Layout Tutorial

In this tutorial we will create a layout template, send a few views to a layout page, then save this document in PDF format.

In this tutorial you will learn about:

- Creating a Layout Template
- Creating a Border and Title Block
- Sending Floor Plan Views to Layout
- Sending Elevation Views to Layout
- Sending Details to Layout
- Sending Perspective Views to Layout
- Printing to PDF

Getting Started

Chief Architect uses two file types: plans and layouts. In a plan file (.plan), we design a 3D model of a structure, and in a layout file (.layout) we arrange views of that model as well as text, callouts and other annotation to produce professional quality construction documents. For complete information about layouts, see "Layout" on page 1183 of the Reference Manual.

In previous tutorials we explored aspects of creating a 3D model in a plan file. Now, we'll create a layout file and arrange views of the model that we recently completed on the layout pages. Since we won't be altering the model itself, it doesn't matter which plan file you use.

1

Creating a Border and Title Block

Once the page setup of the layout sheet is established, you can use CAD tools to create a border and title block for your layout pages on Layout Page Zero. For information about the printable area of the drawing sheet, see "Drawing Sheet" on page 1167 of the Reference Manual.

Drawing borders may be simplified by making a few changes in the **Preferences** dialog and your plan defaults. When you have finished creating borders you may want to reverse these changes.

To set up the layout sheet

1.   Select **File> New Layout** to open a new, blank layout file.

2.   Select **File> Print> Page Setup** to open the **Page Setup** dialog.
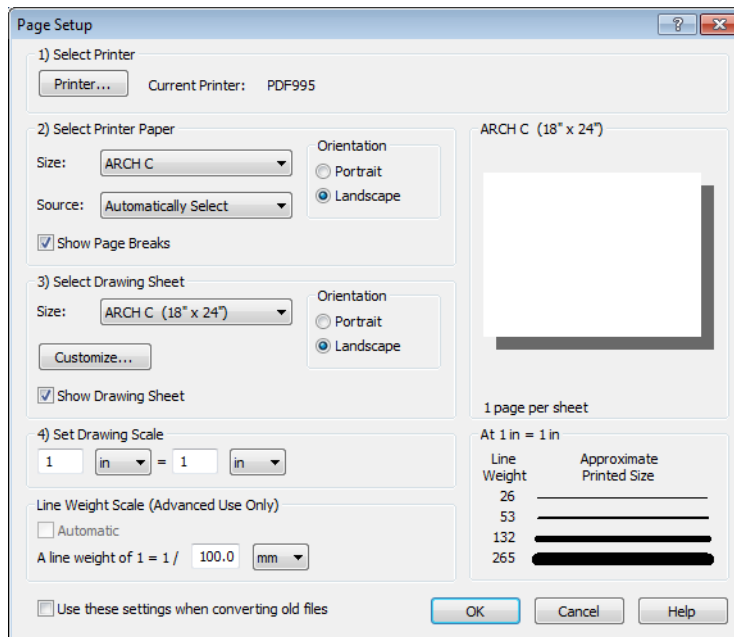
3.   Click the **Printer** button and specify the printer.
     • If you have a local printer/plotter you will be using, select it from the list.
     • If you do not have a local printer, you can select a PDF driver as your printer. See "Printing to PDF" on page 17.
4.   Specify the **Size** and **Orientation** for the Printer Paper and Drawing Sheet. The sizes available will be limited by the current printer. In most cases, the printer paper and the

2

drawing sheet should be the same size. If you would like to print a test page or if you would like to tape smaller pieces of paper together to create a larger sheet, the printer paper and the drawing sheet can be different dimensions.

5. The **Drawing Scale** for layout files should always be 1 in = 1 in (1 mm = 1 mm for metric plans). For more information, see "Drawing Sheet Setup Dialog" on page 1164 of the Reference Manual. Click OK when you are finished.

