Verified RealEstate™

RE REGULATORY RECORD

RERA Document

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Chennai 600 097, India

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verified.realestate

DIGITALLY VERIFIED RECORD

C.KANNAN, M.E. (Structure)
STRUCTURAL ENGINEER

Door .21, plot No. 257- W, Flat No. 2B
"Utopia Apartments" 2nd Floor,
4th Main Road, Indira Nagar,
Chennai- 600 020
Mobile: 9841249815
Email: kannankds2007@gmail.com

STABILITY CERTIFICATE

(To be furnished while filing application for registration of building)

The detailed engineering and structure design of the proposed building comprising of G+2 floors at Old Survey No: 465/3a2, then Survey No: 465/3a2c (Part), as per Patta No: 6048 New Survey No: 465/3a2c2, Padur Village, Thiruporur Taluk, Chengalpattu District has been done by me/us based on the report of geotechnical investigation (soil test) done by **Geo build Engineering Pvt Ltd** Report No. **GBEI/25-26/031** Dated **28.07.2025** and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquake. I/We have checked various parameters and found that the proposed building would be safe.

3. I/We further certify that:

(i) The minimum grade of concrete is M25

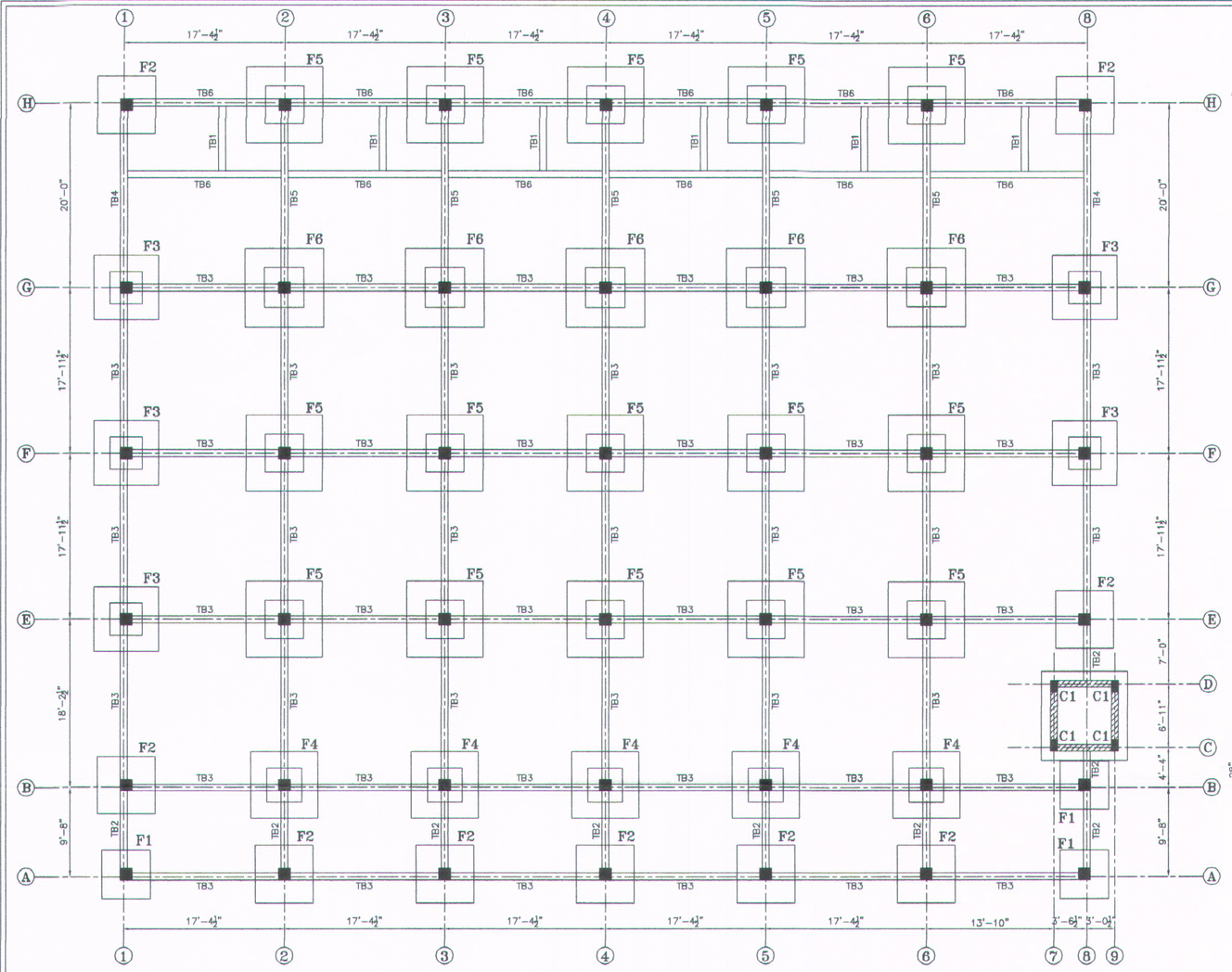
(ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, design loads as per IS Codes No 875 and design of earthquake resistant structure as per IS Code No 1893

