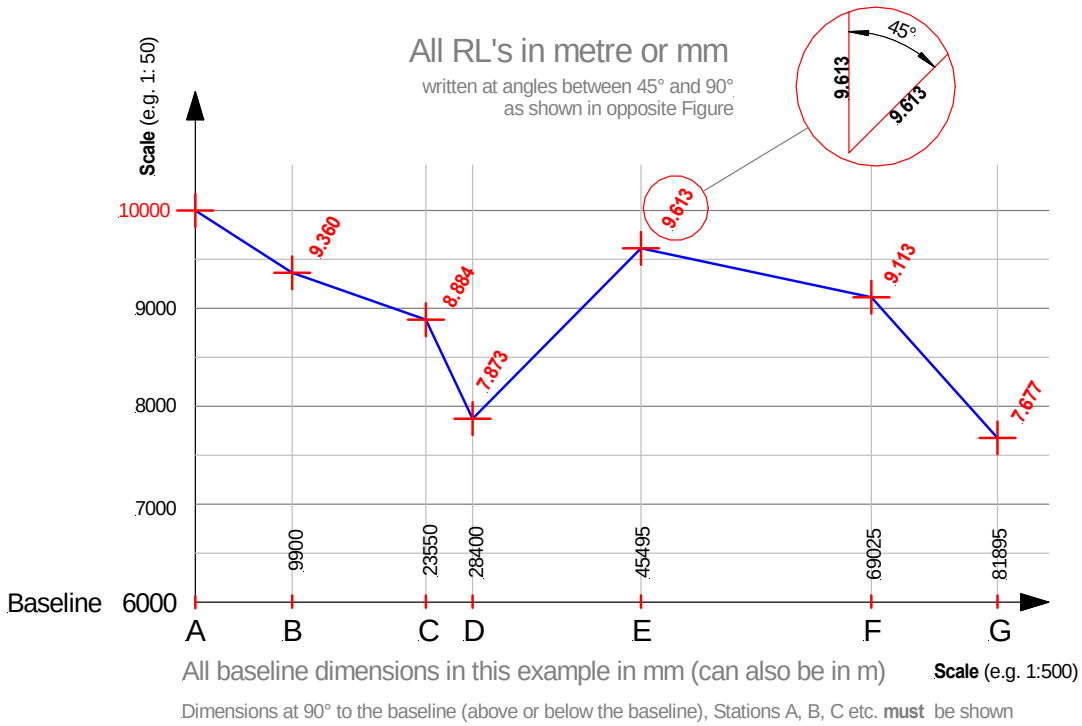
Site Surveying & Set Out

Required information for boundary & project profile sketches



Scaling

Longitudinal level runs need to be drawn to scale as shown above. To draw longitudinal sections the elevation (RL's) along the ground profile is required. When you draw up a longitudinal section the ratio between the horizontal scale and the vertical scale are different. Longitudinal scales usually 1:1000, 1:200, 1:100 and vertical scale varies depending on the difference between the RL's. Remember the vertical scale will not start at zero like the horizontal scale of the level run. An appropriate baseline is usually given. Most students need a ruler that shows different scales and have difficulties when they have only millimetres shown on their ruler.

Here are some examples using a millimetre ruler for different scales:

A scale 1:1000 indicates that 1 metre in the actual world is only 1 mm on your drawing (1 meter=1000mm divided by 1000).

A scale 1:50 indicates that 1 metre in the actual world is 20 mm on your drawing (1 meter=1000mm divided by 50).

A scale 1:200 indicates that 1 metre in the actual world is only 5 mm on your drawing (1 meter=1000mm divided by 200).

So it's easy to draw profiles to scale using a millimetre ruler.

Sketching skills

It will be beneficial if students have good sketching skills. The ability to create scaled sketches with a pencil on a piece of paper is extremely important. Smudging of pencil drawings can be avoided if you cover the finish portion of the drawing with a piece of paper.

Lettering (minimum height 3 mm)

The most important aspect of pencil lettering is making a uniform dense black line by applying adequate pressure on the pencil. This depends on selecting a pencil that has the proper hardness.

The selection of the grade (B, HB or H) depends on the surface of your drawing paper. The minimum size (height) of letters & numbers is 3 mm whether you use a pencil or pen.