Classification. For multiple occupancies of use in the buildingshallbereferredwith the other appropriate comparable occupancy classification as per Table.1ofIS875(Part-2)-1987.

Following live loads are considered while designing the structural elements apart fromthedead loads

Floors

- Typicalfloors :200kg/sq.m(2.0kN/sq.m)
- Terrace :150kg/sq.m(1.5kN/sq.m)

Actualloadingduetoliftsloadsshall be ascertained and design live loads aresuitablymodified(ifrequired)andconsidered.

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Loadcalculation:

RoofSlabLoad		Thicknessinm	UnitWeight-kN/m3	Load	
DeadLoad-Floor					
Falseceiling				0.200	kN/sq.m
Partition				1	
Floorfinishes		0.075	24	1.800	kN/sq.m
			Total=	**3**	kN/sq.m
LiveLoad-Floor		a)For Typicalfloors		**2.0**	kN/sq.m
LiveLoad–Roofaccessible				**1.5**	kN/sq.m

Allsunkenareasadditionalsunkenfillingloadof0.75kN/m^2isconsideredinDeadload.

200mmSolidBlockwallLoadonGradeBeam =(4.114-0.3)x0.2x25=19.1kN/mSolidBlockwall@Typicalfloor =(3-0.3)x0.2x25=13.5kN/m

Parapetwallloadonterrace =1.2x0.2x25=6.0kN/m

Headroomload =2.5x0.2x25=12.5kN/m

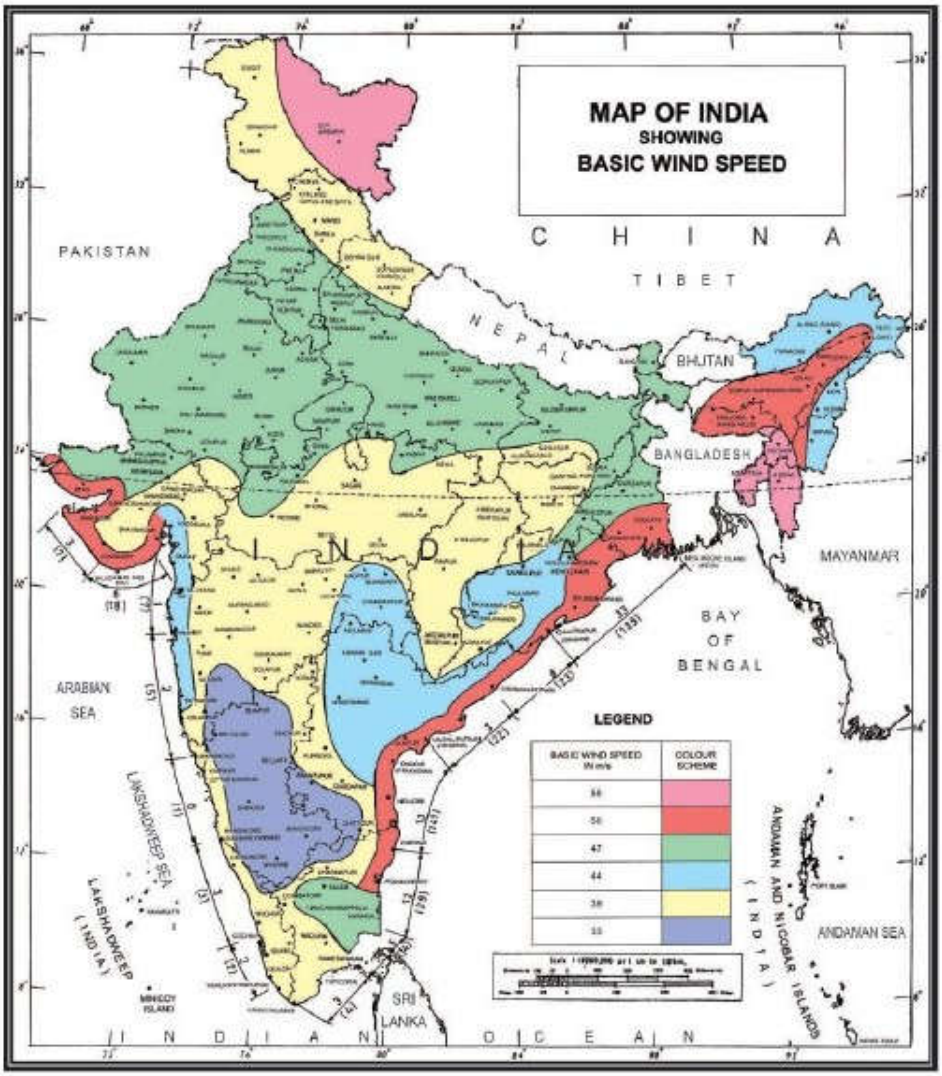
WindLoads

TheWindpressureshallbecalculatedinaccordancewithIS:875(Part-3)-2015.ForCoimbatore,thebasicwindspeedsareconsideredat39m/sec.

BasicWindSpeed	Vb	:39m/s
RiskCoefficient	k1	:1(k1correspondsto50years MeanProbableDesignLifeofStructure)
Terrain,height,structure sizefactor	k2	:Tosuittheheightofthestructureforterraincategory2
Topographyfactor	k3	:1.00
Cycloneregionfactor	k4	:1.00
Designmeanhourlywindspeed	Vh,d	:Vb×k2×k2×k3Xk4
Designhourlywindpressure	pd	:0.6×Vz²

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SeismicForces:

Coimbatore falls under seismic zone III as per IS 1893-2016 (Part 1) (Sixth Revision) andhasthe followingfactorstobe considered for designs. Ductile detailing is required forthestructuralelements.

(Pleasereferattachedmap)

SeismicZone	:III
SeismicZonefactor(Z)	:0.16(AsperTable3-IS:1893-2016CL-6.4.2)
Designhorizontalseismiccoefficient(Ah)	:(Z/2)*(Sa/g)*(I/R)
Importancefactor(I)	:1.5(RefTable8-IS:1893-2016CL7.2.3)
ResponsereductionFactor(R)	:4(RefTable9(iv)-IS-1893-2016CL7.2.6)

Soiltype

:1(WeightedaverageofNvalueofsoillayersfrom depthoffoundingisconsidered.)

DampingRatioforRCC	:5%

Ras perTable9(v)of IS: 1893-2016isbasedonBuildingwithductileRCstructuralwallswithRCOMRF