To create a layout border

1. Select **Tools> Layout> Page Down** ⟨ to go to Layout Page 0. Any information that you place on Layout Page 0 will display and print on all pages of the document, so this is a good location for your border and title block. See "Layout Page Zero" on page 1206 of the Reference Manual.
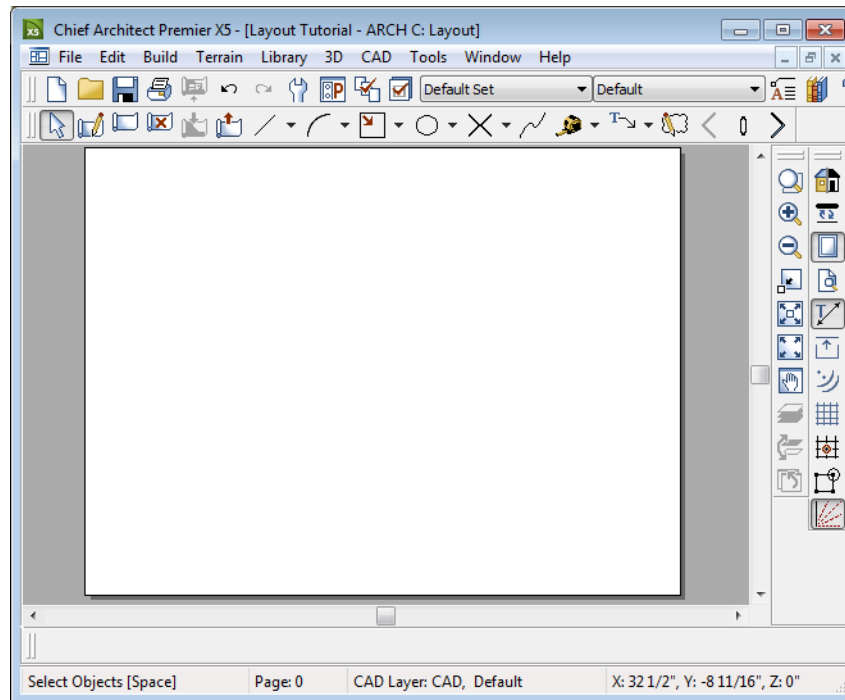
2. Make sure that **Object Snaps** are enabled, particular **Endpoint** snaps.

3. Select **Window> Fill Window** or zoom out so that you can see the entire drawing sheet.

3

4. Select **CAD> Boxes> Rectangular Polyline** ▣, then click and drag a rectangle beginning at one corner of the drawing sheet and ending at the opposite corner.

   • Watch for the red snap indicators that will display at each corner when Endpoint snaps are enabled.

5. Select **Edit> Preferences** ▣, then go to the Behaviors panel of the **Preferences** dialog.

6. Select **Concentric Edit Type**, and specify the **Jump** value as the distance you would like your border to be drawn from the edge of the drawing sheet. In our example, 1/2" is used. For more information, see "Behaviors Panel" on page 108 of the Reference Manual.
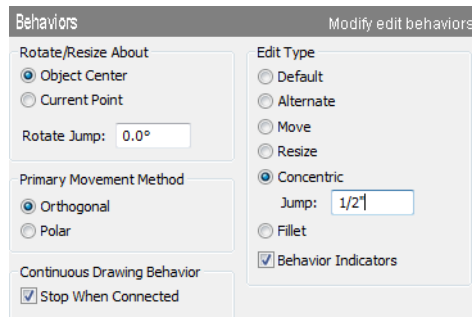
7. Select the rectangular polyline, then click and slowly drag a corner edit handle towards the center of the polyline. When you reach the your specified **Concentric Jump** distance, the polyline will resize so that its edges are that distance from the drawing sheet edges.

   • Make sure that your border is entirely within the printable area.

8. You can create a double border in the same manner. Click the **Copy/Paste** ▣ edit button, then click and slowly drag one of the corner edit handles towards the polyline center. A concentric copy of the polyline is made when you reach your **Concentric Jump** distance.

9. When you are finished concentrically resizing and copying your border objects, it is a good idea to return to the Behaviors panel of the **Preferences** dialog and return to the **Default Edit Type**.

10. You can adjust the line weight, style and color for any CAD object in its specification dialog. See "Line Style Panel" on page 1035 of the Reference Manual.

