



This newsletter is designed to work as an on-line user group. It is based on the successful New Zealand VectorWorks User Group format, where each month we cover a main topic in a workshop then have a page of general questions and answers. In this newsletter you will find a link to the workshop topic, a link to the questions and answers and links to extended podcasts (tips and trick movies).

**Workshop Topic**

**Plants in VW2008**

**Wall Style Library in VW2008**

**3D Modeling**

Plants have been substantially improved in VW2008. This workshop shows you how easy they are to use and how easy plants are to edit.

You could re-use your version 12 wall style library in VW2008, but as I show you in this workshop would be better to update your library to use the new wall style capabilities.

These two topics are based on VW2008. They will not work on older versions.

The last topic shows you how you can create a site and building just using the 3D tools in VW.

**Q & A**

**Can I print all my drawings at one time?**

Read the answer to find out.

**Extended Podcast 050**

How can I cut the ends of my steel sections. Watch this podcast to see.

**Extended Podcast 051**

What use are spaces? Should I use spaces for domestic projects?

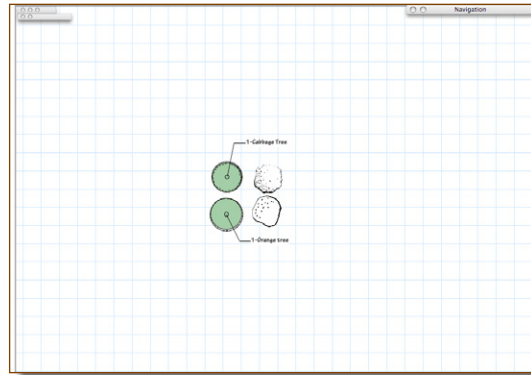
# Plants in VectorWorks 2008

## Placing Plants

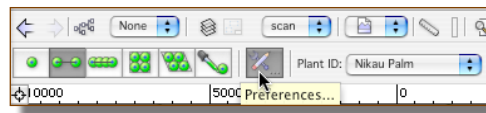
[cadmovie105](http://cadmovie105.com)

Plants in VectorWorks 2008 have changed a lot. Placing plants has not changed. They are still as easy to place as they always have been. What has changed is plants are much easier to create and edit.

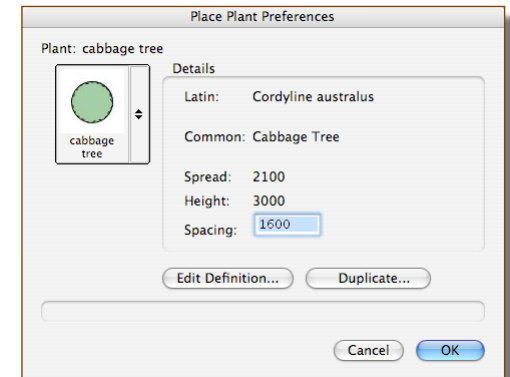
- Open a file with plants.
- This image shows a drawing with two plants on this layer. We can use these plants as the start of your plant library.



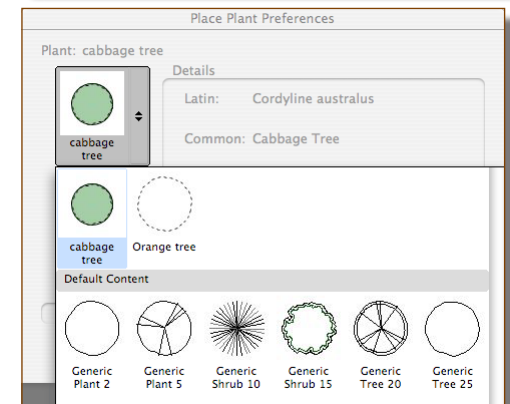
- Choose the **Place Plant** tool from the Site Planning Tool set.
- Go the Mode Bar.
- Click on the **Preferences...** button.



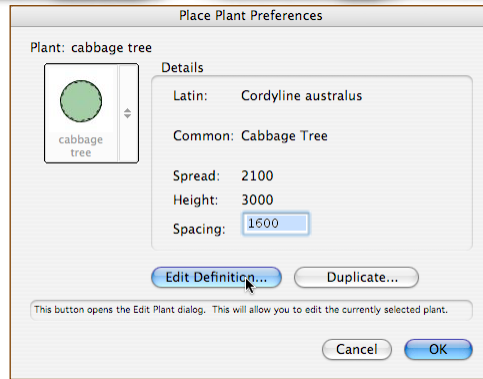
- This dialog box lets you create and edit plants.



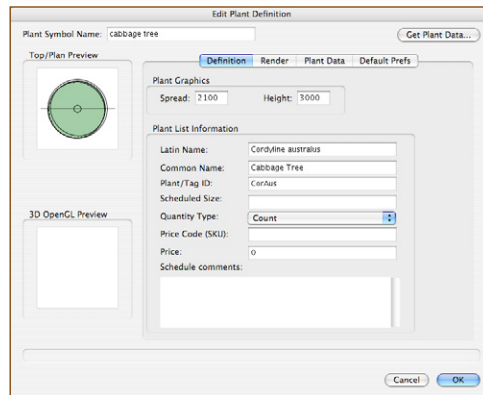
- Click on the plant pop-up menu and a series of plants appears. Choose one of the plants. You might not see the same plants as I have in this picture. The plants shown are saved in a file in the Libraries folder.



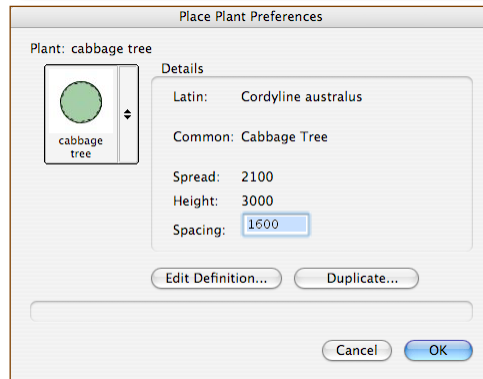
- On this dialog box you can change the plant spacing. We want to change the plant definition.
- Click on the **Edit Definition...** button.



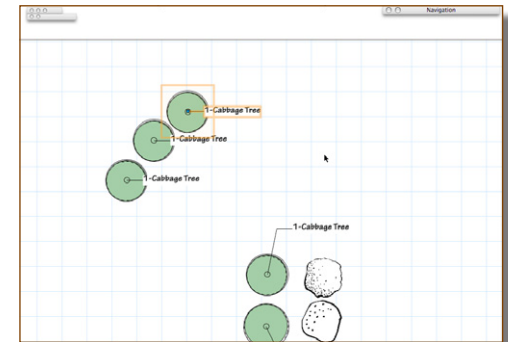
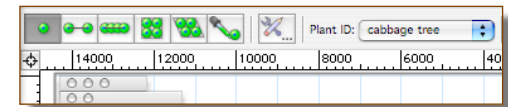
- This is the part that lets you change the plant definition, the spacing, size and data that is attached to the plant. You do not change the 2D or 3D part of the plant here.
- Click on the **OK** button to close the dialog box.



- At the moment I do not want you to change the plant.
- Click on the **OK** button.



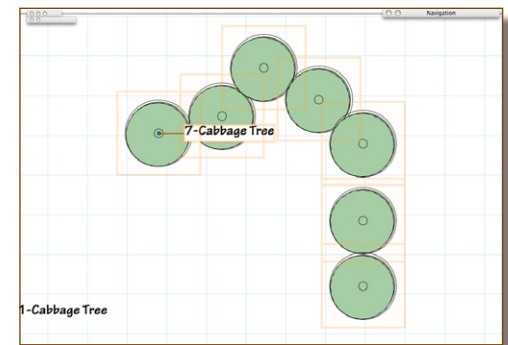
- Go to the Mode Bar.
- Choose the first mode. This places one plant at a time.
- Click once to place a plant. Each click will place a plant.



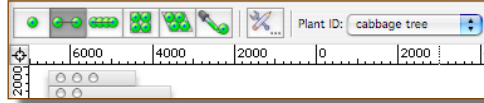
- Go to the Mode Bar.
- Choose the second mode.



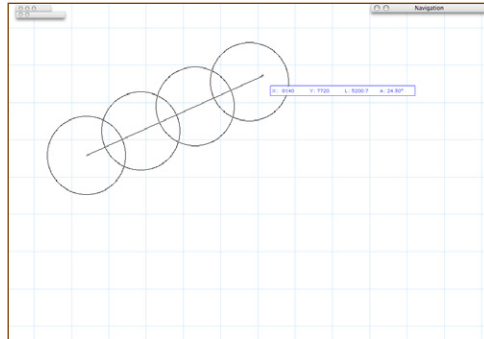
- This places one plant at each click, but the plants are grouped together as a clump of plants.
- Double click to stop placing plants.
- This mode is great for placing plants at varying spacings.



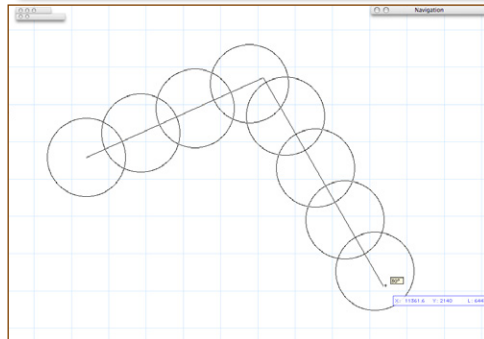
- Go to the Mode Bar.
- Choose the third mode.



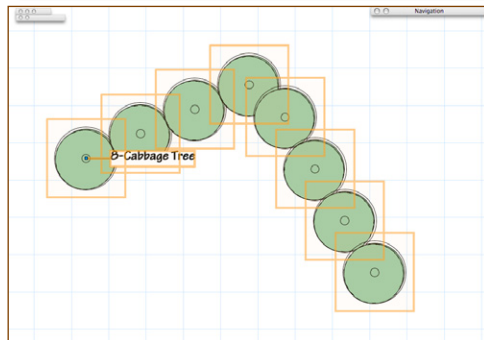
- This places a clump of plants along the sides of a line or polygon shape



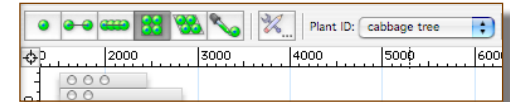
- Each click defines the corner of the polygon and the spacing between the plants is controlled by the plant spacing.



