If you find that there are things that are missing, that you want to see, because they should be shown in a particular layer combination, then sometimes it can be confusing, particularly if it's imported elements. Sometimes you may bring in things from consultants, and need to edit the information. And so, in order to see what's on a layer that's hidden, you can go and open up the layer dialog box and manually say, "Hmm. I think that the stuff that we're missing is on a particular layer." And you can look through that list. But sometimes, they can be a little bit cumbersome, because there are so many layers, and you're really not sure which layers have the information you need. [0:48]

So there is a tool that I've written a whole article about, and I'll be posting that article in the Best Practices Course members area in this week's section. And it's on what's called the "Quick Layers Pallette". So the Quick Layers Palette, very briefly, when I open it up, brings up this little strip. And it has lots of different functions that you can do. But, one of my favorite ones is to use this option on the left, which toggles what layers are visible and what layers are not. So if I toggle this, then we're going to see that certain elements are visible that were not visible before. So for example, this landscape element here, this tree, is now visible. And I can figure out that is a layer perhaps that I want to show at this time. [1:49]

So if I want to get this layer visible and see all the landscape elements, I can tell it that this layer, I want to unlock in this case. And I want to hide it. And then what will happen is - let's see, say, "Unlock This Layer and Hide It". Then when I toggle back with this toggle, now we're going to see the floor plan that I was looking at with the landscape elements. So, basically the idea here is that if you can't figure out which layers something is on, and you want to see those elements, using the Quick Layers Palette to toggle and show what is hidden will allow you to see, and possibly using other features within the quick layers palette, unlock and show or hide those layers. So please check out that article that I've written for some more descriptions on how to use the Quick Layers Palette and what it's good for. And I'll put it back to the first floor plan, and we'll proceed. [3:19]

So if we look at the layer combinations again, I'll point out that the layer combinations can be used for different purposes. Now, the primary ones that are in the standard ArchiCAD environment are construction document ones. And in MasterTemplate, we have quite a large number of them, more than you would find in the standard template that Graphisoft supplies. Because we recognize that there are many different types of construction documents that people are required to create. But in addition to construction documents, there are also the possibilities of having layer combinations for other phases of the workflow. For example, when you're wanting to create a presentation drawing of the building, or presentation of the elevations, these potentially might use different layers than when you're creating and elevation for structural drawing, for construction documents. [4:20]

And similarly, in part of your work phase, you're going to be modeling and designing the building. So, when I turn this layer combination on, it turns on all of the main structural information for the building, but it doesn't have dimensions and text and other things turned on. And this will simplify the view, so you can focus just on the building, and not on creating the drawings of the building. There can be ones where it has the building and the site, or the building plus the interior, but not the site. These are, again, layer combinations for specific phases of your work, or focus points when you're working on certain things. [5:06]

Now, you may be creating custom objects for the building. And so in this case, we have a special purpose layer combination for that, which turns off a lot of things, just leaving on very limited layers for creating custom objects. And there can be some special purpose ones, for example, "Model see through roofs" or "Model see through walls". If I activate this, you may see something rather odd on the floor plan, but if I go now to 3D, and I'll just bring up the 3D view. We're going to see that this particular view, we're seeing through the roofs. Now, how did that happen? I'll open up the layer combination, and we'll see that when we have "Model see through roofs", the layer for the roofs here are wire frame. So you can see this. And if I click here, you'll see how it toggles between these modes as I click multiple times. So, this wire frame mode is a special purpose for 3D views, that allows particular layers to be shown in a special way. [6:19]

You can see that we're actually saying the roof, and I can even select it and edit these roofs. But, I'm seeing through them. Whether that's for presentation purposes, for example, to give people at different view of the project; or for certain types of modeling purposes, where you want to be able to see through some elements while you're still working with them. So, if I go back to the layer combinations, we have modeling layers of layer combinations, presentation ones, we have construction documents of course, and we may have other special purpose ones for working on the layouts, or working on detail drawings. Or when we're working with modules or legends. These are all different purposes, and you can create a layer combination for any purpose that you find useful. [7:18]

But the basic idea here is any environment, any setup with certain things showing and other things hidden, that you will want to repeatedly refer to, you might want to create a layer combination for. Whereas on the fly, let's say I'm in the floor plan here, but I want to say temporarily that - lets see. Here's the floor plan, and I'll go back to the floor plan view, temporarily I want to turn off dimensions. I want to simplify that. So I can go in with the layers, and say that temporarily, I'd like to just turn off dimensions. It's perfectly fine to turn these off on the fly here, and you'll see now the drawing looks a little different. We can also select things like these are the grid markers, and I can right click on this and say that I'd like to hide a layer. So I can manually do that. [8:16]

Or, for example, if I select an element like this section marker. In the Quick Layers Pallette, there's an option to hide the selections layer. So, it's perfectly permissible to change the layers on the fly, but be aware that this is now a custom layer setting. And it won't really be a good practice to create a new view like this. I can do this, and I'll just go in say Custom. And I'll say, "Special View", and you'll see that that view is available. But that view that's been created with a custom layer combination as you see like this, is harder to manage then other views like ones that we've been looking at. If I double click on first floor plan, you can see that it has the floor plan layer combination, and one advantage of that is that if I update the floor plan layer combination, remember I added the partition layer to it? Well then all of the drawings that refer to that, that use the same layer combination will update. [9:32]

Whereas, when I have a special view, the only way to update that, if I double click on it you can see layers are set up. If I go and let's just say that I want to turn on this layer off here as part of it. What I can do is go to the Settings Dialog for this particular view, which is highlighted, and I can just say "Get Current Window Settings".

