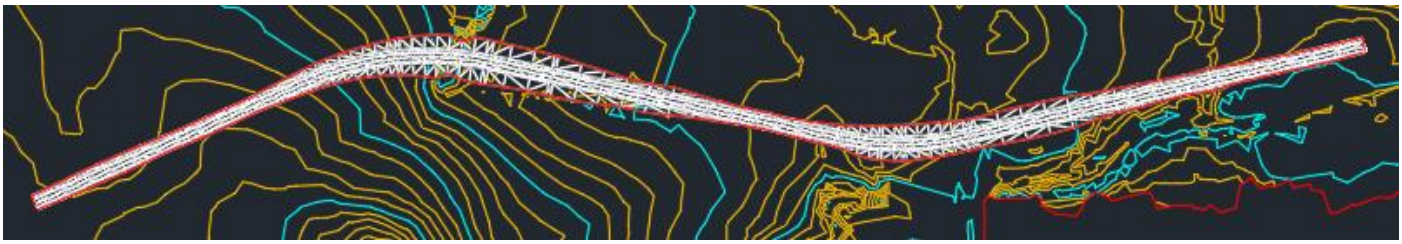
Dropped Kerbs

Creating Dropped Access' using Section Editor

This example will take you through how to use the Corridor Section Editor to create Dropped Access' while maintaining the original Back of Footway levels without the need for multiple Regions and Assemblies. Showing you how to make the section changes and rectify the loss of level at the back of footpath.

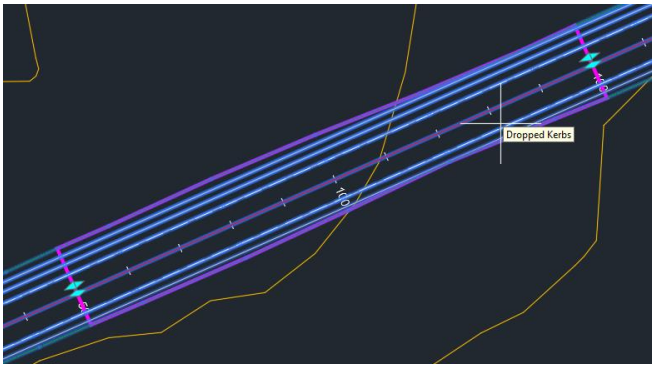
It is advised that this exercise is undertaken towards the end of the final design. In order to transition over the approximate length of a kerb the frequencies of the corridor will be reduced to 1m. This can cause the rebuilding of the corridor and related features to take some time dependent on the size of the model.

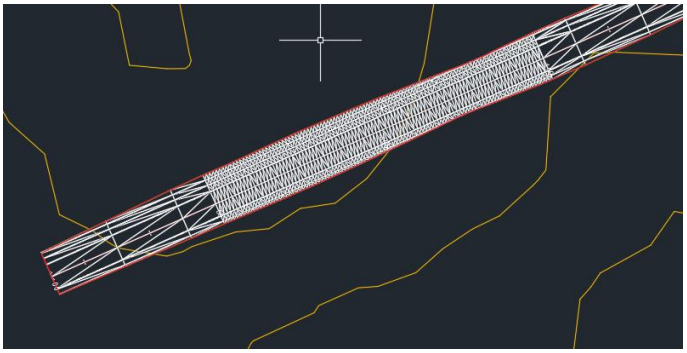
Create your Road Design, create an assembly using the DMRB Subassemblies, create your corridor and extract a corridor surface using the TOP link codes.



Divide the corridor into regions for the areas which are to have drop kerbs, this does not have to be for each access, for example if you are creating a new housing layout, the regions could be split for the frontage area only.

Reduce the frequency of the region to 1m in the Corridor Properties. Just reducing the frequency in this region will help with the processing of the corridor rebuild.

