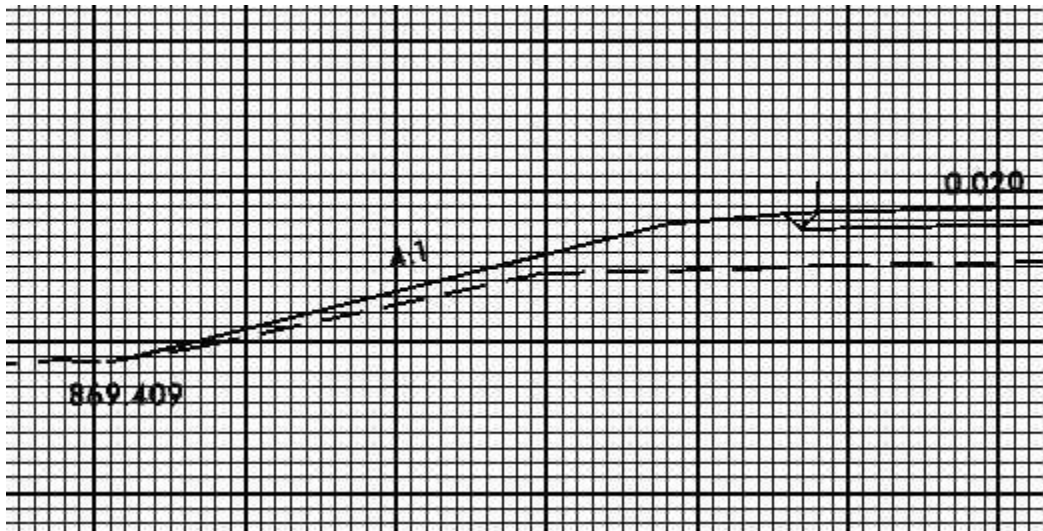**14_30 Project Scale for Cross Sections**

Question:
How come the text size for cross sections sometimes comes out too small or too big and sometimes just right? Is there a way to adjust this with our Criteria? Also, is there a way to fix the font used in Criteria?

Answer:
The reason why some of the text sizes are not consistent is mainly because while there are several cross section scales used to layout and plot cross section sheets, there is only one set text height and width (size) value.

For example, below in figure #1, the slope, elevation, and superelevation texts are legible when layout with a scale of 5 half/10 full (75' left and right). In figure #2, the same texts are not legible with a cross section sheet layout scale of 10 half/20 full (150' left and right).

There are more than 40 variables used to control the various text sizes and text offsets. To simplify and standardize the process, a new "Project Scale for Cross Section" mechanism has been developed. Adjustments are made to, but not limited to, the following type of cross section texts via Criteria input files:

- slope text height
- slope text width
- slope text offset
- elevation text height
- elevation text width
- elevation text offset
- superelevation text height
- superelevation text width

    When Criteria variable "XS Project Scale" is defined (preferably right under the template configuration definitions) in your Criteria input as any scale value greater than 1, then the mentioned text types will automatically be adjusted in size.

Recommendations

For bridge projects or dual lane roadways (-Y- Lines):

- Define "XS Project Scale" 5 (no equivalent metric scale established to date)
- Layout cross section sheets at a scale of 5 half/10 full (75' left and right)

For interchange projects or divided facilities (median):

- Define "XS Project Scale" 10 (closest equivalent metric scale is 125)
- Layout cross section sheets at a scale of 10 half/20 full (150' left and right)

For projects in the mountains with drastic differences in elevation per cross section:

- Define "XS Project Scale" 20 (closest equivalent metric scale is 250)
- Layout cross section sheets at a scale of 20 half/40 full (300' left and right)

Even though the cross section scale is completely linear in equation, it is not recommended that an odd scale such as 7.5 be used. In addition, if the cross section project scale is not defined, then the default text values are used. No adjustments will be made, as it has always been.

However, lately there is a growing movement to standardize the text size and text **font** used in Roadway's cross sections. In addition to adjusting the size of text, if cross section project scale is defined, then font 11 (for legibility reasons) will be used as the standard text font automatically. While there are existing projects in production with various cross section fonts and text sizes, the Microstation active font and various 40 plus Criteria variables are still operative and applicable. Eventually, this transitional time period will end and all text sizes and text fonts will be standardized. Therefore it is prudent, when possible, to use the cross section project scale and/or font 11 as often as you can, as new cross section are being created.