11. To see the final product, you may find it helpful to turn off the display of the Snap and Reference Grids. See "Layout Defaults" on page 1183 of the Reference Manual.

To create filleted corners

1. Select one of your rectangular polylines and double-click the **Fillet Two Lines** ▣ edit button

4

2. In the **Chamfer/Fillet** dialog, specify a **Fillet Radius value**. A value of 1" fillets one inch of each intersecting edge.

3. Select one side of the rectangle, click the **Fillet Two Lines** ⬚ edit button and then select an adjacent side. The two lines fillet where they meet.

4. Repeat step 3 until all corners are filleted.

Title Block

Create the title block using CAD objects and Text on Layout Page Zero. Include only those items that should appear on every layout page. You can create areas for page-specific information, which can be filled in later on each page. A company logo can be added to a layout by importing it as an image. You can also embed the image in the layout file. For more information, see "Importing Pictures" on page 1089 of the Reference Manual.


Text Macros

Page numbers can be entered on page zero using text macros that are available with the Text tool. The correct page number displays on all pages. A variety of other macros are also available including date/time, file name, drawing scale, and others. See "Text Macros" on page 1014 of the Reference Manual.

Creating a Layout Template

Template files save defaults, layer and page setup settings and then apply them to new, blank files - saving you the time and work of specifying them every time you begin a new project. For more information about plan and layout templates, see "Template Files" on page 78 of the Reference Manual.

1. Select **Edit> Default Settings** ⚙ from the menu to open the **Default Settings** dialog. Make any changes that you wish to the Text, CAD and Layout Defaults. This tutorial will simply use the default settings, but you can customize the defaults to suit your own tastes. See "Preferences and Default Settings" on page 67 of the Reference Manual. Click Done when you are finished to close the **Default Settings** dialog.

2. Select **Tools> Display Settings> Display Options** ☑ to open the **Layout Page Display Options** dialog. Here you can set up line weights, styles, and colors for the layers in your layout template. See "Layout Page Display Options" on page 1184 of the Reference Manual. These settings do not affect objects within layout views - they only affect CAD, Text, Dimensions and layout box borders placed on the layout pages. Click OK when you are finished.
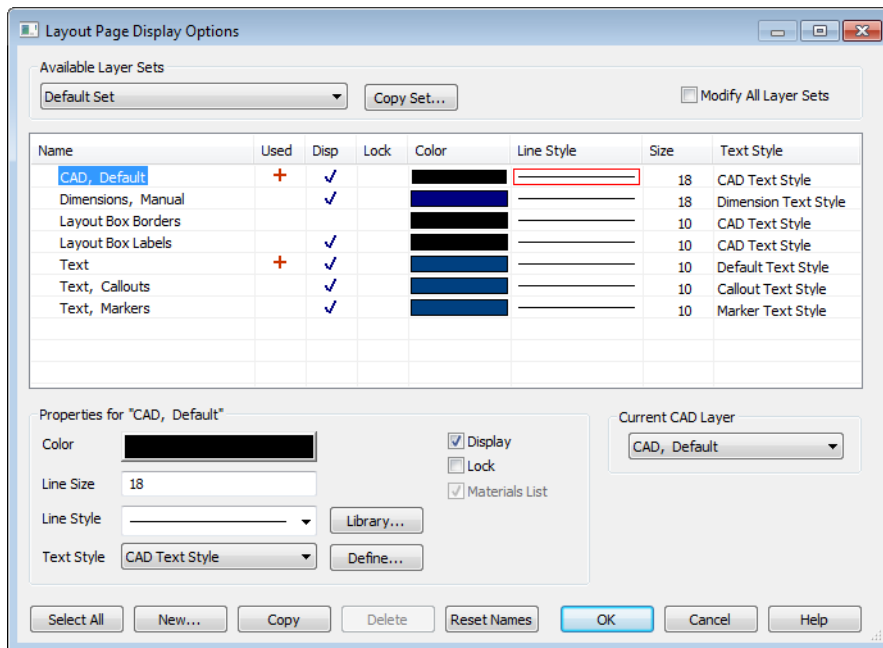
3. Select **File> Templates> Save Plan as Template** ⊞. The **Save Plan File** dialog opens to the Templates directory specified in the **Preferences** dialog. For more information, see "Folders Panel" on page 95 of the Reference Manual.