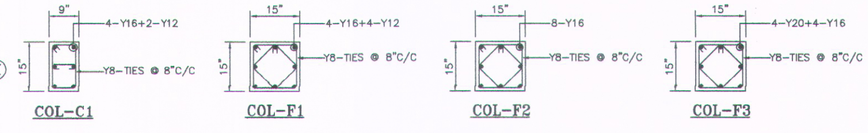
4. The building will be safe and sound when used for the purpose for which it is designed.

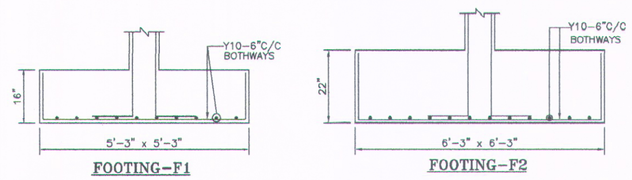
Stamp and Signature

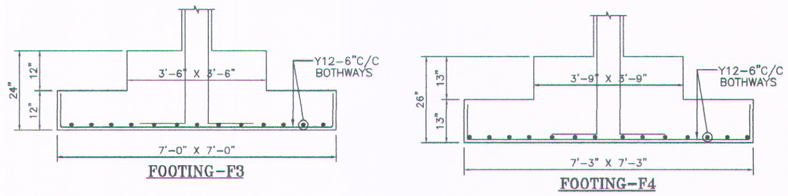
C. KANNAN, B.E.,M.E., (Structure)
Structural Engineer,
DTCP Reg. No. CGLRGN/SE/Gr.I/19/05/002
Door No: 21, 4th Main Road,
Indira Nagar, Chennai - 600 020.

