

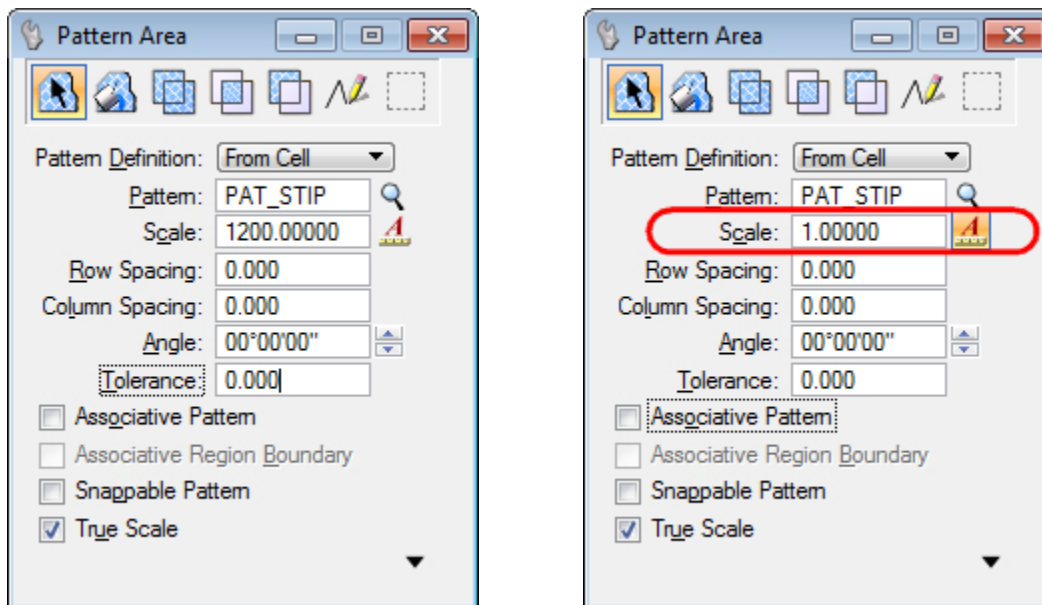
## Hatching and Patterning with Annotation Scale

(June 2017) MicroStation V8i SS4 now has an Annotation Scale Lock on the Pattern, Hatch, and Crosshatch Area tool settings dialog.

ODOT pattern cells are set up to work with Annotation Scale Lock turned on, and with the lock on it is recommended that the scale in the Pattern Area tool dialog be set to a value of 1. The scale field is used as a multiplier, so a value of less than one (1.0) results in a scaled-down pattern, while a value greater than one (1.0) results in larger patterning.

### Getting the Patterning Result you Want

The following images show the settings to produce correctly patterned stipples in a model with drawing scale 1"=100'. The left image has the Annotation Scale Lock toggled off and a pattern scale (factor) that is the same as the drawing scale. The settings on the right will produce an identically patterned area with the Annotation Scale Lock toggled on and the scale set to 1.

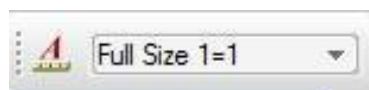


Both settings will produce the same pattern, but settings on the right are preferred because of “matching” behavior.

## Known Issues with Patterning and Hatching

### Unexpected Behavior

When using MicroStation V8i SS4, if you **Match Pattern Attributes** (or use **SmartMatch**) and select a pattern or hatch that you placed using MicroStation V8i SS3 (without the annotation scale lock), **the Annotation Scale Lock is immediately deactivated and the Drawing Scale is set to Full Size 1=1.**

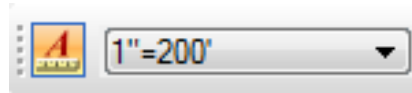


This has also been observed when matching patterns from referenced files.

### How to handle this:

**Watch the drawing scale as you perform the match to a pattern.** If the drawing scale changes, manually return it to the desired scale.

Toggle ON the Annotation Scale Lock, and then set the Drawing Scale to 1"=100' (or whatever the model scale was prior to using the match tool).



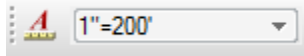
When ON, the button has a yellow background outlined with blue and the drawing scale is enabled.

### TCP Patterning tools:

**(June 2017)** The TCP Patterning tools do not use the Annotation Scale of the model, but instead use the Active Scale.

Prior to using any of the TCP Patterning tools:

1. Turn the Annotation Scale Lock OFF (when off button has gray background and drawing scale is disabled)



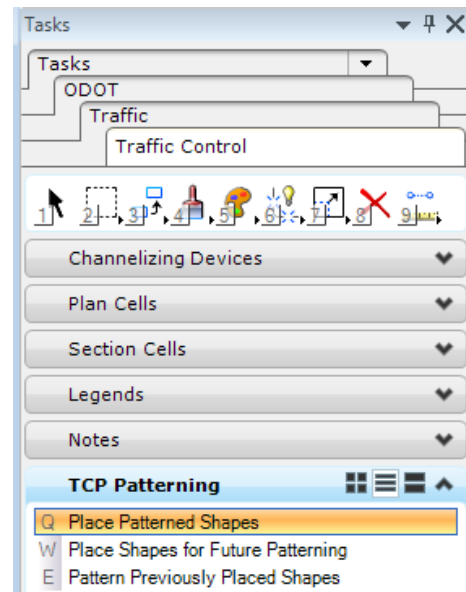
2. Set the Active Scale as follows:  
AS=0.5 for 1"=50'  
AS=1 for 1"=100'  
AS=2 for 1"=200'

The Traffic Control Patterning macros are found on **Tasks>ODOT>Traffic>Traffic Control>TCP Patterning**

***Place Patterned Shapes*** (TPDT)

***Place Shapes for Future Patterning*** (TPDT /s)

***Pattern Previously Placed Shapes*** (Tern.mvba)

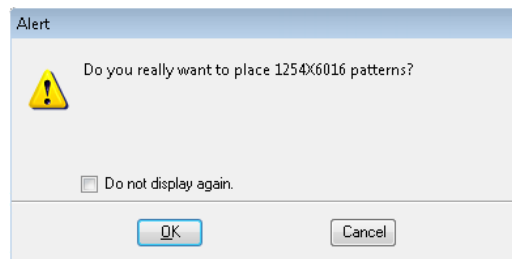


### MicroStation Alert

When patterning with the Annotation Scale Lock turned ON (as in the image on the right above), for every patterned area you have in the active file, you will receive an Alert window about placing a large number of patterns.

For annotatable associative patterning, select [OK].

(In past versions of MicroStation it was recommended that you select [Cancel] on this dialog.)



Changing the Annotation Scale in a model with annotatable associative patterning also opens the alert dialog. This is because the patterning must be redrawn into the file at the new annotation scale. If more than one instance or area of annotatable associative patterning is in the model and the Annotation Scale is changed, the alert appears once for every occurrence of patterning that must be redrawn.

If the patterning is in a reference file, no alert occurs on changing the Annotation Scale.

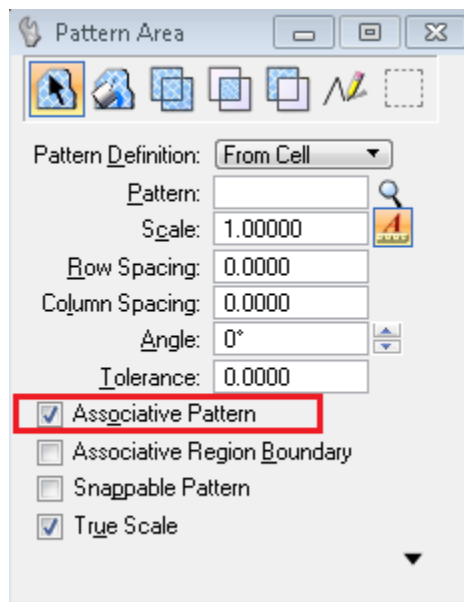
### Fully Functional, Fully Annotatable Patterning

In order to take advantage of hatching and patterning now having integrated Annotation Scale, two settings must be considered.

To have fully functional, fully annotatable patterning:

The Annotation Scale lock must be ON.

The “Associative Pattern” box in the Pattern Area tool settings dialog must be checked.



This results in patterning that uses the Annotation Scale in its own active model, and also in a parent file when attached as a reference.

### File Size Considerations of Associative Patterning

**It is generally recommended that the Associative Pattern box be unchecked when patterning areas.**

This is because: (1) associative patterning can increase file size (2) may be more likely to cause errors when used extensively, and (3) causes your graphics to take a long time to update as you pan or zoom.

Having the Annotation Scale lock ON while the Associative Pattern box is *unchecked* creates a patterned area that recognizes the Annotation Scale at the time of placement, but which becomes static once the pattern is placed. This means that changes to Annotation Scale in the active file do not result in the size of the pattern changing. Also, patterning placed with these settings in reference attachments do not take on the Annotation Scale of the parent file.

If patterning is placed with the Annotation Scale lock off, the scale field in the Pattern Area dialog should be set to something like 1200 for a 1"=100' Annotation Scale model.