



# Plateia

by **CGS Labs**



Projection lines labelling options  
in profile view band

Tutorial





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## **Projection lines labelling options in profile view band**

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## INTRODUCTION

With the new option, users can now define which projection lines to label in a dedicated projection line labeling band while drawing projection lines from Layout to the Profile View. The labeled projected lines in the band indicate the length of the projected lines, the side of the lines relative to the alignment, the start and end station, the projection line length, and name.

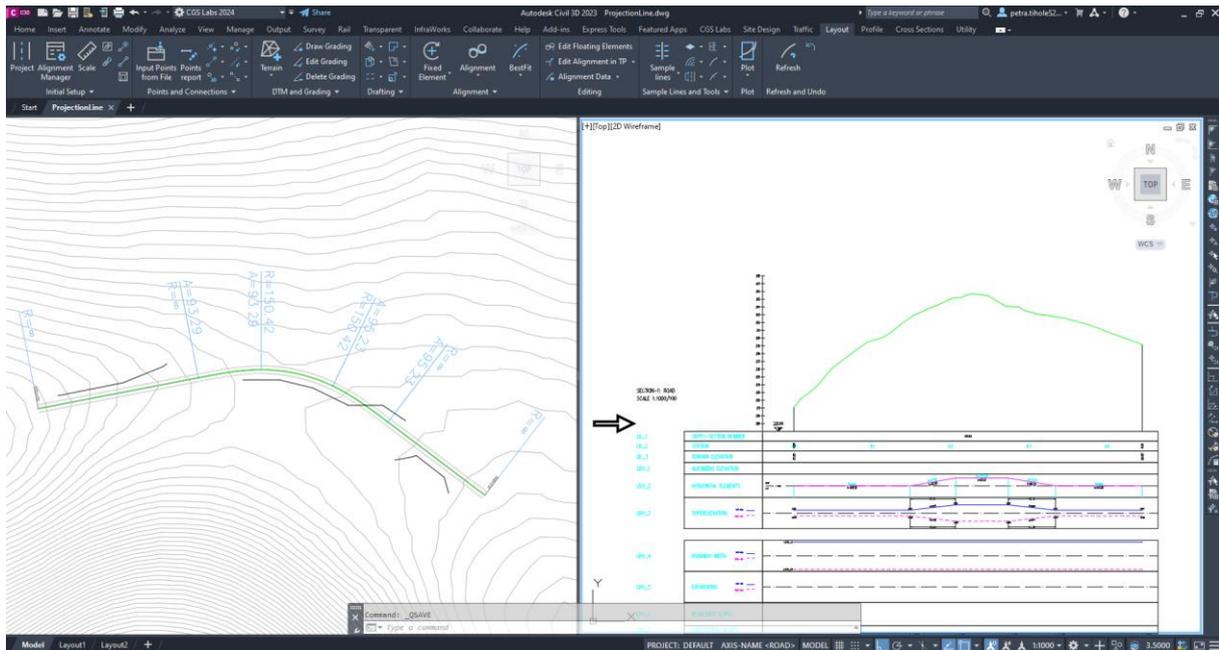
The new projection line band features a self-adjustable table height option, which is another great contribution to dynamic adjustments in Profile View. Users can move the band to a different position on the table using the 'Edit current table' command. Profile View table templates can also be set, saved, and preserved for future use.

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The first part of the tutorial will demonstrate how to define a projection line in the layout and display it in the profile view. Following that, the tutorial will cover labeling options for projection lines in the profile view band.

## 1. Preparation

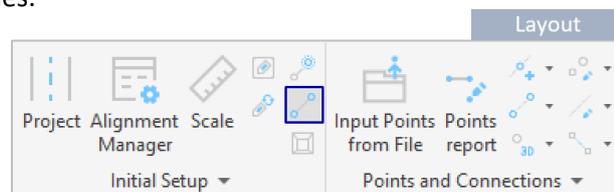
In the open drawing, we have drawn the alignment and profile. On the left side, we have the Layout view, and you can see that there are three 3D polylines in the drawing. In our case, these 3D polylines represent water pipelines and telecommunications cables, but they could also represent support walls, retaining walls, or some other elements. What is also important here is that the polylines are on different sides of the alignment. The first polyline is on the right side, the second is on the left side, and the third polyline crosses the alignment.



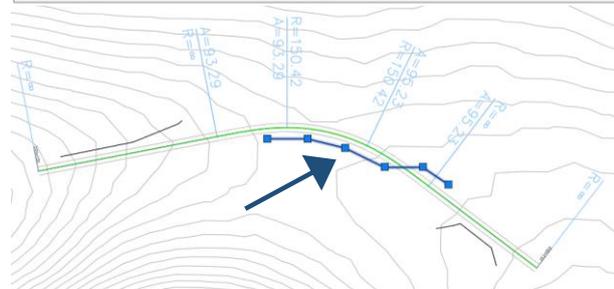
## 2. Define projection lines

If we want these three 3D polylines (shown in the previous image) to be inserted in the profile on the right, we must first define them as projection lines.

1. Run the Define Projection Lines command.

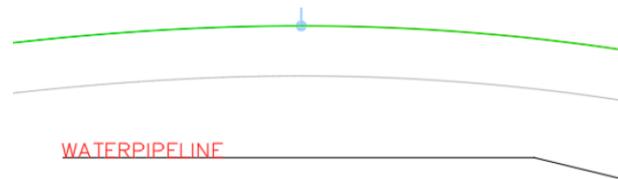


2. Select the 3D polyline directly in the drawing and press Enter.



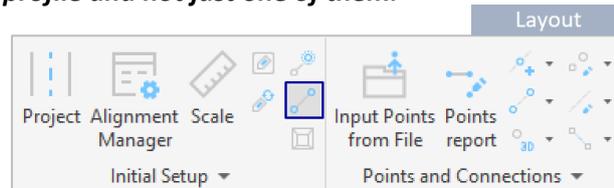
3. Enter the name »WaterPipeline« and press Enter.

4. If you zoom in on the 3D polyline, you can see that the name of the projection line shows up in the drawing.

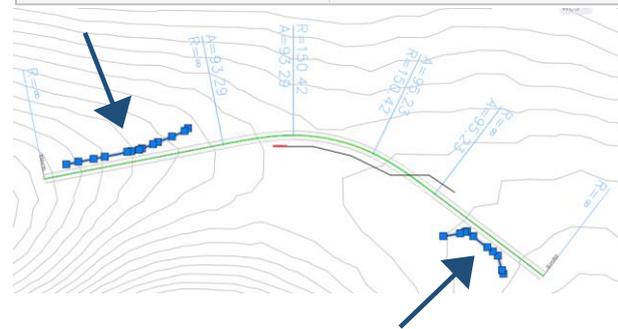


Then, we perform the same procedure for the remaining two 3D polylines in the drawing. However, we will not label these two lines separately; instead, we will label them together and give them the same name. This can be done when we have a single polyline group. **But we should be aware that both polylines will be displayed together in our profile and not just one of them.**