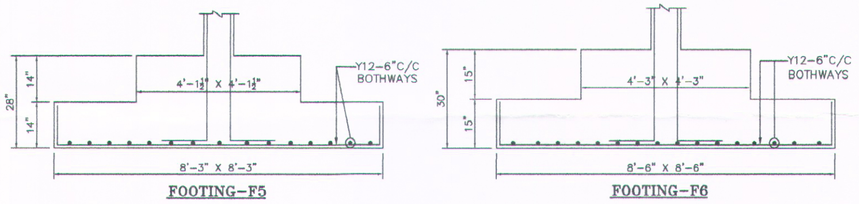
Encl.: Structural Design Calculation

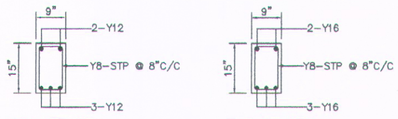


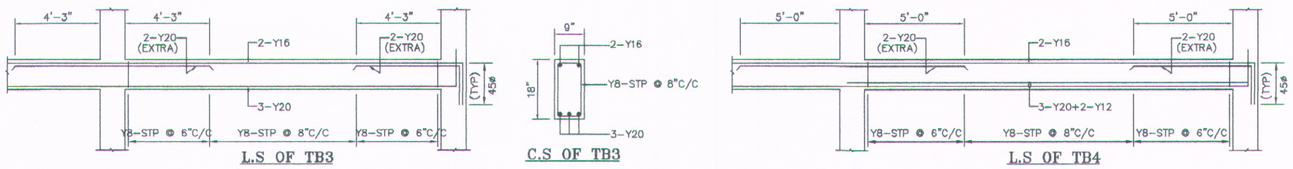


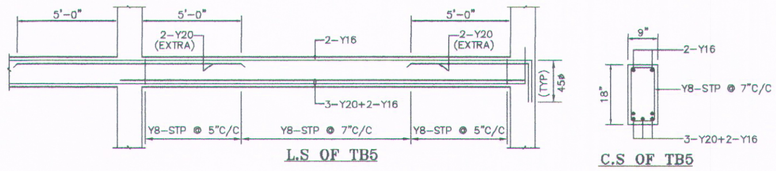


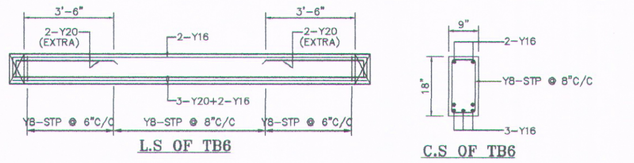


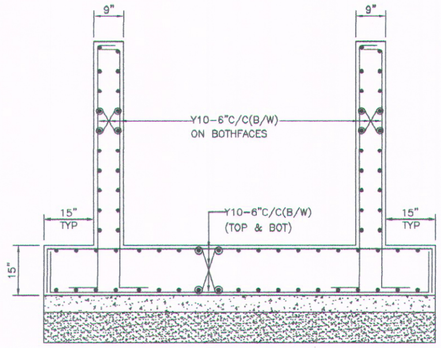


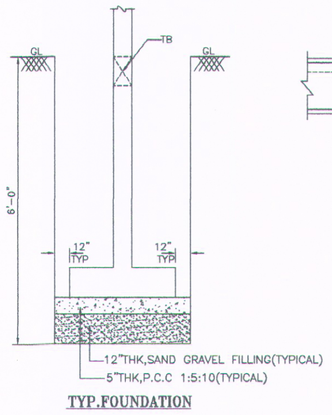


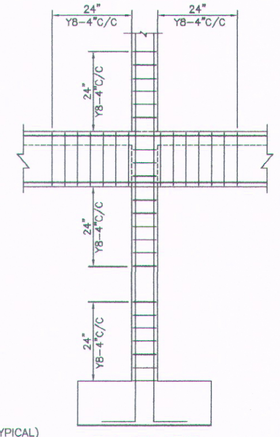












Notes:-

1. This drawing should be read along with architectural drawings.
2. Grade of R.C.C. Items shall be M30 for column & M25 for all other R.C.C works
3. Y Denotes TOR40 Steel confirming to I.S. 1786 – 1985. Grade – Fe 500
4. Clear cover to the main steel
   50 for Footings , Raft Slabs & Raft Beams.
   40 for Columns.
   25 for Lintel & Beams.
   15 for Sunshade & Slab.
5. Lap length shall be 50 d (Max. dia) for all bars.
6. ——— Bottom Reinforcement
7. ------ Top Reinforcement
8. Provide Continuous Chairs to keep the top Reinforcement in position
9. Provide Y 8 at 200 as Distribution steel for all top Reinforcement.
10. Spacer Bar to be Provided In Between Two Layers Of Reinforcement of Same Dia at Every 1000 C/ C.
11. Not more than 40% of Reinforcement shall be Lapped at any particular junction.
12. Cantilever props should not be released until the roof is concreted.
13. Foundation is designed for Ground plus two upper floor only.
14. For Earthquake analysis Zone III is taken as per IS : 1893–2016 code.
15. Removal of formworks :
    i) For Slabs :
    a. Slabs spanning upto 4.5 m (15'–0") – 7 days
    b. Slabs spanning over 4.5 m (15'–0") – 14 days
    ii) For Beams and Arches :
    c. Beams and Arches spanning upto 6 m (20'–0") –14days
    d. Beams and Arches spanning over 6 m (20'–0") –21days

