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Thimphu Thromde
220 Gongdzin Lam SE, Norzin
Thimphu -11001: Bhutan



Structural Analysis Report

Date:

1. Owner(s) information:

- a. Name:.....
b. Plot No.:..... c. Thram No.:..... d. Location:.....

2. Designer(s) information:

- a. Name:.....
b. Name of last University:.....
c. Graduation from the last university (month and year):.....
d. Experience in designing:.....
e. Type of software used:.....

3. Type of structure (Tick)

- ☐ RCC
☐ Steel
☐ Load-bearing wall
☐ Others (Please specify):.....

4. No. of the storey:.....

(Example (S or B/S+G+4+J)

B=Basement floor below lowest natural ground level

S=Stilt Floor above ground level

5. Modelled and analysed the structure, incorporating all elements as specified in the architectural drawings, including projected slabs, verandas, rabseys, and staircases.

- ☐ Yes
☐ No

6. Types of imposed load applied to the external and internal walls, and specify its unit weight per meter.

- ☐ Brick wall
☐ Autoclaved Aerated Concrete (AAC block)
☐ Other (specify).....
• External wall load appliedKN/m
• Internal wall load applied.....KN/m

7. For a proposed water tank on the roof floor, specify the water tank capacity and applied unit weight.

- a. Capacity of water tank.....Litres
a. Water tank load applied.....KN/m²



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8. If the roof trusses are not modelled with the structural members, what unit weight of the roof truss and CGI sheets has been applied to the structural model?
 - a. Total roof dead load.....KN/m²
 - or
 - b. Total point dead load.....KN
9. If the moment of inertia has been applied to columns and beams, specify its percentage below:
 - a. Column.....
 - b. Beam.....
10. Design base shears for the structure by applying static and dynamic methods. If vertical excitation/motion is applied, provide its value separately.
 - a. Design base shear for Static (VB): KN
 - b. Design base shear for Dynamic (VB): KN
11. Applied design base shear factor through dynamic analysis
 - a. Design base shear factor:..... KN
12. Have the IS Code provisions for earthquake resistance (1893-2016) and ductile detailing specified in IS 13920:2016, been applied during the structural design process?
☐ Yes
☐ No
13. Under which category does the structure fall? (tick):
 - a. Under Plan irregularities:
☐ Torsional irregularity (*if the structure has an asymmetrical configuration, then check for Torsional is compulsory*)
☐ Re-entrance Corner
☐ Floor slab having excessive cut-out or opening
☐ Out-of-Plane in offsets in vertical elements
☐ Non-parallel lateral force system
 - b. Under Vertical Irregularities:
☐ Stiffness irregularity (soft storey) (*if the structure has stilt for parking, then check for the soft storey is compulsory*)
☐ Mass irregularity
☐ Vertical Geometric Irregularity
☐ In-plane discontinuity in Vertical Elements Resisting Lateral Force



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- ☐ Strength Irregularity (Weak Storey)
- ☐ Floating or Strut Column (avoid proposed)
- ☐ Irregular modes of Oscillation in two principal Plan Directions

***Note:** If all structural analysis and design are adequate, please ensure the structural design file and notes are attached for further approval if required.

Legal Stamp:

Signature:

Date: