

**Competency:** 203.00\_Draw floor plan.

**Objective:** 203.07\_Evaluate the steps in drawing, dimensioning, and annotating a single-level floor plan.

<b>THE FLOOR PLAN</b>	
<b>Purpose of the floor plan:</b>	
<i>To show precise locations and dimensions of walls, windows, doors, appliances, fixtures, cabinets, and other fixed features.</i>	
✓	Usually <b>started first</b> and may be <b>finished last</b> .
✓	All other drawings <b>refer to or project from the floor plan</b> .
✓	The <b>floor plan is a sectional drawing</b> with the cutting plan at <b>approximately 4' above the floor</b> .

<b>Checklist for drawing a Floor Plan</b>	
<b>Completed</b>	<b>Steps for drawing a floor plan</b>
	<b>Determine the scale</b> that will allow you to fit the drawing onto the assigned sheet size. <i>a. <math>\frac{1}{4}'' = 1'-0''</math> is most often used for residential floor plans.</i> <i>b. Scale varies with paper size, details, and scope of project.</i>
	Using the appropriate scale, <b>block in the overall size of the structure</b> . <i>a. Allow space for adding dimensions and annotations.</i> <i>b. Allow space for exterior features.</i>
	Layout <b>exterior and interior walls</b> .
	Locate and draw/insert <b>door and window</b> symbols.
	Layout and draw <b>kitchen cabinets/fixtures and bathroom fixtures</b> .
	Add <b>dimensions, annotations, and room names</b> .
	Add miscellaneous symbols.
	Locate and draw <b>walks, patio, porch, and/or deck</b> .
	Add <b>material symbols</b> and annotations.
	Draw/insert <b>title block</b> and indicate scale, date, drafter's name, revisions, etc.
	<b>Check throughout for drawing accuracy and content.</b>

## Dimensioning and Annotations

- ✓ Exact methods vary with different designers.
- ✓ **All features must be located and sized completely and accurately.**
  - a. *Builder becomes the designer if measurements are left off.*
  - b. *Errors are **costly** both in time and money.*

## General Procedures for Dimensioning

- ✓ Dimension lines are generally **UNBROKEN** with **1/8"** tall numbers placed **ABOVE THE LINE.**
- ✓ Dimension lines should be **3/4"** or more **OFF OF THE OBJECT** and at least **1/4"** **APART.**
- ✓ **Foot and inch marks** are used with a dash between the foot and inch numerals.
- ✓ **Measurements** over 1' are written in feet and inches, less than 1' are expressed in inches **ONLY**, if no inches are present, the foot must be followed by **ZERO** inches (example: 5'- 0")
- ✓ **Use the ALIGNED SYSTEM (read from the bottom and right).**
- ✓ Dimension lines, extension lines, center lines, and leaders are **THIN.**
- ✓ Curved leaders are sometimes used to avoid confusion with straight lines of the building.
- ✓ **AVOID CROWDING DIMENSIONS.**

## Placement of Dimensions

- ✓ **Interior frame walls** are dimensioned to either the side, center, or both sides of the stud.
- ✓ **Exterior frame walls** are commonly dimensioned to the face of the stud or sheathing excluding the exterior finish.
- ✓ **Masonry structures** are typically dimensioned to face of the masonry material for exterior and interior walls.
- ✓ **Masonry veneer walls** are typically dimensioned to the outside of the stud or sheathing; an additional dimension is used to size the cavity and masonry material thickness.
- ✓ **WINDOWS and DOORS** are located by centerlines in frame and veneer construction.
- ✓ **Windows and doors** are located by the edges of their openings in masonry walls.

<b>Using Modular Dimensions</b>	
✓	Structures produced using modular components <b>waste fewer materials</b> and therefore <b>cost less</b> .
✓	<b>Typical Modular Considerations:</b> <ol style="list-style-type: none"> <li>1) Exterior walls should be modular lengths of 4' or at least 2'.</li> <li>2) Plan rooms with an eye on standard sizes; building materials are sold in increments of 2'.</li> <li>3) <b>Concrete blocks</b> use an 8" module and <b>brick</b> works on a 4" module.</li> <li>4) Plan structure with material sizes in mind.               <ol style="list-style-type: none"> <li>a. Lumber lengths</li> <li>b. Plywood/OSB is 4' x 8' sheets.</li> </ol> </li> </ol>
<b>Dimensions should be checked for accuracy.</b>	
✓	Total offset strings and compare to stated overall dimensions.
✓	Check stated dimensions against scaled distances.

<b>Annotations (notes)</b>	
1)	<b>Room names</b> should be given with 3/16" lettering and centered as much as possible.
2)	A label should <b>identify all fixtures</b> such as washer, dryer, dishwasher, sink, range, etc. using proportionately sized text.
3)	<b>Title and scale</b> are placed near the bottom of each individual drawing and detail.
4)	<b>Title block</b> includes sheet number, name of drawing, scale, date, drafter's name, client and other important information.
5)	<b>Door and window sizes</b> may be given on the floor plan or symbols may be applied for reference to a schedule.
6)	<b>Label unusual or special features.</b>