R.NO	DATE	DESCRIPTION

PROJECT

PROPOSED COMMERCIAL BUILDING FOR BHOOMI & BUILDERS PLOT – A

FOUNDATION DETAIL

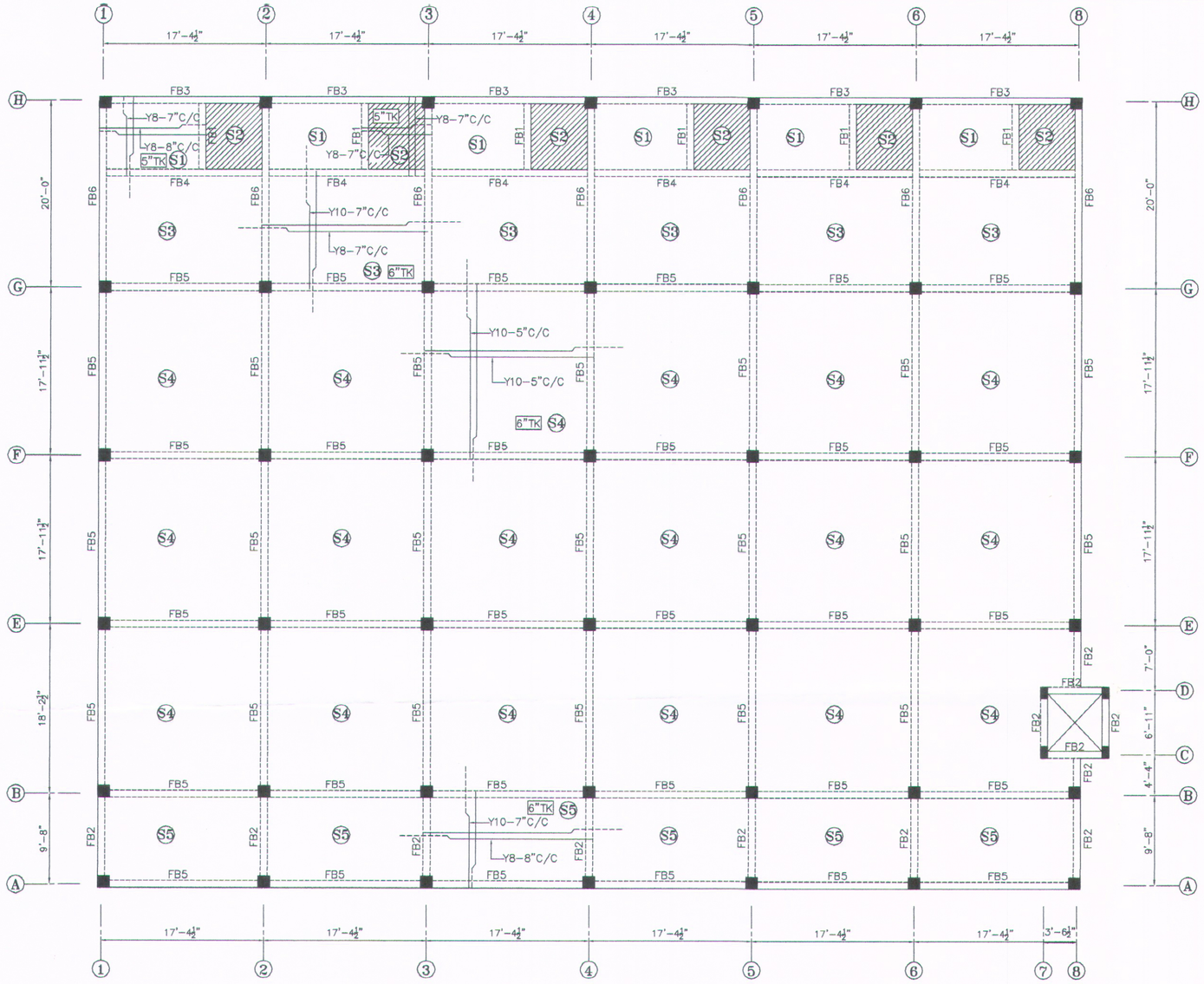
DESIGNED	KANNAN		SCALE	1 : 100
DRAWN	VINAYAGAM		DATE	04-06-2025

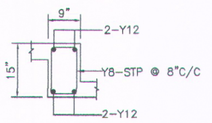
STRUCTURAL CONSULTANTS:

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Structural Engineer,
DTCP Reg. No. CGLRGN/SE/Gr.I/19/05/032
Door No. 21, 4th Main Road,
Indira Nagar, Chennai - 600 020.