4. Save your new layout template with a short, descriptive name such as "My 18 x 24 Template.layout".

5. When prompted, click Yes, specifying that you would like to use your new template as the default.
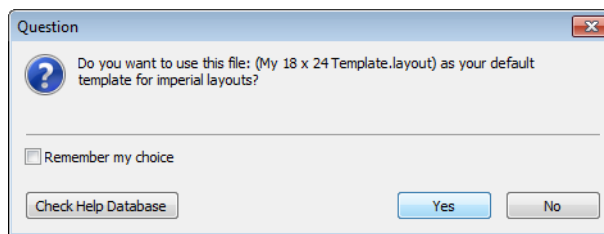
6. Your template layout file will close and (provided you have no other plans open) a new untitled layout file will open with your border, title block, default and layer settings ready to go.

Sending Floor Plan Views to Layout

In order to send any view to layout, first open both the destination layout file and the plan file. It is recommended that these two files have the same name and be saved in the same folder in your computer. See "Organizing Your Files" on page 49 of the Reference Manual and "Managing Layout Links" on page 1201 of the Reference Manual.

To send a floor plan view to layout

1. Select **File> Open Plan** 📁 and open a plan such as the Walkout Basement Tutorial plan.

2. Select **File> Save As** 💾 and save the file using a new name.

3. Select **Window> Fill Window** ⤢.

4. Select **Tools> Display Settings> Display Options** ☑ and turn on or off any layers as needed so that only the objects that you want to see in the layout view display.

5. Click the **Active Layer Set Control** drop-down and select Plot Plan Set from the list. Selecting this layer set turns off the display of layers that aren't necessary for a site plan, such as cabinets, millwork and door and window labels.
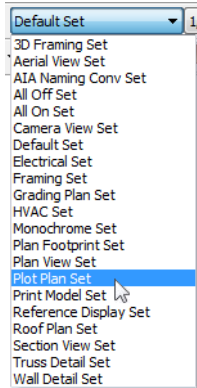
6. Select **File> Print> Page Setup** [ ] and make sure that your **Drawing Scale** is correct in the **Page Setup** dialog. This will be the scale of the view once it is sent to layout. For a plot plan, a scale such as 1/8 inch = 1 ft works well.

> 💡 The information in the Page Setup dialog is view-specific. When you open the dialog in floor plan view, its settings only apply to floor plan views of the current plan. When you open it in a cross section view or CAD detail window, its settings apply only to the current view or detail window.

7. Select **File> Send to Layout** [ ] to open the **Send to Layout** dialog.
   • Confirm that the view is being sent to layout using the same **Scale** as in the **Page Setup** dialog.
   • Select **Entire Plan/View** under **Send Options**.
   • Uncheck **Make Copy of Active Layer Set**. This means that once sent to layout, the view will use the Plot Plan Set and changes made to this layer set will affect the view.
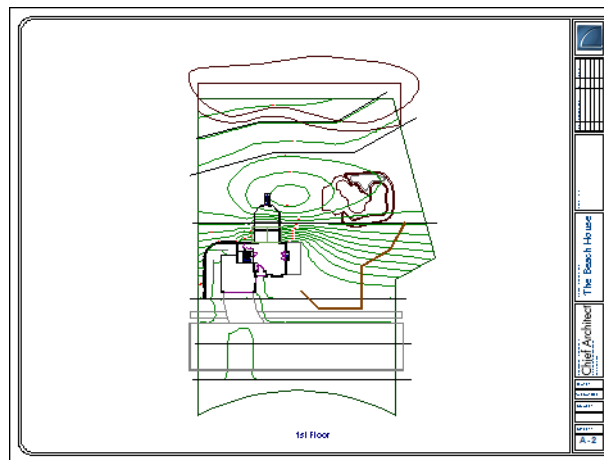
8

