

## Plotting & Scaling Guidance Notes

Plotting and Scaling: - the process of accurately transferring detail; fences, paths and houses, from one plan to another, even when the plans are at different Scales.

In the role of a Plans Settler this is usually a transfer of information from a Deed Plan onto the Ordnance Map. A high degree of accuracy is essential as the detail transferred relates to the extent of a property and its rights which is guaranteed by the Keepers Indemnity.

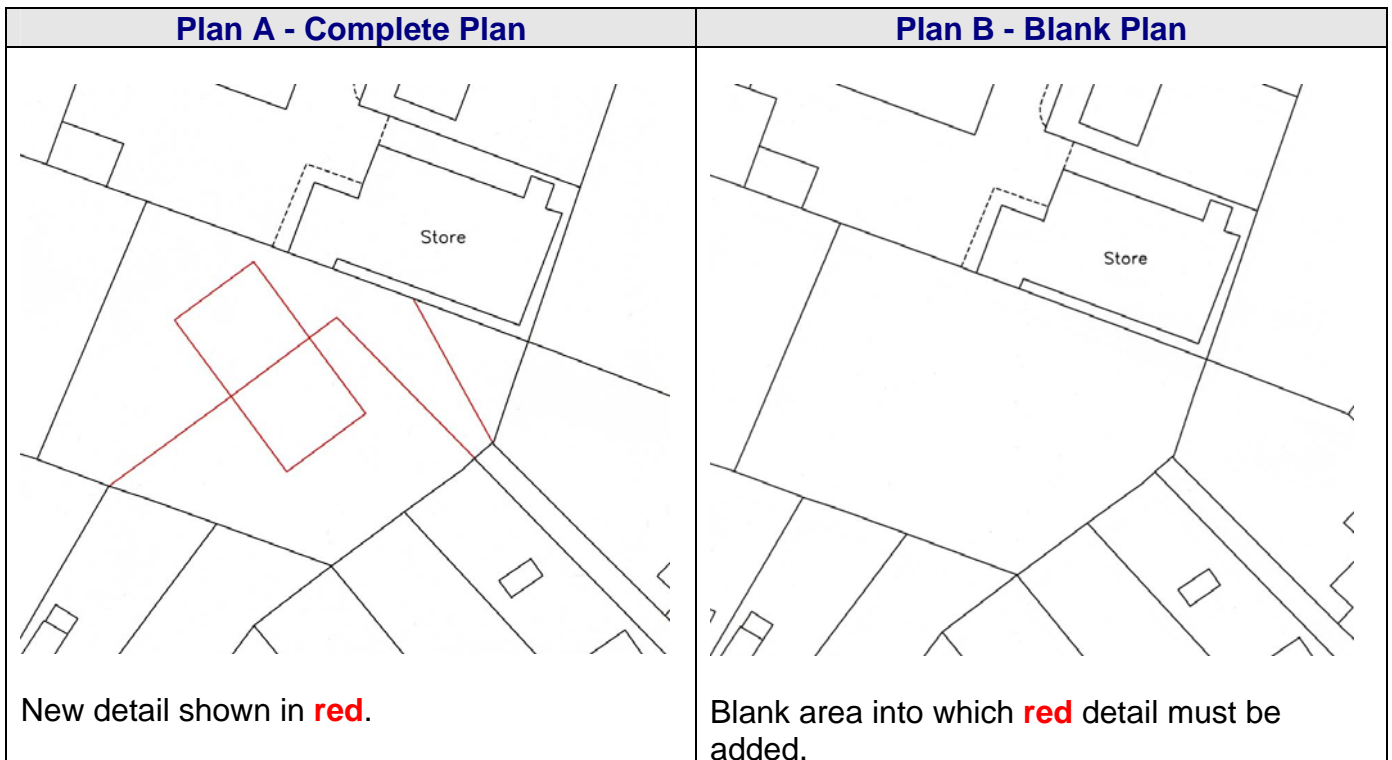
The basic principle of plotting and scaling is to plot "from the whole to the part" within a framework of control which is common to both plans. What follows is a graphic explanation of this process.

