

Using Roadway Designer's Cross section Labeler Tool

This help file has been created to assist those who are at a point in their project where labeling the plotted proposed cross sections need to be completed. Unlike the Typical Section Generator (criteria driven cross section tool) the Roadway Designer **Draw Cross Sections from Surfaces** tool does not automatically label the cross sections so Roadway Designer has a tool specifically for labeling your cross sections.  Expect that there will be some manual manipulations to get the tool to do what you need it to do.

Let's get started...

Look in your data folder for the **xs_labeler_template.xlp** file.

TIP: Rename the file to include the job number. (Ex. J2P0200.xlp)

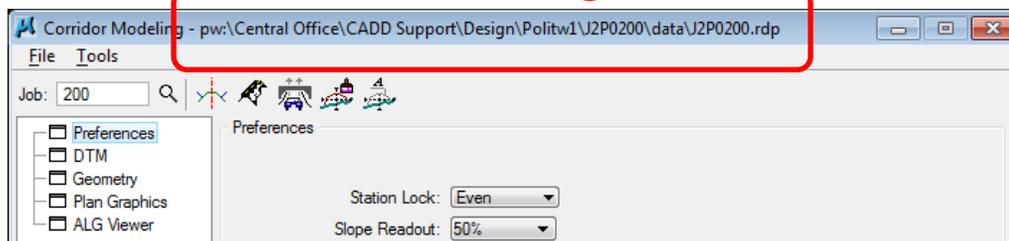
You may have to copy the file from the ProjectWise location.

(pw:\g\hpwise10:MoDOT\Documents\CADD_Standards\StartJob\English\data\)

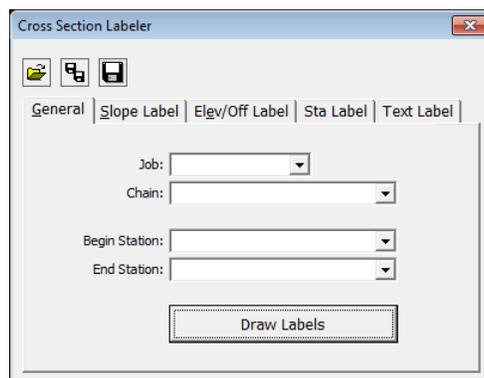
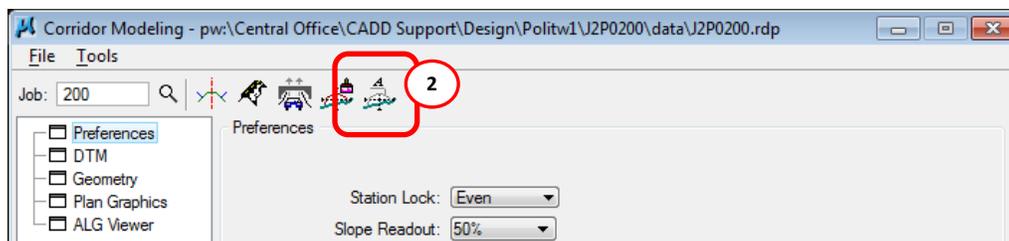
Open the cross section MicroStation dgn file.

Open the Corridor Modeling tool and load the rdp file.

