

VIGNETTE: INTERIOR LAYOUT

Steps

1. Open floor plan and take a good look at the shape of the room and where doors and windows are located.
2. While you're there, turn on ortho, the grid, and the full screen crosshairs.
3. Open the Program and complete the following chart:

Room	Window?	Direct Access?	Furniture

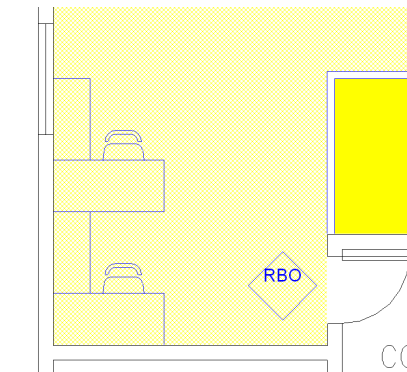
4. Open the Code and jot down the clearances, turning radius, and any other requirements that NCARB might throw in there.
5. Double check the program and your notes are right...do it now and save time later.
6. Open the drawing again and off to the side draw a bunch of turning circles (5' in the practice problem) and clearance circles (3'-0" in the practice problem).
7. Roughly draw the rooms in their intended locations. Start by placing the symbol for the Reception Area by the suite door, it's easy to forget later!
8. Place all of the required furniture in the rooms they belong. Don't worry about rotating any of it yet.
9. Start with the conference room (or the room with the largest piece of furniture) and layout the furniture. Use the small sketch circles to verify that required clearances in front of all of the furniture is met and that you can get by each piece and not bump into anything else (the exception to this are chairs at the executive desk, table for four, and conference table...see the tips below).
10. Move walls into the desired location. Walls of different rooms, as well as exterior, should overlap each other so that there are no double walls drawn.
11. Place a large sketch circle in the room somewhere to indicate that a wheelchair turning radius is present. It can be anywhere in the room, provided there's a clear 3'-0" path to get to it. The circle can overlap the door swing, but not the door.
12. Place the door(s) as close to corners of the room as possible and sketch rectangles with the required Clear Floor Area on each side.
13. Resize any walls as required so that all clearances are met. *Careful:* Doors in walls that are moved have a tendency to disappear, make sure that you reinsert one if that happens!
14. Repeat steps 9 - 13 for the rest of the rooms. It's better to work with rooms with a lot of furniture or strange conditions first, they usually require the most wall movement.
15. Verify and rotate any furniture so that the fronts are facing towards the room.

schematic design

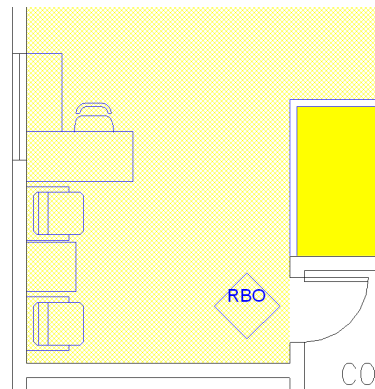
16. Verify that no furniture overlaps any of the clearances or turning circles. *Hint:* It helps to take a small circle and “trace” your way through the spaces between all of the furniture. If anything overlaps the circle, then you probably have a problem.
17. Verify solution with the program. Double check that all of the furniture is there!
18. Double check that the room symbol for the reception room is still there...it really is important.
19. Use the “Check” tool and make sure that no furniture overlaps anything else

Tips

- *The bottom line...* Don't go for the design award, just get it done and workable!
- Bookcases can be up against the side of the desk, so can chairs.
- Furniture can go in front of windows as nothing says how tall stuff is.
- Clear floor area requirements can overlap with others, it's just empty space.
- Door swings can't overlap the clear floor area of another door.
- Minimum clearance in front of a piece of furniture is taken from the farthest protruding point (eg: draw pulls on copy machine or storage cabinet).
- Typically square rooms are better than rectangle, so start with those and modify if you need to gain some space.
- Walls cannot intersect windows. Be careful!
- Doors swing into rooms.
- It doesn't matter which room a door swings into when it's between two rooms (eg: between the conference room and office).
- Two secretary desks are most efficiently placed like this. There's no wasted space, and the overall dimension is as compact as you can get it.

