



Handout 04.12: Scale Plan Guide, Traffic Flow Rules, and Peer Review Checklist

Name: _____ Date: _____ Client: _____ Partner (if any):

Four pages: (1) the plan guide, (2) the furniture cut-out sheet, (3) the traffic flow rules, (4) the peer review checklist. Keep pages 1 to 3 in your project folder. Page 4 goes to the team you review.

Page 1: The plan guide

The project scale: 1/2 inch = 1 foot. On quarter-inch graph paper, that is two squares per foot. A 12-foot wall is 24 squares. (Tiny house teams on letter paper: use 1/4 inch = 1 foot, one square per foot, so 24 feet is 24 squares. On 11 by 17 paper, use 1/2 inch.)

Write the scale in the bottom corner of your plan. Write the client's name at the top.

Steps

1. **The outline.** Read the room's measurements on the card. Count the squares. Draw the four walls with a ruler. Check: does 12 feet equal 24 squares?
2. **The door.** Find the wall and the spot the card gives. Leave a gap the width of the door (3 feet is 6 squares). Draw the door as a line standing out from the wall with a quarter-circle arc showing the swing. Bedroom doors and front doors swing into the room. The tiny house door swings out.
3. **The window(s).** Find the wall and the spot. Draw the window as a break in the wall with two thin parallel lines (the symbol from Lesson 4.10).
4. **The closet.** Draw it as a small rectangle the size the card gives, open to the room, with a line for the closet door or a dashed line for a curtain.
5. **Zones.** Lightly pencil a circle for each zone the client needs: sleep, work, store, sit, move. The tiny house has more: cook, wash, eat, sleep, sit, store, move. Put the zone that needs the window's light near the window. Put the zone that needs quiet away from the door.
6. **Furniture.** Cut the pieces you need from page 2, needs first. Slide them around. Do not glue until Day 2.
7. **Freeze.** Trace lightly around each piece, or tape it down with removable tape.

Day 2 steps

8. **Shade every path** a person walks: from the door to each zone, and between zones. Measure the narrowest spot of each path in squares. Write the width in inches beside it (at 1/2 inch = 1 foot, one square is 6 inches; at 1/4 inch = 1 foot, one square is 12 inches).
9. **Check every rule** on page 3. Circle any path that fails.
10. **Check the principles.** Name your focal point on the plan. Ask: is the room balanced, or is everything on one wall? Is each piece in proportion to the room?
11. **Peer review** (page 4), then **revise**. Glue or tape the final pieces. On the back of the plan, write: two changes you made and why; one suggestion you rejected and why.

Blank grid (if graph paper runs out)

[Sal: print a quarter-inch grid here from any free grid generator, 32 squares by 44 squares fills a letter sheet at 1/2 inch = 1 foot for a room up to 16 by 22 feet.]

Word bank: scale (ölçek / escala / escala), path (yol / caminho / camino), clear (açık / livre / libre), swing (kapı açılışı / abertura da porta / apertura de la puerta), turn (dönüş / giro / giro). *[check with a native speaker]*



Page 2: Furniture cut-out sheet

Sizes are real furniture sizes, rounded to the nearest half foot so they cut cleanly. At the project scale (1/2 inch = 1 foot), draw each piece as a rectangle the number of squares shown, label it, and cut it out. Tiny house teams at 1/4 inch = 1 foot: use half the squares.

#	Piece	Real size (feet)	Squares at 1/2 inch = 1 foot (wide by long)
1	Twin bed	3 by 6.5	6 by 13
2	Full bed	4.5 by 6.5	9 by 13
3	Queen bed	5 by 7	10 by 14
4	Bunk bed (twin over twin, floor space)	3.5 by 6.5	7 by 13
5	Crib	2.5 by 4.5	5 by 9
6	Loft mattress (tiny house, full)	4.5 by 6.5	9 by 13
7	Nightstand	1.5 by 1.5	3 by 3
8	Desk, 4 foot	2 by 4	4 by 8
9	Desk, small or wall fold-down	1.5 by 3	3 by 6
10	Desk chair	1.5 by 1.5	3 by 3
11	Armchair with arms	2.5 by 2.5	5 by 5
12	Rocking chair or glider	2.5 by 3	5 by 6
13	Loveseat (seats two)	3 by 5	6 by 10
14	Bench	1.5 by 4	3 by 8
15	Dresser, 5 drawer	1.5 by 5	3 by 10
16	Dresser, small (3 drawer)	1.5 by 3	3 by 6
17	Bookcase, 3 shelf	1 by 3	2 by 6
18	Cube storage, 9 cubes	1 by 3	2 by 6
19	Wardrobe	2 by 4	4 by 8
20	Shoe bin row (4 bins)	1 by 4	2 by 8
21	Changing table	1.5 by 3	3 by 6
22	Small table, two seats (folds)	2.5 by 2.5	5 by 5

