

dimensioning | architectural drawings

UNDERSTANDING HYERARCHY

Dimension lines go from the outermost to innermost dimension:

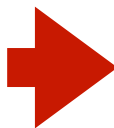
- Overall building dimensions (single dimension), CLOSED.
- Structural Grid, CLOSED.
- Secondary Dimension Strings - leave open for adjustments:
 - From column grid to major construction elements, (edge of slab or face of building cladding).
 - Building offsets.
 - Building envelope and core.
 - Interior construction.

RECOMMENDATIONS

- A building is constructed in sequence, so dimension following the construction sequence. Start dimensioning from the building structure components and follow with the components that will be constructed later. To indicate the location of construction being done after the structure is erected, start with a dimension to a column line or edge of slab, and then follow.
- In new buildings, the dimensions to column lines, slab perimeter or building structure, are the primary dimension reference. The first dimension line is the overall building dimension; the second dimension line is to structural elements. These two lines are closed.
- Dimension lines of non-structural elements, or where dimensions are non-critical are open at one dimension entry, so the Contractor has room to adjust tolerances.
- When you have several components with equal dimensions lined together, in the first dimension line indicate the overall dimension, and then in second dimension line under the first one, write down the number of equal elements.
- For example, indicate 20' in the first dimension line, and spell out "five equal spaces" in the second. Check that you the sum of your "equals" is the same as the overall dimension. Avoid noting dimensions so small that they cannot be achieved in reality, for example 2'-15/32". Typically, do not indicate dimensions smaller than 1/8" except in details, and then use them only when you know they are achievable in the real world.

- Always reference your dimensions to the surrounding construction to fix the elements within the space.
- Dimension nonlinear elements completely, indicate shape and location. For example, when dimensioning an arc, dimension the radius of the circle but also the location of the center of the circle, and the location of the two ends of the arc. Add a note identifying the shape as an arc.
- Dimension width of corridors and exits and other critical dimensions face to interior face, and note it as CLR (clear).
- Use recognizable terms when it is clearer than using numbers, for example "align".
- Dimension the critical parts of the project (for example, in bathrooms, dimension the location the fixtures from the critical wall - toilet from the side and back walls, etc.)
- Avoid repeating dimensions in the same drawing, and if possible, in related drawings (from the overall floor plan to enlarged floor plans, etc.) unless it is needed for clarity.
- Show overall dimensions in new buildings: overall is from beginning to end, wall exterior side to wall exterior side. Do not dimension doors - these dimensions should be in the door schedule. If the door is adjacent to a room corner, do not dimension anything. If the door is not, dimension to one side of the opening only to position the door.
- Do not dimension thickness of partitions or walls; those dimensions should be in the inferred from the schedules or details.

The Architect's Handbook of Professional Practice; adapted from RTKL "GUIDE: Doc for Dimensioning"



Remember that to fix a point, you need at least two dimensions.



REMODELING and Alterations:
Do not dimension existing construction unless it necessary for some reason (for example, to indicate the width of existing exit corridors for permitting).