Cross Section Fold Lines Guideline

***** IMPORTANT *****
Please review all steps and the result byproduct of the Fold Line Procedure before one attemps to execute the below procedures for regular plan production.

FOLD LINES RULES:

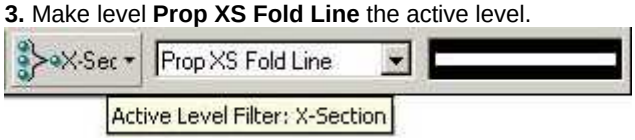
1. The cross section XSC file used for fold lines application is a copied of the original.
2. The cross section XSC file with fold lines are used for plotting purposes only. Input files will not process cross sections with fold lines.
3. All fold line editing are done in the fold line XSC file.
4. For Cross Section XPL Composition scale of 5/10, fold lines are drawn 70' off center.
5. For Cross Section XPL Composition scale of 10/20, fold lines are drawn 140' off center.
6. Fold lines are always vertical.
7. Fold lines content are alway mirrored to the inside.
8. Fold lnes texts are rotate 90°.

PROCEDURE:

1. Copy the XSC file and rename it to [TIP]_RDY_XSC_[ALN]FOLDLINES.DGN]
Example...
B3624_RDY_XSC_FOLDLINES.DGN

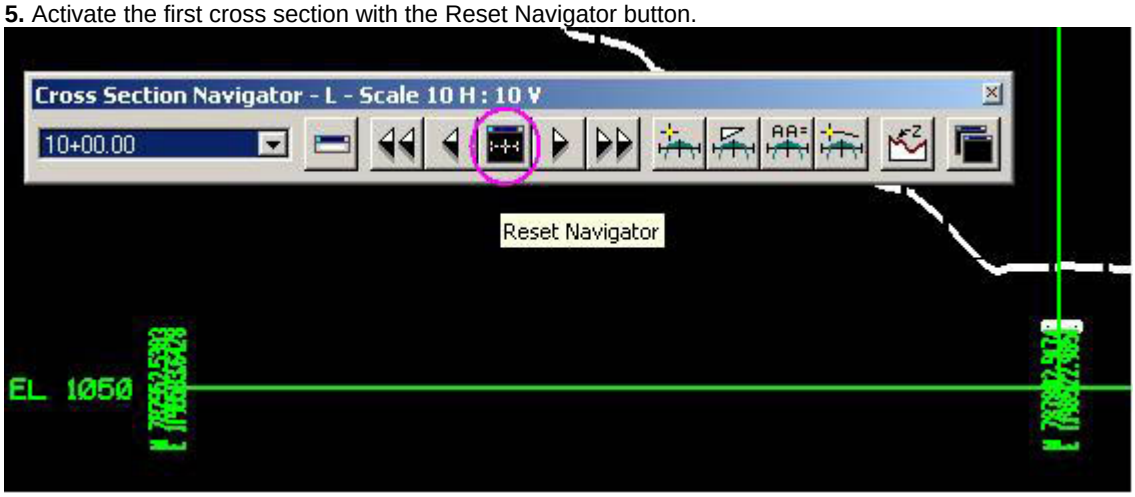
2. Start the fold line XSC file.

3. Make level **Prop XS Fold Line** the active level.

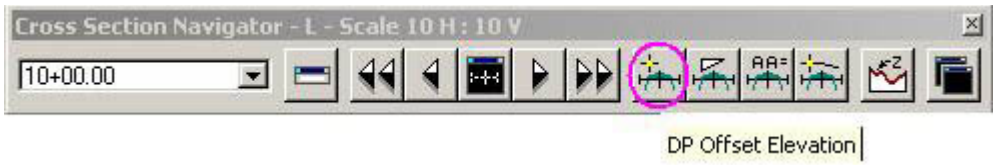


4. Activate the Cross Section Navigator.

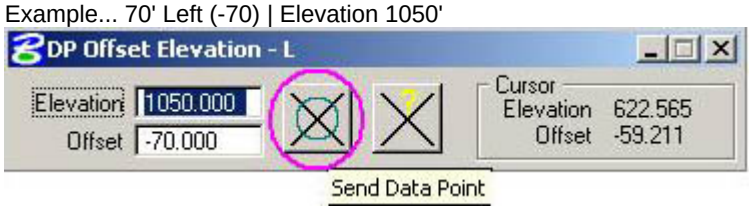
5. Activate the first cross section with the Reset Navigator button.



