

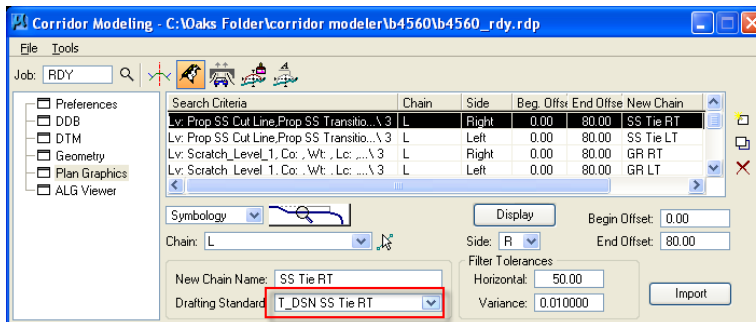
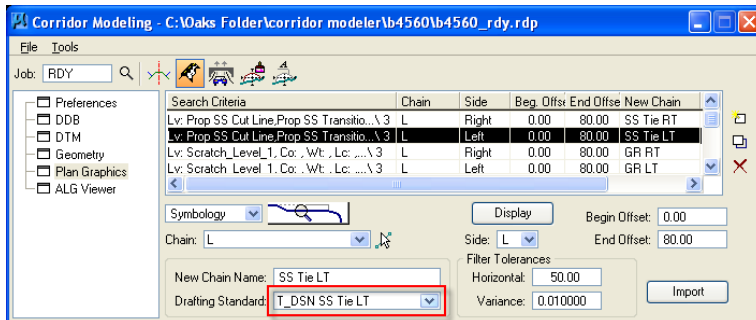
2_16 RETROFITTING EXISTING PROJECT SLOPE STAKES

Question:

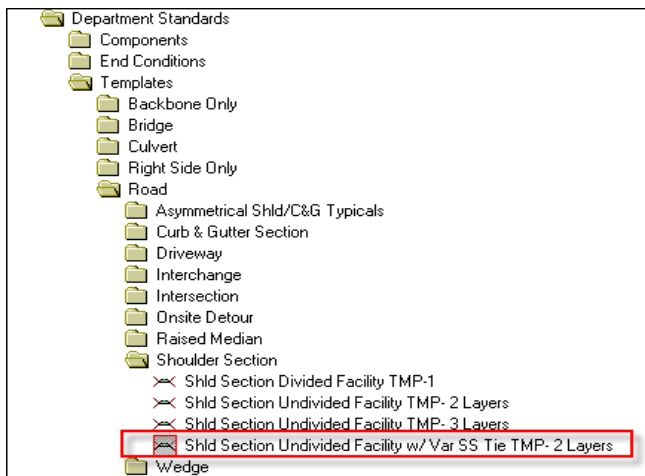
I have a bridge project with slope stake limits already ran from past Criteria cross sections. How can I use corridor modeling to tie to these slope stake lines?

Answer:

Store the left and right side slope stake limits as "T_DSN SS Tie LT" and "T_DSN SS Tie RT", respectively.



Use the template with variable slopes. Currently it just template "Shld Section Undivided Facility w/ Var SS Tie TMP- 2 Layers " .

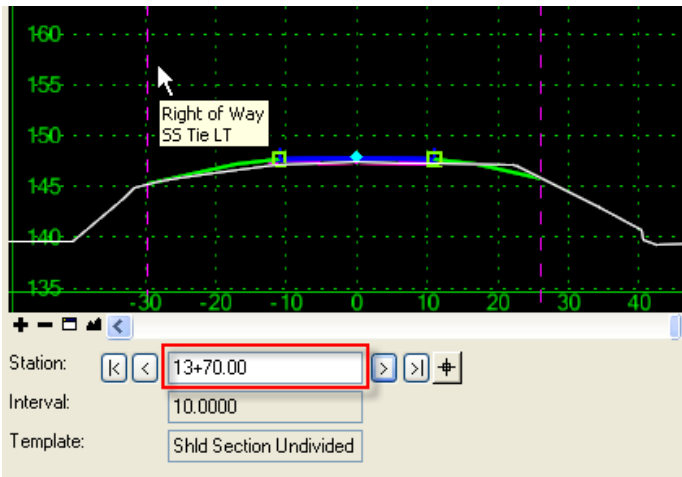


In Roadway Designer, the template should automatically seek the slope stake limits and tie to existing

ground with variable slopes.