### Basic Plotting and Scaling

Though-out this example there a two plans:-

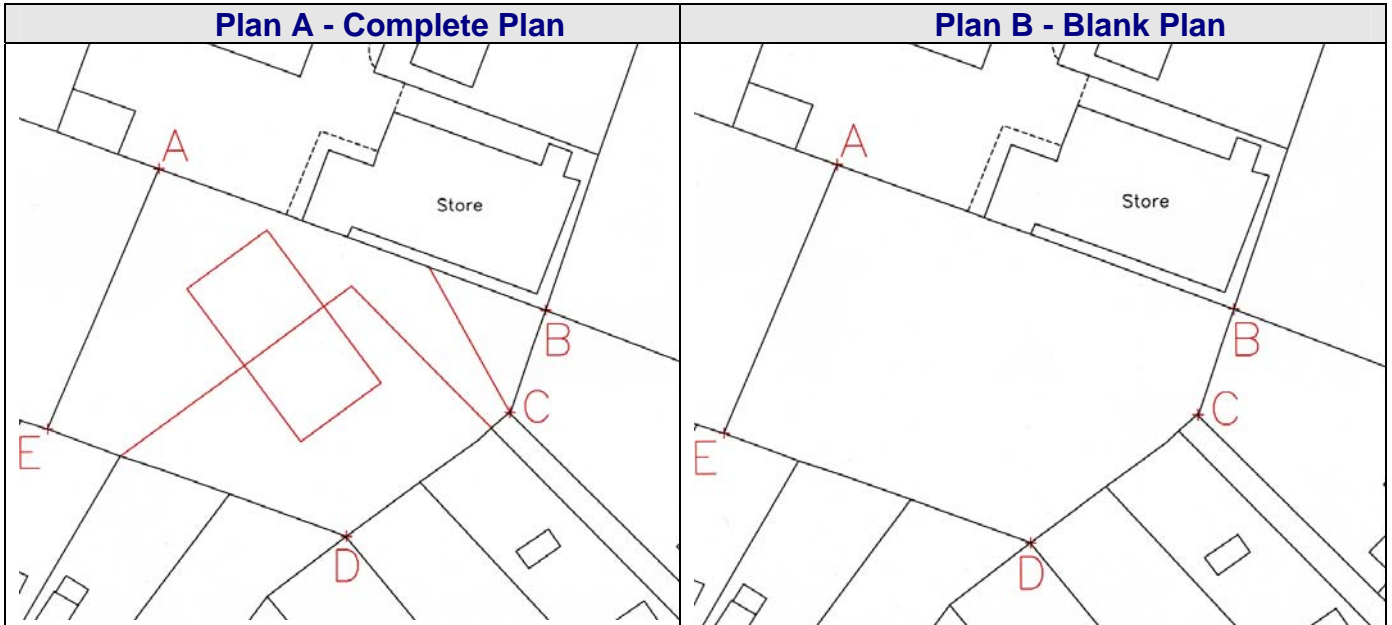
**Plan A** - a Complete Plan which shows new detail, houses, fences, paths etc in red.

**Plan B** - a plan of the same area with a blank portion into which the new detail must be added.



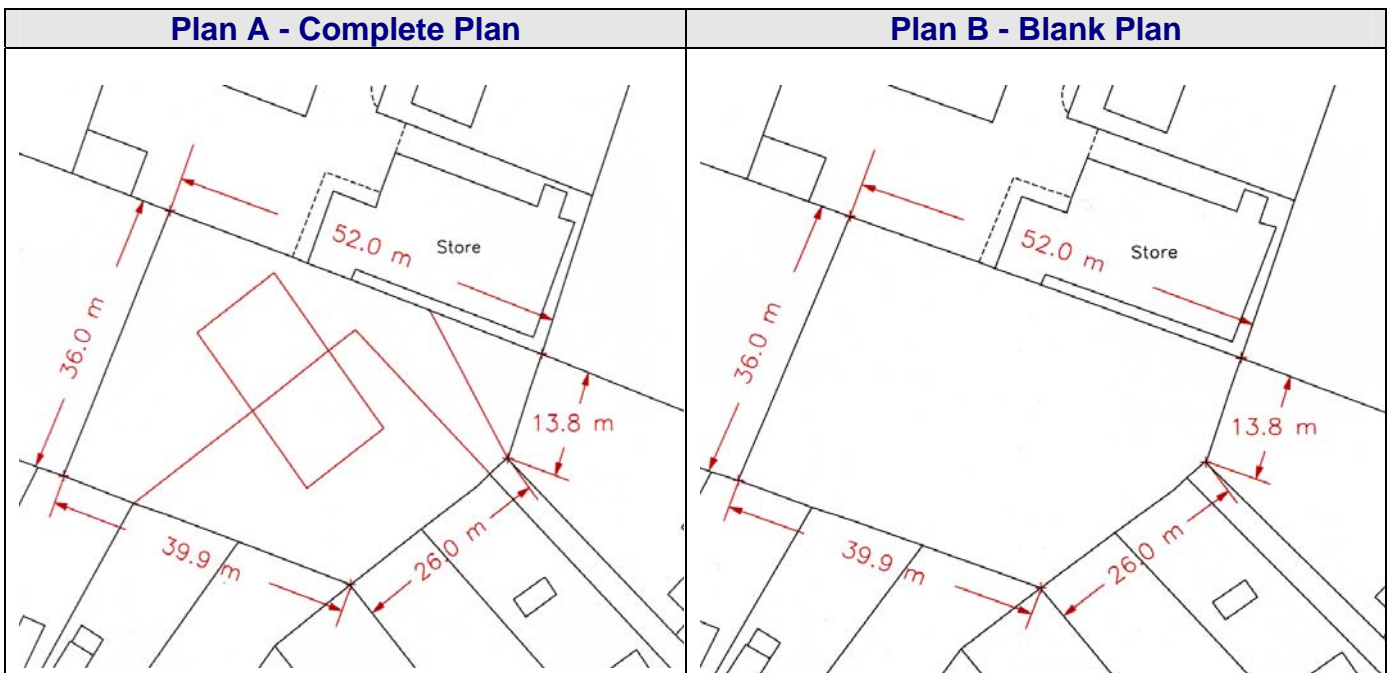
### 1. Establish a framework of control.

