

# Creating, Managing and Applying Figure Styles

## AutoCAD Civil 3D 2015

### Introduction

In this White Paper I will be delving into the creation, management and application of Survey Styles.

There are two Survey related styles; these are Network Styles and Figure Styles. As with all other styles in Civil 3D these are accessed and managed on the Settings tab of the Toolspace. Before we dive into the specifics of creating, managing and applying Figure Styles let's examine the concepts that drive them.

Figure Styles affect how the survey linework displays in a drawing. Unlike Survey, Equipment and Figure Prefix Databases they are stored in the drawing file and should be kept as part of your template. These styles are not critical. However to maximise the effectiveness of figures in your drawings you should define the layers they will sit on and styles they will assume. The UKIE template provides an excellent naming convention for layers and I recommend you refer to it when creating your own. Figure Styles are tied to items in the Figure Prefix Database and the Figure Prefix Database then assigns a Figure Style to Figures that are imported into a drawing.

### Figure Styles

In my last white paper I did not specify Figure Styles to be assigned to matching Figure Prefix's whilst creating the Survey Figure Database, this is why the linework that was imported all looked the same. The UKIE Country Kit contains a number of preconfigured Figure Styles, first of all let's have a look at the styles Autodesk have created for us. To do this open up the Toolspace and select the Settings tab, navigate the file tree to Survey then Figures and finally Figure Styles. As you can see there are a number of preconfigured Figure Styles included in the UKIE Template (see Fig. 1), these should satisfy most of your needs.

My dataset contains Figure Prefixes for Tensioned Corrugated Beams. Unfortunately the UKIE Country Kit does not provide a style for safety barriers and the General Features style is too generic for my preference. So let's get a style made for them. You can create new styles in one of two ways, you can Right Click on the Figure Styles folder from the Settings Tab of the Toolspace and select New, or you can Right Click on an existing Figure Style and select Copy.

Right Click on the Style named Road Edges and select Copy. Click onto the Information tab and change the name of the style to Tension Corrugated Beam (see Fig. 2).