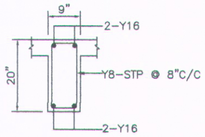
C.KANNAN B.E., M.E(STRUCTURE)
DOOR NO:21, PLOT NO:257–W,
FLAT NO:2B, "UTOPIA APARTMENTS",
2nd FLOOR, 4th MAIN ROAD,
INDIRA NAGAR, CHENNAI–20.
MOBILE NO: 098412 49815.
E–MAIL:ckannankds2007@gmail.com

FILE NAME : C:\ANGEL\PALLADIUM – PADUR PLOT–A

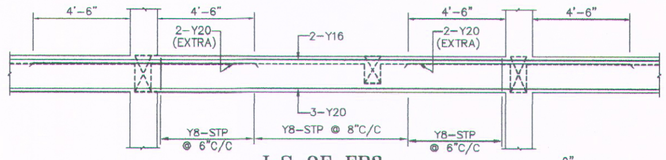




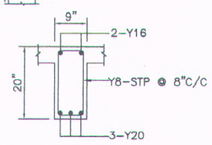
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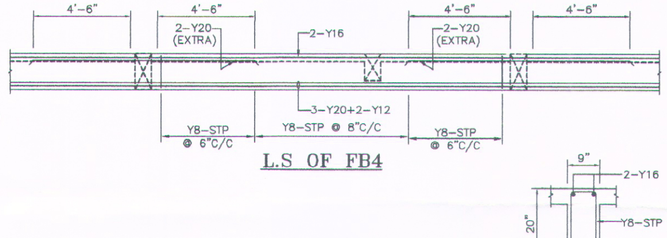
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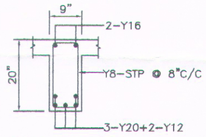
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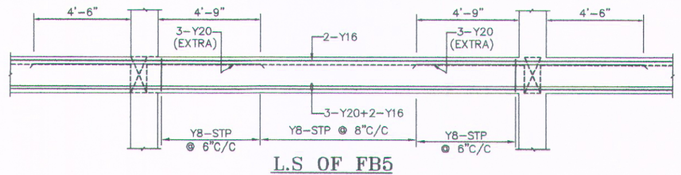
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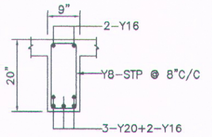
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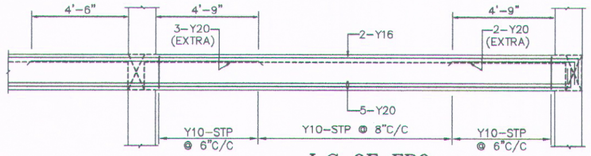
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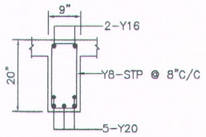
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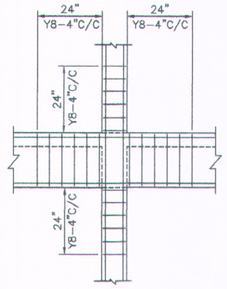
C.S OF FB5



L.S OF FB6



C.S OF FB6



TYP. SEC. FOR
STP. DETAILS

= 10" SUNK

Notes:-

1. This drawing should be read along with architectural drawings.
2. Grade of R.C.C. items shall be M30 for column & M25 for all other R.C.C works
3. Y Denotes TOR40 Steel confirming to I.S. 1786 – 1985. Grade – Fe 500
4. Clear cover to the main steel
   - 50 for Footings , Raft Slabs & Raft Beams.
   - 40 for Columns.
   - 25 for Lintel & Beams.
   - 15 for Sunshade & Slab.
5. Lap length shall be 50 d (Max. dia) for all bars.
6. ——— Bottom Reinforcement
7. - - - - - Top Reinforcement
8. Provide Continuous Chairs to keep the top Reinforcement in position
9. Provide Y 8 at 200 as Distribution steel for all top Reinforcement.
10. Spacer Bar to be Provided in Between Two Layers Of Reinforcement of Same Dia at Every 1000 C/ C.
11. Not more than 40% of Reinforcement shall be Lapped at any particular junction.
12. Cantilever props should not be released until the roof is concreted.
13. Foundation is designed for Ground plus two upper floor only.
14. For Earthquake analysis Zone III is taken as per IS : 1893–2016 code.
15. Removal of formworks :
    - i) For Slabs :
    - a. Slabs spanning upto 4.5 m (15'–0") – 7 days
    - b. Slabs spanning over 4.5 m (15'–0") – 14 days
    - ii) For Beams and Arches :
    - c. Beams and Arches spanning upto 6 m (20'–0") –14days
    - d. Beams and Arches spanning over 6 m (20'–0") –21days

