

# STAAD.Pro

## Multi Storied Building

### Scenario:

Given a compact situation, design a commercial building that optimizes square footage, while being structurally sound and in compliance with building codes and other environmental considerations of the building site.

### Aim:

Design a three-story commercial building, using the modelling tools in STAAD.Pro. Assign the required materials and support to your structure. Assign loads and design in accordance with design code standards. Analyze using suitable codes, and check your results in the output file. Make changes to your design, based upon analysis results, to ensure structural optimization of your design.

### Tasks to perform:

Design a three-storied commercial building, using the modelling tools in STAAD.Pro. Assign the required materials and support to your structure. Assign loads and design in accordance with. Analyze using suitable country codes, and check your results in the output file. Make changes to your design, based upon analysis results, to ensure structural optimization of your design.

1. Model a G+2 building in STAAD.Pro, with an area per floor of 500 sq. meters/ 5400 sq. feet.
2. Assign materials based upon your assumptions and location considerations (steel, concrete, or composite materials, as you deem most appropriate for building sites)
3. Loads can be assigned depending on the structure's requirement.
4. Analyze the model for gravity and lateral loads
5. Analyze your structure and check the stability of the model in the post processing mode.
6. Generate a fully rendered 3D Model

### Judging Criteria:

1. Creativity, complexity, and aesthetics of STAAD.Pro model
2. Innovation and level of structural optimization