Cross Section Sheet Layout

User Requirements and Tips



- The sheet layout file (XPL) must be created first. This is the file where the sheets are plotted and the cross sections are referenced. (Using the Design File Generator insures the proper naming convention is used.)
- Because of constant requests to improve the Cross Section Sheet layout, it is recommended that you update your workspace before processing the sheets.
- Cross sections are now referenced to the XPL sheet layout file. This will require manipulating reference levels with the MicroStation level display when in the XPL Sheet Layout file. Any additional drawing after processing the XPL sheet layout file should take place in the cross section file (XSC).
- The Cross Section Sheet Composition tool should be run from the XPL sheet layout file. This will insure levels specified in the Cross Section Sheet Layout file (XSSL) will be read.

Cross Section Sheet Composition

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1. Open the XPL file that you created and access the Cross Section Sheet Composition Tool.

The Cross Section Sheet Composition tool can be accessed by a tool icon in the Cross Section Toolbox or through Project Manager which is the preferred method. The first time the tool is invoked, you may get a Windows Information alert box. The program is alerting that no selections have been made. Select the OK button. Configuration variables automatically point to the proper working units and to the NCDOT standard XSSL file that is the cross section sheet layout configuration file.



The Cross Section Sheet Layout Composition dialog box has a slide bar with different plotting parameters and user input to change the standard layout and path to your XSC and XPL files. Half size or full size plotters break down the active Cross Section Sheet for the standard NCDOT layout. For instance, the setting for 5 scale and 10 scale are the same but the determination of the final plot size is determined by the plotter queue chosen for the plots.

Cross Section Sheet Composition: NCDOT_English_X5.xssl
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File Active Cross Section Sheet: Sheet DGN File Sheet DGN File Sheet Dimensions / Cell XS Search Criteria Sheet Stack Orientation Sheet Stack Columns Margins and Spacing Station Labels Offset Labels The second

Processing the Sheet Layout file

2. Select the Active Cross Section Sheet Name. They are categorized by scale for full size and half size plotting.

Cross Section Sheet Compo	sition: NCDOT_English_XS.xssl					
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Active Cross Section She	et: 5/10 Scale	▼	Layout Sheets			
	Sheet Name	Sheet D	escription	_		
XS DGN File 🔼	5/10 Scale	0 Half (Roadway Standard)				
Sheet DGN File	10/20 Scale	10 Full (10 Full 20 Half (Roadway Option)			
Sheet Dimensions / Cell	20/40 Scale	20 Full	40 Half	_		
XS Search Criteria	40/80 Scale	40 Full	80 Half			
Sheet Stack Orientation	50/100 Scale	50 Full 1	100 Half			
Sheet Stack Columns	5/10 Scale Left	5 Full 1	0 Half Left Just	_		
Margins and Spacing						
Station Labels						

Search for the XSC file by selecting XS DGN File option and activate the magnifying glass. Browse and select the file. The program automatically scans the design file and fills out the data.

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Ac	ctive Cross Section Sheet:	5/10 Scale Layout Sheets	
<mark>XS DGN F</mark> Sheet DGN Sheet Dime	ile ▲ N File ensions / Cell	XS DGN File: [r:\roadway\xsc\B4057_Rdy_xsc_L.) Q XS Baseline: L	
XS Searc	Design Files		
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3. Select the XPL file that is to be used for the plots.

Search for the XPL file by selecting Sheet DGN File and activate the magnifying glass and browse and select the file. The program automatically scans the design file and will fill out the data. Insure that the **One Sheet Per Model/Display All** option is selected.

Cross Section Sheet Compo	sition: NCDOT_English_X5.xssl
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Active Cross Section She	et: 5/10 Scale Layout Sheets
XS DGN File Sheet DGN File Sheet Dimensions / Cell XS Search Criteria Sheet Stack Orientation Sheet Stack Columns Margins and Spacing Station Labels Offset Labels	Sheet DGN File: [r:\roadway\xsc\B4057_Rdy_xpl_L.c Q Horizontal Scale: [5.00 Vertical Scale: [5.00 Sheet Placement Point Lower Left X (mu): [0.000000 Lower Left Y (mu): [0.000000
(X, Y)	 Detach Existing Sheets before Processing All Sheets In Active Model One Sheet Per Model One Sheet Per Model / Display All

4. Slide the bar to access Sheet Labels. All other categories have been preset as a recommended standard.

You may scroll through the different categories but no changes should be made until you find Sheet Labels. The Sheet Labels will automatically label your sheet numbers, project number, and label the alignment once per sheet. To change the standard setting to a project specific label, double click the Label column and manually enter the desired text.

Cross Section Sheet Composition: NCDOT_English_X5.xssl						_		
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Active Cross Section Sheet: 5/10 Scale 💽 Layout Sheet:						ets		
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Sheet Stack Orientation	<u> </u>	Name	Label	X Offset	Y Offset	Display	Plot	
Sheet Stack Columns		Sheet	1	31.15	20.55	Sample		* =
Margins and Spacing		Project		29.25	20.55	Sample		
Station Labels		Alig	-A-	16.00	0.400000		1	\times
Offset Labels		Bar	2.5	27.00	20.812		1	
Elevation Labels		Bar	5	27.50	20.812		1	
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5. Process the Sheets.

Once you are satisfied that all of the specific entries have been made, select **Layout Sheets** in the upper right-hand corner. The last option, Digital Interplot, will not be used during this process but will be used later to plot the sheets. Once the procedure has been started, your screen will flicker and it will eventually open to the XPL file. If you wish to save the sheet layout, select **File>>Sheet Library>>Save As** and select the path to the project folder. Do not **Save** as it will overwrite the NCDOT standard.