



## ADDING HATCH PATTERNING TO ELEVATIONS IN PLANSXPRESS™



You can add texture and patterns to your drawing using the **Hatch** and **Hatch Patterning** buttons on the **Draw Toolbar**. Hatching can only be applied to closed shapes (ones with no gaps to the perimeter) which are drawn using the polyline tool or polygon tool.

A polyline is a series of connected lines which, once drawn, act as one object. This means that if you click on one of its component lines, the entire polyline is selected.



If you want to add hatching detail to walls or roofs you first need to trace over the wall or roof using the polyline tool. This is because elevations drawn using the **Elevation** button are made up of simple lines, not polylines. After you've traced over the wall or roof with the polyline, select the polyline and the **Hatch** and **Hatch Patterning** buttons become available on the **Draw Toolbar**. When adding hatching to walls and roofs, locking down the Roof Elevations, Wall Elevations, Window Elevations, Door Elevations and DPC Elevations Layers makes it easier to select the polyline and thus apply the hatching. If objects which aren't polylines are selected, the **Hatch** and **Hatch Patterning** buttons will remain greyed out.

When adding hatching to walls, you also need to tell **PlansXpress™** to omit the hatching from the window and door areas. To do this, after marking out the perimeter of the area to be hatched with the polyline, you need to use a polyline to mark out the perimeter of any window, door and opening areas which do not require hatching.

This topic talks you through adding tile and brick detail to the front elevation of the house drawn in the **PlansXpress™ Getting Started Tutorial**, so you need to ensure the **Tutorial** drawing, named **Mr Oliver 5 Bedroom House**, is open.

Once the drawing is open, the first thing you need to do is lock down all of the Elevation Layers, so that you don't accidentally select the elevations themselves when attempting to select the polylines later on.

1. Press the **Layers** button.

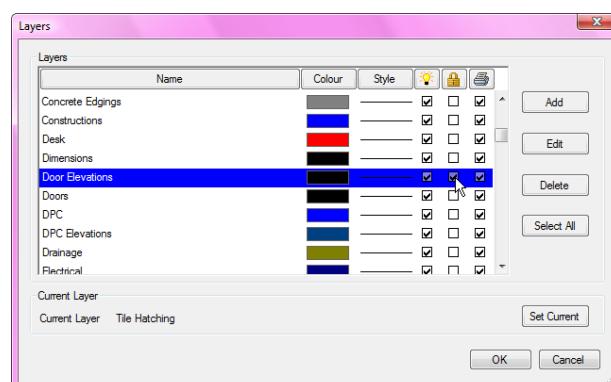
The **Layers** dialog box pops up.

2. Locate the **Door Elevations Layer**.

Remember the Layers are ordered alphabetically.

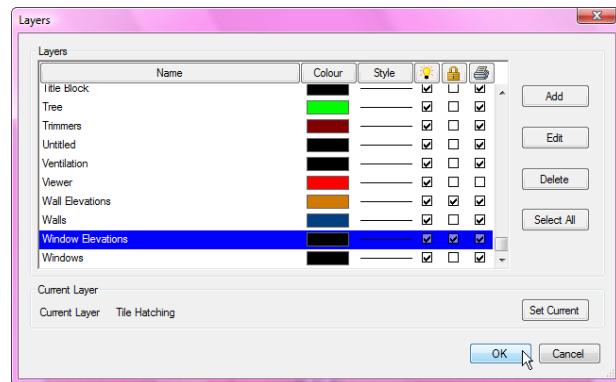
3. Tick the padlock tick box associated with the **Door Elevations Layer**.

Ticking this tick box locks down the **Door Elevations Layer** so that it can't be selected or edited.





4. Repeat this process to lock down the **DPC Elevations, Roof Elevations, Wall Elevations and Window Elevations Layers**.
5. Once complete, click **OK**.



