

# Design and Analysis of Multi-storey (G+6) Residential Building using Staad pro And AutoCad

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**Abstract:** *The design and analysis of multi-storey residential buildings play a crucial role in ensuring structural integrity, safety, and efficiency in urban infrastructure. The present project deals with the design & analysis of a multi storied residential building of G+6 consisting of 4 apartments in each floor. Load analysis forms a critical component of the design process, as it involves determining the magnitude and distribution of various loads acting on the building, including dead loads, live loads, wind loads, and seismic loads. STAAD Pro facilitates the application of these loads and provides robust analysis tools to assess their effects on the structure, ensuring compliance with relevant building codes and standards. The dead load & live loads are applied and the design for beams, columns, footing is obtained STAAD Pro. We conclude that staad pro is a very powerful tool which can save much time and is very accurate in Designs. Thus, it is concluded that staad pro package is suitable for the design of a multi-storeyed building.*

*Staad pro Analysis include*

*Creating a plan for structural framework*

*Obtaining a model*

*Structure analysis*

*Structure design.*

**Keywords:** Staad. Pro, Multi-storey building, Residential building, gravity load, Limit state method, shear force, bending moment and axial force

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