• Set the scale to 1/16in=1ft, under **Send Position**, we will **Send to Layout Page #** 2 and leave **Show Layout Page** checked so that when we click **OK**, the layout window will become active.
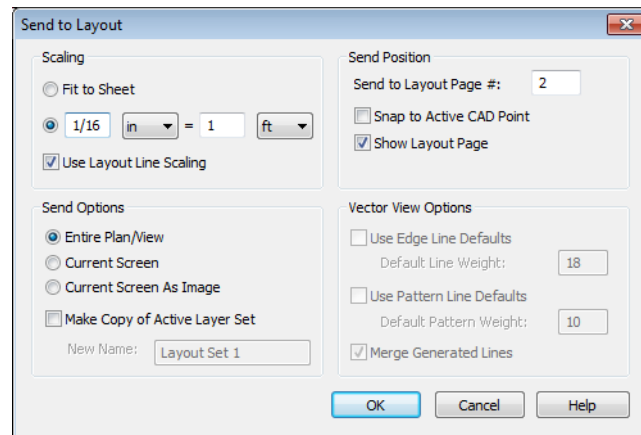
8.   Click OK to send the view to layout.

9.   Once sent to layout, the view can be selected and moved using its edit handles or edit buttons, and its edges can be edited like a CAD box. See "Editing Box-Based Objects" on page 198 of the Reference Manual.

10. Select **Window> Previous Window** (or press Ctrl + Tab) to return to floor plan view.

11. Click the **Active Layer Set Control** drop-down arrow and select Default Set from the list of available layer sets. See "Active Layer Set Control" on page 144 of the Reference Manual.

> 💡 It is important that we switch from the Plot Plan Set so that we don't make unwanted changes to our site plan view on the layout page.

Sending Elevation Views to Layout

Cross Section/Elevation 🏠, **Backclipped Cross Section** 🏠 and **Wall Elevation** 🏠 views can also be sent to layout.
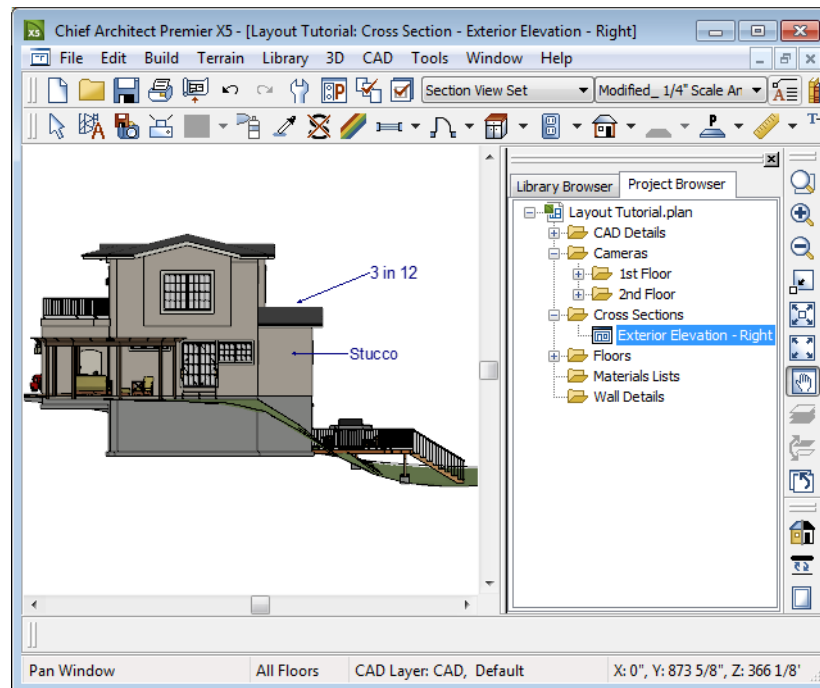
To send an elevation view to layout

1. Select **3D> Create Orthographic View> Cross Section/Elevation** 🏠, then click and drag to create a side elevation view. See "Cross Section/Elevation Views" on page 868 of the Reference Manual.