23	Kitchen counter with two-burner cooktop and sink	2 by 4	4 by 8
24	Mini fridge	2 by 2	4 by 4
25	Shower stall	3 by 3	6 by 6
26	Composting toilet	1.5 by 2.5	3 by 5
27	Ladder or stairs to loft (floor space)	2 by 3	4 by 6
28	Floor lamp	1 by 1	2 by 2
29	Area rug, 5 by 7	5 by 7	10 by 14
30	Rubber-backed entry mat	2 by 3	4 by 6
31	Walker, parked	2 by 2	4 by 4
32	Wheelchair turning circle (draw as a circle)	5 across	10 across

Anything not on the sheet: measure a real one, or look it up, round to the half foot, and draw it. Write the real size on the piece.

Page 3: Traffic flow rules

A path is as wide as its narrowest point. Measure the pinch, not the entrance.

Rule	The number	On the plan at 1/2 inch = 1 foot	Why
A path a walker or wheelchair uses	at least 36 inches (3 feet)	6 squares	A walker is about 24 inches wide and the person leans; a wheelchair is about 26 inches wide and needs room for hands on the wheels
The front entry path (people carrying things, a dog, kids)	at least 36 inches	6 squares	Two people pass, a door opens, bags are carried
Any other path	at least 30 inches (2.5 feet)	5 squares	One person walks without turning sideways
A wheelchair turning circle	60 inches (5 feet) across	a circle 10 squares across	The chair turns all the way around without backing up; needed in the open floor and beside the bed
The door swing	fully clear	the quarter circle has nothing in it	A door that hits a dresser is a door that never opens all the way
A bed	one long side open to a path	the open side faces the path	You get in and out from that side; a walker or wheelchair user transfers from that side
A window that must open	clear in front of it	nothing taller than the sill in front of it	Air, light, and a way out in a fire
A crib	at least 36 inches from a window, cord, heater, or shelf that could fall	6 squares	Safe sleep (Lesson 3.17) and Lesson 4.2
A desk for a wheelchair user	27 inches clear under it, 30 inches	open underneath on the plan	The chair rolls under

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Sources: 36-inch clear width and 60-inch turning space are from the 2010 ADA Standards for Accessible Design (sections 403.5.1 and 304.3). The 30-inch general path is a common residential planning guideline. *[Sal: the room is not a public building, so the ADA does not require these at home; we use the numbers because they work.]*

Page 4: Peer review checklist

Reviewing team: _____ Team being reviewed: _____ Their client: _____

Rules: write in colored pen on their plan. Mark, do not fix. Their team decides what to change. Check every box yes or no; every no gets a short note.

Check	Yes	No	Note
1. The scale is written on the plan	☐	☐	
2. The client's name is on the plan	☐	☐	
3. The walls match the card's measurements (count the squares)	☐	☐	
4. The door is on the right wall and its swing is drawn and clear	☐	☐	
5. The window(s) are on the right wall and nothing tall is in front of one that must open	☐	☐	
6. The closet is where the card says, and you can reach it	☐	☐	
7. Every piece of furniture is to scale (check two against page 2)	☐	☐	
8. Every path is shaded and measured in inches	☐	☐	
9. Every path passes its rule (36 for walker, wheelchair, entry; 30 elsewhere)	☐	☐	
10. The turning circle is drawn if the	☐	☐	

client uses a wheelchair			
11. The bed (or crib) has one open side facing a path	[]	[]	
12. Every need on the client card has a zone or a piece on the plan	[]	[]	
13. The focal point is named	[]	[]	
14. The room looks balanced (not everything on one wall)	[]	[]	
15. Each piece is in proportion to the room (no full bed in a room it swallows)	[]	[]	

Two things that work for this client (name the feature and the client):





One thing to change, and why it would help the client:



Reviewer signatures: _____

Teacher key

- Page 1: a “got it” plan on Day 1 has the scale written, the client named, walls matching the card square for square, the door swing drawn into the room, and the window as a break with parallel lines.
- Page 3 conversions to keep on the board: at $1/2$ inch = 1 foot, 1 square = 6 inches; 36 inches = 6 squares; 30 inches = 5 squares; 60 inches = 10 squares. At $1/4$ inch = 1 foot, 1 square = 12 inches; 36 inches = 3 squares; 30 inches = 2.5 squares; 60 inches = 5 squares.
- Page 4: a review with fifteen boxes checked and no notes on the no’s is incomplete; send it back. A “one thing to change” that says “add more stuff” does not name a client need; ask the reviewer to point to the card.
- Common fails to expect: item 4 (door swings into a dresser), item 9 (a 24-inch pinch at the foot of the bed), item 11 (bed pushed into a corner with both long sides against walls; a walker user cannot use it).