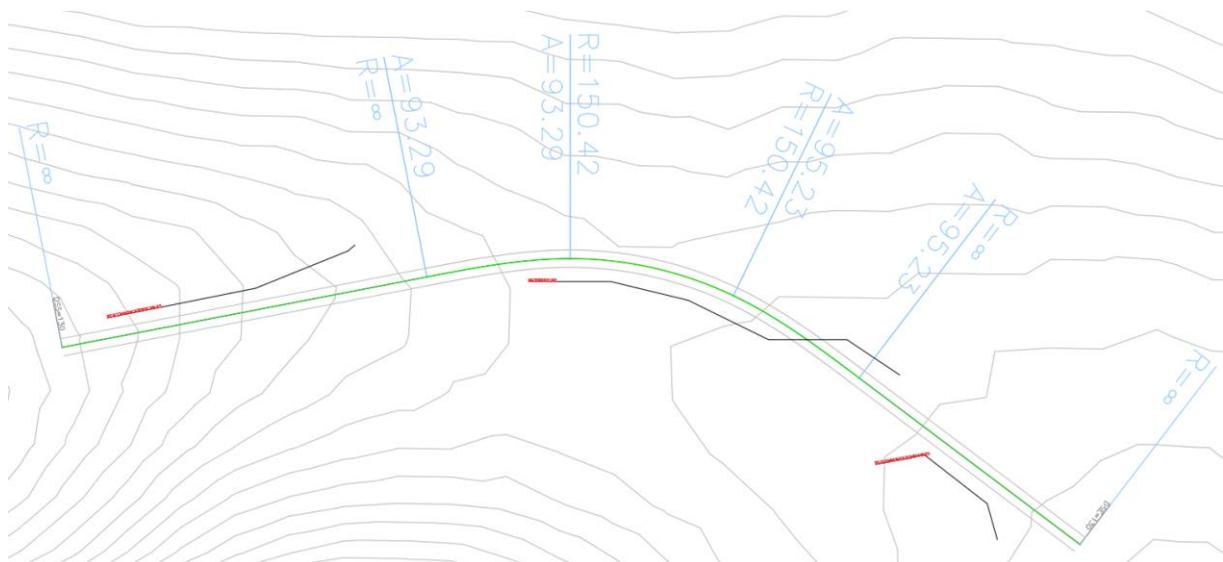
1. Run the Define Projection Lines command.



2. Select 3D polylines directly in the drawing and press Enter.



3. Enter the name »TelecommunicationsCables« and press Enter.



### 3. Insert projection polylines in the profile view

#### Telecommunications Cables

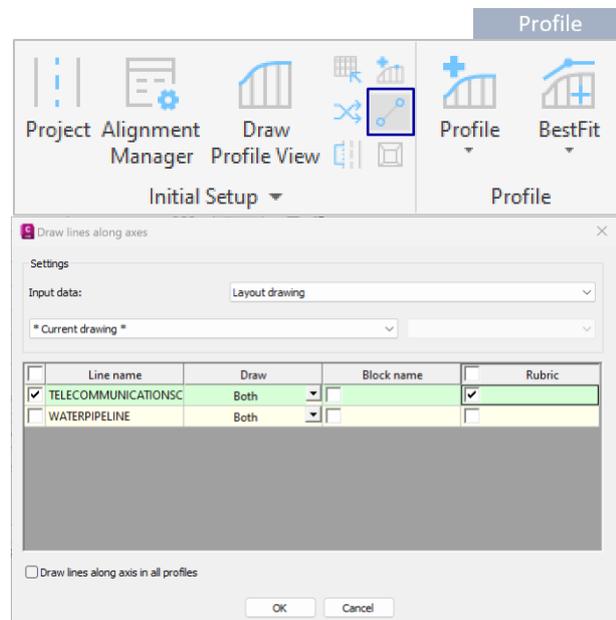
1. Run the Draw Projection Line command.

