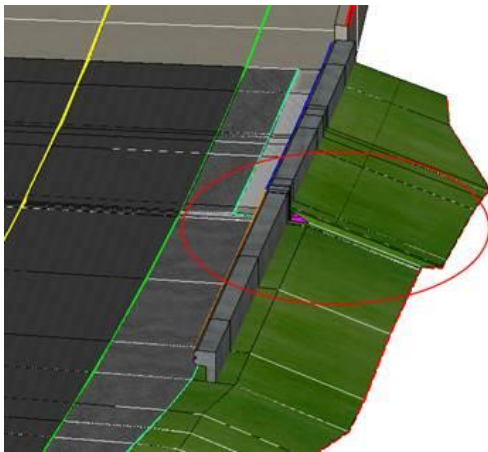


10_10 Transitioning SBG Side Slopes for Construction

Question:

When transitioning from normal shoulder to shoulder berm gutter (SBG), the project footprint changes drastically. Is there a way to smooth this out?



Answer:

The inconsistency to the side slopes is mainly due to the difference in location of the shoulder break point. For normal shoulder, it is located at the edge of the usable shoulder (turf). When SBG is present, the break point is located on top of the turf build-up. Note this is what Criteria has always done in the past.

Normal Shoulder

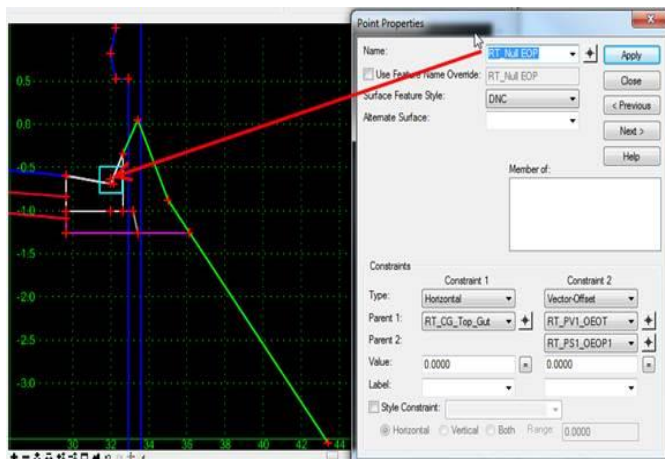


With SBG



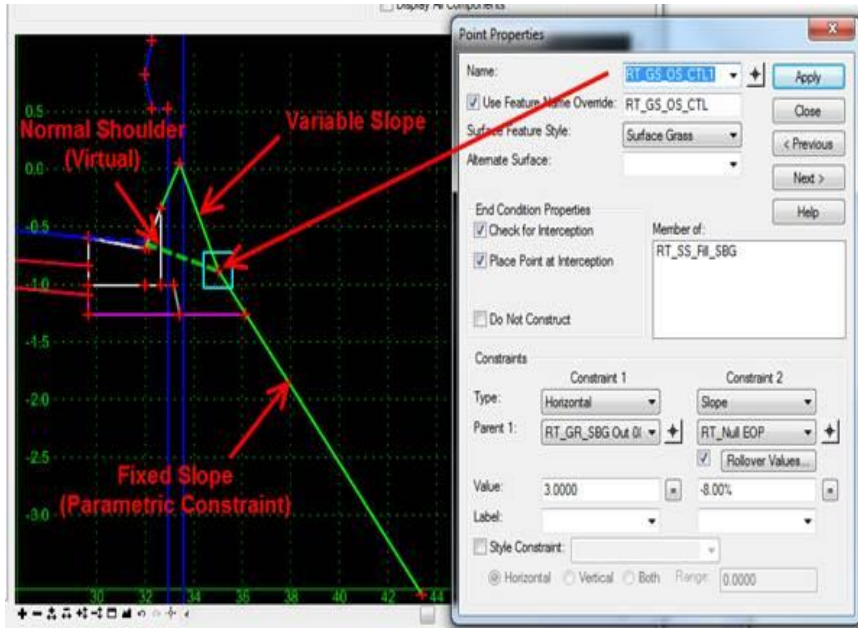
To be consistent with how it is going to be constructed in the field, a couple of key null and normal points have to be added to all templates which have the SBG end conditions.

A first null point is needed to simulate a virtual EOP/edge of PS point in a normal shoulder situation.

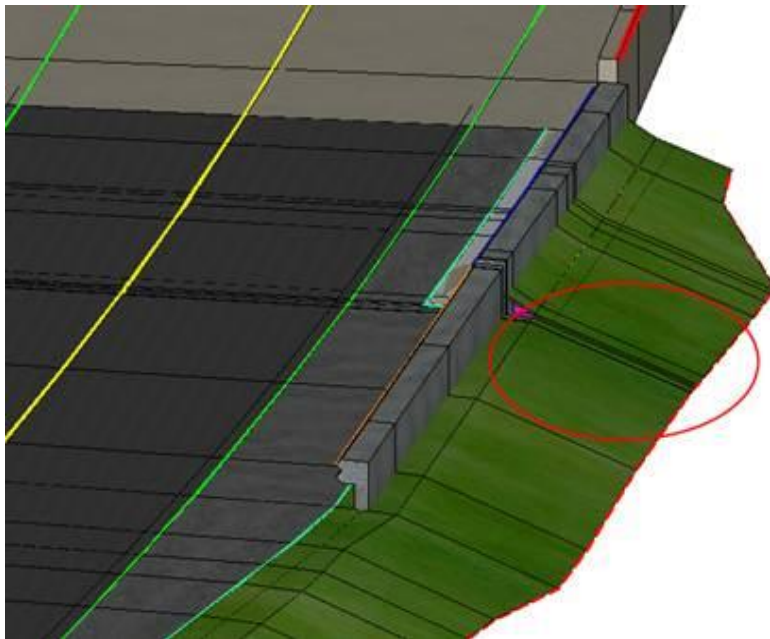


A second point is used as the new shoulder break point occupying the exact location of the edge of usable shoulder point in a normal shoulder situation. This new break point changes the end condition behavior in two folds.

1. The slope above the break point is variable.
2. All slopes tying to existing ground is dependent on this new break point location (not on the top point of the turf build-up as previously configured).



The result is a much smoother seamless transition for a better construction model and more accurate earthwork computation and project footprint/limits of construction.



Please keep in mind the templates used on this project are old. Point names will be different in the updated library, but the concept and constraints are still the same. Changes have been made to this specific project ITL only. An overhaul of the entire department standards ITL will take several days to complete. Please be patient.