CE402 : Design Project

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Problem statement - Plan a residential building for an allowable height of 10m and FAR = 1.75. & given plot area 50×50.

→ Allowable floor area = Plot area × FAR
= 50×50×1.75 = 4375 ft²

1 storey height = 3m.

If we take floor area for a single floor of G+2 building,

⇒ Max^m recommended floor area = $\frac{4375}{3}$ = 1458.33 ft²/floor

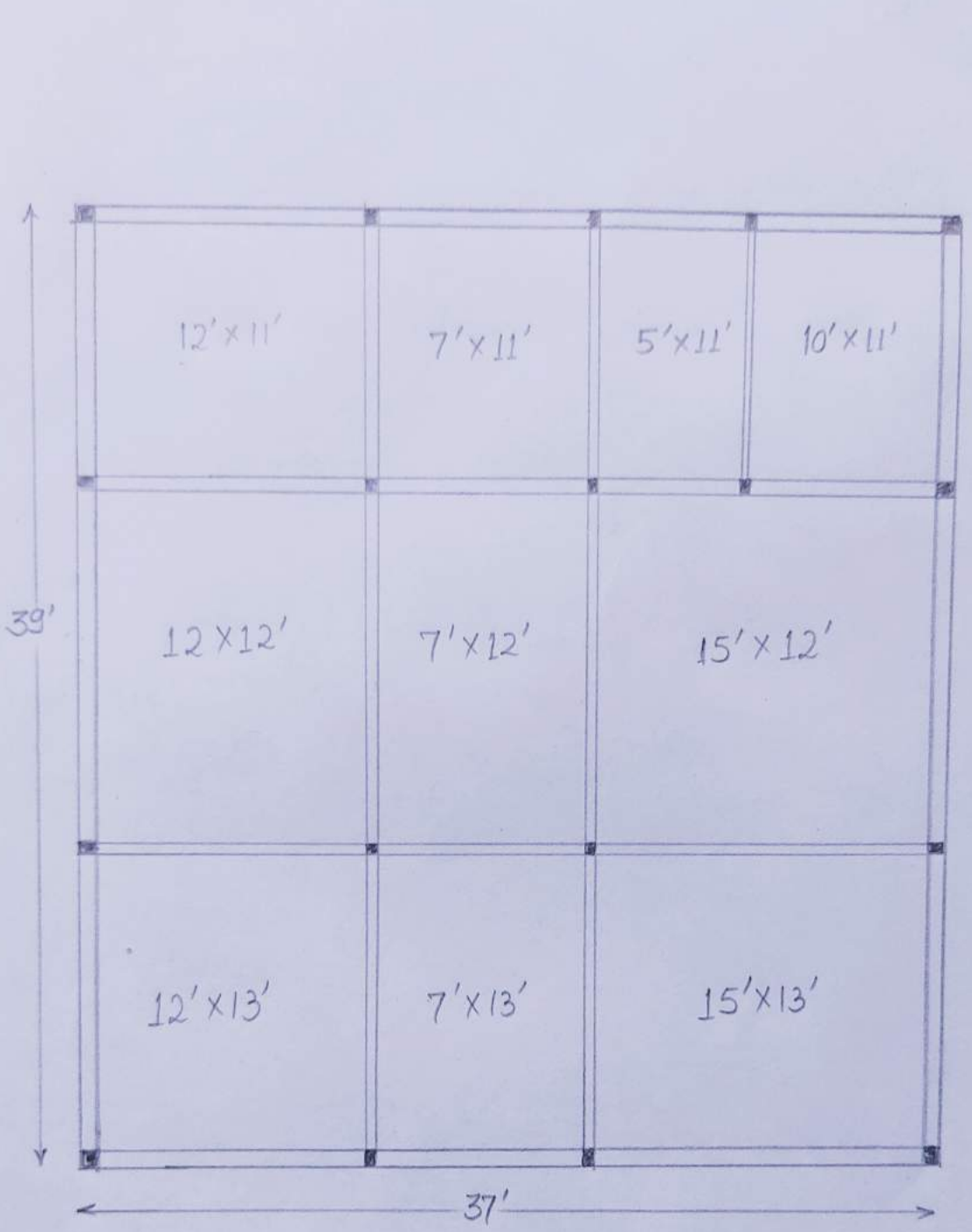
* So I took a plot of 37′ × 39′ = 1443 ft²

⇒ The road is in northern side of a plot, so, I kept a small entrance in the north direction. but my building is east facing. so, I gave main entrance of 7′ in east direction.