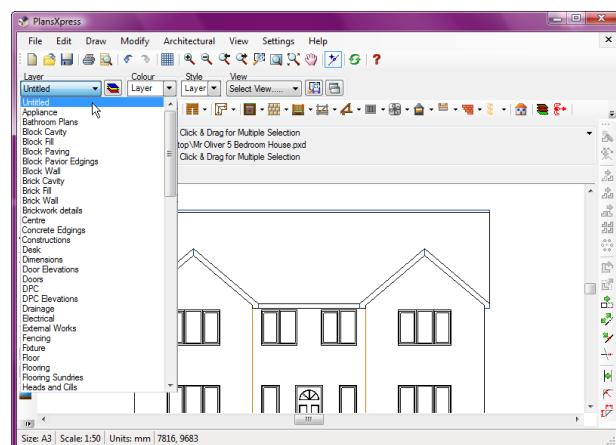
You are returned to the drawing page

If you drag your mouse over the elevations you'll see that you can no longer select them.

We're now ready to draw the polyline around the perimeter of the roof, ready to fill with hatching.

6. Zoom into the roof until you can see it clearly by holding your cursor over the centre of the roof and scrolling the mouse wheel away from you.
7. Select the **Untitled Layer** from the **Layer** drop down box (you'll find it at the top of the list).

This ensures that the polyline is drawn on the Untitled Layer to prevent it being accidentally drawn on one of the locked Elevation Layers.



8. Press the **Polyline** button.

The instruction bar reads: Give Start Point.

9. Hold your mouse over the top left corner of the roof elevation until appears along with the message 'End'.

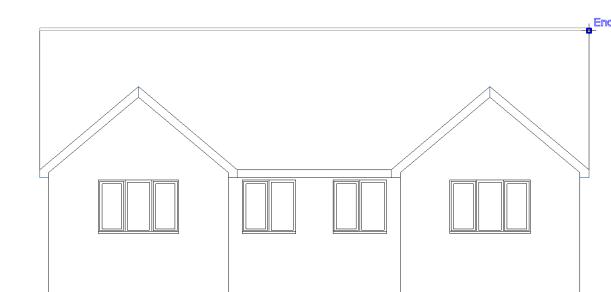
10. Click the left mouse button to register the start point of the polyline.



The instruction bar reads: Give Next Point.

11. Hold your mouse over the top right corner of the roof elevation until appears along with the message 'End'.

12. Click the left mouse button to register the next point of the polyline.





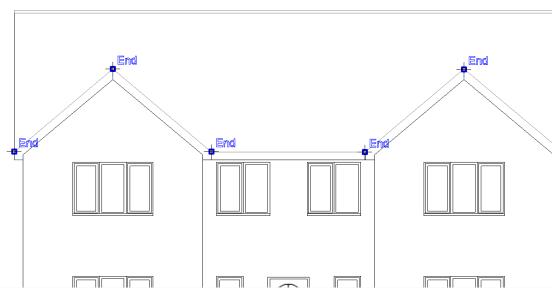
The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc.

13. Hold your mouse over the bottom right corner of the roof elevation until appears along with the message 'End'.

14. Click the left mouse button to register the next point of the polyline.



15. Continue clicking around the roof in a clockwise direction on each of the 'End' corner points until you get to the bottom left hand corner of the roof.



16. Press the C key on your keyboard.

Pressing the C key automatically closes the polyline, ensuring there are no gaps in the shape. This is a crucial step when adding hatching, as if the polyline is not closed, you will not be able to apply the Hatch pattern.

The polyline is not visible as it is sitting on top of the roof elevation. You now need to select the polyline.

17. Move your mouse so that it's above and to the left of the roof elevation.

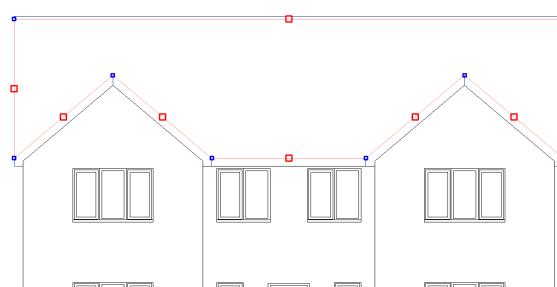
18. Press and hold down the left mouse button.

19. Move your mouse down and to the right until the entire roof is encompassed by the selection box which appears.

20. Release the left mouse button.



The polyline drawn over the roof appears selected and the **Hatch** and **Hatch Patterning** buttons should become available on the **Draw Toolbar**. If this doesn't happen, see the troubleshooting tips which follow.