R.NO	DATE	DESCRIPTION

PROJECT

PROPOSED COMMERCIAL BUILDING FOR BHOOMI & BUILDERS PLOT – A

GROUND FLOOR ROOF DETAILS

DESIGNED	KANNAN		SCALE	1 : 100
DRAWN	ANGEL		DATE	07-08-2025

STRUCTURAL CONSULTANTS:

C.KANNAN B.E., M.E.(STRUCTURE)
DOOR NO:21, PLOT NO:25,
FLAT NO:2B, "UTOPIA APARTMENTS",
2nd FLOOR, 4th MAIN ROAD,
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MOBILE NO: 098412 49815.
E–MAIL:kannankds2007@gmail.com

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Indira Nagar, Chennai - 600 020.

FILE NAME : C:\ANGEL\PALLADIUM – PADUR PLOT–A

C.KANNAN, M.E. (Structure)
STRUCTURAL ENGINEER

Door .21, plot No. 257- W, Flat No. 2B
"Utopia Apartments" 2nd Floor,
4th Main Road, Indira Nagar,
Chennai- 600 020
Mobile: 9841249815
Email: kannankds2007@gmail.com

Annexure - XIV

[See rule 51 (3)]

Form 1

Structural Design Basis Report

(1) This report to accompany the application for Building Developments

Part -1	General Data		
S.No.	**Description**	**Information**	**Notes**
1.	Site Address	New Survey Number 465/3A2C2, Padur Village, Thiruporur Taluk, Chengalpattu District.	
2	Name of Owner	M/s. Bhoomi and Buildings Private Limited	
3	Name of Registered Developer along with the Registration Number		
4	Name of Registered Architect/Engineer along with the Registration Number	Mr.T.DHINESH (COA No.CA/2009/43967)	
5	Name of Registered Structural engineer along with the Registration Number	Mr.C.KANNAN (CGLDIST/SE/Gr-I/2019/05/002)	
6	Use of the building	Commercial	
7	Number of stories above ground level (including storeys to be added later, if	Ground + 2 Floor	
8	Number of basements below ground level	None	
9	Type of structure Load bearing walls R.C.C. frame R.C.C. frame and Shear Walls	RCC Frame	
10	Soil data Type of soil Design safe bearing capacity		IS:1893 C1.6.3.5.2 IS: 1904 IS: 1892

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11	Dead loads (unit weight adopted) • Earth • Water • Brick masonry • Plain cement concrete • Reinforced cement concrete • Floor finish	 $18kN/m^3$ $10kN/m^3$ $19kN/m^3$ $24kN/m^3$ $25kN/m^3$ $20kN/m^3$ $20kN/m^3$	IS: 875 Part 1
12	Imposed (live) loads Floor loads Roof loads	$5kN/m^2$	IS: 875 Part 2
13	Cyclone/Wind • Speed	50m/s	IS: 875 Part 3

C. KANNAN, B.E.,M.E., (Structure)
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Indira Nagar, Chennai - 600 020.

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14	Seismic zone	III	IS: 1893 (2002)
15	Importance factor	1.2	IS:1893(2002) Table 6
16	Seismic zone factor (Z)	0.16	IS:1893 Table 2
17	Response reduction factor	5	IS:1893 Table 7
18	Fundamental natural period - approx.	0.48	IS:1893 C1.7.6
19	Design horizontal acceleration spectrum value (Ah)	0.04	IS: 1893 C1.6.4.2
20	* Expansion/Separation Joints	None	
21	Building is regular/irregular	Regular	IS 1893

* Enclose detailed drawings drawn to scale for each floor

♦ In case terrace garden is provided, indicate additional fill load and live load along with the detailed drawings drawn to scale