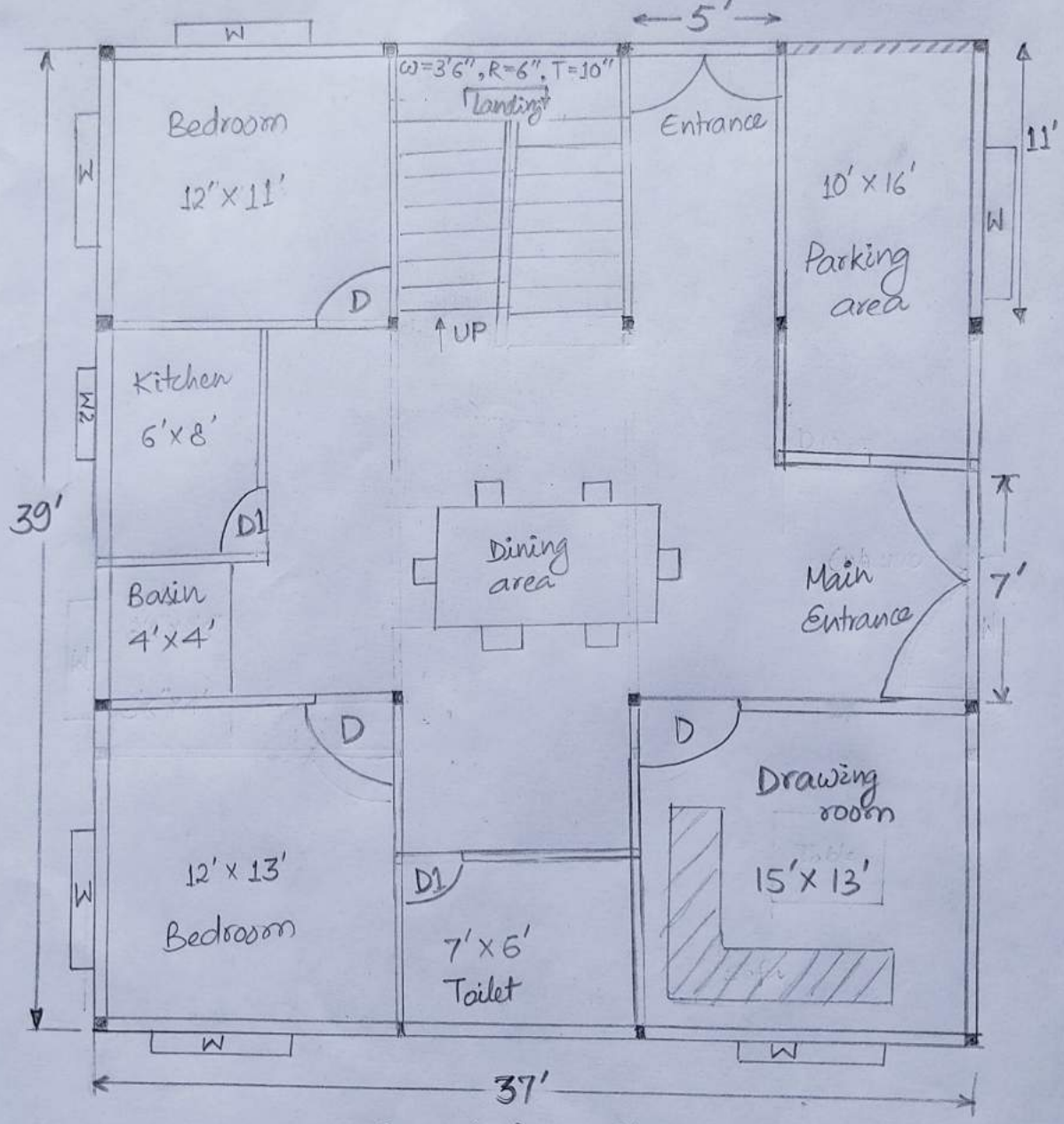
→ Outer walls are of thickness 10". whereas all inner walls are of thickness 5".

→ I gave stairs of size 7′ × 11′ with a width, tread and height of each stairs of 3′6", 10" and 6" respectively.

→ My plan consists of 3 pages.
1st page showing the column details (location) and plinth beam design.
2nd page is ground floor plan view.
3rd page is typical floor plan. In our case, this is for 1st and 2nd floor.