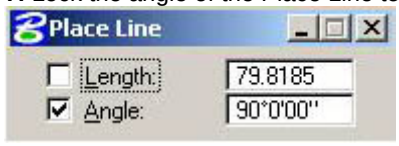
6. Use the DP Offset Elevation tool to locate left offset.



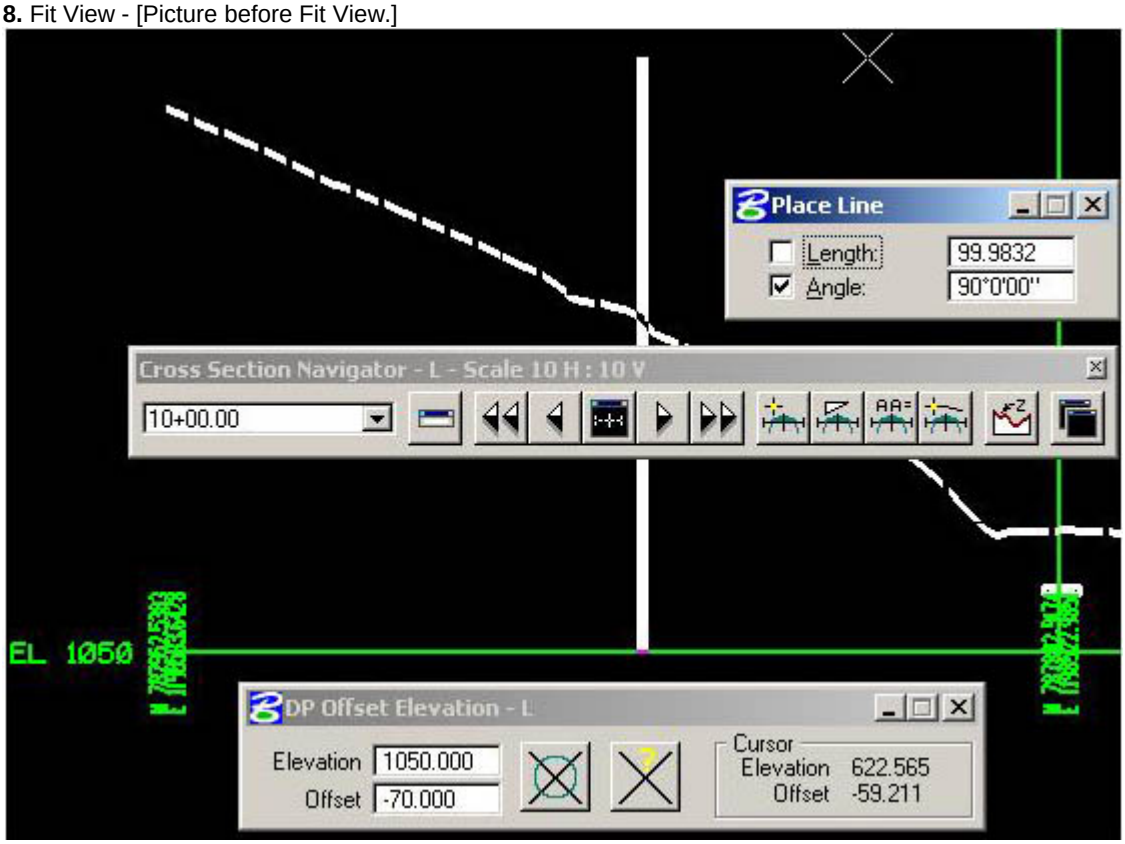
Key-in the elavation and offset distance in the DP Offset Elevation dialog box. Next, click on the Place Line tool box from the Microstation Main tool frame, and click on Send Data Point in the DP Offset Elevation dialog box.
Example... 70' Left (-70) | Elevation 1050'



