

Tutorial: Lowered Curb

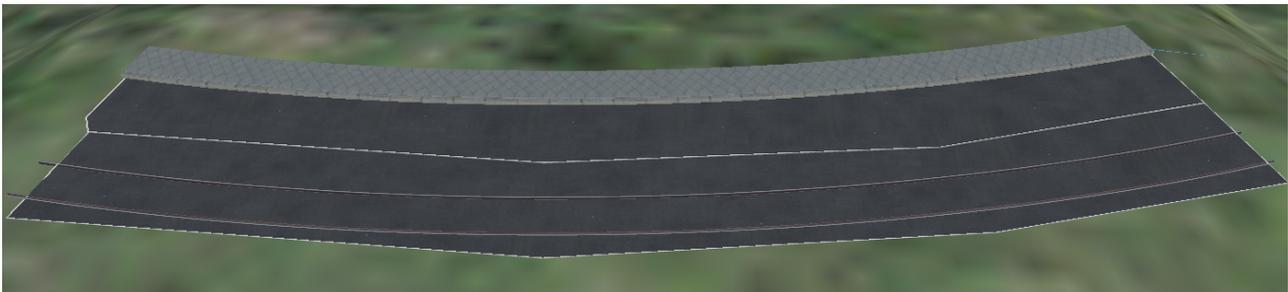
Inhaltsverzeichnis

- [1 Starting situation](#)
- [2 Cutting and lowering the spline](#)
- [3 Replacing the pavement:](#)
- [4 Fine-tuning the mapping](#)

1 Starting situation

We start with a simple street (in our case actually only one ) with a flanged track and a curb including pavement. The pavement is at height 0 with the road being at height -0.15. The curb split itself is as a result also at height -0.15m

Take a closer look: I have split the street into two polygons: one which covers the track and one which fills the gap between track and curb. This is necessary because the option "Vertical adaptation at cutting" has to be disabled for the polygon that touches the lowered curb. For the polygons that cover the track this option has to be enabled (if the complete construction including rails are not on a flat horizontal surface).

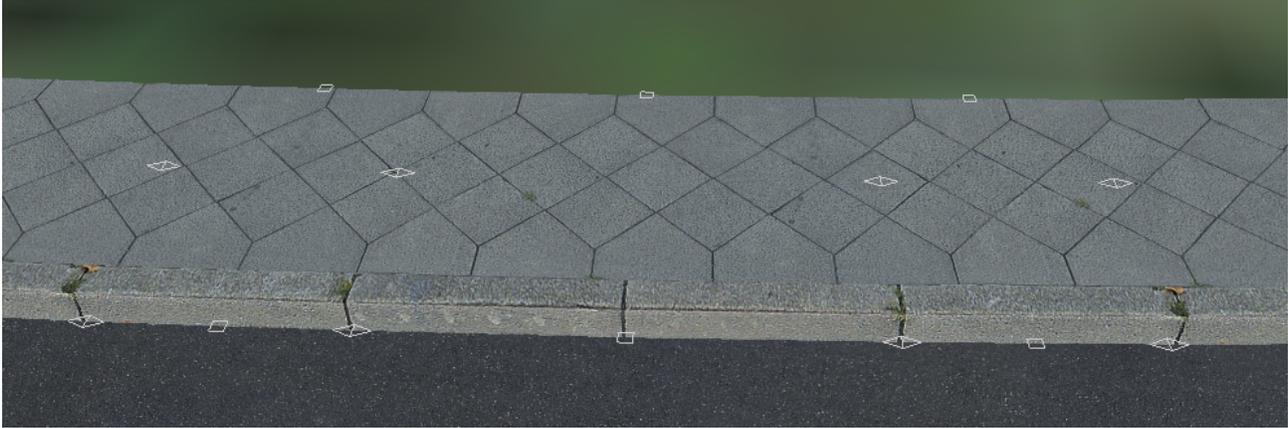


Another option would be to cover the rails in a terrain spline, like "pflichtstreifen_1".

Before we continue we set the polygon options as discussed: for the back polygon the option "Vertical adaptation at cutting" is DISabled, for the front polygon it is ENabled.

2 Cutting and lowering the spline

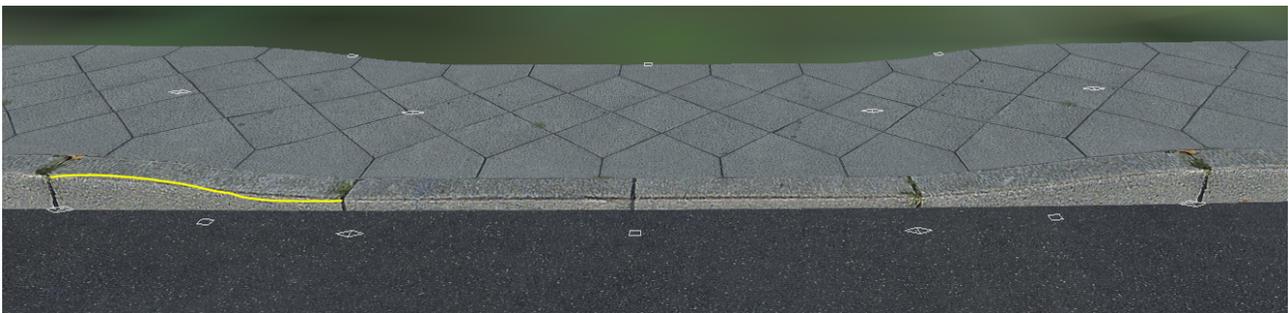
First we need to cut the spline four times. For this we activate  in Spline mode. Then we click at the positions where we want the cuts to be made. Then we disable the mode again using  :



Now we lower the middle section. For this we open the options of the middle section and change the height. The curb is 15cm high and should be lowered by about 10cm. As the spline started at a relative height of -15cm, it should now be set to -0.25:



As the connecting elements (currently) do not follow automatically we need to change the heights there as well. For the element before we change the "Far end" height and for the element after we change the "Near end" height. It then looks like this:



We notice three things:

1. The asphalt polygon kept its height as the "Vertical adaptation at cutting" option was disabled
2. The pavement has lowered completely, also the back side which we do not want
3. The transition between the parts of the curb is rounded, which is unrealistic - see the slightly exaggerated shape of the yellow line

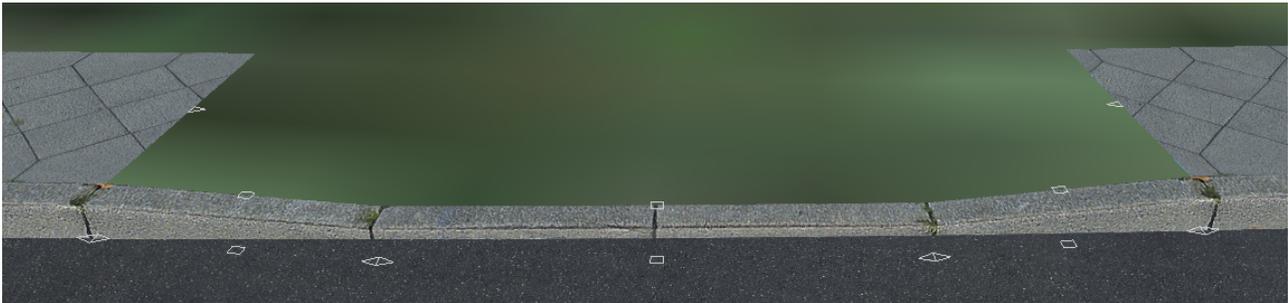
We first correct 3: We right click on both curved spline segments and choose "Set constant gradient":



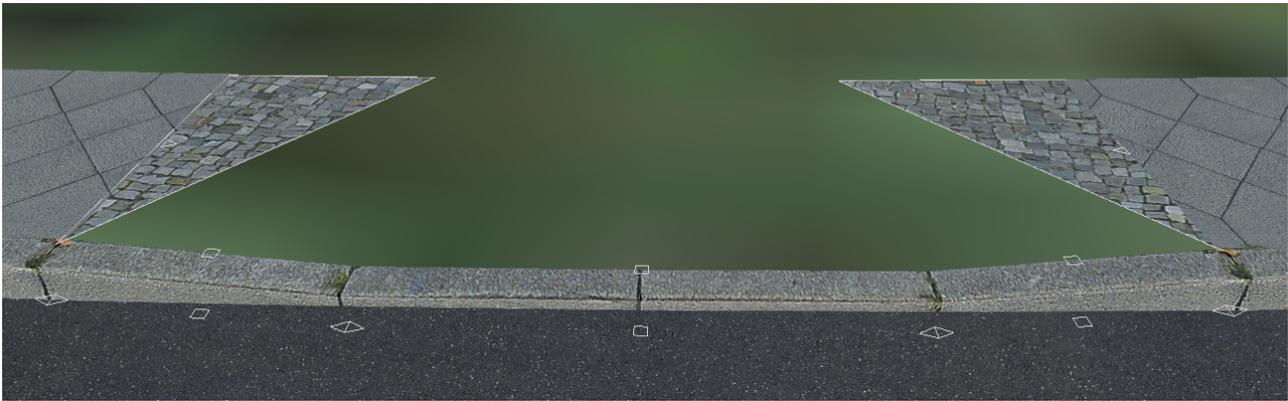
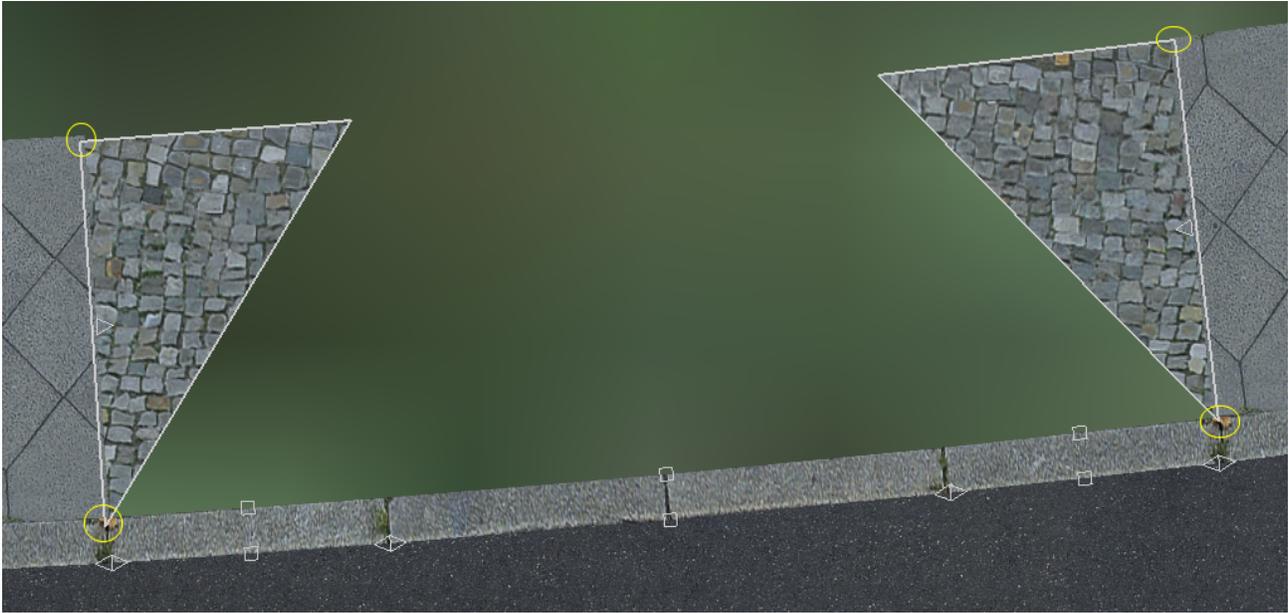
3 Replacing the pavement:

Now we want to correct 2. For this we remove the pavement near the lowered curb. We will replace it with the corresponding pavement polygon.

For this we right click the rear "Square Helper" in the center of the three affected spline segments and choose "Remove outer attached sub spline":



Now be careful to exactly follow these instructions: Check relative height  is enabled and that vertical snapping  is disabled. Also set Z = 0.0. Now choose the pavement polygon material you want and create both triangles, slightly overlapping the corners at the indicated positions:



Now set $Z = -0.1$ and ENable vertical snap  . We can now build the middle, rectangular ramp. Attention: At the moment there is a bug with the vertical snap. The first point that is placed must be one of the front, lowered points:



Because $Z = -0.1$ was set for building this polygon the front points are at height -0.1 and because of the vertical snapping the rear points are at 0.0 .

Finally we use the same settings to build the last two triangles. Here we also need to start with the lowered point:



4 Fine-tuning the mapping

In principle we are not completely done. However, on closer inspection we see that the mapping of the different polygons is not aligned:



We can correct this: select the triangular polygons one after another and right click on the central square polygon to choose "Copy mapping from"

Done! 😊

