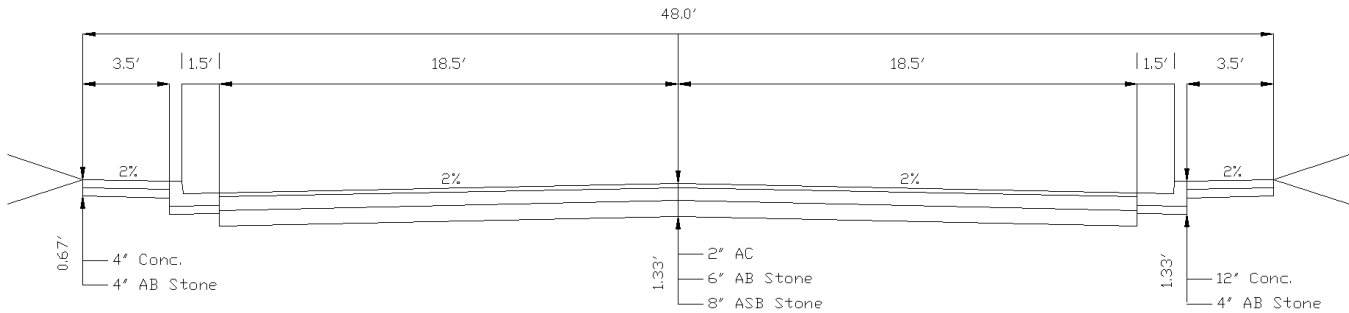
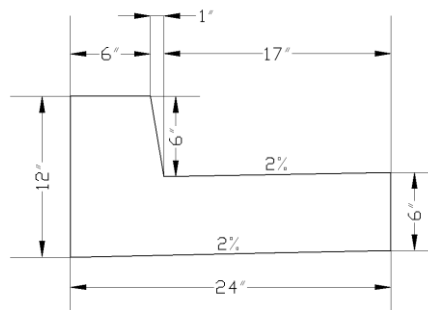


Earthwork Modeling Step-by-Step Offset Design Data Lines (Cont.)

Use the **Offset Line** utility to produce additional Data Lines for the street model . . .



Typical Street Section



Curb and Gutter Detail

Per the earlier discussion and steps (pages 126-128), the two top back of curb (*TBC*) lines were manually digitized from the plan sheet with the intention of later referencing them in order to produce all remaining Data Lines required to model the street. As indicated in the *Typical Street Section* and *Curb and Gutter Detail* (above), the horizontal and vertical relationships between the previously digitized *TBC* lines and all remaining Data Lines are specified such that we can make use of the **Offset Line** utility to quickly produce the remaining street Data Lines without the need for further manual digitizing. [AGTEK 4D's **Apply Template** utility could be used for this purpose as well but *Offset Lines* are best in this example due to the "dog leg" bend in the street (the *Apply Template* steps are provided on pages 146-149, but we won't use them here).]

The four street half-sections illustrated on the next page suggest that there are many different approaches to offsetting for the street (other than the *TBC* point, each dot on these street half-sections corresponds to a *Data Line* that would be created by either offsetting or applying a template). Although each offset approach requires differing amounts of data entry and yields differing levels of tabular and graphical reporting detail, all four approaches will produce an accurate subgrade model (there would be no material difference in the cut/fill volumes calculated to subgrade using any of these four approaches). So, consider the modeling application (takeoff, machine control, presentation, etc.) then select an offset (or template) approach that produces the data and model suitable for the intended use (**we will use Approach 3 in this example**).