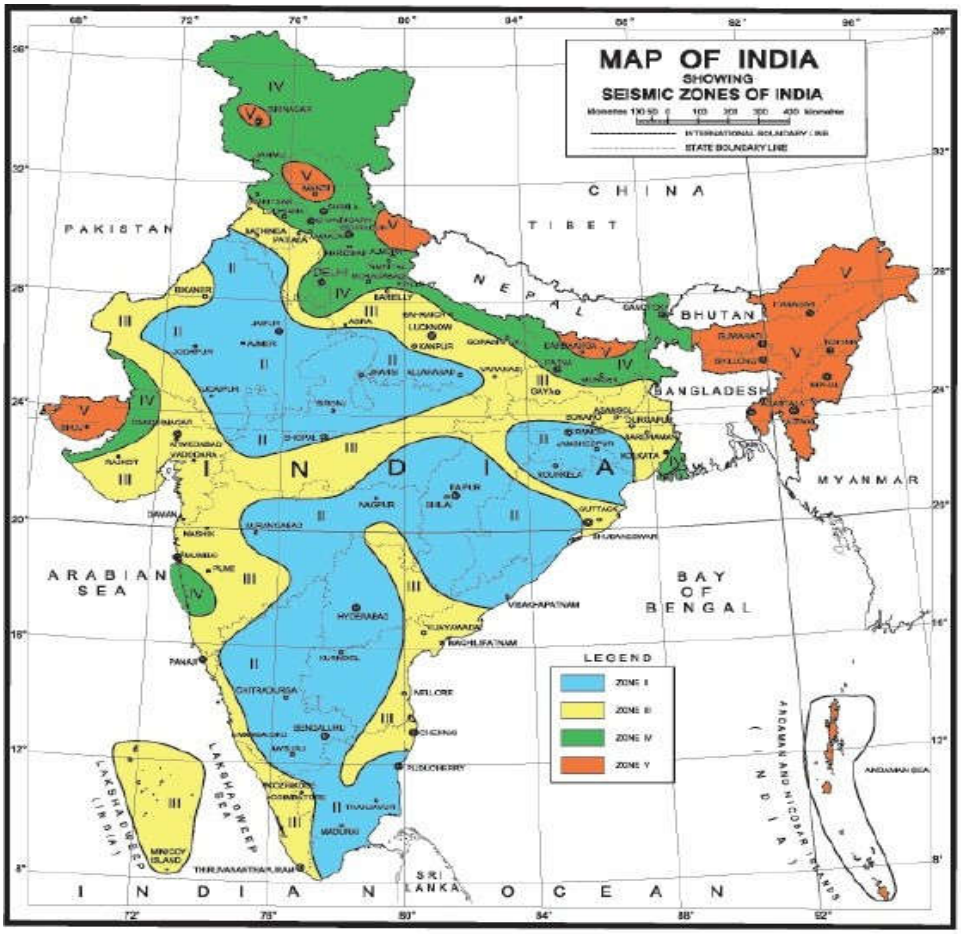
Sa/g – Average response acceleration coefficient for soilsites as per Fig.2 of IS:1893-2016anditisarrivedbasedonappropriatefundamentalnaturalperiodofstructurecalculatedas perclause:7.6.2.

Designhorizontalseismiccoefficient (Ah)	:(Z/2)*(Sa/g)*(I/R)
	:(0.16/2)*(1.5/4)*(Sa/g)
	Ah :0.03*(Sa/g)
Designseismicbaseshear,Vb	:Ah*Wwhere,W-seismicweightofbuilding
TimePeriodconsidered	:BuildingwithRCStructural Walls
DynamicAnalysiswithP-Deltaeffect(IS1893-2016CL 6.4.3)	:Notconsideredintheanalysis

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TableNo:03				
ZoneFactor,Z				
(Clause6.4.2)				
SeismicZone	II	III	IV	V
SeismicIntensity	Low	Moderate	Severe	VerySevere
Z	0.10	0.16	0.24	0.36



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Expansionjoint

Expansionjointsarenotprovidedinbuilding.

1.4.2 -DurabilityConsiderations:

EnvironmentalconditionsCorrosionandFireprotectionforconcreteandstructuralsteel

Environment :Moderate

Exposureconditions :ConcretesurfacesexposedtosevererainorOccasional freezing whilst wet or severeCondensation.

Fireprotection :Thicknessofthestructuralelementsasper table15,16&16Aclause26.4ofIS456-2000.

Minimumgradeofconcrete :Moderateexposure–M20

Nominalcovertoreinforcement :ForModerateExposureNominalcovershouldnotbelesthan30mmforwalls, 50mmforfootings,40mmforcolumn,25mmforbeamsand20mmforslabs.

1.4.3-FireRating:

- Thickness of the structural elements as per table 15, 16 & 16A clause 26.4 of IS 456-2000.TwoHoursfireratingisconsideredwithwallthicknessof160mm&withminimumpercentageofsteel0.4%(includingbothverticalandhorizontalreinforcement)asperIS:456-2000,Cl:21,Fig:1.
- Nominalcoversfor1.5hr.fireresistance:

NominalCover						
BEAM		**Slabs**		**Ribs**		**Columns / shear wall**
Simply support	continuous	Simplysupported	continuous	Simply support	Continuous	
mm	mm	mm	mm	mm	mm	mm
20	20	25	20	35	20	40/25

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1.5 -ANALYSISMETHODOLOGY:

This structure has physical interface with almost all the disciplines like Geotechnical, MEP Servicesand Landscape etc. The Structure proposed is of cast in-situ concrete construction with shear wallssuitably placed. The core walls around lifts are of cast in-situ concrete to resist lateral forces. TheStructural design of the proposed project is based on Indian Standard Codes and is analysed for Dead,Live, Wind and Seismic Load conditions taking into relevant load combinations recommended by thecodes.

The Vertical Loads including the dead and super imposed loads are transferred tothe soil throughbeams, core walls and footings. Footings are sized with consideration to the safe bearing capacity ofsoil at the level of transfer of load recommended by specialist soil investigation consultants. The Lateralloadsduetowindandseismicforcesaredissipated to soil through the proposed ReinforcedConcreteCoreWalls/columns.

1.6 -LOADCOMBINATIONS:

LoadcombinationsUsedforStrength,Serviceabilityaretabulatedbelow:

LoadCombination	LimitStateofCollapse				LimitStateofServiceability		
	DL+SDL	*LL*	*WL/EL*	*TL*	*DL+SDL*	*LL*	*WL/EL/TL*
DL+LL	1.5	1.5	—	—	1	1	—
DL+WL	1.5or0.9*	—	1.5	—	1	—	1
DL+EL	1.5or0.9*	—	1.5	—	1	—	1
DL+LL+WL	1.2	1.2	1.2	—	1	0.8	0.8
DL+LL+EL	1.2	1.2	1.2	—	1	0.8	0.8

The various loads are combined in accordance with the stipulations in IS: 875(Part5)-1987; whichever combination produces the most unfavourable effect in thebuildingfoundationorstructuralmemberconcernedmaybeadopted.

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1.7 -DESIGNMETHODOLOGY:

- All R.C.C structures shall be designed according to the Limit State Method asspecifiedinIS:456–2000andinaccordancewithclausesmentionedforstructuralelement sizesinIS13920-2016.
- Forces and moments from the 3D analysis output for the worst combinations areusedforthedesignofthestructure.
- Thefoundationsaredesignedforcriticalloadcombination.
- The structure is analysed for specific loads like dead load, live load, wind andseismicloadsandfortheloadcombinationsasgivenintherelevantcodes.

1.8 -ACCEPTANCECRITERIA:

1.8.1 -DeflectionLimits:

ForReinforcedconcreteworks:

- Limiting values of deflection (Short and Long term) as per clause 35.3 of IS: 456-2000isfollowedinthedesign.
- Limiting value for long term deflection is considered as span/250 and for the long-term deflection after erection of partitions& finishes is considered as span/350or20mmwhicheverlessasperIS456–2000.

1.8.2 -CrackingLimits:

- Limitingvaluesofcrackwidthasperclause35.3ofIS:456-2000isfollowedinthedesign.
- Ingeneral,forslabsandbeams,thecrackwidthislimitedto0.2mm.
- Forbasementretainingwallandwaterretainingstructures,crackwidthislimitedto 0.1mm.

1.8.3 -PermissibleDriftLimits:

- As per IS-1893 (Part1) :2016, clause 7.11.1, Storey drift in any storey duetominimumspecifieddesignseismic lateral force shall not exceed 0.004 timesthestoreyheightdesign.
- AsperIS-456-2000clause20.5,Lateralswayduetowindload should notexceedH/500(Histhetotalheightofstructure).

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1.8.4 -Soildata:

FoundationsaredesignedbasedonGeoTechnicalinvestigationreport and willdissipate all the vertical and horizontal loads safely to the soil below. As per thesoilinvestigationreportreceivedfromgeotechnicalconsultantsis**Isolated Footing**.