## Troubleshooting

If you can't select the polyline:

- you may have drawn the polyline on a locked Layer. Press the Layers button, and unlock any locked Layers. You should now be able to select the polyline and assign it to an appropriate Layer, such as the Untitled Layer. Lock down the Elevation Layers once again, and you should now be able to select the polyline in isolation.

If the **Hatch** and **Hatch Patterning** buttons do not appear once you have selected the polyline,

either:

- you have used the line tool rather than the polyline tool. Hover your mouse over the line until a box appears showing information about the entity. If it calls the entity 'line' rather than 'polyline', delete the line and redraw it, ensuring you use the polyline tool;

or:

- an item which isn't a polyline is included in the selection, e.g. a window elevation, gutter symbol or other line. Check that you've locked the Elevation Layers and that you haven't selected any other items in error;

or:

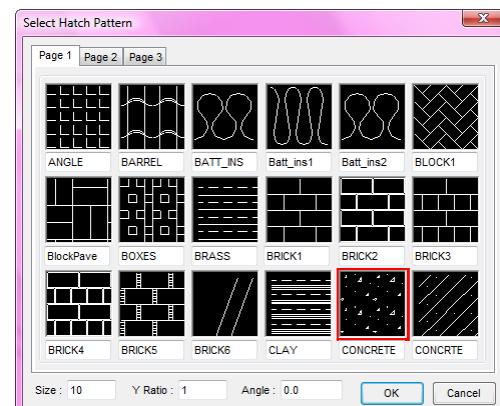
- you have not have closed the polyline. Delete the polyline and redraw it, ensuring you use the C key to complete the polyline.



21. Once the polyline is selected, press the **Hatch Patterning** button.

The **Hatch Patterning** dialog box pops up.

There are three tabs containing different types of hatch pattern. You can control the size of the pattern by changing the figure in the Size input box at the bottom left of the dialog box.

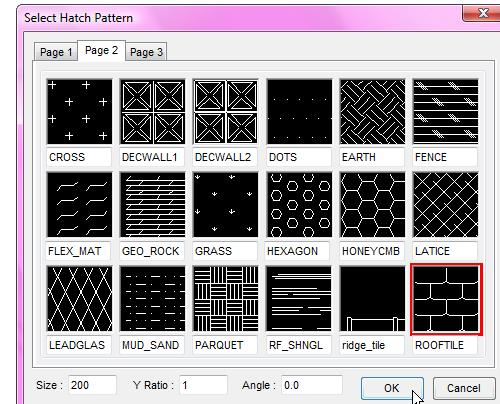


22. Click on the Page 2 tab.

23. Click on the hatch pattern at the bottom right of the dialog box called ROOFTILE.

24. Type 200 into the Size input box.

25. Click OK.



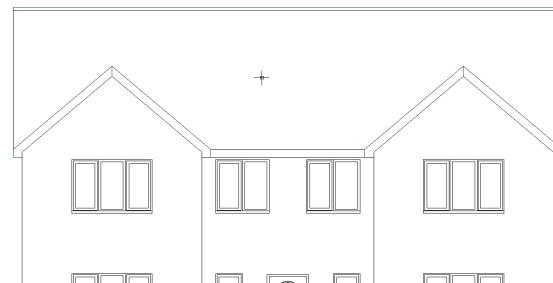
You're returned to the drawing page and PlansXpress™ is now ready to apply the roof hatching to the polyline.



The instruction bar reads: Give Hatch Origin Point.

26. Click anywhere within the roof polyline with the left mouse button.

**PlansXpress™** takes a few moments to draw the tile hatching. After a few seconds, the tile detail will appear on screen.



#### Troubleshooting

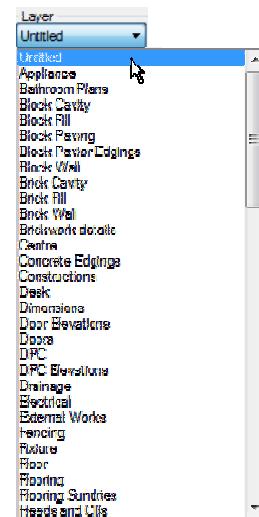
If the hatching doesn't appear:

- You may have previously switched off the hatching so it doesn't appear onscreen. Go to the **View** menu and ensure the **Hatching** option is ticked.

