



# CONNECT DOCUMENTATION

[Connect Edition Introduction](#)

## Profile Cut Sheets

### Table of Contents

Profile Cut Sheets .....	2
Introduction – Creating ORD Profile Cut Sheets Video .....	2
Create the Profile CutSheet Drawing and Attach Reference Files .....	2
Open Profile View.....	2
Create Profile Named Boundaries .....	3
Create Profile Drawings.....	4
Add 3D Cut to Profile.....	5
Profile Annotation .....	5
Adding SuperElevation Information .....	6



## Profile Cut Sheets

### Introduction – [Creating ORD Profile Cut Sheets Video](#)

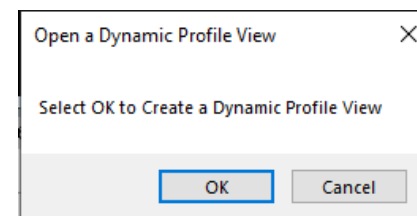
Profile cutsheets are generated similar to plans in that a profile view seeds the create drawing models which in turn are referenced into sheet models. They are generated in ORD using established procedures. The seed profile view can contain a live cut through the attached reference file's 3D models as well as displaying reference profiles of Drainage and Utility profile runs. After creating the profiles the SuperElevation information can be annotated at the bottom of the profile using a special annotation group.

### Create the Profile CutSheet Drawing and Attach Reference Files

Open ORD and use the file New command to create *12345-Prof-Seed.dgn* in the \cutsheet directory. Open the *Default* model and Reference file attach only civil drawing to this dgn including all drawings that have information to be drawn and annotated on the profiles. This should include the E-Terrain, E-Drainage, E-Utilities, Geometry, and proposed corridors, as well as the P-Drainage, P-Utilities and the SuperElevation dgnos. Set the existing terrain model active. Save settings and Save the dgn. Either copy the dgn and rename it or use a *File > Save As*, to create *12345-Prof-Roadname.dgn*. The seed file can be copied to create drawings for other roads.

### Open Profile View

Right click and hold on the screen and select - **3 Views Plan/Profile/3D** from the *View Control* menu. This will open 3 views with the two on top being the *Default* and *Default-3D* models. Click **OK** in the pop-up box to create a Dynamic Profile view. In View 1, as prompted Select the Alignment that you want to create the profile for and then click in the bottom View 4 to create the profile.



If the command ends without placing the profile you may have hit on the alignment's 3D geometry rather than the 2D alignment. Select the alignment in the *Default* model, reset or tentative snap as needed to ensure you hit on the 2D alignment, then hover on it and from the pop-up menu select the **Open Profile Model** and click in the bottom view to create it. If having trouble turn off the display of the referenced *Default-3D* model and anything else under the alignment to be able to select it. **Save Settings** and **Save** the dgn.



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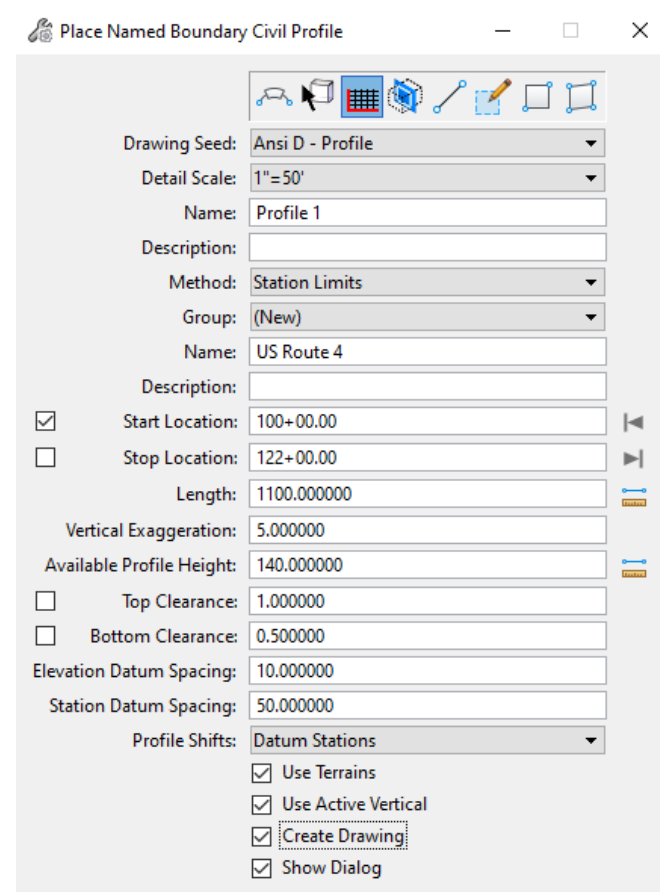
### Create Profile Named Boundaries