7. Lock the angle of the Place Line tool to 90°.

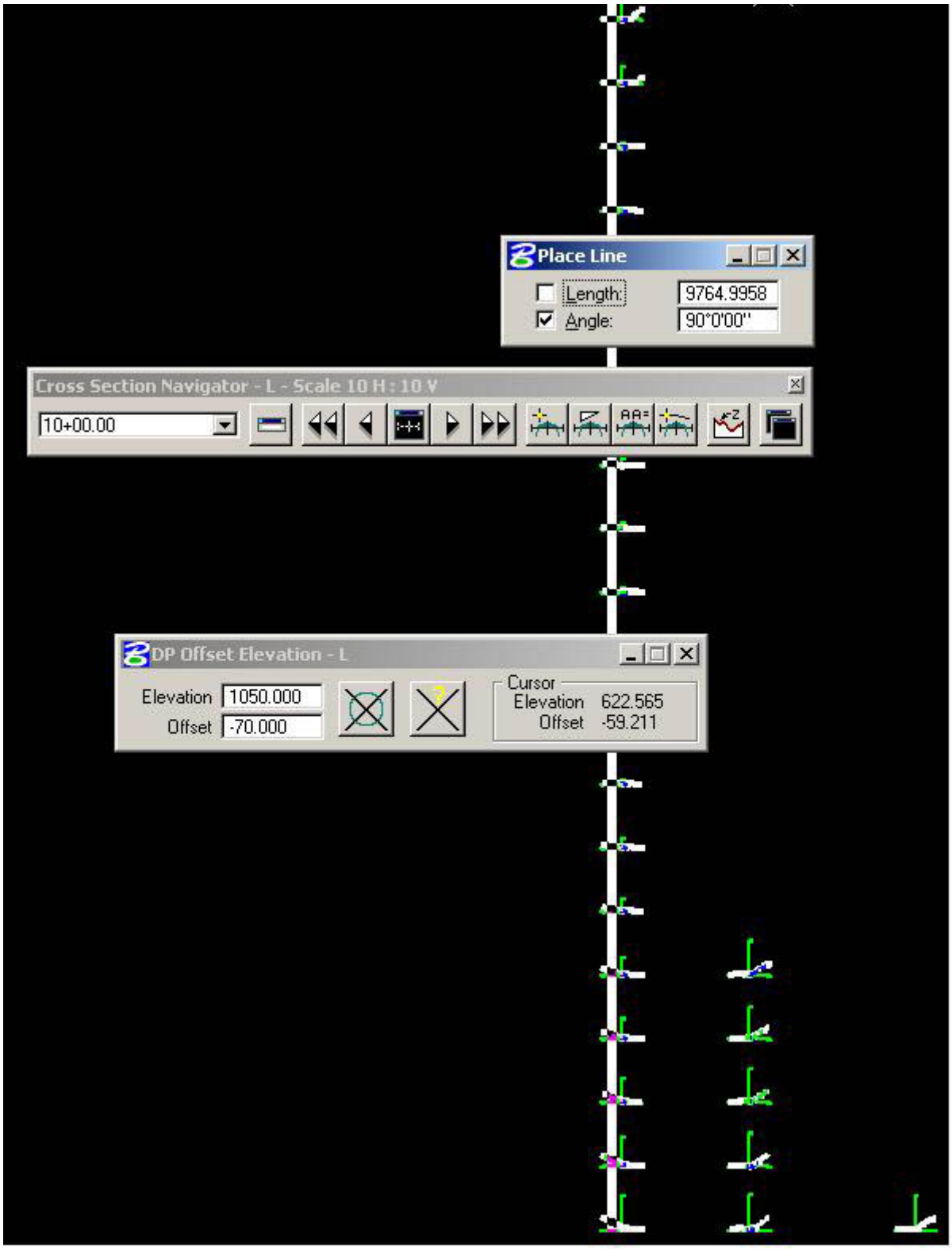


8. Fit View - [Picture before Fit View.]



Click on the Fit View button.

[Picture after Fit View.]