Let's now repeat this process to add brick detail to the walls. After tracing over the outline of the walls, you will have to mark out each of the windows and the door with a polyline, so that **PlansXpress™** knows not to draw the hatching over these areas.

27. Use the scroll bars to position your walls of the elevation in the centre of your screen.

28. Select the **Untitled Layer** from the **Layer** drop down box.



29. Press the **Polyline** button.

The instruction bar reads: Give Start Point.

30. Hold your mouse over the top left corner of the left-hand gable until appears along with the message 'End'.

31. Click the left mouse button to register the start point of the polyline.





The instruction bar reads: Give Next Point.

32. Hold your mouse over the point of the left hand gable until appears along with the message 'End'.

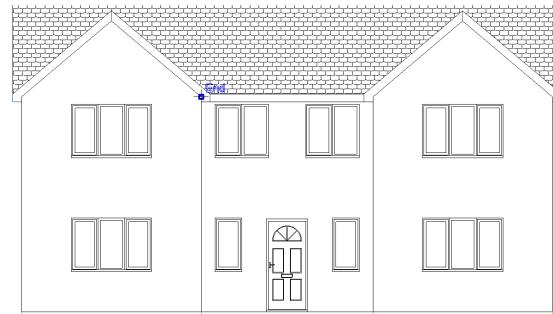
33. Click the left mouse button to register the next point of the polyline.



The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc.

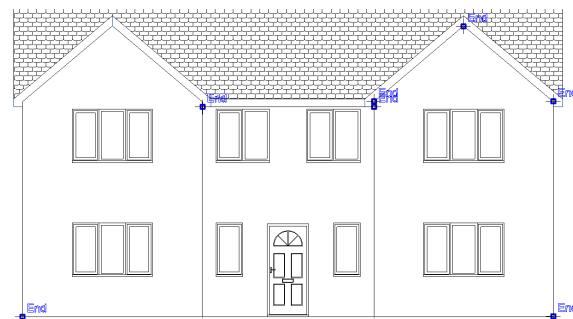
34. Hold your mouse over the top right corner of the left-hand gable until appears along with the message 'End'.

35. Click the left mouse button to register the next point of the polyline.



The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc, (U)ndo or (C)lose.

36. Continue in this way, clicking on each of the 'End' corner points around the wall in a clockwise direction until you get to the bottom left hand corner of the house.



37. Press the C key on your keyboard to close the polyline, as before.

You've marked out the perimeter of the area requiring hatching and you now need to mark out the window and door areas which don't need hatching.

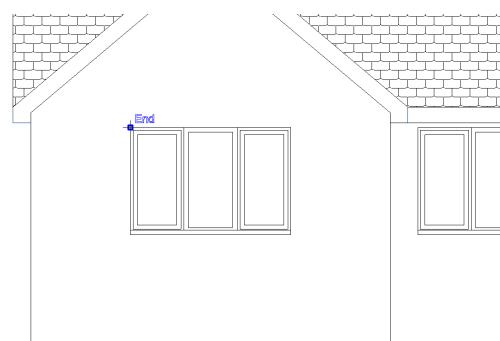
38. Press the **Polyline** button.

First, let's mark out the top window on the left gable.

The instruction bar reads: Give Start Point.

39. Hold your mouse over the top left corner of the top window until appears along with the message 'End'.

40. Click the left mouse button to register the start point of the polyline.

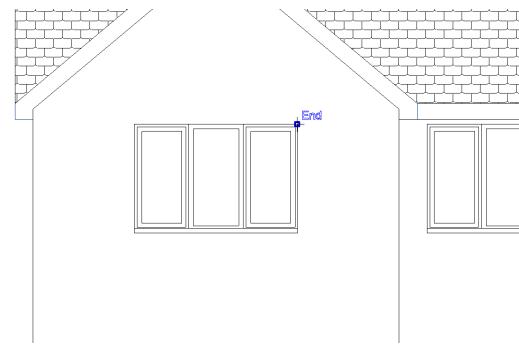




The instruction bar reads: Give Next Point.