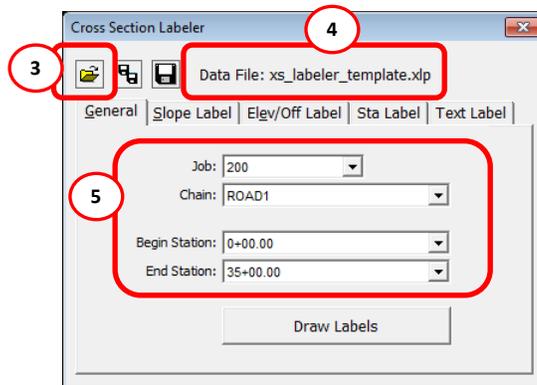
1



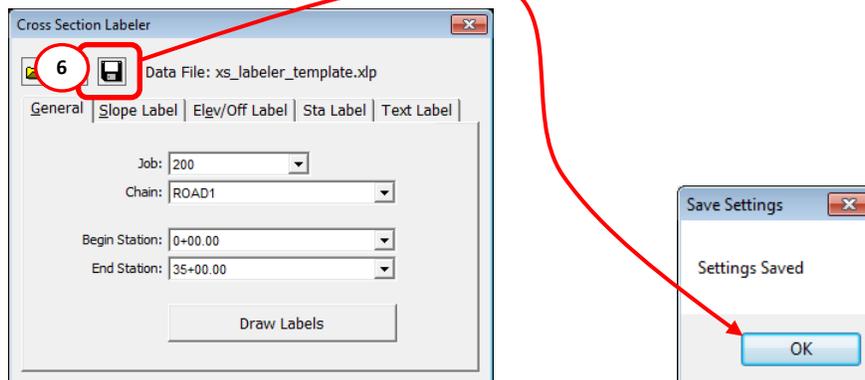
Open the Cross Section Labeler tool.



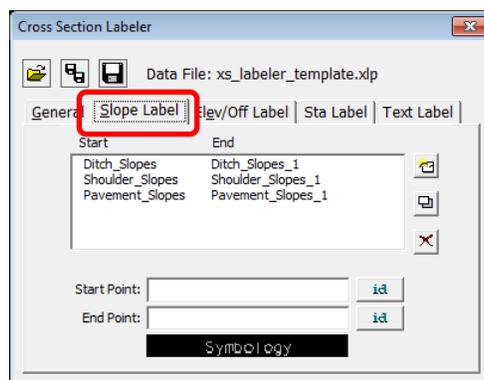
- 3 Using the Open icon, browse to the data folder and load the **xs_labeler_template.xlp** file.
- 4 The tool will show the name of the loaded file.
- 5 Edit the General tab to reflect the project information.



- 6 Use the Save Settings option often after modifications or when working from tab to tab.



The **Slope Label** tab allows you to place labels on your pavement, shoulder or ditch slopes.



You can see that the default **xs_labeler_template.xlp** file has 3 slopes already listed. These are there for the sole purpose of copying to retain MoDOT standard attributes.

Each label has a level, color, style weight, text height, text width, decimal placement, location offset, justification, format option and whether or not a suffix is needed.

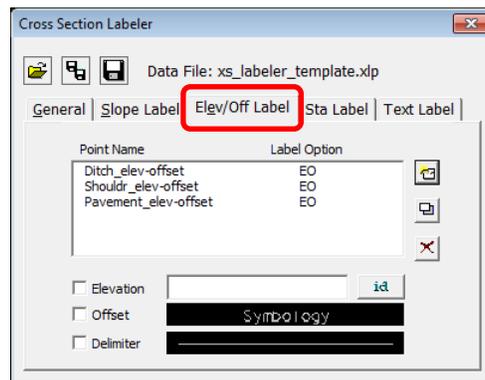
The entry named **Ditch_Slopes** are for placing slope labels on cut and fill slopes that will have a RUN:1 format and be placed on the XS-Text-ditch slope level.

The entry named **Shoulder_Slopes** are for placing labels on shoulders surfaces and have the 0.00% format and be placed on the XS-Text-shoulder slope level.

The entry named **Pavement_Slopes** are for placing labels on pavement surfaces and have the 0.00% format and be placed on the XS-Text-pavement slope level.

The **Elev/Off Label tab** allows you to place labels pertaining cross section surface points in regards to pavement, shoulder or ditch elements.

You can see that the default **xs_labeler_template.xlp** file has 3 Elev/Off entries already listed. These are there for the sole purpose of copying to retain MoDOT standard attributes.