7. FOUNDATION RECOMMENDATION: -

Based on the sub-soil conditions and possible loads on foundations, following recommendations for Geotechnical Investigation for The Proposed Construction of Residential Building (G+1) & Apartment Building (Stilt+5) in S.F.No: -232/1A&1B, Site No: -9&10 at Vadavalli Village, Coimbatore Corporation.

S.No	Type of The Building	Depth of the Foundation in (m)	Safe Bearing Capacity in (Ton/m²)	Type of the Foundation
1	Residential Building (G+1)	2.10	26.00	Isolated/Combined Footing
2	Apartment Building (Stilt+5)	3.50	29.09	Isolated/Combined Footing

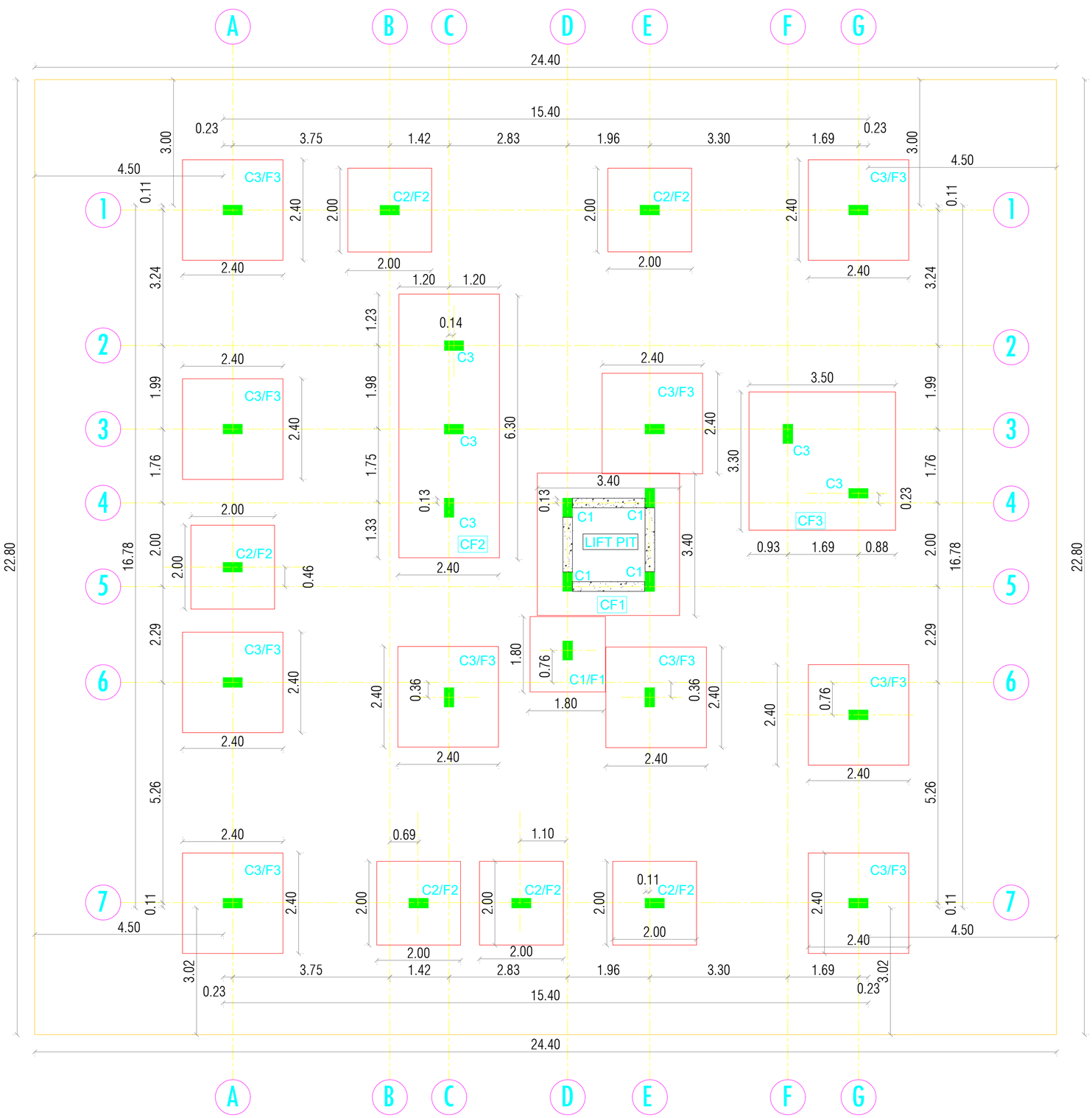
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Sunstar Foundation Consultant.

Dr.E.RAVI,M.E.,Ph.D(Soil Mechanics).,F.I.E,F.I.G.S.,
Chief Geotechnical Consultant ,
Sunstar Foundation Consultant.

1.9 -DetailingRequirements:

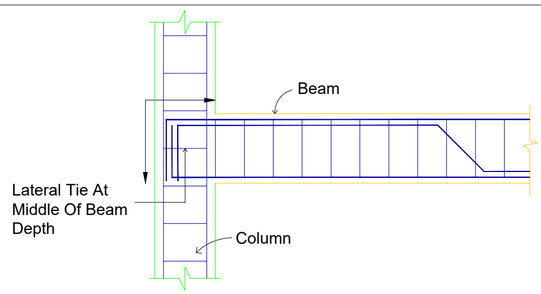
- Detailingforthestructuralelementsshallbedoneinaccordancewith IS:13920-2016,takingR=3asperTable9(v)ofIS:1893-2016isbased onperimeterRCOrdinaryMoment-ResistingFrames
- DetailingforallstructuralmembersshallbeinaccordancewithIS:456& SP:34.

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Notes:

1) This drawing should be read along with Architectural drawing before marking.
2) Foundation Designed For STILT+5 floor.
3) SBC of soil taken as 250 kN/m²

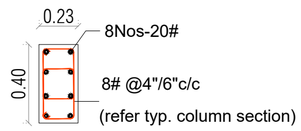
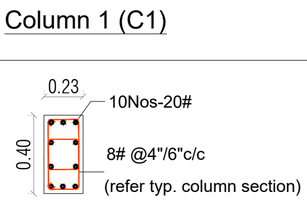
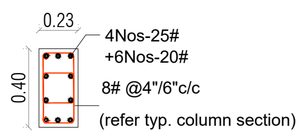
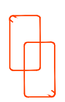


Section

TYPICAL COLUMN AND BEAM JUNCTION - SECTION

Note:

1. Beam top rod and cranked rod should be inserted into Column upto beam depth (or) 50D whichever is higher
2. Beam rod should be Kinked into the column reinforcement
3. Lateral Tie for Column Beam Junction should be provided at the Middle of the beam depth

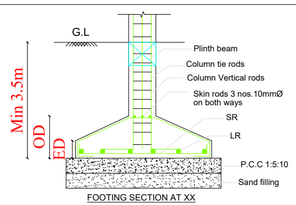
COLUMN SECTION	Lateral Tie
 Column 1 (C1)	 Lateral Tie
 Column 2 (C2)	 Lateral Tie
 Column 3 (C3)	 Lateral Tie

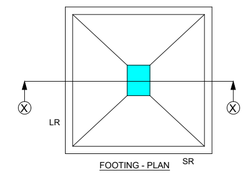
FOOTING SCHEDULE

Sl.No	FOOTING	FOOTING SIZE (in m)			FOOTING REINFORCEMENT
		L x B	ED	OD	LONGER & SHORT DIRECTION
01	F1	1.8 x 1.8	0.15	0.45	10mm - 0.1m c/c
02	F2	2.0 x 2.0	0.15	0.52	12mm - 0.15m c/c
03	F3	2.4 x 2.4	0.20	0.60	12mm - 0.15m c/c
04	CF1	3.4 x 3.4	0.15	0.45	10mm - 0.10m c/c
05	CF2	2.4 x 6.3	0.15	0.52	12mm - 0.10m c/c
06	CF3	3.5 x 3.3	0.15	0.52	10mm - 0.10m c/c

