

2_4 ADJUST DEPTH FOR TRENCHED VS. GRADED SHOULDERS SECTION WIDENING ONLY TEMPLATE

Question:

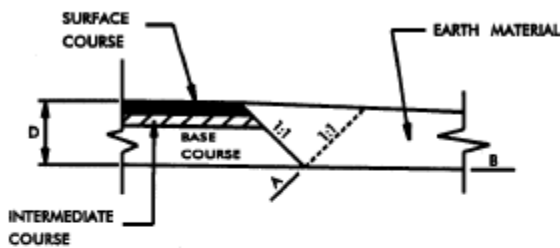
How does the template determine if the shoulder subgrade is trenched or graded out until it daylight? If possible, how can this feature be modified?

Answer:

The shoulder subgrade treatment is automatically set according to the Roadway Design Manual, Part I, 1-3E, "Pavement Edge Construction".

PAVEMENT EDGE CONSTRUCTION

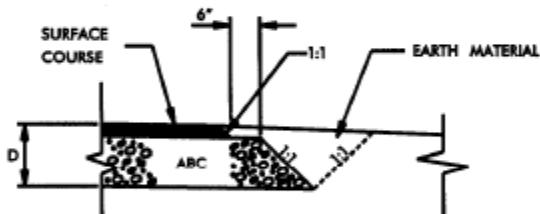
1-3E
F-1



ALL ASPHALT

E-1

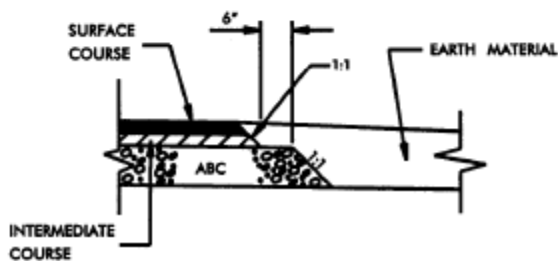
- A** TRENCH SECTION
WHEN D = 10" OR LESS
- B** GRADED SECTION
WHEN D = OVER 10"



AGGREGATE BASE

E-2

- TRENCH SECTION
WHEN D = 10" OR LESS



AGGREGATE BASE

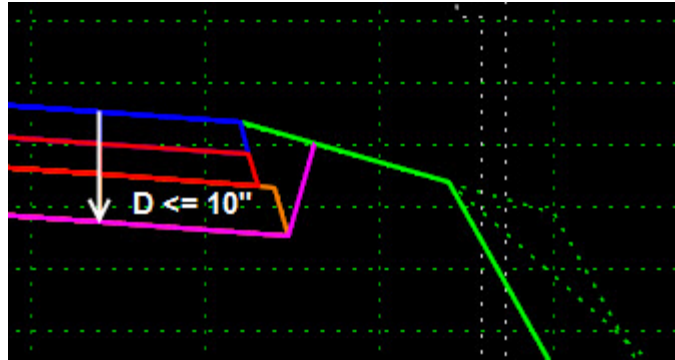
E-3

- GRADED SECTION

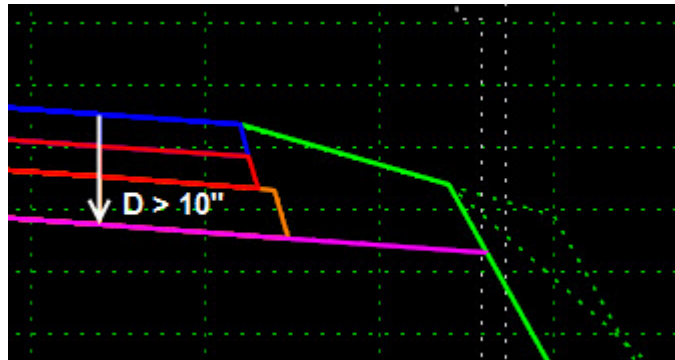
When the measured total pavement depth (D) at the proposed edge of travel (EOT) is 10" or less, then the shoulder subgrade is trenched at a 1:1 slope until it daylight on the grass shoulder

surface component. When the total pavement depth (D) is greater than 10", it is graded out on the same slope as the paved shoulder slope until it daylights on the side slopes.

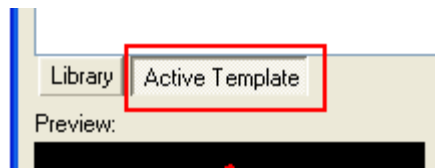
Trenched Shoulder Section



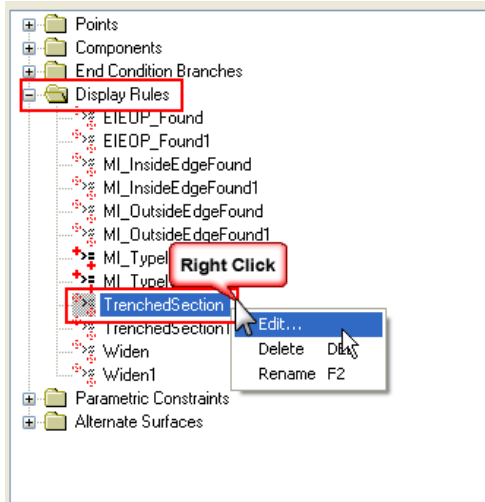
Graded Shoulder Section



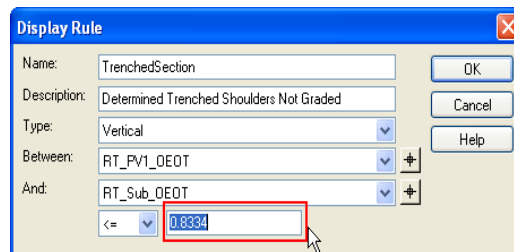
The display rule "TrenchedSection" is used to automatically control this feature. To modify the 10" rule, go to the **Active Template** tab.



Open the Display Rules folder. Select and right mouse click the display rule "TrenchedSection" and choose "Edit". tab.

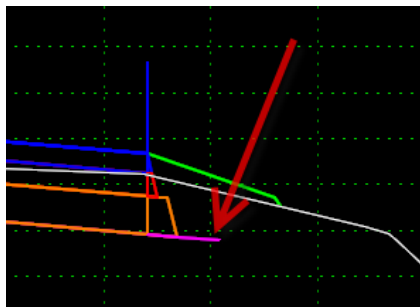


Change the value to something less than 0.8334 (10") if the desired effect is to have the graded shoulder section applied earlier before reaching 10" in pavement depth, e.g. 0.5 (6"). Increase or decrease this value will determine at what pavement depth (in inches) should the shoulder be treated as trenched or graded section. Default is 0.8334 (10").



Repeat the same procedure for the left side "TrenchedSection1".

Also one problem with graded shoulders is that on rare occasions it cannot tie to the side slope using the same pavement slope. Since the slope stake point tied to existing ground is determined before the intersection with the subgrade line has occur, the subgrade line is displayed incorrectly.



We are not built a "warping" subgrade mechanism (another display rule) to handle this scenario. For right now, continue to modify the XSC using basic Microstation "Extend to Intersection" commands to get cross section earthwork to compute correctly.