Part -2 Load bearing masonry buildings : NOT APPILCABLE

Sl.No.	Description	Information	Notes
1	Building category		IS: 4326 C1.7 Read with IS:1893 Zone / Bldg. : II III IV V Ordinary : B C D E Important : C D E E
2	Basement Provided		
3	Number of floors including Ground Floor (all floors including stepped floors in hill slopes)		
4	Type of wall masonry		
5	Type and mix of Mortar		IS: 4326 C1.8.1.2
6	Re: size and position of openings (See note No.[i]) • Minimum distance (b5) • Ratio (b1+b2+b3)/11 or (b6+b7)/12 • Minimum pier width between consequent opening (b4) • Vertical distance (ha) • Ratio of wall height to thickness 4 Ratio of wall length between cross wall to thickness		IS: 4326 Table 4, Fig.7 C. KANNAN, B.E.,M.E., (Structure) Structural Engineer, STCP Reg. No. CGLRGN/SE/G-I/19/05/002 Door No: 21, 4th Main Road, Indira Nagar, Chennai - 600 020.
7	Horizontal seismic band • at plinth level • at window sill level • at lintel level • at ceiling level	P IP NA u u u u u u u u u u u u	(see note No.2) IS:4326 C1 8.4.6 IS: 4326 C1 8.3 IS: 4326 C1 8.4.2 IS: 4326 C1 8.4.3 IS: 4326 C1 8.4.3

Scanned with OKEN Scanner

	• at eave level of sloping roof • at top of gable walls • at top of ridge walls	u u u u u u u u u	IS: 4326 C1 8.4.3 IS: 4326 Cl 8.4.4
8	Vertical reinforcing bar at corners and T junction of walls at jambs of doors and window openings	u u u u u u	IS: 4326 C1 8.4.8. IS: 4326 C1 8.4.9
9	Integration of prefab roofing/flooring elements through reinforced concrete screed.	u u u	IS:4326 C1 9.1.4
10	Horizontal bracings in pitched truss in horizontal plane at the level of ties in the slopes of pitched roofs	u u u u u u	

Notes: (i) Information in Item 6 should be given on separate A4 sheets for all walls with large number of openings

(ii) IP indicated "Information Provided"

IP indicates "Information to be provided"

NA indicates "Not Applicable"

Tick mark one box

Part -3	**Reinforced concrete framed buildings**		
Sl. No.	**Description**	**Information**	**Notes**
1	Type of building • Regular frames • Regular frames with Shear Walls • Irregular frames • Irregular frames with Shear Walls • Soft storey	Regular Frames	IS: 1893 C1 7.1
2	Number of basements	None	
3	Number of floors including ground floor	Ground + Two	
4	Horizontal floor system • Beams and slabs • Waffles • Ribbed floor • Flat slab with drops • Flat plate without drops	Beams and Slabs	
5	Soil data • Type of soil • Recommended type of foundation -Independent footings -Raft -Piles • Recommended bearing capacity of soil	Silty Sand Isolated Footing 150kN/m^2	IS: 1498

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Scanned with OKEN Scanner

	• Recommended type, length, diameter and load capacity of piles • Depth of water table • Chemical analysis of ground water • Chemical analysis of soil		
6	Foundations Depth below ground level Type Independent Interconnected Raft	3.0m Independent	
7	System of interconnecting foundations Plinth beams Foundation beams	Plinth Beams	IS: 1893 C1 7.12.1
8	Grades if concrete used in different parts of building	Min. M25	
9	Method of analysis used		
10	Computer software used	STAAD Pro.	
11	Torsion included		IS: 1893 C1 7.9
12	Base shear a. Based on approximate fundamental period b. Based on dynamic analysis c. Ratio of a/b		IS: 1893 Cl. 7.5.3
13	Distribution of seismic forces along the height of the building.		IS:1893 Cl.7.7 (Provide sketch)
14	The Column of soft ground storey specially designed.		IS: 1893 Cl.7.10
15	Clear minimum cover provided in • Footing • Column • Beams • Slabs • Walls	 50mm 40mm 25mm 20mm 40mm	IS: 456 Cl. 26.4
16	Ductile detailing of RC frame • Type of reinforcement used • Minimum dimension of beams • Minimum dimension of columns • Minimum percentage of reinforcement of beams at any cross section • Maximum percentage of reinforcement at any section of beam • Spacing of transverse reinforcement in 2-d length of beams near the ends • Ratio of capacity of beams in shear to capacity of beams in flexure • Maximum percentage of reinforcement in column	 Fe500 230 230 0.12% 1.5% 150mm 3.5%	IS: 456 Cl. 5.6 IS: 13920 Cl.6.1 IS: 13920 Cl.7.1.2 IS: 456 Cl.26.5.1(a) IS: 13920 Cl.6.2.1 IS: 456 Cl.26.5.1.1(b) IS: 13920 Cl.6.2.2 IS: 13920 Cl.6.3.5 IS: 456 Cl.26.5.3.1 IS: 13920 Cl. 7.4