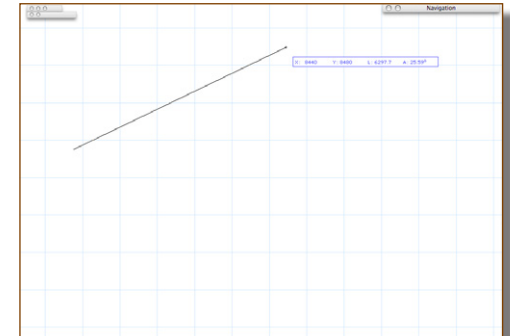
- Double click to stop placing plants.
- This mode is great for placing plants at regular spacings.



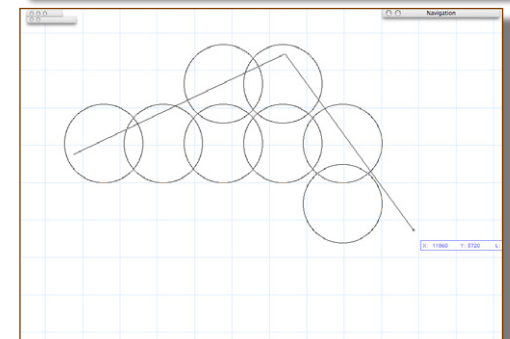
- Go to the **Mode Bar**.
- Choose the **fourth** mode.



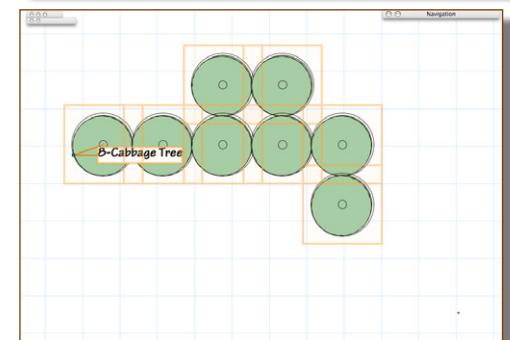
- This places a clump of plants inside a polygon.



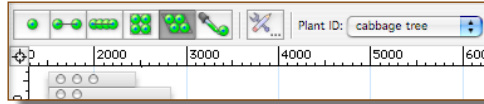
- Each click defines the corner of the polygon, and the spacing between the plants is controlled by the plant spacing.



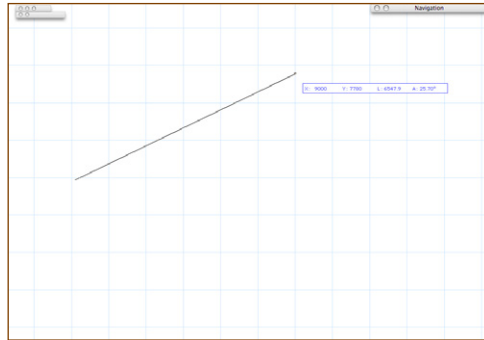
- Double click to stop placing plants.
- This mode is great for placing plants at regular spacings when you want the plants in a grid.



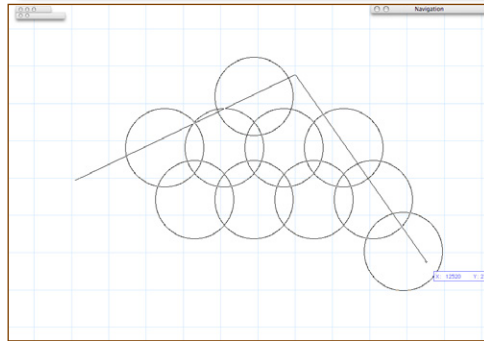
- Go to the **Mode Bar**.
- Choose the **fifth** mode.



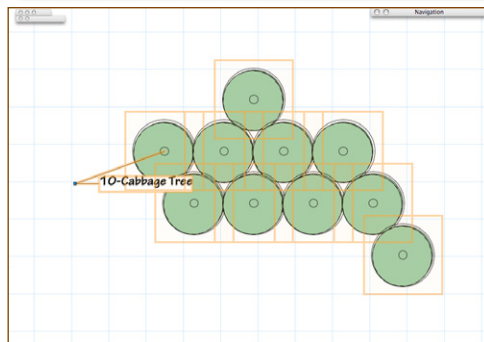
- This places a clump of plants inside a polygon.



- Each click defines the corner of the polygon, and the spacing between the plants is controlled by the plant spacing.



- Double click to stop placing plants.
- This mode is great for placing plants at regular spacings in a tight clump.



## Moving the Plant Tags

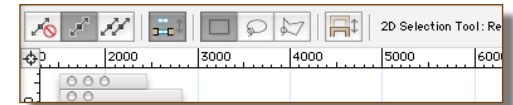
[cadmovie106](#)

Once you have the plants in place you can move the tag for the plant. As you develop landscape plans you will want to move all the tags so the drawing looks nice and the tags can be read easily.

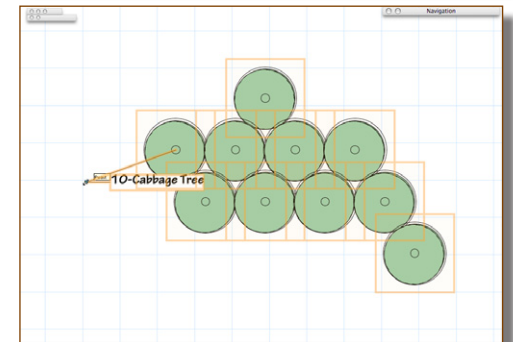
- Select the **2D Selection** tool from the basic tool palette.



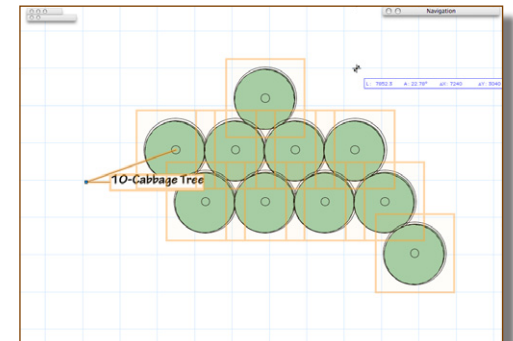
- Go to the mode bar.
- Choose the second mode.



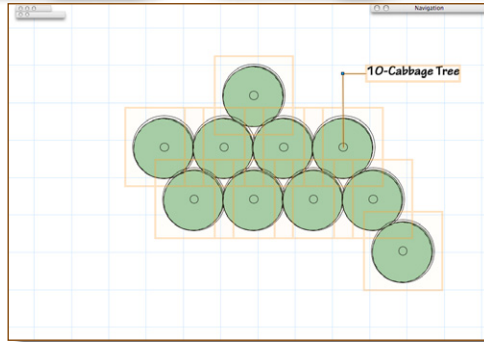
- The handle controlling the plant tag is shown with a blue handle.
- Move to this handle.
- Notice the cursor has changed to a reshape cursor.
- Click once.



- Move to a new location. This location will be the position of the handle, not the position of the text.
- Click once.



- The plant tag is moved to the new position. VectorWorks then connects the plant tag to the nearest plant in the group.

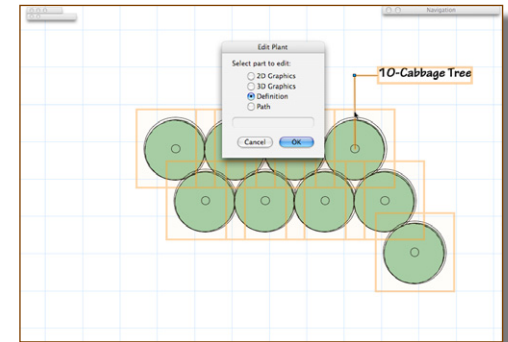


## Editing Plants

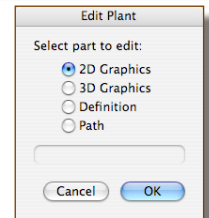
[cadmovie107](#)

Now you can place plants, we should look at editing the plants. I have given you some and you can use these as a starting point to create all your plants.

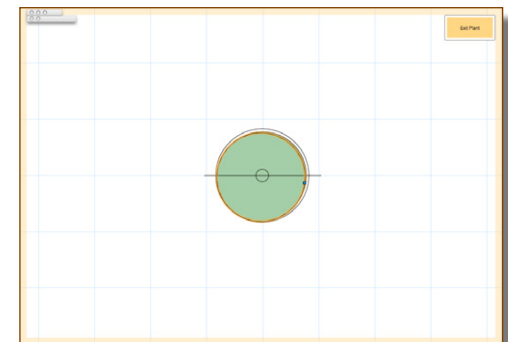
- In earlier versions of VectorWorks, editing plants was a challenge. Now it is easier.
- Choose the **2D Selection** from the basic tool set.
- Double click on a group of plants.



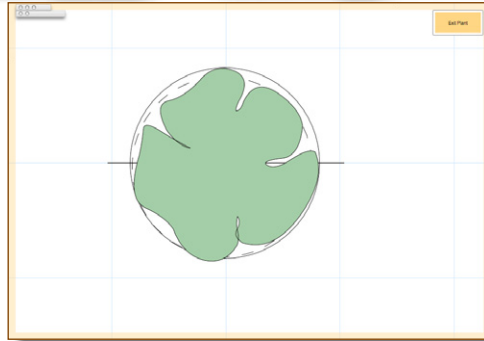
- This dialog box lets you choose what to edit.
- Choose **2D Graphics**.
- Click on the **OK** button.