2. You may want to **Zoom** 🔍 in on the house.

3. In the elevation view, click the **CAD Configuration** 🔺 button to access the CAD toolbar (see "Toolbar Configurations" on page 126 of the Reference Manual) and add any annotations such as roof heights, pitches, material specifications or other notes.

4. Select **3D> Save Active Camera** 🏠 so that the camera and your annotations are retained and listed in the Project Browser. See "Saving and Printing 3D Views" on page 885 of the Reference Manual.

5. Select **3D> Edit Active Camera** 📷, and in the **Cross Section/Elevation Camera Specification** dialog, give the Cross Section view a short descriptive name, such as "Exterior Elevation - Right".


6. Select **File> Print> Page Setup** 🔲 and specify a **Drawing Scale** for the elevation view in the **Page Setup** dialog. 1/4 in = 1 ft should work well. Click OK to close the **Page Setup** dialog.

7. Select **File> Send to Layout** 🖼 to open the **Send to Layout** dialog.
    • Confirm that the view is being sent to layout using the same **Scaling** as in the **Page Setup** dialog.
    • Select **Current Screen** under **Send Options**.
    • In this case, we will leave **Make Copy of Active Layer Set** unchecked. Once sent to layout, the view will use the Section View Set and changes made to this layer set will affect the view.
    • Under **Send Position**, we will **Send to Layout Page #** 3 and leave **Show Layout Page** checked.
    • When Orthogonal Views (including cross section/elevation views) are sent to layout, you can specify line weights for surface edge lines and pattern lines. You can also

11

leave these boxes unchecked to use the line weight settings assigned to the individual objects and patterns in the view. See "Send To Layout Dialog" on page 1189 of the Reference Manual.
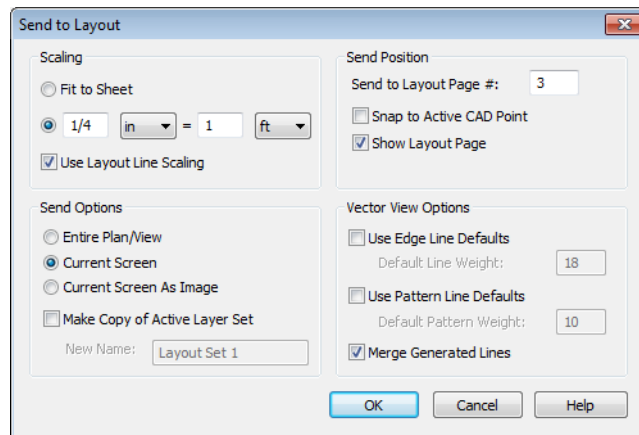
8. Click OK.
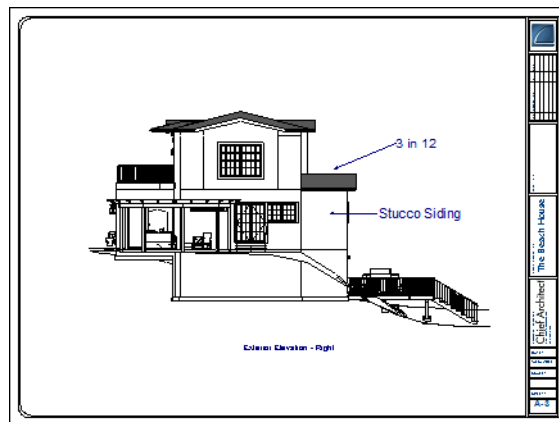
9. Return to the elevation view, then select **File> Close** to close the view. In the **Update View to Layout** dialog, click OK. If you had made changes in the elevation view, clicking OK would update those changes to the layout view. In this case, no changes were made, so it doesn't matter.

10. Return to floor plan view. A camera symbol now displays, indicating the position of your saved elevation camera.

11. Repeat this process for any additional desired elevation views. If sending more than one elevation view to the same page, keep in mind that the elevation views will need to be selected and repositioned so that they are not stacked on top of one another on the page.