C. KANNAN, B.E.,M.E., (Structure)
Structural Engineer,
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Scanned with OKEN Scanner

	• Confining stirrups near ends of columns and in beam-column joints Diameter Spacing • Ratio of shear capacity of columns to maximum seismic shear in the storey.	 8mm 100mm	
17	Does the features require clearance by SDRP Example: High rise building Prefab building Building in hazard prone areas	None	

Foundation

i. In case raft foundation has been adopted, indicate K value used for analysis of the raft.

ii. Incase pile foundations have been used, give full particulars of the piles, type, dia, length, capacity

iii. In case of high water table, indicate system of countering water pressure, and indicate the existing water table, and that assumed to design foundations.

Idealization for Earthquake analysis

i. In case of composite system of shear walls and rigid frames, give distribution of base shear in the two systems on the basis of analysis, and that used for design of each system

ii. Indicate the idealization of frames and shear walls adopted in the analysis with the help of sketches.

iii. Submit framing plans of each floor

iv. In case of basements, indicate the system used to contain earth pressures.

Part 4	**Buildings in structural steel : NOT APPILCABLE**		
1	Adopted method of design	o Simple o Semi-rigid o Rigid	IS:800 Cl 3.4.4 IS:800 Cl.3.4.5 IS:800 Cl.3.5.6
2	Design based on	o Elastic analysis o Plastic analysis	IS: 800 Section-9 SP;6 (6)
3	Floor construction	o Composite o Non composite o Boarded	
4	Roof construction	o Composite o Non composite o Metal o Any other	
5	Horizontal force resisting system adopted	Frames Braced frames Frames & shear walls	Note: Seismic force As per IS:1893 Would depend on system
6	Slenderness ratios maintained	Members defined in Table 3.1, IS:800	IS 800; Cl.3.7
7	Member deflection	Beams, Rafters	IS:800 Cl.3.13

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	limited to	Crane Girders, Purlins Top of columns	
8	Structural members	o Encased in concrete Not encased	IS: 800 Section-10
9	Proposed material	o General weld-able o High strength o Cold formed o Tubular	IS: 2062 IS: 8500 IS: 801, 811 IS: 806
10.	Minimum metal thickness Specified for corrosion protection	o Hot rolled sections o Cold formed sections o Tubes	IS: 800, Cl.3.8 Cl.3.8.1 to Cl.3.8.4 Cl.3.8.5
11	Structural connections	o Rivets o CT Bolts o S H F G Bolts o Black Bolts o Welding field Shop (Specify welding type proposed) Composite	IS: 800, Section-8 IS: 1929, 2155, 1149 IS 6639, 1367 IS 3757, 4000 IS: 1363, 1367 IS: 816, 814,1395, 7280, 3613, 6419, 6560, 813, 9595
12	Minimum Fire rating proposed, with method	o Rating .....hours o Method proposed. -In tumescent painting -Spraying -Quilting -Fire retardant boarding	IS: 1641, 1642, 1643

Part-5

Any special weakness in the building making it vulnerable for stability related failure and the precaution to be taken during execution/completion and finishing to be indicated.

Part-6

Recommendations of structural Engineer with respect to special requirements needed with respect to structural safety and stability to be taken note of by competent authority feature like incorporation of swimming pool, heavy load on roof ,prefabricated structure or any other hazardous features should be included.

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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

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The LandLens suite
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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

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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.