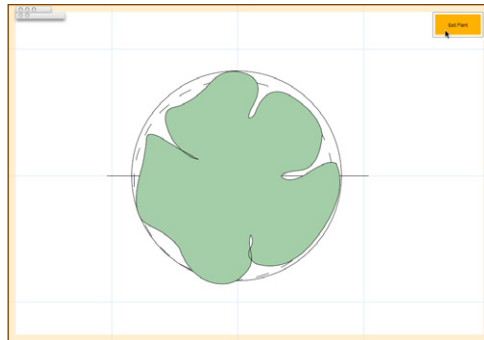
- VectorWorks takes you to the 2D editing area. In this area you can draw the shape of the plant.



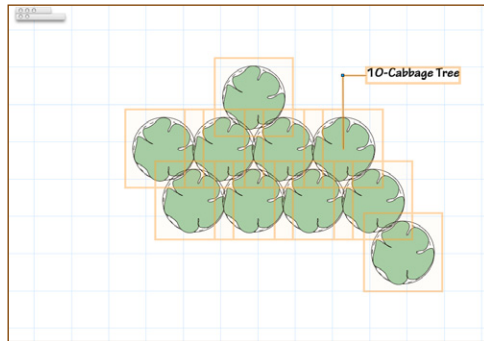
- Use any of the 2D tools to draw the plant you want. I have used the Freehand tool to draw this shape.
- You can colour the plant, use an image or a gradient.



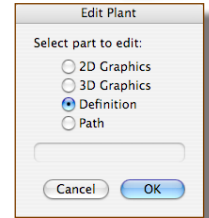
- When you are satisfied, click on the **Exit Plant** button at the top right.



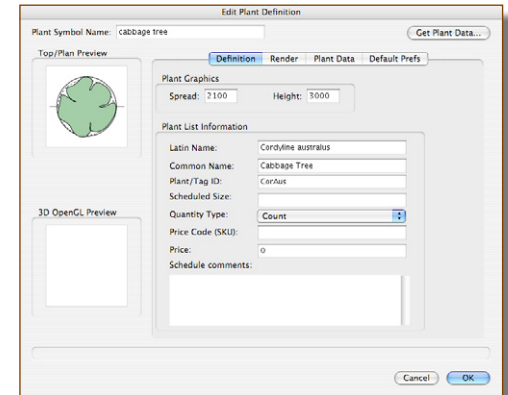
- VectorWorks takes you back to the same view you had before you edited the plant.
- Notice that all the plants have been updated.



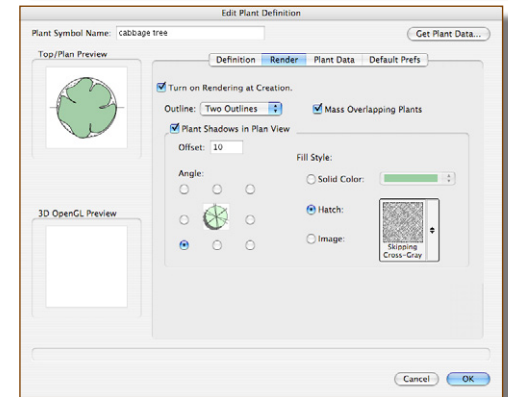
- Double click on the plants again.
- Choose **Definition**.
- Click on the **OK** button.



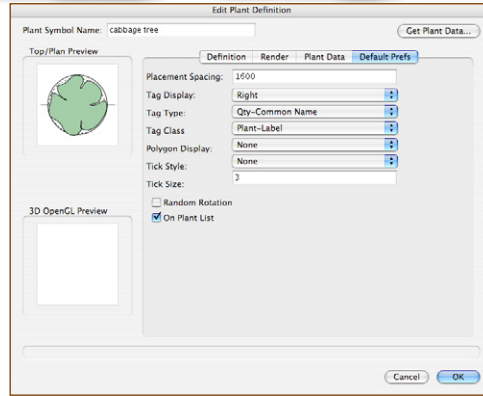
- In the **Definition** tab set the spread, height, Common Name and other information.



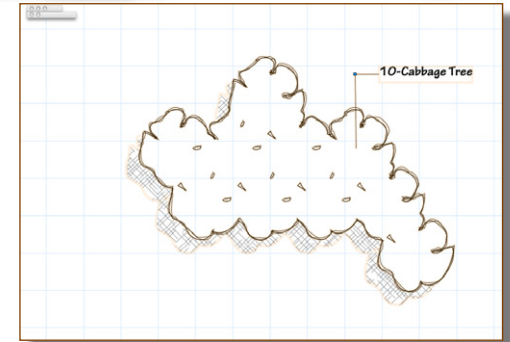
- Click on the **Render** tab.
- Turn on Rendering at Creation.
- Two Outlines
- Mass Overlapping Plants.
- Plant Shadows in Plan View.
- Choose a nice hatch for the shadows.



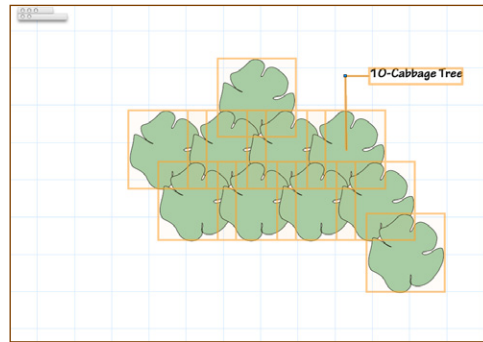
- Click on the **Default Prefs** tab.
- Set the options that you want. Notice that I assign the plant tag to a class. This allows you to turn the tag on or off using classes.
- Click on the **OK** button.



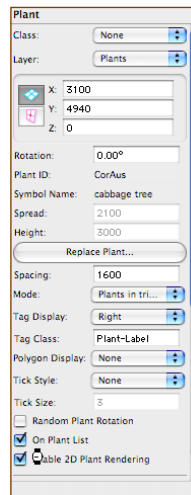
- Now you can see the plant rendering.



- You may not see the change to the plant rendering. This is because the Object Info Palette has a tick box to turn on plant rendering.



- Go to the Object Info Palette.
- Turn on **Enable 2D Plant Rendering**.



## Creating a New Plant

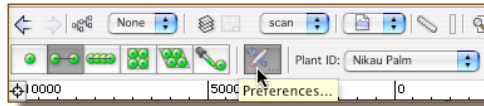
[cadmovie108](#)

You should be able to see how easy it is to edit plants. I found that you can duplicate plants easily and then edit them to suit the new plant that you want.

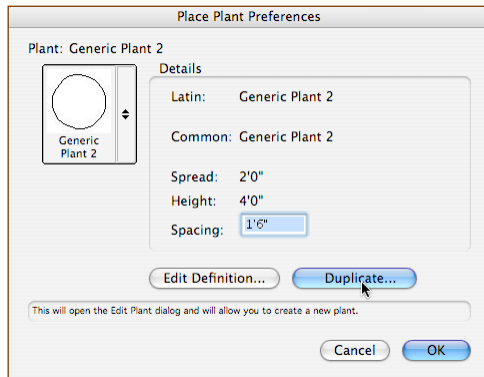
- Choose the **Place Plant** tool from the Site Planning Tool set.



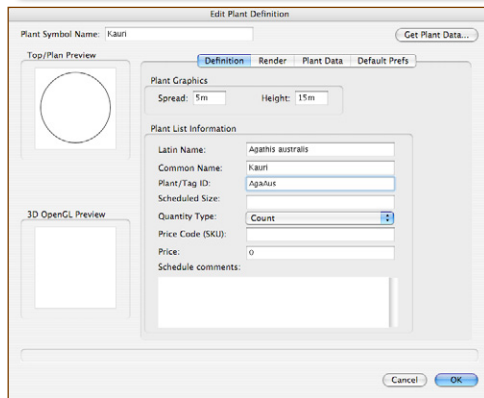
- Go the Mode Bar.
- Click on the **Preferences...** button.



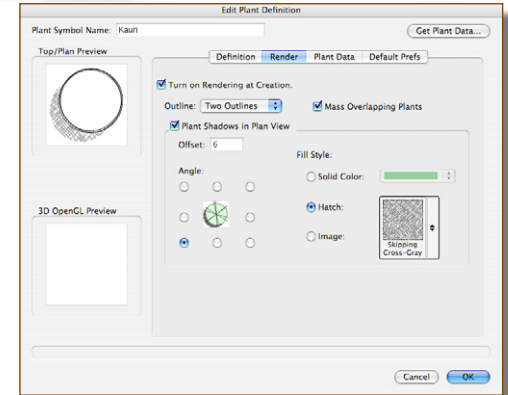
- Click on the Duplicate button. Use this to create a duplicate your existing plant to make a new plant.



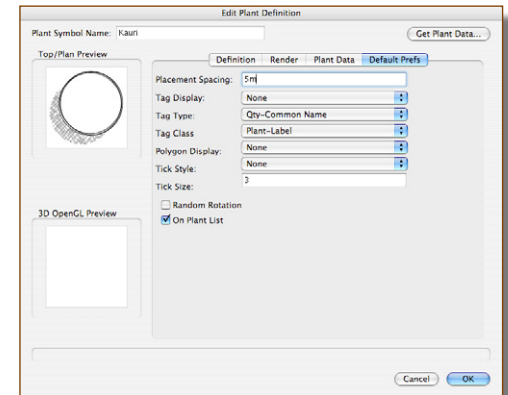
- Click on the **Definition** Tab.
- Enter the information for the plant definition.



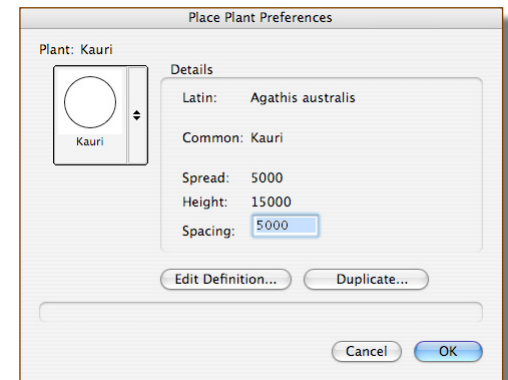
- Click on the **Render** Tab.
- Choose the Rendering options for the plant.