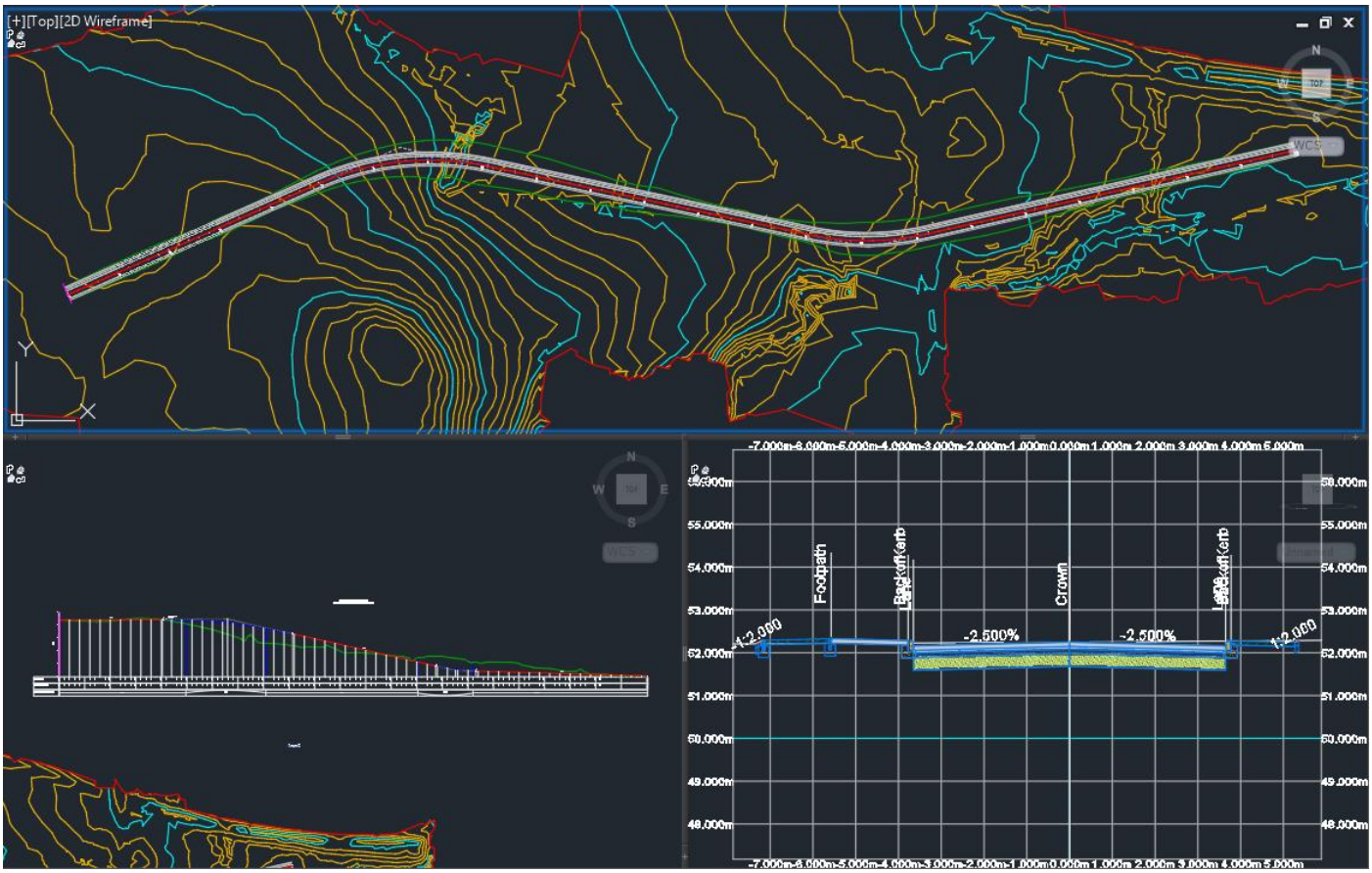


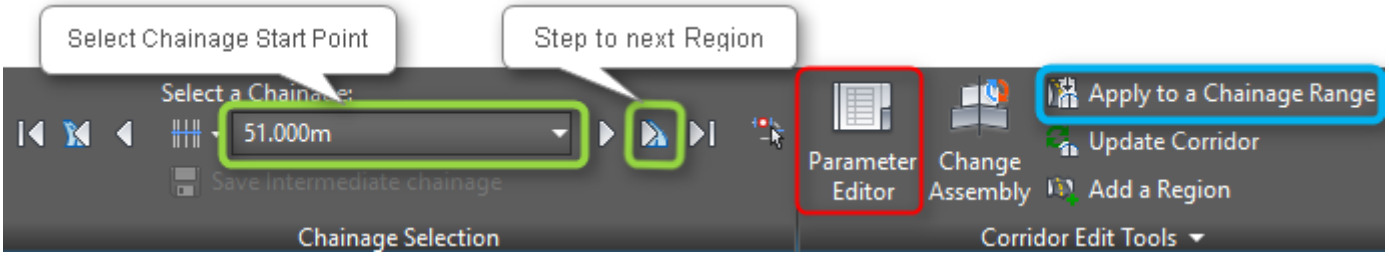


You can see from the screen capture the different frequencies applied to the corridor regions.

