In this project we want to grade the parcels of a subdivision, so that we have to create a few civil objects in the drawing. First create parcels for the subdivision, then a corridor for the main roadway and finally, a surface from the corridor. Now we are ready to start the grading process.

What we want to do is assign elevation from the surface corridor to the parcel segments that are perpendicular to the main road.

1. **Open Elevation Editor for parcels**: To do this, first select one of the parcels. Under the contextual ribbon bar, select the “Elevation Editor” to open the “Grading Elevation Editor Panorama” window.
2. **Assign elevations to parcel segments:** In the Panorama Editor, select the vertex that is perpendicular to the roadway, so you can assign the elevation from the corridor surface to the parcel segment. Use the “Elevations from Surface” command from the menu bar in the Panorama Editor. Select the corridor surface from which you want to extract the elevation.

![Select surface](image)

3. **Add a middle vertex to the parcel segment:** Select the “Insert Elevation Point” from the menu bar of the elevation editor panorama.

![Elevations editor](image)

Accept the defaults and press OK.
4. **Edit grades ahead and back:** Select the Grade Ahead at station 0+00, and grade it to 3.5%, then select the Grade Ahead of the new station, and grade it to -3.0%.

![Image of grading editor](image)

```
<table>
<thead>
<tr>
<th>Station</th>
<th>Elevation</th>
<th>Length</th>
<th>Grade Ahead</th>
<th>Grade Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>0+00</td>
<td>94.407m</td>
<td>75.000m</td>
<td>3.5%</td>
<td>-3.5%</td>
</tr>
<tr>
<td>0+75</td>
<td>97.032m</td>
<td>75.000m</td>
<td>-3.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>1+50</td>
<td>94.782m</td>
<td>75.000m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

5. **Repeat steps 2-4:** Repeat the process with all of the parcel's segments.

6. **Add parcel segments as breaklines to corridor surface:** open your corridor surface in the Prospector tab, open the definitions, select breaklines, and right click to add all the parcel segments.

![Image of Prospector tab](image)
Select all the parcel segments and press OK.

Your segments have been added to the corridor surface. Edit your surface to refine your design.

Your subdivision is now graded.