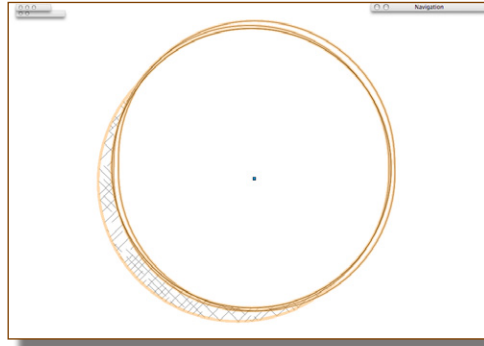
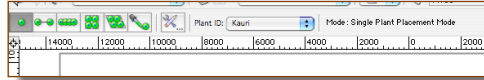
- Click on the **Default Prefs** Tab.
- Enter the information for the plant.
- Click on the **OK** button.



- Check the plant settings.
- Click on the **OK** button.



- The new tree is selectable from the Mode Bar.
- Then you can place your new tree.



# Wall Styles in VectorWorks 2008

## Wall Styles

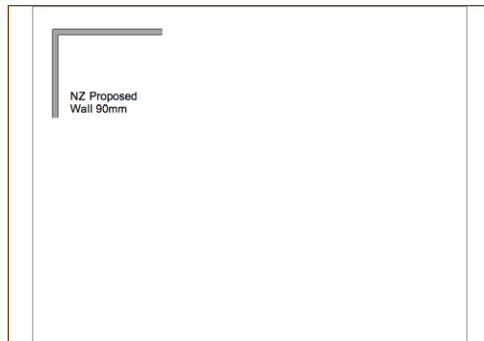
In VectorWorks 2008 wall styles are more powerful than before. The new wall styles let you have classes assigned to wall components. I've been looking forward to this ever since we had wall components.

Because of the classes on wall components you should not reuse your old VectorWorks 12 wall style library without updating it. Update your wall styles to have components and assign classes to your wall components to make your drawings more powerful.

Why should you use wall styles? Well, a well set up wall style will let you draw walls quickly, will automatically assign your walls to the correct class, will automatically set the wall to the correct height and will have the correct graphic style. A well set up wall style library will let you change from one wall to another quickly, and it will have all your most common walls in it.

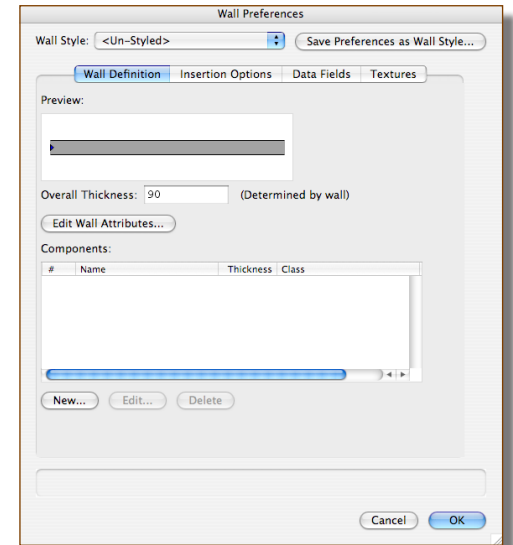
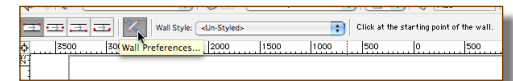
You can store your wall style library in your template file, you can store the wall style library on your computer, or you can store your wall style library on a network computer. Storing the wall style library on your computer or server are the best options. This way if you edit the wall styles you can use the revised wall styles on any project.

- Open a file with walls.
- This file has one wall style on this layer. We can use this as the start of your wall style library.

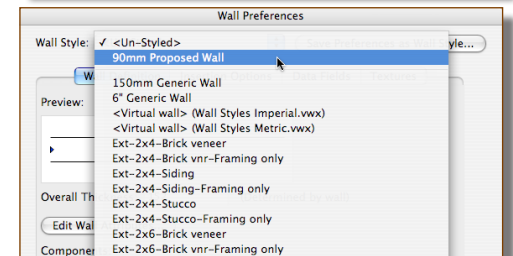


## [cadmovie109](#)

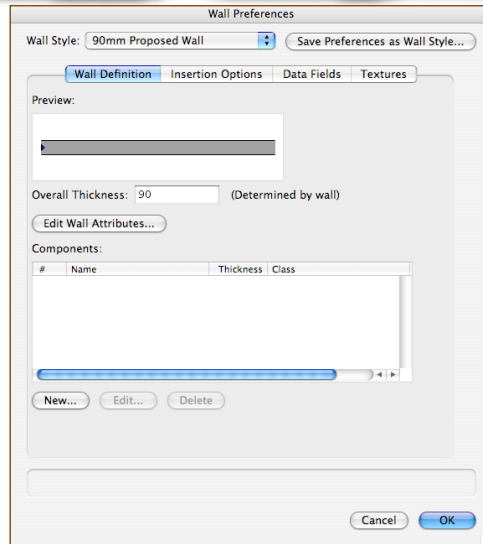
- Choose the **Wall tool** from the Building Tool set.
- Go to the Mode Bar.
- Click on the Wall Preferences button, the last button on the Mode Bar.
- This opens a dialog box where you can edit your wall style.
- If you are trying to use your existing version 12 Wall style library you will notice that there are changes to this dialog. In particular, we now have more control over wall components.



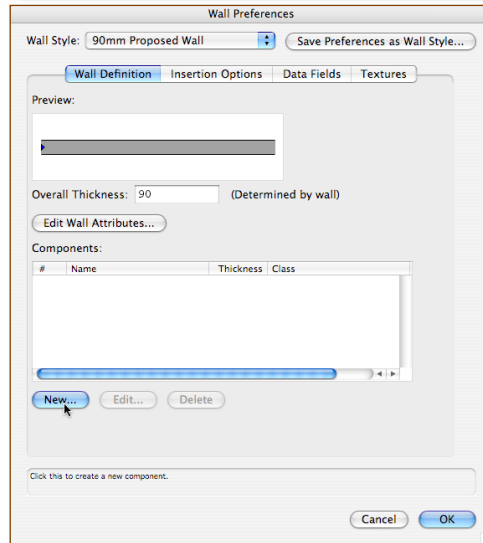
- Click on the pop-up menu and choose the **90mm Proposed Wall**.



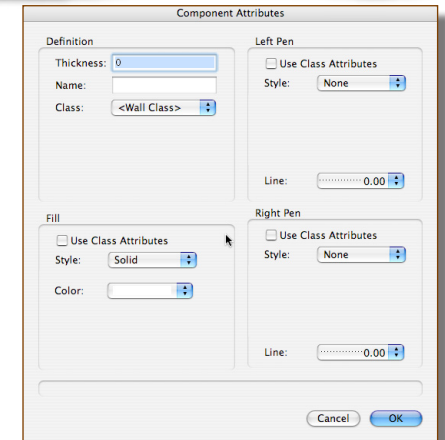
- Here is your start for a new wall style. We will use wall components to build our wall. Each component will be on a class so when you make your drawings you can choose which component of the wall will be visible.



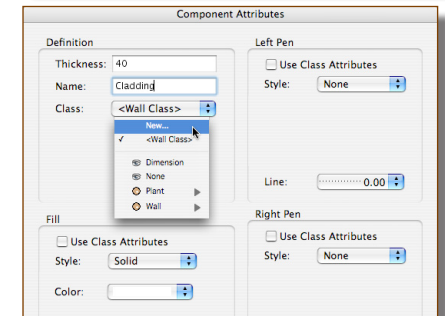
- Click on the **New** button to create a new wall component.



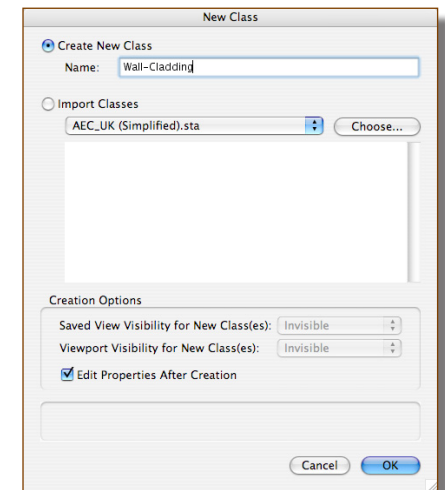
- This dialog box controls the wall component. You can set the color, line weight, and so on. The best technique is to use classes to control the attributes.



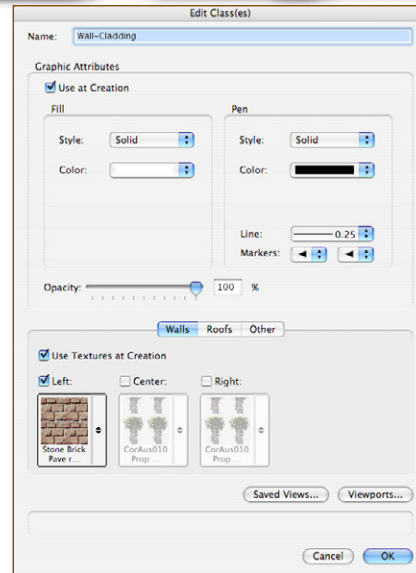
- Fill in the thickness of the wall component.
- Name the wall component.
- Go to the Class pop-up.
- Choose **New...**



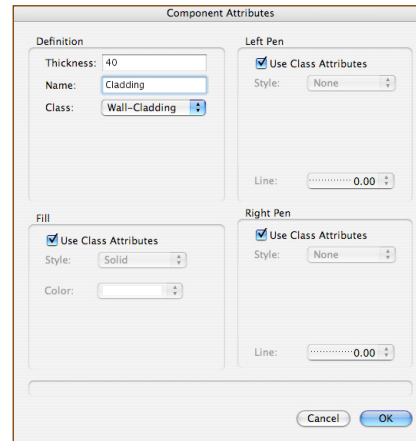
- Name the new class with a suitable name. If you have a layer and class standard you could select the class from your standard.
- Choose the option at the bottom to **Edit Properties After Creation**.
- Click on the **OK** button.