DO NOT change the frequencies back once the overrides have been applied.

Select the Corridor and from the Contextual Ribbon click Section Editor.





Use the Step tool to move to the correct Region and Select the start of the BN (Dropped) Kerb.

We don't include the transition kerb; the software will triangulate between the different kerb types.

Open the Parameter editor, ensure you are working on the correct side of the assembly.

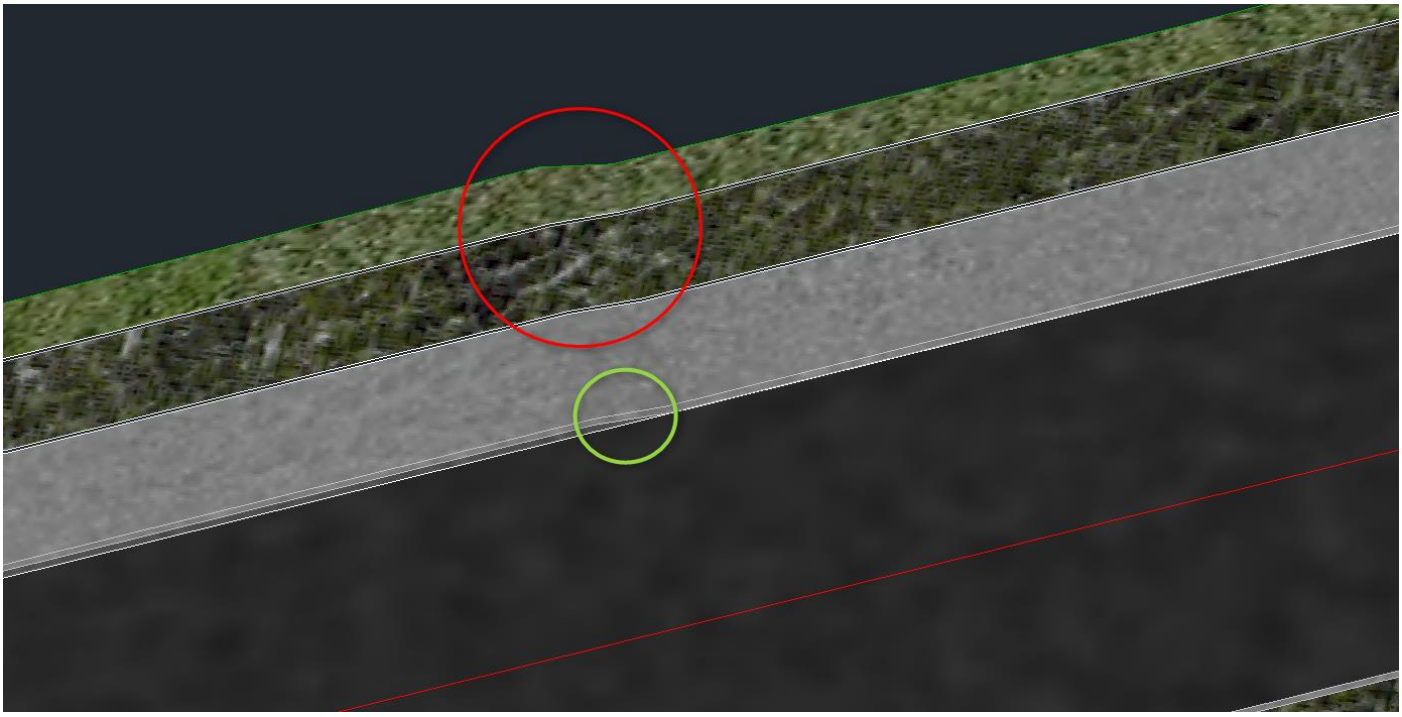
Select the Kerb Sub-assembly and change the Kerb Type to BN150