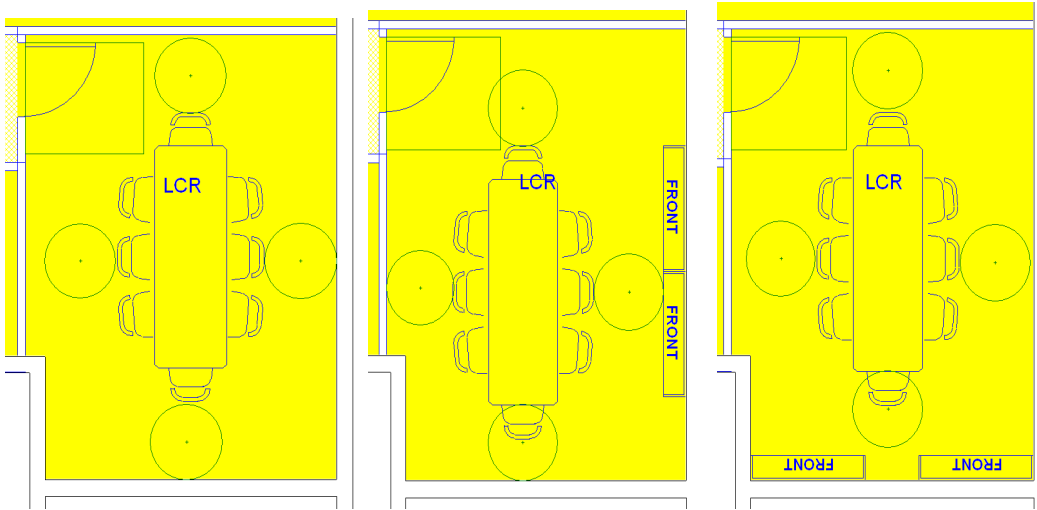


- Placing furniture against the front of the secretary desk like this is okay (although not really encouraged on the forum).