Look at the area surrounding the information that you need to add and identify detail; corners, intersections of lines and junctions which are on both **Plan A - Complete Plan** and **Plan B - Blank Plan**. Try to establish a box of points within which the new detail lies.



In this example the points **A, B, C, D** and **E** appear to be the same on both plans.

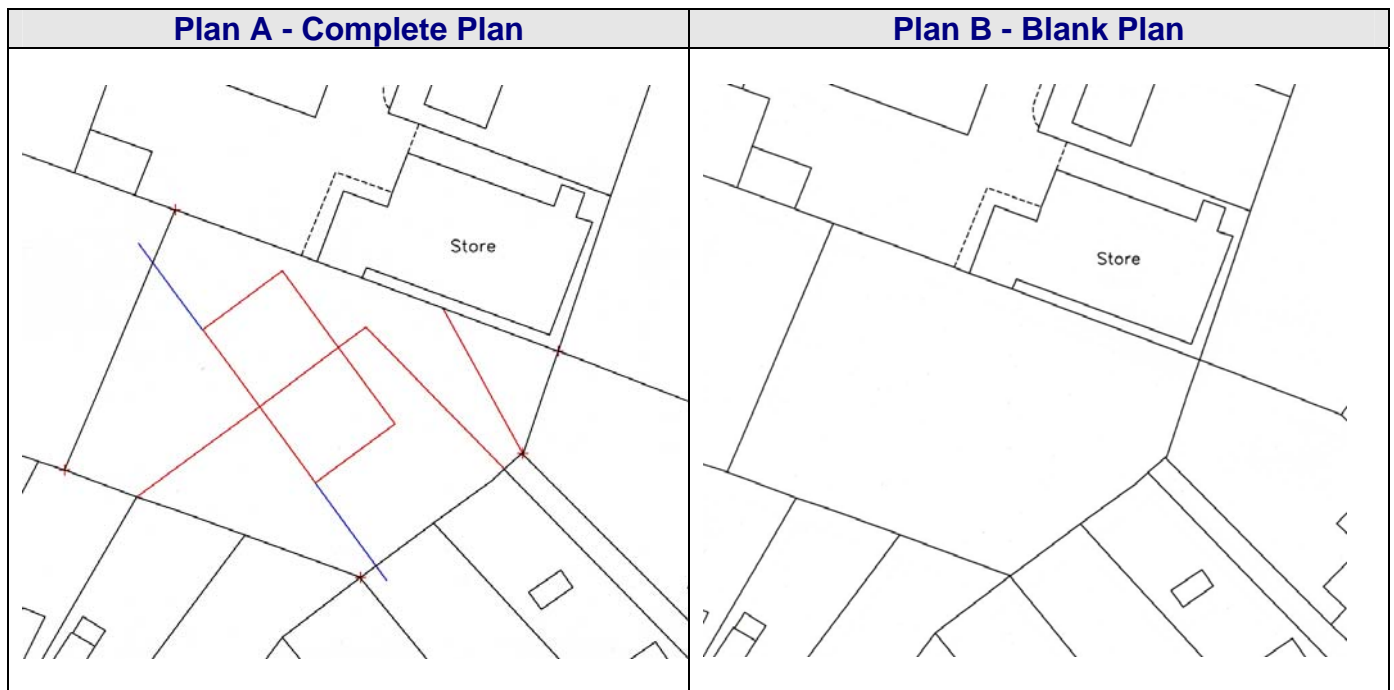
You must now check that the measured distance between each set of control points is the same on each plan, keeping in mind that the two plans may be of different scales.



