

## Point Styles and Stringer Settings – In Detail

In this section we'll be reviewing the Stringer Topo point and surface controls in detail. You will be making a totally new Point Style and setting it up to be included in the Surface based on the Point Code (description) – this will include 2D linework and a 3D breakline. You will also be creating a point using the new point Code and confirming that it is included in the surface by manually creating points in the model.

### Creating a New Point Style

This section shows you how to create new Point Styles for certain spot features requiring symbols (as an example, a brick fence). This point style will have a symbol representing the brick pillars of the wall, and will be set up to generate breaklines in the surface.

**Note:** Before you start, you can create your own Block in the drawing to act as the symbol (marker) for the point location – alternately you can use an existing block in the drawing (we will do that for this example).

#### About Point Styles and Symbols (blocks)

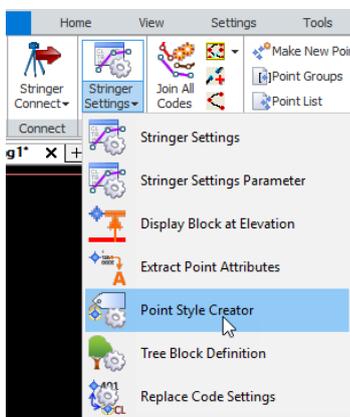
When points are displayed in the drawing, users have two options for how the symbol (block) is managed:

- The symbol can be incorporated into the Point Style – this will then not display an AutoCAD point at the COGO point location, and instead show the 'symbol'
- The symbol can be separately added on top of the Point Style, using the Stringer Settings form

These two options have different behaviours when it comes to scaling and rotating the symbol, as well as whether or not an AutoCAD point displays. Unless the block is symbolic (eg: a Station marker, or a standard marker like a cross) we recommend you do **not** incorporate the block into the Point Style, because you lose capacity to independently scale the block.

To confirm the different symbol behaviours:

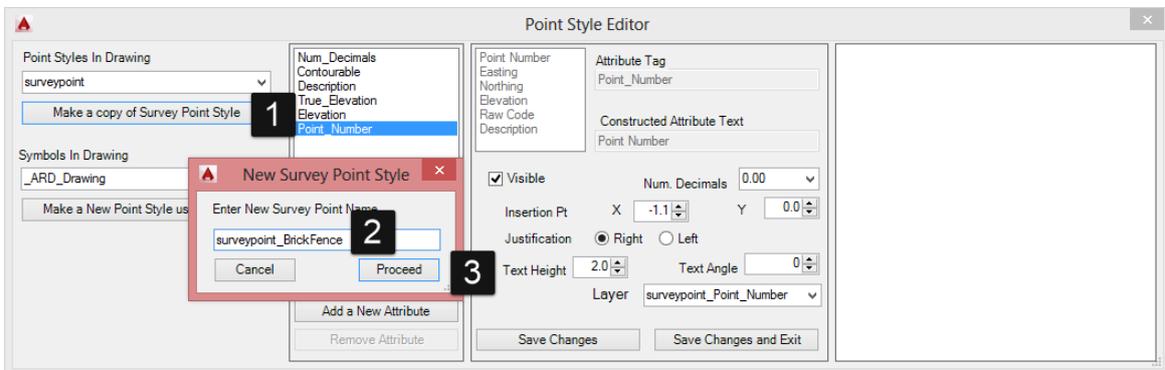
- When the symbol (block) is incorporated into the Point Style, the size of the original block is scaled based only on the Drawing Scale you assign.
- When the symbol (block) is applied in the Stringer Settings form, you can apply separate scaling (and rotation) controls for the block.



1. Click on **Stringer Tab > Settings Panel > Point Style Creator (shown above)**

In this case, we will apply the point symbol as part of setting up the point display in the Stringer Settings.

