Instant Site Grader Parameters

The group containing the loop of lines should not be copied, moved, rotated. Best to start by making an empty group and then drawing lines in place withing that group.

Based on what is selected, the script will offer either the USE LINES *or* USE OBJECT *methods*

Grade around closed loop of lines USE LINES

Grades around closed loop made of lines or curves.

STYLE PARAMETERS

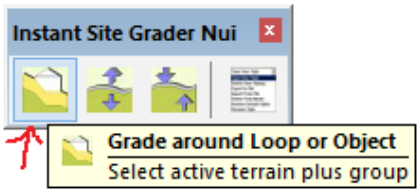
Shoulder Type (•) Equal Width ( ) Variable

Width 5'

GRADE CANCEL



Select a group containing a closed loop of lines (no lines should be vertical) plus a live terrain or connected faces. It functions like my old version of Instant Site Grader except is a little more forgiving as it can fix some small gaps in the loop outline and fix some incorrect vertical lines. Click the Grade tool:



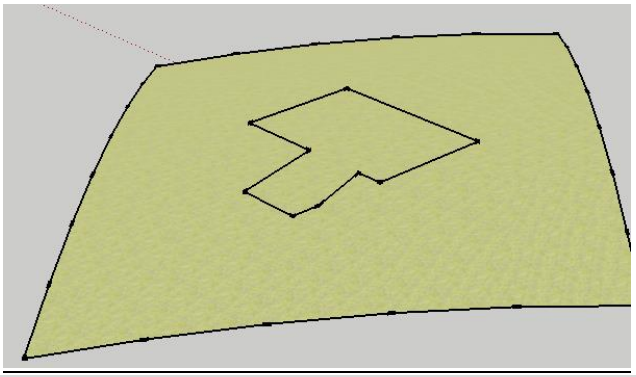
STYLE PARAMETERS

Shoulder Type (•) Equal Width ( ) Variable

Width 5' ×

GRADE CANCEL





Option for graded width to vary based on cut/ fill slopes

Shoulder Type ( ) Equal Width (•) Variable

Width 5'

Max Width 20'

Max Cut Slope % 100

Max Fill Slope % 30



STYLE PARAMETERS

Shoulder Type ( ) Equal Width (•) Variable

Width 5' ×

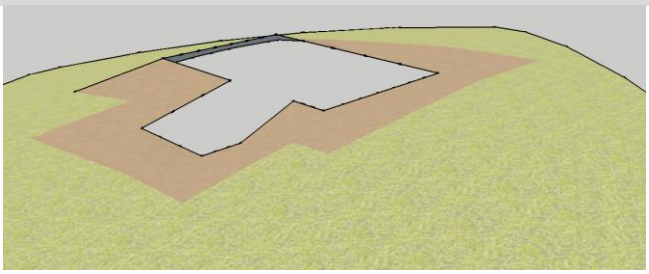
Max Width 20'

Max Cut Slope % 100

Max Fill Slope % 30



The output merges the terrain with the line loop



STYLE PARAMETERS

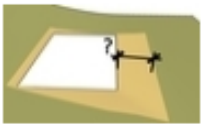
Shoulder Type ( ) Equal Width (•) Variable

Width 5'

Max Width 20' ×

Max Cut Slope % 100

Max Fill Slope % 30



STYLE PARAMETERS

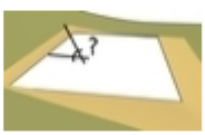
Shoulder Type ( ) Equal Width (•) Variable

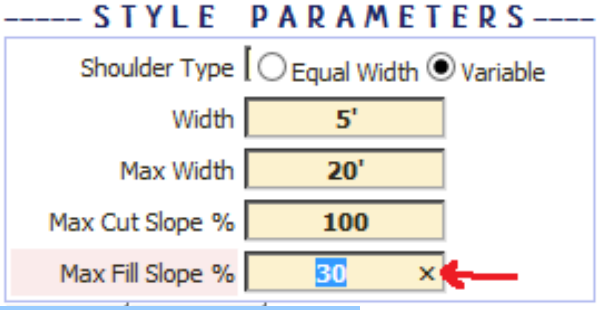
Width 5'

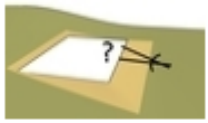
Max Width 20'