41. Hold your mouse over the top right corner of the window sill until appears along with the message 'End'.

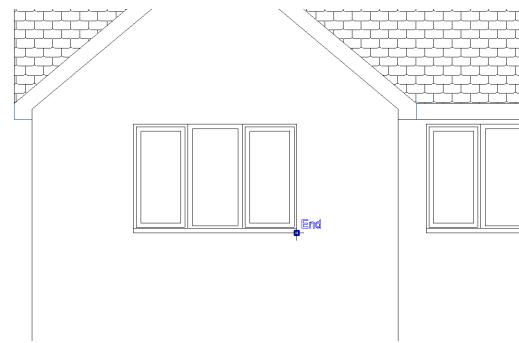
42. Click the left mouse button to register the next point of the polyline.



The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc.

43. Hold your mouse over the bottom right corner of the window sill until appears along with the message 'End'.

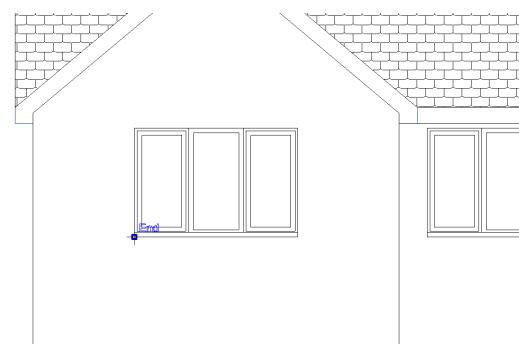
44. Click the left mouse button to register the next point of the polyline.



The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc, (U)ndo or (C)lose.

45. Hold your mouse over the bottom left corner of the window until appears along with the message 'End'.

46. Click the left mouse button to register the next point of the polyline.



The instruction bar reads: Give Next Point or (A)rc or (3) Point Arc, (U)ndo or (C)lose.

47. Press the C key on your keyboard to close the polyline.

You've finished marking out the first window. You can now repeat this process for the remaining windows and the front door.

48. Click the right mouse button to tell **PlansXpress™** you want to draw another polyline.

49. Trace around the remaining windows and front door in the same way, pressing the C key to close each shape.

You now need to select all of the polylines – the polyline around the wall and the polylines around each of the windows and door, in order to fill the walls with hatching.



50. Move your mouse so that it's above and to the left of the gable elevation.

51. Press and hold down the left mouse button.

52. Move your mouse down and to the right until the wall elevation is encompassed by the selection box which appears.

53. Release the left mouse button.



The walls, windows and door should appear selected and the **Hatch** and **Hatch Patterning** buttons should now be available. If not, see the troubleshooting tips earlier in the exercise.

54. Press the **Hatch Patterning** button.

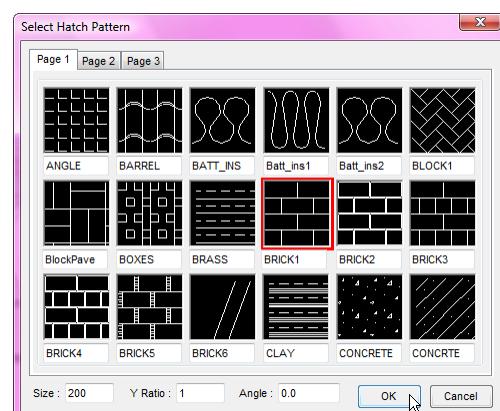
The **Hatch Patterning** dialog box pops up.

55. Click on the Page 1 tab.

56. Click on the hatch pattern called BRICK1.

57. Check the Size input box is set to 200.

58. Click OK.



**PlansXpress™** is now ready to apply the brick hatching to the polyline. The instruction bar reads: Give Hatch Origin Point.



59. Click anywhere within the wall polyline with the left mouse button.



**PlansXpress™** takes a few moments to draw the brick hatching. After a few seconds, the brick detail will appear on screen.

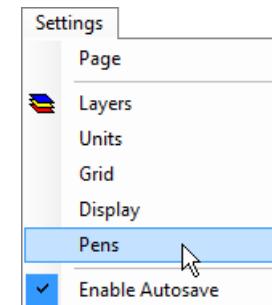
Once complete, your house should look like this:



Note: You can add basic hatching to your drawing using the processes described above, but pressing the **Hatch** button rather than the **Hatch Patterning** button after selecting the polyline.

You can also add colour to the hatch patterning. First let's create a pen for the brick hatching.

