

In India, buildings are usually constructed due to high cost and scarcity of land. In order to utilize maximum land area, owner generally propose asymmetrical plan configurations. These asymmetrical plan buildings, which are constructed in seismic prone areas, are likely to be damaged during earthquake. Earthquake is a natural phenomenon which can generate the most destructive forces on structures. Buildings should be made safe for lives by proper design and detailing of structural members in order to have a ductile form of failure. The Delhi laid down in Earthquake Zone-IV and Zone Factor is 0.24.

The concept of earthquake resistant building should be designed to resist the forces. Normally Partly Basement+G+2 storeyed building has less seismic effect with minor damages other than multi-storeyed building. This existing building report comprises of seismic analysis and design four storeyed R.C. building with asymmetrical plan. The building is modeled as a 3D space frame using the software STAAD PRO V8i. The response spectra as per IS 1993 (Part 1):2002 for medium soil.

CONCLUSION

Keeping in view, all the existing structural analysis in software and various test conducted at site and result obtained from the laboratory the building is safe and sound on normal earthquake



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