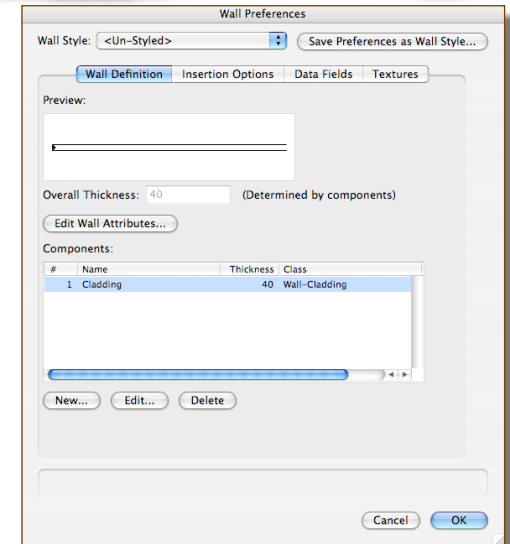
- Choose the options for your wall. Setting the line weight, fill and texture will automatically assign these to all the walls of this style. You could even assign the texture at this point and set up wall styles for each type of wall cladding.
- Click on the **OK** button.



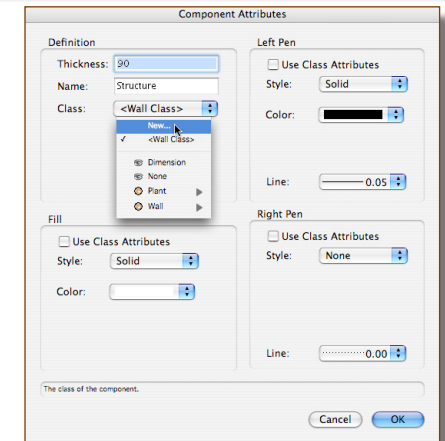
- Make sure the options to use Class Attributes are selected for all the parts of the wall component.
- Click on the **OK** button.



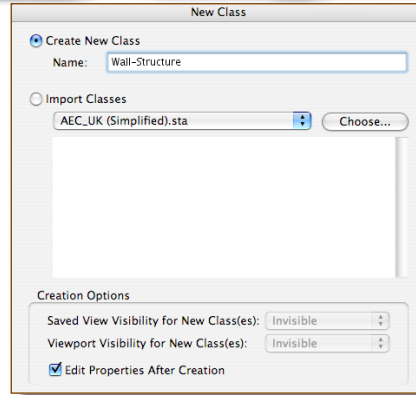
- You will be taken back to the Wall Preferences dialog box. The wall looks a little strange. That's because it only has one wall component.
- Click on the **New...** button again to create a new wall component. This wall component will be for the structure of the wall.



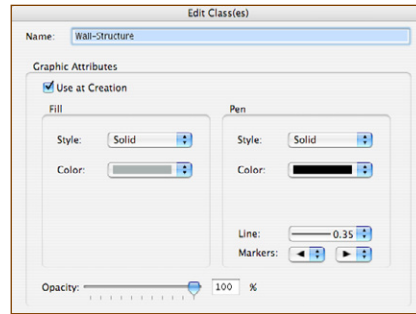
- Fill in the thickness of the wall component.
- Name the wall component.
- Go to the Class pop-up.
- Choose **New...**



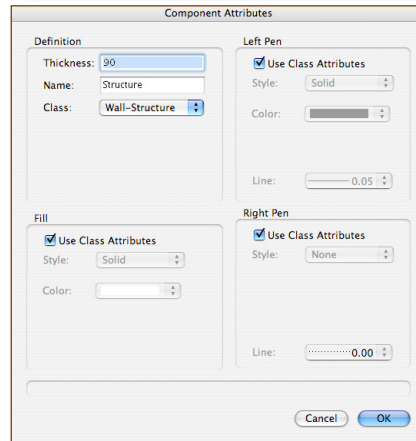
- Name the new class with a suitable name. If you have a layer and class standard you could select the class from your standard.
- Choose the option at the bottom to **Edit Properties After Creation**.
- Click on the **OK** button.



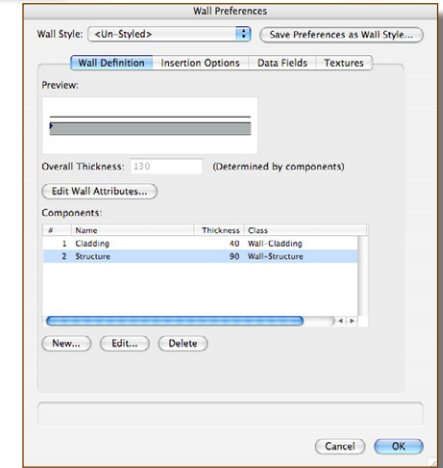
- Set up the class attributes to suit your work.
- Click on the **OK** button.



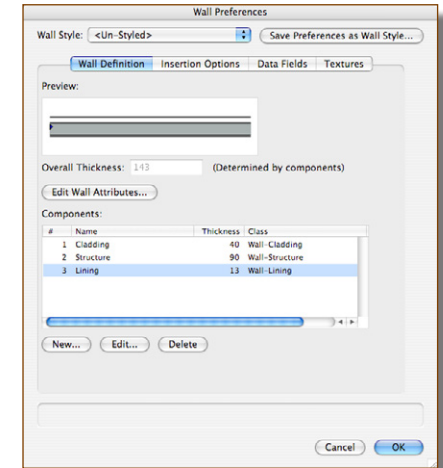
- Make sure the options to use Class Attributes are selected for all the parts of the wall component.
- Click on the **OK** button.



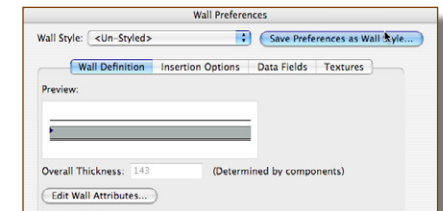
- You will be taken back to the Wall Preferences dialog box. The wall looks better.
- Click on the **New...** button again to create a new wall component. This wall component will be for the internal lining of the wall.



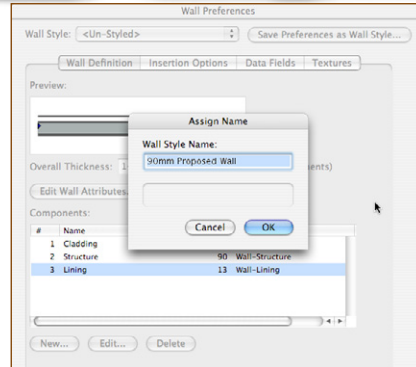
- Set up the name, thickness and class settings for the lining.



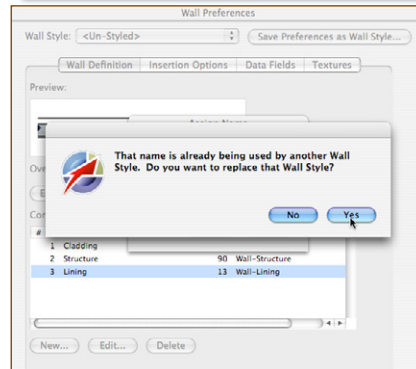
- Click on the **Save Settings as Wall Style...** button.



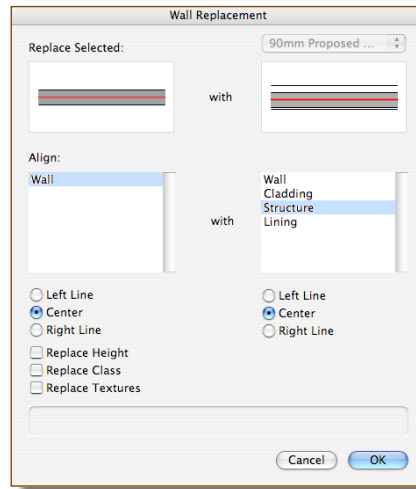
- Name the wall style. If you are updating your Version 12 wall library, then give the wall the same name that you used before.
- Click on the **OK** Button.



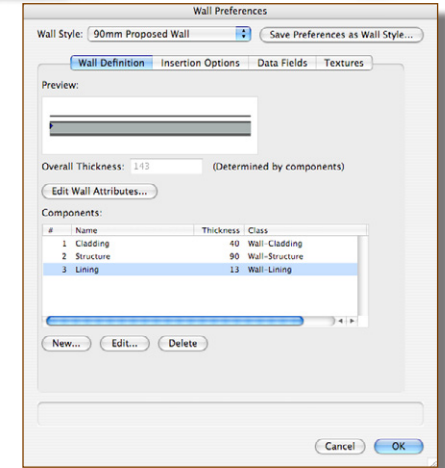
- If the name exists, you will be asked if you want to replace the old wall style.
- Click on the **Yes** button.



- Choose the options for the replacement.
- Click on the **OK** Button.

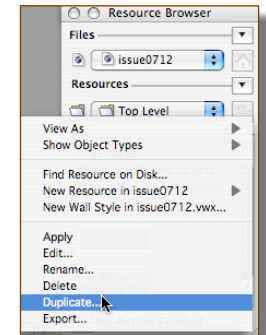


- Your new wall is now a wall style.
- Click on the **OK** Button.