If you would like to make changes to the lines in the elevation view, select **CAD> CAD Detail From View** ⬚ to make a copy of the view in a CAD detail window that is composed of editable lines and polylines. Changes made to the model do not affect views sent to CAD. See "CAD Details" on page 1065 of the Reference Manual.

Any Orthographic view can be converted to a CAD Detail. All patterns become lines and colors no longer display. Individual lines can be added and edited.

Sending Details to Layout

Foundation, roof, cross section and other details are an important feature of professional construction documents. The steps used to send details to layout can also be used to place schedules, legends, keys and other items on the layout page.

To send details to layout

1. Return to floor plan view.

2. Select **CAD> CAD Detail Management** ⬚ to open the **CAD Detail Management** dialog. Click the **New** button, type a short descriptive name for your detail and click OK.
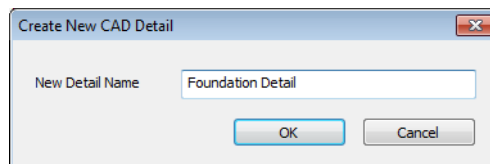
3. A new CAD Detail window opens. You can create a CAD detail from scratch using the CAD tools, or you can place a CAD block from the library.

4. In this example, we will place a blocked drawing from the CAD Blocks library category. This block can be exploded and edited as needed. See "CAD Blocks" on page 1059 of the Reference Manual.
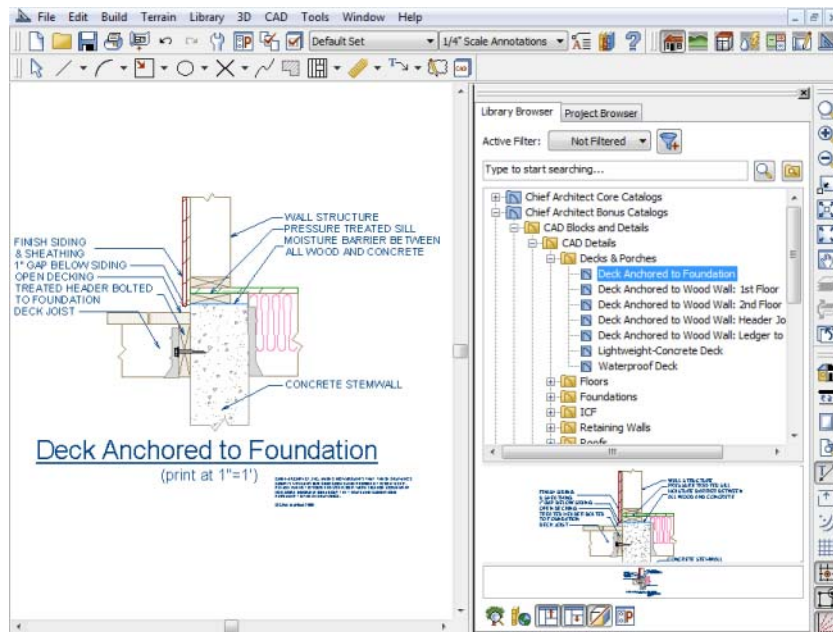
5. Select **File> Print> Page Setup** and specify a **Drawing Scale** for the CAD detail in the **Page Setup** dialog. 2 inches = 1 foot works well in this case.

6. Select **File> Send to Layout** to open the **Send to Layout** dialog.
   - Confirm that the view is being sent to layout using the same **Scaling** as in the **Page Setup** dialog.
   - Select **Entire Plan/View** under **Send Options**.
   - In this case, we will leave **Make Copy of Active Layer Set** checked and type a short, descriptive name for the layer set that the layout view will use, such as "Page 4 Detail Set". Once sent to layout, the view will use this layer set, so any changes made to the Default Set will not affect it.