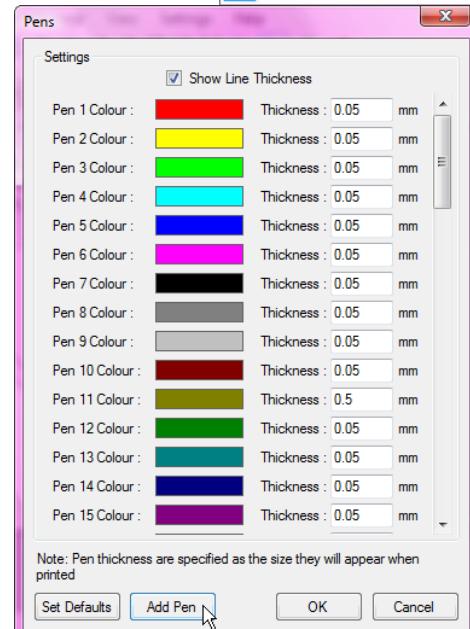
60. Go to the Settings Menu and click Pens.



The **Pens** dialog box pops up.

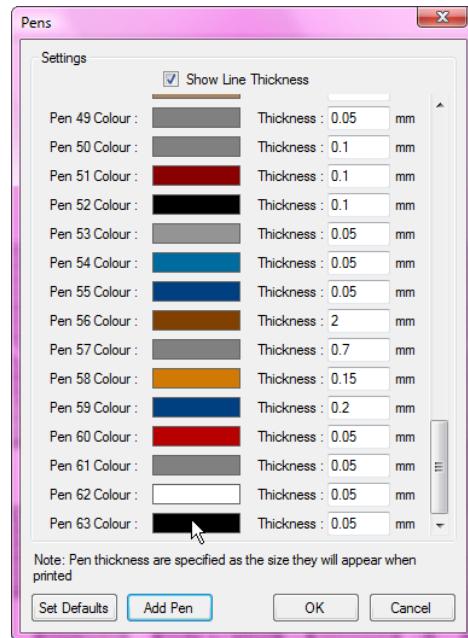
The **Pens** dialog box contains all the Pens which are set up as default and assigned to certain Layers. From here, you can alter the colour and thickness of existing Pens, and add new Pens.

61. Click Add Pen.



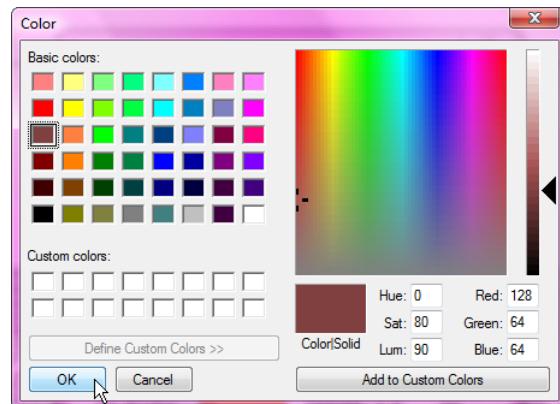


62. The Pen is added to the bottom of the list so scroll down to the bottom of the dialog box to find it.
63. Click with the left mouse button on the Colour box adjacent to the pen at the bottom of the list (the one with the highest number).



The **Colour Selector** dialog box pops up.

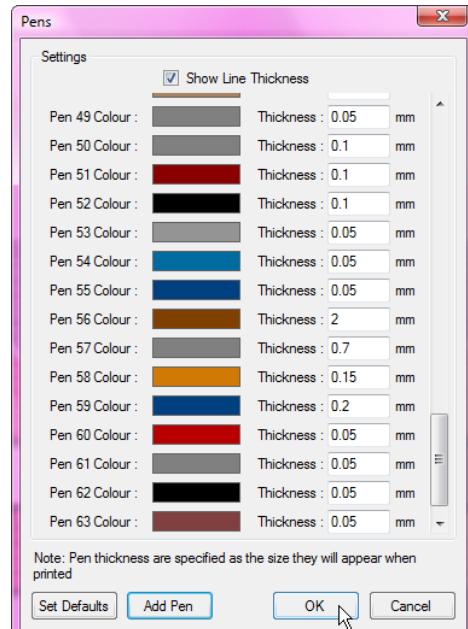
64. Choose an appropriate colour for the brick hatching using the Basic Colours or the Colour Mixer.
65. Once you're happy with the colour click OK.



