When used on higher speed facilities, such as freeways, a median barrier is nearly always required (see AASHTO's <u>Roadside Design Guide</u> for selection and use of median barriers). The minimum median width for this usage is 10 feet (3 m) i.e., 2 - 4 foot shoulders plus 2 foot barrier (2 - 1.2 m shoulders plus 0.6 barrier), when used with a four lane facility. When a flush median with median barrier is used on a six lane facility, the minimum median width is to be 22 feet (6.6 m). If truck DHV exceeds 250, then a median width of 26 feet (7.8 m) is desirable. Additional clearance may be required to provide the minimum stopping sight distance along the median lane on relatively short radius curves, when a median barrier is used.

Left turn lanes for all median widths are to be designed using controls shown in Appendix F, Section 3-TURNING LANES<sup>\*</sup>.

Raised medians or median barriers are to be shown on plans in accordance with VDOT's <u>Road and Bridge Standards</u> and as shown on the approved preliminary design.

## STAKING FOR CONCRETE ITEMS

Formed concrete items, such as curb and gutter, curb, median openings, straight line tapers, turn lanes, and channelization require that sufficient station pluses, offset distances, and radii be shown to the face of curb to insure that the project is constructed as proposed and to assist the survey party in staking out the project. This information is usually computed by the designer in order to properly show the design on the plans; therefore, the desired information is readily available and should be included in plans. Be sure that sufficient offsets, pluses, and radii are shown to insure that the staking party can set stakes without field computations.

To more clearly show the required information on the plans and to reduce plan clutter, minimal data is to be shown on the plans with the remaining data shown in tabulation form on a series 2 plan sheet. Figures 2E-6, 2E-7 & 2E-8 denote a typical straight-line taper detail, the method of showing the required information on the plan sheet, and the minimum data that is to be included in the tabulation of data for reverse curve turn lanes and radial offsets.

When reverse curve transition are dictated by local policy, offsets to the reverse curves at maximum 25 feet (7.5 m) intervals along the transition radii of the turn lane are to be provided, in addition to the reverse curve lengths, radii, and begin and end stations with offsets. The radii for these reverse curves should be set using radius lengths such as 200' (60 m) (most commonly used), 150 feet (45 m), or 100 feet (30 m) to provide consistent radii intervals for the contractor. The length of transition for these three radii with a 12 feet (3.6 m) offset only varies from 97 feet (29 m) to 84 feet (25 m) to 68 feet (20 m). Therefore, other odd radii may only cause problems in forming concrete.

<sup>\*</sup> Rev. 1/10