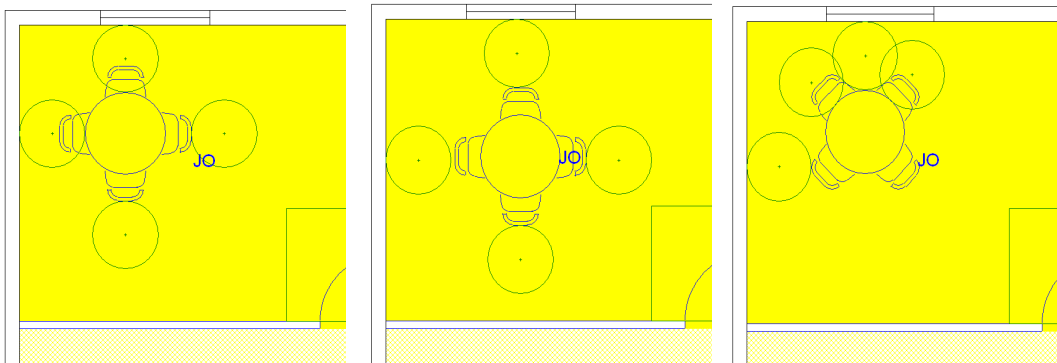


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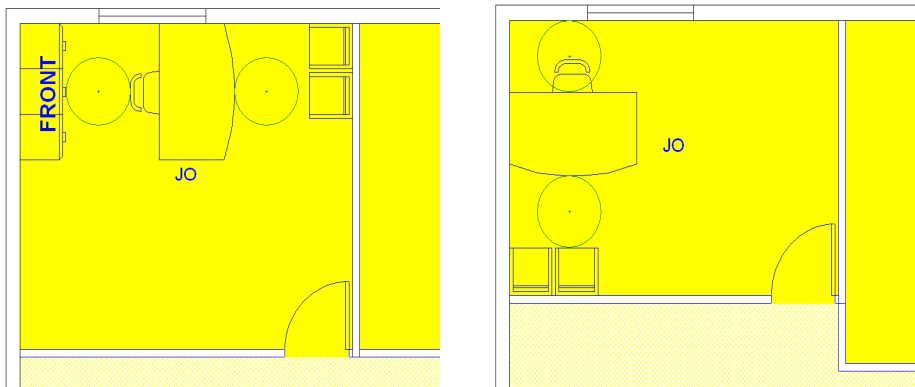
- There are multiple options for clearances around the conference room table and whatever else is in the room (eg: doors, bookcases, stressed out ARE candidates). Here are a few:



- There are a multiple options for clearances around the table for four, here are three:

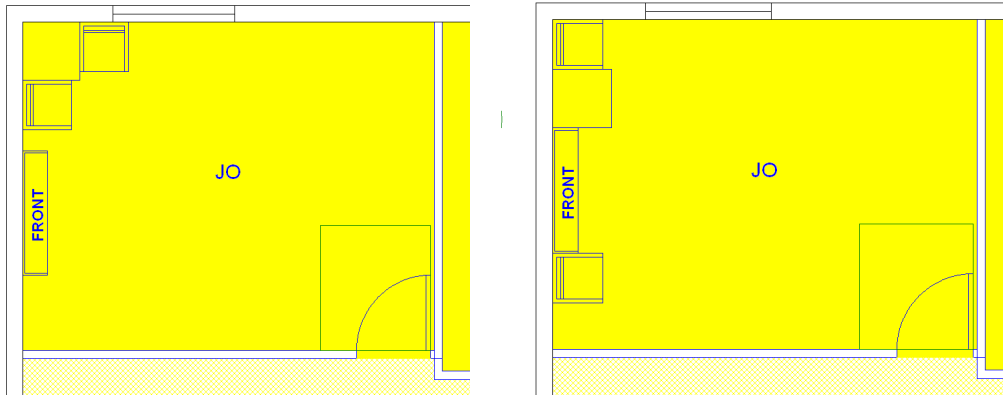


- Watch your clearances between furniture! If there's a piece of furniture behind a desk chair, the clearance must be taken from the face of the furniture to the back of the chair. If there's only a wall behind a chair, the clearance can be taken from the edge of the desk.

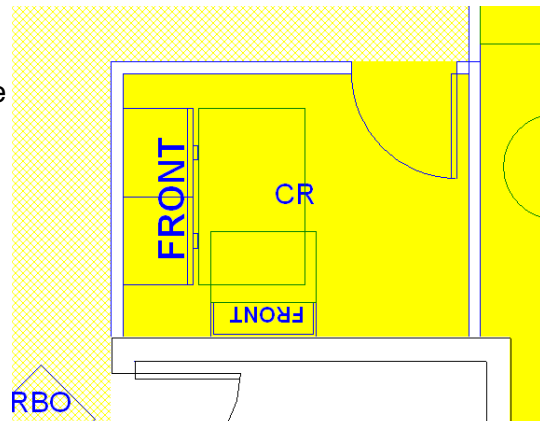


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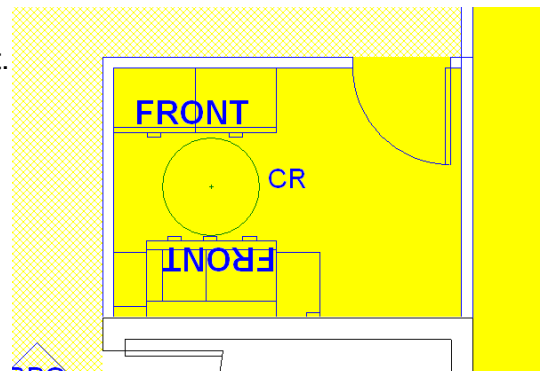
- In order for a coffee table to be usable, at least one side of it must be free of any furniture. If its tucked into a corner, chairs can be on both sides.



