5_7 PROBLEM WITH CUTTING MULTIPLE CORRIDORS

Question:
When I have two alignments side by side like ramps running in the same xsc file as the mainline the ramp xsc grade point runs about 3in higher. Why is this?

Answer:
When cutting cross sections of multiple corridors, remember that the surface DTM of each corridor is created by the information interpolated between their template drop intervals.

In the diagram below, if there are template drops on -L- (red lines), then all information cut on mainline -L- should be accurate (including tying to existing ground terrain). However if the surface DTM of a secondary offsetting corridor, such as a -RAMP- Alignment, is created using its own template drop intervals (blue lines), then the profile elevation for -RAMP- will be off when cutting cross sections about -L- .

Surface DTM information (blue shape) is interpolated (white dashed) between two templates drops (blue lines).
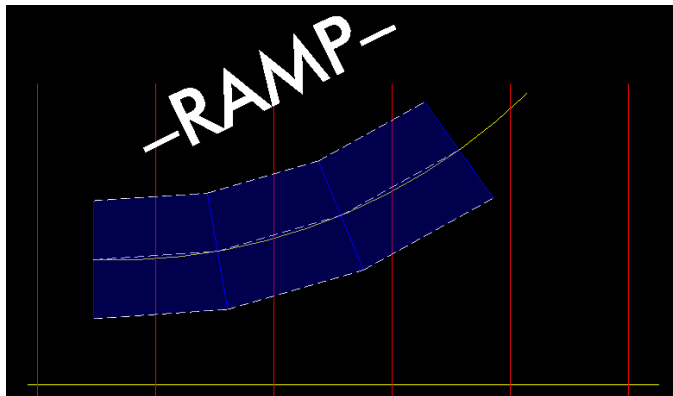

At station 17+50, the corresponding -RPDD- station and profile elevation is 11+26.25 and 715.9092' (-33.96' LT offset).
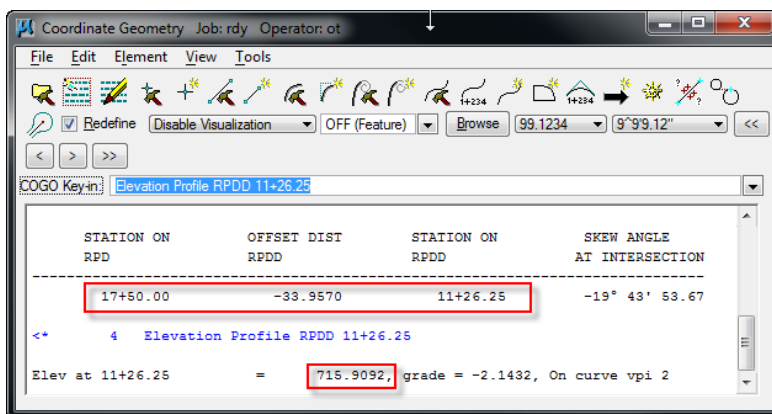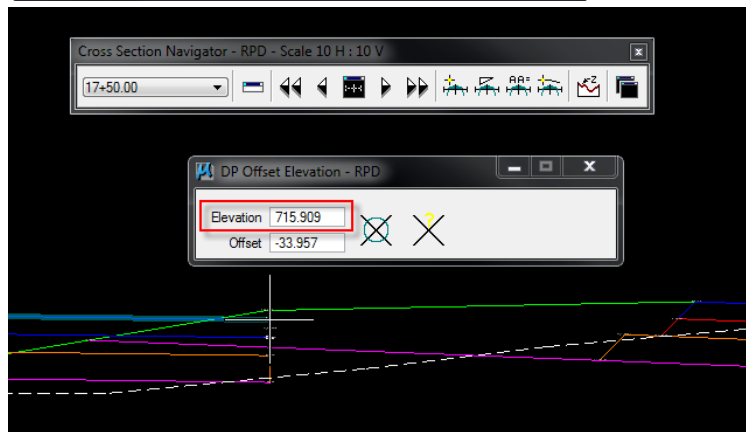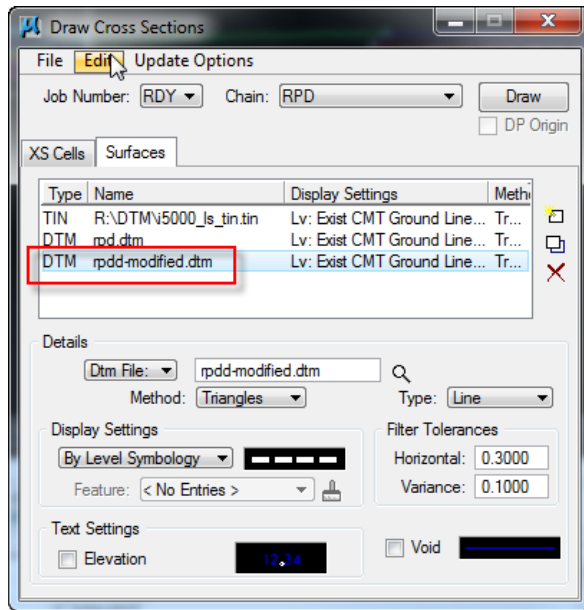

