## **REFINING HORIZONTAL ALIGNMENT**

Although horizontal alignment is in the proper location at this stage, it must be reviewed for exact tie-ins with adjoining projects, connection tie-ins, interchange ramp tie-ins, traverse tie-ins, etc. Horizontal alignment is to be computed, where possible, to locate special design bridges either completely on tangent or on a curve, with superelevation transitions encroaching neither on the bridge itself nor the approach slabs. Equalities are not to be placed on bridges.

## DEPICTING HORIZONTAL ALIGNMENT ON PLANS

P.I.'s, P.C.'s, P.T.'s, etc., curve data, bearings, delta's, direction of angle<sup>\*</sup> and tie stations are to be shown where applicable as outlined in Section 2C-5 (Curve Data).

Construction baselines are to be shown by a heavy solid line (see standard symbols in CADD Manual and sample plan sheet Figure 2D-1) with all alignment data clearly noted "Const.", "Survey", etc., where applicable.

Superelevation is to be applied to horizontal curves in accordance with the latest <u>Road and</u> <u>Bridge Standards</u>. The rate of superelevation, length of transition, and design speed are to be shown directly below the applicable curve data.

Where right of way is to be acquired for future design features, the outline of these features is to be shown on the plans with a dashed line. This applies to ultimate interchanges, dual lane highways, etc. The entire configuration of interchanges is to be shown with a dashed line. This will show the reason for acquiring additional right of way and will serve as a means of recording the original design intent. Designs for ultimate interchanges and dual lane highways are to be shown graphically and, if available, computed alignment is to be shown. Ultimate dual lanes are to be labeled on each plan sheet as "Approximate Location Future (NBL, EBL, etc.) baseline." It will also be necessary to show the grades graphically or computed as is the case for horizontal alignment. The proposed future grade is to be labeled on each profile sheet as "Approximate Future (NBL, EBL, etc.) Grade." The ultimate construction limits are to be plotted on the plans showing cuts and fills.