04-01-Homework (LATROBE DRAWING TO SCALE)

Get this second Latrobe drawing to a usable scale

OPEN FILE

> First, check the pixel dimensions. The horizontal pixel dimension = 7857 px
> Copy the background (BG) layer to create a second layer and delete BG to white
> We need to find a long string of dimensions on the original drawing to test. The longer the better - right? A longer dimension is a "bigger sample." It will be much less accurate to pick a dimension like 2′-9″ and try to scale entire drawing based on such a short dimension.
> I looked carefully around the drawing and found four strings of 8′-9 1/4″ all in a row. These four dimensions add up to 35′-1″ or 35.08′. This is a relatively long dimension to scale so it'll work fine.
> Make sure your **rulers** are visible along the side and set to inches in **Preferences**.
> Drag two vertical **guides** over to the left-hand end and the right-hand end of our 35.08′ dimension.
> Drag a horizontal **guide** down somewhere near the dimension we'll be checking.
> Now using your **ruler tool**, snap from the left intersection of guides to the one on the right.
> Read the dimension above. Mine reads 5.577″ That means that 5.577″ equals 35.08′. Using simple division we can calculate that 1″= 6.29′. THIS IS NOT A USABLE DIMENSION FOR ARCHITECTS. Generally, architects use common and knowable scales such as 1/16″ or 1/8″ or 1/4″ and 3/4″ and 1 1/2″. Correct?
> Our task is very simple. We just have to get 1″= 6.29′ to 1″=8′-0″.
> Our target dimension is 35.08′. Divide this by 8′. Answer 4.385″. That means that intuitively, we have to get our 5.577″ measurement to 4.385″. We need to make it *smaller*.
> The answer is to multiply 5.577″ by a proportion of .786
> There are two choices of how to scale: (1) we can **transform** the single layer, or (2) we can **change pixel dimension** of entire file
> I prefer to just change the overall pixel dimension of the file because the guides remain relatively in same place. There will be instances when you will have to use the **transform layer** method.
> Open the **image size** (Command-Shift-I on Mac). Multiply the horizontal dimension of 7857 pixels by (.786). Answer = 6175 pixels.
> Change horizontal pixel dimension to 6175 pixels.
> Now snap your ruler tool again between the guides you set up (on the drawing the dimension equals 35.08′). Your ruler should indicate this is now 4.385″. Divide 35.08′ by 4.385″. 1″=8′-0″. This is now a usable architectural dimension.
> **SAVE** (Command-S on the Mac)