Set the workflow to *OpenRoads Modeling, Drawing Production > Named Boundary* to open the *Place Named Boundary* tool. Select the *Civil Profile* icon and set the *Drawing Seed*. Next, click inside the profile view to start the command. This sets the *Name* and associates the stationing to the Start and Stop locations so they can be set. Profile sheets should be 50 scale even if the plan scale is 20.

The start location can be set in the view as the station value follows the cursor. It is suggested that you key-in the start station. If you use the *Lock to Start* button at the right, it will lock to the start of the active profile not the start of where you may want a couple 100 feet before the proposed.

After setting the start station move the cursor to the right along the profile and boundaries will be displayed of the length indicated. Change the length until the last sheet has about the same length as the rest displayed within its boundary.

The default height is set to 160'. If you intend to display superelevation information under the profile set it to 140'. The *Create Drawing* box can be checked so the *Create Drawing and Sheet Model* box is displayed automatically. Accept through the prompts to finish creating the Boundaries.





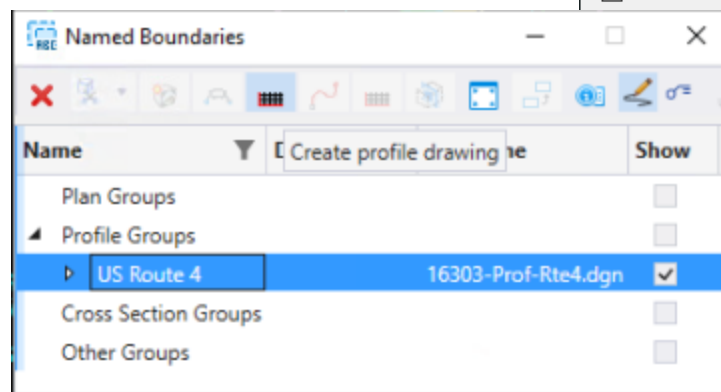
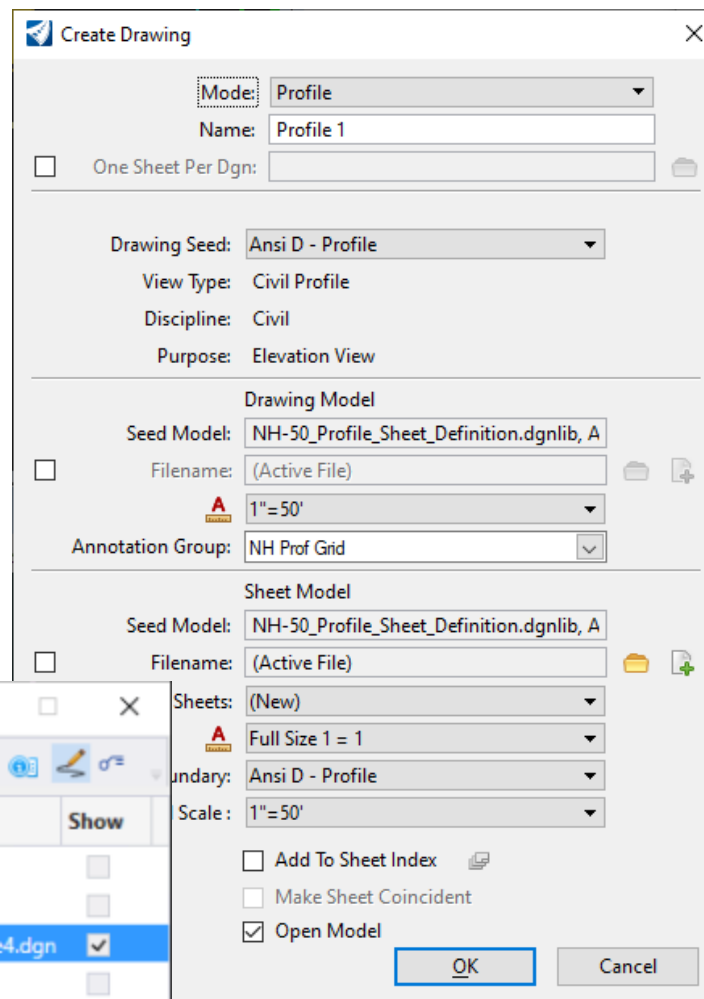
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### Create Profile Drawings

The *Create Drawing* box should be filled in by default and no changes are needed. If you want the drawing to automatically be added to the *Sheet Index*, check the box and then select the folder icon to the right to select the folder for the sheets to be added to. Hit **OK** and the sheets will be created.