## 2. Extending Lines - (Prolongations or Rays)

Having established and checked the control points you should now use your pencil to extend (prolongate) the lines which define the new detail on **Plan A - Complete Plan** to cross or intersect with the lines between the points of control. Do not be afraid to extend the lines further than is required as this often makes it easier to measure accurately.

**Tip** - to begin with it is best to do this, one line at a time, as it is easy to become confused amongst all the prolonged lines.

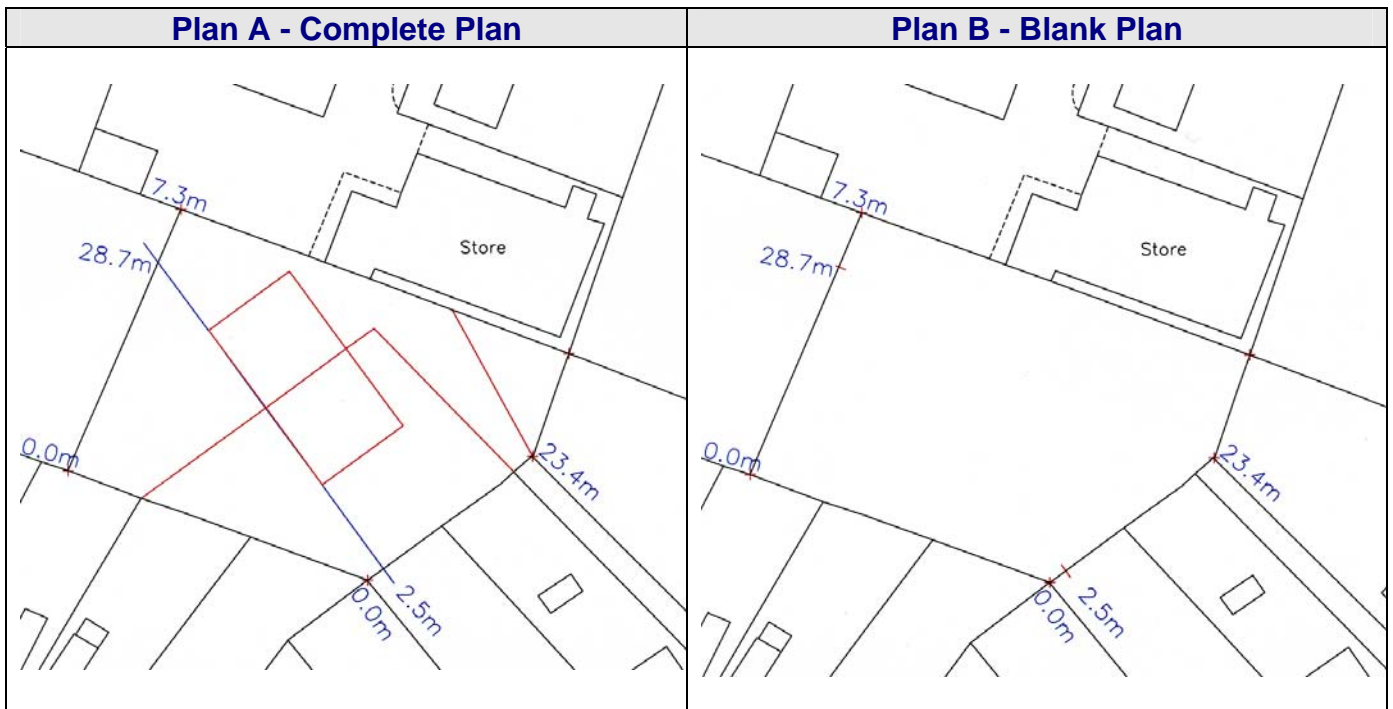


### 3. Measuring

Use your ruler to measure between the control points noting the measurement for the intersection of the prolonged line on **Plan A - Complete Plan** as you go.

Start your measurement from a control point (**0.0m**) and measure to the intersection of the prolonged line. Make a note of the dimension to one decimal place - **2.5m**

Measure from this intersection to the next control point and make a note of the dimension (**23.4m**), this is known as "Tieing out" which fixes your new point in relation to the surrounding detail. Tying out in this way means that you are less likely to make an error.



### 4. Adding the Detail

Use the measurements you have just noted to add the same point to **Plan B - Blank Plan**. Remember that the plan may be at a different scale. Measure using the same start and tie out control points as used on Plan A.