Layout plan for columns



Ground floor Plan

Specifications

D	3'6" × 7'0"
D1	3'0" × 7'0"
W	5'0' × 4'0"
W1	3'6" × 4'0"

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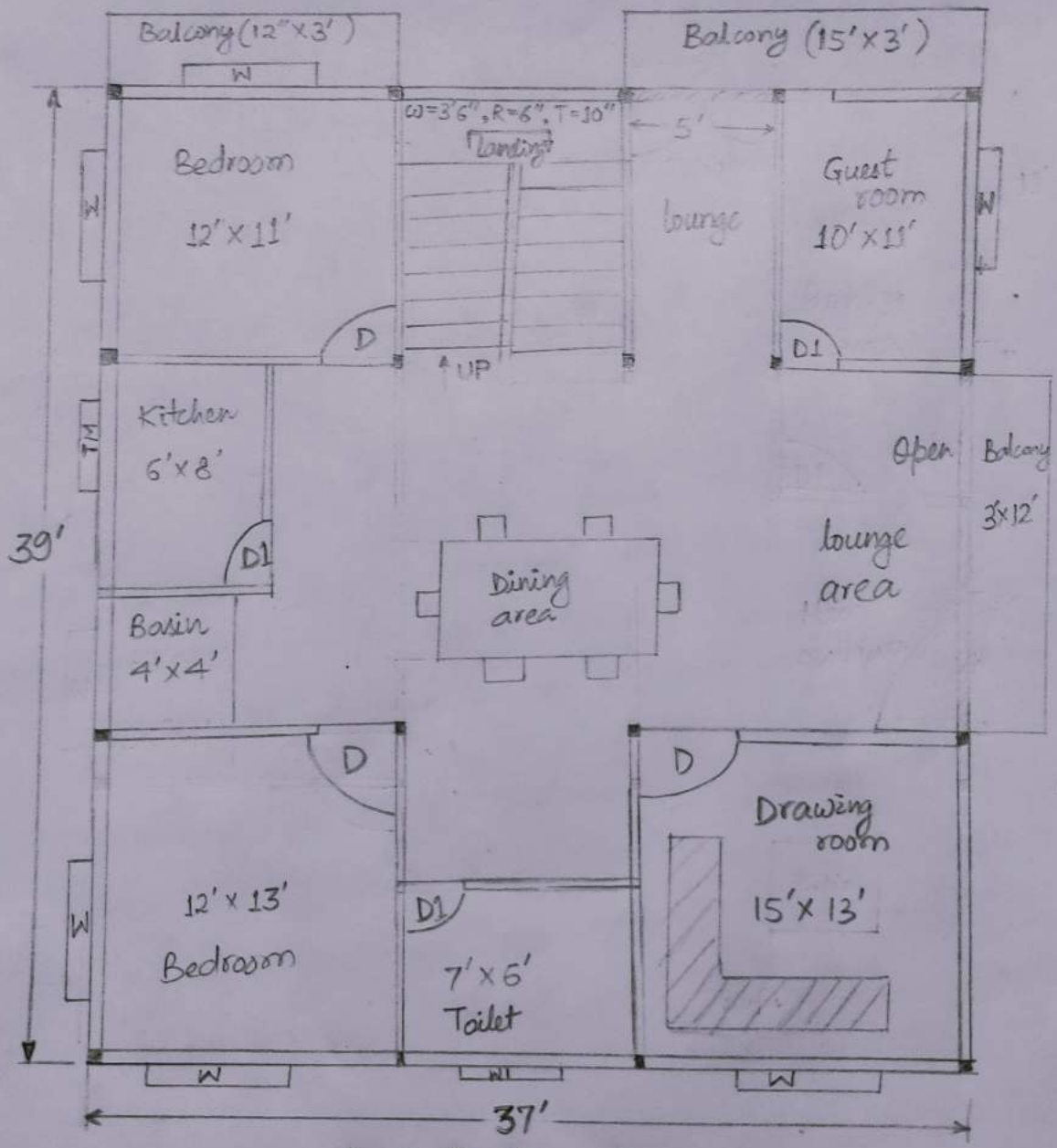

typical floor Plan

Specifications

D	3'6" x 7'0"
D1	3'0" x 7'0"
W	5'0' x 4'0"
W1	3'6" x 4'0"

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