New Road Verge		☑ True	
Left			
Carriageway		☐	
BritishKerbs		☑	
Attachement Point	Front Face	☐ False	Front Face
Concrete Backing	Yes	☐ False	Yes
Kerb Type	HB2	☑ True	BN150
Side	Left	☐ False	Left
Backing Clearance	0.065m	☐ False	0.065m
Kerb Face	0.125m	☐ False	0.125m
Backing Shape Code	Backing	☐ False	Backing
Back of Kerb Code	BackofKerb	☐ False	BackofKerb
Formation Code	Formation	☐ False	Formation
Kerb Shape Code	Kerb	☐ False	Kerb
Top Link Codes	Top,Kerb	☐ False	Top,Kerb
Top of Kerb Code	TopofKerb	☐ False	TopofKerb

Apply to a Chainage Range, this should be the end of the BN for speed we do this to the end of the last required dropped kerb and use the Corridor Parameters to edit the override chainages.

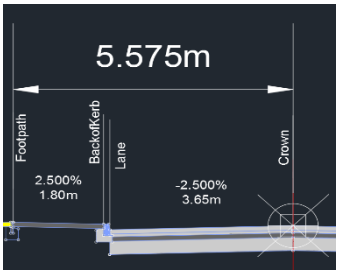
When we update the corridor, we can see the change applied to the chainage range specified.

The problem that occurs is that because the Assembly has fixed gradients for the Footway cross fall and Earthworks (Daylight) the back of the Footpath and Earthworks have been lowered with the change to the kerb height.

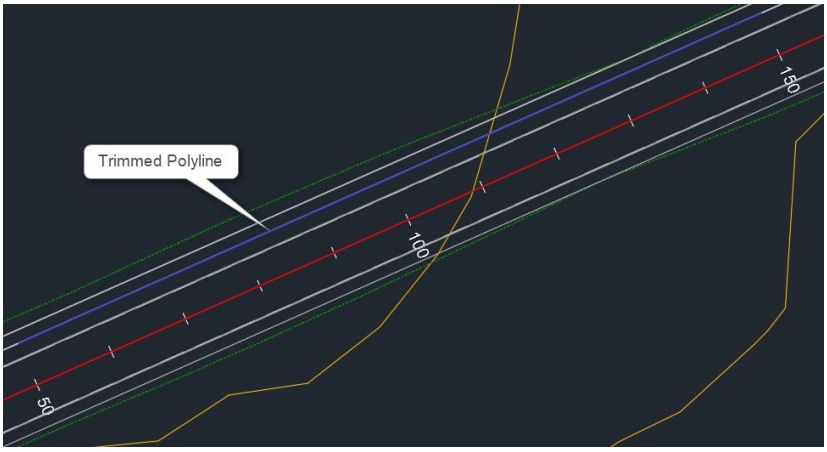


To fix this and maintain the level at the back of footpath and related levels, we need to insert a stage into the workflow before we use the Section editor.

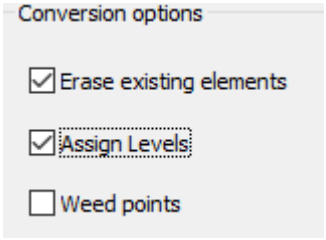
Take the dimensions from the Centre Line of the Alignment to the back of Footpath.



Use the Offset command to offset the Horizontal Alignment in the orientation of the required dropped kerbs. Trim the newly created Polyline to the extents of the Region.

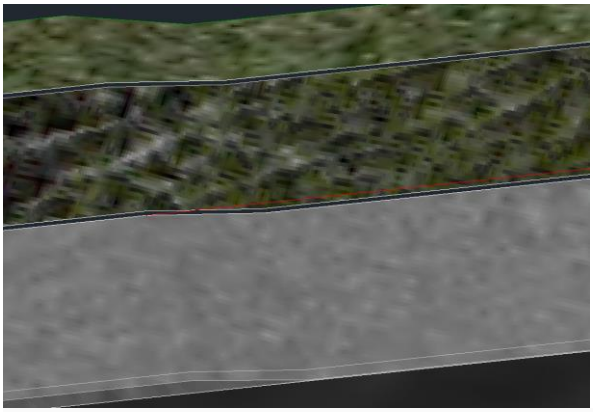


Using the Feature Line Drop down, select Create Feature Line from Object. Give the Feature Line a relevant name, Back of Footpath for xxxx. Tick Erase existing element and Assign Levels.