Fig. 1

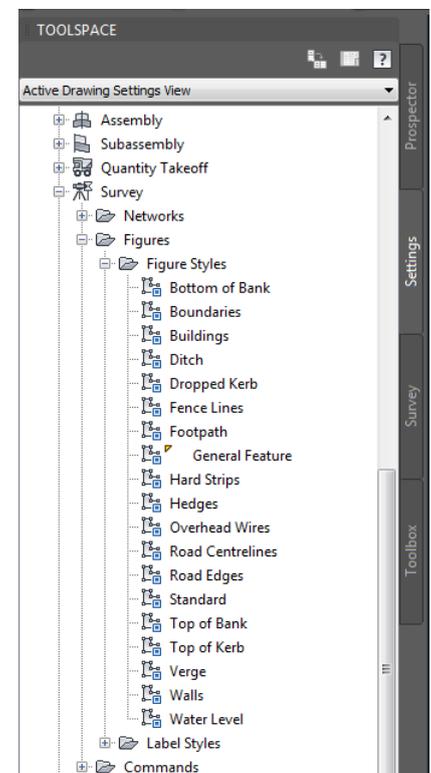
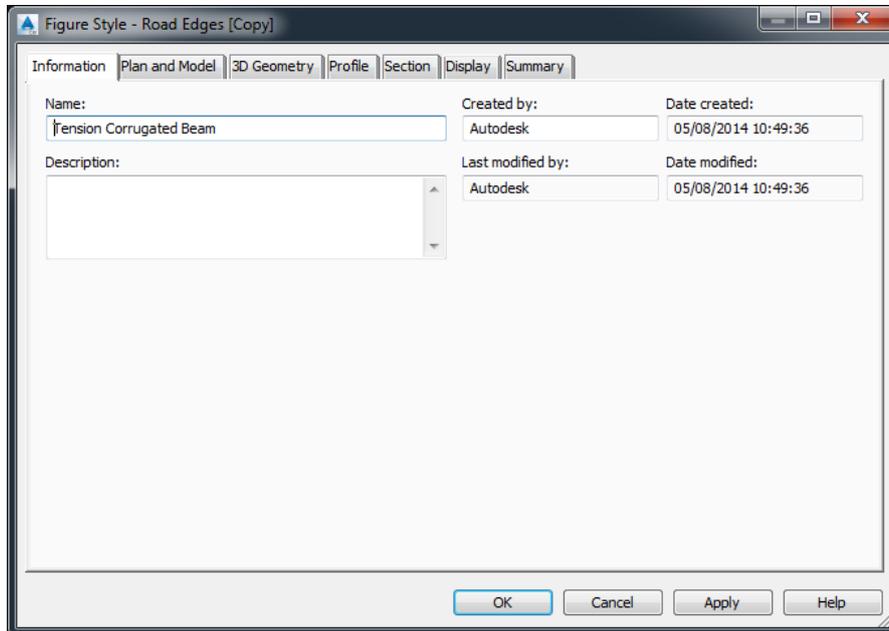
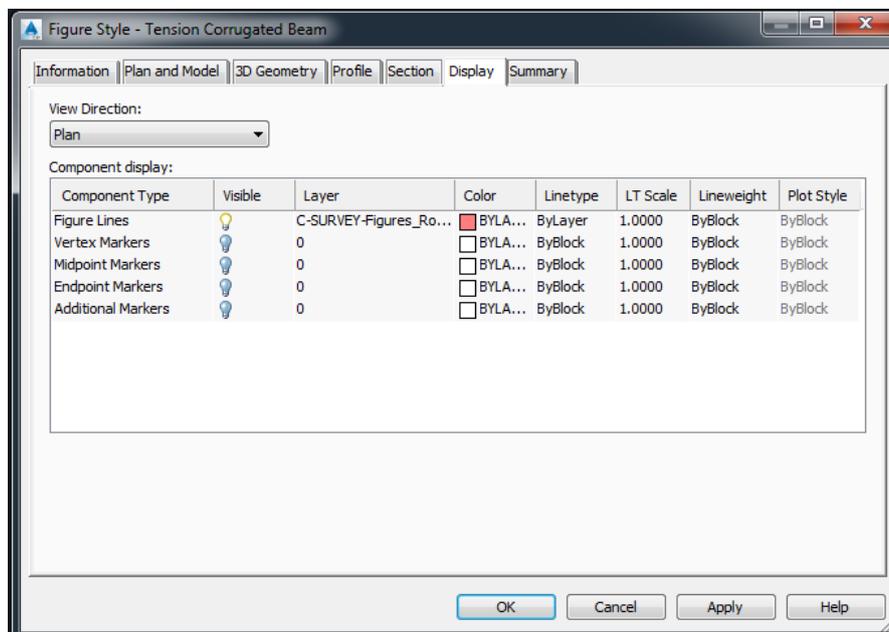