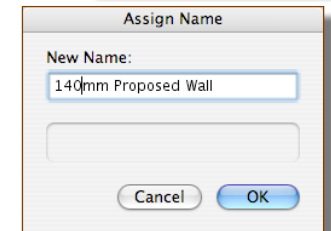


[cadmovie110](#)

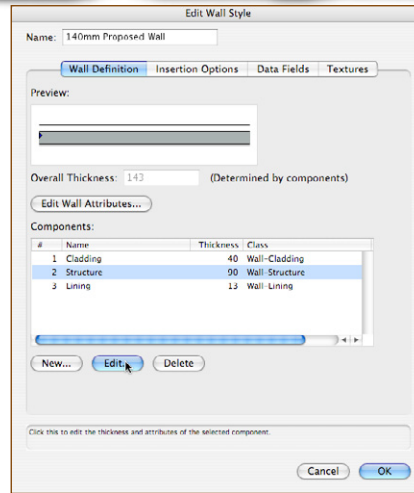
- This has created one wall style with all the settings you need. The easiest way to create all your wall styles from here on is to duplicate your wall style and edit it.
- Find the wall style in the Resource Browser.
- Right-mouse (ctrl-click) click on the wall style.
- Choose **Duplicate...**



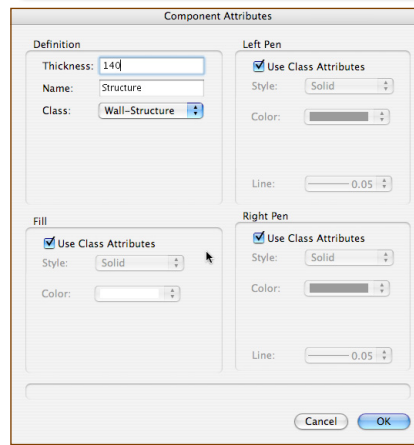
- Name the new wall style.
- Locate the new wall style in the Resource Browser.
- Right-mouse (ctrl-click) click on the wall style.
- Choose **Edit...**



- Click on the **Structure** component.
- Click on the **Edit...** button.



- Change the thickness of the component to **140mm (6")**.
- Click on the **OK** button.



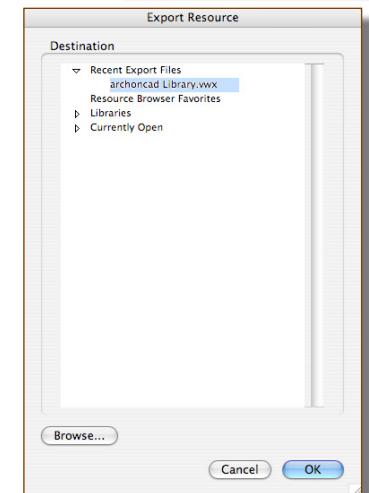
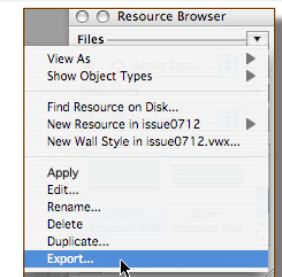
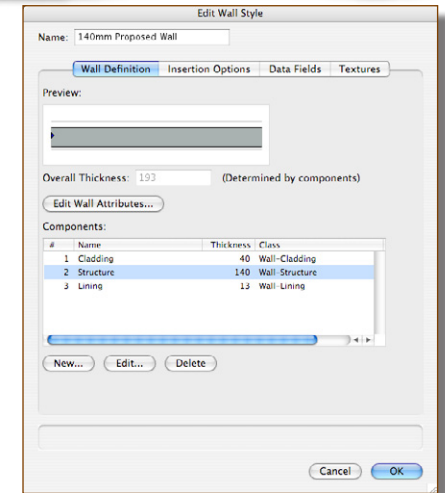
- Click on the **OK** button.

This has updated the wall style in this file only. You could make this your wall style library. Or, if you already have a wall style library you can export this wall style to your library and save it there.

It is a good idea to keep your wall style up to date, and with VectorWorks 2008 it has become easier. You can now export your wall style from one file to another.

[cadmovie111](http://cadmovie111)

- Locate the new wall style in the Resource Browser.
- Right-mouse (ctrl-click) click on the wall style.
- Choose **Export...**
- Choose the file from the list if you can see it, or click on the **Browse...** button to locate your wall style library.
- When you locate your library, click on the **Open** button.



# 3 D Modeling

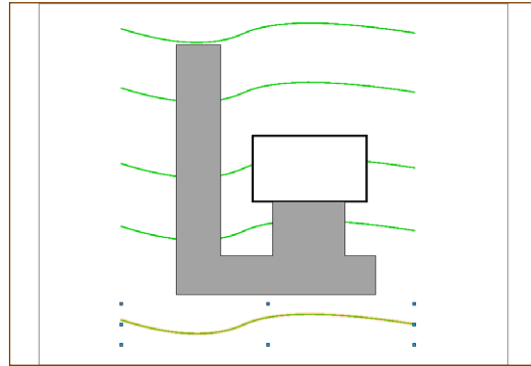
With the Export Resource option you can make your library symbols in any file and export them to your library. This will make it easy to keep your wall style library, symbol library, or any other VectorWorks library current.

This exercise will show you how to use 3D modeling tools to create a quick building.

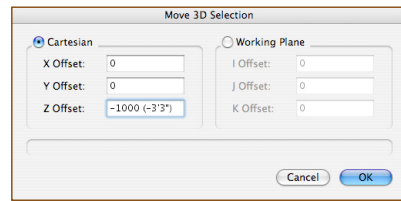
[cadmovie112](#)

## Create the Site

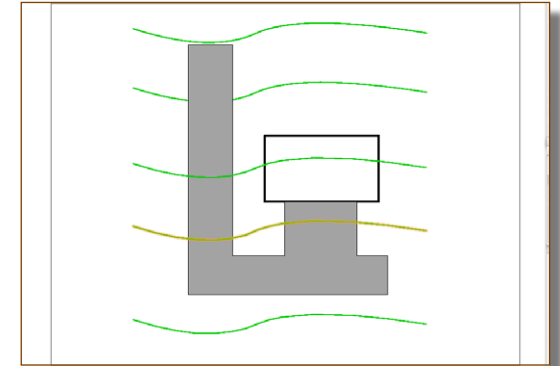
- This file has a series of polylines.
- Select the bottom polyline.
- Go to the Menu Bar.
- Choose **Modify > Convert > Convert to NURBS.**



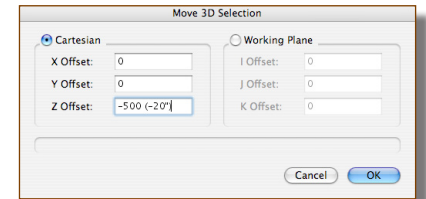
- Go to the Menu Bar.
- Choose **Modify > Move > Move 3D...**
- Move the NURBS curve down **-1000mm (-3' 3")**.



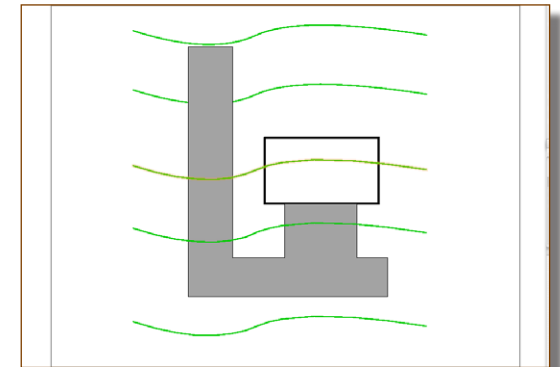
- Select the next green contour.
- Go to the Menu Bar.
- Choose **Modify > Convert > Convert to NURBS.**



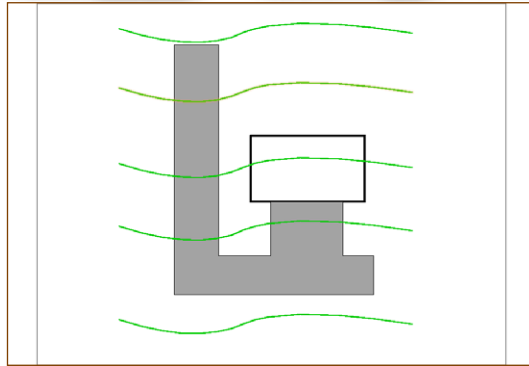
- Go to the Menu Bar.
- Choose **Modify > Move > Move 3D...**
- Move the NURBS curve down **-500mm (-20")**.



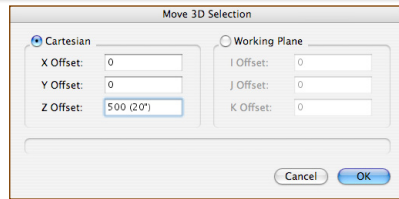
- Select the next green contour.
- Go to the Menu Bar.
- Choose **Modify > Convert > Convert to NURBS.**



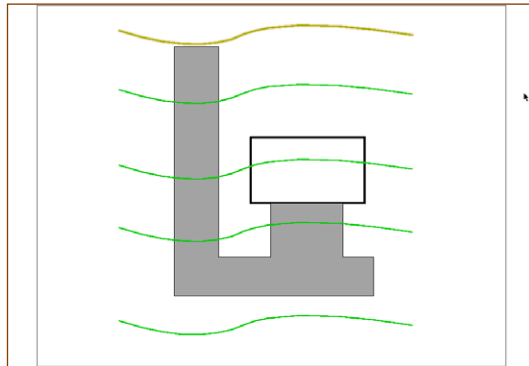
- Select the next green contour.
- Go to the Menu Bar.
- Choose **Modify > Convert > Convert to NURBS.**



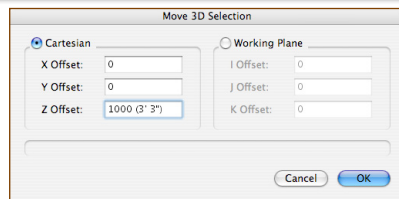
- Go to the Menu Bar.
- Choose **Modify > Move > Move 3D...**
- Move the NURBS curve up **500mm (20")**.



- Select the next green contour.
- Go to the Menu Bar.
- Choose **Modify > Convert > Convert to NURBS.**



- Go to the Menu Bar.
- Choose **Modify > Move > Move 3D...**
- Move the NURBS curve up **1000mm (3' 3")**.

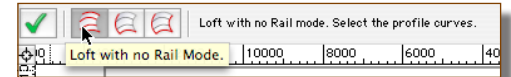


[cadmovie113](#)

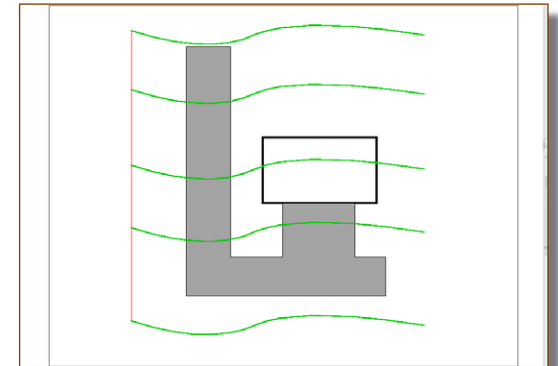
- Select the **Loft Surface** tool from the 3D Modeling Toolset.



