

That CAD Girl

jennifer dibona

website: www.thatcadgirl.com

email: thatcadgirl@aol.com

phone: (919) 417-8351

fax: (919) 573-0351

Create Proposed Vertical Profiles

Initial Setup

- You must be attached to the correct Land Desktop project database.
 - You must have already defined the horizontal alignment.
 - You must have a good existing ground topo and Land Desktop surface built.
 - You must have already created an existing ground profile and imported into the drawing.
 - You must have already set the correct horizontal and vertical scales: Projects> Drawing Setup> [Scale tab].
 - You must set the current alignment: Alignments> Set Current Alignment
 - You must set the current surface: Terrain> Set Current Surface
 - For 2005 and earlier, you must load the Civil Design Menu Palette: Projects> Menu Palettes
 - For 2006, you must set the Civil Design Workspace
1. Go to Profiles> FG Centerline Tangents> Set Current Layer
 2. Go to Profiles> FG Centerline Tangents> Create Tangents to draw in the approximate proposed profile. You can use the Station, Elevation and Length options shown at the command line to enter specific PVI locations and elevations or you can simply use the mouse to sketch in the PVI locations. The profile you have now sketched is simply a series of lines that are on a specific layer. These lines can be extended, grip-edited or otherwise modified. The only critical points are that they must be lines (instead of polylines), all line segments must meet endpoint to endpoint and must be on the designated layer.
 3. After sketching in the proposed profile, you need to define the lines as a Vertical Alignment. Go to Profiles> FG Vertical Alignments> Define FG Centerline. You'll be prompted for the starting point. Select the first vertical tangent CLOSEST TO THE 0+00 END of the line. Then put a window around the rest of the vertical alignment segments. Follow the remaining prompts.
 4. You can now look at or edit this in tabular format through the Profiles> Edit Vertical Alignments under the Finished Ground tab.
 5. To label the new proposed vertical alignment, go to Profiles> FG Vertical Alignments> Import. Answer "Yes" or "No" depending on what labeling you'd like to insert. Again, when prompted to erase the existing layers, it will only erase the proposed vertical profile for the current alignment that you've just sketched in.

Editing A Profile

1. Once imported into the drawing, you can grip edit any of the vertical tangents or PVIs. However, the profile will need to be defined again through Profiles> FG Vertical Alignments> Define FG Centerline. To label the revised profile, the profile must be imported through Profiles> FG Vertical Alignments> Import.
2. Anytime that a proposed vertical alignment is edited through the Vertical Alignment editor, you'll be prompted to save your changes and then import the alignment into the drawing.

General Profile Notes

- You can use the FG Centerline Tangents> Create Tangents or the regular Autocad LINE command to sketch in a profile. The segments must be lines, meet endpoint to endpoint and be on the correct layer to work. Using either method to create the vertical tangents does NOT result in a defined Vertical Alignment in the Land Desktop database. These entities must still be DEFINED as a vertical alignment through Profiles> FG Vertical Alignments> Define FG Alignment.
- After defining the vertical alignment, you'll have to Import the Vertical Alignment to reflect what is truly defined in the database. You'll also have to take this step to label the PVIs and the vertical tangents.
- Once the vertical alignment has been imported, it can be edited in the Vertical Alignment Editor or by using basic AutoCAD commands such as Move, Copy, Trim, Extend, etc. because the vertical alignment entities are just basic lines. Any changes made by either method will still need to be imported via Profiles> FG Vertical Alignments> Import.
- Keep the following in mind:

If you have made changes to the profile in the drawing, the drawing is correct, the project is not correct.

You must DEFINE the profile to the project.

If you have made changes to the profile through the vertical alignment editor, the project is correct, the drawing is not.

You must IMPORT the profile to the drawing.