SHEET - 01

N





Notes:

1) Use concrete mix 1:1½:3
2) Provide clear cover 25mm for Beam ¾ for Slab reinforcement.
3) Provide lap length 50D for Beam
4) Crank at L/4of clear span
5) Extra rod at top to a length of 0.3L of clear span from support
6) ST - indicates Straight rod.
7) ckd- indicates Cranked rod .
7) cur- indicates curtailment rod .
8) # - Indicates Fe415 Steel dia in mm

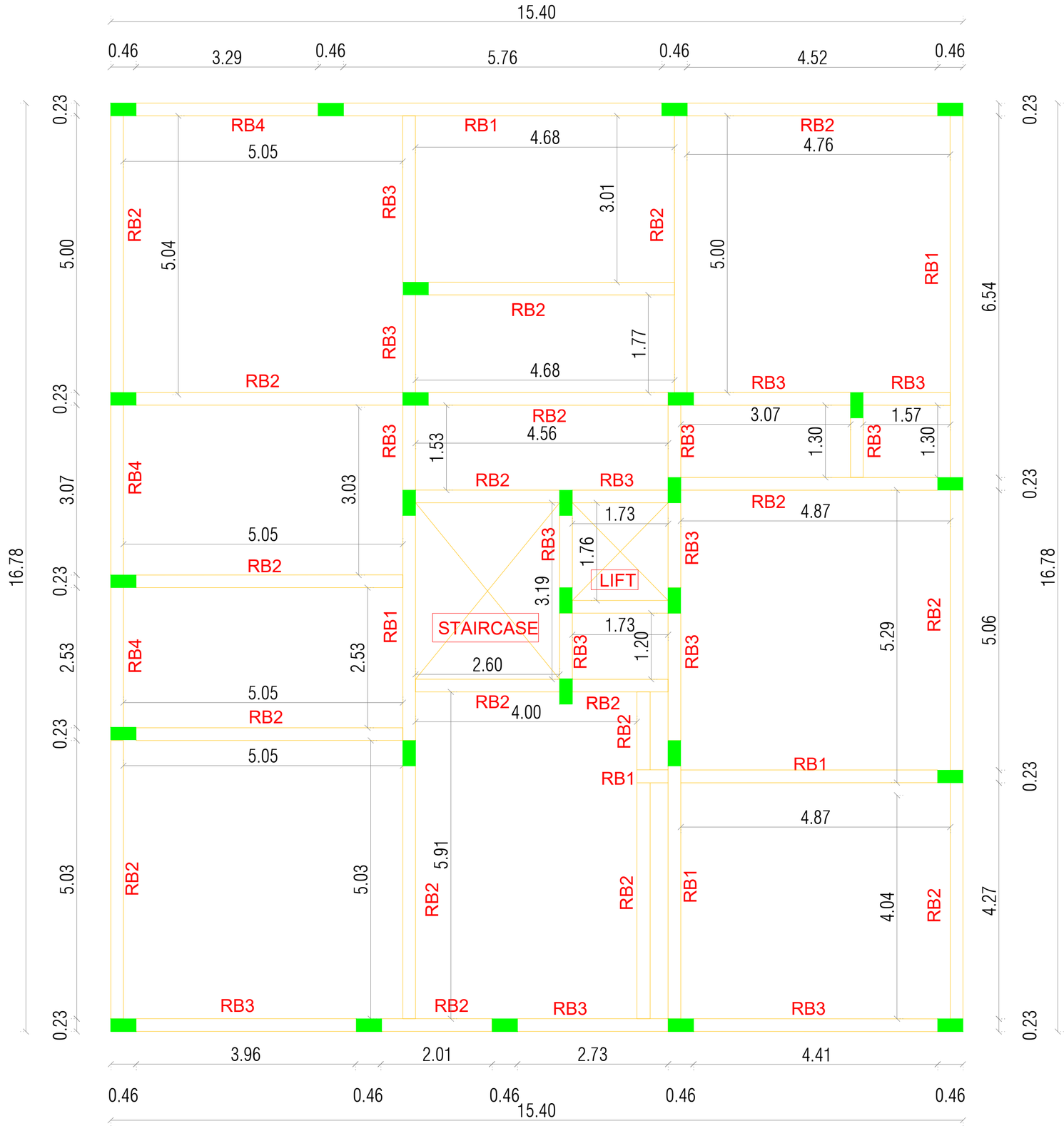
PROPOSED CONSTRUCTION OF R.C.C. ROOF APARTMENT RESIDENTIAL BUILDING IN S.F. NO.232/1B4, SITE NO. 9 & 10, OF BALAJI NAGAR, VADAVALLI, VILLAGE, COIMBATORE DISTRICT .

COLUMN & FOOTING DETAILS

STRUCTURAL ENGINEER

Er.S.PRADEEP, B.E.,M.E(STRUCT)
REGISTERED STRUCTURAL ENGINEER Gr-II, 2022
Reg.No:DTCP/NAMAKKAL/RSE-II/001/2022
SRI RATHNA ASSOCIATES
No.55/2A, Near Ganapathy Fire Station, Gandhi Bhai Nagar, Ganapathy, Coimbatore - 641 006. Phone : 9865808064

Date: 09/1/2025



GRADE BEAM LAYOUT

BEAM SECTION DETAILS

Beam No	Mid section	End section
RB1 (0.23x0.40)	0.23 / 0.40 3Nos-16# 8# @ 0.10m c/c 3Nos-16#ckd 3Nos-16# st.	3Nos-16# 3Nos-16#ckd 8# @ 0.10m c/c 3Nos-16# st.
RB2 (0.23x0.40)	0.23 / 0.40 2Nos-16# 8# @ 0.15m c/c 2Nos-16#ckd 2Nos-16# st.	2Nos-16# 2Nos-16#ckd 8# @ 0.15m c/c 2Nos-16# st.
RB3 (0.23x0.40)	0.23 / 0.40 2Nos-16# 8# @ 0.15m c/c 2Nos-16# st.	2Nos-16# 8# @ 0.15m c/c 2Nos-16# st.
RB4 (0.23x0.40)	0.23 / 0.40 2Nos-12# 8# @ 0.15m c/c 2Nos-12#ckd 2Nos-12# st.	2Nos-12# 2Nos-12#ckd 8# @ 0.15m c/c 2Nos-12# st.

SHEET - 02

N

Notes:

1) This drawing should be read along with Architectural drawing before marking.
2) Foundation Designed For STILT+5 floor.
3) SBC of soil taken as 250 kN/m²

Notes:

1) Use concrete mix 1:1½:3
2) Provide clear cover 25mm for Beam ¾ for Slab reinforcement.
3) Provide lap length 50D for Beam
4) Crank at L/4of clear span
5) Extra rod at top to a length of 0.3L of clear span from support
6) ST - indicates Straight rod.
7) ckd- indicates Cranked rod .
7) cur- indicates curtailment rod .
8) # - Indicates Fe415 Steel dia in mm

PROPOSED CONSTRUCTION OF R.C.C. ROOF APARTMENT RESIDENTIAL BUILDING IN S.F. NO.232/1B4, SITE NO. 9 & 10, OF BALAJI NAGAR, VADAVALLI, VILLAGE, COIMBATORE DISTRICT .