- If two pieces of furniture are in a corner, the edge of one cannot encroach on the clear floor area of the other. It's ok for the clear floor areas to overlap though



- Save space! Two pieces of furniture can share the same clearance in front.



VIGNETTE: BUILDING LAYOUT

Steps

1. Open site plan and take a look at the shape of the site and where the view is pointed.
2. While you're there, turn on ortho, the grid, and the full screen crosshairs.
3. Open the Program and then the Code and complete the following chart:

Room	Area (1st Floor)	Area (2nd Floor)	Window? (4' to 6')	Views To/From?	Direct Access To?	Near? (10-20%)	Other
TOTALS	sf	sf					

Major view is to the: _____
 Double height room is: _____
 Main entrance door faces: _____
 Corridor area can't exceed _____% of total building area
 Allowable corridors area is: _____
 Minimum corridor width: _____

4. Double check all of the info. Take your time on this step to avoid any mistakes that might prove fatal later.
5. Open the drawing and make sure you're on the first floor. Per your chart, draw all of the rooms as close to square as possible...
6. ...except the stair towers. Draw those at 10'-0" x 20'-0".
7. Move the rooms to their intended areas of the site. Rooms with views should have a unobstructed side that faces the view, the lobby should be located near the direction the main entrance door faces, and stair towers should be located at opposite ends of the building.

schematic design

8. Move any rooms with required direct access next to each other.
9. Move any rooms that need to be near to each other. They should be on the same half of the same floor.
10. Group small rooms like the elevator, elevator equipment, and small storage rooms that don't require windows together near the middle.
11. Arrange the rooms as you'd like them to be in their final location. Don't worry about overlapping walls, wall openings, doors, or windows just yet.
12. Draw the corridor and make sure that the required clearance is met and that there are no dead ends per the code.
13. Switch the layer to the second floor, leaving the "other floor" checkbox selected.
14. Follow steps 5 - 12 again, this time for all of the rooms on the second floor.
15. Stack the second floor stairs directly on top of the first floor stairs. Each stacked pair's dimensions should be identical.
16. Place the blue Open to Below area directly on top of the double height programmed space on the first floor. The dimensions should be identical.
17. Make sure all rooms on the second floor fit within the overall building perimeter of the first floor. No overhangs or cantilevers.
18. Go back to the first floor and make any adjustments necessary to the first floor dimensions so that the second floor rooms fit in their desired locations.
19. Continue to adjust first and second floor plans until a final design is reached.
20. Verify the location of all the rooms with the chart. Fix anything before continuing.
21. Open the first floor and clean up the walls so that everything overlaps and there are no double walls. Use the Check tool to verify that everything is ok.
22. Open the second floor and clean up the walls and check.
23. Add doors and windows to the second floor as required.
24. Add wall breaks if there are multiple corridors that intersect.
25. Add doors and windows to the first floor as required.
26. Add wall breaks where the corridor meets the lobby and where multiple corridors intersect.
27. Run another check on both floors, and then verify that each room is still within 10% of its required area.
28. Verify the complete solution with the chart.
29. Open the program and code and carefully reread each, verify that everything has been completed.

Tips

- "Sound Design Logic" means not doing anything that's obviously stupid. You (hopefully!) wouldn't make an office 7'-0" x 20'-0" ... or put an elevator equipment room down the hall from the elevator.
- Work back and forth between floors when developing your design. Solving the first floor, tweaking the walls, and adding windows/doors is a waste of time if you find out your second floor doesn't work based on the first floor design.
- Visual control only comes from windows. For something to be visually connected you must be able to clearly see the door of the indicated room from the given location, or, if the room is adjacent, through a window in the wall between the two rooms.
- Door swings over the building like are ok, but not over the property line.
- Keep rooms as square as possible. If they must be rectangular, keep as close as possible to a 2:1 length to width ratio.

