

## How to Sketch a Rough Floor Plan for an Existing House

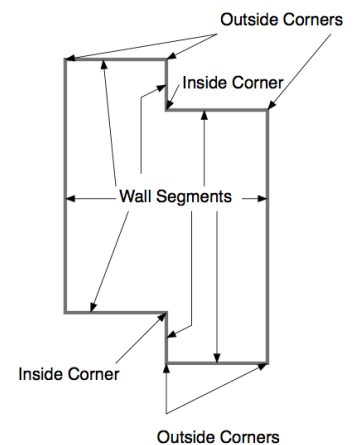
One person can do this, but it goes much faster with two. Ideally, three: two to hold the 100' tape measure and one to write things down.

Tools:

- Pencil (you will probably need to erase a lot)
- paper (graph or grid paper works well, but is not required)
- clipboard (any firm backing for paper)
- a 25' tape measure will work, but some walls are longer than that and you have to take two measurements. A 100' tape measure works better. Laser measurement tools are good for inside measurements. They need a surface to bounce off of.

Steps:

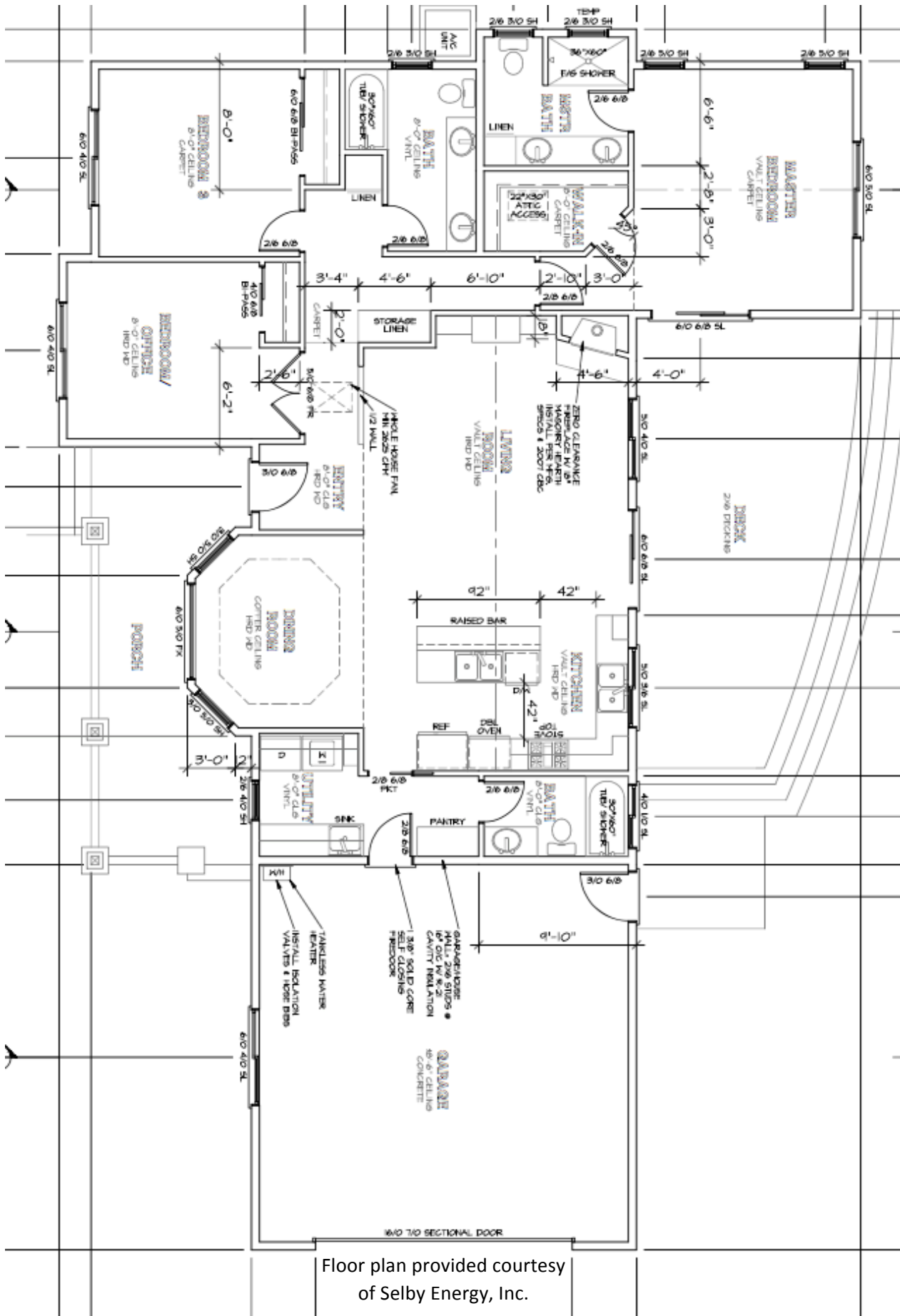
1. Footprint
  - a. Use Google maps satellite view to get a rough idea of the basic shape and proportions of the house. Realize that the edge of the roof will usually be bigger than the house (overhangs) and that a patio of some sort will usually obscure the front door. As will other parts of the house.
  - b. Walk around the house and fine-tune the basic shape of the outermost walls. You want to make sure to show all corners, whether they are an inside corner or outside corner.
2. Attached Garage (detached garages can be ignored)
  - a. Draw the wall that separates the house from the garage.
  - b. Draw the door between the house and garage, if there is one.
  - c. Clearly label garage
3. Dimensions
  - a. Starting at one corner (typically the front left corner) measure the distance of each wall segment between corners. Label distance on plans. Round to the nearest half foot.
  - b. Continue around the house until you get back to the corner you started on.
  - c. Measure and label the wall between the house and the garage.
4. Windows/doors/skylights
  - a. Draw each window in the approximate location where it is on each wall segment. Draw windows as long narrow rectangles slightly thicker than the wall, but with the width along the wall roughly proportional to the wall segment. Label the width and height on the plans using architectural nomenclature. A 4' 6" wide by 5' 0" tall window is written simply as 4650 (width feet)(width inches)(height feet)(height inches). The dimension of a window is based on the "rough opening". In other words, the size of the opening that was framed to mount the window. It will usually be 4" to 6" bigger than the actual glass area. Most standard windows sizes round to the nearest 6". E.g. 3650, 4050, 4636, 3640, 2020, 2026, 1040, etc.
  - b. If there are transom windows (a window directly above a window) make a clear note of it. These are hard to show on a 2D plan. Ketch an elevation (side view) of the wall if necessary.