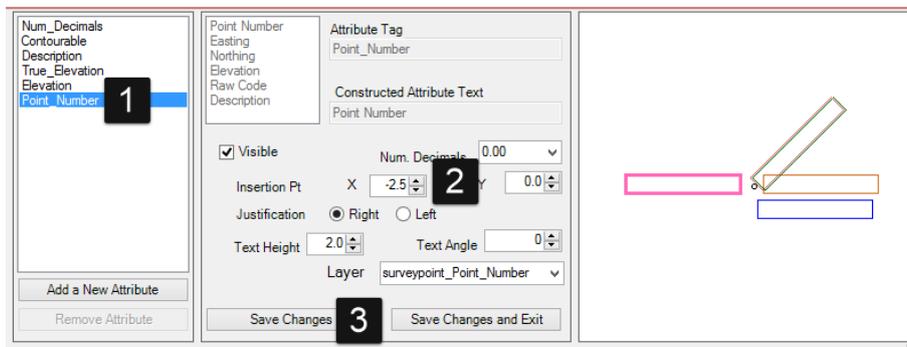
2. To create a new Point Style, do the following
  - a. On the button **Make a copy of Survey Point Style**.
  - b. For the new survey point name, type in **surveypoint\_BrickFence**
  - c. Click on **Proceed**



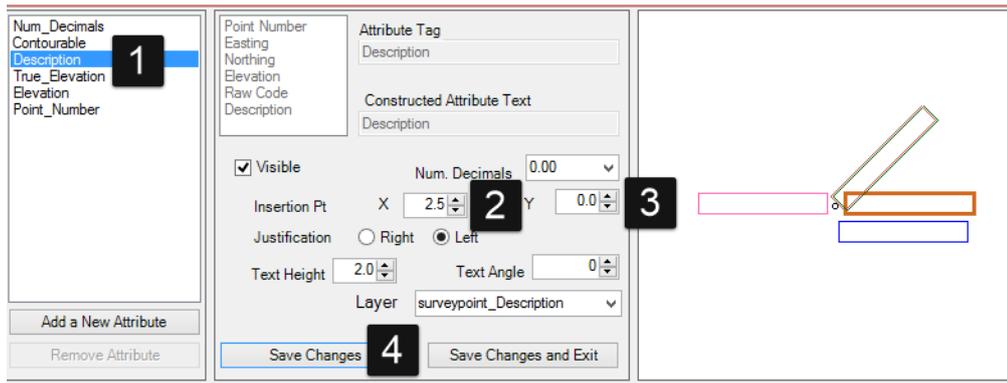
A new Point Style is created and is set as the current Point Style in the pick list top left. Now you can set up what information to show for the Point Style. In our case, we will show only the Point Number and the Description. To do this:

3. Click on **Point\_Number** in the attributes list.
  - a. For the Insertion Pt, change the X value to **-2.5**
  - b. Click on **Save Changes** to save the changes to that component of display.

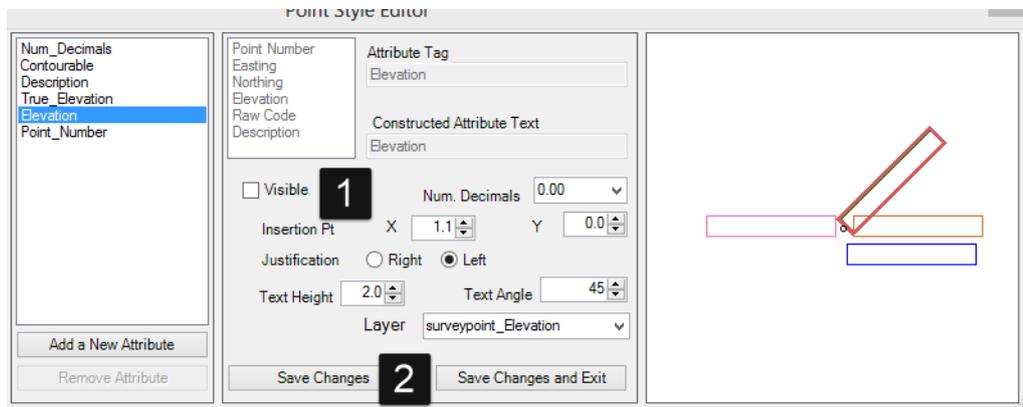
*Note: If you go to the next component without doing the save, it won't save the changes you have made to that component.*