9. Data point to the top most green cross section cell in the same collumn like the above picture.

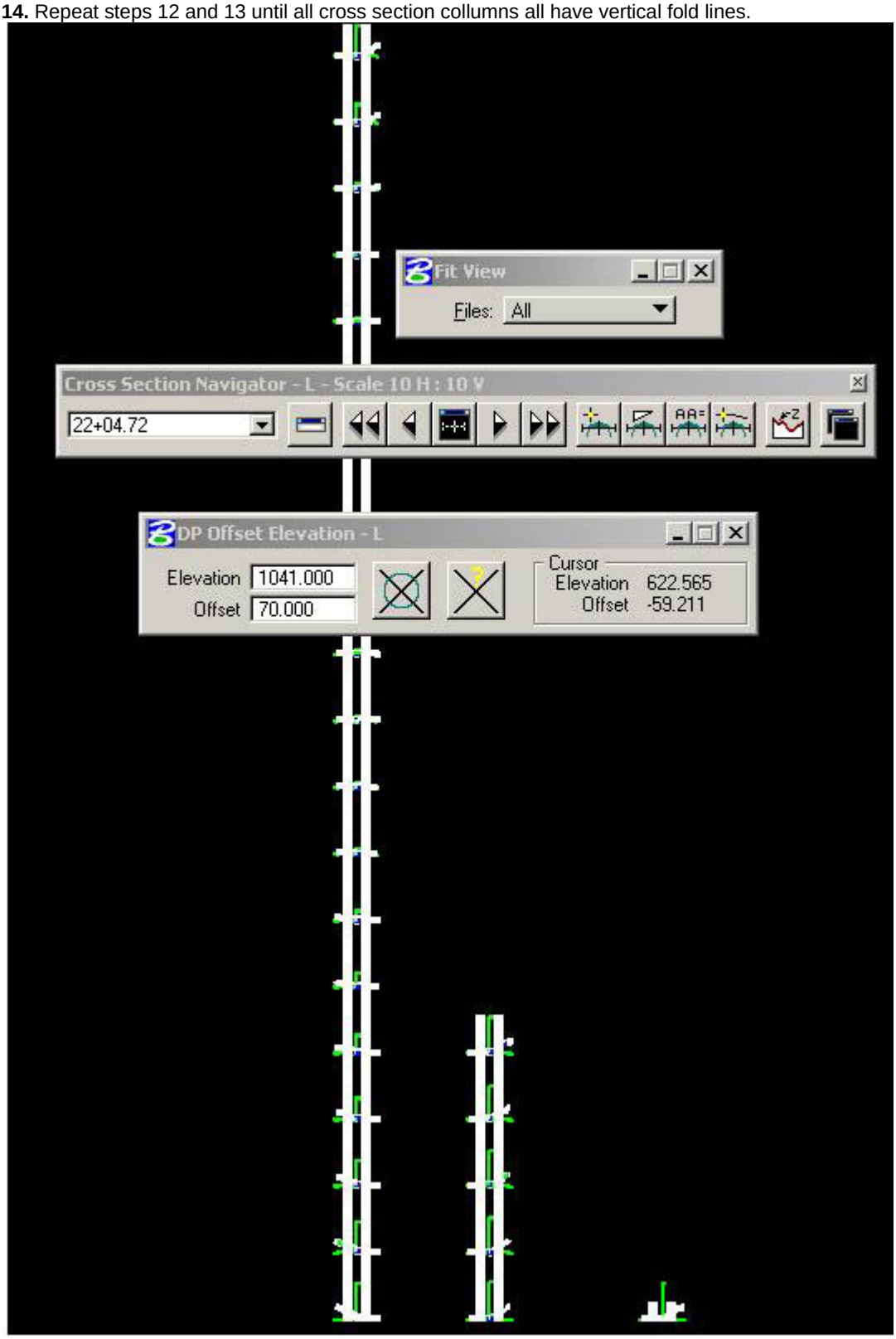
10. Data point to the top most green cross section cell in the same collumn like the above picture.

11. Repeat steps 5 through 10 for the right offset.

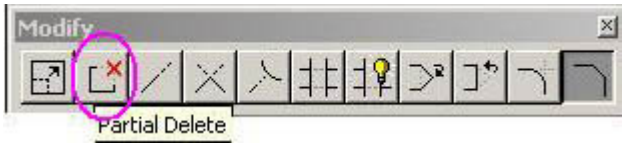
12. Identify and navigate to the starting station for the next collumn of cross sections. Usually this is the next right collumn, at the bottom-most green cross section cell.

