

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

25-03-2024

STRUCTURAL STABILITY CERTIFICATE

It is certified that the Proposed Industrial Building at Shed No. II- 30 Door No: II/30, Dr. Vikram Sarabhai Instronics Estate, 4th Street Kottivakkam, Chennai- 600 041. Comprised in S. Nos: 296/10 And 296/2A1B Kottivakkam Village, Division- 182, Zone- XIV Of Greater Chennai Corporation. Having Basement plus Ground plus Four upper floors is designed to resist earthquake. Check has been made and found safe and I hereby certify that,

1. The minimum column width is 300 in stilt floor areas
2. The minimum grade of concrete is M25.
3. The design analysis using the code of practice for loading Standards as per IS-875 Part I to III and seismic force as per one code IS 1893, is carried out.

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



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Structural Engineer,
CMDA Reg. No: SE/I/2024/2/0047
Door No: 21, 4th Main Road,
Indira Nagar, Chennai-600 020.

**PROPOSED INDUSTRIAL BUILDING AT SHED NO. II- 30 DOOR NO: II/30, DR. VIKRAM
SARABHAI INSTRONICS ESTATE, 4TH STREET KOTTIVAKKAM, CHENNAI- 600 041.
COMPRISED IN S. NOS: 296/10 AND 296/2A1B KOTTIVAKKAM VILLAGE, DIVISION- 182,
ZONE- XIV OF GREATER CHENNAI CORPORATION**

GENERAL NOTE ON STRUCTURAL DESIGN.

1.0 GENERAL.

1.1 DESIGN BASIS

The proposed residential building consists of Basement plus Ground plus Four upper floors.

The design of this building is carried out based on frame analysis using STAAD CONNECT.

1.2 CODES AND STANDARDS

All structural design is carried out conforming to the provisions of National Building Code of India and other relevant Indian Codes and Standards.

1. I.S. 456 - 2000
2. I.S. 875 - Part I to III
3. I.S.1893 - 2016

2.0 BASIC CIVIL DESIGN LOADS

2.1 DEAD LOADS & LIVE LOADS

Typical slab dead load is calculated as follows

Self weight of slab	=	3.25kN/m ²
Floor finish	=	2.0kN/m ²
Live load	=	5.0kN/m ²

10.25kN/m²


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3.0 SOIL DETAILS

Based on soil test report Pile Foundation is adopted.

DESIGN METHODS

General design and detailing of concrete members/elements are done conforming to the provisions of I.S: 456 and other relevant I.S codes. Limit State method is followed for the design.

Seismic Zone III load is taken into account for the analysis. The predominant direction of vibration is horizontal. Relevant combination of forces has been taken into account.

4.1

Load Combination	Ultimate Limit Load	Serviceability Limit State
DL+LL+WL Or DL+LL+EL	1.2DL+1.2LL+1.2WL Or 1.2DL+1.2LL+1.2EL	DL+LL+WL or DL+LL+EL

4.3 MINIMUM COVER

Slab	15 mm
Beam	25 mm
Columns	40 mm
Foundations	50 mm

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