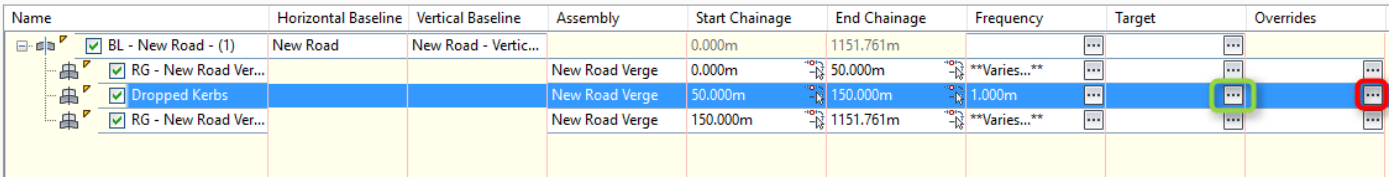
Assign the levels for the Feature Lines from the Corridor Surface, tick the intermediant Break Points and in Civil 2018 leave relative to surface unticked.

Now that we have a Feature Line with levels we repeat the Section Editor stage.



For the first instance it will appear as it did previosly with the levels affected at the back of footpath but with the Feature Line Remaining at level.

Select the Corridor and enter the Corridor Properties.



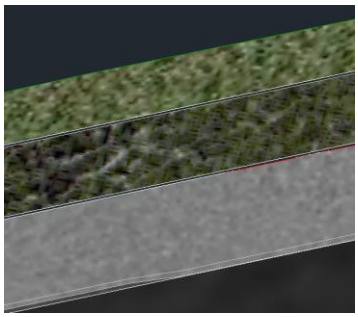
Name	Horizontal Baseline	Vertical Baseline	Assembly	Start Chainage	End Chainage	Frequency	Target	Overrides
BL - New Road - (1)	New Road	New Road - Vertic...		0.000m	1151.761m			
RG - New Road Ver...			New Road Verge	0.000m	50.000m	**Varies...**		
Dropped Kerbs			New Road Verge	50.000m	150.000m	1.000m		
RG - New Road Ver...			New Road Verge	150.000m	1151.761m	**Varies...**		

On the Parameters Tab, Select the Targets from the Drop Kerb Region.

Set the LEFT Level Target for the Generic Pavement Structure (Footpath) to the Feture Line created for the back of footpath

Slope or Level Targets			
VerticalTarget	<None>	Carriageway	Left
Edge Level Profile	Back of Footpath	GenericPavementStruc...	Left
VerticalTarget	<None>	Carriageway	Right

Rebuild the Corridor and the levels from the Back of footpath to the Earthworks have been corrected to the original.



We still have a single drop kerb along the length of the Region. We could have repeated the Section Editor stage for every drop kerb we required, but the Corridor would rebuild repeatedly. This is a quicker method that will rebuild the corridor only once. From the Parameter Tab in Corridor Properties, click the Override 3 dots of the Dropped Kerb Region.

This will list every chainage where an override has been applied. From here we can remove the overrides where the Kerb should be full Height and the transitions occur.

No	Chainage	Parameter	Geometry
1	51.000m	☑	☐
2	52.000m	☑	☐
3	53.000m	☑	☐
4	54.000m	☑	☐
11	61.000m	☑	☐
12	62.000m	☑	☐
13	63.000m	☑	☐
14	64.000m	☑	☐
21	71.000m	☑	☐
22	72.000m	☑	☐
23	73.000m	☑	☐
24	74.000m	☑	☐
31	81.000m	☑	☐
32	82.000m	☑	☐
33	83.000m	☑	☐
34	84.000m	☑	☐
41	91.000m	☑	☐
42	92.000m	☑	☐
43	93.000m	☑	☐
44	94.000m	☑	☐
51	101.000m	☑	☐
52	102.000m	☑	☐
53	103.000m	☑	☐
54	104.000m	☑	☐
61	111.000m	☑	☐

Delete all

Rebuild the corridor and you will see all the individual dropped Kerb areas.