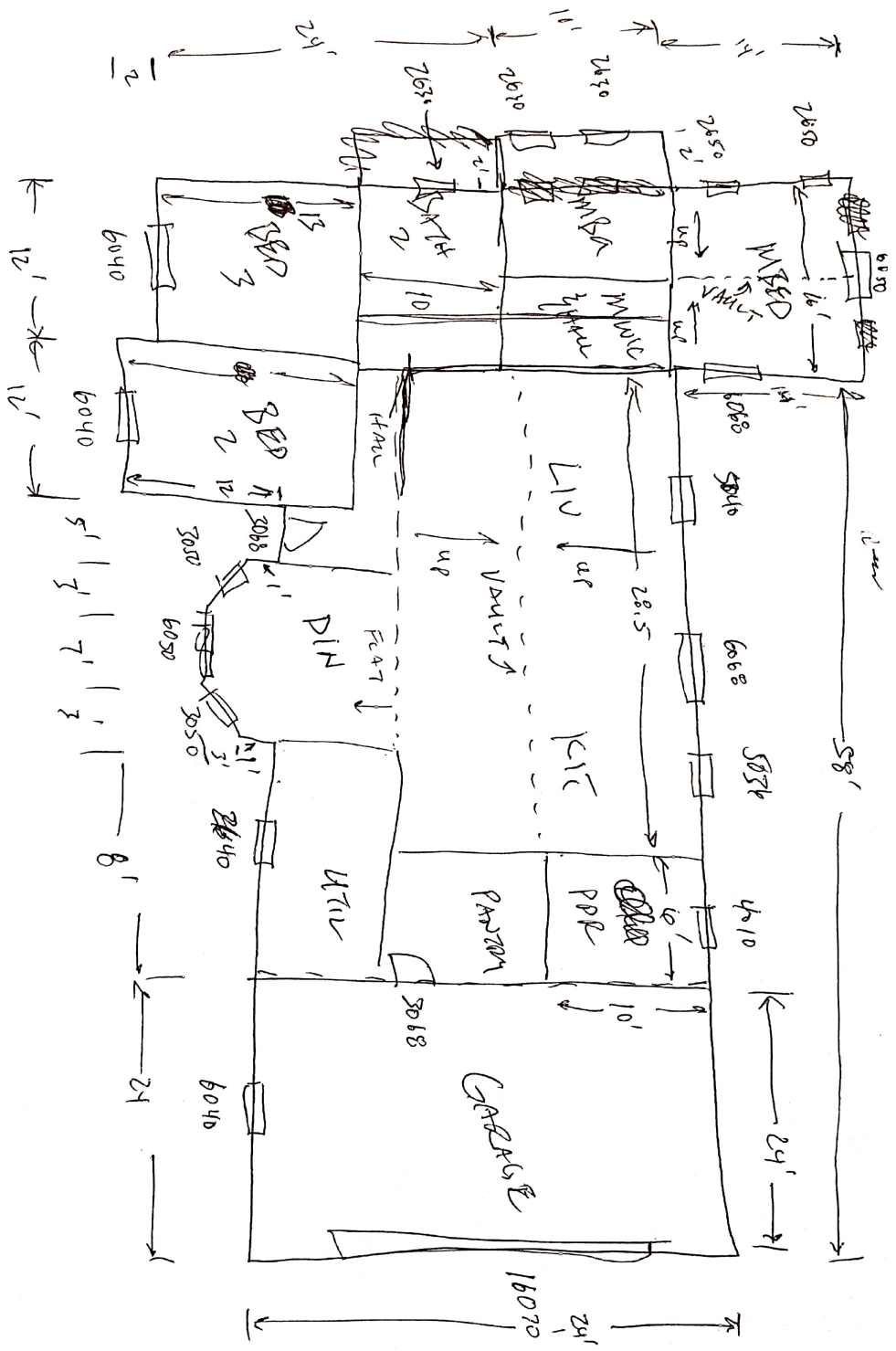
- c. If there are odd shaped windows (half round, octagonal, triangle, etc.) sketch the window off to the side and label the dimensions clearly.
  - d. Repeat for doors.
  - e. Repeat for skylights (except you can draw the length and width).
5. Rooms
  - a. Sketch the approximate location of interior walls.
  - b. Ignore cabinets and small closets. It does not have to be precise.
  - c. Make sure the walls are drawn correctly relative to windows (so that windows are in the correct room).
6. Ceilings
  - a. Indicate ceiling heights for all flat ceilings.
  - b. Indicate low side height, peak height, direction of slope and any ridges of vaulted ceilings.
7. Furnace/air handler
  - a. Indicate approximate location of furnace/air handler
  - b. Indicate if upflow, downflow or horizontal
8. Registers and grilles
  - a. Show approximate location of supply registers and if they are in the ceiling, wall or floor.
  - b. Indicate if located in ceiling, floor or sidewall
  - c. Repeat for return grilles, but also indicate dimensions.
  - d. Indicate if filter grill. If not, indicate location of filter.
9. Overhangs
  - a. Show any overhangs on S, E or W side of house where the height above the window is less than they length of the overhang.
  - b. Label height above window and depth of overhang.
10. Performance features
  - a. Approximate age of house and any upgrades
  - b. Window type (# panes, frame material)
  - c. Floor type, R value
  - d. Wall R value
  - e. Ceiling R value
  - f. Heat type (gas, heat pump, electric, etc.)
  - g. Cool type (split, package, window unit, etc.)
  - h. Duct location (attic, crawlspace, etc.)
  - i. Duct R-value (newer flex ducts will be labeled)
11. Take lots of digital photos. You can't take too many photos. Too many times I've wished I'd taken just one more photo. You should be able to piece together a complete collage that covers every square foot of the exterior of the house. If you end up not needing them, just delete them.
  - a. Every wall segment
  - b. Every window
  - c. Every room
  - d. Everything mentioned on these instructions (furnace, ac, ducts, etc.)

© 2020 Coded Energy, Inc.  
www.kwikmodel.com

The next page is an actual floor plan of a house. The page after that is a rough sketch of the same house. Compare the two. You can see that it doesn't need to be perfect, but the basic information needs to be conveyed. It helps if the sketch is more square and more proportional than this example, but it is not mandatory. Note how the vaulted ceilings are shown on the sketch.



Floor plan provided courtesy of Selby Energy, Inc.



ALL 8' CEILINGS EXCEPT MASTER BED AND LIVING/KITCHEN WHICH VAULT UP TO AN 11' MIDDLE RIDGE