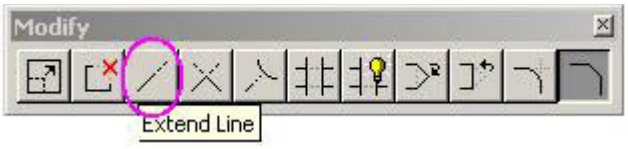
13. Repeat steps 6 through 11.

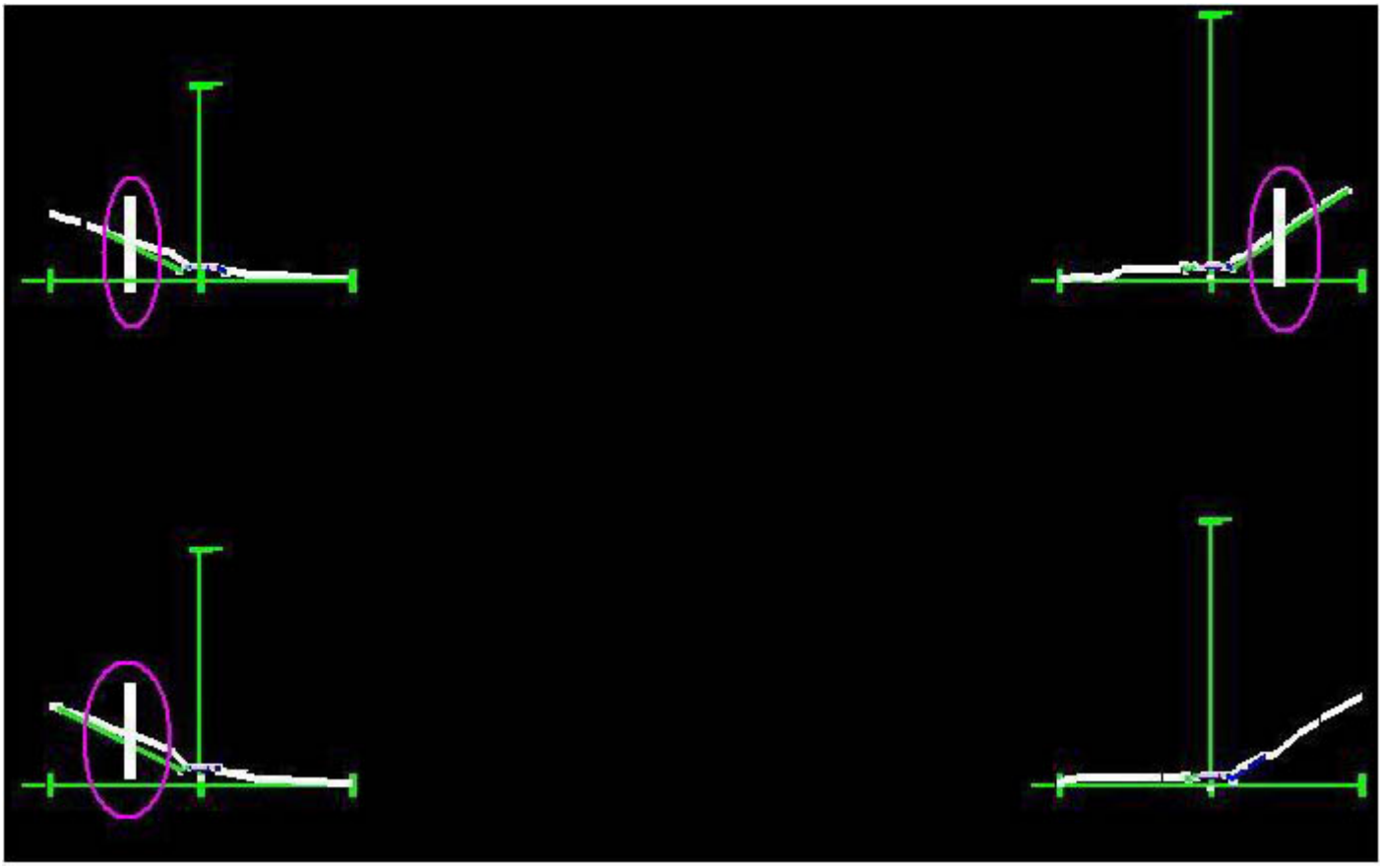
14. Repeat steps 12 and 13 until all cross section collumns all have vertical fold lines.