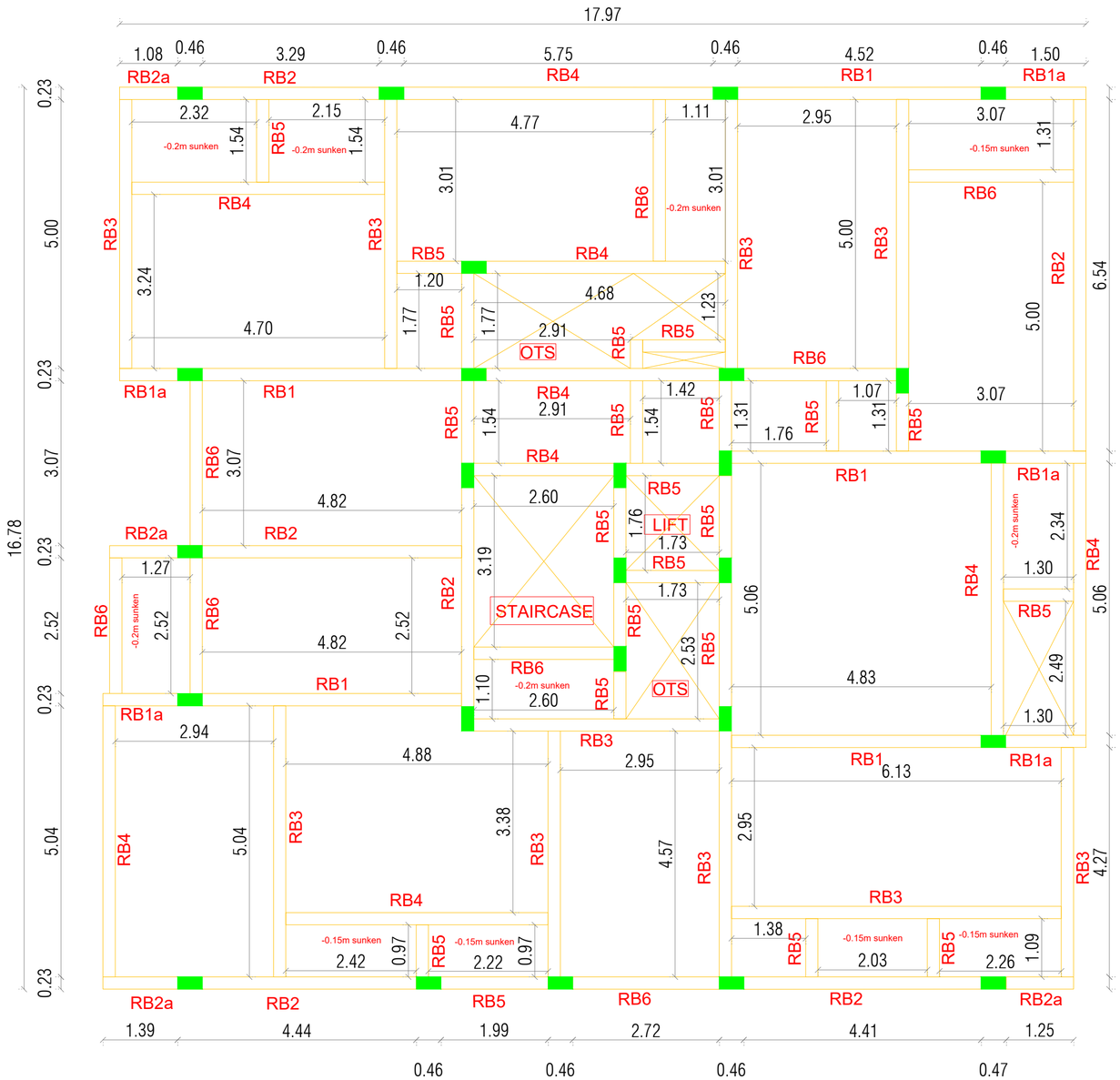
GRADE BEAM DETAILS

STRUCTURAL ENGINEER

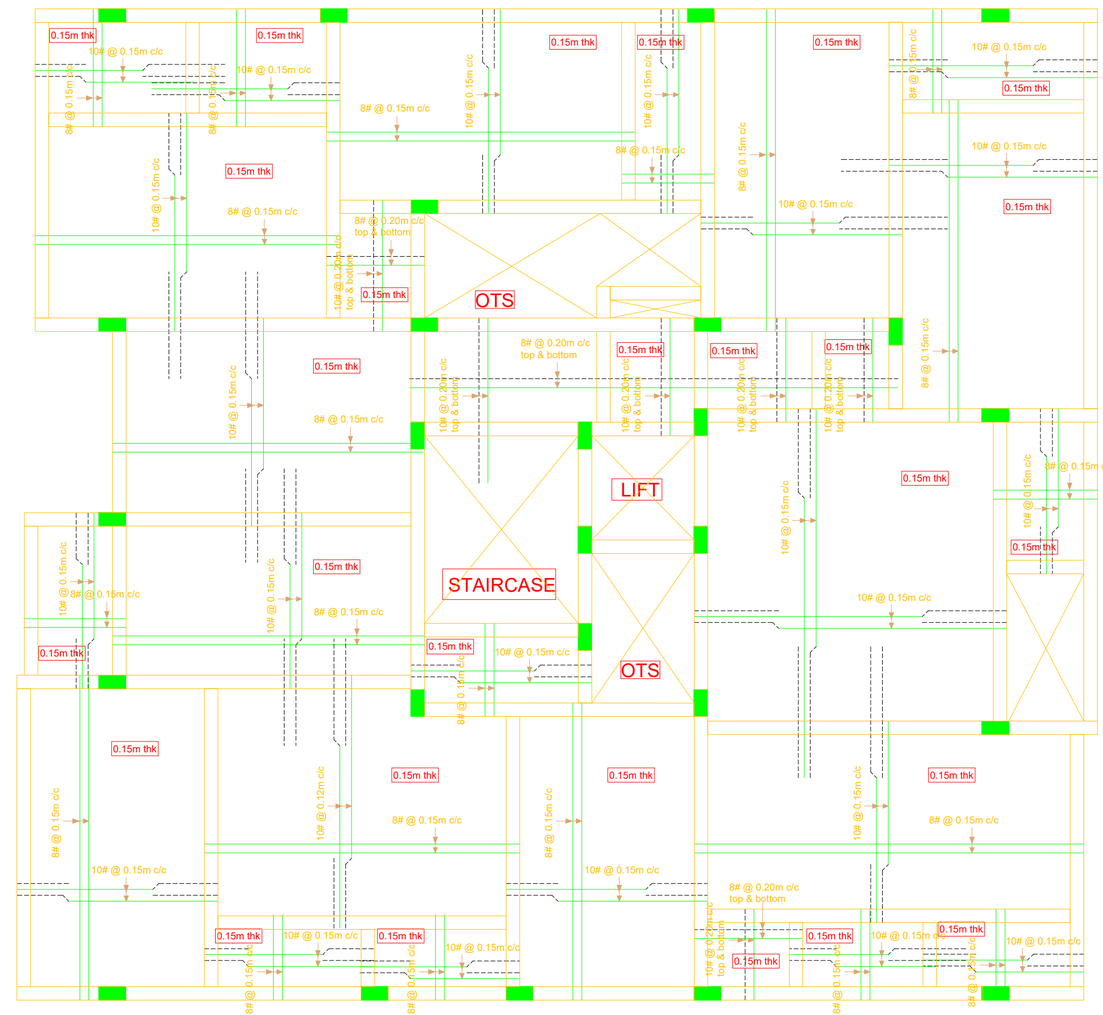
Er.S.PRADEEP, B.E., M.I.S.T.
REGISTERED STRUCTURAL ENGINEER Grade II,
Reg.No:DTCP/NAMAKKAL/RSE-II/001/2022
SRI RATHNA ASSOCIATES
No.55/2A, Near Ganapathy Fire Station, Gandhi Mas Nagar,
Ganapathy, Coimbatore - 641 006. Phone : 9688908064