4. Click on **Description** in the attributes list
  - a. For the Insertion Pt, change the X value to **2.5**
  - b. For the Insertion Pt, change the Y value to **zero**
  - c. Click on **Save Changes**



5. Click on **Elevation** in the attributes list
  - a. Untick **Visible**
  - b. Click on **Save Changes**



6. Click on **Save Changes and Exit**

You have now created a new Point Style with two text components and a standard AutoCAD point for the marker.

## Review and Modify the Stringer Settings to Use the Point Style

Stringer Settings manages how the Point Styles will be used, by allowing you to create and manage the point Codes that will be used for including a symbol and be used for 2d linework and breaklines in the surface.

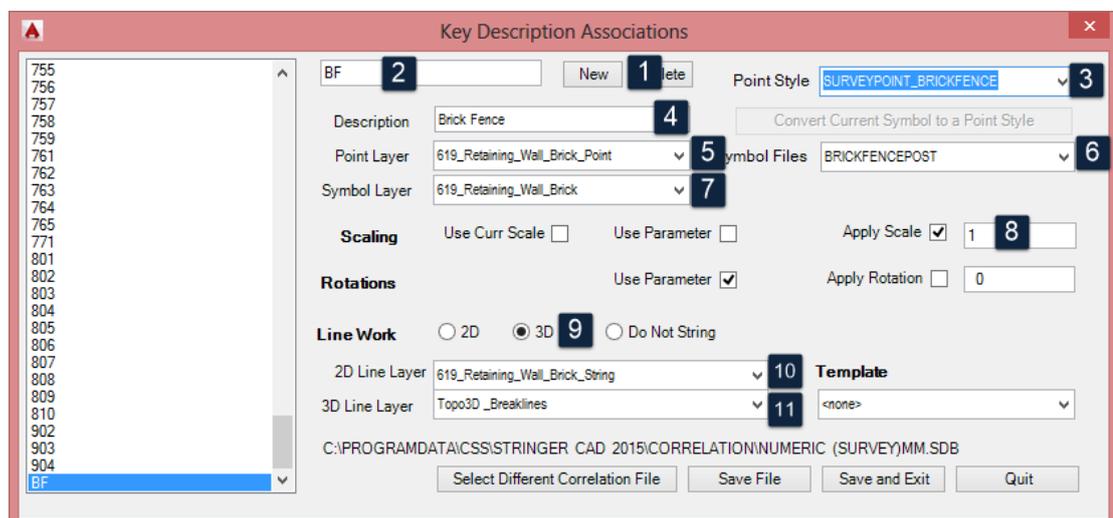
For each survey Code, a Point Style, layers, stringing and symbol (block) assigned can be managed.

These steps show how to modify the Stringer Settings to utilise the Point Style you created. We will be setting up a point code of BF (or you can set a different, numeric, code if you wish) to trigger insertion of a block, utilisation of the new Point Style and addition of 2d linework and a breakline.

1. Click on **Stringer Tab > Stringer Connect Panel > Stringer Settings**
2. Click on **New** to create a new Code in the list – type in **BF** or your preferred Code and press ENTER on the key board to have the code added to the list, it will be at the bottom.