If the *Create Drawing* box was not checked when creating the boundaries, the sheets can be created using the *Named Boundaries* tool box.

Below and to the right of the *Named Boundary* tool, click on the down arrow. This will open the *Named Boundaries* box. The drawings can be created by selecting the profile group name and clicking on *Create Plan Drawing*. If the *Show Create* drawing dialog toggle is set, the create drawing box will appear. Click **Ok** to create the drawing and sheet models.





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### Add 3D Cut to Profile

Open the profile view again from the View Groups menu selecting MultiModel Views. This should return you to the 3 View setup with the profile at the bottom in view 4. Use the *View Tool* and select *Create 3D Cut*. The modes are *Full Profile* or *Corners*, use *Corners* as there seems to be a bug with *Full*. Place from top left to bottom right around the profile. This will cut through all displayed features in the *Default-3D* model and show them on the profile. The Drawing models and Sheet model will automatically display this information. If there is a reference file that you don't want to display, shut off its display in *View 3*. *Save Settings* and *Save* the dgn, and refresh the 3D cut.

NOTE: The 3D cut will display all levels in a reference file. Levels can be turned off individually in the profile view, but you have to use *Level Display* and Expand the referenced *Default-3D* model's levels to do it. You cannot use *Off by Element*.

For a list of things that should be in the cut see the Profile construction plan check lists.

### Profile Annotation

When profiles are created, they are annotated from the *Annotation Group NH Prof Grid* as selected in the *Create Drawing Box*. The alignments are also annotated by their assigned annotation group. If the proposed vertical alignment changes, cutsheets don't have to be regenerated unless you need them to be different length or have a sheet added. The annotation just needs to be updated.

Open one of the Drawing models. A drawing model is where the annotation is created. If you needed something moved, edited or added, this is where you need to work, in the Drawing model. To update an alignment's Annotation, the annotation first needs to be removed from the drawing. Set the workflow to *OpenRoads Modeling > Drawing Production Tab > Annotations* pane click on the bottom of the *Model Annotation* tool to show the dropdown menu and select *Remove Model Annotation*. Check the *All Drawing Models* box and click on the screen. To re-annotate the drawing select the dropdown again and select *Annotate Model*. Check the box for *All Models* and use the dropdown menu to select *NH Prof Grid*. Accept. If the SuperElevations were annotated previously they will need to be re-annotated also.

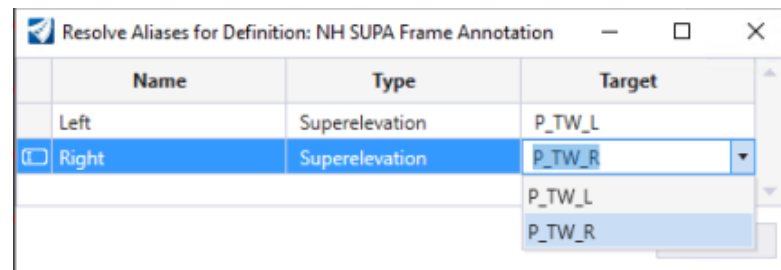


## NHDOT CAD/D Connect Documentation

### Adding SuperElevation Information

If Roadway Superelevation sections have been created, they can be used to create the superelevation schematic below the profile. The Superelevation drawing must be attached to the *Default* model for them to be present to annotate. Select the *Model Annotation* tool, Check the *All Models* box, and use the dropdown to select the *NH SuperElevations* annotation group. Click on the screen to accept.

The *Resolve Aliases* box will appear. Superelevation lanes need to be attached to the Left and Right profile schematic lines by selecting the Targets in the Target boxes. The names are from the SuperElevation control lines that were created and attached. After defining the second target it is important to click in another box to ensure the second target is actually defined. Click on the screen to Accept and create the schematics.



Note: Only a left and right are defined. Development will need to be done to annotate more than 2 lines.