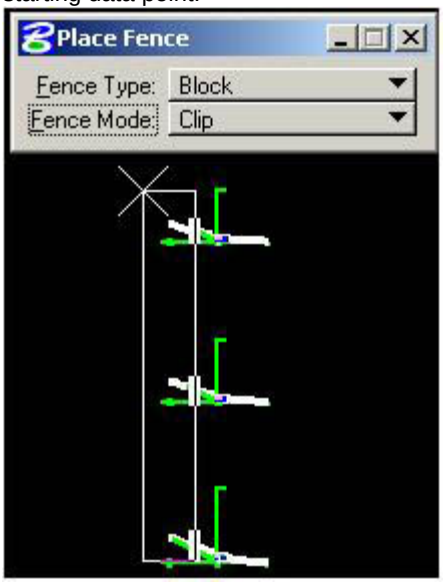
15. Use a combination of Microstation Partial Delete and Extend Line tools to edit the cross sections that just required fold lines. Note that not all cross sections required fold lines if the proposed template can all be contained inside the left and right offset lines.





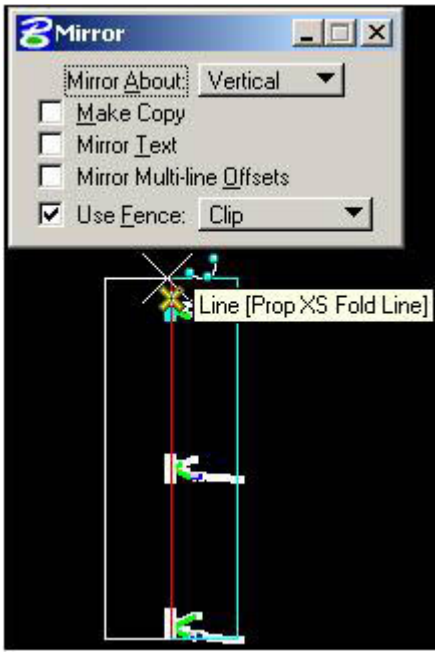


16. Starting with the first column, place a fence in Clip mode around the cross section with fold lines. Use the fold line as the starting data point.



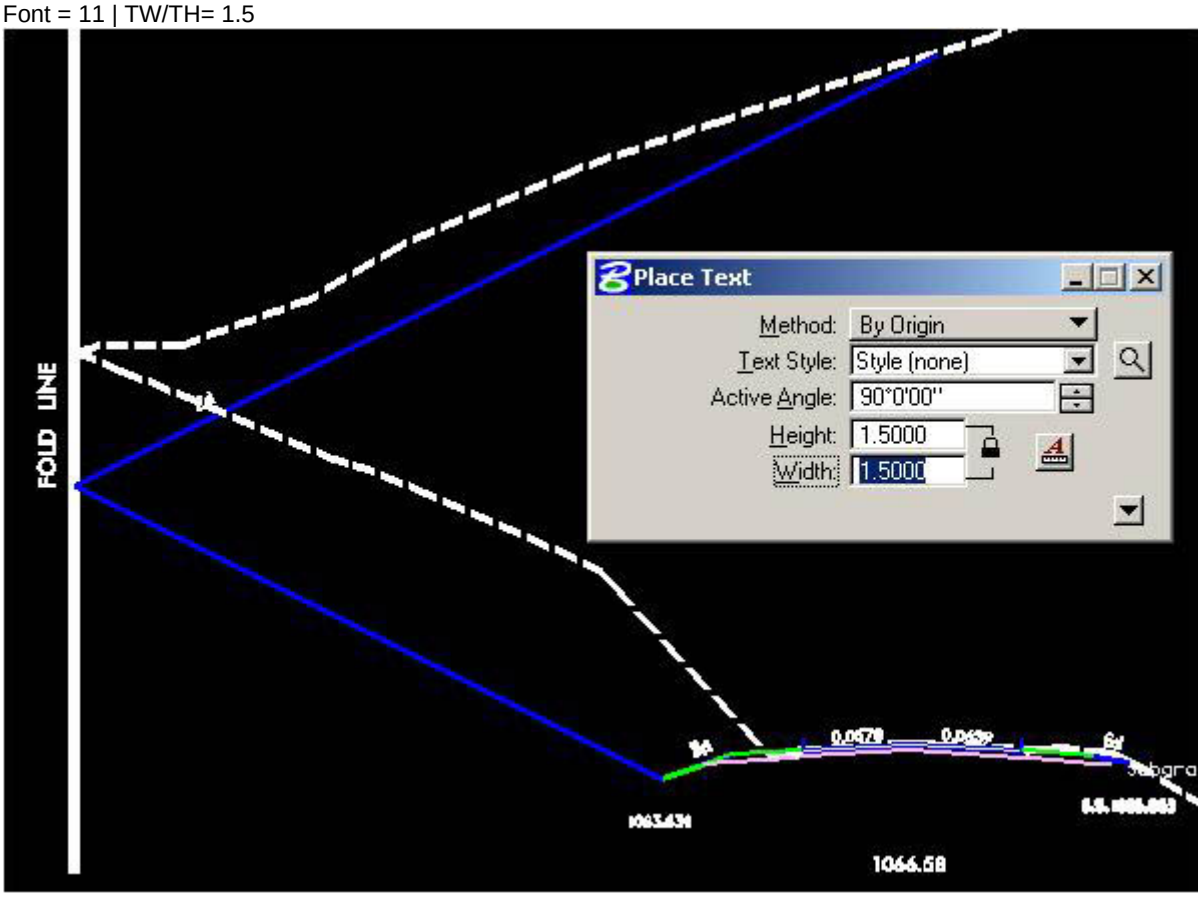
17. Turn off the green cross section cell level "Old_Level_63".