Use the same method to create the point for the other end of the line:-

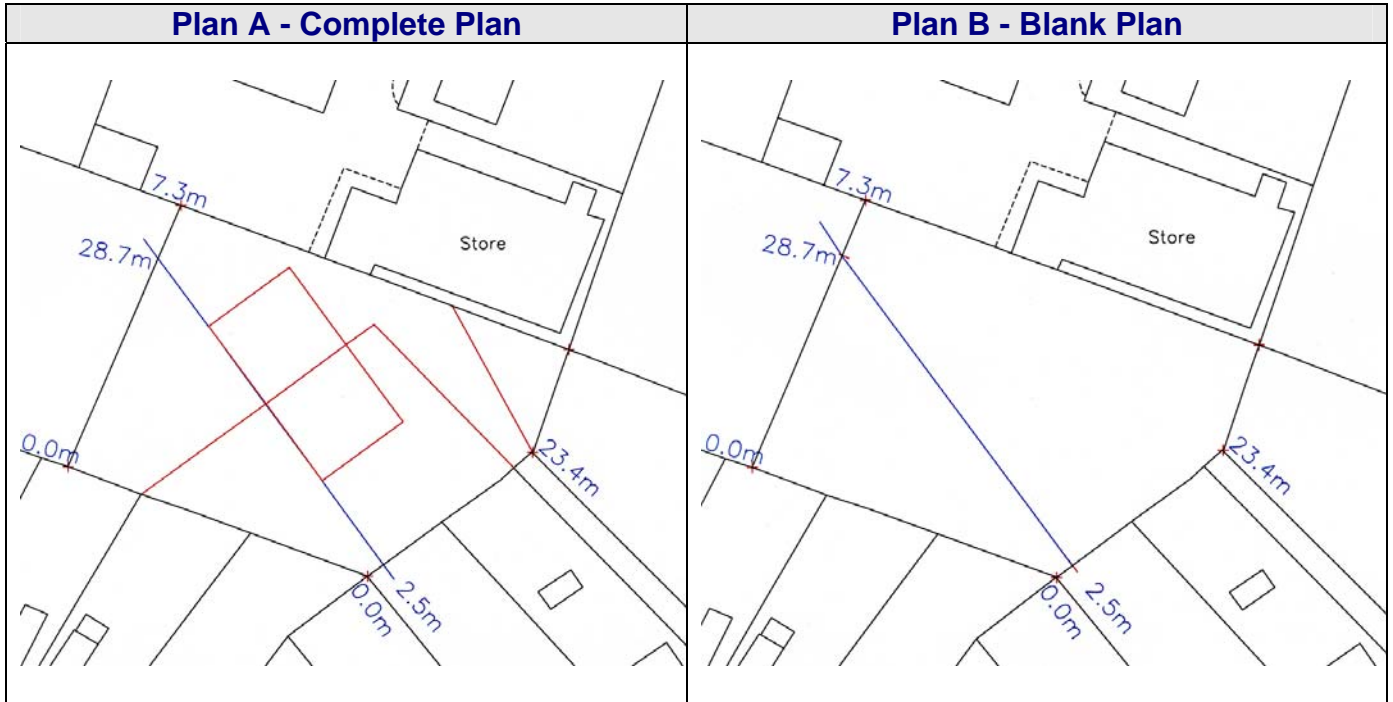
Start Point - **0.0m**

Measurement of intersection - **28.7m**

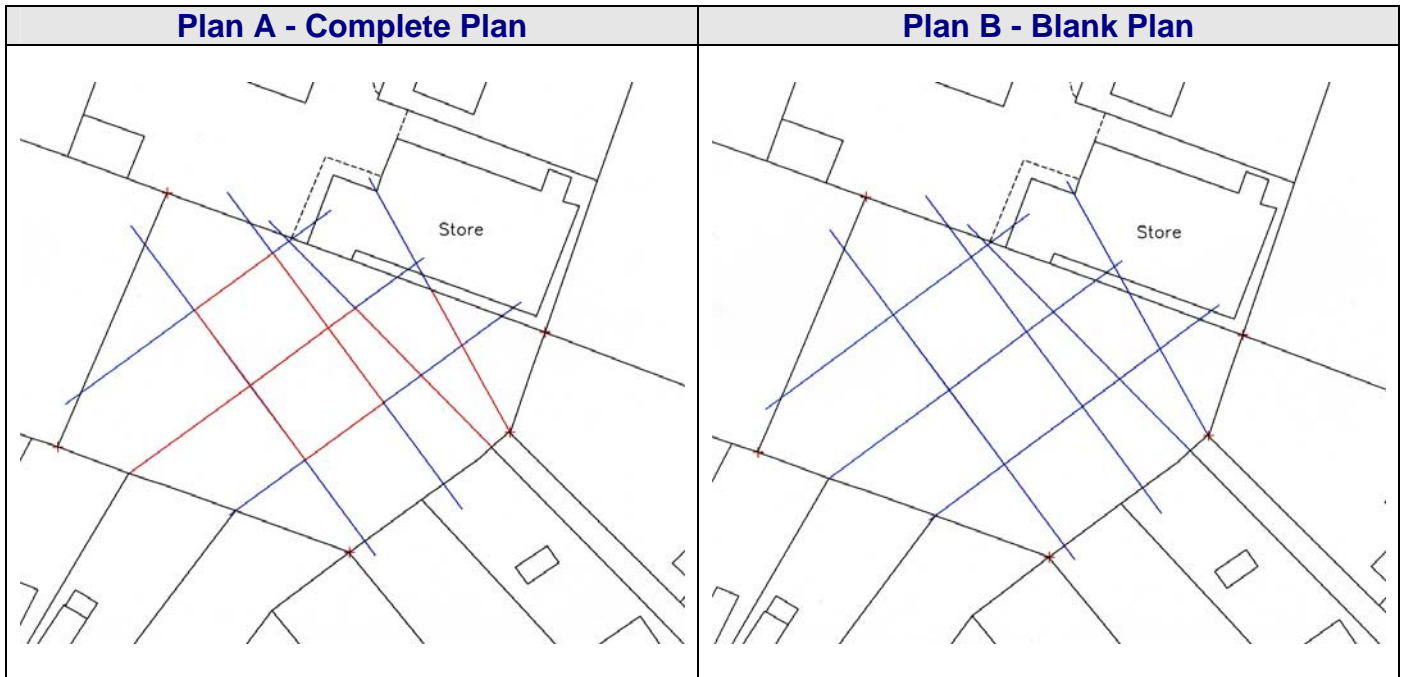
Tie out - **7.3m**

