
Roadway Design Geopak Help Manual

Templates & Earthwork for Detours

RWD CADD Support
11-1-2004

This manual was produced using *Doc-To-Help*®, by WexTech Systems, Inc.



Contents

Detour Roads	1
Templates & Earthwork for Detour Roads.....	1
Glossary of Terms	9
Index	11

Detour Roads

Templates & Earthwork for Detour Roads

The following steps have been provided since the Earthwork for Detour Roads has to be calculated separate of the Mainline Earthwork. Four working X-section dgn files will have to be created for this type of job. The names of the created files could look like this:

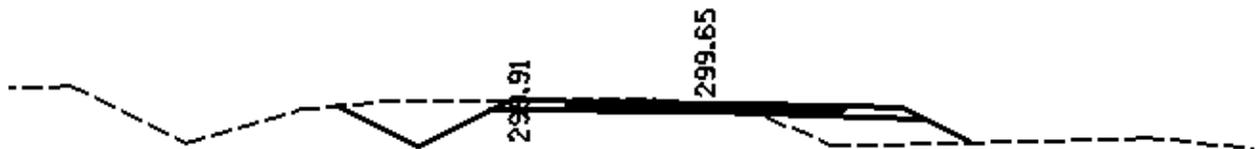
XSDET.DGN - The first X-section file that contains only the Detour Road Templates.

XSML.DGN - The second X-section file that contains the Mainline Templates with a Temporary Foreslope on the Detour side.

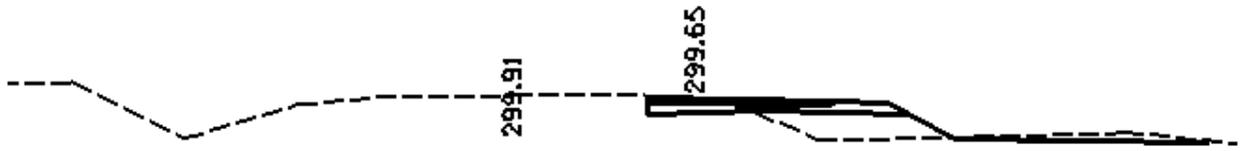
XSDETR.DGN - The third X-section file that contains the Final Mainline Template.

XS BOTH.DGN - The fourth X-section file that contains the Mainline and Detour Templates.

1. After the Existing X-sections are created in the first X-section file (*XSDET.DGN*) put your Detour Templates on them.



