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

# JAYAM CONSULTANTS PRIVATE LIMITED

H.O. : G-2, "SESHADRI MANOR" #1, SESHADRI ROAD, ALWARPET, CHENNAI - 600 018.
PHONE : 91 44 24990477, 91 44 24994734 E-mail : email@jayamcpl.com
Website : www.jayamconsultantsprivtlimited.com


## STABILITY CERTIFICATE

The detailed engineering and structure design of the proposed building comprising of Stilt Floor (parking) + 5 Floors atResidential building S.No.9/1,9/3,4/6/5Part, 9/7Part, and T.S.No.4/4,10, 4/11,12, Block No.7, Nelson Manickam Road, Vada Agaram Village, Aminjikarai Taluk, Chennai District, has been donebyus based on the report of Geo Technical investigation (soil test) done by Geo Marine Consultants (P) Ltd. No.811, 2nd Main Road, KannappaNagar Extn.Kottivakkam, Chennai Report No.GT-3005(A) Dated 23/06/2025and 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 have checked various parameters and found that the proposed building would be safe.

3. I 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.**I.S.875-2015** and design of earthquake resistant structure as per IS Code No.**I.S.1893–2016.**

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

J S PADMANABHAN

STRUCTURAL ENGINEER

**S. PADMANABHAN**
**Registered Structural Engineer**
**Grade - 1 (SE)**
**Regn. No. SE/GR-I/19/05/123**

Encl :Structural Design Calculation

JAYAM CONSULTANTS PRIVT LIMITED
H.O. : G-2, "SESHADRI MANOR" #1, SESHADRI ROAD, ALWARPET, CHENNAI - 600 018.
PHONE : 91 44 24990477, 91 44 24994734 Fax : 91 44 24995657 E-mail : email@jayamcpl.com
Website : www.jayamconsultantsprivtlimited.com

## STABILITY CERTIFICATE

It is certified that the plan Showing the proposed Construction of stilt +5 floors residential building with 28 dwelling units + Gym and multipurpose hall in 1st floor lvl (18.30m) at Nelson Manickam Road,comprised in S.NO 9/1 , 9/3 & 9/6 and as per patta present T.S.No-4/4,4/10,4/11,4/12, Block no-7, Vada agaram village, Aminjikarai taluk, Chennai-600029, within the limits of greater Chennai corporation, division-107, Zone-VIII, is designed to resist the earthquake. Check has been made and found safe and I hereby certify that

The minimum grade of concrete is M25

The Minimum column size is 300 mm in stilt areas

The design analysis using the code of practice for loading standards as per BIS-875 and seismic forces as per the latest code BIS- 1893 & BIS- 456.

| | | |
|---|---|---|
| I.S.456 | - | 2000 (Code of practice for PCC & RCC) |
| I.S.875 | - | 2015 (Code of practice for design loads for buildings & structures) |
| S.P.16 & S.P.34- | | 2002 (Code of practice for design and detailing) |
| I.S.13920 | - | 2016 (Code of practice for design and detailing for earthquake) |
| I.S.1893 | - | 2016 (Criteria for earthquake resistant building) |
| I.S.4236 | - | 1993 (Code of practice for design earthquake resistant building) |
| NBC | - | 2005. |

**The structure is safe and sound when used for the purpose for which it is designed.**

**Signature of structural engineer,**

J.S PADMANABHAN

S. PADMANABHAN
Registered Structural Engineer
Grade - 1 (SE)
Regn. No. SE/GR-I/19/05/123

**PLAN SHOWING THE PROPOSED CONSTRUCTION OF STILT +5 FLOORS RESIDENTIAL BUILDING WITH 28 DWELLING UNITS + GYM AND MULTIPURPOSE HALL IN 1ST FLOOR LVL (18.30M) AT NELSON MANICKAM ROAD,COMPRISED IN S.NO 9/1 , 9/3 & 9/6 AND AS PER PATTA PRESENT T.S.NO-4/4,4/10,4/11,4/12, BLOCK NO-7, VADA AGARAM VILLAGE, AMINJIKARAI TALUK, CHENNAI-600029, WITHIN THE LIMITS OF GREATER CHENNAI CORPORATION, DIVISION-107, ZONE-VIII**

## TYPICAL STRUCTURAL DESIGN CALCULATION

**01. General**

Proposed Building S+5 upper floors for residential purpose. Stilt Floor is provided for car parking.

**02. Design Basis :**

Latest Design codes of BIS-456, 875 AND 1893 are followed with SP-16. Design Aid book. A Typical Frame was taken for analysis to arrive at the bending moment for column design, since the building is S+5 stories, wind force is taken in to account. Live Load reduction factor is applied in design. Isolated and combined foundation is proposed as per soil report. Fe-550 grade steel of 16mm dia bars is used as main steel and 8 mm dia bars for distributors.

**03. Earthquake consideration.**

For better stability during earthquake, the columns are braced in both directions with beams, continuous lintels are specified for outer walls and column ties are closely spaced for better ductility. For Building on stilt, Minimum size is taken as 300 mm (12")

**04. WIND LOAD**

Vz = Vb x K1 x K2 X K3
Vb = 50m/sec in chennai
K1 = Probability Factor = 1
K2 = Terrain, Height Factor = 1.03
K3 = Topography Factor = 1
K4 = Cyclonic Factor = 1.15

P = 0.6 x Vz x Vz
= 0.6 x 60 x 60
= 2160 N / Sq.m

**FLOOR LOADS :**

**DEAD LOADS**

Assuming 5"thk slab dead load = 313 kg/sqm

| | | | |
|---|---|---|---|
| | Weight of floor finish, partitions etc., | = | 131 kg/sqm |
| | Total dead load | = | 444 kg/sqm |

**LIVE LOADS**

| | | | |
|---|---|---|---|
| | Live load on typical floor | = | 200 kg/sqm |
| | Total load on typical floor | = | 644 kg/sqm |

**ROOF LOADS**

| | | | |
|---|---|---|---|
| | Assuming 5''thk slab dead load | = | 313 kg/sqm |
| | Weight of weathering course | = | 273 kg/sqm |
| | Total dead load | = | 586 kg/sqm |
| | Live load on roof with success assumed | = | 150 kg/sqm |
| | Total roof load | = | 736 kg/sqm |
| | Staircase loading liable to overcrowding | = | 500 kg/sqm |
| | Wind load considering height of building | = | 200 kg/sqm |

**BRICK LOADS**

| | | | |
|---|---|---|---|
| | Weight of brick per sqm | = | 1890 kg/cum |
| | Assuming beam size of 9''x24'' | = | 335 kg/rm |
| | R.C.C Mix to be adopted | = | M25 |

**LOAD ON TYPICAL COLUMN**

| | | | |
|---|---|---|---|
| | Slab load of stilt floor | = | 9.02 ton |
| | Slab load for five floors | = | 36.08ton |
| | Roof load | = | 10.31ton |
| | Beam load | = | 12.57ton |
| | Brick work load | = | 37.50ton |
| | Self weight of column assuming (12''x18'') | = | 5.07ton |
| | Total load on column | = | 110.55ton |

Say = 111ton

Provide 10-Y25

Safe capacity of above section = 184ton

**Hence safe**

**TYPICAL FOUNDATION**

SBC of soil
As per soil report = 25 Mt/sqm.

Area of footing required = 4.44 sqm.

Area of footing provided = 9.0 sqm.

**Hence safe**

**TYPICAL SLAB**

Ly/Lx = 4.0/3.5 =1.14

Hence two way slab

Provide 5''thk slab

Provide Y10 @ 5'' C/C (shorter direction)

Provide Y10 @ 6'' C/C (longer direction)

**TYPICAL BEAM**

Span = 5.965m

Slab load = 1805kg/m

Self weight = 350 kg/m

Total load = 2155kg/m

Bending moment = 8028.01kg-m

B.M due to conc 1 = 6545.3kg-m

B.M due to conc 2 = 3145.00kg-m

Total bending moment = 17718.31kg-m

**EARTHQUAKE ANALYSIS**

Calculation of horizontal seismic coefficient
As per code I.S.1893/2016

$Ah = ZI/2R \times Sa/g$

Zone factor (Chennai zone) $z = 0.16$

Importance factor $I = 1.2$

Response reduction factor $R = 5.0$

Natural period

Ta

$= 0.075h$

$= 0.075 \times 18.25$

$= 1.368secs$

$H =$ (Ht of buildg)

Sa/g

$= 1.67/t$

$Sa/g = 1.67/1.368 = 1.22$

$$Sa/g = \frac{0.16 \times 1.2}{2 \times 5.0} \times 1.22$$

$= 0.0233$

**CALCULATION OF BASE SHEAR/SEISMIC FORCES**

| Floor | Wi | Hi | $Wi \times Hi^2$ | Qi |
|---|---|---|---|---|
| Terrace | 87.108 | 18.25 | 29012.08 | 11.825 |
| 5 | 113.483 | 15.25 | 26391.89 | 11.825 |

| | | | | |
|---|---|---|---|---|
| 4 | 113.483 | 12.25 | 20258.05 | 11.825 |
| 3 | 113.483 | 9.15 | 9501.08 | 1.8718 |
| 2 | 113.483 | 6.3 | 4504.14 | 0.887 |
| 1 | 113.483 | 3.45 | 1350.73 | 0.266 |
| Stilt | 14.691 | 0.6 | 5.288 | $1.04 \times 10^{-3}$ |
| EWI | 442.248 | | E 91023.258 | |

Base shear V = Ah EWI

= 0.0233 x 442.24 = 10.3ton

Seismic force per column = 10.3/4 =2.58

Seismic moment per column = 2.58x3/2 =3.86

**Column provided is safe** against the additional seismic moment of 3.86 tm.

**CHECK FOR FOUNDATION**

P/A+M/Z

$$\frac{111}{9} \pm \frac{3.86}{(3 \times 3^{2})/6}$$

$$12.33 \pm 0.855$$

$$=13.186$$

$$=1.25 \times 25$$

$$=31.25\text{ton}$$

**Hence safe**

S. PADMANABHAN
Registered Structural Engineer
Grade - 1 (SE)
Regn. No. SE/GR-I/19/05/123

JAYAM CONSULTANTS PRIVATE LTD
G-2, Sheshadri Manor
No. 1, Sheshadri Road,
Alwarpet, Chennai - 600 018.

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.