### 5. Join the Points

Join the points created on **Plan B - Blank Plan** using the measurements to recreate the line as shown on Plan A.

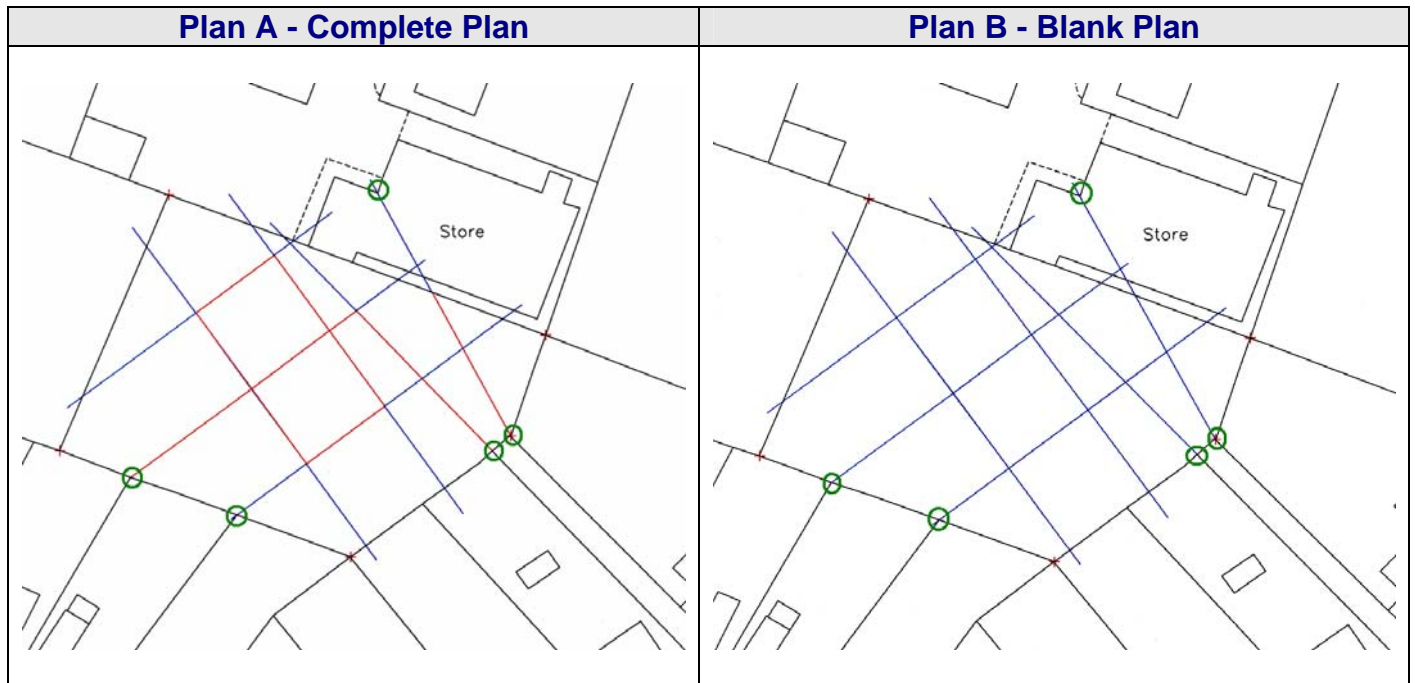


Repeat Steps 2 to 5 for each of the features in turn to build up the complete picture.



## 6. Additional Tips

Try to look for lines which run through known points (circled in green) on both plans as these can be used both to speed up the plotting and scaling process and act as a check.



Remember that lines that appear parallel on the Complete Plan should appear parallel on the one you have drawn.

Angles do not change; they stay the same regardless of scale. A 90 degree angle on the Complete Plan should be a 90 degree angle on your plan.

Be as neat as possible and leave your working out as this allows the assessor to see how you have approached the task.

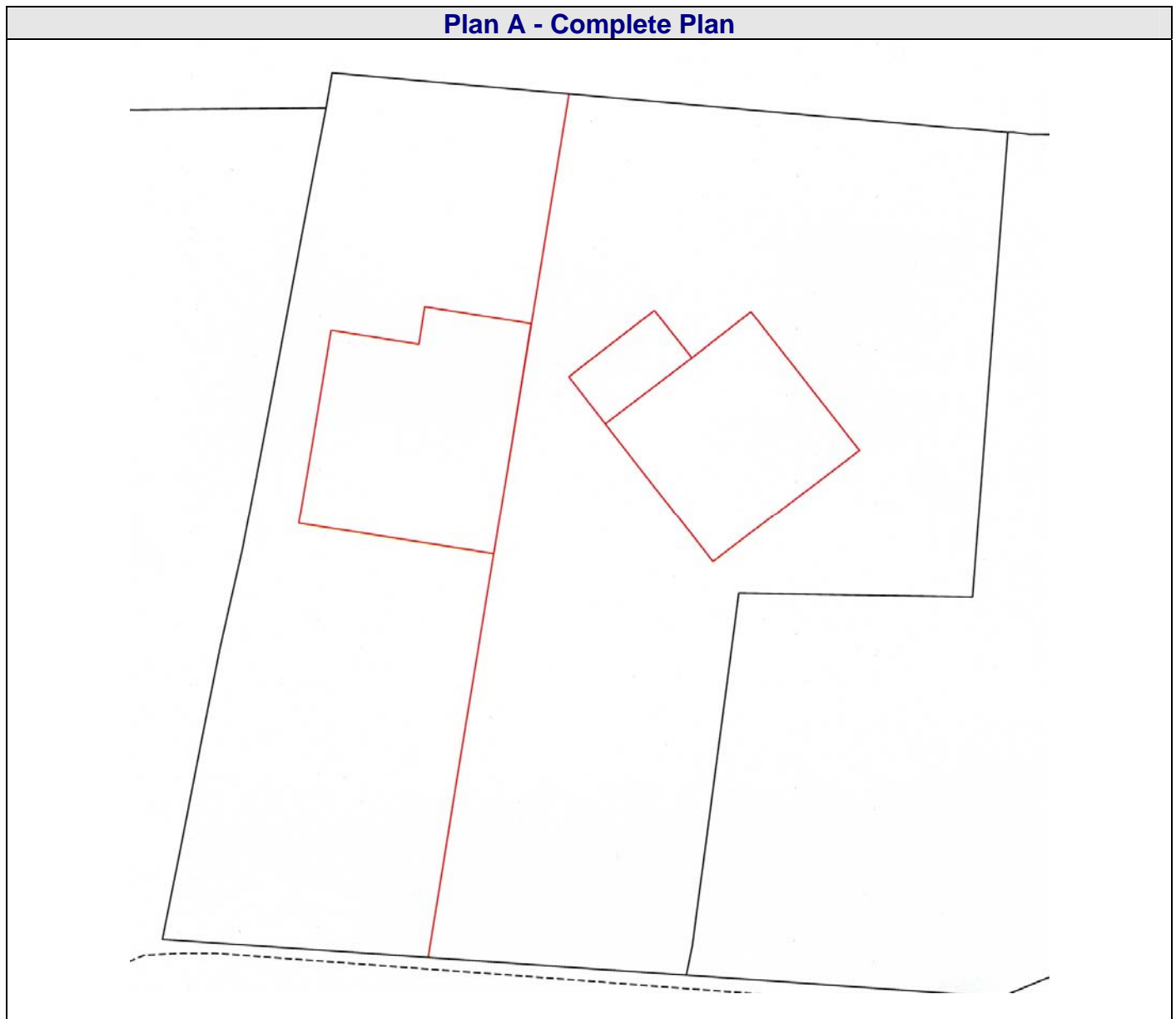
## 7. Practice Examples

The following examples have been prepared to allow you to practice the plotting and scaling process before taking the Plans Aptitude Assessment.