You're returned to the **Pens** dialog box where the colour selected has been assigned to your Pen.

Note: You can alter the pen weight from the Pen dialog box by changing the figure in the Pen Thickness dialog box.

66. For now, click OK.



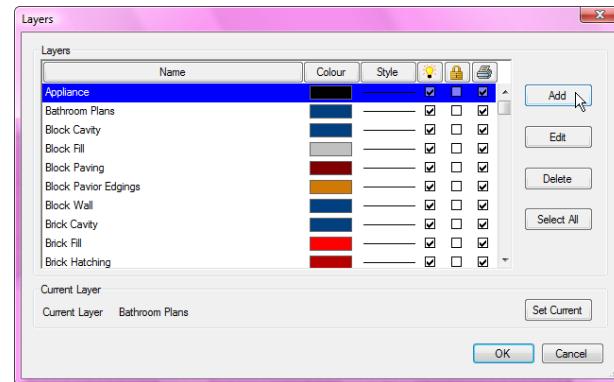
You've successfully added the pen. Now you need to add a Layer and assign the Pen to the Layer.

67. Press the **Layers** button.



The **Layers** dialog box pops up.

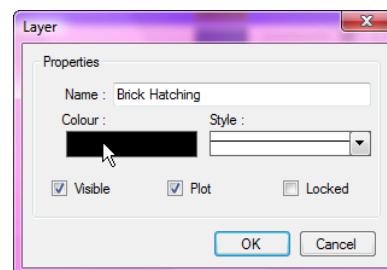
68. Click Add.



The **Add Layer** dialog box pops up.

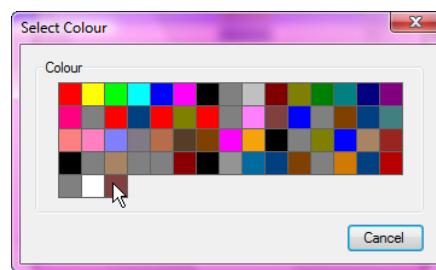
69. Enter a Name for the Layer, such as Brick Hatching.

70. Click on the Colour box.



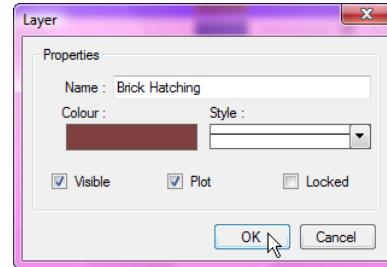
The **Select Colour** dialog box pops up. It contains all the Pens from the **Pens** dialog box, starting with Pen 1 on the top left, with subsequent pens appearing to the right and then down the dialog box.

71. Click on the Pen you've just added. It should be the Pen on the far right of the bottom row.



You're returned to the **Add Layer** dialog box where the new Pen is assigned to the new Layer.

72. Click OK to finish creating the Layer.



You're returned to the **Layers** dialog box.

73. Click OK to close out of the **Layers** dialog box.

All that remains is to assign the brick hatching you drew earlier to the **Brick Hatching Layer**.

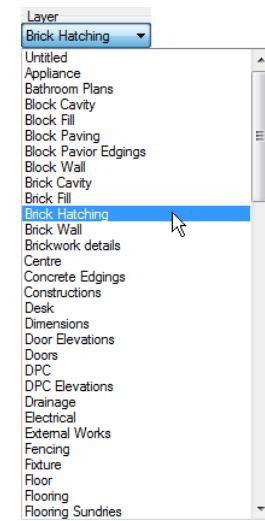


74. Click on the brick hatching to select it.



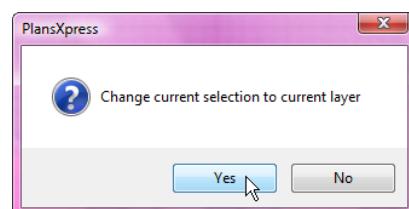
75. Press the arrow on the Layer dropdown box.

76. Locate and click on the Layer you've just created.



A dialog box pops up asking if you wish to change the current selection to this Layer.

77. Click Yes.



78. Click anywhere on the page to deselect the brick hatching.

You'll see that brick hatching is now on the Brick Hatching Layer and drawn using the Pen you created.



79. Repeat this process to create a Pen and Layer for the Tile Hatching.



Once complete, your drawing will look like this:

