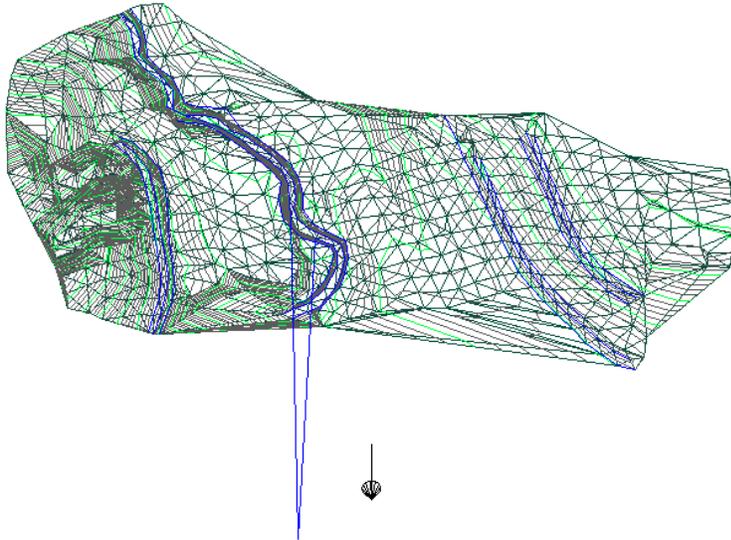
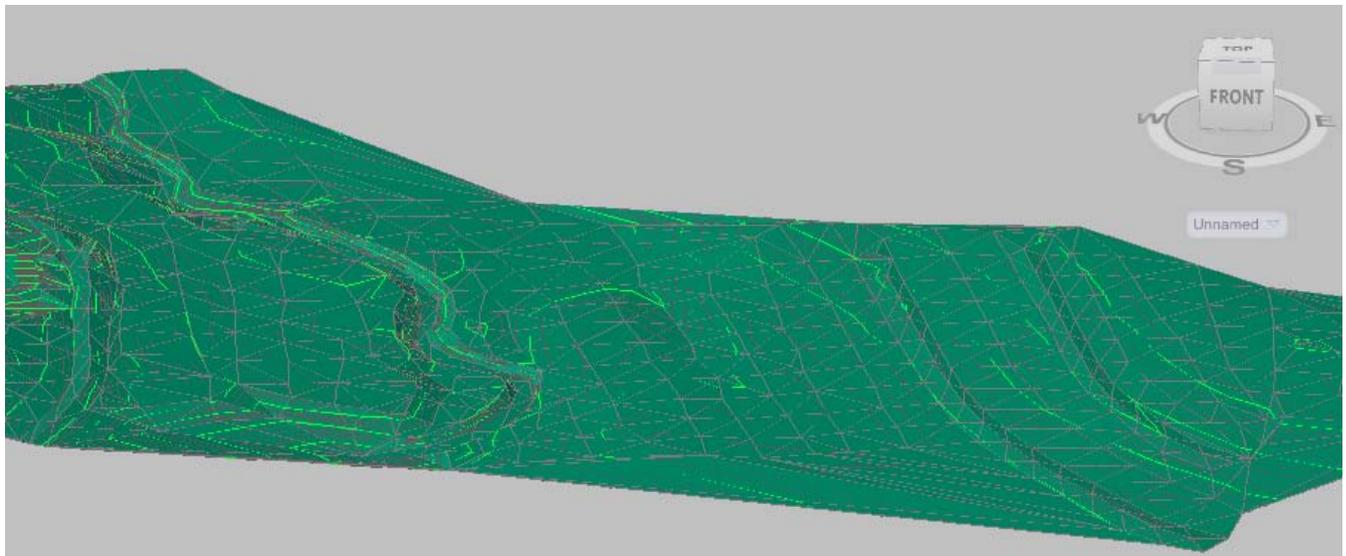


A useful way to visually inspect Civil 3D terrain surfaces is to rotate the view of the surfaces and view them from the side. This can make survey busts and other terrain irregularities readily apparent.

The figure below shows a terrain surface whose view has been rotated, which makes it easy to see that there is a problem with the elevation of one of the nodes on a 3D polyline that has been created to use as a breakline. A problem like this is very hard to detect when viewed from the top view of the drawing, but it is readily apparent when the objects are rotated.



A terrain surface that includes triangles can also be shaded to allow terrain relief to be seen, as shown in the example below. All of the surface styles included in the Minnesota drawing template are set to automatically display triangles when the surface is rotated, regardless of how the surface appears in plan view. This allows surface shading to be applied to any of the template's surface styles.



To shade a terrain surface, go to the *Views* panel on the *View* ribbon, and click on the down arrow to display the visual styles drop-down menu. The two shaded styles are the *Realistic* style and the *Conceptual* style. The primary difference between the two is that the edges between faces in the *Realistic* style are smoothed while the edges using the *Conceptual* style are more defined.

To return to a standard top-down plan view in the drawing, set the visual style to *2D Wireframe* on the drop-down menu on the *Views* panel of the *View* ribbon. Also on the *Views* panel, set the view to *Top*.