**CECE20201: Introduction to Civil Engineering and Materials Mini Project  
  
Planning of a Residential Complex**

**Software Used:**  
Autocad, Revit  
  
**Description:**

1. The Residential complex is constructed of 12 towers where each tower contains G+24 Floors with a clubhouse, multilevel parking, an assembly swimming pool, a volleyball court, a tennis court, and a badminton court
2. each floor contains 6 3BHK and 2 2BHK.
3. Ground Floor is left for 2-wheeler parking.
4. The total plan is 984’6” x 538’ (5,30,000 Sq. Ft).
5. Tower area 175’ 3” x 64’ 3” (11,260 Sq. Ft).
6. 2BHK is of 32’3” x 27’1.5”(850 Sq.Ft).
7. 3BHK is of 39’ x 27’1.5”(1030 Sq.Ft) .
8. We have provided 3 lifts and 2 staircases on either side of the floor for easier movement.
9. We have provided an club house G+3 for all the activities that are necessary like we are having few office cabins,sports room , restaurant, banquet hall,and movie room .
10. In the clubhouse also we have provided a staircase and a lift and toilets on each floor for better convenience.
11. All the 12 block are arranged in an rectangle so that it provides more place for playground and activity areas, so we have provided swimming pool, volleyball court , tennis court, badminton court,and multilevel parking in the middle of the plan.
12. We have given separate 11 Floors of Multilevel parking , because each floor consist of 8 Houses and a tower has 24 floors which 175’ 3” X 64’3” cannot sufficient for parking of all vehicles although we had given ground floor for two Wheeler parking.
13. In multilevel parking, we planned an electric charging facility because nowadays EV vehicles are increasing.
14. We have provided an electrical unit on each floor and a main electrical section on the ground floor.
15. In the ground floor we have provided Security, the Main Electrical unit, and Maintenance.
16. The total Effective area of the Building is 45,000 sq. ft
17. Assuming each vehicle size at most 180 sq. ft
18. An average of **250** vehicles on one floor
19. Total number of vehicles with a safety limit of 200 vehicles with a **capacity of 2500 vehicles**