

Drafting Review:

Good drafting skills are essential to any drafting projects and are developed with practice. The three main skills that you need to develop are 1) reading a scale 2) line quality 3) lettering.

Linework and Line Weights

There are three steps you can take to control the line quality:

- 1) the pressure you put on the lead holder
- 2) the sharpness of the lead
- 3) the type of lead

Light/ Thin Lines

Always start your drawings using light "layout" lines using a hard lead such as 3H. These lines should be very light so that when blueprints or copies are made, they will not show up on the plan. Guidelines for lettering should also be very light. Light lines can be achieved by using a finer point mechanical pencil, such as a .3mm .

Lines that are slightly darker, but still light are extension lines, leaders, door swings and break lines. These will be the thinnest visible lines on your copies.

Medium Lines

Used for hidden objects and are usually indicated with dashed lines. Centerlines are usually medium weight as well as object lines (furniture and equipment). Use a 2H and a .5mm lead.

Thick Lines (Darkest)

Typically twice as thick as a light line, these lines are for major elements such as walls and structural members. Items such as fireplaces and stairways also use thick lines. Use a H hardness with a .5mm thickness.

Drafting Tips:

- 1) Use variety of leads from 3H – H and from .3 - .5 or .7mm. If you only use one lead hardness and thickness, you will have a poorly drafted plan.
- 2) Start with very light layout lines (2H or 3H) and darken in the plan just before you make copies or blue lines. This will prevent smears all over your drawing.
- 3) Work from top to bottom so that you are not smearing your tools and hand all over your drawing. You may want to cover up your drawing with trash paper to protect it from smears.
- 4) Invest in a good mechanical pencil that has a long tip for working with the parallel bars. If the tip is too short, your lines will be wavy. Make sure to keep your pencil tip close to the parallel bar.
- 5) If you have fuzzy lines, you have bad line quality. Your lead may be too soft or you may be working on a hard surface. Use a vinyl drafting pad on your surface. Fuzzy lines are also an indicator that you are not rotating your pencil and the lead is not pointed.
- 6) Keep your pencil at an angle (30 – 60 degrees) from the drawing surface.
- 7) Pull the lead across the paper. Don't push the lead into the paper.

Lettering

- 1) Always use lettering guidelines and keep them VERY light (3H) and thin.
- 2) Change out your pencil to H or HB for lettering.
- 3) Use a scale or Ames lettering guide to create the guidelines. You can use a 2-part or a 3-part line. The top and bottom lines are the boundaries while the middle line provides a guide for letter parts.
- 4) Spacing between lines should be $1/16''$.
- 5) Always use uppercase letters.
- 6) Do not erase your guidelines. They should be drawn so light that they are not distracting to the drawing.
- 7) Use vertical strokes (not slanted) that have a distinct start and stop emphasized.
- 8) Vertical strokes are thin and horizontal or rounded strokes are thicker.
- 9) Purchase a small triangle to use for all vertical strokes.
- 10) Lettering should consistently be the same height. All notations should be $1/8''$ high. All titles should be $3/16''$ high
- 11) Round letters should be done in two strokes. Concentrate on the curved line.

Dimensions:

- 1) Keep extension lines in the light to medium value.
- 2) Offset the leader/extension lines from the object lines at least $1/16''$ to $1/8''$. Never touch these lines to the edge of the walls.
- 3) Use a hierarchical method. The outside is the overall dimension, the middle may be centerlines and the closest in would be the details.
- 4) Keep the spacing between multiple extension lines at an equal distance.
- 5) Always write in feet and inches (except for NKBA) $5'-6''$. Never $66''$.
- 6) If under $12''$ you can write in all inches.
- 7) Horizontal dimensions sit above the lines and read across the sheet from left to right.
- 8) Vertical dimension lines should read from the left hand edge and should not require rotating the plan in all different directions.
- 9) Exterior walls are dimensioned outside the floor plan.
- 10) If the dimension is too large to write into a space, write it to the outside and use a leader line to point the dimension to the space.

Misc.

- 1) Interior walls are typically drawn at $5''$ thick.
- 2) Exterior walls are typically drawn at $6-8''$ thick.