schematic design

- Avoid L-shaped rooms, especially if they have a small area
- “near” generally means located on the same half of the same floor...This is measured from door to door.
- One window 4'-0" to 6'-0" wide is appropriate in most rooms. Have two or three in large rooms.
- Dimensions of rooms and corridors are measured from centerline of wall to centerline of wall, so when drawing corridors, makes sure there's 6'-0" CLEAR between the walls. Use the sketch tool to verify that required dimension has been met.
- Don't worry about stacking toilet rooms on different floors. Placing them adjacent to one another on the same floor, while not explicitly required, is still a good idea though.
- All doors that exit outside of the building must swing outwards.
- Whenever the program requires an “exit” from the room, that door must swing outward, either outside, or into the corridor.
- Stair towers can be drawn multiple ways, but the general consensus is that 10'-0" x 20'-0" is probably your best option.

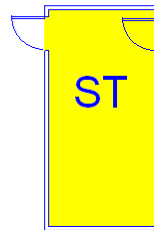
Because we don't know how the stair inside would be designed (nor are we being tested on it) it's best to try and locate the doors in the same place on each floor...just to be safe.



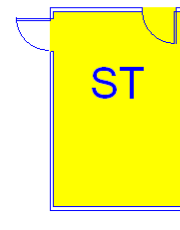
Second Floor



Second Floor

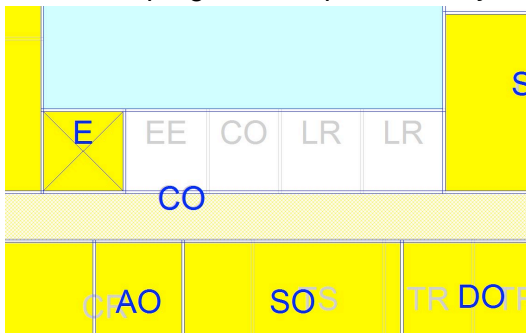


10'-0" x 20'-0"
First Floor

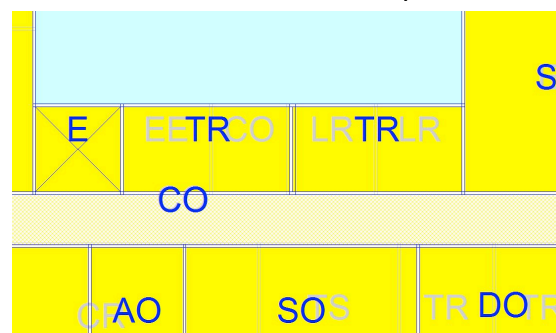


12'-0" x 18'-0"
First Floor

- Roof Islands are empty spaces on the second floor surrounded by program walls. They usually occur at the core of the building. Avoid it at all costs by infilling the area with small programmatic spaces, or if you can't do that, turn it into corridor space.



Don't leave space in the middle empty



Fill it with something small like Toilet Rooms

REFERENCES

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<http://www.areforum.org/forums/showthread.php?193210-BL-chart-for-your-enjoyment>

Interior Layout Vignette (3.1 and 4.0) by forum member lug-nut

<http://www.areforum.org/forums/showthread.php?173579-Interior-Layout-FAQ>

Schematic Design (3.1) & Building Layout (4.0) FAQ by forum member lug-nut

[http://www.areforum.org/forums/showthread.php?174093-Schematic-Design-\(3-1\)-amp-Building-Layout-\(4-0\)-FAQ](http://www.areforum.org/forums/showthread.php?174093-Schematic-Design-(3-1)-amp-Building-Layout-(4-0)-FAQ)

Vignette Notes & Graphic Guides by forum member alkikat

<http://www.areforum.org/forums/showthread.php?286879-Vignette-Notes-amp-Graphic-Guides>

other websites

Interior Layout Notes by Dustin G Offron

<http://www.dustingoffron.com/ARE/ILNotes.pdf>