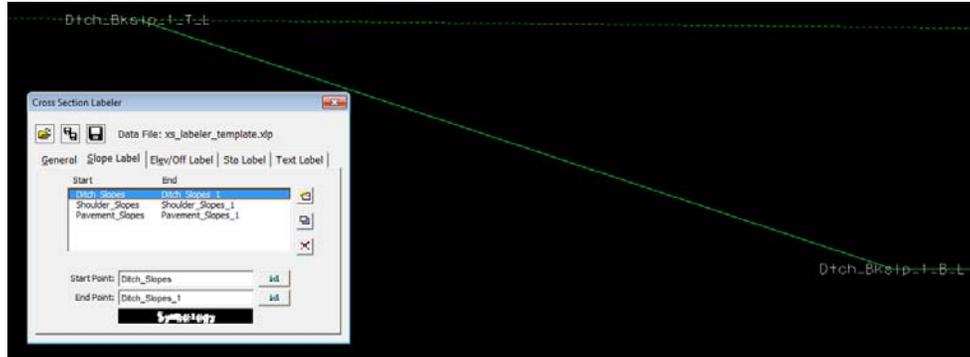
The entry named **Ditch_elev-offset** are for placing elevation and offset labels on cross section surface points and are placed on the XS-Text-tie elevation level.

The entry named **Shoulder_elev-offset** are for placing elevation and offset labels on cross section surface points and are placed on the XS-Text-shoulder elevation level.

The entry named **Pavement_elev-offset** are for placing elevation and offset labels on cross section surface points and are placed on the XS-Text-pavement elevation level.

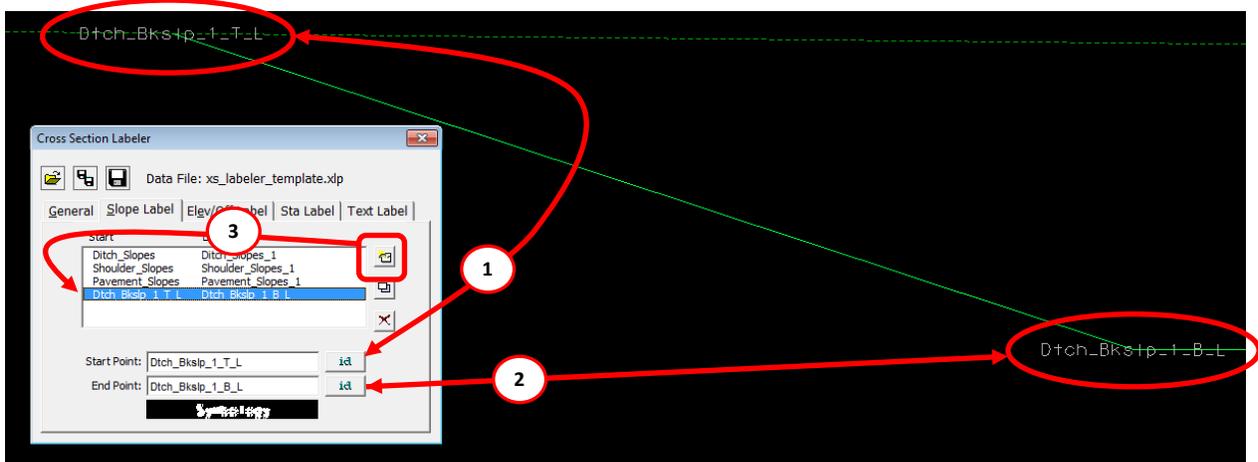
Slope Labels Workflow (Slope Label tab)

Navigate or pan close enough to a slope line to be labeled. Now zoom in close enough to read the text from the points that the **Draw Cross Sections from Surfaces** tool has placed. (The text shown here has been scaled up for clarification, you will have to zoom in closer than this example)



Select a default entry item to copy the attributes from. In this example we will choose the Ditch_Slopes entry since we want to label a ditch back slope.

1 With the Ditch_Slopes entry selected, left click the Start Point “id” button and simply left click either point to define the label start point and accept the point by left clicking in a blank area of your screen. The Start Point input field will now show the selected point name.