Date: 29/9/2025

N



ROOF BEAM LAYOUT



ROOF SLAB LAYOUT

BEAM SECTION DETAILS				BEAM SECTION DETAILS			
Beam No	Mid section	End section	Cantilever beam	Beam No	Mid section	End section	Cantilever beam
RB1 (0.23x0.46)	0.23 × 0.46: 3Nos-20#, 8# @ 0.10m c/c, 3Nos-20#ckd, 3Nos-20# st.	3Nos-20#, 3Nos-20#ckd, 8# @ 0.10m c/c, 3Nos-20# st.	RB1a: 6Nos-20#, 8# @ 0.10m c/c, 3Nos-20# st.	RB4 (0.23x0.40)	0.23 × 0.40: 2Nos-16#, 8# @ 0.15m c/c, 2Nos-16#ckd, 2Nos-16# st.	2Nos-16#, 2Nos-16#ckd, 8# @ 0.15m c/c, 2Nos-16# st.	
RB2 (0.23x0.46)	0.23 × 0.46: 3Nos-20#, 8# @ 0.10m c/c, 3Nos-16#ckd, 3Nos-20# st.	3Nos-20#, 3Nos-16#ckd, 8# @ 0.10m c/c, 3Nos-20# st.	RB2a: 3Nos-20#, +3Nos-16#, 8# @ 0.10m c/c, 3Nos-20# st.	RB5 (0.23x0.40)	0.23 × 0.40: 2Nos-16#, 8# @ 0.15m c/c, 2Nos-16# st.	2Nos-16#, 8# @ 0.15m c/c, 2Nos-16# st.	
RB3 (0.23x0.40)	0.23 × 0.40: 3Nos-16#, 8# @ 0.10m c/c, 3Nos-16#ckd, 3Nos-16# st.	3Nos-16#, 3Nos-16#ckd, 8# @ 0.10m c/c, 3Nos-16# st.	RB3a: 6Nos-16#, 8# @ 0.10m c/c, 3Nos-16# st.	RB6 (0.23x0.40)	0.23 × 0.40: 2Nos-12#, 8# @ 0.15m c/c, 2Nos-12#ckd, 2Nos-12# st.	2Nos-12#, 2Nos-12#ckd, 8# @ 0.15m c/c, 2Nos-12# st.	

TYPICAL FLOOR
(STILT, FIRST, SECOND,
THIRD & FOURTH FLOOR)
ROOF BEAM AND SLAB DETAILS

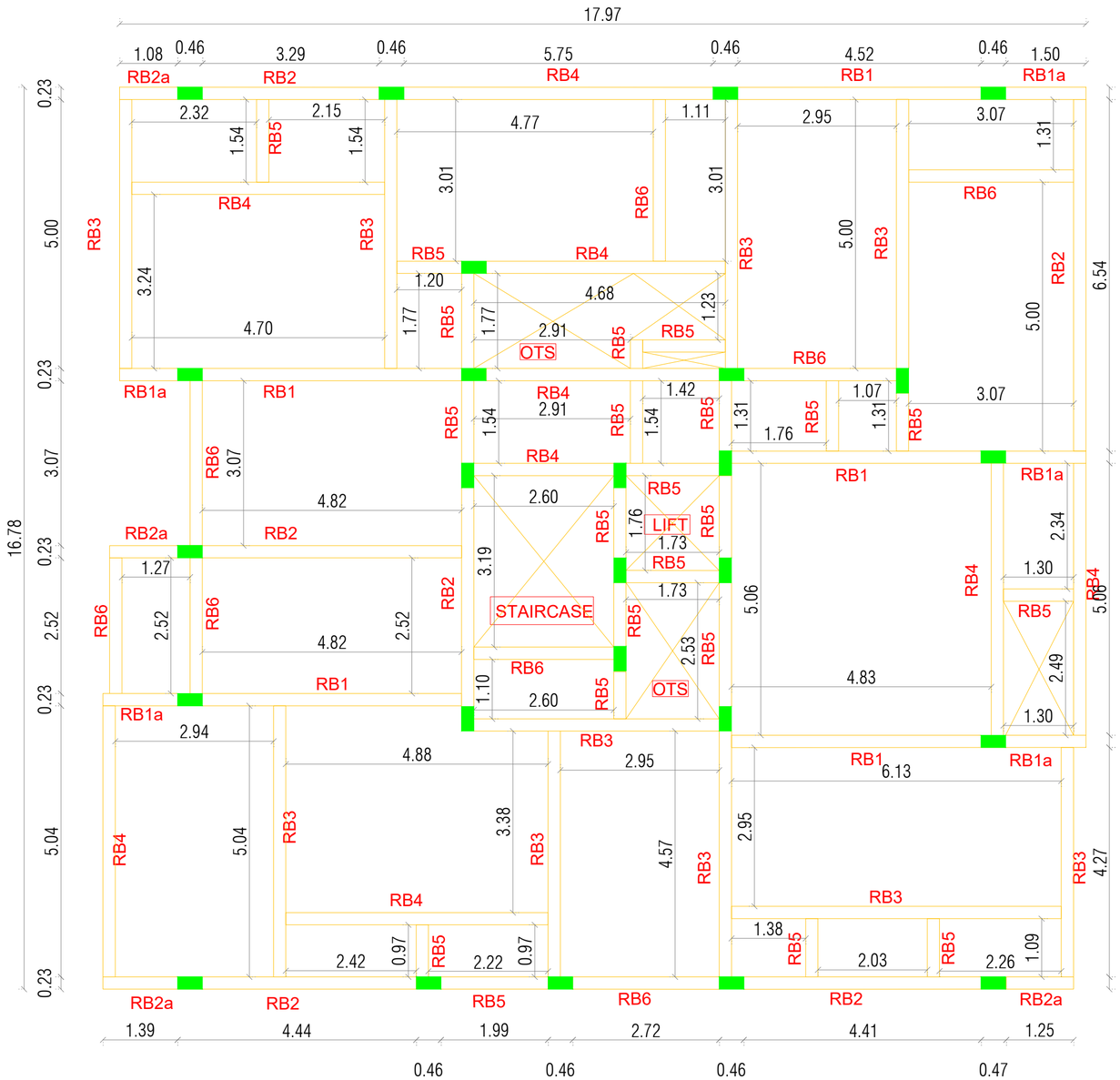
Notes:
1) Use concrete mix 1:1½:3
2) Provide clear cover 25mm for Beam ¾ for Slab reinforcement.
3) Provide lap length 50D for Beam
4) Crank at L/4of clear span
5) Extra rod at top to a length of 0.3L of clear span from support
6) ST - indicates Straight rod.
7) ckd- indicates Cranked rod .
7) cur- indicates curtailment rod .
8) # - Indicates Fe415 Steel dia in mm

PROPOSED CONSTRUCTION OF
R.C.C. ROOF APARTMENT
RESIDENTIAL BUILDING
IN S.F. NO.232/1B4,
SITE NO. 9 & 10, OF
BALAJI NAGAR, VADAVALLI
VILLAGE,
COIMBATORE DISTRICT.