2. Edit the Templates (graphically if necessary) to make the templates final.

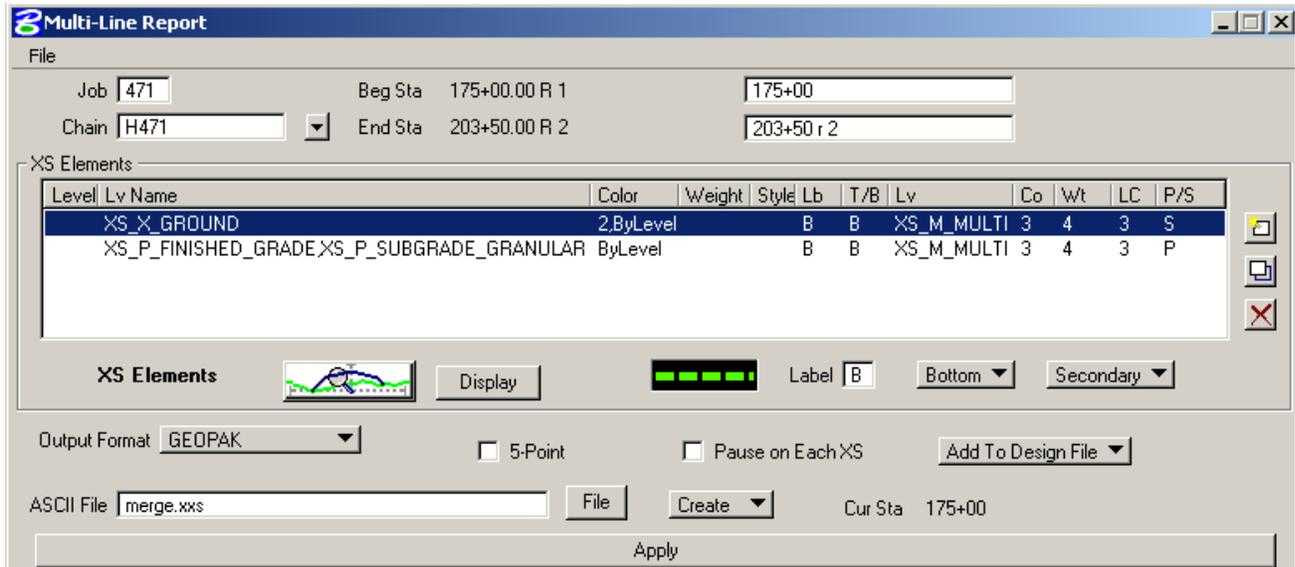


3. Enter XSDET.DGN and invoke Geopak's CROSS SECTION REPORTS dialog box.



4. Under USER on the dialog box, click on the PREFERENCES and check the tolerance value, Default = 0.01

5. Invoke the MULTI-LINE Report from the XS Report



6. Enter your Job#, the X-section baseline, and the X-section limits.

7. Tag on the FILE and open /rwd/input/multi.lis (If this does not load correctly, fill out the dialog as shown above).

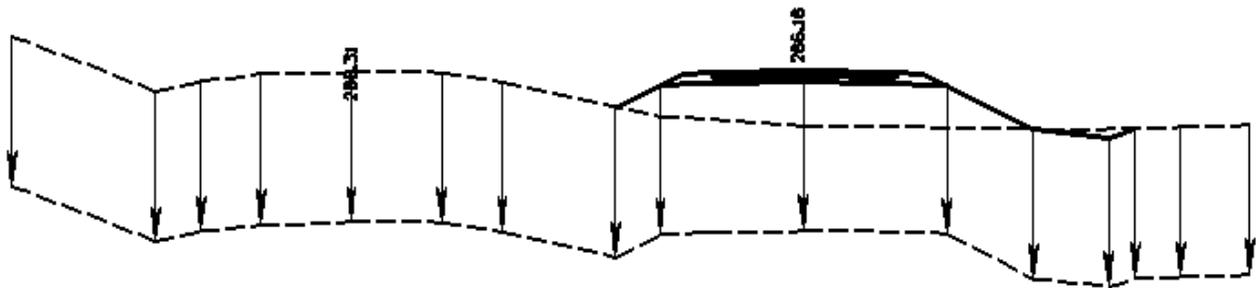
8. Set the output format to GEOPAK

9. Toggle the **ADD TO DESIGN FILE/DISPLAY ONLY** button to **ADD TO DESIGN FILE**.

10. Enter the name you want to call the ASCII file that will be generated: ie. MERGE.XXS

11. Tag **APPLY**.

Below is an example of the merging of two surfaces:



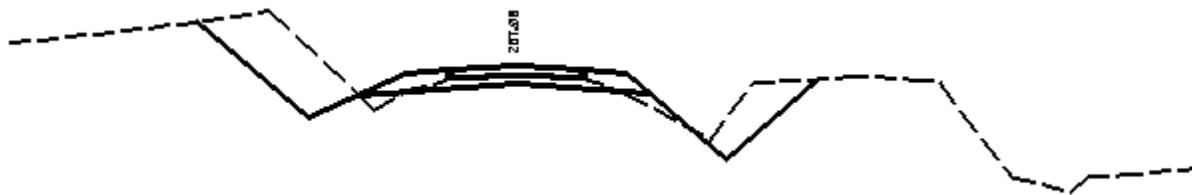
12. The MULTI-LINE actually placed the new surface in the current working file. You need to file fence this surface along with the new X-section cell to another design file called XSML.DGN. To do this:

- a) LV=55(XS_M_MULTI)
- b) OF=ALL
- c) ON=63
- d) Place a fence around all of the sections and make sure INSIDE is on
- e) KEY in FF=XSML.DGN
- f) Data Point in the view to accept the fence contents

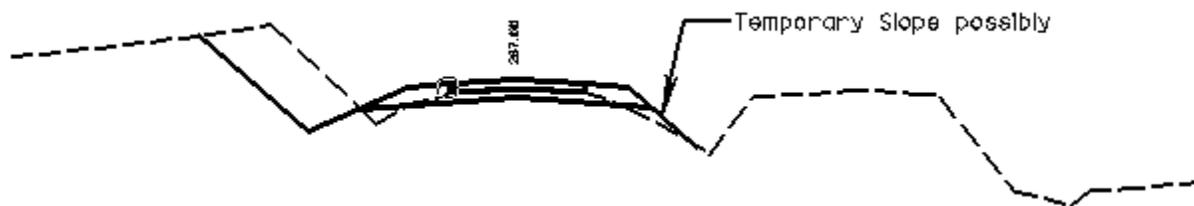
13. Enter this design file (XSML.DGN) and:

- a) set LV=1(XS_X_GROUND), CO=2, WT=4, LC=3
- b) OF=2-54, 56-63
- c) ON=55(XS_M_MULTI)
- d) Place a fence around all the elements presently on LV=55(XS_M_MULTI)
- e) fence change the level and the symbology

14. Put your Mainline Templates on these sections (XSML.DGN)

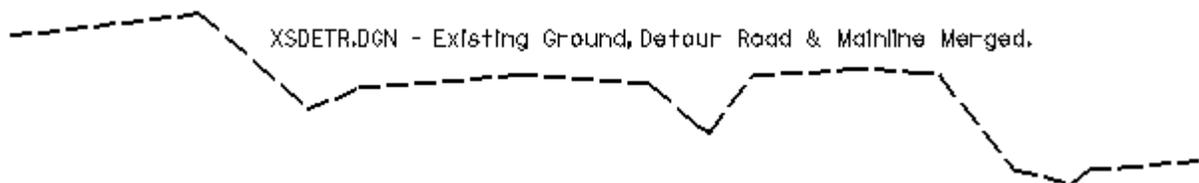


15. Edit the templates (graphically if necessary) to make this Template Final. These X-sections should show the Mainline Template as it will be when traffic is on the Detour Road.