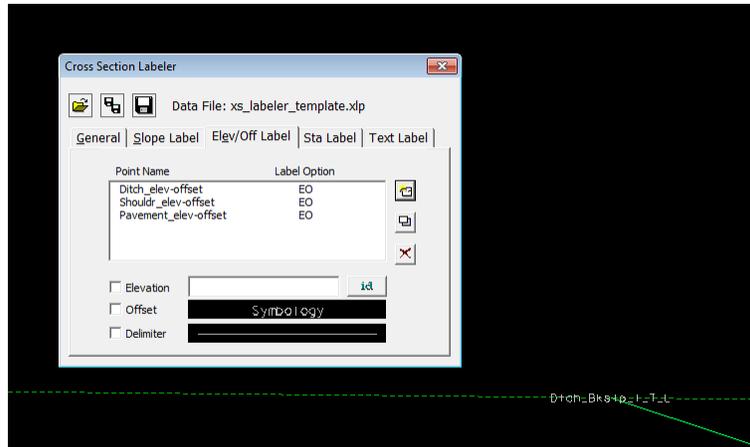
2 Now we need to input the End Point field with the correct point name. Left click the “id” button and select the desired point for the End Point. Again, left click in a blank area on the screen to accept the chosen point and the input field will be defined.

3 The next step is to add the entry to the collection field by left clicking the Add button as shown above in step 3.

The collection field will continue to grow by adding whatever slopes you desire by selecting the type of slope you prefer from the 3 available default entries.

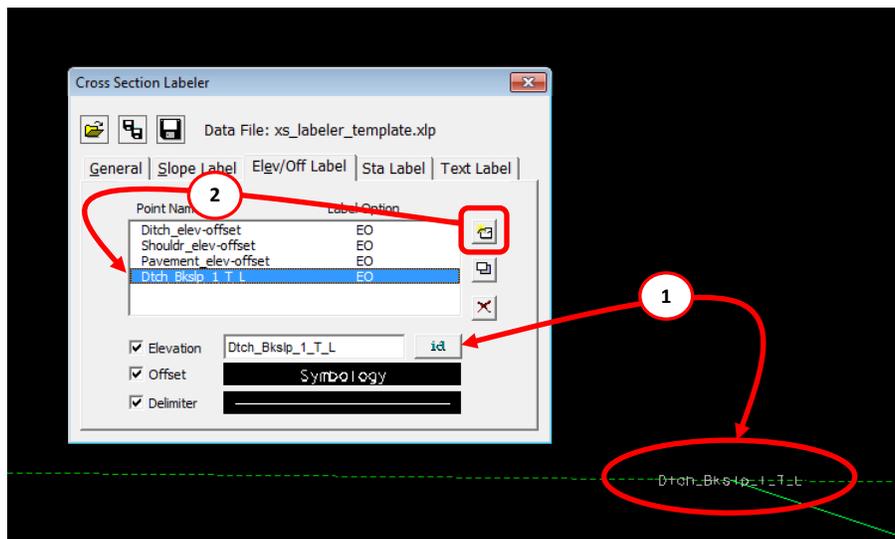
Elevation / Offset Labels Workflow (Elev/Off Label tab)

Navigate or pan close enough to a slope line to be labeled. Now zoom in close enough to read the text from the points that the **Draw Cross Sections from Surfaces** tool has placed. (The text shown here has been scaled up for clarification, you will have to zoom in closer than this example)



Select a default entry item to copy the attributes from. In this example we will choose the Ditch_Slopes entry since we want to label a ditch back slope.

1 With the Ditch_elev-offset entry selected, left click the Start Point “id” button and simply left click to define the elevation label point and accept the point by left clicking in a blank area of your screen. The input field will now show the selected point name.