Make the following changes:

1. Click on New button
2. In the box beside New, type in the code required **BF** or your preferred Code and press ENTER on the key board to have the code added to the list, it will be at the bottom.
3. For Point Style, select **surveypoint\_BrickFence**
4. For Description, type in **Brick Fence**
5. For Point Layer, pick **619\_Retaining\_Wall\_Brick\_Point**
6. For Symbol Files, select **BrickFencePost**. This is the block that will be assigned when the point is created. It will be outside the Point Style Block.
7. For Symbol Layer, select pick **619\_Retaining\_Wall\_Brick**
8. For Scaling, ensure that **Apply Scale** is the only option ticked on and the scale value is 1 (so, it represents the exact block dimensions)
9. For Line Work, tick on **3D** so it will be added as a breakline
10. For 2D Line Layer, select pick **619\_Retaining\_Wall\_Brick\_String**
11. For 3D Line Layer, select **Topo3D\_Breaklines**



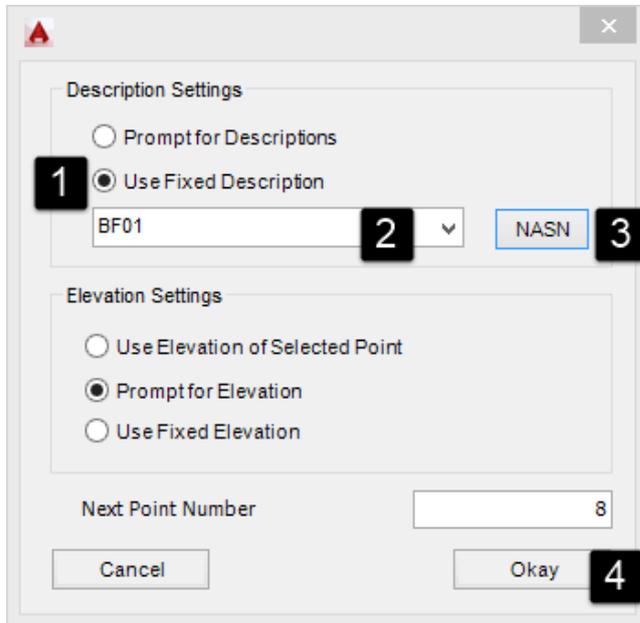
3. Click on **Save and Exit**

To check the effect of amending the Stringer Settings, let's manually create some points with Code **BF**.

4. Click on **Stringer Tab > Points Panel > Make Points**

5. Under Description Settings, select **Used Fixed Description** and select **BF | Brick Fence** from the list

6. Click on the **NASN (Next Available String Number)** button to the right – this will automatically assign a String number to the BF code, using the next available string number. The description will change to **BF01**



7. Click on **Okay** to create points in the drawing.

8. Navigate to the southwest corner of the survey and create points just north of the top of bank string that runs east/west along the southern end of the site (starting at point number 1217. Click in the drawing

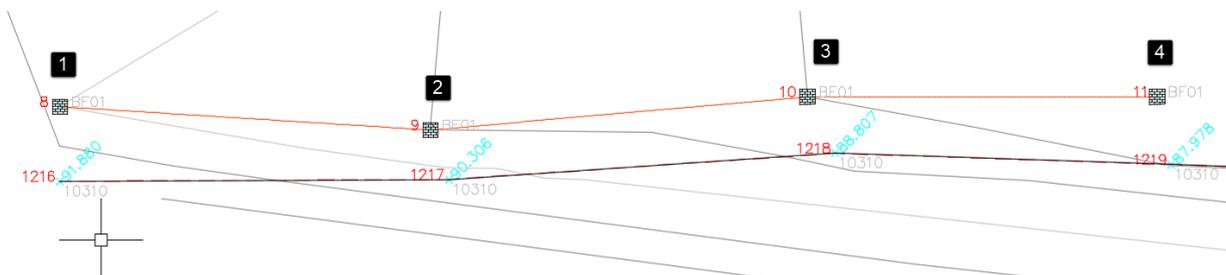
9. At the prompt for Elevation, type in **90**

10. Select a point north of 1217 and specify an elevation of **89**

11. Select a point north of 1218 and specify an elevation of **88**

12. Select a point north of 1219 and specify an elevation of **87**

13. Press **Enter** to finish the command



New points are added to the drawing, using the Point Style and symbol specified. As per Stringer Settings, the points are also being connected with 2D linework and with a Breakline. The surface automatically updates.

**Note:** You can make edits to the symbols – new symbols are created at these points only when you open, save and exit the Stringer Settings.