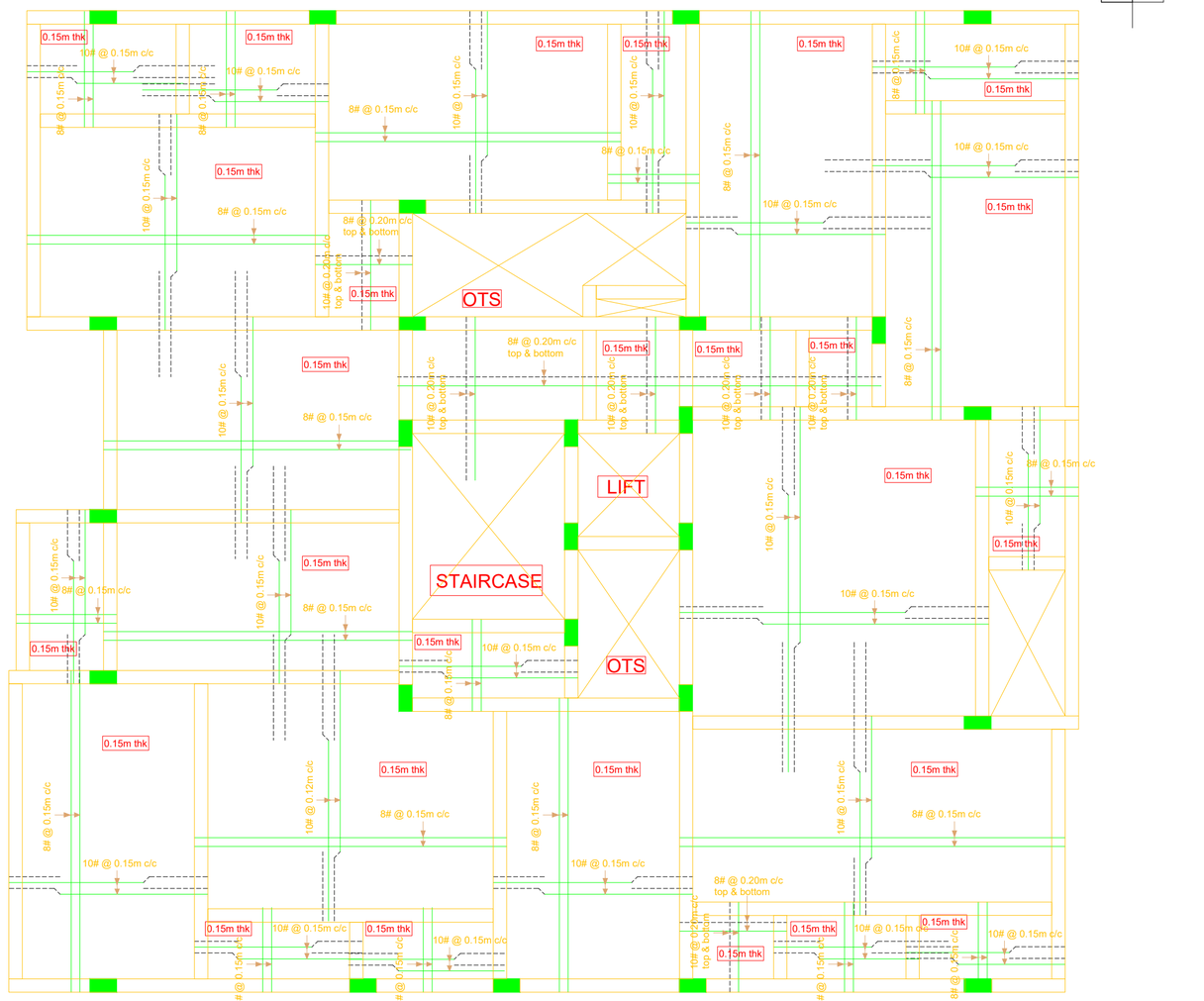
STRUCTURAL ENGINEER

Er.S.PRADEEP, B.E.,M.E(STRUCTURAL)
REGISTERED STRUCTURAL ENGINEER Gr-II
Reg.No:DTCP/NAMAKKAL/RSE-II/001/2022
SRI RATHNA ASSOCIATES
No.55/2A, Near Ganapathy Fire Station, Gandhi Main Nagar,
Ganapathy, Coimbatore - 641 006. Phone : 9585808064

Date: 9/2024



ROOF BEAM LAYOUT



ROOF SLAB LAYOUT

BEAM SECTION DETAILS				BEAM SECTION DETAILS			
Beam No	Mid section	End section	Cantilever beam	Beam No	Mid section	End section	Cantilever beam
RB1 (0.23x0.46)	0.23 / 0.46: 3Nos-20#, 8# @ 0.10m c/c, 3Nos-20#ckd, 3Nos-20# st.	3Nos-20#, 3Nos-20#ckd, 8# @ 0.10m c/c, 3Nos-20# st.	RB1a: 6Nos-20#, 8# @ 0.10m c/c, 3Nos-20# st.	RB4 (0.23x0.40)	0.23 / 0.40: 2Nos-16#, 8# @ 0.15m c/c, 2Nos-16#ckd, 2Nos-16# st.	2Nos-16#, 2Nos-16#ckd, 8# @ 0.15m c/c, 2Nos-16# st.	
RB2 (0.23x0.46)	0.23 / 0.46: 3Nos-20#, 8# @ 0.10m c/c, 3Nos-16#ckd, 3Nos-20# st.	3Nos-20#, 3Nos-16#ckd, 8# @ 0.10m c/c, 3Nos-20# st.	RB2a: 3Nos-20#, +3Nos-16#, 8# @ 0.10m c/c, 3Nos-20# st.	RB5 (0.23x0.40)	0.23 / 0.40: 2Nos-16#, 8# @ 0.15m c/c, 2Nos-16# st.	2Nos-16#, 8# @ 0.15m c/c, 2Nos-16# st.	
RB3 (0.23x0.40)	0.23 / 0.40: 3Nos-16#, 8# @ 0.10m c/c, 3Nos-16#ckd, 3Nos-16# st.	3Nos-16#, 3Nos-16#ckd, 8# @ 0.10m c/c, 3Nos-16# st.	RB3a: 6Nos-16#, 8# @ 0.10m c/c, 3Nos-16# st.	RB6 (0.23x0.40)	0.23 / 0.40: 2Nos-12#, 8# @ 0.15m c/c, 2Nos-12#ckd, 2Nos-12# st.	2Nos-12#, 2Nos-12#ckd, 8# @ 0.15m c/c, 2Nos-12# st.	

TERRACE FLOOR
ROOF BEAM AND SLAB DETAILS

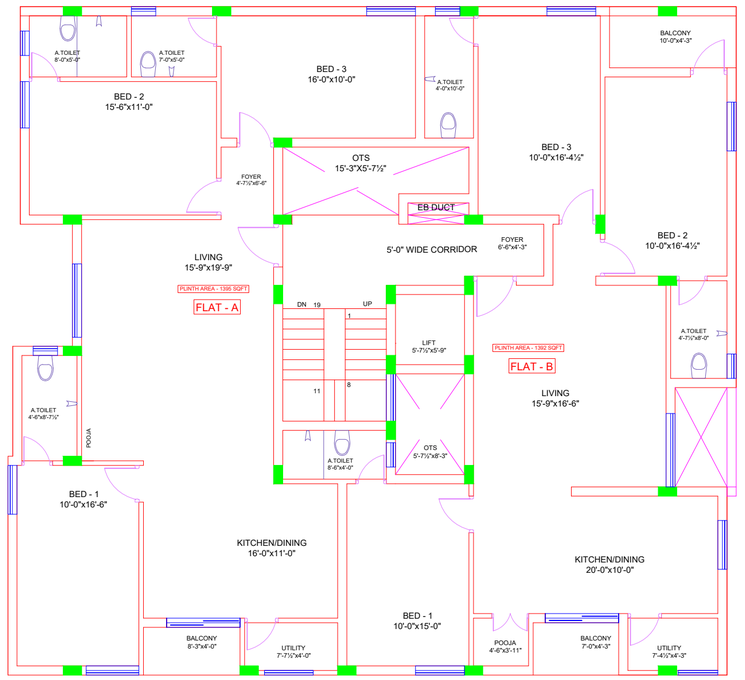
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PROPOSED CONSTRUCTION OF R.C.C. ROOF APARTMENT RESIDENTIAL BUILDING IN S.F. NO.232/1B4, SITE NO. 9 & 10, OF BALAJI NAGAR, VADAVALLI, VILLAGE, COIMBATORE DISTRICT.