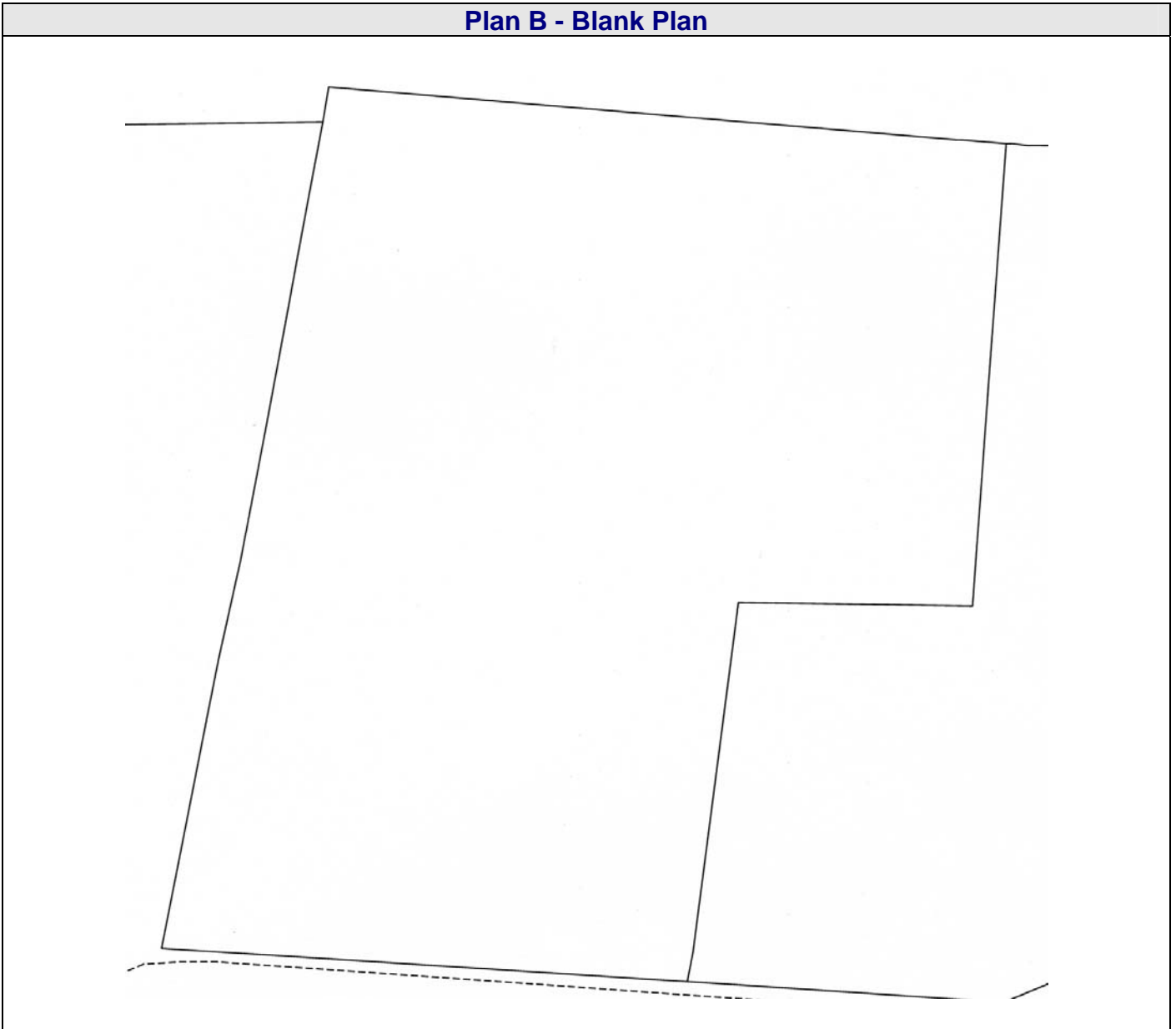
Please print out the plans and plot and scale the detail using a pencil and metric ruler.

### Example 1

Using the previous six steps as a guide plot and scale the red detail on Plan A onto Plan B. The two plans are at the same scale.



**Plan B - Blank Plan**





## Example 2

Using the previous six steps as a guide, plot and scale the red detail on Plan A onto Plan B. The two plans are at different scales - Plan A is twice the size of Plan B.