16. Repeat STEPS 3-13. You will now make the Mainline a part of the existing ground (merging the mainline template with the existing surface in XSML.DGN).

NOTE: When repeating these steps replace XSML.DGN with the filename XSDETR. DGN and XSDETR.DGN with XSML.DGN.



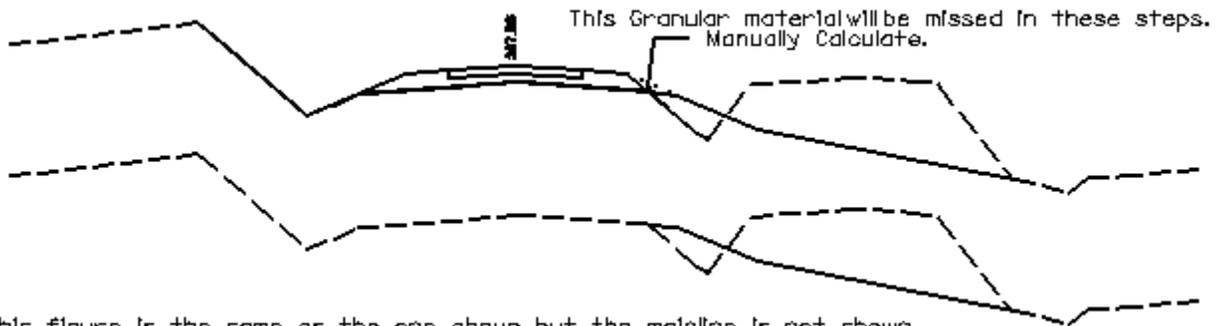
17. The file XSDETR.DGN is created in the above steps to show the Detour Road Removal and the Final Mainline Foreslope (if a temporary slope was used) on the detour side of the mainline template.

a) Reference in the XSML.DGN file & copy in the Mainline Templates to this file by:

LV=31(XS_P_FINISHED_GRADE), OF=all, Ref. Level OF=all, Ref. Level ON=XS_X*,XS_P*, FENCE COPY

b) Place the removal line and/or the Temporary slope line as shown below on

LV=31(XS_P_FINISHED_GRADE), CO=11, WT=4, LC=0. These elements have to tie to the existing ground.



This figure is the same as the one above but the mainline is not shown just to be able to show the Removal template in it's final state tying to the existing ground.

18. For plotting purposes, you need to show both the Mainline and the Detour on the sections, so copy XSDET.DGN to XSBOTH.DGN. Next, enter XSBOTH.DGN, reference in XSDETR.DGN, and make sure the sections line up properly and then copy in the Mainline Templates by:

a) Turn off the Reference file levels all and then turn on ref. levels XS_X* & XS_P*

b) Set LV=58, OF=all in the design file. (You should only see the proposed Mainline Templates)

c) FIT ALL and PLACE A FENCE around all of the elements

d) COPY FENCE contents by the KEYIN DX=0,0 (This will be the file the you run the LAY.INP and SLPSTK-D.INP on.

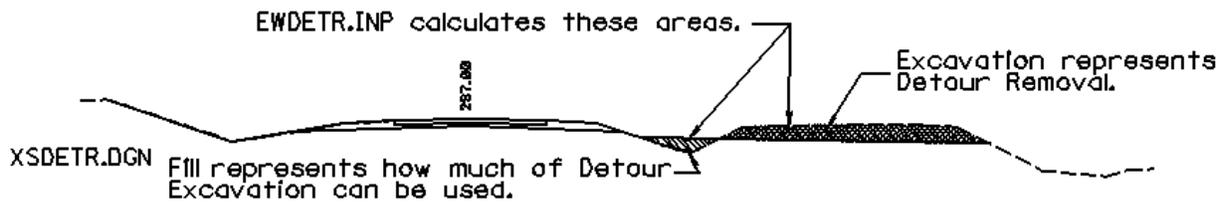
Below you will see the Earthwork and a final look at each Working X-section File.



Run the file EARTHWK.INP on this file to get the Earthwork to build the Detour.



Run the file EARTHWK.INP on this file to get the Earthwork to build the Mainline while traffic is on the Detour.



Run the file EWDETR.INP to get the Earthwork for Removal of Detour and what amount of this Removal can be used to finish the Mainline Template.



Run the file LAY.INP on this file to lay your X-Sections out in an order suitable for plotting.

Glossary of Terms

Index

Error! No index entries found.