18. Mirror the fence content vertically to the inside. Use the fold line as a data point.



19. Repeat step 18 for the succeeding collumns. Remember to always mirror fence content to the inside of the cross section templete.

20. Navigate to each cross section and label each fold line with the label "FOLD LINE" on level Prop XS Fold Line Text. Fold line labels are alway rotate 90° to the current view.
Example...
Font = 11 | TW/TH= 1.5



21. After all fold lines have been labeled, create the corresponding XPL file via the Design File Generator.
Example...
B3624_RDY_XPL_FOLDLINES.DGN

22. Follow the normal procedure to layout the cross section sheet via the Geopak Cross Section Composition tool.

22. The following are example products of the Fold Line Procedure. There main purpose is to demonstrate the effect and capabilities of fold lines. Click on the links below to view.

Cross Section Sheet | Cross Section Sheet with Fold Line on the Left Side

Cross Section Sheet | Cross Section Sheet with Fold Line on the Right Side

23. Finalize and finish the cross section layout by creating and storing the plot files in iPlot Organizer.

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-3624	X-2

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

1125
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
1070
1065
1060
1055
1050

3:1
0.0578
0.0639
6:1
1063.639

1066.58
10+50.00

—4—

20-JAN-2006 12:23
i:\roadpln\se\b3624_rdy_xpl_060119.dgn
$$$$USERNAME$$$$

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-3624	2

FOLD LINE

2:1

3:1

0.0578

0.0639

6:1

1063.639

1066.58

10+50.00

—4—

20-JAN-2006 12:22
r:\roadrdn\xse\b3624_rdy_xpl_foldlines.dgn
$$$$USERNAME$$$$

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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-3624	X-14

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

1125 1120 1115 1110 1105 1100 1095 1090 1085 1080 1075 1070 1065 1060 1055 1050 1045 1040 1035

1.5:1

1.5:1

3:1

0.0977

0.0497

1050.264

1052.98

22+00.00

20-JAN-2006 12:24
i:\roadprj\ss\b3624_rdy_xpl_060119.dgn
$$$$USERNAME$$$$

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-3624	14

FOLD LINE

1.5:1

0.097%

0.049%

3:1

1.5:1

1050.264

1052.98

22+00.00

—/—

20-JAN-2006 12:24
r:\roadrpl\xse\b3624_rdy_xpl_foldlines.dgn
$$$$USERNAME$$$$