And that will actually pick up all the settings of the current window. So Get Current Window Settings is an option that can be useful. And we'll be exploring more about the view settings in the next lesson of the course. [10:12]

So, just to finish up, a little bit more in the layer usage. In addition to layer combinations, I'll talk a little bit about the layers themselves. Some layers clearly are 3D elements. We have walls and roofs. And some layers are clearly 2D. And you'll notice that there's an extension here. Which when I highlight something like furniture, you'll see it says 3D. Now, this is optional. It could be left blank, or you could have, in your layer name, usually it would be something short that would be an extension. Now, you can see that some are 3D, some are 2D, some have the word demo, meaning that they're for demolition. Some have the word Mark which means that they're for markers, like for the section markers, etcetera. [11:03]

Now, if I have any layer clicked on, and I press down in this one, this little filter control, I can say "Filter By Extension". And you can see now it's only showing the layers that have the 3D designation. If I go back here and say "Show All Layers", we'll see them back where they were. I can also sort by extension, and then I'm seeing them grouped. The ones having to do with hotlinked modules, the ones having to do with 2D annotation, 3D, etcetera; demo, detail ones, and the unique layers, which are our system MasterTemplate for all of those layers which are only for a particular drawing. So the extension is optional, but can be a useful tool for understanding the function of a layer, just so that you use it properly. And you can sort by layer name here, or by extension. And you can even sort by visible and hidden. So by clicking on the top of one of these, you can quickly see what's visible and what's hidden. [12:16]

So all of these layers down below have the eyeball closed. Now in general, you'll notice that most of the layers that have the eyeball closed also have the locked icon. And that is part of our tip, to lock those layers if they don't show up in the Popup Palette. And I believe I've discussed that in one of the other lessons of the course. So normally, we're going to have the layers in alphabetical order, but we can, at any time, switch these to another sort order. I'm not going to spend time explaining right now, but there is one other column here for the layers that has to do with what's called the Layer Intersection Priority. And you can see the little icon above the column that shows two walls meeting at a corner and creating a nice intersection. [13:10]

Briefly, if elements are on different layers, and those layers share the same intersection number, then they will attempt to clean up. If for example, there are two walls. But, if they are on different intersection numbers, they will not attempt to clean up. They will act as if they will ignore each other. So you'll notice that the demolition layer here is on a two, and that means any elements that are placed on this layer will ignore and not attempt to clean up with elements on a layer with a one. So we'll be spending some more time with this in a later section of course in construction documents, but I briefly wanted to mention that in the layer dialog box here. [13:59]

One final note here in the layer settings dialog is that we've got some special purpose layers down in the lower area that you can set up something similar in your template. But you won't find these in general in the standard Graphisoft template system. We have some layers with the letter "Y", which are for special purposes, in this case, explanatory notes. Object construction, so things that you would be creating a custom object on

this layer, and then you might hide that layer for most of the time. But if you need to redefine the custom object or create a similar one, you can turn that layer back on and it will still be in the file. Registration stamp is sometimes when you're outputting your drawings, it's preliminary, and you don't want any chance that it would be used for construction. But later on perhaps if you are allowed to have an electronic or digital stamp for your license, you might have that layer turned on, so it's a very special purpose. The temporary hide you saw is a layer that we set up so that you can use that at any time to hide elements temporarily. [15:24]

You're not going to delete them. In this case, you just want them to disappear from view. So you put them on that layer that's turned off. Now, we also have some elements for what are called Solid Element Operations. And these are used for certain modeling purposes, where two solids interact. You might have one element used to cut a hole or to cut a groove in another element, or the roofs to be used as a trimming tool for the walls. Now, some elements, like when I mention a groove in a wall, you may have these elements that are being used just to cut out part of the wall, but they're going to be invisible most of the time. In other words, they're really not something that is in the design as an element, they're being used as a cutting tool. And so they should be hidden for most of the time. But sometimes you need to turn them on, and move them around or use them, and then you would want to hide them by just hiding that layer. [16:32]

On the other hand, there are some special elements that are for modeling purposes that should be visible. For example, you may have things like downspouts or moldings. Things that are going to be seen in elevations or sections, but are not going to be seen on a floor plan. So these would be modeling elements that are going to be seen for certain types of drawings. For example, you see the elevations, they'll be turned on. We have some special layers for working with detail drawings, and we have a special layer for the trash basically. For things that you actually think you probably are going to be deleting, but you're not quite ready to delete them. You can put them into that layer, and then later just delete all the stuff that's in that layer recycle or trash layer. [17:28]

And then we have one other layer that's just for wire frame purposes. So, sort of like hiding a layer, except it's for 3D. You can take any elements just temporarily and move them onto this wire frame. And it's maintained as this wire frame visibility for all the layer combinations in general. So, these are some of the ideas that we've put into MasterTemplate for special layers. You can adapt them or use this sort of idea in your own template as well. Which actually reinforces the general idea that your layer combinations and your layer names themselves are best setup in a template, so that when you're working in your project, you don't, on the fly, have to create new layers. Just because you don't have a layer for something you need. [18:20]

So ideally, as you're getting better and working more effectively with ArchiCAD, you'll want to revise your template, so that if you decided you needed a layer for particular project, or you created three new layers, consider whether those layers should be in your template, so that they are available in the next project. So think of this as a work in progress, and that layers should be fine tuned for your template, so that whenever you start a project, you've got what you need. So this concludes our lesson on layers and layer combinations, and an introduction to some of the intricacies of setting views. This is been Eric Bobrow, and thanks for taking the time to watch this. Please share your comments and feedback below the video on the page.