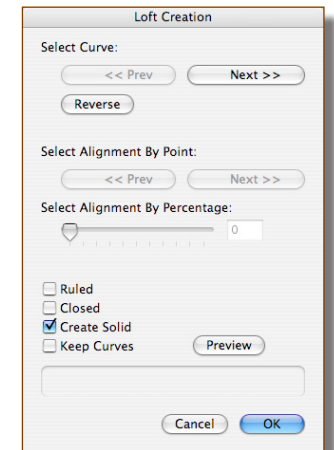
- Use the **Loft With No Rail** mode (the first mode).



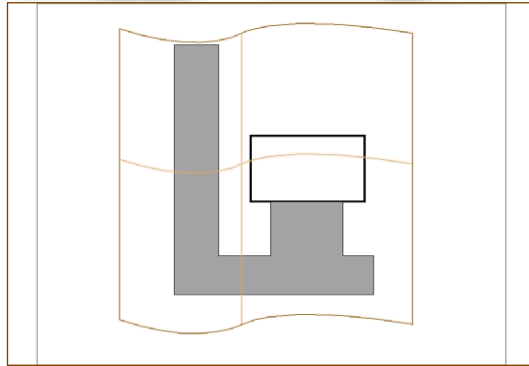
- Click on the end of each NURBS curve.
- Click on the green tick or hit the Enter or Return key.



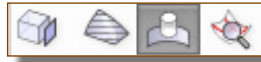
- Make the Loft surface a solid object. Choose the option **Create Solid.**
- Click on the **OK** button.



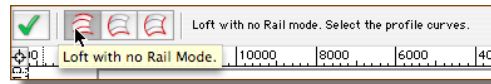
- It now looks like a 3D object. We could call this our site....



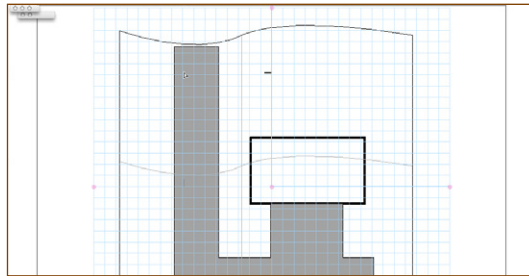
- Select the **Project Tool** from the 3D Modeling Toolset.



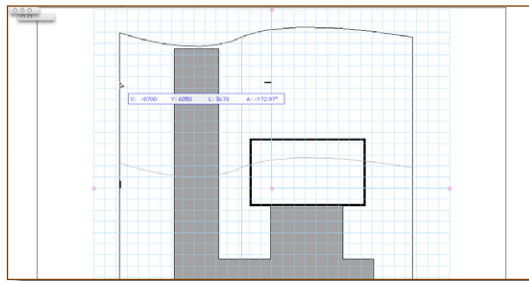
- Choose the Project and Split mode (the first mode).



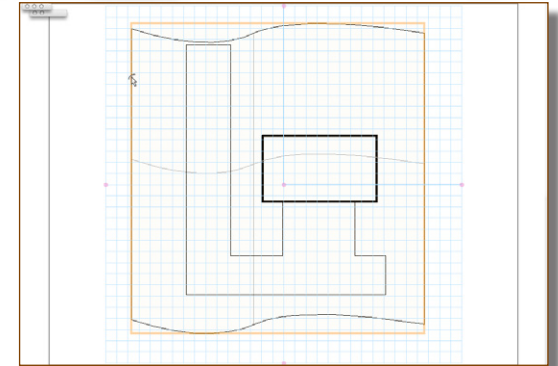
- Click on the road (the grey shape).



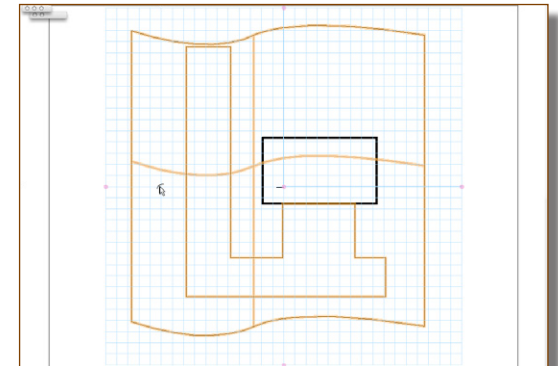
- Click on the edge of the site object.



- The carpark and road have been projected down to the surface.

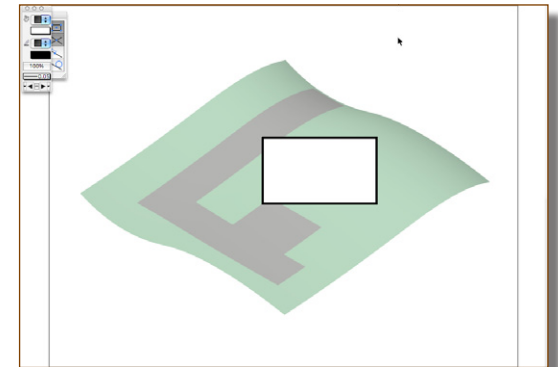


- Go to the Menu Bar.
- Choose **Modify > Ungroup**.
- This allows you to colour the objects different colours.

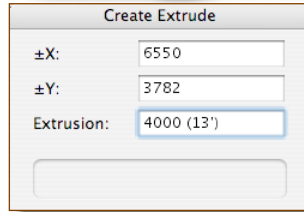


[cadmovie114](#)

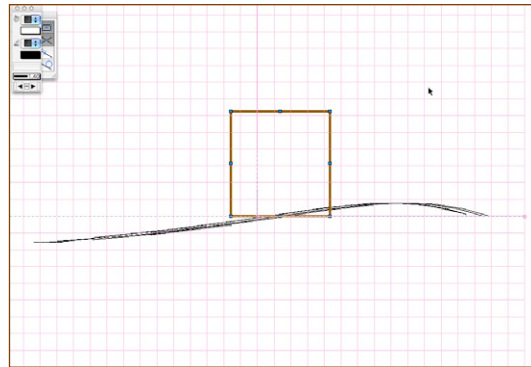
- In 3D you can see it clearly.
- Change back to a **Top/Plan** view.



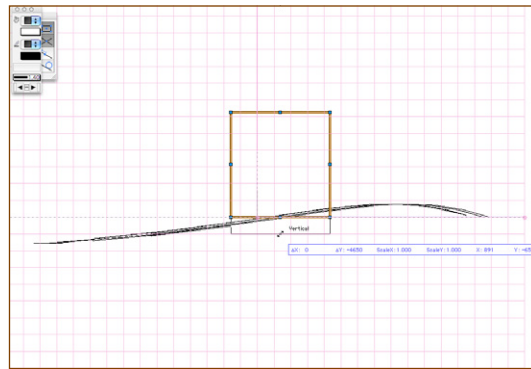
- Select the outline of the building ( the heavy rectangle).
- Go to the Menu Bar.
- Choose **Model > Extrude....**
- Extrude the object **4000mm ( 13')**.



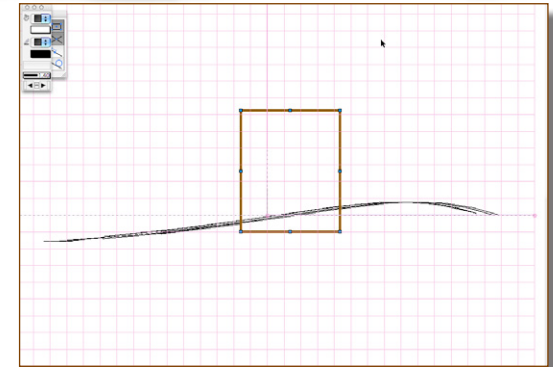
- When you change to a Right view you'll notice that the building is not sitting all the way down on the site.



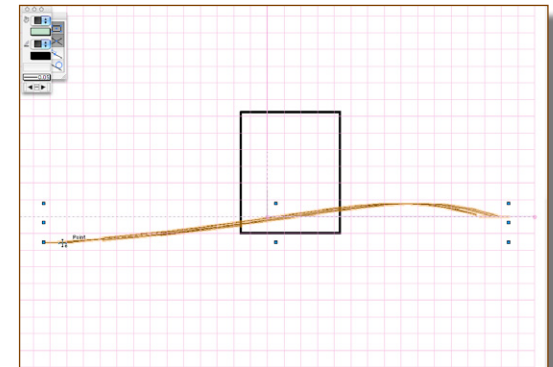
- Select the building.
- Move your cursor to the handle at the center bottom of the extrusion. Your cursor will change to a reshape cursor.



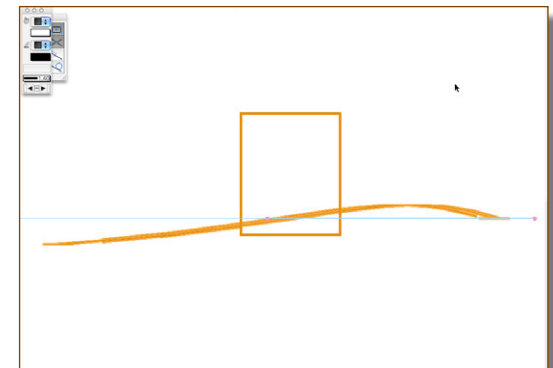
- Click and move the mouse so that you stretch the building down below the site.
- Click to stop stretching the building.



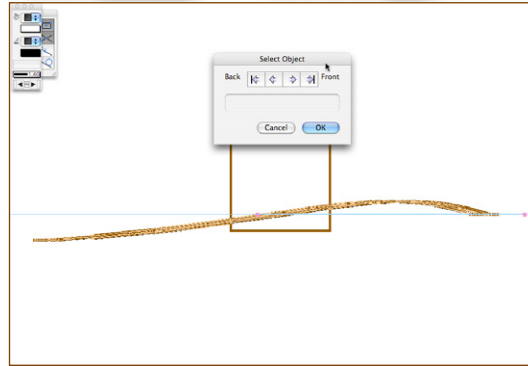
- Duplicate the site by option-clicking (Machintosh) on the site or ctrl-clicking (Windows).
- Select the duplicate site the the block (building).