2. Select the »Layout drawing« from the drop-down menu for the input data.

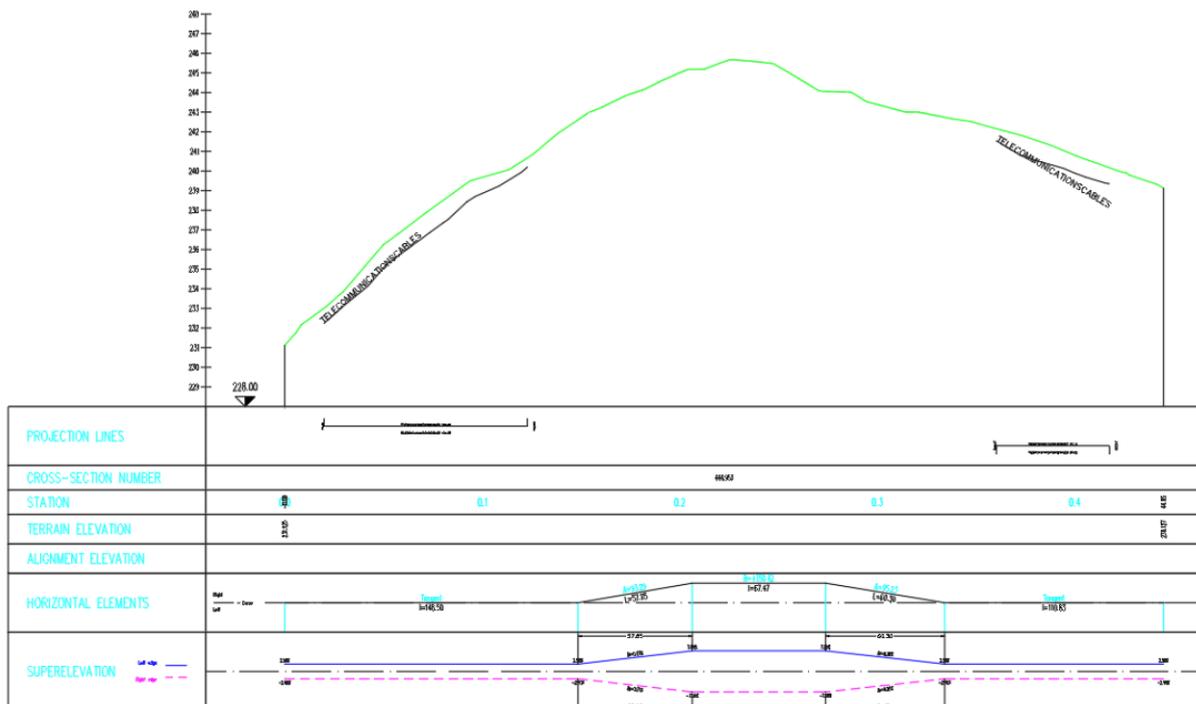
3. Then select Current drawing because the alignment and profile are in this current drawing we are working on.

4. After that check the box at the »TelecommunicationsCables« and select »Both« from the drop-down menu. Alternatively, you could choose only the Projection option because these lines do not intersect the alignment anyway.

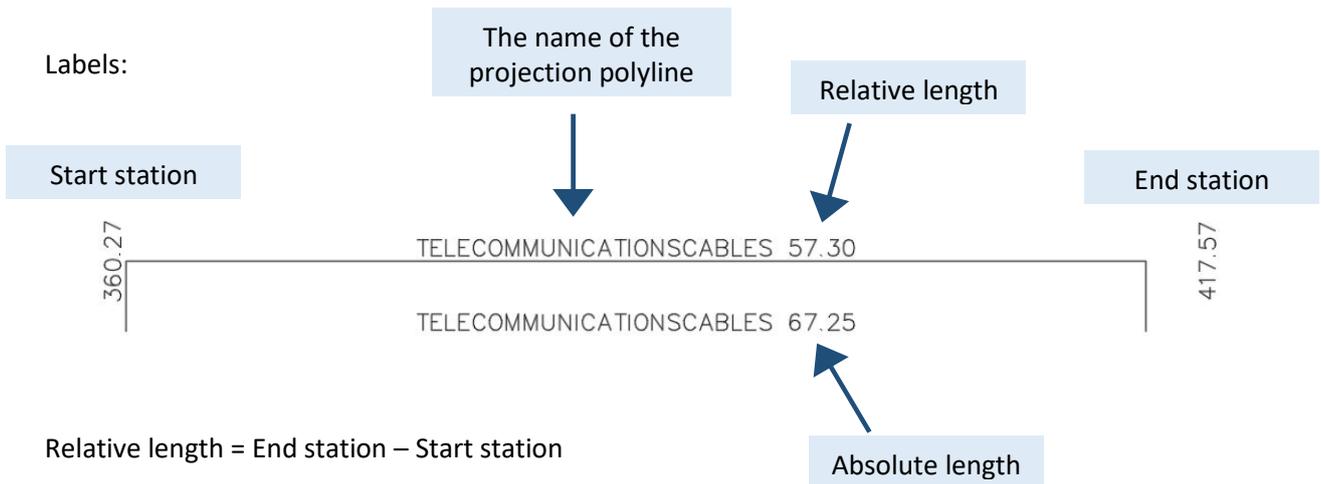
5. Then check the box for the Rubric option and press OK.



