ORTHOGONAL PROJECTION DRAWINGS

Orthographic Projection Drawings are 2-D, multi-view drawings that show every feature of an object. This type of drawing is sometimes called a “blue print” once measurements are added.

Procedures for Determining the Multiple-Views

• **Front View**, imagine yourself standing directly in front of the start point, take one step to the left, turn and face the object and everything *in your line of sight* must be drawn as the front view.

• **Right Side View**, imagine yourself standing directly in front of the start point, take one step to the right, turn and face the object and everything *in your line of sight* must be drawn as the right side view.
ORTHOGONICAL PROJECTION DRAWINGS

Procedures for Determining the Multiple-Views (Cont.)
• **Top View**, imagine you are looking directly down at the top of the object, everything *in your line of sight* must be drawn as the top view

Transferring Points (Projection)
• Each view will show a minimum of two dimensions. Any two views of an object will have at least one dimension in common. Time can be saved if a dimension from one view is projected to the other view instead of measuring.

Line Type
**Hidden Line (6H/0.5)**
• Indicates hidden edges and features of an object
• Should **ALWAYS** start and end on an object line
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Centering Orthographic Drawings
1. Examine the object to be drawn, observe its overall width, depth & height
2. Draw the border lines & title block on your piece of drafting paper designating the DRAWING AREA
   a. Measure the DRAWING AREA you just created, which is THE AREA INSIDE THE BORDER LINES AND ABOVE THE TITLE BLOCK. The width of the DRAWING AREA is measured from the left border line to the right border line and the height of the DRAWING AREA is measured from the top of the title block, up to the top border line
3. Centering the views from left to right:
   a. Add the objects' overall width to its overall depth, plus another 1-1/2”
   b. Subtract this total from the width of the drawing area
   c. Divide this answer in-half
   d. Measure from the left border line, a distance equal to the final answer and draw a vertical construction line
   e. With this construction line as the reference point, measure over a distance equal to the objects' overall width, and draw a vertical construction line
   f. Measure over 1-1/2” and draw a vertical construction line
   g. Finally, measure over a distance equal to the objects' overall depth, and draw a vertical construction line
4. Centering the views from bottom to top:
   a. Add the objects' overall height to its overall depth, plus another 1-1/2”
   b. Subtract this answer from the height of the drawing area
   c. Divide this answer in-half
   d. Measure up from the top of the title block, a distance equal to the final answer and draw a horizontal construction line
   e. With this construction line as the reference point, measure up a distance equal to the objects' overall height, and draw a horizontal construction line
   f. Measure up 1-1/2” and draw a horizontal construction line
   g. Finally, measure up a distance equal to the objects' overall depth, and draw a horizontal construction line. These are now you're starting boxes/views
Site Works