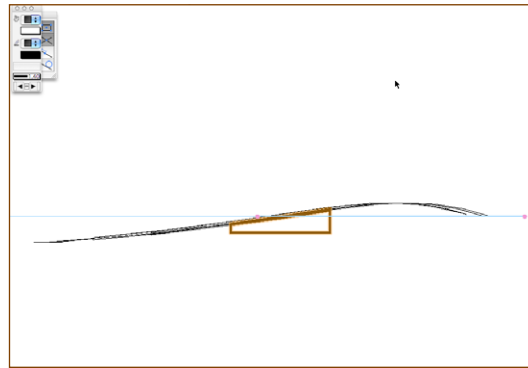
- Select the new curve and the building.
- Go to the Menu Bar.



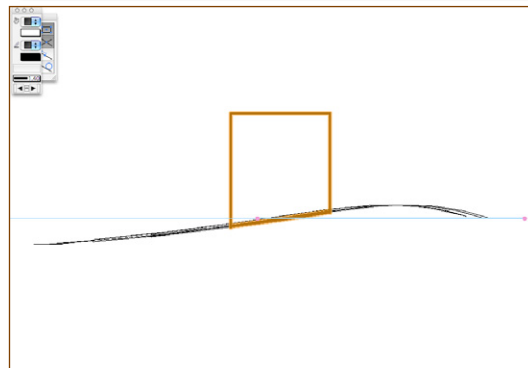
- Choose **Model > Section Solids...**
- Make sure that the site is highlighted.
- Click on the **OK** button.



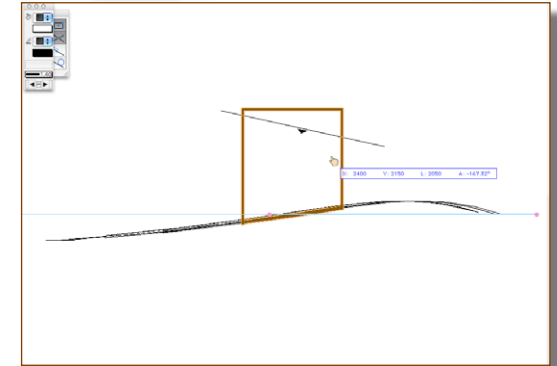
- This cuts away the parts of the building that you don't want.
- You might find the **Section Solid** cuts off the wrong part of the building.



- Go to the **Object Info Palette**.
- Click on the **Reverse Section Side** button.
- Select the building if it's not already selected.

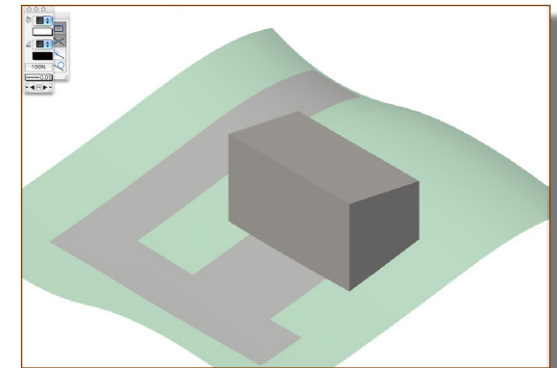


- Use the **Split Tool** and choose the 3rd mode, Split by line.
- Click to start the trim line.
- Move your mouse to the angle that you want.
- Click to finish the trim line



This is a good start to modeling a building. There is more that could be done, but we are running out of time.

The 3D Modeling tutorial from <https://secure.vectorworks.net/estore/training> continues this exercise and has exercises on many 3D tools and techniques. If you want to progress in 3D modeling you need to purchase this manual.



# Questions and Answers

## Q. "Can I print all my drawings at one time ?

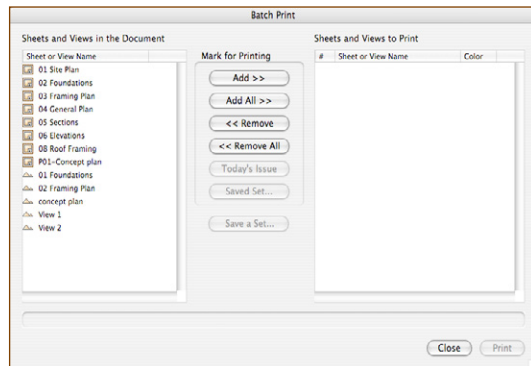
Yes, you can. There is a **Batch Print** command that will print all your sheet layers or saved views. It is more flexible than just printing ALL your drawings, you can choose which drawings to print, which ones print in color and which drawings print in black and white only.

### Step 1

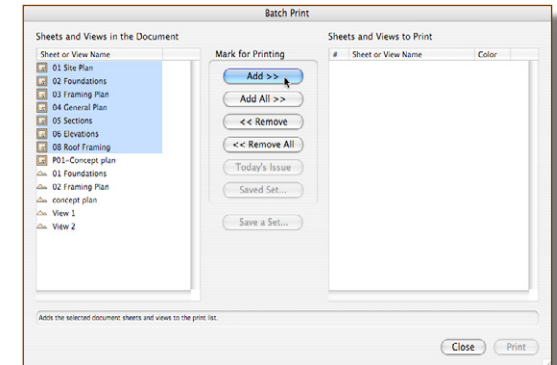
You need to set up all your drawings using sheet layers or saved views. I recommend using sheet layers. That forces you into using viewports for your drawings. Viewports are a powerful drawing organization technique.

### Step 2

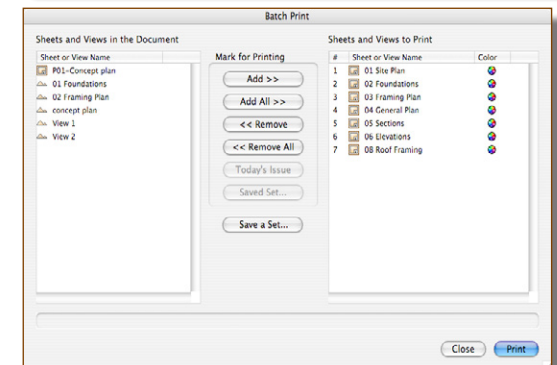
- Go to the Menu Bar
- Choose **File > Batch Print...**
- This dialog box allows you to choose the sheet layers or saved views for printing.



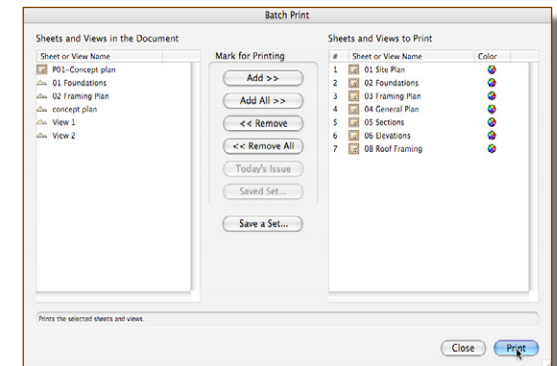
- Select all the drawings you want to print.
- Click on the **Add>>** button.



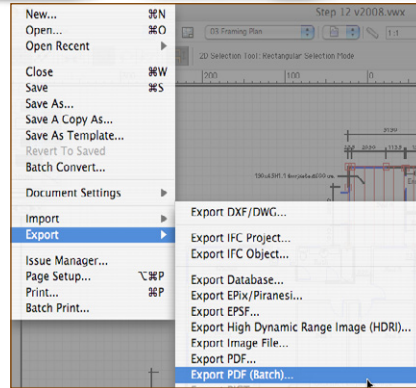
- The chosen drawings are added to the right side of the dialog box.
- You click on the color icon next to each drawing to change the drawing from color black and white.



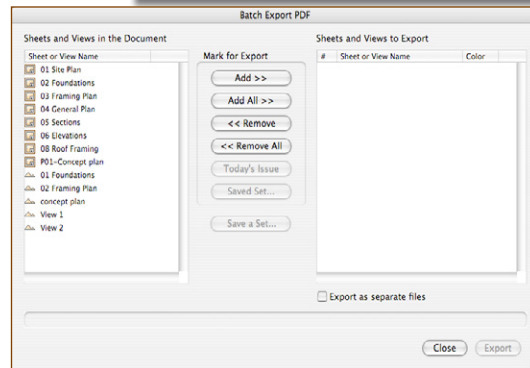
- When you are finished, click on the **Print** Button.
- If this is a set of drawings you will use on a regular basis, click on the **Save a Set...** button. You can save this set and recall the set later.



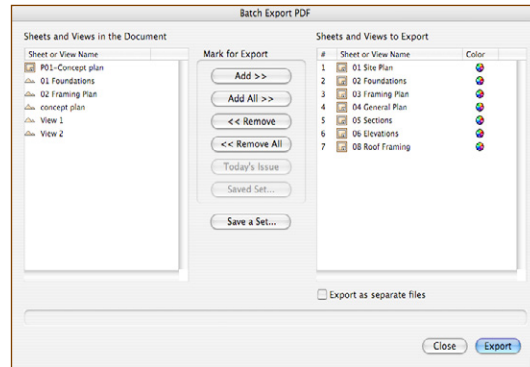
- You can also batch export the drawings to PDF if you have one of the professional series.
- Go to the Menu Bar.
- Choose **File > Export > Export PDF (Batch)...**



- This opens a dialog box that looks very similar to the batch print dialog box. It works the same way as the batch print.



- If you set up a saved set of drawings for printing on the batch print dialog box you can recall the set of drawings in this dialog box.
- Click on the **Export** button.



- Set the resolution options for the PDF file.
- Click on the **Export** button.
- Save the PDF file somewhere easy to find. I suggest you save the PDF file in the same folder as your VectorWorks Drawings.