Fig. 2



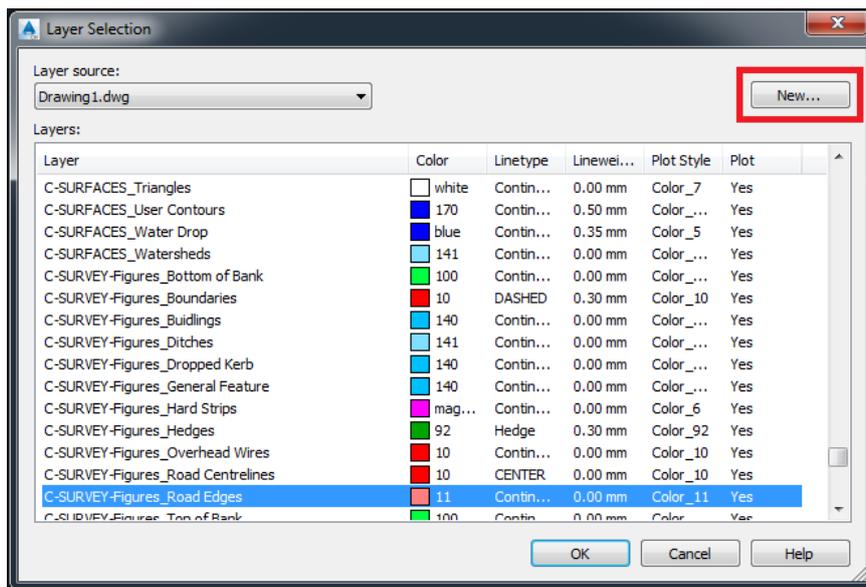
The next four tabs govern if and how the vertex markers are displayed. Now click on the Display tab (see Fig. 3), this is where we will set the layer, linetype and colour to be applied to Figures.

Fig. 3



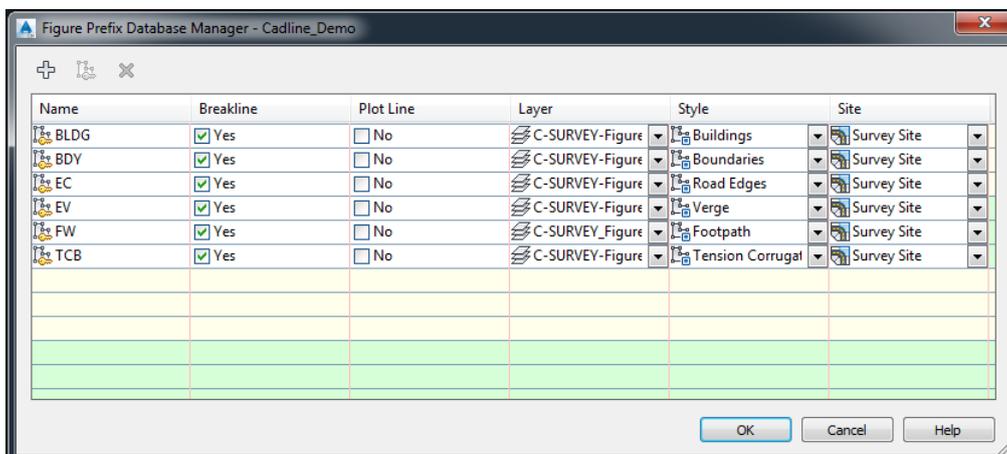
Click on the Layer Name for the Figure Line Component, you should be presented with the Layer Selection dialog box (see Fig. 4). If you have already created the desired layer in the drawing you can select it from a list, if you haven't you can use the New button to create one (red box on Fig. 4). I'm going to use the New button, call the layer C-SURVEY-Figures\_Tension Corrugated Beam, set the colour of the layer to Pen 50 and choose my desired linetype. When I'm happy with the settings for my new layer I click OK on both dialog boxes to create the Layer and Figure Style.

Fig. 4



I now need to edit the Figure Prefix Database I created in the last white paper so that it assigns Figure Styles to matching items. Navigate to the Survey tab of the Toolspace and double click on your Figure Prefix Database, mine is called Cadline\_Demo. On the resulting dialog box (see Fig. 5) specify both the Layer and Style you wish to be used for each item and when you are done click OK.

Fig. 5



## Re-importing Linework

That's it all configured, all that's left to do now is re-import our survey so that the Figures are recreated and the newly assigned styles applied. You can do this by expanding the Import Events listed under your Survey Database, Right Clicking on the imported file and selecting Re-import. The settings displayed in the dialog box are the same as the first time we imported the file and so don't need changing. Select OK and marvel at the sleek graphical display Civil 3D produces whilst drawing up your figures once more. Upon completion you should notice that your Figures are now displayed in the styles that were assigned to the Figure Prefix Database, no more single colour or linetype!

