

# Tutorial: Transitioning between Normal and Flanged Rails

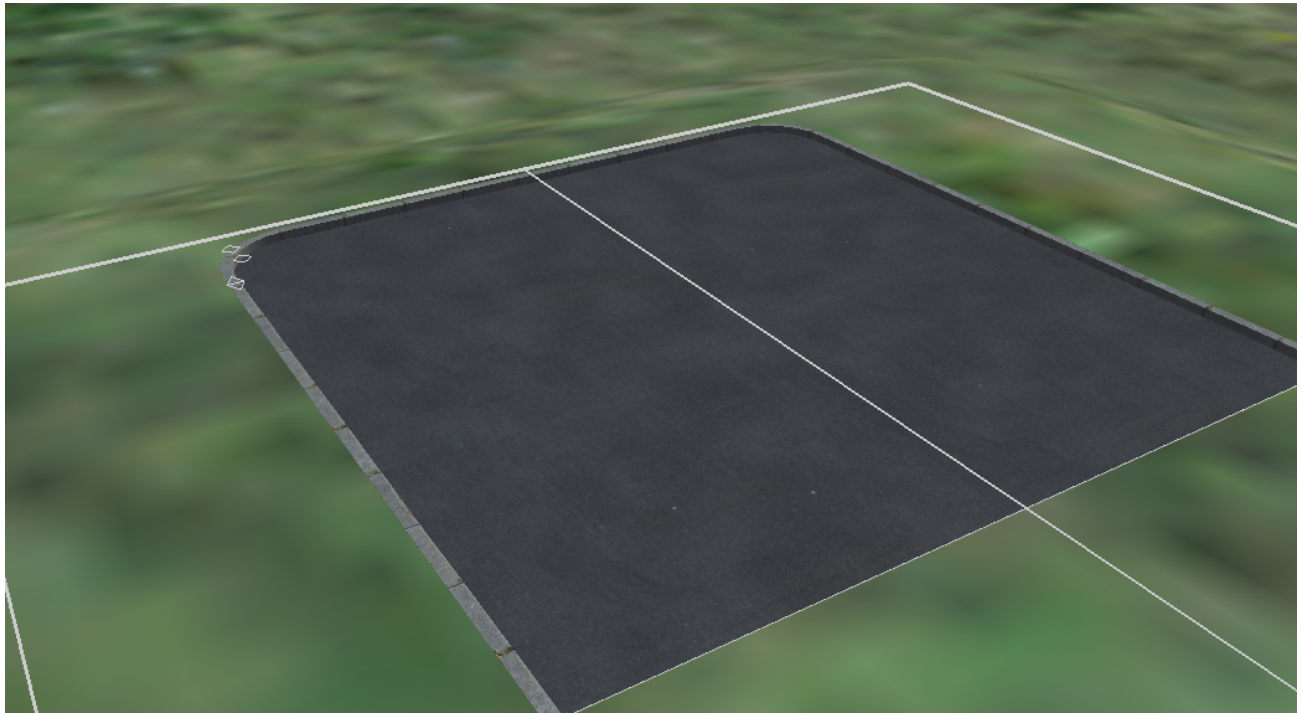
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## 1 Starting situation