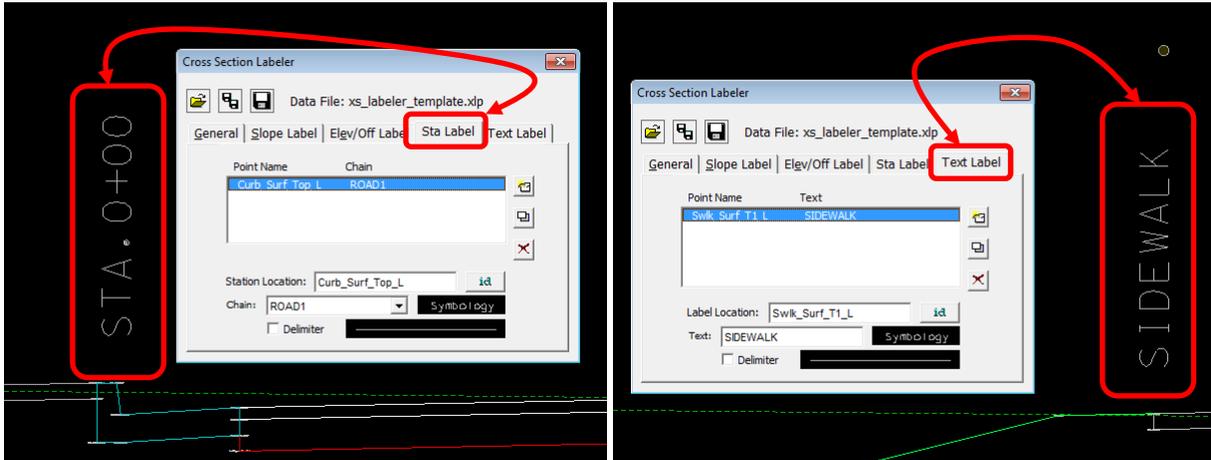


2 The next step is to add the entry to the collection field by left clicking the Add button as shown above in step 3.

The collection field will continue to grow by adding whatever slopes you desire by selecting the type of slope you prefer from the 3 available default entries.

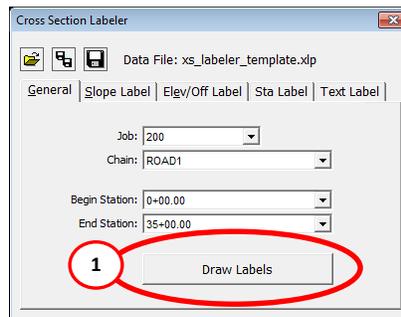
Stationing Labels (Sta Label tab) & Adding Text Labels (Text Label tab)

This tab is an **optional** feature for placing stationing labels or text labels at cross section surface points.

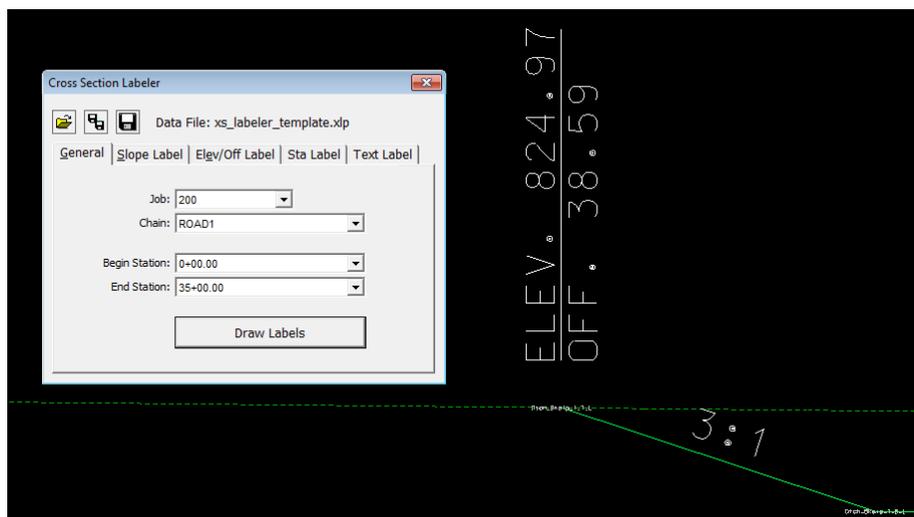


Drawing Labels Workflow (General tab)

After all the slope and elevation/offset entries have been made and you have saved the xlp file you are now ready to place the labels in your dgn file.



- 1 Navigate to the General tab and left click the Draw Labels button to place the labels.



General Tips

Use the Cross Section Navigator to look at all your cross sections to verify that all labels have been drawn and if not, add accordingly.

You may have to run the tool a couple of times to get exactly what you want so you may want to lock all the cross sections down so that you can select all and delete without deleting your cross sections.

You may have to run the tool a couple of times to get exactly what you want so you may want to use the delete duplicate tool to get rid of the duplicates.

The MicroStation “Undo” button works perfectly for when you need to run the tool again.

Rename the xlp file to include your job number.

There must be Geopak cross section cells in the file for the tool to run.