Polylines that represent telecommunications cables are now inserted in the profile view:



Labels:



Relative length = End station – Start station

Absolute length = Actual length of the 3D polyline

## Water Pipeline

1. Run the Draw Projection Line command.

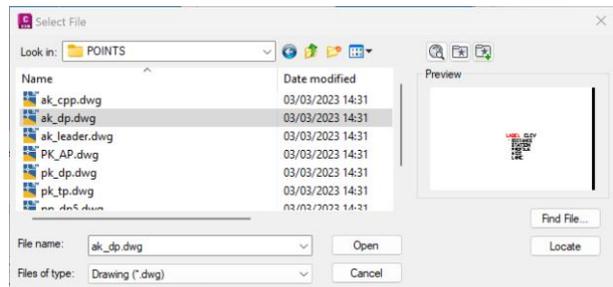
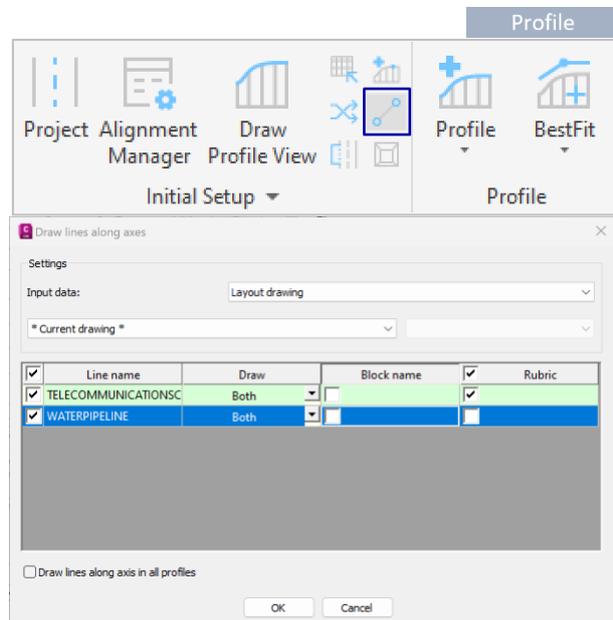
2. Select the »Layout drawing« from the drop-down menu for the input data.

3. Then select Current drawing because the alignment and profile are in this current drawing we are working on.

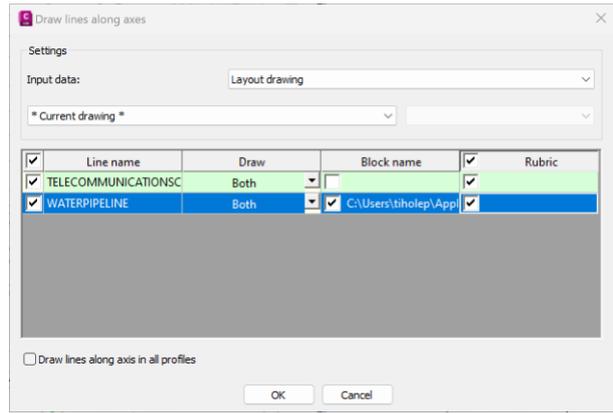
4. After that check the box at the »WaterPipeline« and select »Both« from the drop-down menu.