Max Cut Slope % 100 ×

Max Fill Slope % 30



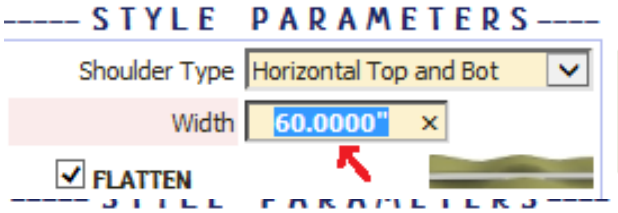




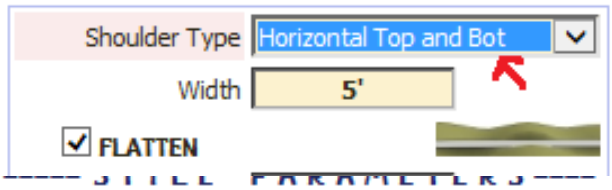
Grade around object

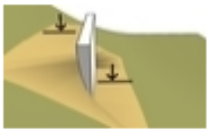
USE OBJECT 

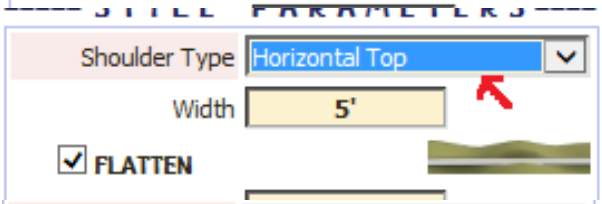
Uses vertical faces in a group or component where they intersect terrain to make loop to grade around.



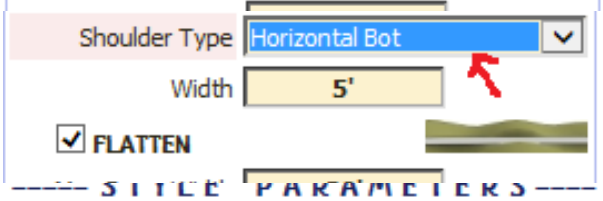


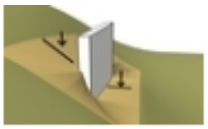


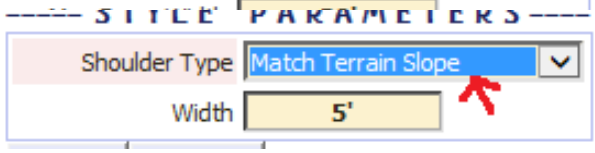


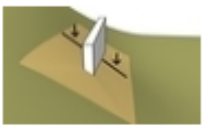


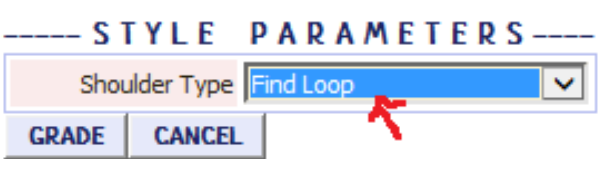


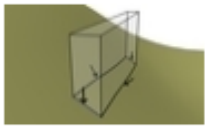


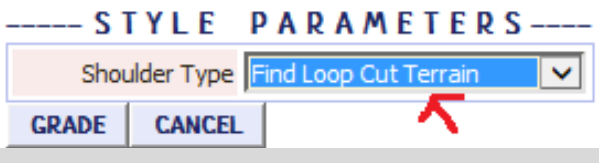


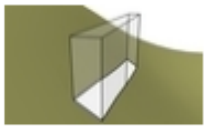




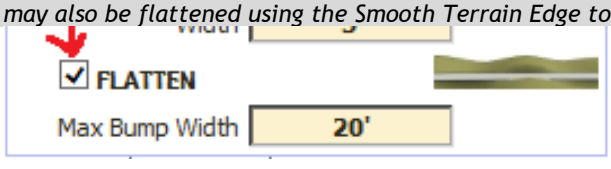




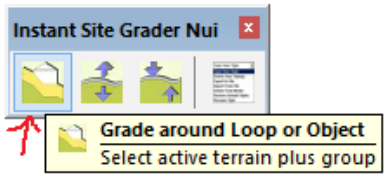


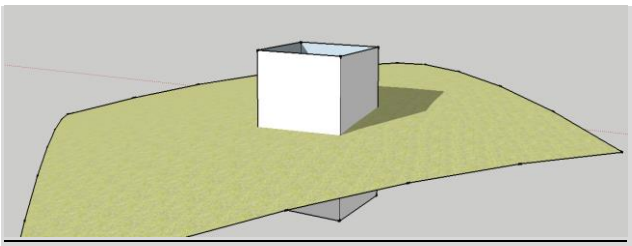


FLATTEN is to smooth out bumps as it is making the graded area. Bumps may also be flattened using the Smooth Terrain Edge tool shown below.