If the cross sections are cut using the default DTM's and about –RPD- alignment, then profile elevation of the offsetting -RPD**D**- alignment is off (0.2798' or ~3.36") .
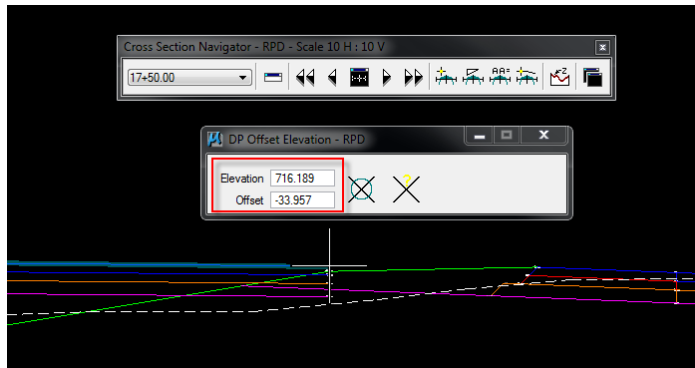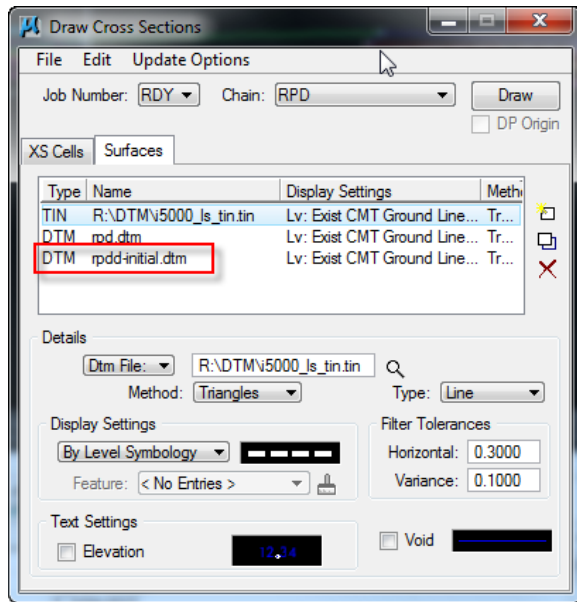
To fix this issue, add a template drop on the corresponding offset corridor. Use the Key Station dialog box.
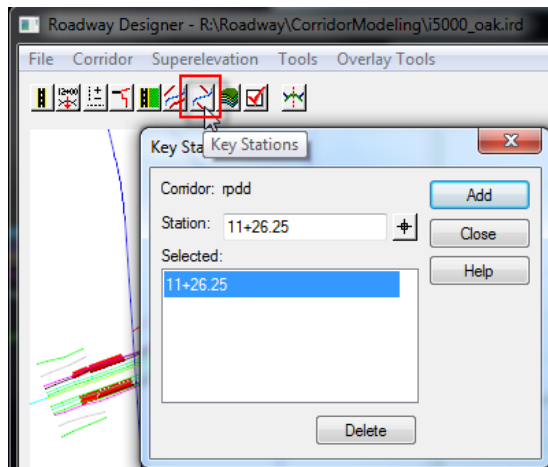
Create the surface and note the correct elevation.

Of course this will tie down the offsetting corridor profile elevation. Since the whole -RPDD- surface DTM is just an interpolation of data between two template drops, the other Important tie point(s) like to the existing ground is still "skewed". This will have to be modified manually this in the XSC.