Note that because these slope stake lines were generated from even 50' cross sections, the intermediate sections do not line up.



There are some advantages and disadvantages for using this type of template.

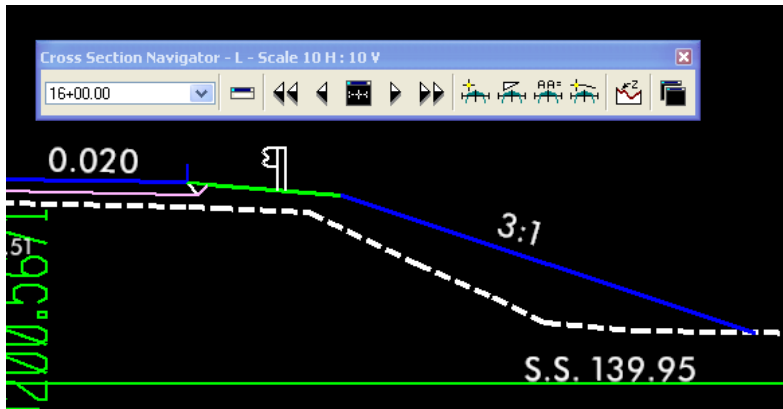
Advantages:

1. Retrofitting slope stake limits for existing projects that were hand-modified.
2. Randomly (no consistent logic) edit XSC cross sections station by station of the slope stake limits, and reprocess with Roadway Designer.

Disadvantages:

1. As mentioned above, intermediate sections are disregarded.
2. The whole project must have slope stake lines on both sides to use the template.
3. No guardrail warrant considerations. Only drawn guardrail graphics are processed.
4. No cut sections considered.
5. Design changes are not considered. For example, pre-Hydro the side slope for local design should be different when shoulder berm gutter is used after Hydro.

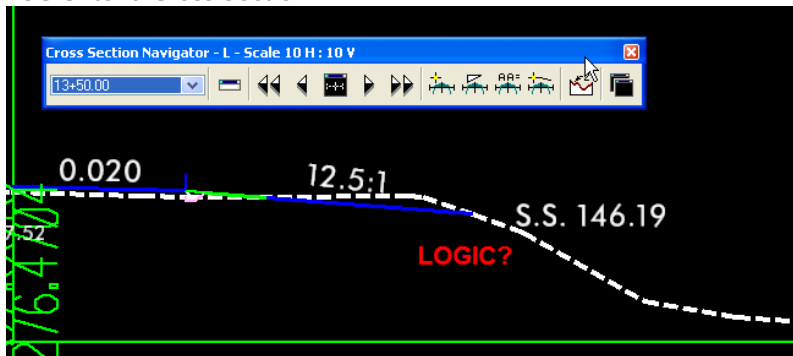
XSC Criteria Cross Section



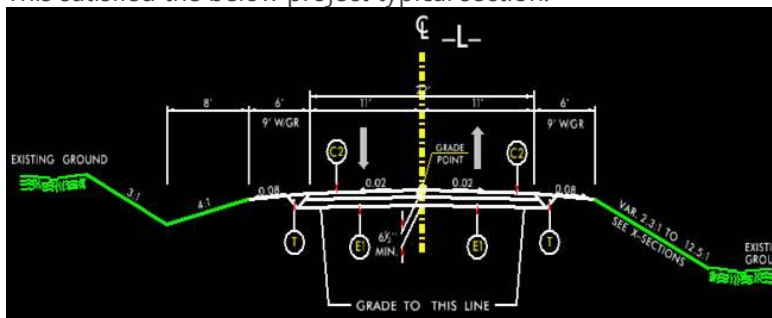
Roadway Designer



XSC Criteria Cross Section



This satisfied the below project typical section.



NOTE: Because of some of these restrictions and the unpredicted behavior from using End Condition Exception (that what we really want to use in this case), we do not anticipate this type of template will be used much (just matching the legacy Criteria cross sections in a particular plan phase). Our recommendation is if there are some consistencies in the logic of where the slope stake should tie, such as an existing ditch or existing shoulder point, then this can easily be done with targeting the existing 3D DTM features. This method resolves all intermediate template drops, update with design changes, and can be used only in the station range desired. We hope to explain this useful feature in our next write up.