

300 Cross Section Design

301.2.3.2 Shoulder Taper Rate

A 25:1 taper should be used to transition to a reduced shoulder width. The transition length for increases in shoulder width (diverging tapers) may be more abrupt, i.e. 5:1 ratio.

301.2.4 Shoulder Cross Slope

Figures 301-8, 301-9 and 301-10 show cross slopes to be used depending on the shoulder type and pavement cross slope.

If the bridge shoulder cross slope is different than the approach roadway shoulder cross slope, then the shoulder cross slope shall be transitioned on the roadway section, off the bridge and approach slabs, within a distance of 100 feet.

301.2.5 Lateral Clearance

In general, roadside objects and barriers should be placed as far away from the traveled way as conditions permit. Proper lateral placement enhances a driver's comfort level of the roadway, allows for a greater chance of recovery for errant vehicles, and provides for improved sight distance.

The distance from the edge of the traveled way, beyond which a roadside object will not be perceived as an obstacle and result in a motorist reducing speed or changing vehicle position on the roadway is called the shy line offset. As a minimum, the designer should provide a shy line offset of at least 4 ft. When an obstacle is placed too closely to the traveled way, it may interfere with the sight distance of the roadway.

302 BRIDGE CRITERIA

302.1 General

This section provides overall physical bridge dimensions such as width, lateral clearance at underpasses and vertical clearance over roadways. This information is given for New and Reconstructed Bridges in *Figure 302-1* and for Existing Interstate and Other Freeway Bridges to Remain in *Figure 302-2*. Similar information for existing non-freeway bridges that are to be left in place and not reconstructed is shown in *Figure 302-3*. For additional design information, including Minimum Design Loading, refer to the Bridge Design Manual, published by the Office of Structural Engineering.