14

• Under **Send Position**, we will **Send to Layout Page #** 4 and leave **Show Layout Page** checked so that when we click **OK**, the layout window will become active.
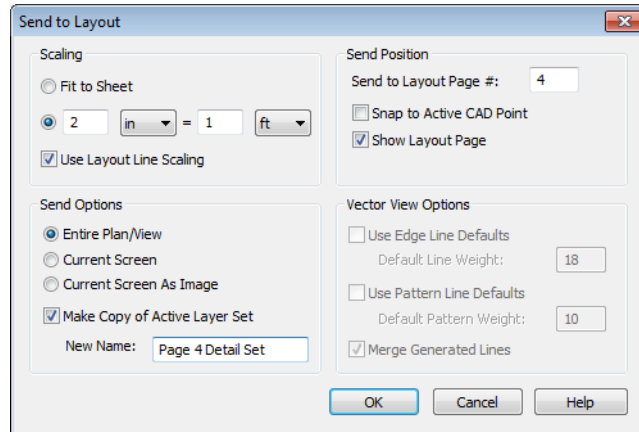
7. Some useful notes are available in the Notes & Legends library in the CAD Blocks category. Text can also be copied and pasted from other applications. Place your notes in a CAD detail and send them to layout, as previously described.

Sending Perspective Views to Layout

Perspective views add visual appeal and clarity to your documentation. They are converted to bitmap images when sent to layout, which means that they increase your file size considerably. As a result, you should send perspective views to layout sparingly.

To send a perspective view to layout

1. Return to floor plan view.

2. Select **3D> Create Perspective View> Full Camera** and create a 3D view.

3. In the camera view, use the Move, Orbit and Tilt Camera tools available in the 3D menu to adjust the view to your liking. See "Editing 3D Views" on page 879 of the Reference Manual.

4. Click the Restore button at the top right corner of the view window, between the Minimize and Close buttons, then adjust the shape of the window so that it includes the information that you want and has a height to width ratio similar to the space you want it to fill on the layout page.

15

5. Select **3D> Camera View Options> Final View** to redraw the view at a higher quality according to your settings in the **Preferences** dialog. See "Previews vs Final Views" on page 897 of the Reference Manual

6. Select **File> Send to Layout** to open the **Send to Layout** dialog. When perspective views are sent to layout our options are limited because they cannot be scaled. This is why we do not need to access the **Page Setup** dialog before sending the view to layout.
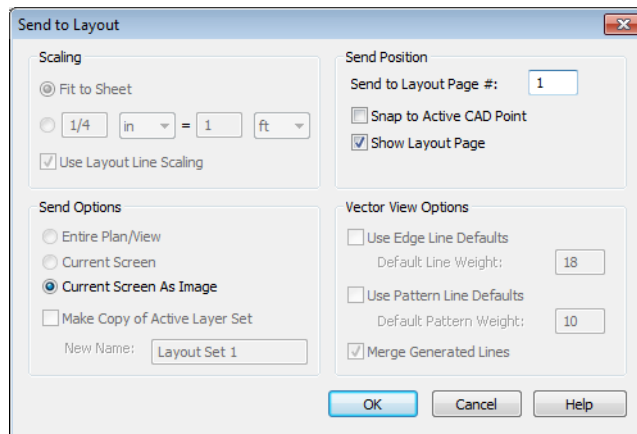
7. Select and resize the image as needed.

8. **Send to Layout Page #** 1 and leave **Show Layout Page** checked.

9. Repeat this process for any other camera views you may want to send to Page 1, including rendering techniques, such as Watercolor, of your layout sheet. For more information on these options, see "Rendering Techniques" on page 911 of the Reference Manual.

Printing to PDF

A PDF, or Portable Document Format, file saves all of the printable information associated with a document such as a layout and makes it available for both viewing and printing without using the software originally used to create it. PDFs are easy to create and provide you with an efficient way to share your work with others or send documents to a print service.

In order to create a PDF, you must first have a PDF printer driver installed on your computer. Many options are available, including PDF995, which is available for download. Select **Help> Download PDF Printer Driver** from the program menu or visit www.pdf995.com.

Creating a PDF is a printing function, and the PDF driver installed on your computer should be treated like any other printer. Set up page size and orientation information in its Properties dialog and select your PDF writer as your printer in the **Page Setup** and **Print** dialogs. For more information, see "Printing to a PDF File" on page 1170 of the Reference Manual.