

CE20201: Introduction to Civil Engineering and Materials Mini Project

Planning of a school building

Team members

23CE10019: Gulve Shivraj Premraj
23CE10029: Loghith US
23CE10049: Rajesh Dalai
23CE10079: Upasana Markam
23CE10081: Vangala Akshay Reddy

Software Used:

Solidworks 3D

Description:

1. The school is to be constructed for 10+2 levels with the following subdivisions :
 - (i) Nursery : three classes (Nursery, class I and II) : One section for each class
 - (ii) Primary : Classes III, IV and V : One section for each class
 - (iii) Junior : Classes VI, VII and VIII : Two sections for each class, new admission in class VI
 - (iv) Secondary : Classes IX and X : Three sections for each class, new admission in class IX
 - (v) Higher Secondary : Classes XI and XII : Three sections for each class : Science, Arts and Commerce.
2. Each class is of size 49m^2 (7m X 7m).
3. Doubly loaded corridors are present.
4. Additional rooms for the Principal room, office, teachers' room, library and laboratories are present.
5. Toilets are provided on each floor and staircases away from toilets to avoid crowding during recess time near the staircases to prevent injuries.
6. Playgrounds for badminton and volleyball are provided.
7. G+3 storeyed building would be constructed.
8. Parking is available for the students and staff.

Let us describe each floor separately

Ground Floor:

There is an entrance and an exit along with a walkway towards the school building. There are two playgrounds provided behind it. Inside there is the administrative office, headmaster's office, principal's office and a store room. This ensures the comfort of the people managing the school and easy access to articles stored in the store room. Nursery and primary classes are present on the ground floor as per their sectional divisions. There is an exit from the inside of the building towards the playgrounds towards the opposite side of the main entrance.

First Floor:

Here we have the classrooms for the junior and secondary school students. There is also the chemistry lab present. It is situated on the first floor, the lowermost floor where labs exist, aiding in easy evacuation in case of emergencies related to fire.

Second Floor:

Here we have the classrooms for two of the three sections of the higher secondary school students. There is also the physics lab present.

Third Floor:

Here we have the classrooms for the remaining section of the higher secondary school students. There are zoology and botany labs present along with the library. The school management is also planning to construct a computer lab next to the library to teach students about the practical applications of computers and related softwares.