STRUCTURAL ENGINEER

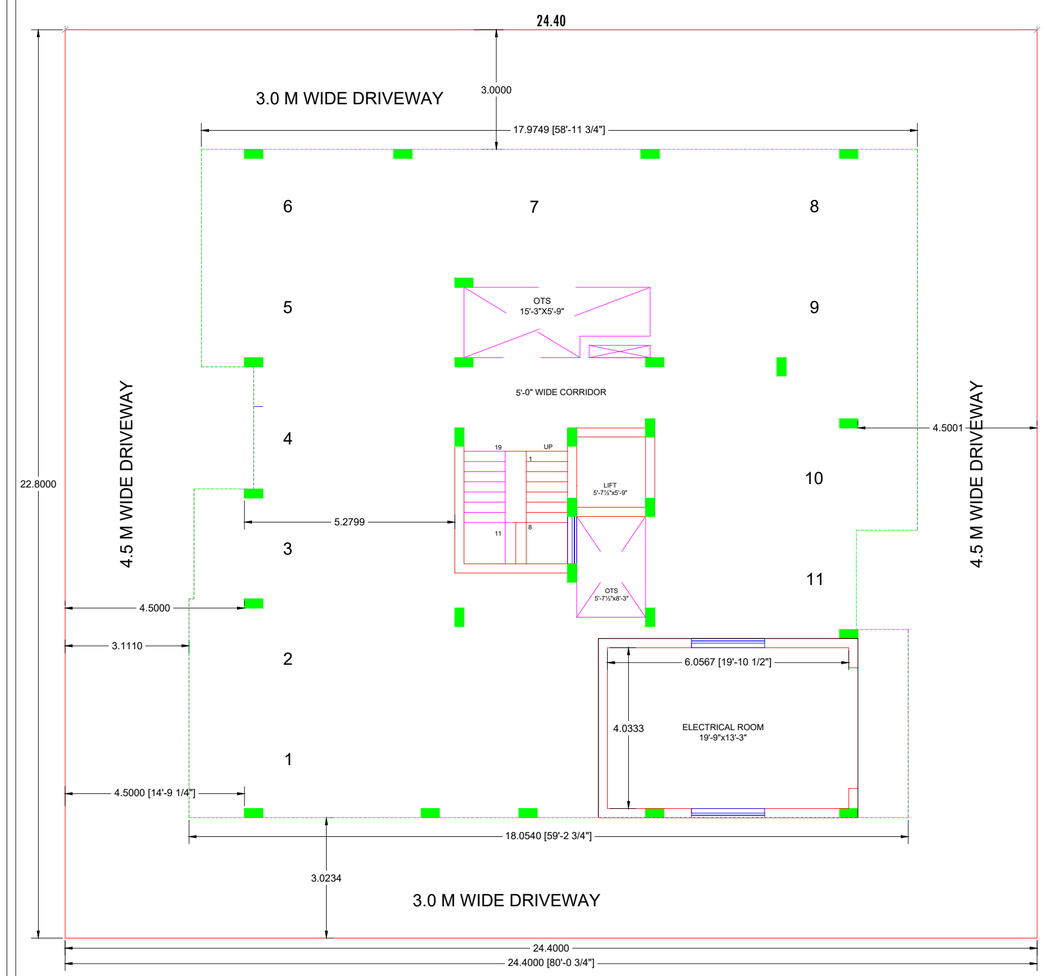
Er.S.PRADEEP, B.E., M.E(ST)
REGISTERED STRUCTURAL ENGINEER Grade-II,
Reg.No:DTCP/NAMAKKAL/RSE-II/001/2022
SRI RATHNA ASSOCIATES
No.55/2A, Near Ganapathy Fire Station, Gandhi Maa Nagar, Ganapathy, Coimbatore - 641 006. Phone : 9585606064

9/9/2025



TYPICAL FLOOR PLAN

PROJECT: **80'0"x75'0" - SOUTH FACING APARTMENT @ COIMBATORE**	N W E S	DRAWING NO: **02**	SCALE: **N.T.S.**	DATE: **13.05.2023**	DRAWN BY: **P.VETRIVENTHAN**	*Consultant:* *Thanvik Associates* *VSK Building, Thondamuthur Rd, Vadavalli,Coimbatore - 641041.* *Mobile : 9486050288* *Email :* **pvetriventhan1991@gmail.com**
SHEET TITLE: **TYPICAL FLOOR PLAN**		OPTION NO: **02**	AREA DETAILS : **AREA OF TYPICAL FLOOR - 283.4452 SQM** **SITE EXTENT - 556.32 SQM** **FSI (5 FLOORS) - 2.599**		CHECKED BY: **P.VETRIVENTHAN**	



--- Road ---

STILT FLOOR PLAN

PROJECT: **80'0"x70'0" - SOUTH FACING APARTMENT @ COIMBATORE**	N W E S	DRAWING NO: **01**	SCALE: **N.T.S.**	DATE: **13.05.2023**	DRAWN BY: **P.VETRIVENTHAN**	*Consultant:* *Thanvik Associates* *VSK Building, Thondamuthur Rd, Vadavalli,Coimbatore - 641041.* *Mobile : 9486050288* *Email :* **pvetriventhan1991@gmail.com**
SHEET TITLE: **STILT FLOOR PLAN**		OPTION NO: **02**	AREA DETAILS : **AREA OF TYPICAL FLOOR - 283.4452 SQM** **SITE EXTENT - 556.32 SQM** **FSI (5 FLOORS) - 2.599**		CHECKED BY: **P.VETRIVENTHAN**	

Er.S.PRADEEP, B.E.,M.E.(STRUCTURES),
REGISTERED STRUCTURAL ENGINEER, Dated: 11/9/2025
Reg.No:DTCP/NAMAKKAL/RSE-E/001/2022
SRI RATHNA ASSOCIATES
No.55/2A, Near Ganapathy Fire Station, Gandhi Ilna Nagar,
Ganapathy, Coimbatore - 641 006. Phone : 9585808064

DIRECTORATE OF TOWN & COUNTRY PLANNING

OFFICE OF THE ASSISTANT DIRECTOR OF TOWN & COUNTRY PLANNING

NAMAKKAL DISTRICT

D.no-6/1217, Paramathi Road (South Side)
Namakkal-637001.
Ph: 04286-290067
E-mail: dtcp.namakkal@gmail.com



PROFESSIONAL REGISTRATION CERTIFICATE

This is to certify that **Thiru.S.PRADEEP** has enrolled as **REGISTERED STRUCTURAL ENGINEER GRADE-II(SE-II)** with Directorate of Town & Country Planning (DTCP) Who has the qualification of **B.E. (CIVIL ENGINEERING)** and experience in the relevant field for **THREE** Years and **SIX** Month.

He/She has been given the Registration No. **DTCP/NAMAKKAL/RSE-II/001/2022.** He/She Shall be required to comply with the duties and responsibilities prescribed by the Government of Tamil Nadu in Part V, "Registration of Professionals ", Tamil Nadu Combined Development and Building Rules,2019, approved vide G.O.(MS) No.18 Municipal Administration and water Supply (MA1) Department, Dated 04.02.2019.

This Registration is Valid up to: 24.03.2027

25 MAR 2022

Place: Namakkal-01
Date: 25.3.22

ASSITANT DIRECTOR
DISTRICT TOWN &COUNTRY PLANNING OFFICE, NAMAKKAL DISTRICT
NAMAKKAL-637001.

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
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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.