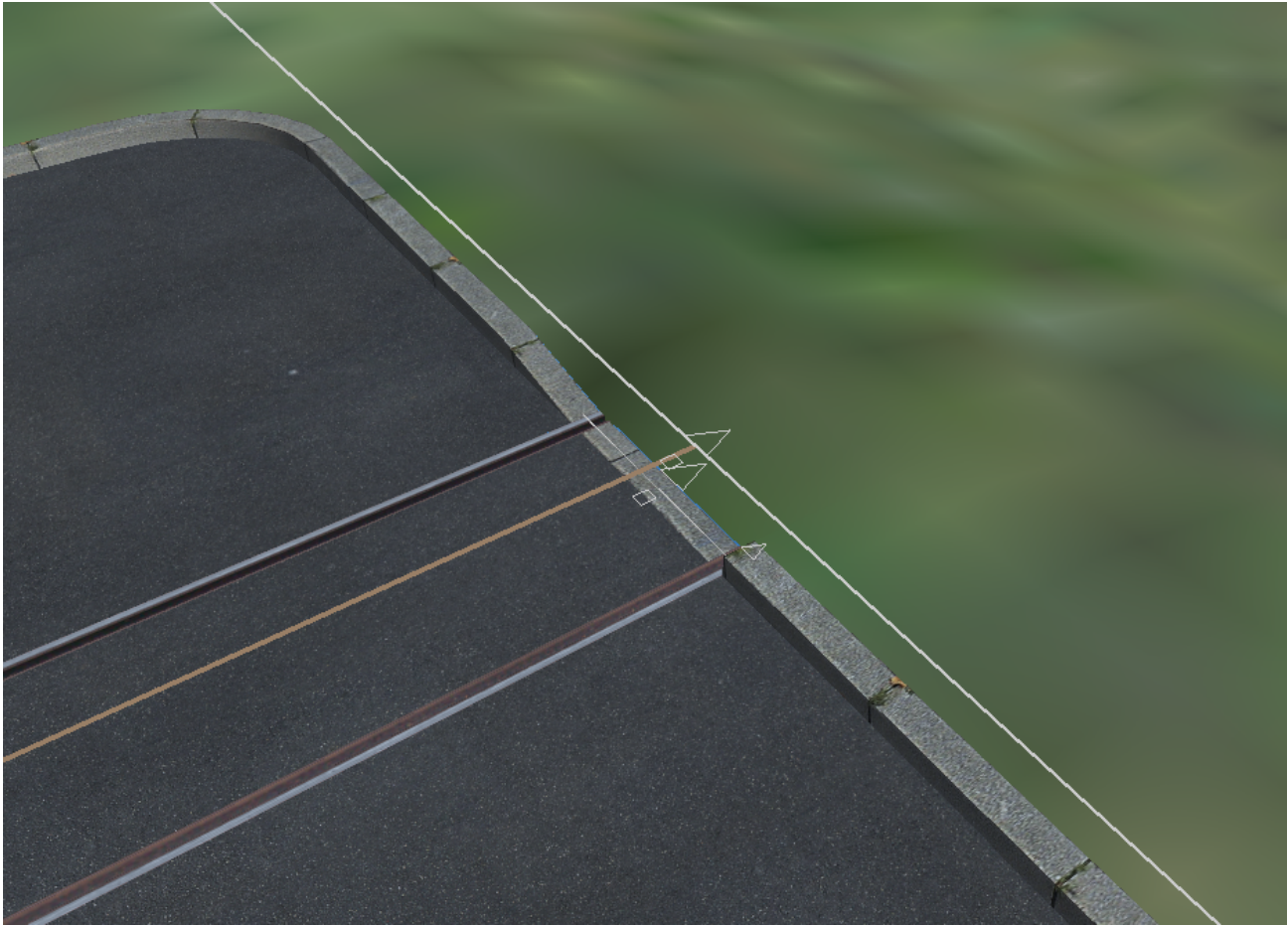
To keep matters slightly simpler I have constructed a dead end street. From the bottom left the flanged track should turn into a normal track running to the top right.

The asphalt polygon is at height -0.15m, the grass around it at 0m. The subgrade section is at height 6.5m.



## 2 Placing tracks

From the bottom left I have placed the flanged track, following the street and thus at a height of -0.15:



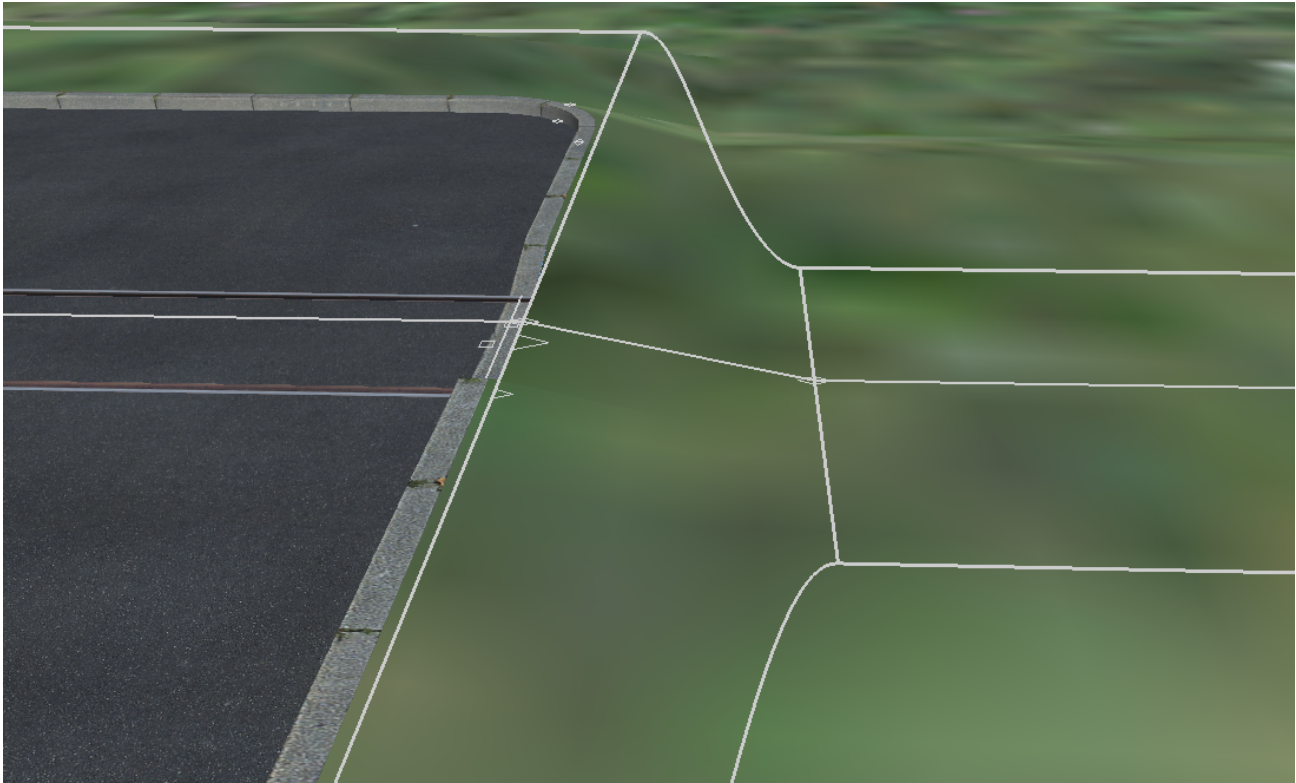
From the other side the normal, S49 track will be placed, also at height -0.15:

The difficulty now is the connecting of the tracks, while there is a considerable height difference:

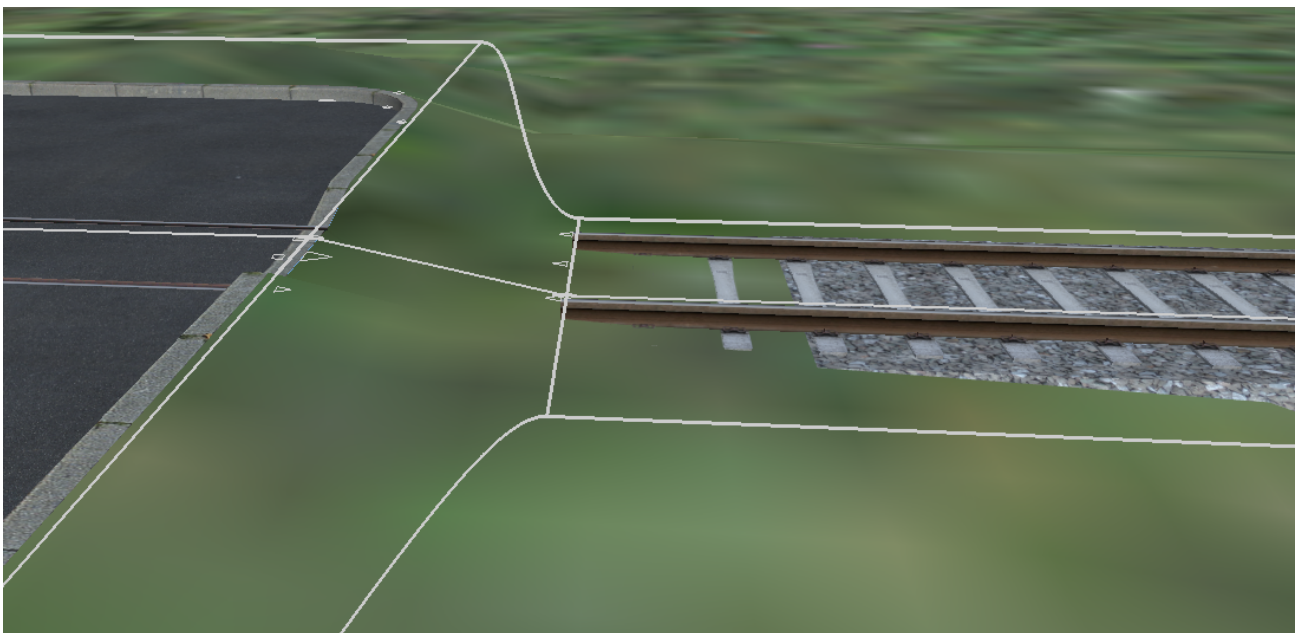
The flanged track has the railhead (top of the rails) at -0.15m, the "normal" railhead is at +0.25.

Of course, if this is just a short section that is enclosed anyway, then you can simply use polygons lowered by 0.4m as the "ground".

However when a longer track follows we have to change the height of the sub grade section from 6.5 to 6.1m:



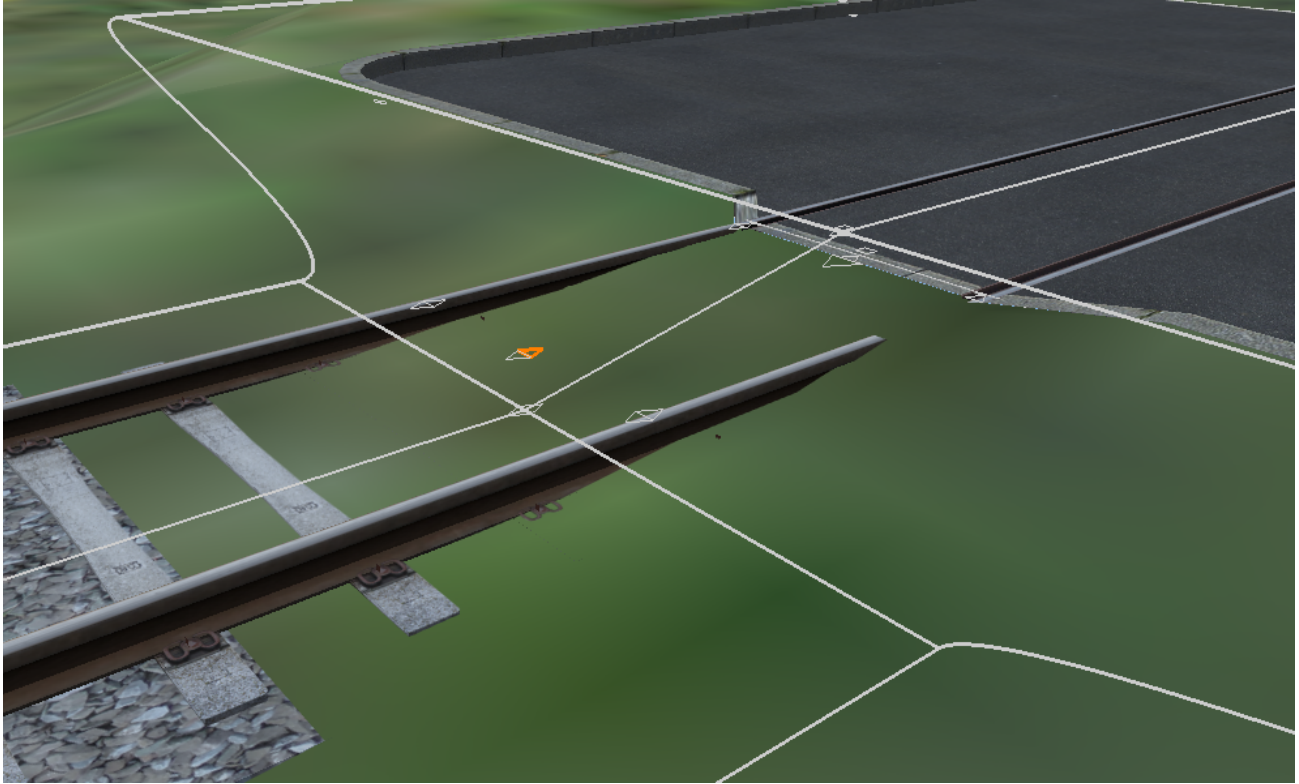
We can now build the normal rails, using  $Z=+0.25$ , placing it parallel to the sub grade section (with distance 0 😊 😞)





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Now we fill the gap, for this Image not found or type unknown has to be turned on:



OK, in principle it works.... but well, look for yourself 😊

### 3 Constructing the terrain neatly

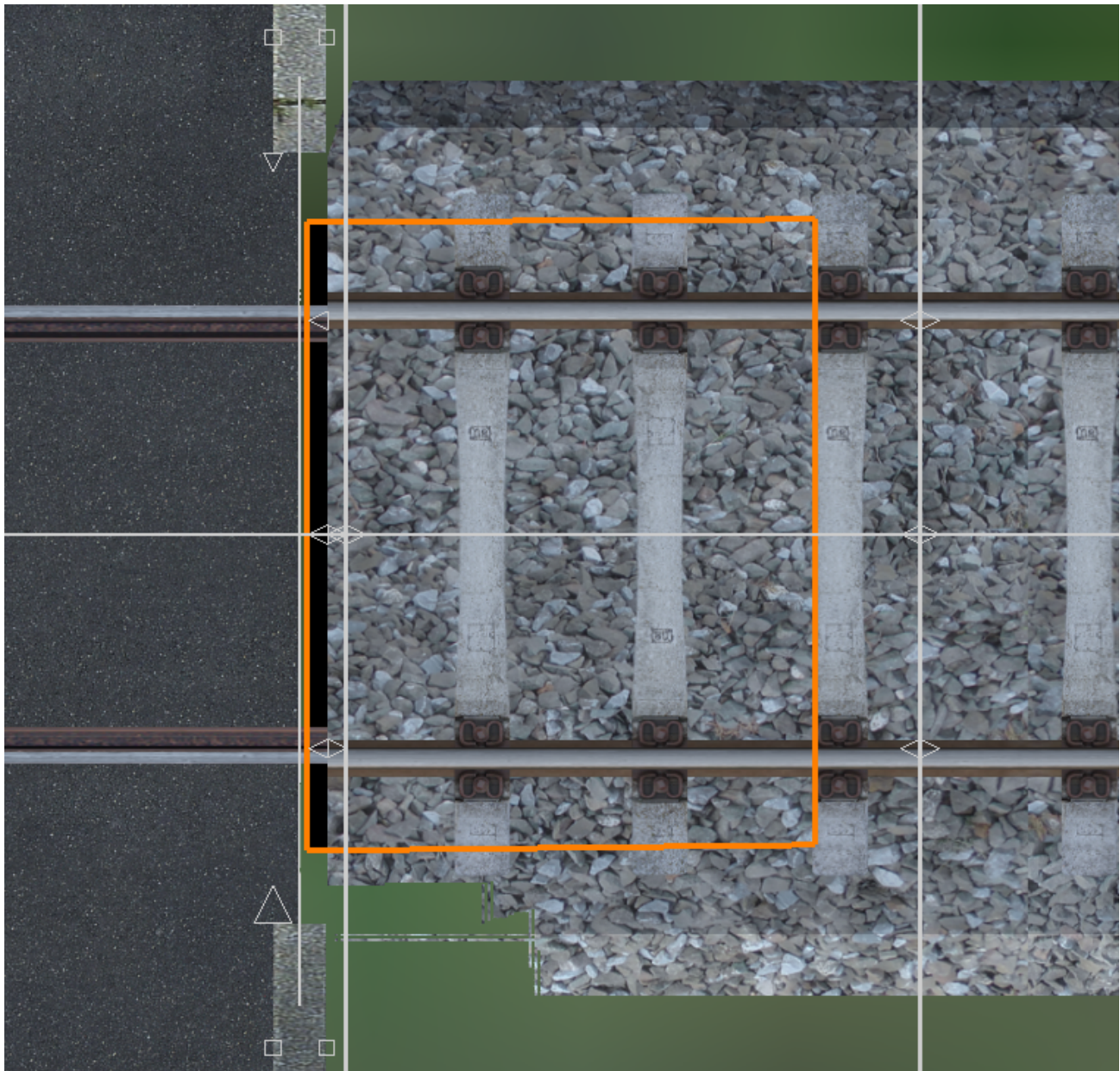
First we lower the curb:

(I have disabled "Vertical adaptation at cutting" for the polygon so it doesn't follow the curb.)



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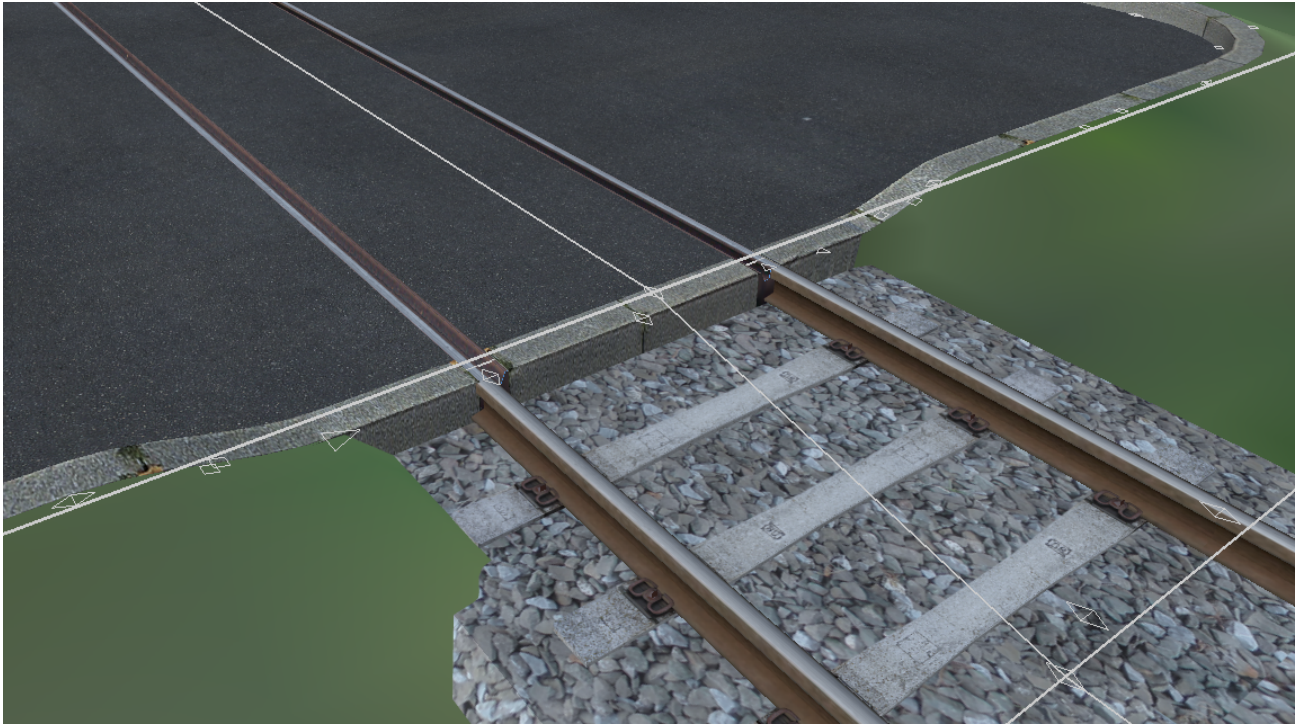
I remove the middle curb section and place a "Transp./Cuts ground"-polygon with  $Z=6.1$  and **OFF** type unknown



Lastly I place the "curbstone trackend 1" object (Streets and pavement elements). The snapping function

(use Ctrl) can really help! 😊 Image not found or file unknown should again be turned ON.