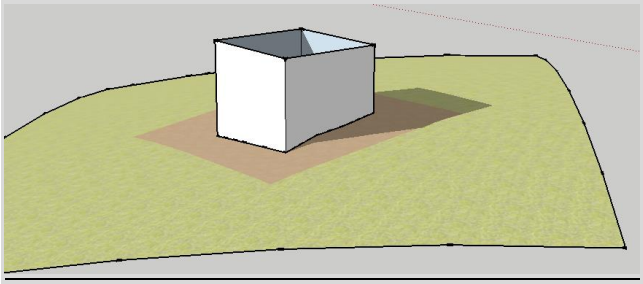


Select a group or component containing faces that if intersected with the terrain will make a closed loop plus a live terrain or connected faces. Click the Grade tool

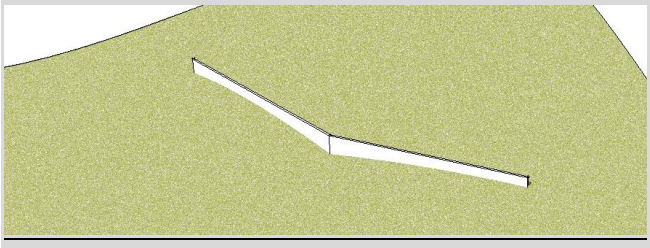




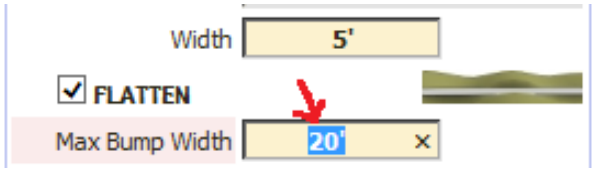
The output will be a merged area around the object. Options include creation of level graded areas at top, bottom or both.

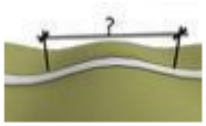


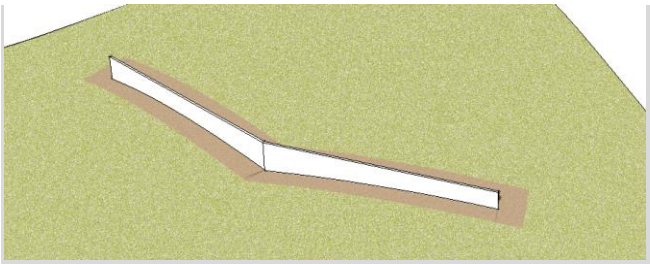
Next I made a wall using my Instant Wall script.



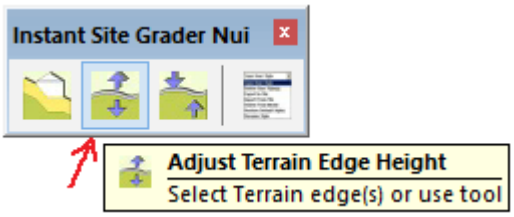
Then used the Grade Around Object method:



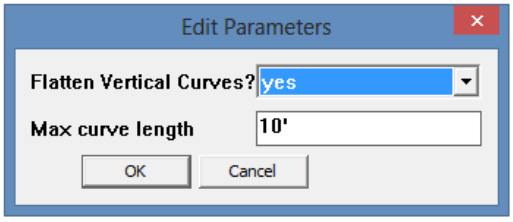




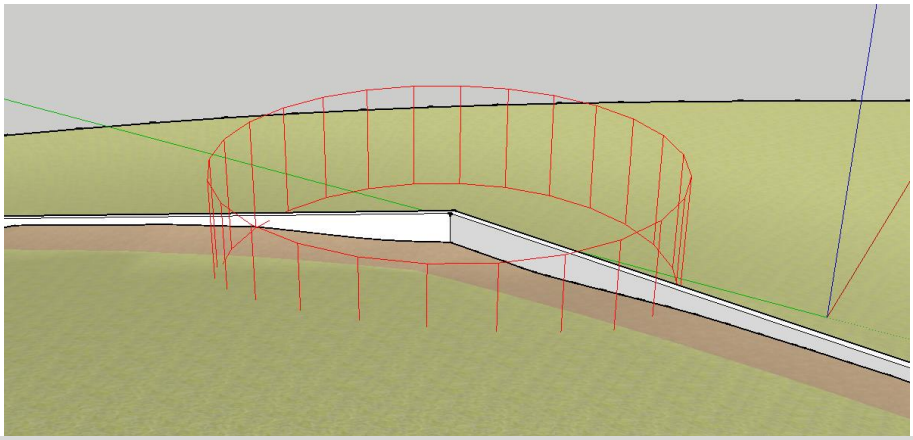
Adjust Grade Tool *Moves edges of terrain up or down. It adjusts the terrain height on one side of the object only.*