5. Then check the Block name option and select the drawing with the point block and click Open.

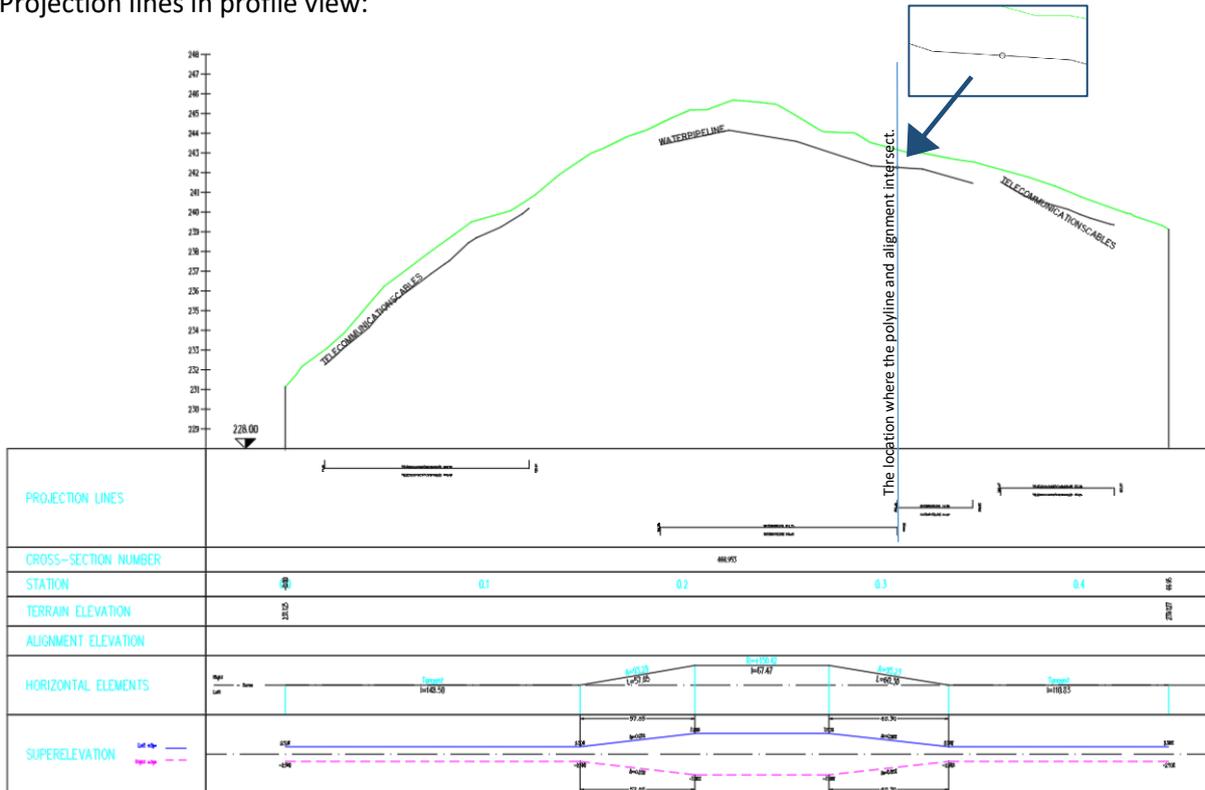
Default point blocks can be found here:  
C:\Users\tiholep\AppData\Roaming\CGSA\CGSApps\2024 ENG\POINTS



6. Then check the box for the Rubric option and press OK.



Projection lines in profile view:



## 4. Scale

The interesting thing about these labels is that they can change depending on the scale. If we change the scale, the labels will either increase or decrease. To do this, click on the scale in the lower right corner:



## 5. Edit current table

Users can move the band to a different position on the table using the 'Edit current table' command.

1. Run the Edit current table command.

2. Click on PROJECTION LINES in the list and use the arrows to move it up or down.

3. Click OK.