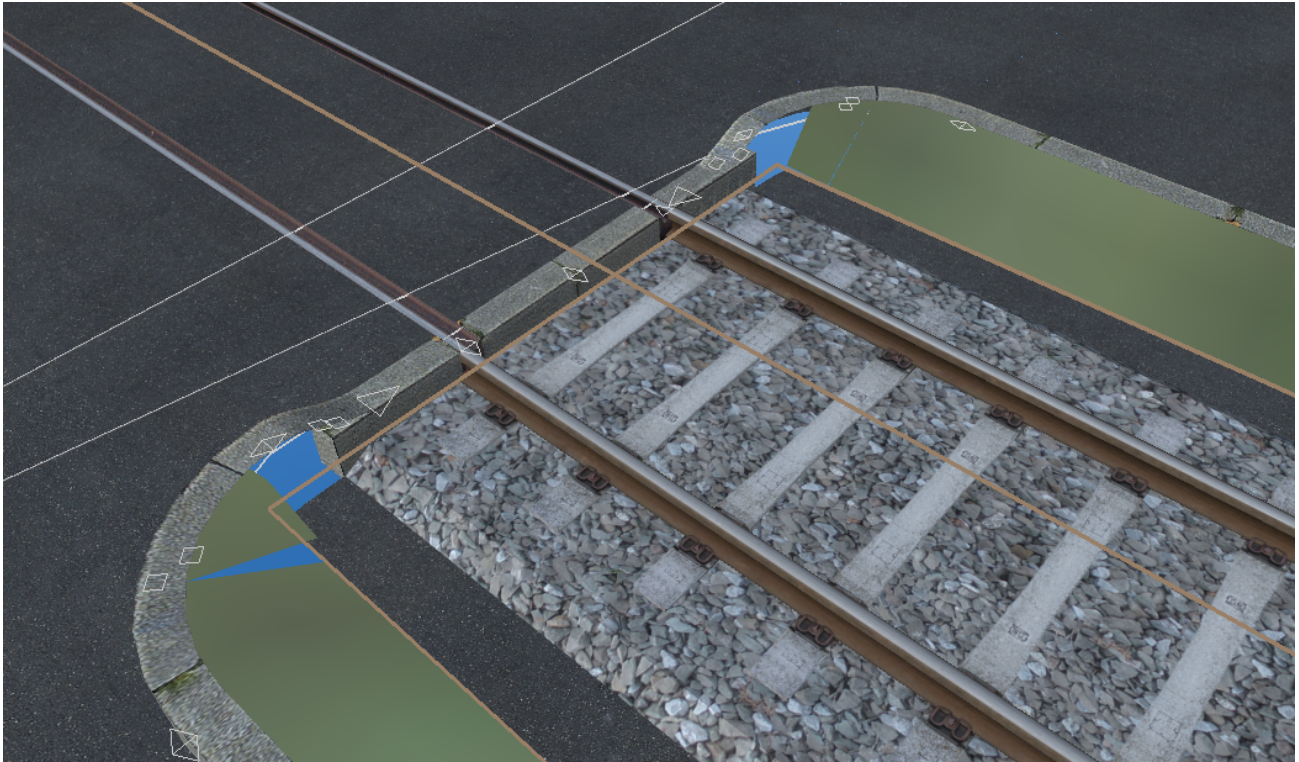


Done! 😊

It does still look a bit rough but the ideas behind it should now be clear to you! 😊

## 4 Bus/tram stops on traffic islands

When you are creating a traffic island to place a stop we can use polygons instead of sub grade elements. Using these polygons we can form the edges around the track:



The holes are then filled by [splines](#) or object that do not influence the terrain.

**However it is crucial to recognize that in all cases, in case of doubt, it is better to cover the area of the transition with a purposefully constructed but completely static scenery object.**