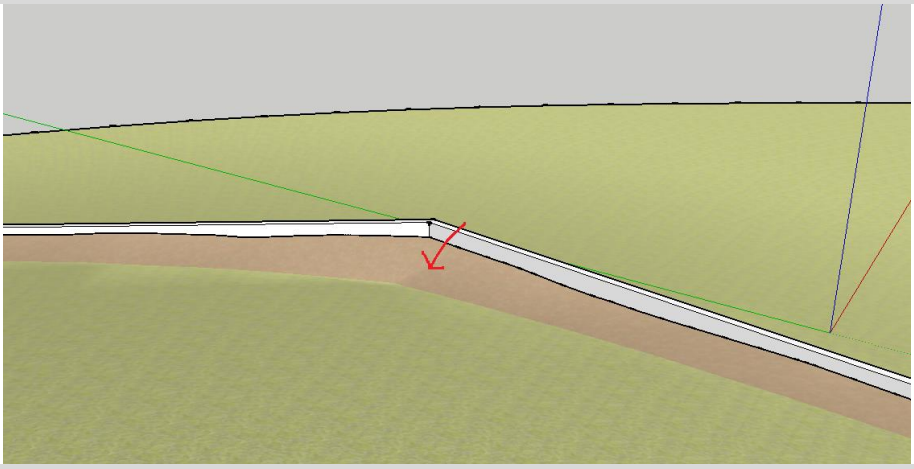
There is an option to flatten bumps as the tool is working. This can also be done with the Smooth tool as shown in the next section. The menu will display below and has a similar result as the "Flatten" parameter in the section above.



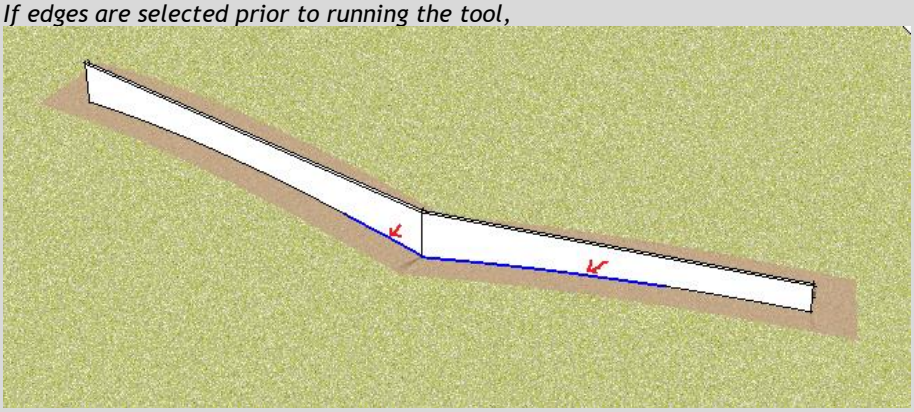
The tool uses a circle select tool (user can change the diameter) to select the edges to raise or lower.



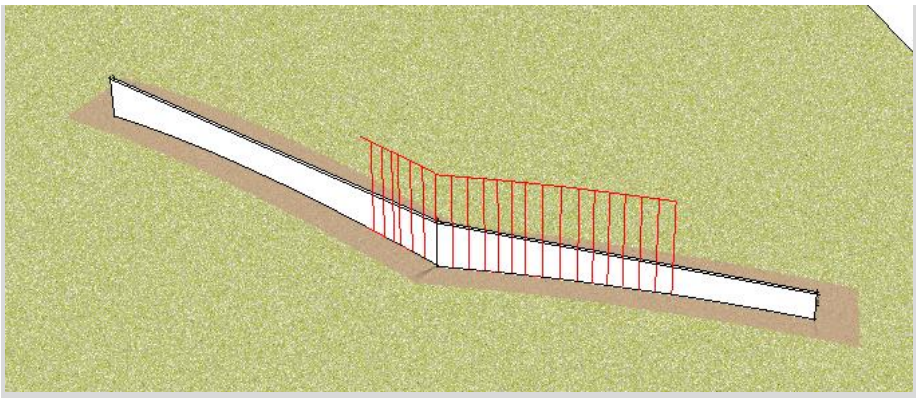
The result:



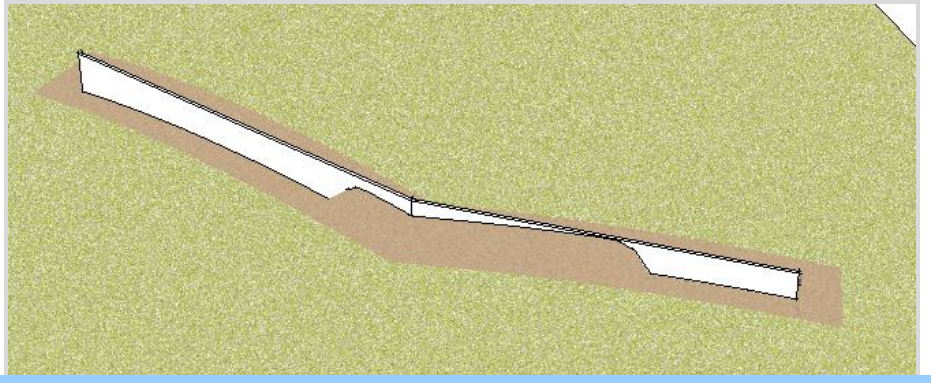
If edges are selected prior to running the tool,



… only those edges will be raised or lowered rather than using the circle select tool.

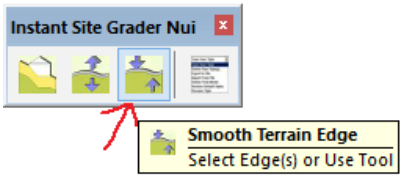


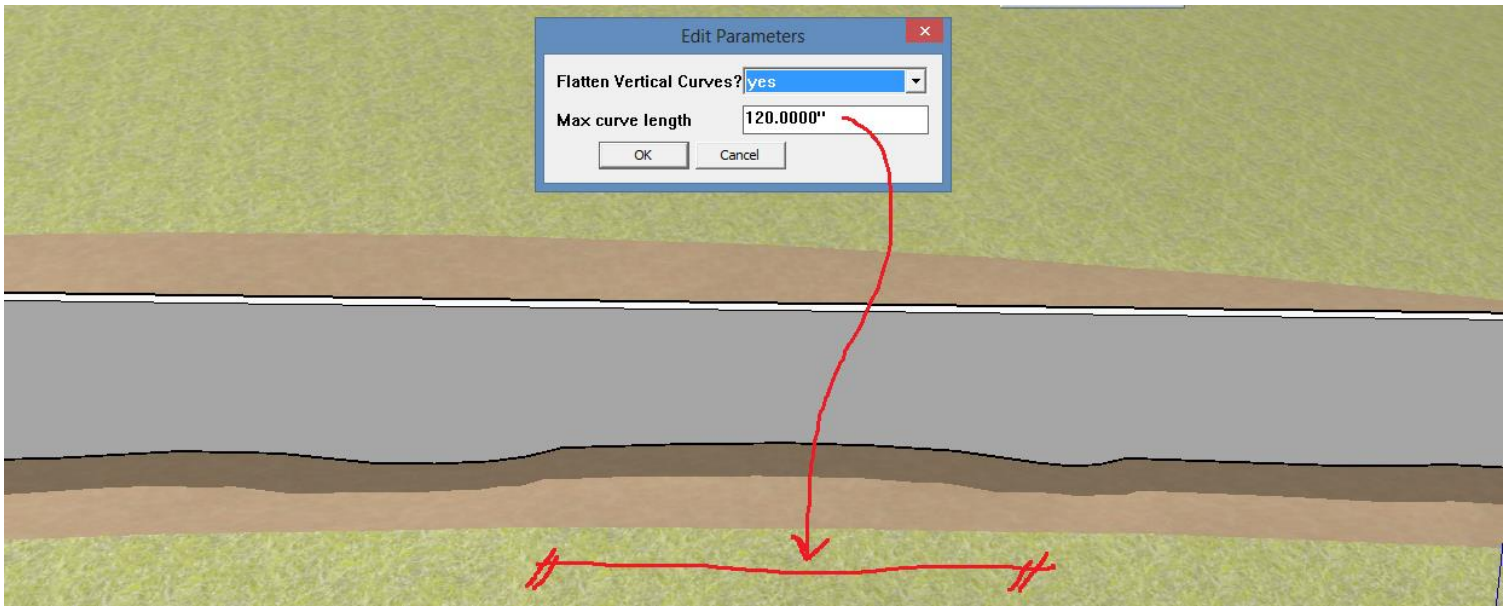
The result:



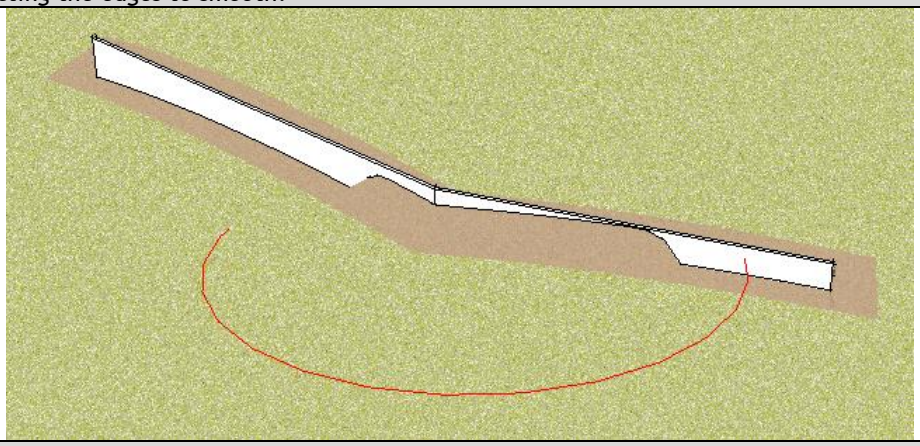
Smooth Terrain Edge Tool

Smoothes bumps in the edge of the terrain. It affects edges on one side of the object only. Flatten parameters are similar to the sections above.

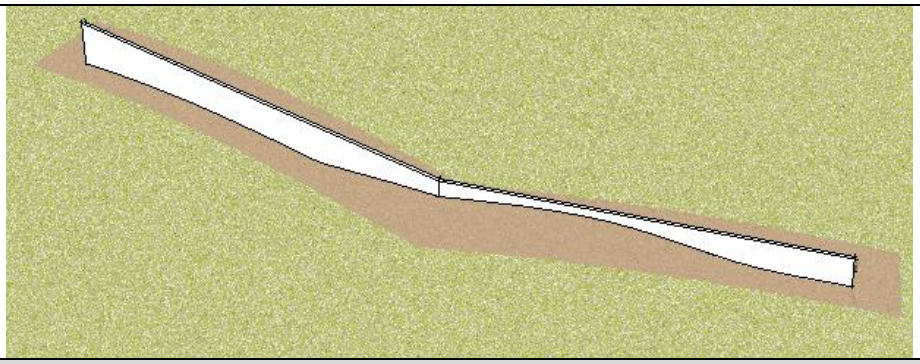




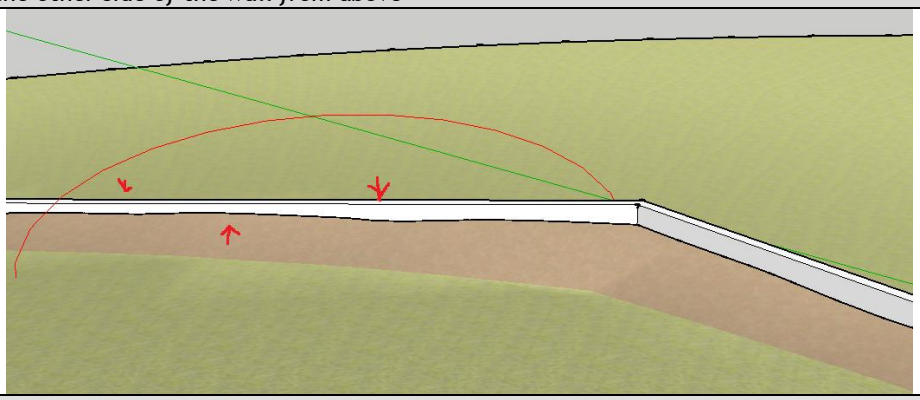
Starting with the results from above, bumps can be smoothed out using the circle select tool or by pre selecting the edges to smooth.



The result:



Here is the other side of the wall from above



The result:

