## 6_3  VERIFYING EARTHWORK SHAPES

**Question:**

Would you be able to create separate levels for the wedge and the pavement shapes that are created in CM x-sections? Currently, all shapes are created on the Prop XS Earthwork shape level and it is difficult to try to check for errors.

**Answer:**

There are several limitations with cross section quantities, one of which is earthwork shapes. As it has always been, one level for earthwork shapes per earthwork run can be configured in the input. To differentiate between the different types of cuts, fills, undercuts, etc., a statement to "Stratify Shape Color" is needed.

```
22      Existing Ground Line
23          soil type = Suitable
24              type = line, line_string
25              lvname = Exist XS Ground Line
26              lvname = Exist XS Void Line
27              lvname = Exist CMT Ground Line
28
29      Write Earthwork Shapes
30          plot param
31              lvname = Prop XS Earthwork Shape
32          Stratify Shape Color
33
34      End Area Decimal Places = 0
```

The above statement makes the earthwork shapes different color codes depending on the earthwork type while using a single level.

For wedging layers, you can define a level for each wedge layer shape ("lv=" under Write Earthwork Shapes) since it has to be processed in its own input file. For instance, shape level for wedge layer 1, 2, and 3 can be place on Scratch Level 1, 2, and 3 in input file 1, 2, and 3 respectively.

Another suggestion is to make three copies of the XSC to place the three wedge layer shapes in.

Keep in mind, you only go through all this if you want the earthwork shapes to appear a certain way (for checking purposes). If you are not concern about the earthwork shapes, do nothing.

As mentioned in the Roadway web, do not use the earthwork cut and fill quantities when processing pavement and wedging inputs. They are not correct and should be ignored. Earthwork for cut, fill, undercut, and rock is generated by using the earthwork inputs, not the pavement inputs.

SS3 has refined the "Component Quantities" feature and we will be taking quantities such as earthwork and pavement directly from the 3D model. This is a more efficient method of obtaining quantities without cutting cross sections. Our ultimate goal is to use the surface to surface comparison (aka TIN to TIN) prismoidal method to harvest earthwork and pavement quantities in the near future.